ARCADIS Design & Consultancy for natural and built assets

US Army Corps of Engineers



Long-Term Monitoring 2021 Data Summary Report

Watervliet Arsenal

Watervliet, New York

29 March 2022

Long-Term Monitoring 2021
Data Summary Report

Watervliet Arsenal
Watervliet, New York



Andrew R. Vitolins, P.G.
Vice President



Stefan Bagnato, P.G.
Principal Geologist

Prepared for:
U.S. Army Corps of Engineers
Baltimore District
Baltimore, Maryland
Contract No. W912DR-12-D-0007

Prepared by:
Arcadis US, Inc.
855 Route 146, Ste 210
Clifton Park, NY 12065

Our Ref.:
30001988

Date:
29 March 2022

This document is intended only for the use of the individual or entity for which it was prepared and may contain information that is privileged, confidential and exempt from disclosure under applicable law. Any dissemination, distribution or copying of this document is strictly prohibited.

Table of Contents **v**

1. Introduction **1**

1.1 Purpose 1

1.2 Facility Description 1

1.3 Previous and Ongoing Studies 2

1.3.1 Main Manufacturing Area 2

1.3.2 Building 35 Plating Area 3

1.3.3 Siberia Area 4

1.4 Generalized Site Geology and Hydrogeology 4

1.4.1 Main Manufacturing Area 4

1.4.2 Siberia Area 5

2. Groundwater Field Sampling **6**

2.1 Sampling Dates and Methods 6

2.2 Sampling Summary 7

3. Groundwater Sampling Results **7**

3.1 Main Manufacturing Area Analytical Results 7

3.1.1 VOCs 7

3.1.2 Data Trends 8

3.1.2.1 VOCs 8

3.1.2.2 Building 40 9

3.1.2.3 Building 25 9

3.1.2.4 Building 20 10

3.1.2.5 Building 114/121 10

3.2 Siberia Area Analytical Results 11

3.2.1 VOCs 11

3.2.2 Data Trends 11

3.2.2.1 Burn Pit 11

3.2.2.2 Boundary & Sewer 11
3.2.2.3 Reactive Wall 12

4. SSDS O&M 12

4.1 Building 20 13
4.2 Building 21 13
4.2.1 Type A SSDS 13
4.2.2 Type C SSDS 14
4.3 Building 22 14
4.4 Building 25 14
4.5 Building 114 14
4.6 Building 120 15
4.7 Building 121 15
4.8 Building 130 15

5. ICM Performance Monitoring - SSDS 15

5.1 Effluent Sampling 15
5.1.1 Sampling Procedures 15
5.1.2 Sampling Results 16
5.1.2.1 Building 20 16
5.1.2.2 Building 21 16
5.1.2.3 Building 25 16
5.1.2.4 Building 114 17
5.2 SSDS VOC Removal Mass 17
5.2.1 Building 20 17
5.2.2 Building 21 17
5.2.3 Building 25 17
5.2.4 Building 114 17
5.3 SSDS Performance Assessment 18

6. ICM Performance Monitoring - Indoor Air **18**

6.1 Sampling Procedures 18

6.2 Sampling Results 18

7. ICM Summary **20**

8. Monitoring Well Decommissioning **21**

9. Conclusions and Recommendations **21**

10.1 Conclusions 21

10.2 LTM Modifications and Recommendations 22

Figures

1-1 Site Location
1-2 Site Map
2-1 MMA Groundwater Monitoring Locations
2-2 Siberia Area Groundwater Monitoring Locations
3-1 Main Manufacturing Area Groundwater Sample Exceedances (VOCs) (2021)
3-2 Main Manufacturing Area Groundwater Sample Exceedances (Metals) (2021)
3-3 Trends in Total Chlorinated VOC Concentrations in Monitoring Well MW-82R
3-4 Trends in Total Chlorinated VOC Concentrations in Monitoring Well MW-83
3-5 Trends in Total Chlorinated VOC Concentrations in Monitoring Well MW-84R
3-6 Trends in Total Chlorinated VOC Concentrations in Monitoring Well MW-85R
3-7 Trends in Total Chlorinated VOC Concentrations in Monitoring Well MW-86R
3-8 Trends in Total Chlorinated VOC Concentrations, Building 25 Area
3-9 Trends in Total Chlorinated VOC Concentrations, Building 20 Area
3-10 Trends in Total Chlorinated VOC Concentrations, Building 114/121 Area
3-11 Siberia Area Groundwater Sample Exceedances (2021)
3-12 Trends in Total Chlorinated VOC Concentrations, Burn Pit Area
3-13 Trends in Total Chlorinated VOC Concentrations, Boundary & Sewer
3-14 Total Chlorinated Organic Compounds Up-gradient of Permeable Reactive Walls
6-1 Indoor Air VOC Concentrations – Building 15
6-2 Indoor Air VOC Concentrations – Building 20
6-3 Indoor Air VOC Concentrations – Building 21
6-4 Indoor Air VOC Concentrations – Building 22
6-5 Indoor Air VOC Concentrations – Building 25
6-6 Indoor Air VOC Concentrations – Building 114

6-7 Indoor Air VOC Concentrations – Building 120
6-8 Indoor Air VOC Concentrations – Building 121
6-9 Indoor Air VOC Concentrations – Building 130

Tables

1-1. Buildings Requiring Soil Vapor Interim Corrective Measures
2-1. Long-Term Monitoring Wells (Updated September 2021) – Main Manufacturing Area
2-2 Long-Term Monitoring Wells (Updated September 2021) – Siberia Area
2-3 Summary of Incomplete Sampling Locations – 2021 LTM
3-1 Main Manufacturing Area Groundwater Samples Exceedances (VOCs) (2021)
3-2 Siberia Area Groundwater Samples Exceedances (VOCs) (2021)
3-3 Summary of Baseline Groundwater Data and Trigger Values
4-1 Summary of 2021 SSDS Operational Parameters - Building 20
4-2 Summary of 2021 Type A SSDS Operational Parameters - Building 21
4-3 Summary of 2021 SSDS Operational Parameters - Building 22
4-4 Summary of 2021 SSDS Operational Parameters - Building 25
4-5 Summary of 2021 SSDS Operational Parameters - Building 114
4-6 Summary of 2021 SSDS Operational Parameters - Building 120
4-7 Summary of 2021 SSDS Operational Parameters - Building 121
4-8 Summary of 2021 SSDS Operational Parameters - Building 130
5-1 SSDS Effluent Sample Results – Buildings 20 and 25
5-2 SSDS Effluent Sample Results – Building 21
5-3 SSDS Effluent Sample Results – Building 114
5-4 VOC Mass Removal Summary – Building 20
5-5 VOC Mass Removal Summary – Building 21
5-6 VOC Mass Removal Summary – Building 25
5-7 VOC Mass Removal Summary – Building 114
6-1 Summary of Indoor Air Sampling Results

Appendices

A Purge Logs
B Summary Tables and Analytical Laboratory Reporting Forms
C Operation and Maintenance Field Checklists

ACRONYMS

AGC	Annual Guideline Concentration
ASP	Analytical Services Protocol
cDCE	Cis-1,2, Dichloroethene
CMMP	Corrective Measures Monitoring Plan
CVOC	Chlorinated Volatile Organic Compound
DAR	Division of Air Resources
GAC	Granular Activated Carbon
HRC	Hydrogen-Release Compound
ICM	Interim Corrective Measures
LTM	Long Term Monitoring
MMA	Main Manufacturing Area
NAP	Natural Attenuation Parameters
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
PCE	Tetrachloroethene
PDB	Passive Diffusion Bag
RCRA	Resource Conservation and Recovery Act
RFI	Remedial Field Investigation
SA	Siberia Area
SGC	Short-Term Guideline Concentrations
SSDS	Sub-Slab Depressurization Systems
SVOC	Semi-Volatile Organic Compounds
TCA	1, 1, 1-Trichloroethane
TCE	Trichloroethylene
USACE	United States Army Corps of Engineers
USEPA	United States Environmental Protection Agency
VOC	Volatile Organic Compounds
WVA	Watervliet Arsenal

1. Introduction

1.1 Purpose

Arcadis US, Inc. has been retained by the Baltimore District of the US Army Corps of Engineers (USACE) to implement the Long-Term Monitoring Plan (LTM Plan) and vapor intrusion Interim Corrective Measures (ICMs) for the Watervliet Arsenal (WVA) in Watervliet, New York. Long-term monitoring is being conducted at the WVA in support of groundwater investigations and corrective measures that have been conducted at the WVA under a United States Environmental Protection Agency (USEPA) Administrative Order on Consent (Docket No. II RCRA-3008(h)-93-0210). In accordance with the results and recommendations of the Vapor Intrusion Investigation Report, Watervliet Arsenal, Watervliet, New York (Malcolm Pirnie 2008), and subsequent discussions and agreements between the WVA, the New York State Department of Environmental Conservation (NYSDEC), and the New York State Department of Health (NYSDOH), the WVA also implemented ICMs in the form of sub-slab depressurization systems (SSDSs) to mitigate vapor intrusion impacts at eight buildings within the Main Manufacturing Area of the WVA. In accordance with the LTM Plan, its subsequent approved modifications, and the ICM Work Plan (Malcolm Pirnie, 2009), the purpose of this report is to summarize the data collected during the September and October 2021 LTM groundwater monitoring event and 2021 data for the vapor intrusion ICMs.

1.2 Facility Description

The WVA encompasses approximately 140 acres in and around the City of Watervliet, New York, approximately 3.5 miles northeast of the City of Albany (Figure 1-1). To the east of the WVA, Broadway Street and a six-lane interstate highway (I-787) separate the WVA from the Hudson River. To the west, the WVA extends beyond the limits of the City of Watervliet into the Town of Colonie. Residential areas border the WVA to the north and south.

The WVA consists of two primary areas: (1) The "Main Manufacturing Area" (MMA), where manufacturing and administrative operations occur, comprises about 125 acres, and, (2) The "Siberia Area" (SA), which is chiefly used for the storage of raw and hazardous materials, comprises about 15 acres. These areas are shown on Figure 1-2.

1.3 Previous and Ongoing Studies

1.3.1 Main Manufacturing Area

Several environmental studies have been conducted at the MMA of the WVA. The most comprehensive investigation, a Remedial Field Investigation (RFI), was conducted by Malcolm Pirnie, Inc. (Malcolm Pirnie) and Louis Berger & Associates, Inc. from 1995 to 1998. Previous investigations are summarized in the RFI. Two ICM studies involving in-situ groundwater remedial techniques were conducted at the MMA in the area of Buildings 25 and 40 between 2001 and 2003. Final corrective measures, in the form of in-situ chemical oxidation, were conducted at Building 40 from 2004 through 2007 in accordance with the Corrective Measures Work Plan – Building 40 Groundwater, dated July 2004 (Malcolm Pirnie, 2004). Monitoring of the wells in the Building 40 area (Building 40 Boundary Wells) was conducted separately under the Corrective Measures Monitoring Plan, Building 40 Groundwater, dated August 2004 (Malcolm Pirnie, 2004a) (CMMP) during that time, until they were added to the LTM Plan in 2009 with the approval of the New York State Department of Environmental Conservation (NYSDEC).

A vapor intrusion investigation was performed within, and adjacent to, the MMA, and adjacent to the Siberia Area of the WVA, in November 2007 and February 2008 to assess whether Chlorinated Volatile Organic Compounds (CVOCs) were present in the sub-slab soil vapor beneath, and the indoor air within, buildings located in the MMA, including those that once contained degreasing operations, as well as three off-site private residences along the southeastern WVA property boundary. The evaluation also assessed whether soil vapor at the WVA southern property boundary and northern property boundary adjacent to the Siberia Area contained CVOCs. A total of 25 buildings in the MMA were sampled during at least one of the two investigation phases. Based on the results of the investigations, no further action was required at the off-site residences, the WVA property boundary, and at WVA Buildings 9, 18, 19, 23, 24, 35, 38, 44, 108, 110, 112, 115, 124, and 126. Sub-slab VOC concentrations at Building 15 will require monitoring of the indoor air, but not corrective measures. VOCs detected in the sub-slab at Buildings 116 and 123 were also in the range where indoor air monitoring would be required. However, since Building 116 is not occupied and Building 123 is only periodically used for painting operations, no monitoring will be conducted at these buildings. Indoor air monitoring will be conducted at Buildings 116 and 123 if the use of either building changes in the future. The buildings that required interim corrective measures are summarized in Table 1-1 below.

Table 1-1 – Buildings Requiring Soil Vapor Interim Corrective Measures

Building	Impacted Media	Target Chlorinated VOCs
20	Sub-Slab Soil Vapor	PCE, TCE, TCA
21	Sub-Slab Soil Vapor	TCE
22	Sub-Slab Soil Vapor	TCE
25	Indoor Air, Sub-Slab Soil Vapor	TCE, TCA
114	Indoor Air, Sub-Slab Soil Vapor	PCE, TCE
120	Sub-Slab Soil Vapor	PCE, Carbon Tetrachloride
121	Sub-Slab Soil Vapor	TCE
130	Sub-Slab Soil Vapor	TCE

Notes:
PCE – Tetrachloroethene
TCE – Trichloroethene
TCA – 1,1,1-Trichloroethane

The construction, installation, and startup testing of the SSDSs were completed on September 3, 2010 and summarized in the Construction Certification Report (Malcolm Pirnie, 2010). Annual operation, maintenance, and monitoring of the MMA SSDSs was reported separately through 2011 and added to the annual LTM Report in 2012 with the approval of the NYSDEC.

1.3.2 Building 35 Plating Area

In August 2018, the WVA discovered a subsurface release of chromic acid plating solution in the area next to the 120-mm Gun Pit plating pit in Building 35. The release was associated with ventilation duct work that runs underground from the plating area to the air scrubber system. In conjunction with the necessary repairs to their plating systems, the WVA excavated hexavalent chromium-impacted soil from the vicinity of the underground ventilation duct work in August 2018. Arcadis conducted a Site Investigation in 2019 to further characterize the magnitude and extent of groundwater impacts associated with the chromic acid release at Building 35. The results of that investigation were summarized in the Plating Area Site Investigation Report, completed in June 2020 (Arcadis, 2020). Additional delineation and sampling efforts during the Site Investigation showed that overburden groundwater impacted by hexavalent chromium was present to the south and east of the release area following the 2018 excavation at concentrations up to 0.4 mg/L in adjacent groundwater and up to 260 J mg/L in the New Medium Tube (NMT) Pit. The NMT Pit was used for chrome plating and has been inoperable since the 1990s.

Due to the limited extent and migratory capacity of hexavalent chromium impacts in groundwater, and existing land use controls and ongoing monitoring at the site, no further

delineation or remedial actions were required at the site by NYSDEC. The Investigation Report was approved by the NYSDEC on July 8, 2020 and the spill case was closed in October 2020. Sampling of the NMT Pit sump, WVA-AW-35-MW-12, and 93EM-SP-11 for hexavalent chromium was added in 2020/2021 to the WVA's existing Long-Term Monitoring program to monitor conditions in this area. The NMT Pit is pumped dry immediately prior to sampling and sampled using a bailer. Down-gradient wells are sampled by traditional low-flow methods.

1.3.3 Siberia Area

An RFI was conducted by Malcolm Pirnie at the Siberia Area from 1994 to 1995. Additional investigations and ICMs were completed by Malcolm Pirnie from 1996 to 2002. The CMS Report for Siberia was approved in August 2003. The CMS Certification Report was approved by the NYSDEC and USEPA in 2007. The ICMs are summarized in the CMS report. The Statement of Basis for the Siberia Area was issued in 2008.

1.4 Generalized Site Geology and Hydrogeology

1.4.1 Main Manufacturing Area

The major overburden unit identified in the MMA is fill, consisting of brown or dark gray silty sand with angular gravel. The fill material is the only unit consistently found throughout the site, with the thickest amount of fill being in the eastern portion of the MMA. Underlying the fill are the following native overburden units: a fine-grained alluvium, a coarser alluvium, and glacial till. These units are not present in all areas of the site.

The bedrock underlying the site is a black, medium-hard laminated shale, showing some characteristics of minor metamorphism. This shale is part of the Snake Hill Formation. The bedrock can be described in three ways based on the degree of weathering observed. The first is an extremely weathered zone approximately four feet thick. This extremely weathered bedrock unit was encountered at depths ranging from near ground surface to approximately 20 feet below ground surface (bgs). Beneath this extremely weathered bedrock is a zone of less weathered shale showing minimal competency. Competent bedrock is generally encountered at depths ranging from approximately 1.5 feet bgs to 18 feet bgs.

The majority of the MMA is relatively impervious to rainfall except at the residential and recreational areas of the northeastern portion of the WVA. Due to the shallow depth of

bedrock and the limited amount of overburden in several areas of the WVA, groundwater is encountered within different geologic units (overburden, weathered bedrock, or bedrock) depending on the location. For instance, groundwater is encountered in the bedrock at the western end of WVA (topographic high and local recharge area); progressing eastward toward the Hudson River, groundwater is encountered in the weathered bedrock and then in the overburden deposits.

Groundwater flow in bedrock in the MMA is primarily controlled by the degree of fracturing within the bedrock itself and in the local recharge area, which is coincident with a topographic high along a bedrock ridge in the central portion of the facility. The most prominent feature on the potentiometric surface is a groundwater divide trending approximately north to south through Buildings 135 and 125. This feature appears to mirror the bedrock ridge. The primary discharge area for groundwater from the Main Manufacturing Area is the Hudson River, which is located to the east of WVA. For the area surrounding Building 25, groundwater in each of the hydrostratigraphic units flows from west to east towards the Hudson River, with a component of flow to the northeast. In the Building 40 area, groundwater in the bedrock unit flows to the east-southeast. West of the groundwater divide, shallow groundwater flow discharges toward the Kromma Kill.

1.4.2 Siberia Area

According to the "Surficial Geologic Map of New York - Hudson-Mohawk Sheet, 1987", a majority of the SA is underlain by recent alluvial deposits. These are defined as fine sand and gravel deposits overlain by silt. The SA, which is at a lower elevation than the MMA of the WVA located to the east, is generally underlain by a layer of fill (sand, shale fragments, slag, cinders, brick, wire, wood and concrete). Alluvium, lenses of peat, and lacustrine clay deposits were encountered beneath the layer of fill material. Bedrock beneath the SA is also the Snake Hill shale. During the SA investigation, highly weathered shale was encountered from approximately 3.5 feet bgs to 31 feet bgs. In general, competent bedrock was encountered at approximately 12 feet bgs. The upper portion of the competent bedrock was found to be fissile and highly fractured with 45-to-60-degree bedding planes.

Groundwater flows generally to the north-northwest in the NE Quadrant of the SA, and generally to the west across the remainder of the SA. The water table responds quickly to recharge events, and during times of low precipitation the water table may be present in the shale bedrock over portions of the SA. However, on the average, the water table is encountered in the overburden. Surface water in the SA that does not infiltrate is

generally directed into the existing storm sewers. The WVA storm sewers are connected to the City of Watervliet storm sewer network.

2. Groundwater Field Sampling

2.1 Sampling Dates and Methods

Monitoring was conducted from September 14 through 16, 2021. Monitoring wells currently sampled as part of the LTM are listed in Tables 2-1 and 2-2 and shown on Figures 2-1 and 2-2. In accordance with the NYSDEC LTM 2020 approval letter dated September 1, 2021, a total of 10 monitoring wells were approved for decommissioning in 2021 and thus were not sampled. Additional information is included in Section 8 of this report. Groundwater sampling was conducted according to the USEPA protocol for Low Stress (Low Flow) Purging and Sampling (USEPA, 1998) using dedicated, permanent, bladder pumps installed in each of the wells included in the LTM Plan. In accordance with the NYSDEC LTM 2015 approval letter dated January 28, 2015, all wells that are sampled for only VOCs in any given year are sampled using passive diffusion bag (PDB) samplers. Prior to sampling, water levels in each well were measured. Water levels were consistent with groundwater elevations from previous sampling events.

In accordance with the LTM Plan and subsequent approved modifications, groundwater samples were analyzed by Katahdin Analytical Services, a New York State Department of Environmental Conservation (NYSDEC) Analytical Services Protocol (ASP)-certified laboratory, for volatile organic compounds (VOCs). Additional laboratory analyses, including RCRA-listed metals and hexavalent chromium, were also performed at select locations listed in the LTM Plan. Due to repeated shipment delays that caused hexavalent chromium samples to arrive at the Katahdin lab outside of hold-time, samples to be analyzed for hexavalent chromium were instead delivered to Alpha Laboratories via courier and analyzed by their Westborough, Massachusetts laboratory. Alpha Lab is a NYSDEC ASP-certified laboratory. Analytes for each well are summarized in Tables 2-1 and 2-2. Field parameters, consisting of temperature, pH, specific conductivity, dissolved oxygen, oxidation-reduction potential, and turbidity were measured during purging using a Horiba U-52 water quality meter equipped with a flow-through cell. Sampling methods, specific analytical methods, and sampling locations are discussed in detail in the LTM Plan. Purge logs for the 2021 monitoring event are presented in Appendix A. Analytical laboratory reporting forms for 2021 monitoring event are presented in Appendix B.

2.2 Sampling Summary

In accordance with the LTM Plan, a total of 45 MMA wells (including all zones of the five Building 40 Boundary wells included in the LTM Plan) plus one sample collected from the New Medium Pit (NMT) Pit in Building 35 and 15 SA wells (including four sewer monitoring points) were scheduled for sampling during the 2021 monitoring event. As shown in Table 2-3, all monitoring wells scheduled for sampling in both the MMA and SA were sampled during the 2021 monitoring event.

Fifteen sampling zones within five MMA wells (multi-level wells WVA-MW-82R through WVA-MW-86R) were added to the LTM Plan in 2009 and are sampled annually to monitor the bedrock groundwater quality in the vicinity of Building 40.

Two monitoring wells and one chrome plating pit were added to the LTM Plan in 2021 and are sampled annually to monitor groundwater quality in the vicinity of the Building 35 Chrome Scrubber.

3. Groundwater Sampling Results

3.1 Main Manufacturing Area Analytical Results

Summary tables presenting results for each MMA well sampled during LTM are presented in Appendix B. Figure 3-1, Figure 3-2, and Table 3-1 summarize exceedances of NYSDEC Class GA standards for groundwater samples collected from the MMA LTM monitoring wells in the 2021 LTM sampling event.

3.1.1 VOCs

As listed on Figure 3-1 and in Table 3-1, NYSDEC Class GA standards for VOCs were exceeded in samples collected from 24 of the 45 MMA LTM monitoring wells (including all zones of the monitored Building 40 Boundary wells) analyzed for VOCs during the 2021 monitoring event. Historically, VOC concentrations in MMA groundwater samples have exceeded Class GA standards in four general areas:

- East of Building 40;
- East of Building 25;
- East of Building 20; and

- In the area of Buildings 121/114.

Concentrations of tetrachloroethene (PCE) in the MMA groundwater samples to the east of Building 15 (94EM-MW-20 and 94EM-MW-21) exceeded the Class GA standard in 2018 and 2019. PCE was detected at concentrations exceeding standards in groundwater samples from these locations for the first time in 2018. However, as PCE was not detected at these locations during the 2020 and 2021 sampling events, earlier exceedances may have been anomalous.

Concentrations of trichloroethene (TCE) and cis-1,2-Dichloroethene (cDCE) in the MMA groundwater samples collected to the east of Building 20 at WVA-AW-MW-35 have exceeded the Class GA standards since the late 1990s; however, during the 2021 sampling event, these analytes were not detected.

3.1.2 Data Trends

Due to the spatial and geological separation between the areas of concern in the MMA long-term monitoring program, analysis of trends in concentrations of parameters over the entire MMA is not feasible. However, trends in total contaminant concentrations in samples collected from representative monitoring wells in the areas of concern discussed above have been utilized to evaluate variations in groundwater conditions.

3.1.2.1 VOCs

Figures 3-2 through 3-11 present trends in total CVOC concentrations in groundwater samples collected from the following representative LTM wells located in the listed areas of concern.

- **Building 40 Area**: MW-82R, MW-83, MW-84R, MW-85R, MW-86R.
- **Building 25 Area**: 86EM-SP-1A, 93EM-SP-11, 25-MW-2, 25-MW-3, and 25-MW-6.
- **Building 20 Area**: AW-MW-35 and AW-MW-36.
- **Building 114/121 Area**: 93EM-RW-2, AW-MW-52, AW-MW-64, B121-N, and B121-S.

3.1.2.2 Building 40

As shown on Figures 3-3 through 3-7, generally consistent trends in total chlorinated VOC concentrations are evident in samples collected from the multi-level boundary well network east of Building 40.

In accordance with the LTM Plan's contingency evaluation protocol, well-and contaminant-specific statistical "trigger" concentrations have been established that initiate a contingency evaluation in the event groundwater monitoring data indicate a potential change in site conditions. Table 3-3 presents a summary of the minimum, maximum, average, and standard deviation for each compound in each well, and lists the statistical trigger concentrations calculated from the data.

VOC concentrations in Building 40 groundwater samples from the 2021 sampling event exceeded the established trigger values for the following:

- cDCE in MW-84R-2 and MW-86R-2; and
- vinyl chloride in MW-84R-3, MW-85R-2, and MW-86R-2.

Increases in cDCE and vinyl chloride have been generally coincident with decreases in PCE concentrations, indicating degradation of primary contaminant mass.

3.1.2.3 Building 25

As shown on Figure 3-8, generally decreasing overall trends in total chlorinated VOC concentrations are evident in samples collected from monitoring wells WVA-25-MW-2 and WVA-25-MW-6. These trends are likely associated with the Hydrogen-Release Compound (HRC©) ICM pilot study at Building 25. Trends in total chlorinated VOC concentrations in samples collected from monitoring well 86EM-SP-1A (stable) do not appear to have been affected by the HRC ICM pilot study. Data from monitoring well WVA-25-MW-3 show an overall downward trend in total chlorinated VOC concentrations, suggesting that the increase in concentration in 2017 was anomalous. As noted in Section 8, monitoring well WVA-25-MW-3 was replaced in 2017, which may explain the anomalous 2017 result. VOC concentrations in Building 25 area groundwater samples from the 2021 sampling event did not exceed the established trigger values in Table 3-3.

3.1.2.4 Building 20

As shown on Figure 3-9, VOC concentrations in monitoring wells WVA-AW-MW-35 and WVA-AW-MW-36 are relatively stable. In 2019, the monitoring frequency of WVA-AW-MW-36 was reduced from annual to every five years. The next time this well will be sampled is in 2024.

3.1.2.5 Building 114/121

As shown on Figure 3-10, the generally stable or decreasing long-term trends in total chlorinated VOC concentrations evident in the sample collected from monitoring wells WVA-AW-MW-52 and WVA-AW-MW-64 continued in 2021. Vinyl chloride exceeded the established trigger value at WVA-AW-MW-64 in 2016, 2019 and 2020. In 2021, no VOC concentrations in Building 114 groundwater samples exceeded the established trigger values in Table 3-3.

3.1.3 Metals

Historically, samples collected from select monitoring wells have been analyzed for RCRA Metals during LTM events. In recent years, RCRA metals have been analyzed at the following locations: 83DM-SP-3 (chromium only), 86EM-SP-6 (when accessible), 94EM-MW-19, 94EM-MW-20, and 94EM-MW-21. At the request of NYSDEC, during the 2020 and 2021 LTM events, samples from the following locations were analyzed for hexavalent chromium: 93EM-SP-11, WVA-AW-35-MW-12, and the NMT Pit. During the 2021 LTM event, the sample from 92EM-SP-8 was also analyzed for chromium. Figure 3-2 and Table 3-1 document the metals exceedances for 2021.

With the exception of 2019 and 2020, chromium at 94EM-MW-19 has consistently exceeded the NYSDEC Class GA Standard of 0.05 mg/L. In 2021, chromium again exceeded the Standard, with a concentration of 0.38 mg/L. Chromium at 94EM-MW-20 and 94EM-MW-21 exceeded the Class GA Standard in 2021 and has generally exceeded the Class GA Standard during most LTM sampling events. Since the mid-2000s, chromium has appeared relatively stable at these locations. In 2021, the chromium concentration at 94EM-MW-20 was 0.073 mg/L and at 94EM-MW-21, 0.191 mg/L. No other metals exceeded NYSDEC Class GA Standards during the 2021 LTM event.

To monitor conditions in the vicinity of the Building 35 Plating Area, samples collected from 93EM-SP-11, WVA-AW-35-MW-12, and the NMT Pit were analyzed for hexavalent chromium during the 2021 LTM event. Hexavalent chromium was not detected at concentrations greater than the corresponding NYSDEC Class GA Standard of 0.05 mg/L

in either 93EM-SP-11 or WVA-AW-35-MW-12. Hexavalent chromium exceeded the NYSDEC Class GA Standard of 0.05 mg/L in the NMT pit sample (21.7 mg/L). The 2021 NMT pit result was higher than the 2020 sample (1.5 mg/L) as well as the sample collected during the Plating Investigation in 2019 (1.2 mg/L).

3.2 Siberia Area Analytical Results

3.2.1 VOCs

Figure 3-11 and Table 3-2 summarize exceedances of NYSDEC Class GA standards for groundwater samples collected from SA monitoring wells during the 2021 LTM event. As shown on Figure 3-11 and in Table 3-2, NYSDEC Class GA standards for VOCs were exceeded in groundwater samples from 3 of the 15 SA LTM wells/locations sampled during the 2021 monitoring event, which includes four sewer samples.

Historically, VOC concentrations in SA groundwater samples generally exceeded Class GA standards in the area of the former burn pit and in monitoring wells up-gradient of the reactive walls.

3.2.2 Data Trends

3.2.2.1 Burn Pit

Figure 3-12 presents total chlorinated VOC concentrations in wells in the area of the former burn pit up-gradient of reactive wall A with historic and/or current exceedances of NYSDEC Class GA Groundwater Standards. Despite fluctuations in chlorinated VOC concentrations over time, wells in this area generally display stable or decreasing trends, indicating that ICMs at the former burn pit and the reactive wall are successfully reducing down-gradient total chlorinated VOC concentrations.

3.2.2.2 Boundary & Sewer

Figure 3-13 presents total chlorinated VOC concentrations in boundary wells and sewer points with historic and/or current exceedances of NYSDEC Class GA Groundwater Standards. Chlorinated VOCs in sanitary sewer SNS-6 show fluctuating concentrations over time, dominantly attributed to daughter products cDCE and vinyl chloride from the breakdown of PCE and/or trichloroethene (TCE), with an overall decreasing trend. In 2018, the concentration of PCE at SNS-6 and STS-6 exceeded the GA Standard, resulting in total chlorinated VOC concentrations at these locations that were elevated in comparison to previous results. In subsequent years, PCE was not detected above

laboratory reporting limits and the total chlorinated VOCs at each location returned to a more typical concentration. The 2021 concentration of vinyl chloride at STS-5 exceeded the Class GA Standard of 2 µg/l. Vinyl chloride occasionally exceeds the Standard at this location.

3.2.2.3 Reactive Wall

As discussed in Section 2.1, the reactive wall monitoring wells (SA-MW-60 and SA-MW-70) were sampled using PDB samplers in accordance with the USEPA letter dated September 20, 2002 and analyzed for VOCs only.

Figure 3-14 presents total chlorinated VOC concentrations in wells up-gradient of reactive wall A. While chlorinated VOC concentrations have fluctuated since the beginning of long-term monitoring, there are definite downward trends for up-gradient wells. Further, total chlorinated VOCs in these wells are dominantly attributed to daughter products cDCE and vinyl chloride. These trends indicate that the ICMs at the former burn pit and the reactive wall are successfully reducing total chlorinated VOC concentrations up-gradient and down-gradient of the reactive wall, respectively.

4. SSDS O&M

As presented in the Construction Certification Report (Malcolm Pirnie, 2010), three types of SSDS units are used for corrective measures at the WVA.

- Type A SSDS - The Type A SSDS is used at Buildings 21 and 114. The Type A SSDSs use regenerative blowers. The effluent air from these systems was treated using vapor-phase granular activated carbon (GAC) until 2016 when it was vented directly to the atmosphere based on reduced CVOC concentrations.

- Type B SSDS - Building 20 and Building 25 use Type B SSDS. The Type B SSDS uses positive-displacement rotary-lobe blowers. These systems are used where multiple extraction wells are required to provide negative sub-slab pressures over large areas. The effluent air streams from the Type B SSDSs are combined and was treated using vapor-phase GAC until 2016 when it was vented directly to the atmosphere based on reduced CVOC concentrations.

- Type C SSDS - Buildings 21, 22, 120, 121, and 130 use Type C SSDS. The Type C SSDSs (with the exception of the Building 120 SSDS) use individual in-line fans for each extraction well. The Building 120 Type C SSDSs uses a high-

pressure fan system and is connected to two extraction wells. The effluent air from the Type C SSDSs vent directly to the atmosphere.

Operation and maintenance was performed on a monthly basis in accordance with the ICM Work Plan and as described below. A summary of the O&M data is provided in Tables 4-1 through 4-8 with field checklists provided in Appendix C.

4.1 Building 20

The system operated with minor interruptions, primarily due to blower alarms that stopped the system, for a total of approximately 7,673 hours during 2021. The average SSDS flow was 259 cubic feet per minute (cfm) with an average vacuum pressure of -65 inches of water ("H2O). Average total flows have decreased during 2020 and 2021, indicating a reduction in blower efficiency. The system does not appear able to maintain proper vacuum pressure to produce flow rates consistent with startup parameters, indicating a restriction in the system. A recommendation to replace the three extraction point screens was included in the 2020 LTM report, and was approved by the NYSDEC on October 20, 2021. The screen replacement was completed in March 2022. Additional details will be provided in the 2022 LTM Report.

As discussed in Section 5.3 influent concentrations have decreased significantly to the point where GAC treatment is no longer necessary.

4.2 Building 21

The system operated with limited interruptions for a total of approximately 8,187 hours during 2021. As indicated in the Construction Certification Report (Malcolm Pirnie, 2010), Building 21 uses a Type A system to mitigate the basement area (EW-1). As described in Section 4.2.2, the Type C SSDS used to mitigate the western portion of the first floor (EW-2) was taken offline in 2014.

4.2.1 Type A SSDS

The average flow rate was approximately 30 cfm and average vacuum pressure of approximately -30.25" H_2O, consistent with startup parameters. The flow meter continues to display false readings, which is suspected to be the result of high moisture in the effluent air stream. However, the false flow meter readings do not shut down or inhibit performance of the SSDS. To monitor performance of the SSDS, direct readings from the effluent air stream are measured monthly using a portable anemometer. As discussed in

Section 5.3, influent concentrations have decreased significantly to the point where GAC treatment is no longer necessary. The vapor knockout tank showed signs of corrosion in 2021, a replacement tank was ordered, and is anticipated to be installed in early 2022.

4.2.2 Type C SSDS

Due to a diminished flow rate, likely caused by subsurface materials (known to contain high clay content) preventing communication between the extraction point and the subsurface, which was not improved with extraction point replacement, the system was turned off in April 2014. Indoor air sampling before and after the shutdown did not show negative effects of the shutdown and the NYSDEC approved termination of system operation. The system was dismantled in October 2014.

4.3 Building 22

The system for EW-1 ran without interruption during 2021. EW-2 operated continuously throughout the 2021 calendar year. The average flow rates were approximately 14 and 55 cfm and average vacuum pressures of -2.5 and -2.0" H_2O, for EW-1 and EW-2, respectively, consistent with startup parameters.

4.4 Building 25

The Building 25 SSDS operated with one interruption (between February and June 2021 for repairs) for a total of approximately 5,682 hours during 2021. The system was offline until repairs were made in May 2021. A new motor was installed, as was a new variable frequency drive (VFD.) panel. A new blower was installed on September 21, 2021. Influent concentrations have decreased significantly to the point where GAC treatment is no longer necessary. During 2021, the SSDS had an average flow of approximately 408 cfm and average vacuum pressure of -49" H_2O, consistent with startup parameters.

4.5 Building 114

The system operated with limited interruptions for a total of approximately 8,115 hours during 2021. The average flow for the B114 system during 2021 was approximately 59 cfm with an average vacuum pressure of -20.5" H_2O, consistent with startup parameters. As discussed in Section 5.3, influent concentrations have decreased significantly to the point where GAC treatment is no longer necessary.

4.6 Building 120

The system operated continuously during 2021 without interruption with average flows of approximately 7 and 20 cfm, for EW-1 and EW-2, respectively, below startup parameters. The average vacuum pressure for extraction points EW-1 and EW-2 was -13.3" and -14.7" H_2O respectively.

4.7 Building 121

The system operated continuously during 2021 with minor interruptions. The average flow was approximately 50 cfm and the average vacuum pressure was approximately -1.7" H_2O, consistent with startup parameters.

4.8 Building 130

The system operated continuously during 2021. The average flow was approximately 47 cfm and the average vacuum pressure was approximately -2" H_2O, consistent with startup parameters.

5. ICM Performance Monitoring - SSDS

Performance monitoring was conducted in accordance with the approved ICM Work Plan (Malcolm Pirnie, 2009). Effluent air samples were collected from the Type A and B SSDSs on December 16, 2021. Indoor air sampling was also conducted on December 15-16, 2021. The December 2021 indoor air results are summarized in Section 6.

5.1 Effluent Sampling

Effluent samples were collected on December 16, 2021 from the Type A (Building 21 and 114), and Type B (Building 20 and 25) SSDSs.

The purpose of the sampling was to evaluate VOC discharge mass and monitor the potential need to bring the GAC vessels back online.

5.1.1 Sampling Procedures

Effluent samples were collected from the SSDS sampling ports using 6-liter Summa Canisters equipped with thirty-minute flow-controllers. The samples were submitted to Eurofins/Air Toxics, in Folsom, California, following chain-of-custody procedures for

analysis of VOCs by United States Environmental Protection Agency (USEPA) Method TO-15. Analytical reporting forms are provided in Appendix B. A NYSDEC Division of Air Resources (DAR-1) model was performed and reported in the 2016 LTM Report, which confirmed that CVOCs are below the thresholds and GAC treatment was not needed. The 2021 SSDS effluent sample results are less than or equal to the results from 2016, with the exception of results from Building 21. Because of this, additional DAR-1 modeling was performed for Building 21 and results indicate that CVOCs are still well below thresholds and therefore GAC treatment is not needed.

5.1.2 Sampling Results

Effluent sample results are summarized in Tables 5-1 through 5-3.

5.1.2.1 Building 20

1,1,1-trichloroethane (TCA), carbon tetrachloride, cDCE, TCE and PCE were detected in the December 2021 effluent sample. The CVOCs with the highest concentrations were TCE and PCE (25 µg/m^3 and 17 µg/m^3, respectively). cDCE, TCA, and carbon tetrachloride were detected at low levels in the December 2021 effluent sample. CVOC concentrations are less than the 2016 effluent sample concentrations. The Building 20 effluent sampling results are listed in Table 5-1.

5.1.2.2 Building 21

As shown in Table 5-2, the December 2021 effluent samples from the Building 21 SSDS contained vinyl chloride, trans-1,2 DCE, cDCE, carbon tetrachloride, TCE and PCE. The highest concentrations of CVOCs were TCE and cDCE (68 and 42 µg/m^3, respectively). The cDCE and TCE results are higher than the 2016 effluent cDCE and TCE results (15 µg/m^3 and 49 µg/m^3). Total CVOC concentrations are greater than the 2016 effluent sample results; however, additional DAR-1 calculations were performed and it was determined that GAC treatment is not needed.

5.1.2.3 Building 25

As shown in Table 5-1, the December 2021 effluent samples contained cDCE, TCA, carbon tetrachloride, TCE, and PCE. The highest concentrations of CVOCs were TCE and PCE (110 and 12 µg/m^3, respectively). As shown in Table 5-1, the December 2021 total CVOC concentrations are lower than the 2016 effluent total CVOC concentrations.

5.1.2.4 Building 114

As shown in Table 5-3, the December 2021 Building 114 effluent air samples contained cDCE, carbon tetrachloride, TCE and PCE. The highest concentrations of CVOCs were TCE and PCE (170 and 630 µg/m^3, respectively). Table 5-3 shows that the concentrations of these compounds are similar or lower than those of the 2016 sampling event.

5.2 SSDS VOC Removal Mass

Tables 5-4 through 5-7 provide a summary of the estimated VOC removal mass for the Type A and B SSDSs.

5.2.1 Building 20

As shown in Table 5-1, the total CVOC concentration in the effluent sample from the Building 20 SSDS was 42 µg/m^3 in December 2021. As shown in Table 5-4, based on a flow of 100 cfm in December 2021, the Type B SSDS was removing CVOCs at a rate of 0.15 pounds per year (lbs/year).

5.2.2 Building 21

As shown in Table 5-2, the total VOC concentration in the effluent sample from the Building 21 Type A SSDS was 118 µg/m^3 in December 2021. As shown in Table 5-5, based on a flow of approximately 8.1 cfm in December 2021, the Type A SSDS was removing CVOCs at a rate of 0.03 lbs/year.

5.2.3 Building 25

As shown in Table 5-1, the December 2021 effluent samples from the Building 25 SSDS contained a total CVOC concentration of 130 µg/m^3. Table 5-6 shows that at a flow of 118 cfm in December 2021, the system was removing 0.5 lbs/year.

5.2.4 Building 114

Table 5-3 shows that the December 2021 effluent samples from the Building 114 SSDS contained total CVOC concentrations of 824 µg/m^3. As shown in Table 5-7, based on a flow of 23.3 cfm in December 2021, the system was removing CVOCs at a rate of 0.9 lbs/year.

5.3 SSDS Performance Assessment

The Type A, B, and C SSDSs continue to operate at levels consistent with startup testing performance data. With the exception of Building 21, effluent data from 2021 showed decreased CVOC concentrations compared to 2016 samples, and similar results as compared to 2015 samples. Based on these results, none of the constituents exceed the short-term guideline concentrations (SGCs) or annual guideline concentrations (AGCs) set forth in the NYSDEC DAR-1, Guidelines for Control of Toxic Ambient Air Contaminants. GAC treatment of system effluent is still not necessary for any of the systems.

6. ICM Performance Monitoring - Indoor Air

6.1 Sampling Procedures

Indoor air samples were collected on December 15 and 16, 2021. Samples were collected using 6-liter Summa Canisters in accordance with the ICM Work Plan (Malcolm Pirnie 2009). The samples were submitted to Eurofins/Air Toxics, Folsom, California, following chain-of-custody procedures for analysis of VOCs by USEPA Method TO-15. Analytical reporting forms are provided in Appendix B.

6.2 Sampling Results

Indoor air sample results are summarized in Table 6-1. Sample locations and sample results are shown on Figures 6-1 through 6-9. One duplicate sample (IA-DUP) was collected at the location of IA-B121-1. As listed in Table 6-1, the analytical results of the duplicate sample are consistent with the parent sample results.

All 2021 sampling results were below the corresponding NYSDOH Air Guidance Values. As shown below, samples from Building 25 have contained TCE at a concentration greater than NYSDOH Guidance Value of 2 $\mu g/m^3$ in previous years. In 2021, however, results were below the Guidance Value.

Building 25 Sample ID	2018 TCE Results (µg/m^3)	2019 TCE Results (µg/m^3)	2020 TCE Results (µg/m^3)	2021 TCE Results (µg/m^3)
IA-B25-1	**2.3**	**3.3**	**13**	0.38
IA-B25-2	**10**	1.6	0.24	0.16
IA-B25-3	**4.3**	0.56	ND	ND
IA-B25-4	0.49	1.2	ND	0.18
IA-B25-5	**7.3**	0.52	0.19	ND

Based on the 2020 sampling results, the chemical inventory for Building 25 was proactively updated in February 2021. The inventory identified two products containing TCE. The product SCIGrip®4 contains 40%-60% TCE by weight, according to the SDS and was found in Room 334 of Building 25, which is the location of sample IA-B25-1. The use of this product was the likely cause of previous elevated indoor air detections in Building 25. In addition, White 2000 Mold Cleaner (containing TCE at a concentration of up to 98% by weight) was identified in Building 25 during the February 2021 chemical inventory, despite previous mitigative actions by WVA in 2018 and 2019. An additional chemical inventory was conducted for Building 25 on October 15, 2021, prior to the indoor air sampling event in December 2021. No materials of concern were observed, with the exception of one 12-quart pail of spent printer ink. The December 2021 TCE indoor air concentrations in Building 25 were below the threshold requiring reasonable and practical actions; therefore, no further action is recommended at this time.

Mitigative measures, related to building activities and/or products, put in place in Buildings 120 and 121 in recent years to address previous indoor air exceedances continue to be effective, as shown by indoor air concentrations well below corresponding NYSDOH Air Guidance Values.

7. ICM Summary

The Type A (Building 21 and 114) and Type B (Building 20 and 25) SSDSs were inspected in accordance with the ICM Work Plan and generally performed consistent with startup test results.

Based on total run-time hours, the Building 21 and Building 114 SSDSs operated for approximately 94 percent and 93 percent, respectively, of the total available run-time for the year. System flow is currently being monitored using an anemometer. The GAC vessels for Building 21 and 114 effluent are currently offline due to concentrations below SGCs and AGCs. No significant repairs were required to the Building 21 or 114 systems in 2020. The vapor knockout tank for the Building 21 system is planned for replacement in early 2022.

The Building 20 and Building 25 SSDSs each operated at approximately 81 percent and 65 percent of the total available run-time for the year. The GAC vessels are currently offline due to concentrations below SGCs and AGCs. Due to decreased blower efficiency, it is recommended that the extraction point screens be replaced in the Building 20 SSDS. The Building 25 SSDS motor and VFD panel were replaced in May 2021 and a new blower was installed in September 2021.

The Type C SSDSs (Buildings 21, 22, 120, 121, and 130) were generally inspected in accordance with the ICM Work Plan. None of the Type C SSDSs required significant repairs or had any interruptions in 2021.

Effluent samples were collected from the Type A and B SSDSs in December 2021. Based on the December 2021 sample results and SSDS flow measurements, the total annual VOC mass removed from the SSDSs ranged from 0.03 lbs/year from the Building 21 SSDS to 0.9 lbs/year from the Building 114 SSDS. GAC treatment of system remains unnecessary.

Indoor air sampling was conducted in accordance with the ICM Work Plan on December 15 and 16, 2021.

8. Monitoring Well Decommissioning

The following monitoring wells were approved for removal from the LTM Program and for decommissioning by the NYSDEC on September 1, 2021 and were therefore not included in the 2021 groundwater sampling event: 83DM-SP-1, 86EM-SP-1B, WVA-AW35-MW-8, WVA-MW-79, WVA-AW-MW-43, WVA-AW-MW-44, WVA-AW-25-MW-5, WVA-AW-25-MW-7, 86EM-SP-5 and 92EM-SP-7. Decommissioning of these wells will be scheduled in Spring 2022.

9. Conclusions and Recommendations

9.1 Conclusions

The following conclusions can be drawn based on the data generated during the 2021 LTM event.

1. In general, VOC concentrations in groundwater in the MMA are stable or decreasing.

2. VOC concentrations in groundwater in the area of the former burn pit and current permeable reactive walls in the SA are stable or decreasing.

3. Concentrations of hexavalent chromium in groundwater near Building 35 have decreased since 2019. Chromium, which is analyzed at select locations in the MMA, shows stable or decreasing trends.

4. Based on flow and pressure measurements, the SSDSs operated consistent with startup test parameters, with the exception of Building 20. Average total flows at the Building 20 SSDS have decreased during 2020 and 2021, indicating a reduction in blower efficiency. The system does not appear able to maintain proper vacuum pressure to produce flow rates consistent with startup parameters, indicating a restriction in the system. Extraction point screen replacement was completed in March 2022. Additional details will be provided in the 2022 LTM Report.

5. VOC mass removal in the Type A and B SSDSs ranged from 0.03 lbs/year (Building 21) to 0.9 lbs/year (Building 114).

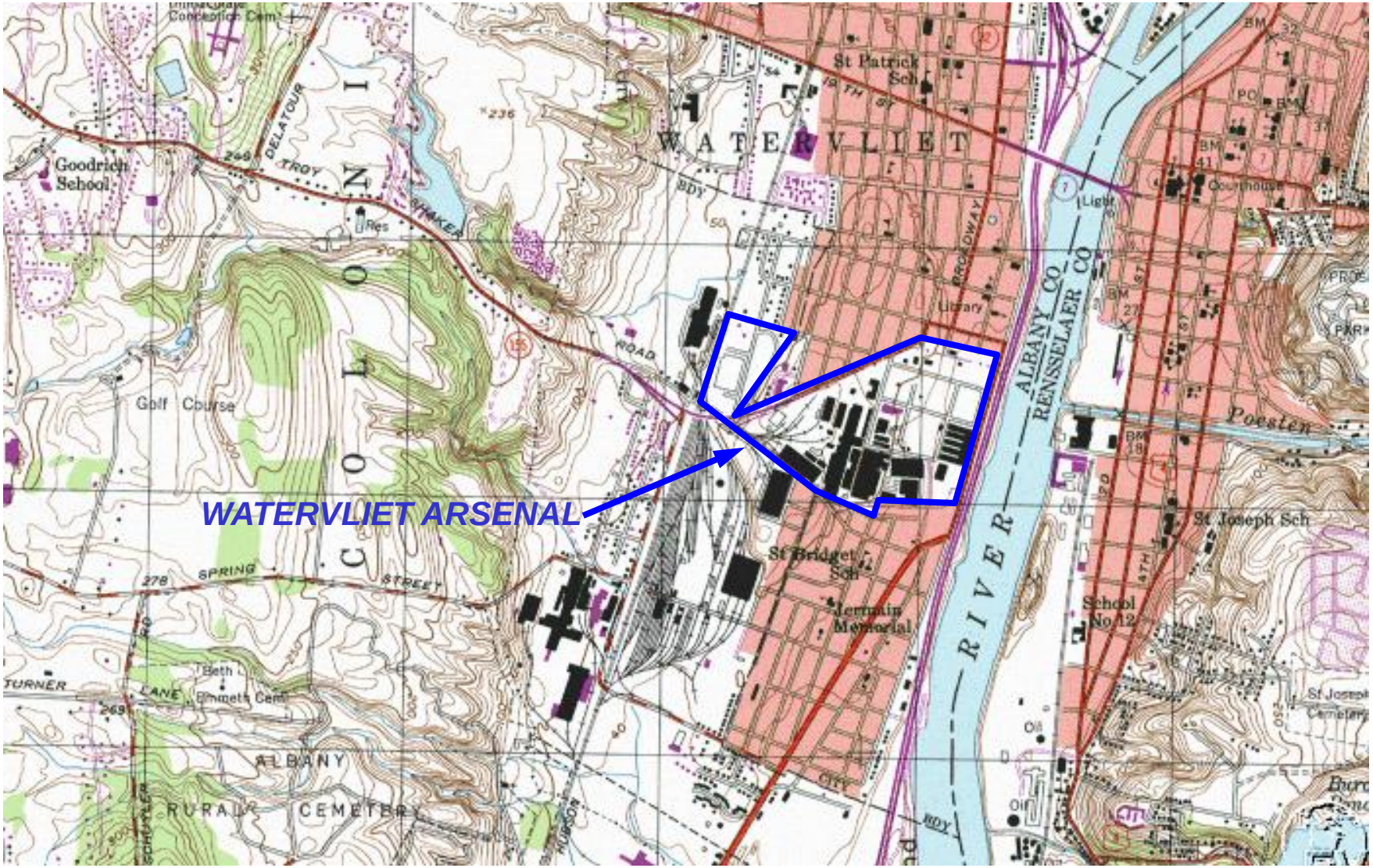
6. 2021 CVOC concentrations in the SSDS effluent remain consistent with those observed in 2020. GAC treatment of Type A and B SSDS effluent remains unnecessary.

7. In January 2021, TCE was present in one Building 25 indoor air sample at a concentration greater than NYSDOH target level requiring reasonable and practical actions to identify sources and reduce exposure. The chemical inventory for Building 25 was updated and products that were the likely cause of the elevated indoor air detections in Building 25 were identified. An additional chemical inventory was conducted on October 15, 2021, prior to the indoor air sampling event in December 2021. No materials of concern were observed, with the exception of one 12-quart pail of spent printer ink. The December 2021 TCE indoor air concentrations in Building 25 were below the threshold requiring reasonable and practical actions; therefore, no further action is recommended at this time.

9.2 LTM Modifications and Recommendations

There are no recommended modifications to the LTM program at this time.

FIGURES



SOURCE: U.S.G.S 7.5 MIN. TROY SOUTH QUADRANGLE

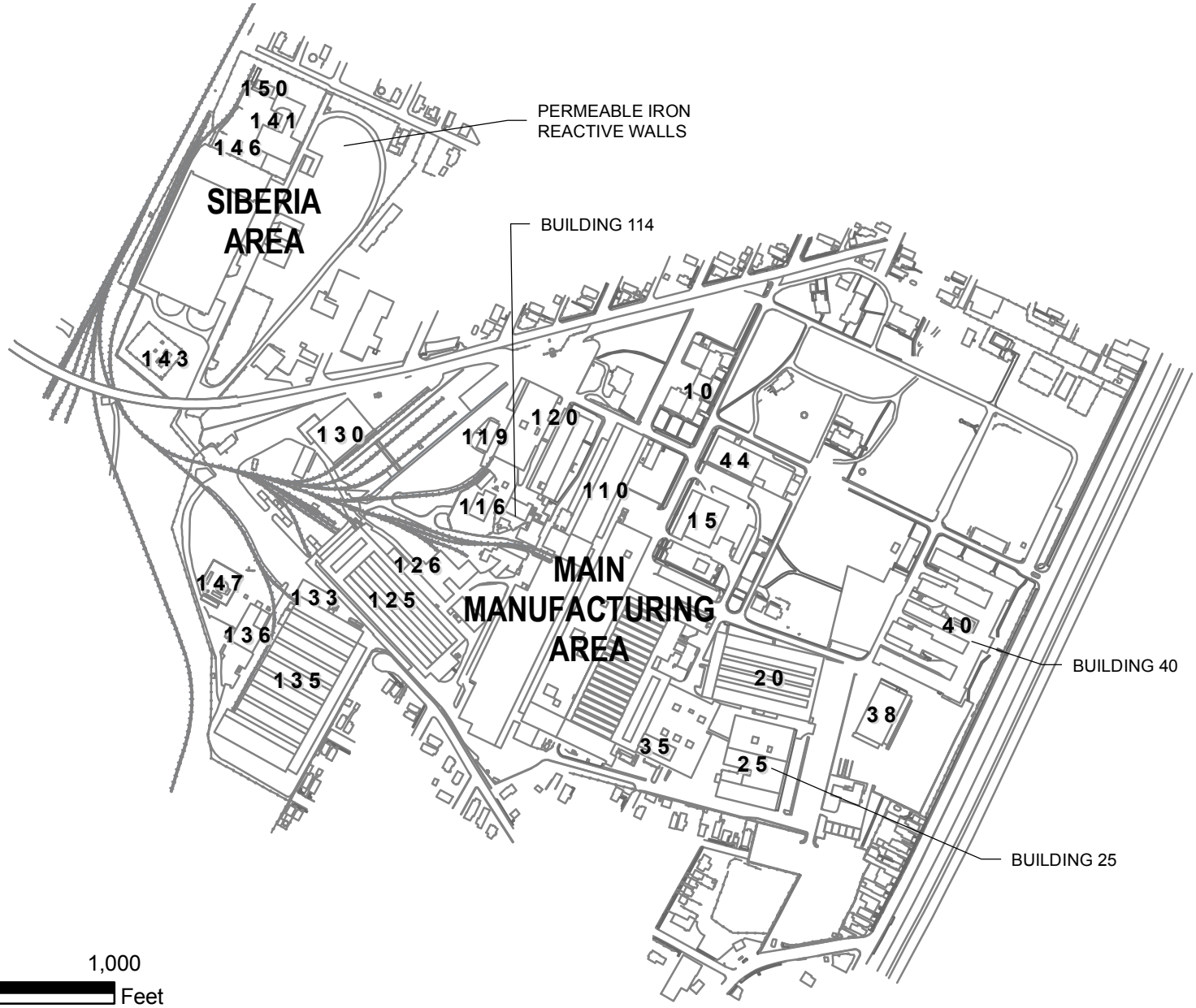
US Army Corps of Engineers
Baltimore District

WATERVLIET ARSENAL
WATERVLIET, NEW YORK

SITE LOCATION

FIGURE 1-1

G:\GISMOD\WatervlietArsenal\LTM\Figures\WVA Site Plan.mxd



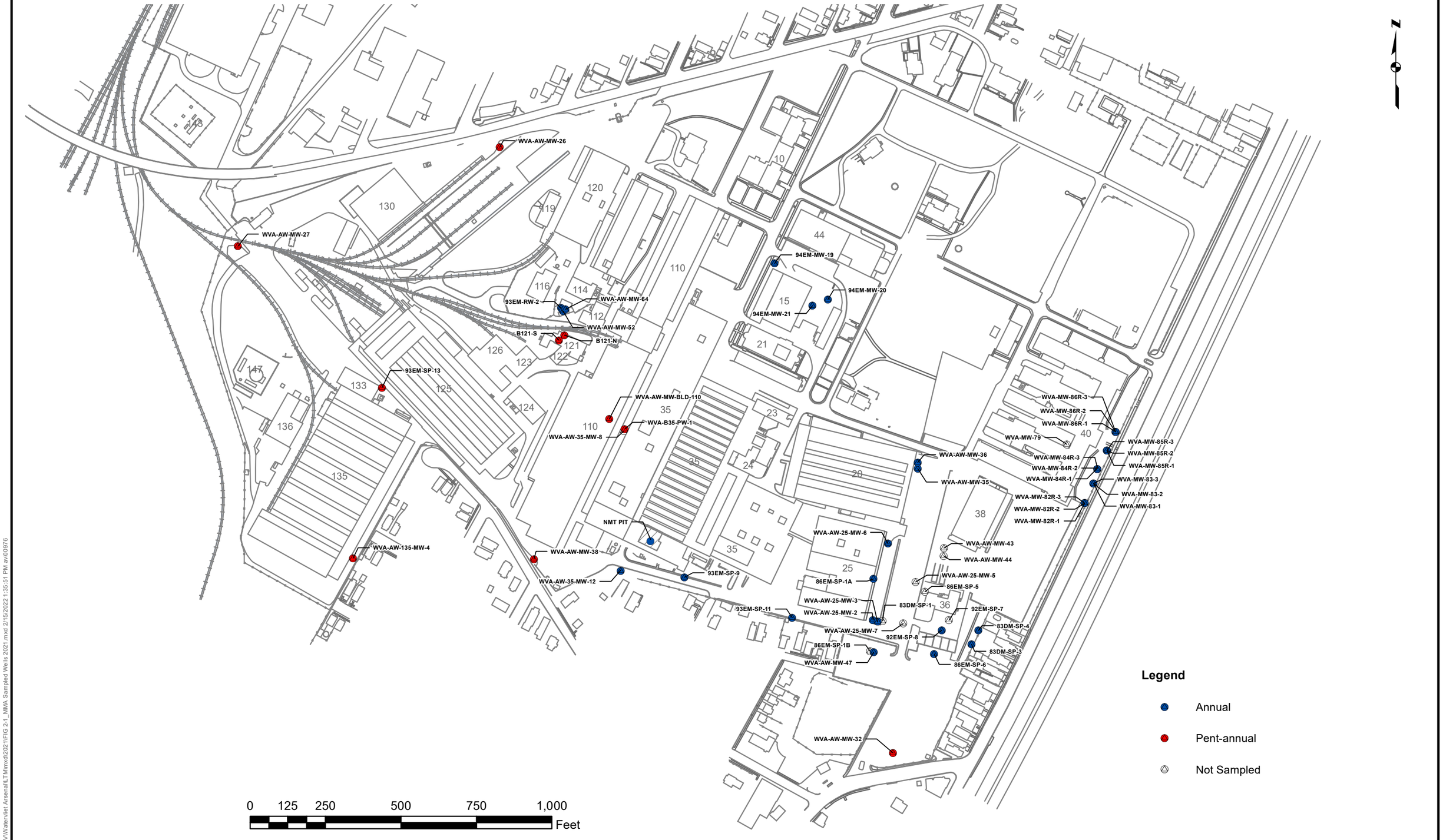
US Army Corps of Engineers

LONG-TERM MONITORING PROGRAM
WATERVLIET ARSENAL
WATERVLIET, NEW YORK

SITE MAP

ARCADIS-MALCOLM PIRNIE

FIGURE 1-2



T:_ENV\Watervliet Arsenal\LTM\mxd\2021\FIG 2-1_MMA Sampled Wells 2021.mxd 2/15/2022 1:35:51 PM av00976

US Army Corps of Engineers

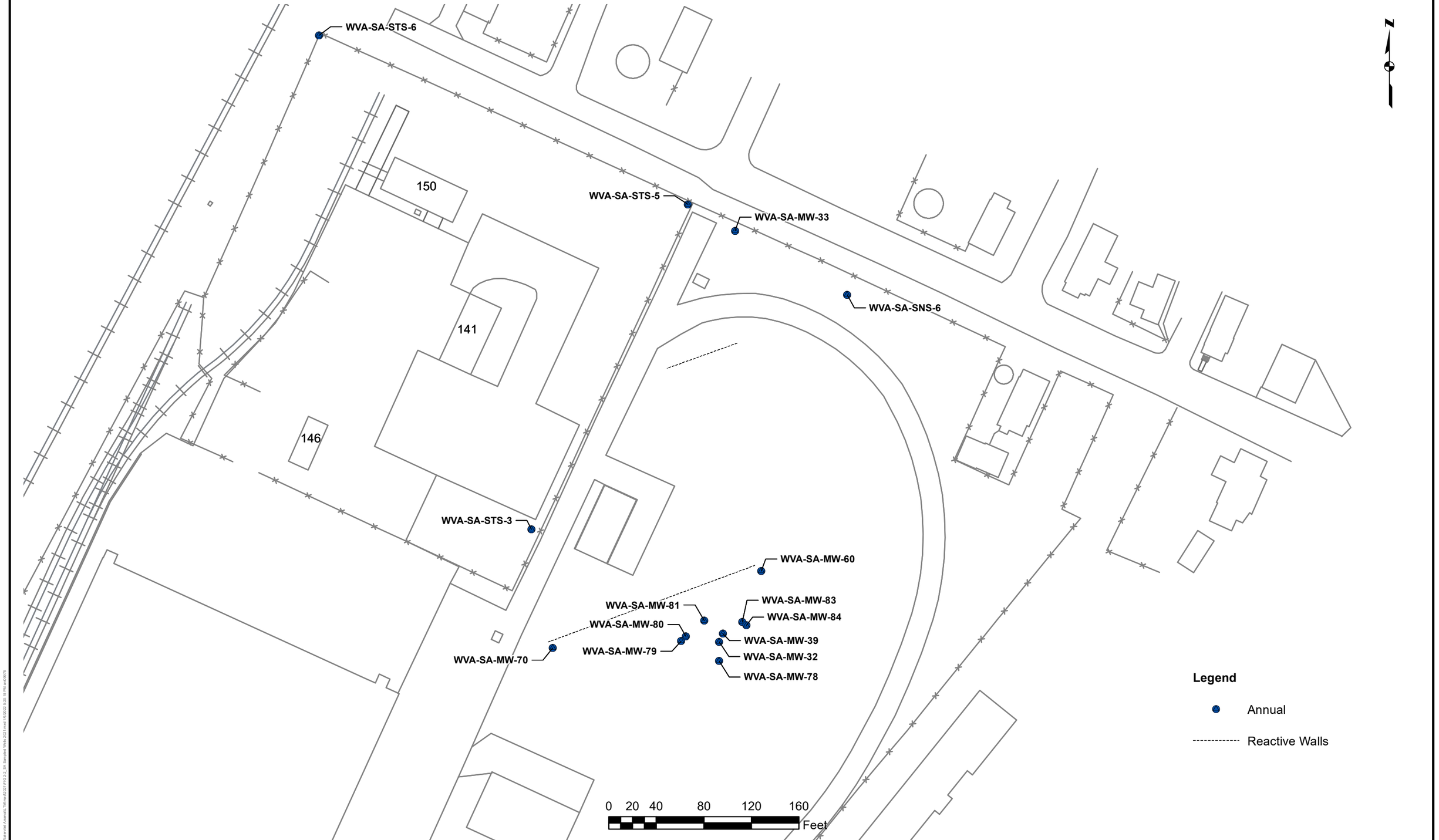
LONG-TERM MONITORING
WATERVLIET ARSENAL
WATERVLIET, NEW YORK

MAIN MANUFACTURING AREA
GROUNDWATER MONITORING LOCATIONS

ARCADIS

SEPTEMBER - OCTOBER 2021

FIGURE 2-1



T:_ENV\Watervliet Arsenal\LTM.mxd\2021\FIG 2-2_SA Sampled Wells 2021.mxd 1/6/2022 5:20:18 PM avr209776

US Army Corps of Engineers

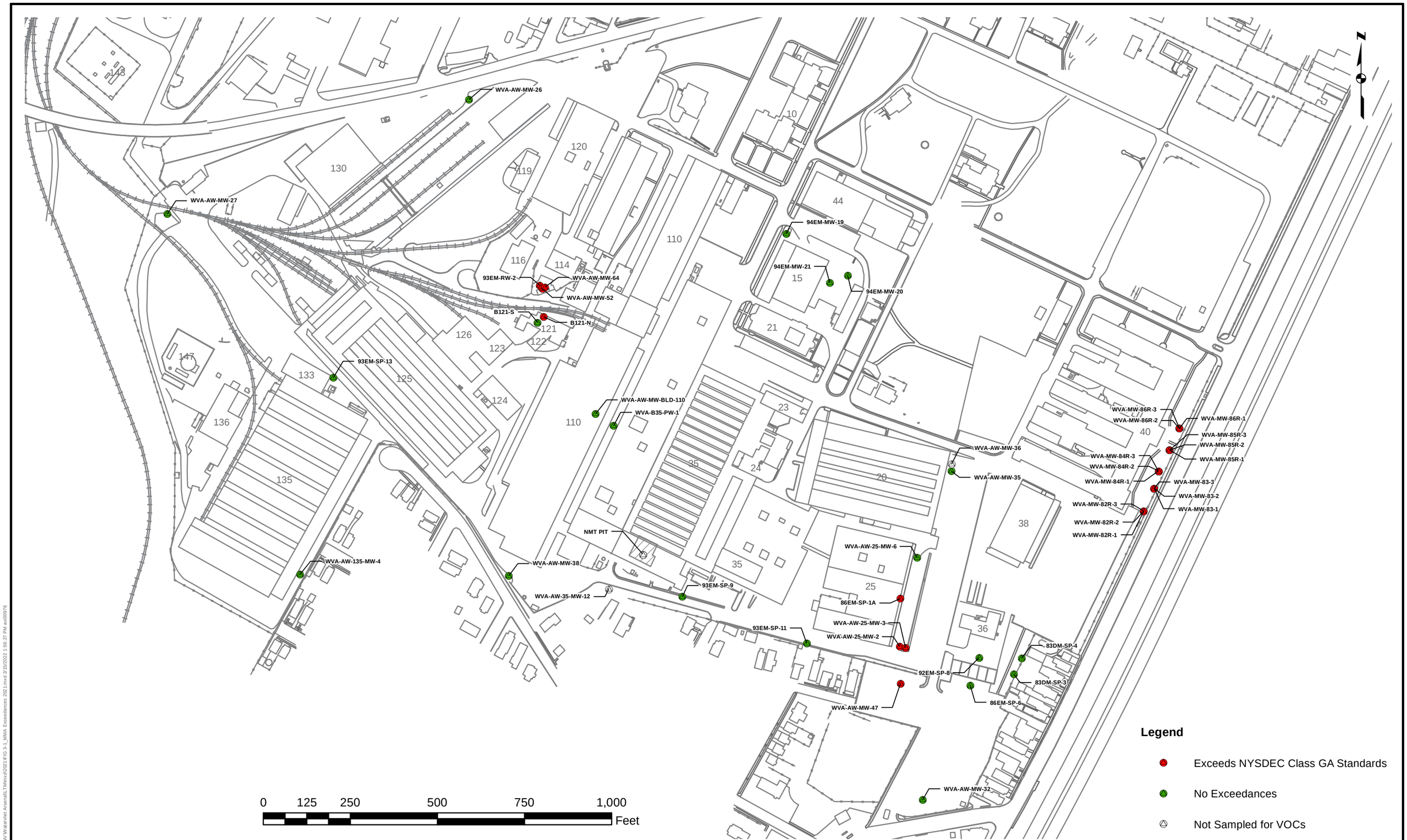
LONG-TERM MONITORING
WATERVLIET ARSENAL
WATERVLIET, NEW YORK

SIBERIA AREA
GROUNDWATER MONITORING LOCATIONS

ARCADIS

SEPTEMBER - OCTOBER 2021

FIGURE 2-2



US Army Corps of Engineers

LONG-TERM MONITORING
WATERVLIET ARSENAL
WATERVLIET, NEW YORK

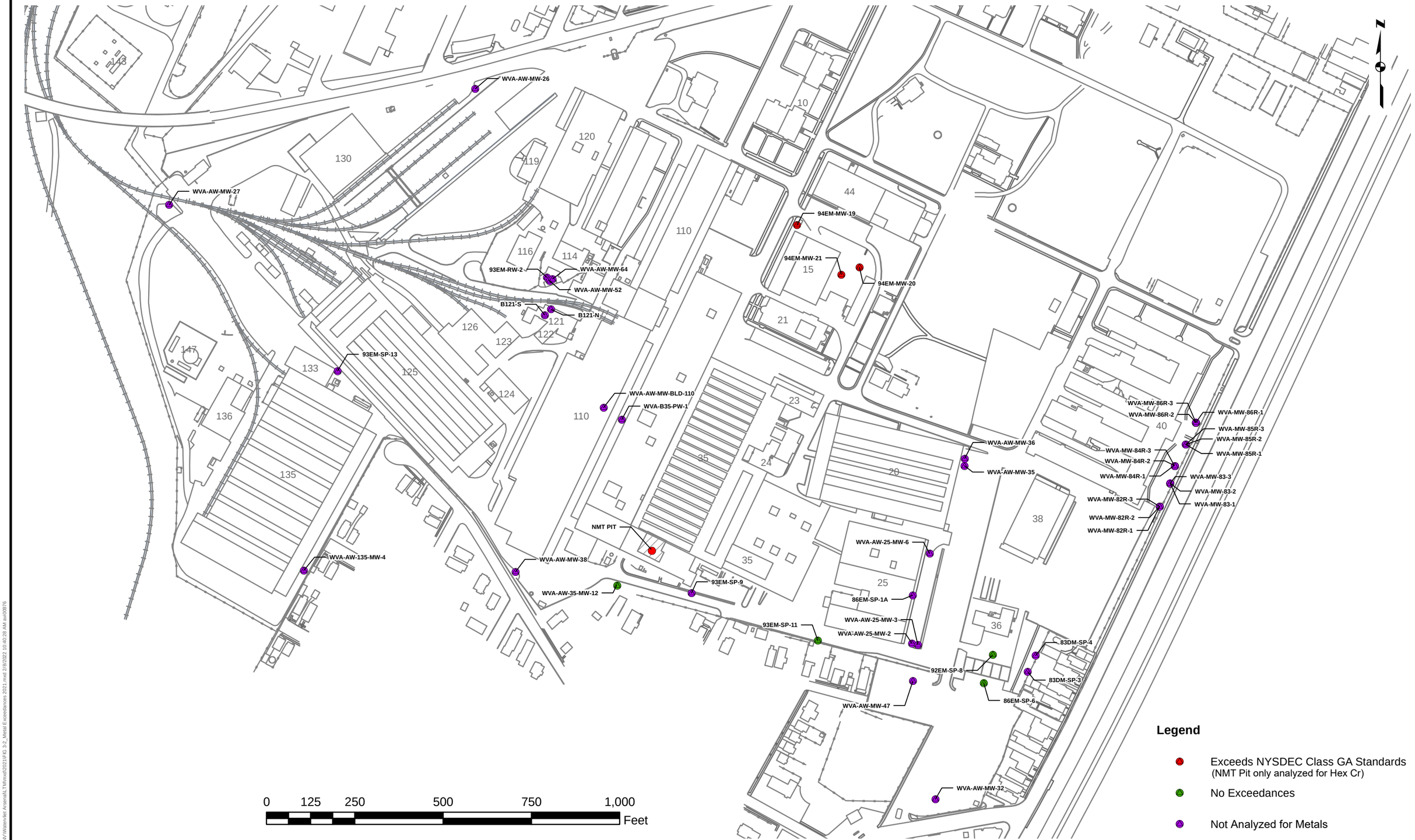
MAIN MANUFACTURING AREA
GROUNDWATER SAMPLE EXCEEDANCES (VOCs) - 2021

ARCADIS

SEPTEMBER - OCTOBER 2021

FIGURE 3-1

T:_ENV W\Watervliet Arsenal\LTM\mxd\2021\FIG 3-1_MMA Exceedances 2021.mxd 9/15/2022 1:56:27 PM aw00976



T:_ENV\Watervliet Arsenal\LTM\mxd\2021\FG 3-2_Metal Exceedances 2021.mxd 2/8/2022 10:40:28 AM avi00976

US Army Corps of Engineers

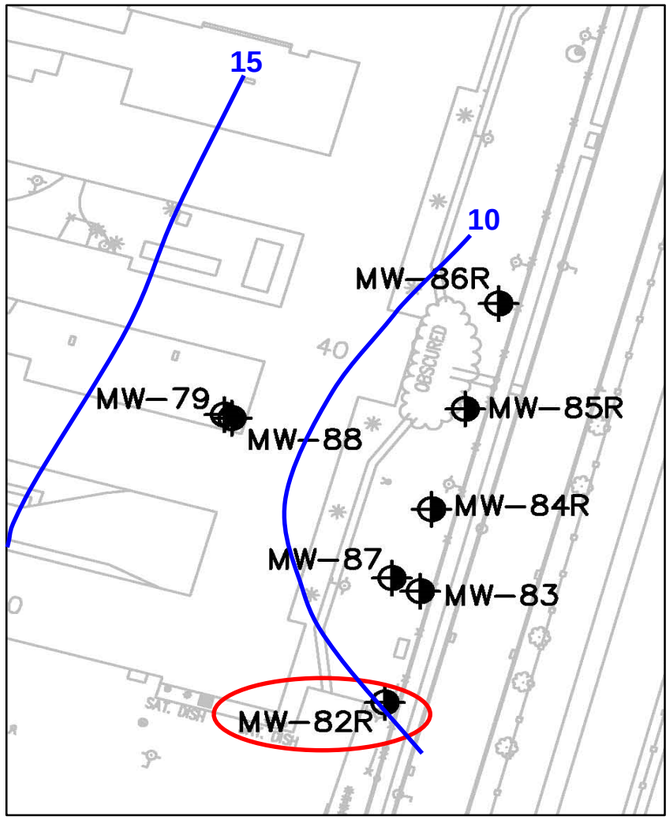
LONG-TERM MONITORING
WATERVLIET ARSENAL
WATERVLIET, NEW YORK

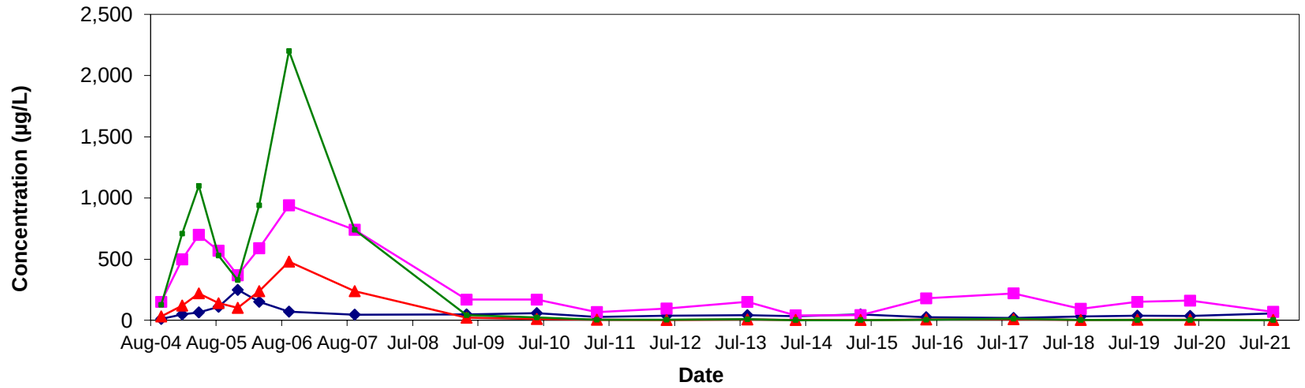
MAIN MANUFACTURING AREA
GROUNDWATER SAMPLE EXCEEDANCES (METALS) - 2021

ARCADIS

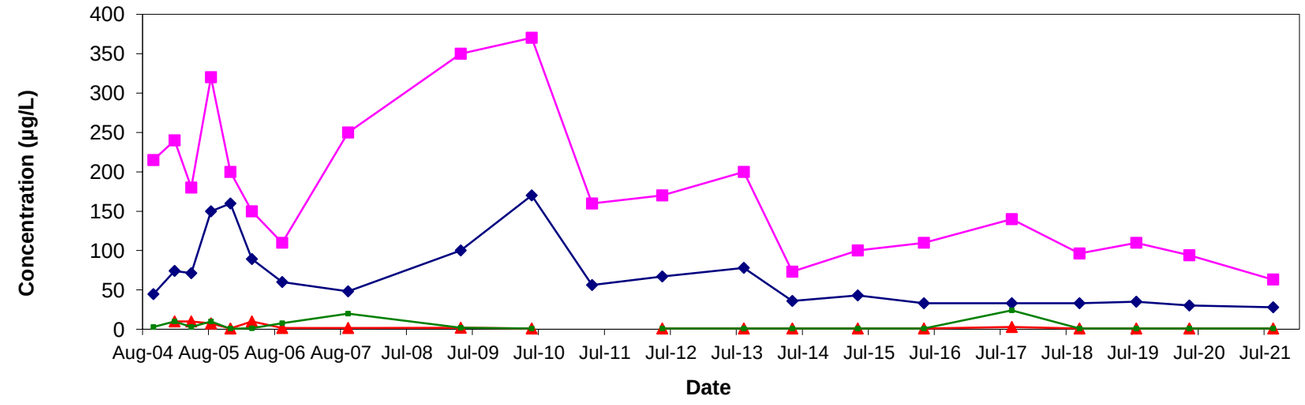
SEPTEMBER - OCTOBER 2021

FIGURE 3-2

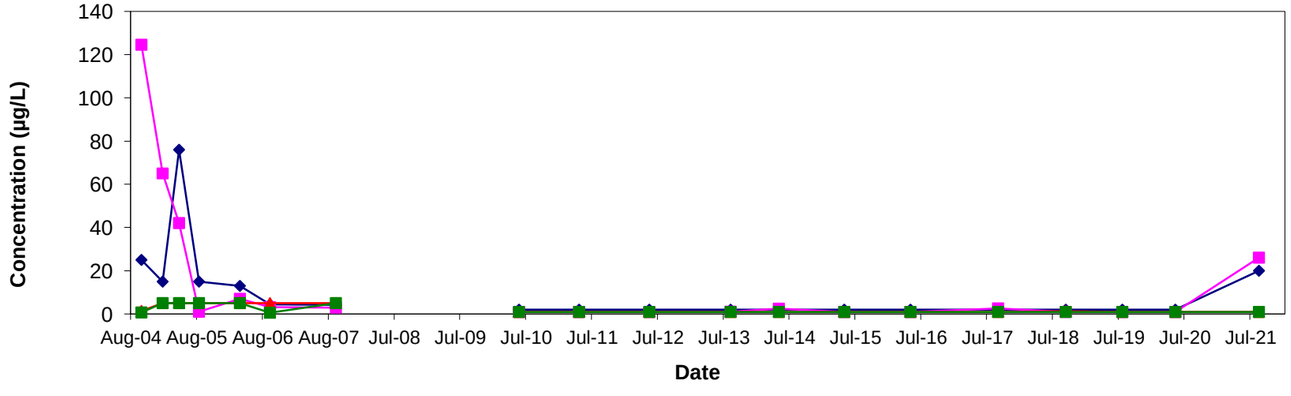




MW-82R-1



MW-82R-2



MW-82R-3



Note: Vertical scales are not the same.
Potentiometic contours based on May 2009 measurements.

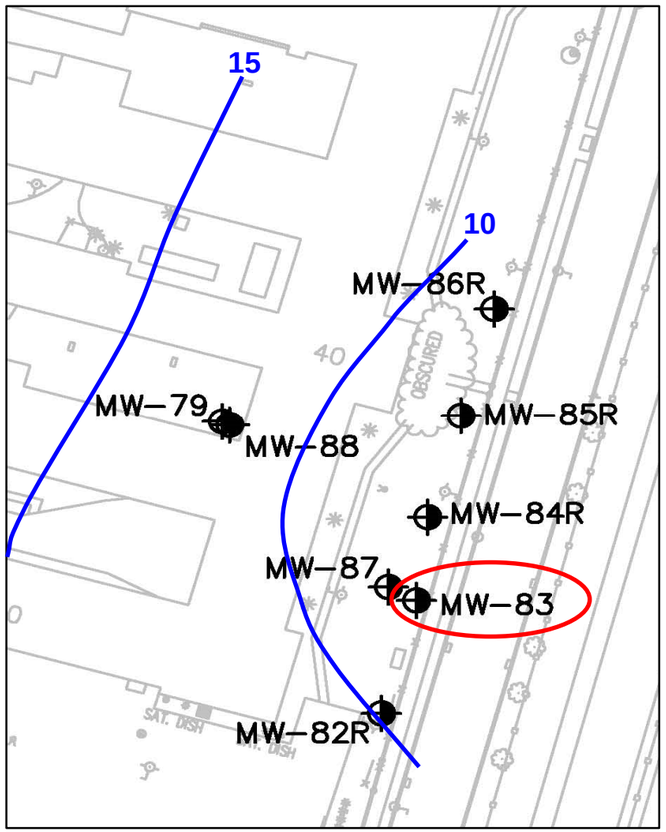
US Army Corps of Engineers
Baltimore District

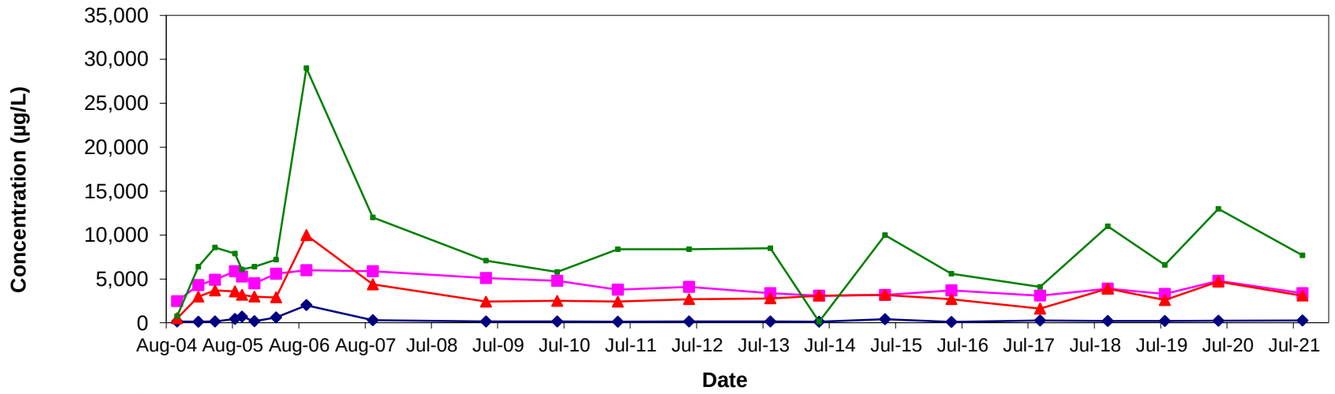
LONG-TERM MONITORING
BUILDING 40, WATERVLIET ARSENAL, WATERVLIET, NEW YORK

TRENDS IN TOTAL CHLORINATED VOC CONCENTRATIONS IN MONITORING WELL MW-82R

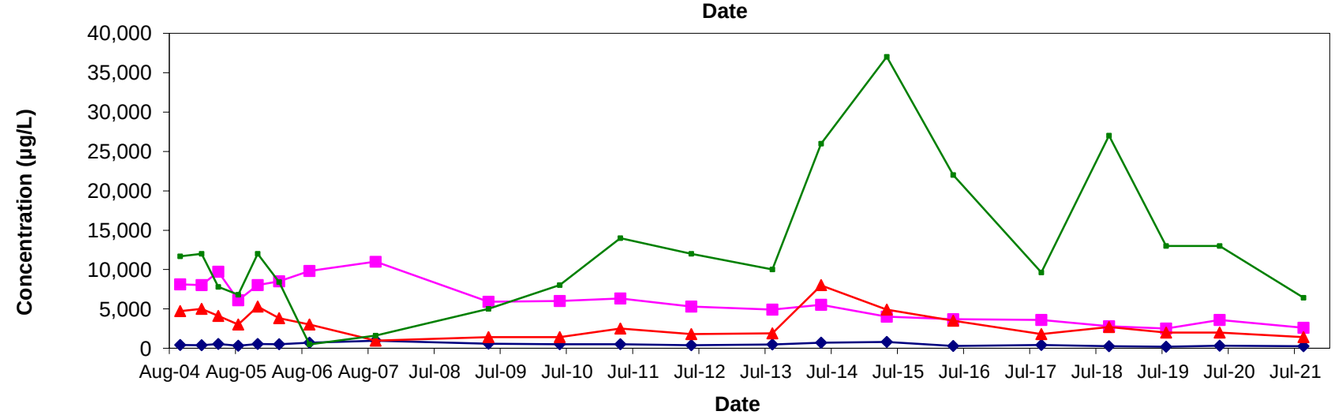
ARCADIS
SEPTEMBER - OCTOBER 2021

FIGURE 3-3

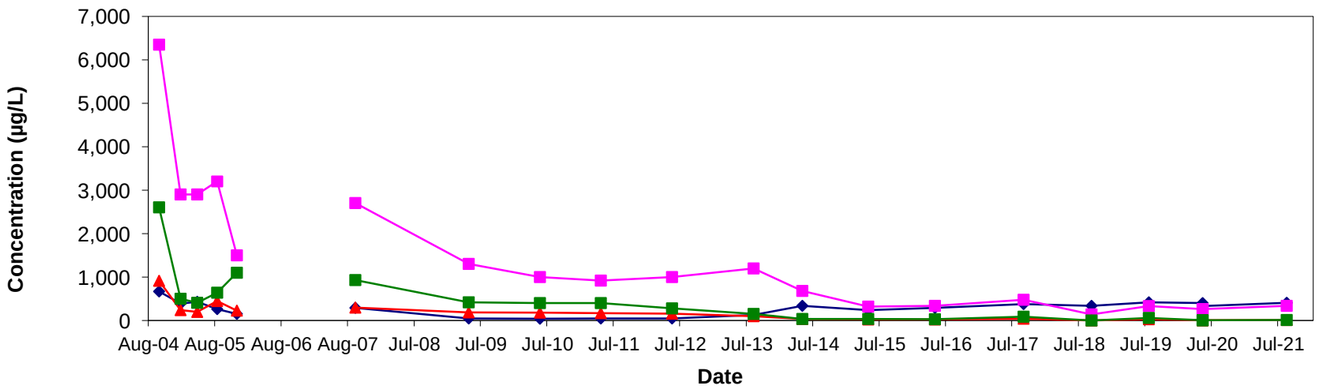




MW-83-1



MW-83-2



MW-83-3



Note: Vertical scales are not the same.
Potentiometic contours based on May 2009 measurements.

US Army Corps of Engineers
Baltimore District

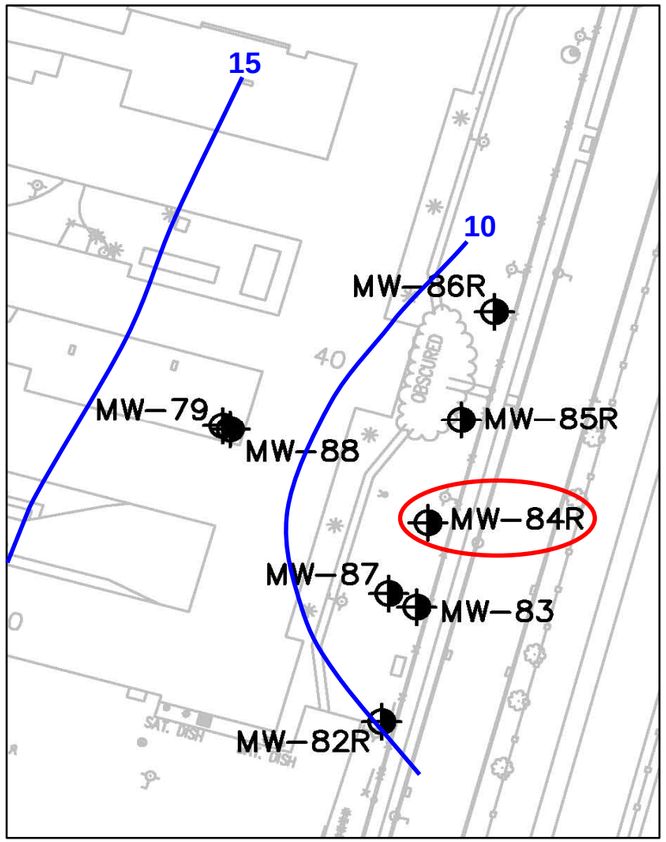
LONG-TERM MONITORING
BUILDING 40, WATERVLIET ARSENAL, WATERVLIET, NEW YORK

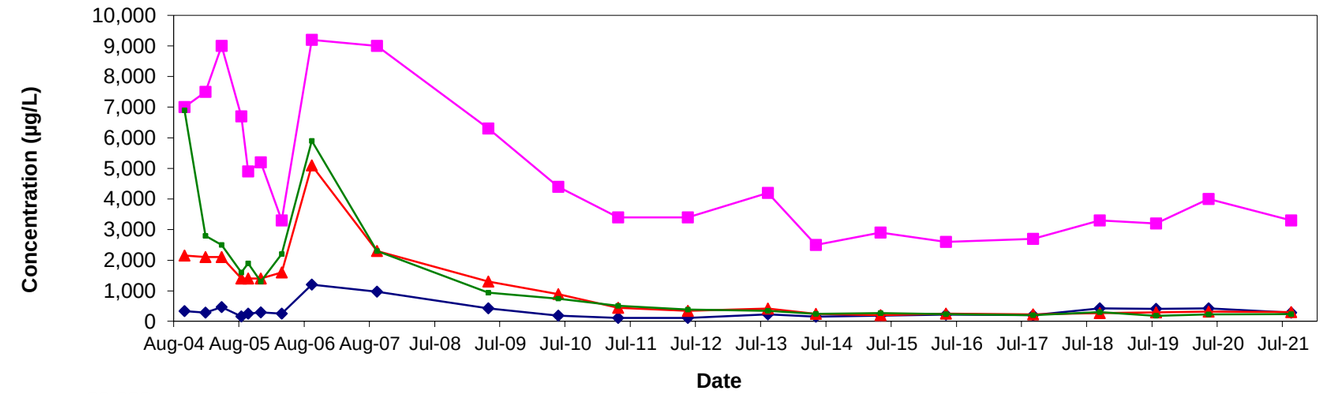
TRENDS IN TOTAL CHLORINATED VOC CONCENTRATIONS IN MONITORING WELL MW-83

ARCADIS

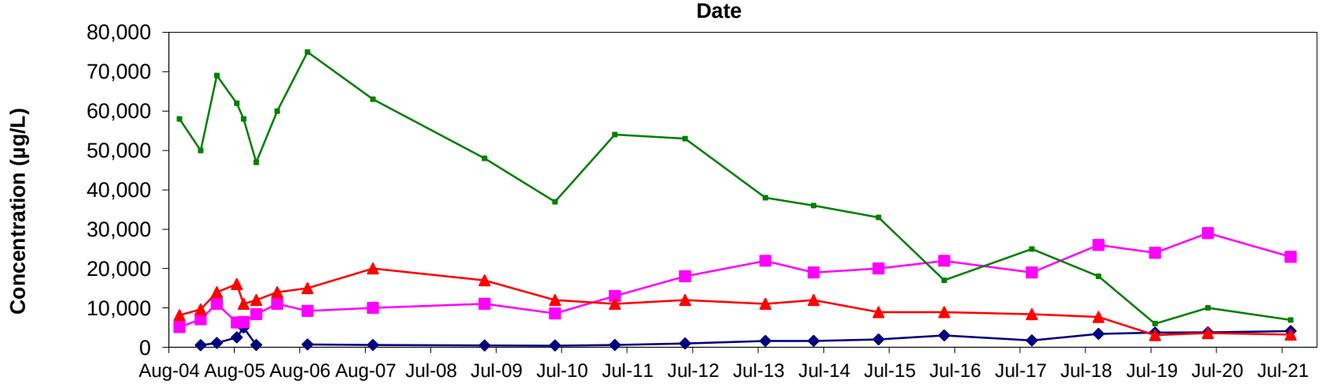
SEPTEMBER - OCTOBER 2021

FIGURE 3-4

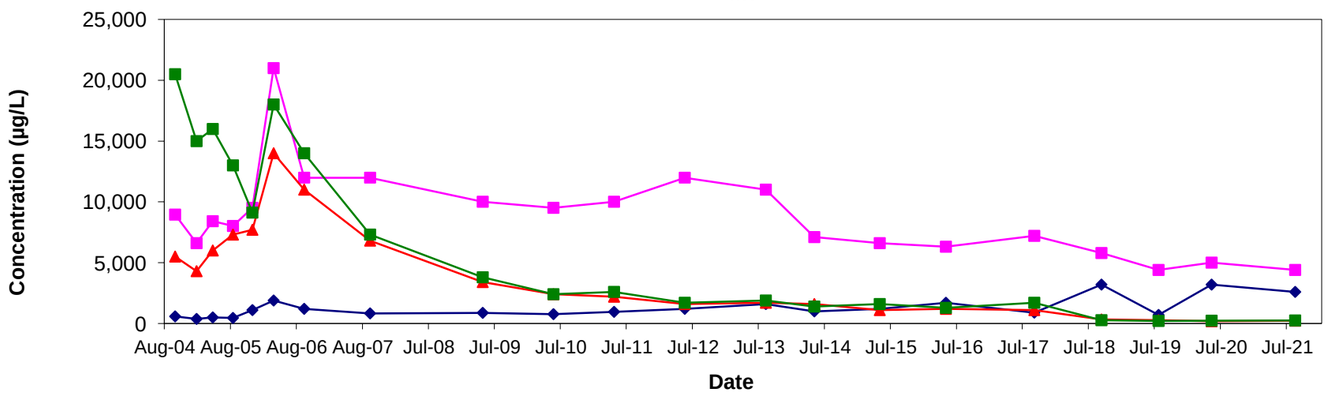




MW-84R-1



MW-84R-2



MW-84R-3



Note: Vertical scales are not the same.
Potentiometic contours based on May 2009 measurements.

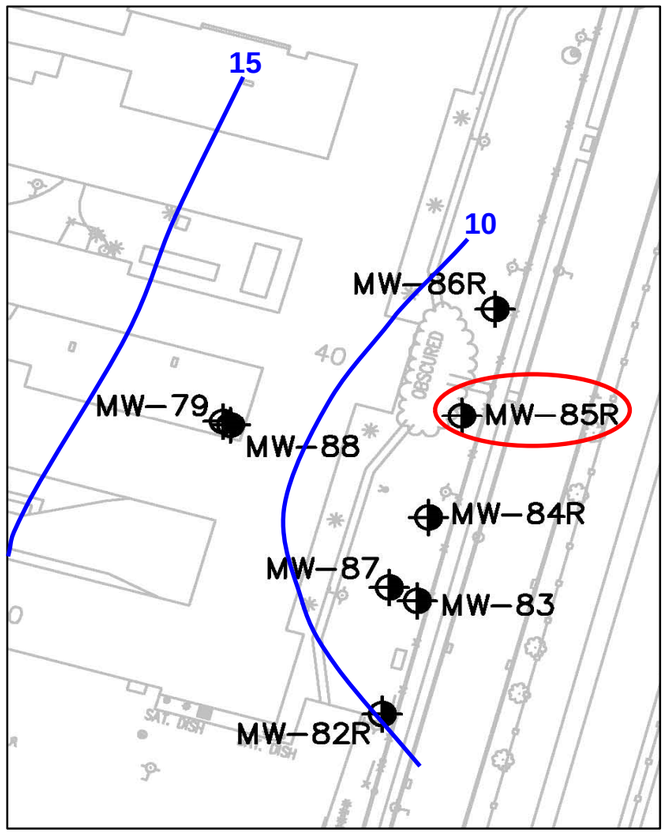
US Army Corps of Engineers
Baltimore District

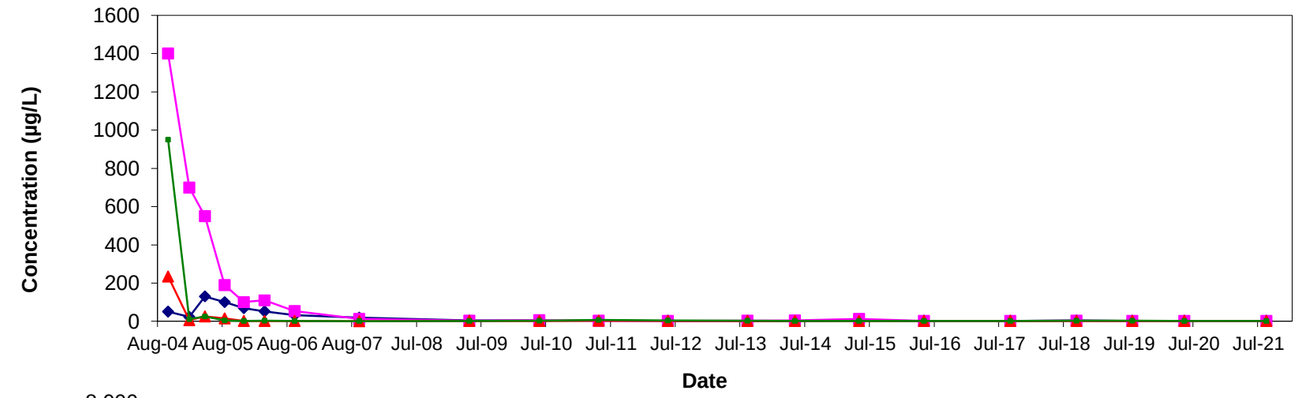
LONG-TERM MONITORING
BUILDING 40, WATERVLIET ARSENAL, WATERVLIET, NEW YORK

TRENDS IN TOTAL CHLORINATED VOC CONCENTRATIONS IN MONITORING WELL MW-84R

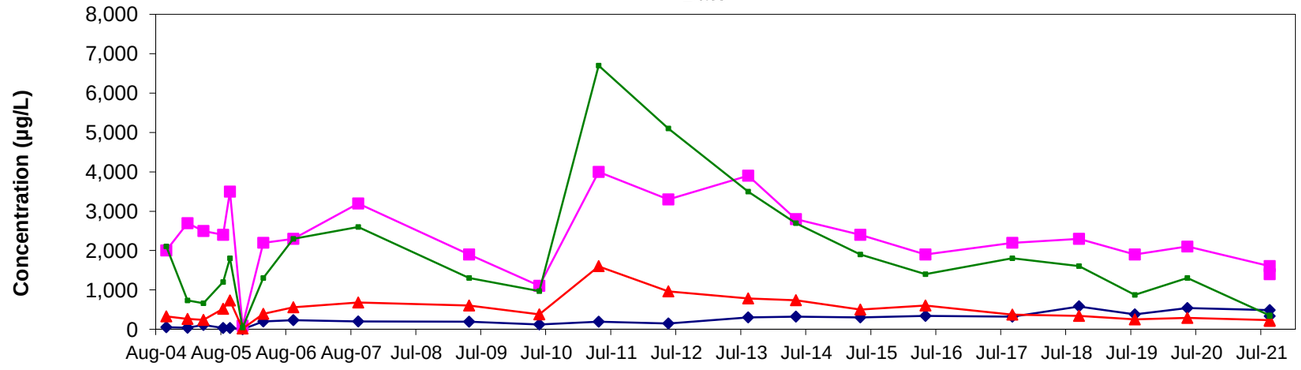
ARCADIS
SEPTEMBER - OCTOBER 2021

FIGURE 3-5

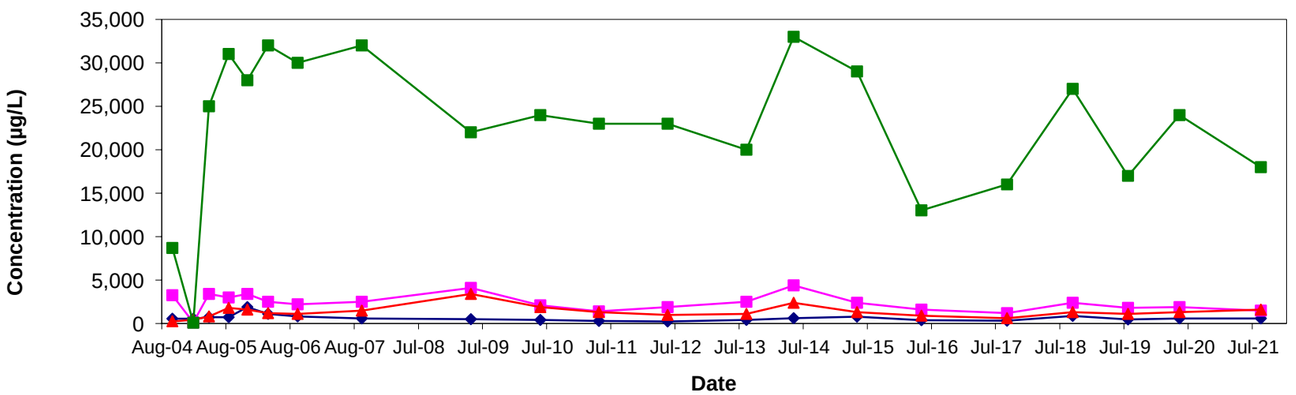




MW-85R-1



MW-85R-2



MW-85R-3



Note: Vertical scales are not the same.
Potentiometic contours based on May 2009 measurements.

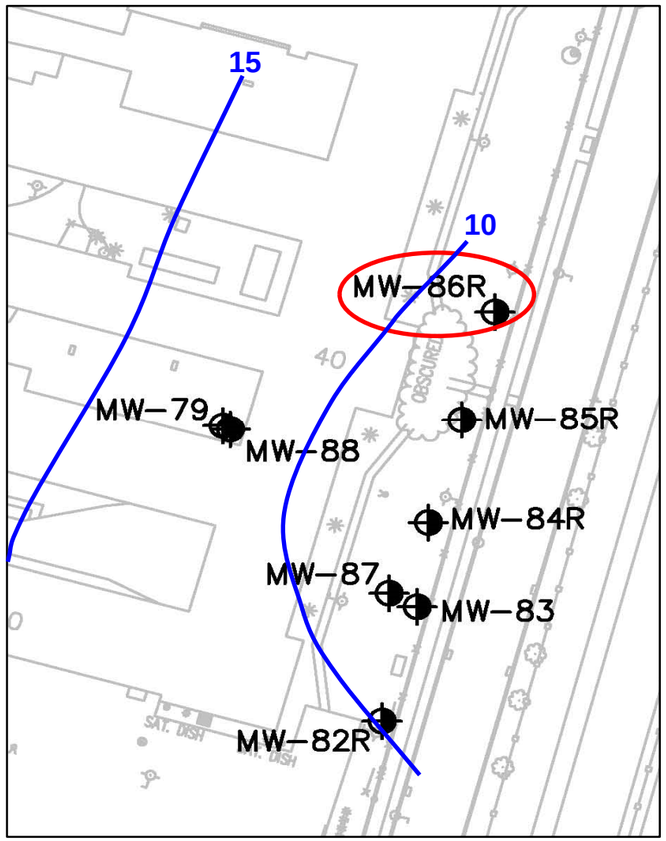
US Army Corps of Engineers
Baltimore District

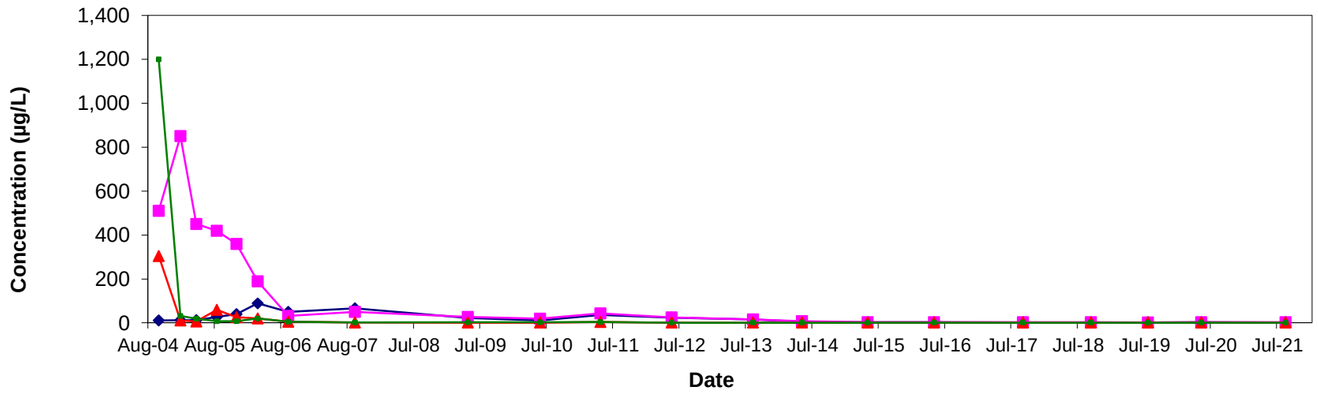
LONG-TERM MONITORING
BUILDING 40, WATERVLIET ARSENAL, WATERVLIET, NEW YORK

TRENDS IN TOTAL CHLORINATED VOC CONCENTRATIONS IN MONITORING WELL MW-85R

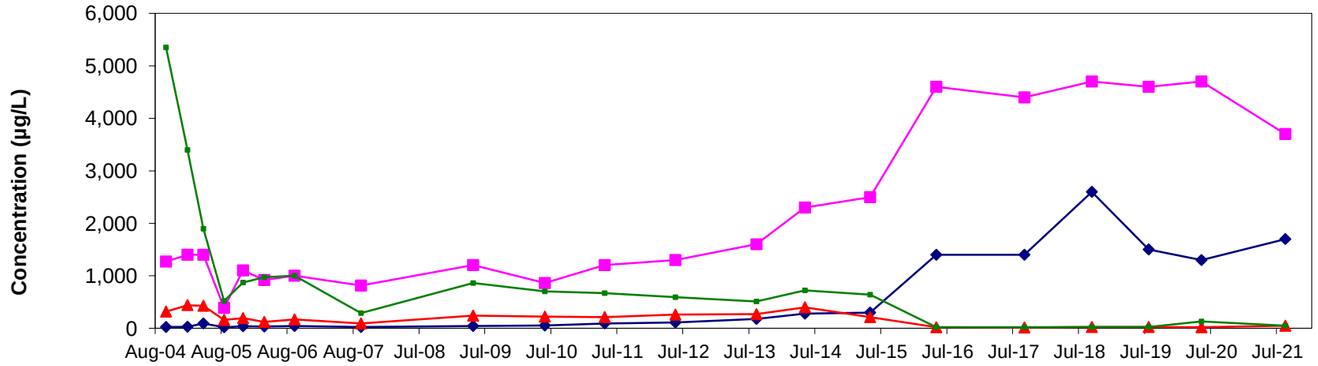
ARCADIS
SEPTEMBER - OCTOBER 2021

FIGURE 3-6

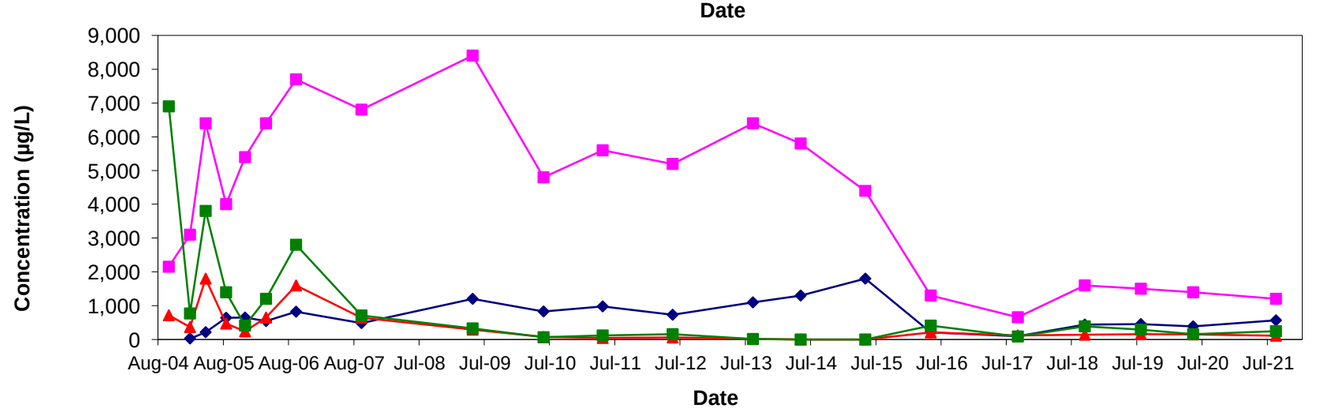




MW-86R-1



MW-86R-2



MW-86R-3



Note: Vertical scales are not the same.
Potentiometic contours based on May 2009 measurements.

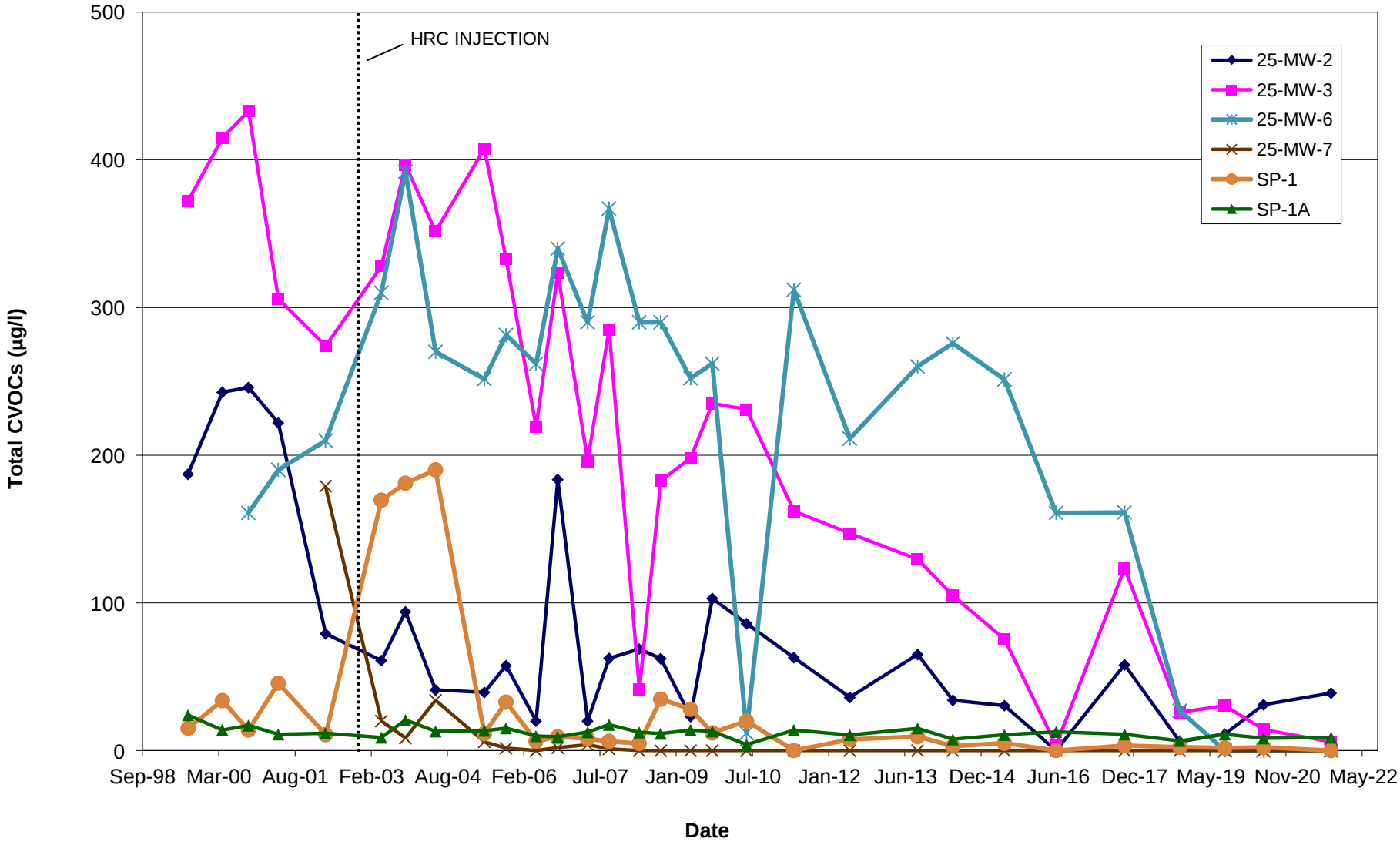
US Army Corps of Engineers
Baltimore District

LONG-TERM MONITORING
BUILDING 40, WATERVLIET ARSENAL, WATERVLIET, NEW YORK

TARGET CHLORINATED ORGANIC COMPOUNDS AND INORGANICS IN MONITORING WELL MW-86R

ARCADIS
SEPTEMBER - OCTOBER 2021

FIGURE 3-7



US Army Corps of Engineers
Baltimore District

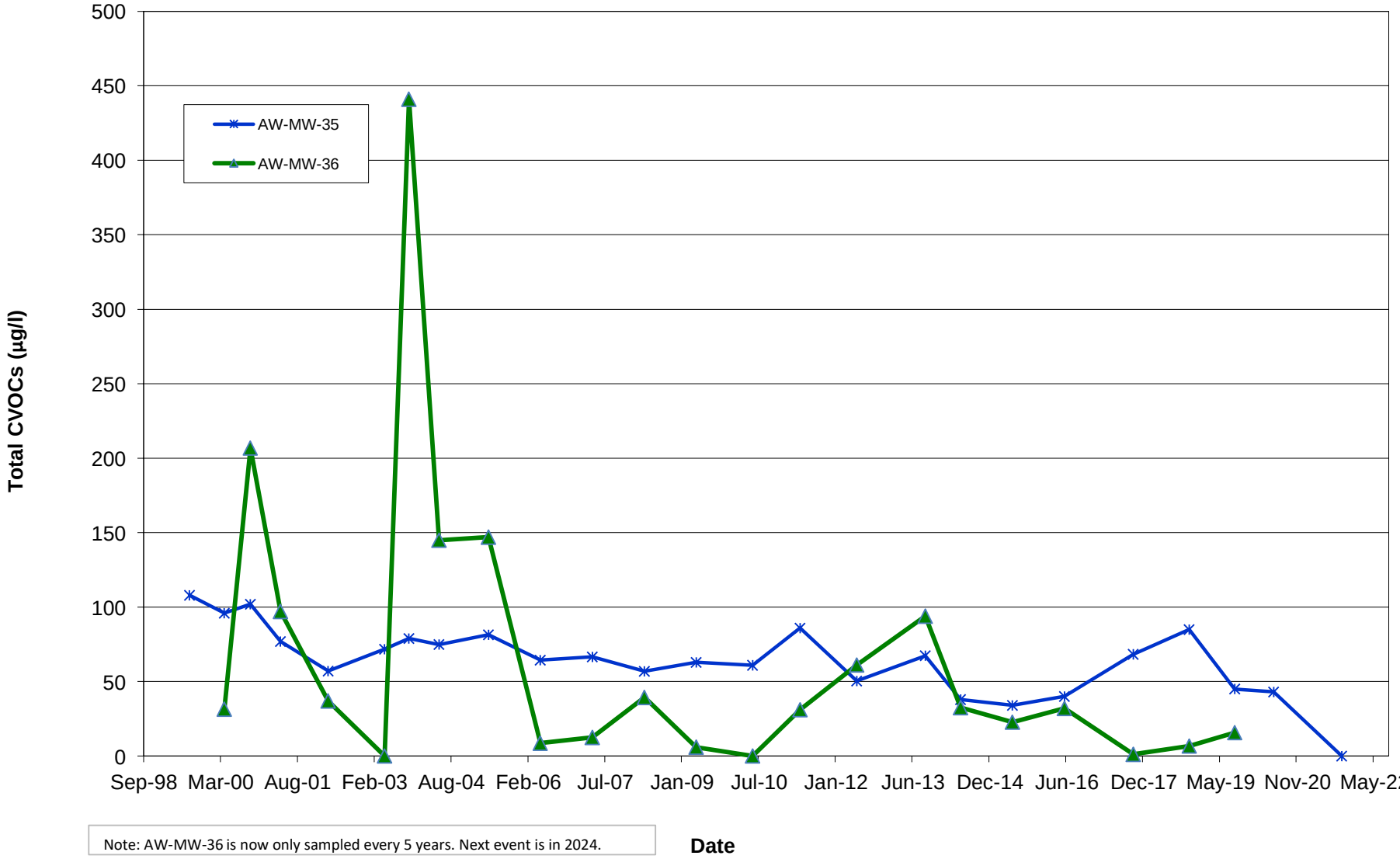
LONG-TERM MONITORING
WATERVLIET ARSENAL, WATERVLIET, NEW YORK

TRENDS IN TOTAL CVOC CONCENTRATIONS - BUILDING 25 AREA

ARCADIS

SEPTEMBER - OCTOBER 2021

FIGURE 3-8



Note: AW-MW-36 is now only sampled every 5 years. Next event is in 2024.

US Army Corps of Engineers
Baltimore District

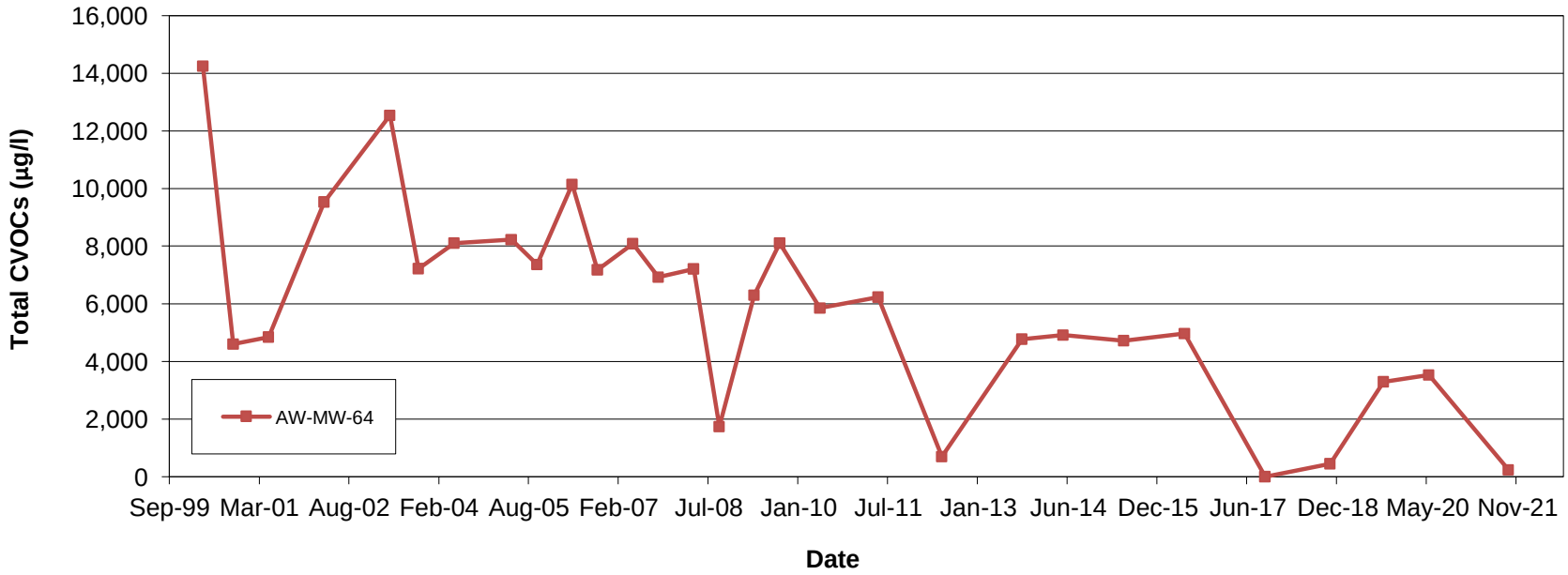
LONG-TERM MONITORING
WATERVLIET ARSENAL, WATERVLIET, NEW YORK

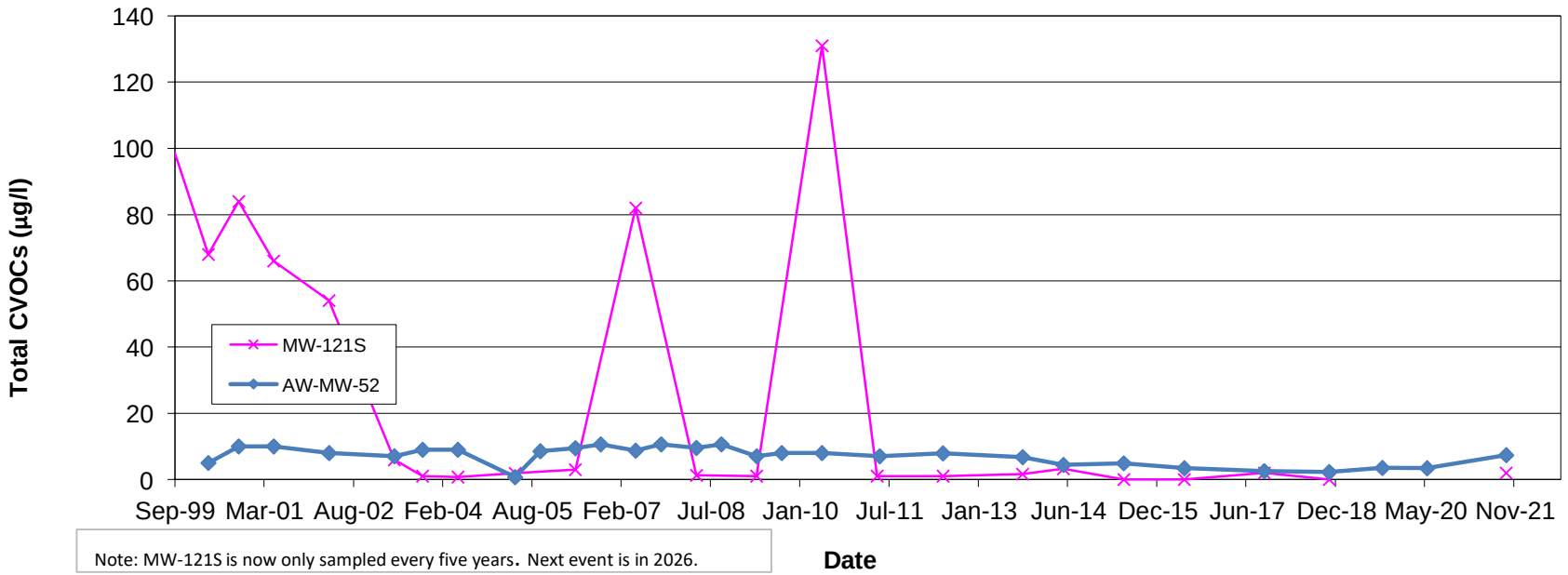
TRENDS IN TOTAL CVOC CONCENTRATIONS - BUILDING 20 AREA

ARCADIS

SEPTEMBER - OCTOBER 2021

FIGURE 3-9





Note: MW-121S is now only sampled every five years. Next event is in 2026.

US Army Corps of Engineers
Baltimore District

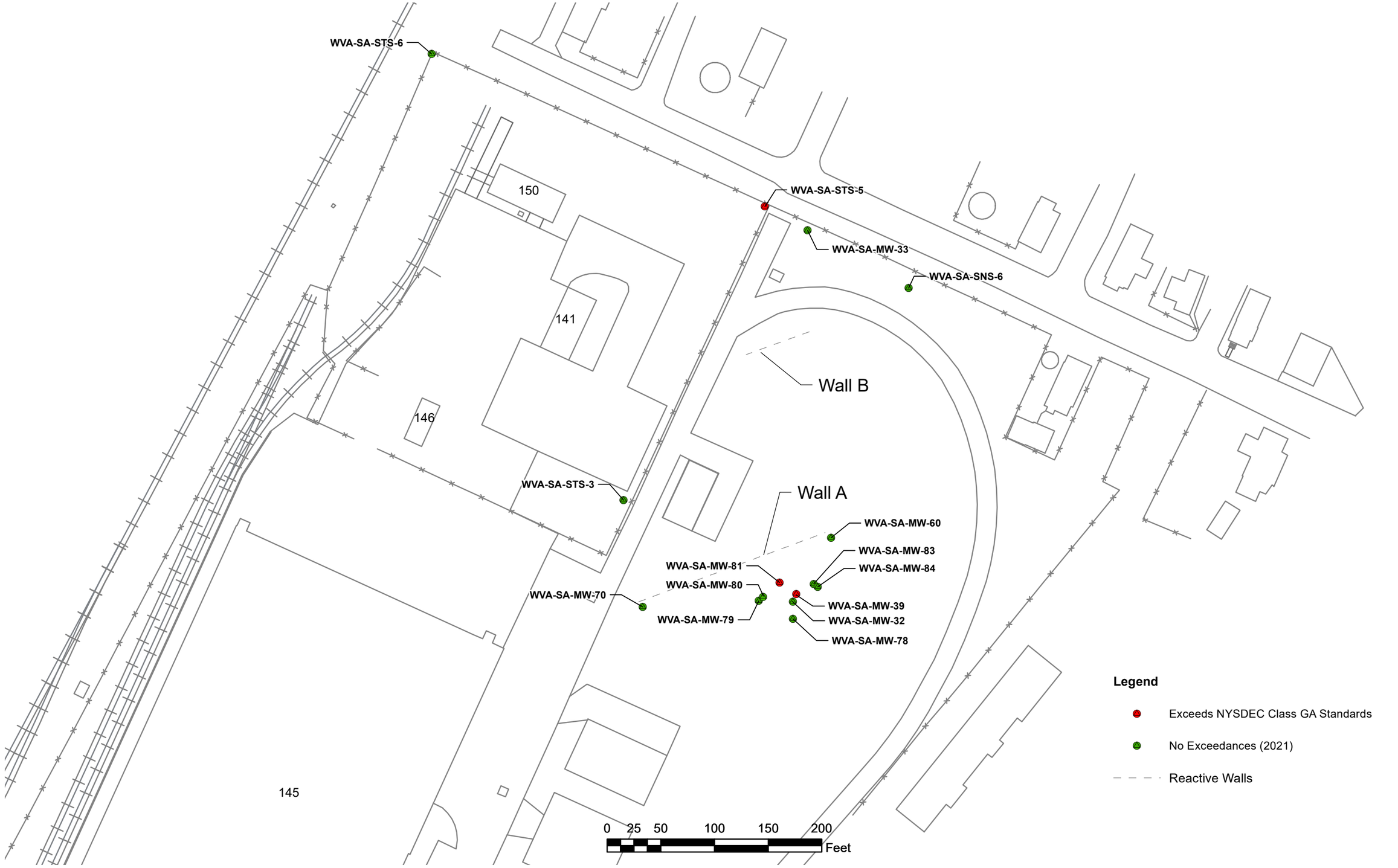
LONG-TERM MONITORING
WATERVLIET ARSENAL, WATERVLIET, NEW YORK

TRENDS IN TOTAL CVOC CONCENTRATIONS - BUILDING 114/121 AREA

ARCADIS

SEPTEMBER - OCTOBER 2021

FIGURE 3-10



T:_ENV\Watervliet Arsenal\LTM\mxd\2021\FIG 3-11_SIA Exceedances 2021.mxd 1/7/2022 9:34:50 AM aw00976

US Army Corps of Engineers

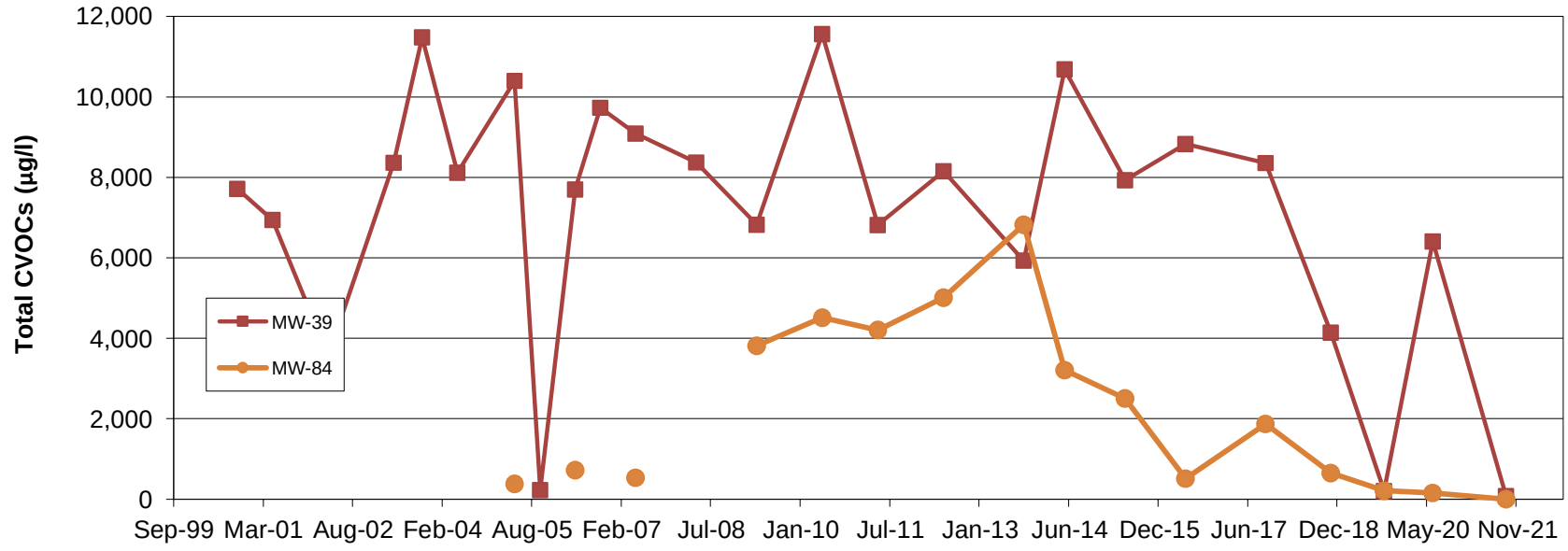
LONG-TERM MONITORING
WATERVLIET ARSENAL
WATERVLIET, NEW YORK

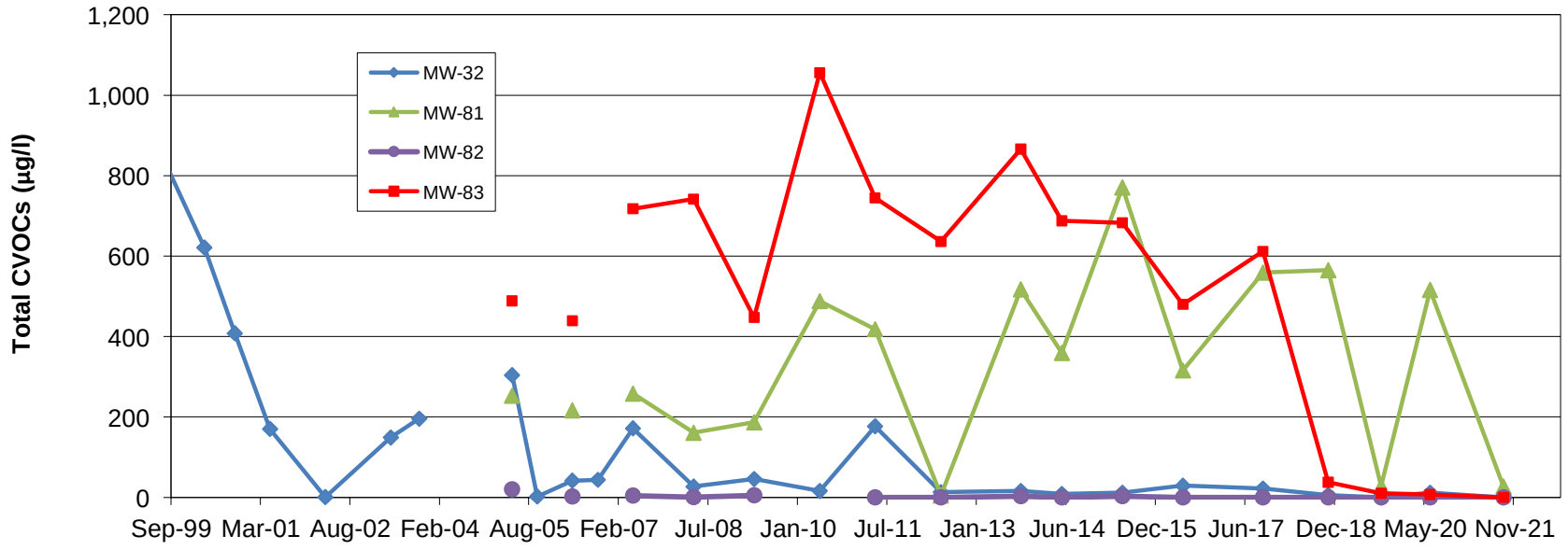
SIBERIA AREA
GROUNDWATER SAMPLE EXCEEDANCES (VOCs) - 2021

ARCADIS

SEPTEMBER - OCTOBER 2021

FIGURE 3-11





US Army Corps of Engineers
Baltimore District

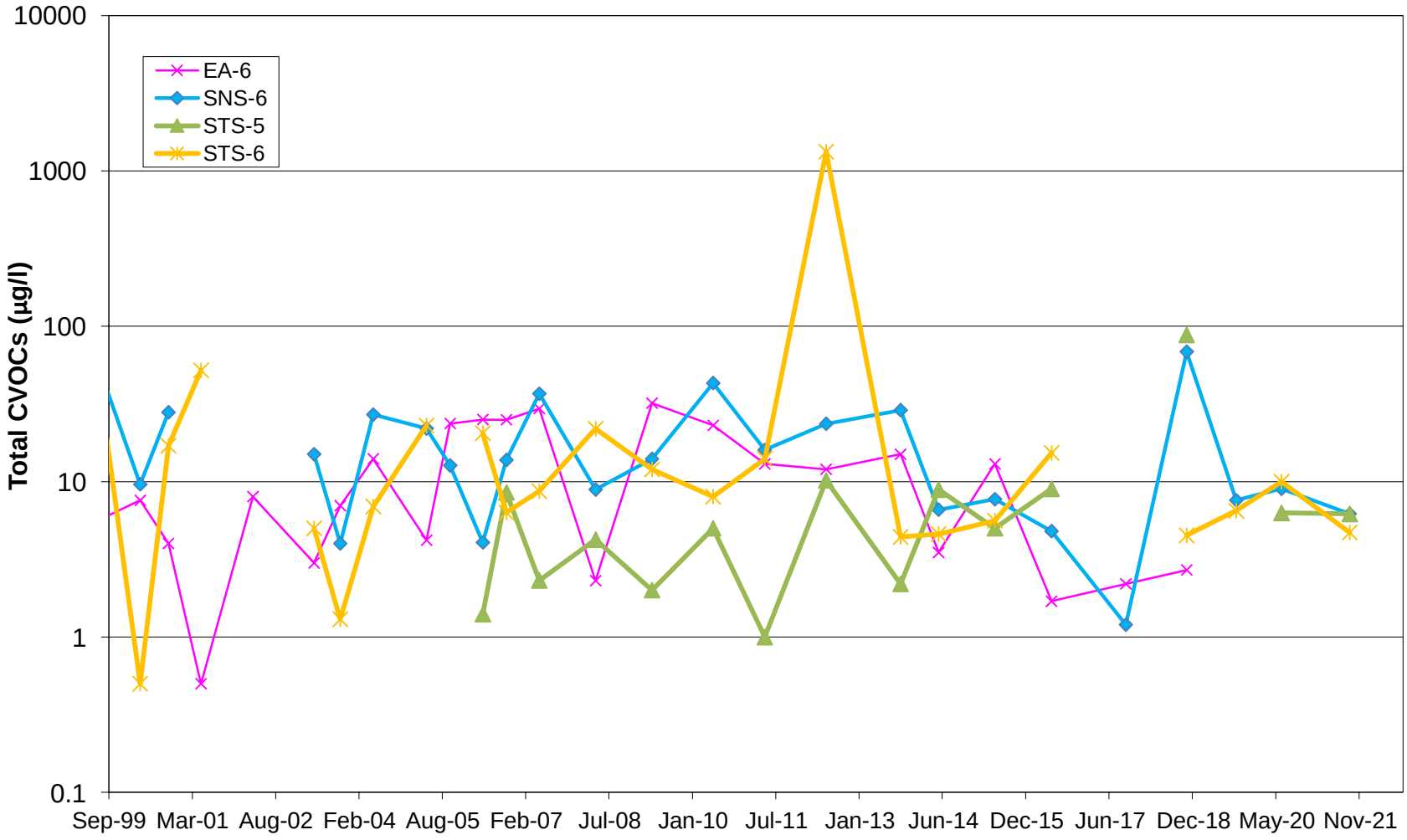
LONG-TERM MONITORING
SIBERIA AREA, WATERVLIET ARSENAL, WATERVLIET, NEW YORK

TRENDS IN TOTAL CVOC CONCENTRATIONS - BURN PIT AREA

ARCADIS

SEPTEMBER - OCTOBER 2021

FIGURE 3-12



US Army Corps of Engineers
Baltimore District

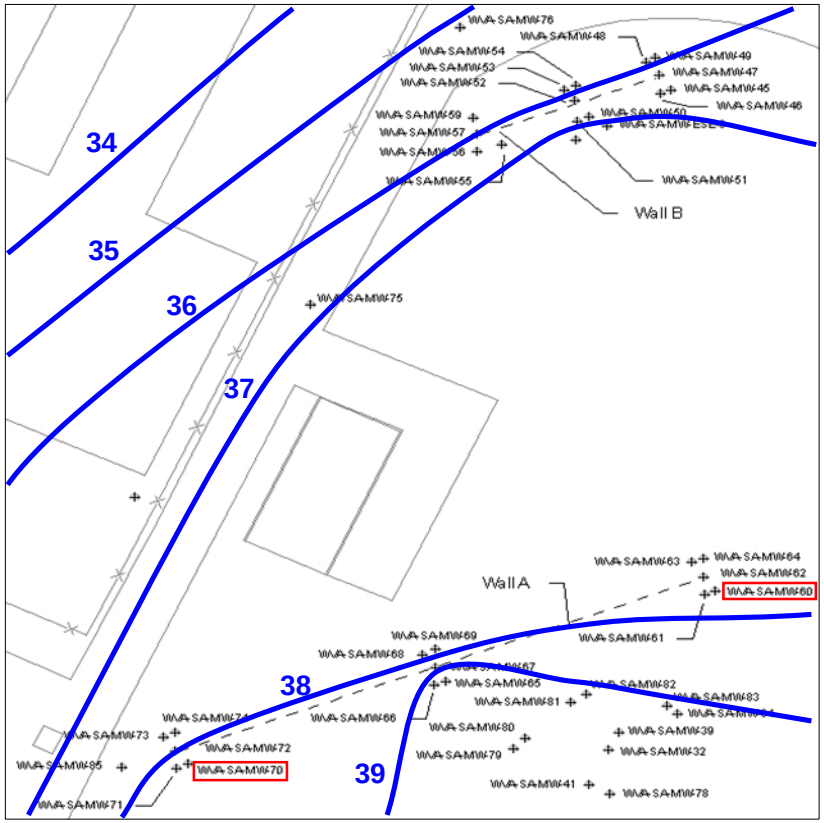
LONG-TERM MONITORING
SIBERIA AREA, WATERVLIET ARSENAL, WATERVLIET, NEW YORK

TRENDS IN TOTAL CVOC CONCENTRATIONS - BOUNDARY & SEWER

ARCADIS

SEPTEMBER - OCTOBER 2021

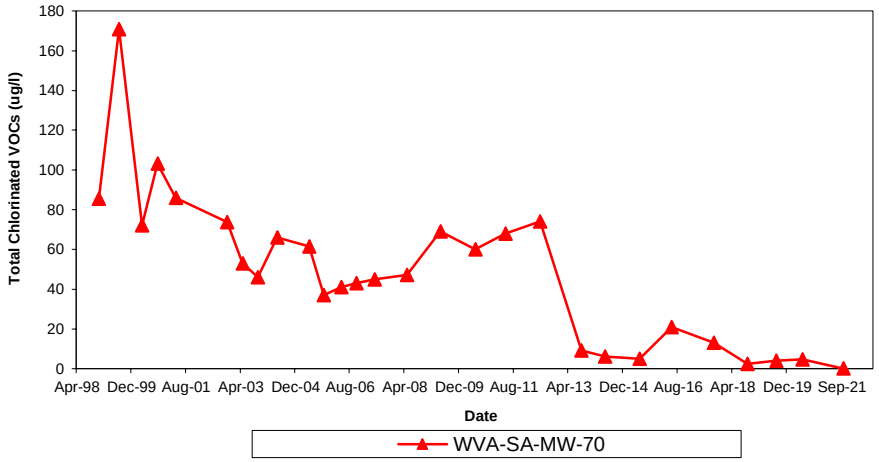
FIGURE 3-13

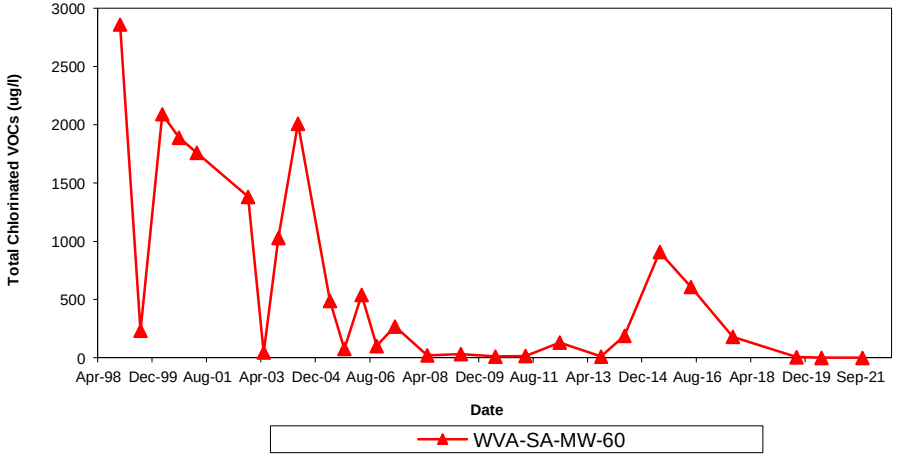


LEGEND

Weathered Bedrock Monitoring Well

UP-GRADIENT





Note: Vertical scales are not the same.
Potentiometric contours based on May 2009 measurements.

US Army Corps of Engineers
Baltimore District

LONG-TERM MONITORING
SIBERIA AREA, WATERVLIET ARSENAL, WATERVLIET, NEW YORK
TOTAL CHLORINATED ORGANIC COMPOUNDS
UPGRADIENT OF PERMEABLE REACTIVE WALLS

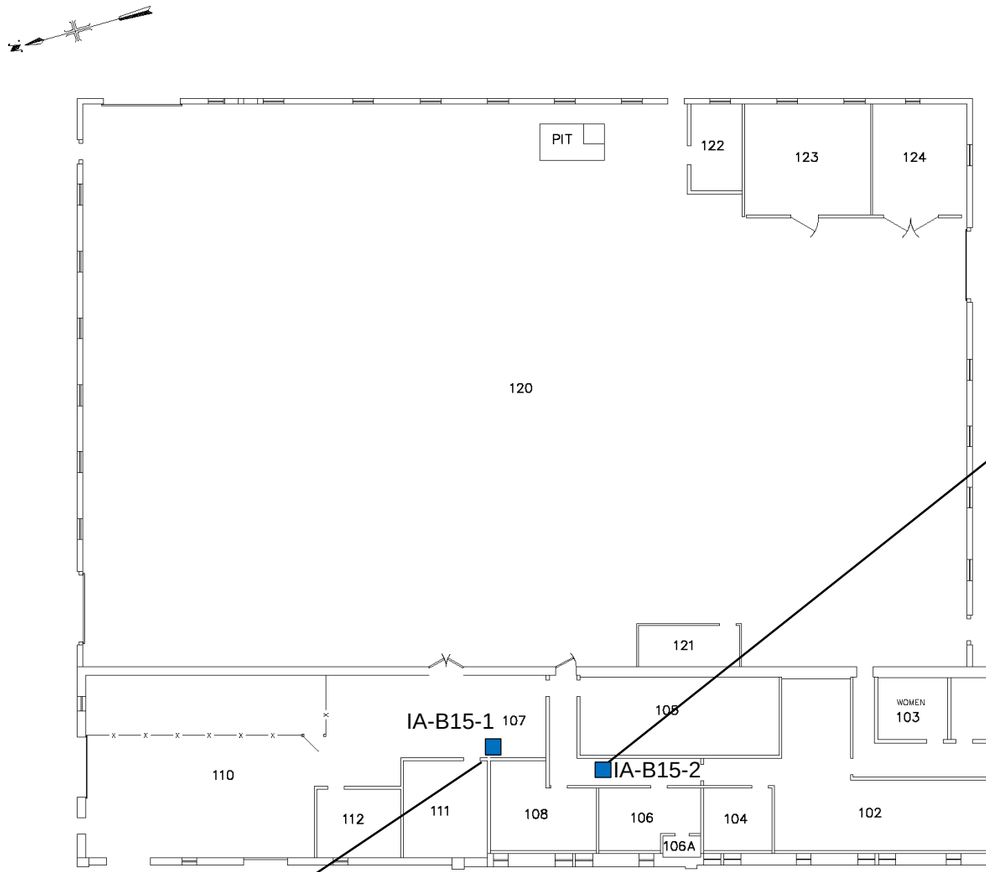
SEPTEMBER - OCTOBER 2021

FIGURE 3-14

ARCADIS Design & Consultancy for natural and built assets

Figure 6-1
Indoor Air VOC Concentrations
Building 15 - No SSDS

Watervliet Arsenal
Watervliet, New York



Sample ID	IA-B15-2
Sample Date	12/15/2021
Units	µg/m^3
COMPOUND	
Carbon Tetrachloride	0.45

Sample ID	IA-B15-1
Sample Date	12/16/2021
Units	µg/m^3
COMPOUND	
Carbon Tetrachloride	0.46

LEGEND:

DOOR
WINDOW
INTERIOR WALL
EXTERIOR WALL
STAIRS
HAND RAIL
CAGED AREA
COLUMNS

NOT TO SCALE

BUILDING 15

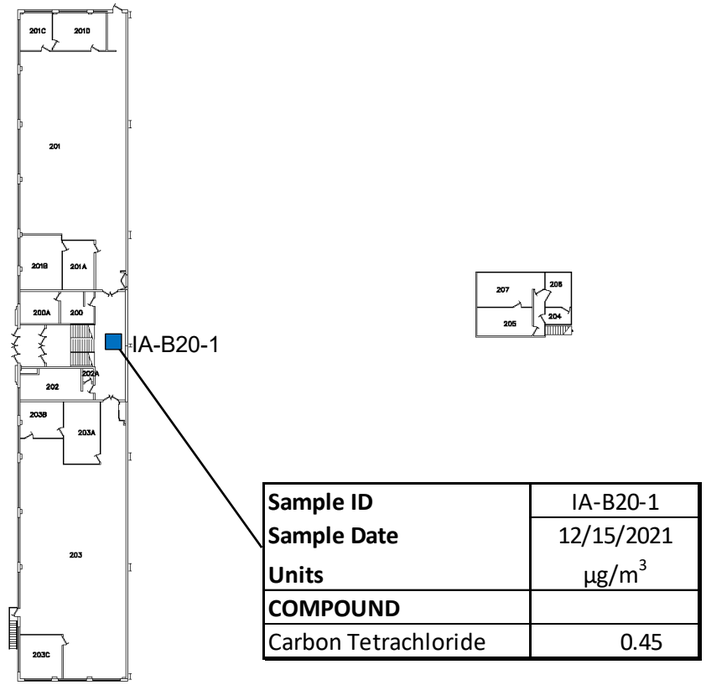
WATERVLIET ARSENAL
WATERVLIET, NEW YORK

	Name	Date	Rev.	Date	Description
DRAWN	JJN	10/22/07			
CHECKED	–	–			
SUBMITTED	–	–	Scale: 1/8"=1'-0"		
			Date: OCTOBER 2007		
CHIEF ENGINEERING DIVISION			Drawing Number		Sheet
DIRECTOR, ENGINEERING & HOUSING			6016–15–1		1 OF 1

ARCADIS Design & Consultancy for natural and built assets

Figure 6-2
Indoor Air VOC Concentrations
Building 20 – Type B SSDS

Watervliet Arsenal
Watervliet, New York



Sample ID	IA-B20-1
Sample Date	12/15/2021
Units	µg/m^3
COMPOUND	
Carbon Tetrachloride	0.45

LEGEND:
- DOOR
- WINDOW
- INTERIOR WALL / EXTERIOR WALL
- STAIRS
- HAND RAIL / CAGED AREA
- COLUMNS

NOT TO SCALE

BUILDING 20 – SECOND FLOOR

WATERVLIET ARSENAL
WATERVLIET, NEW YORK

	Name	Date	Rev.	Date	Description
DRAWN	RHT	–			
CHECKED	EAG	6/22/07			
SUBMITTED	–	–	Scale: 1/16"=1'-0"		
CHIEF ENGINEERING DIVISION			Date: APRIL 2007		
DIRECTOR, ENGINEERING & HOUSING			Drawing Number		Sheet
			6017–20–2		2 OF 2

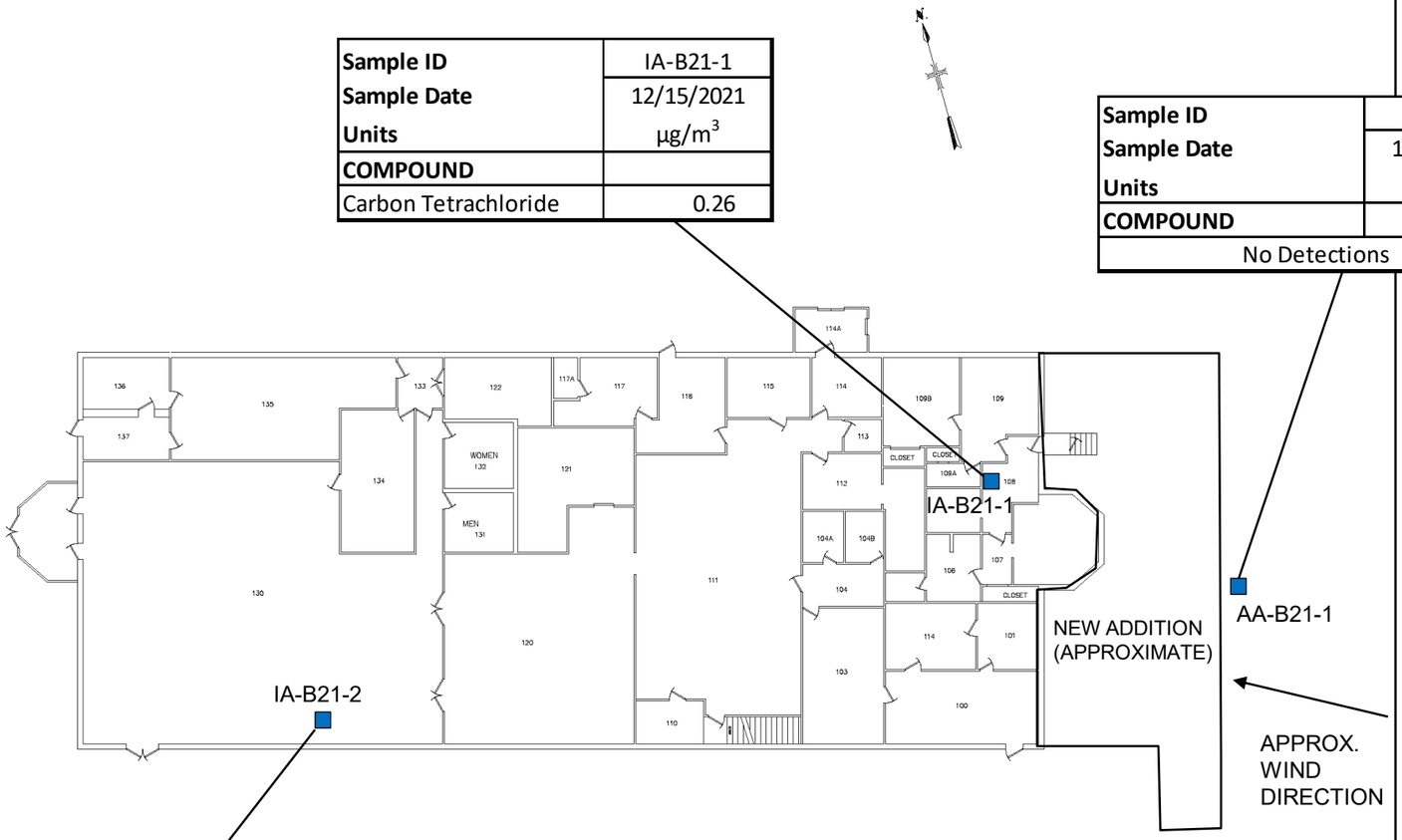
Figure 6-3
Indoor Air VOC Concentrations
Building 21 – Type A SSDS

Watervliet Arsenal
Watervliet, New York

Sample ID	IA-B21-1
Sample Date	12/15/2021
Units	µg/m^3
COMPOUND	
Carbon Tetrachloride	0.26

Sample ID	AA-B21-1
Sample Date	12/15/2021
Units	µg/m^3
COMPOUND	
No Detections	

Sample ID	IA-B21-2
Sample Date	12/15/2021
Units	µg/m^3
COMPOUND	
Carbon Tetrachloride	0.48



LEGEND:

DOOR
WINDOW
INTERIOR WALL
EXTERIOR WALL
STAIRS
HAND RAIL
CAGED AREA
COLUMNS

NOT TO SCALE

BUILDING 21

WATERVLIET ARSENAL
WATERVLIET, NEW YORK

	Name	Date	Rev.	Date	Description
DRAWN	TAL	–			
CHECKED	DAG	6/22/07			
SUBMITTED	–	–	Scale: 1/8"=1'-0"		
			Date: DECEMBER 2007		
CHIEF ENGINEERING DIVISION			Drawing Number		Sheet
DIRECTOR, ENGINEERING & HOUSING			6018-21-1		1 OF 1

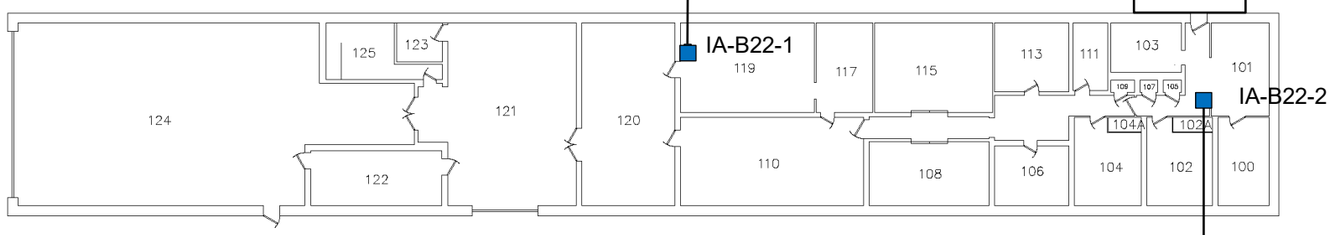
3RDTS/Row IMAGES/none
User: Lewandowski Sym: PWRSE S1:\ACAD\PROJ\WVA BUILDING AS-Built\TS\DRAWINGS\3118-AS1.DWG Scale:1:1 Date:01/17/2008 Time:10:35 Layout:Layout1

Figure 6-4
Indoor Air VOC Concentrations
Building 22 – Type C SSDS

Watervliet Arsenal
Watervliet, New York

Sample ID	IA-B22-1
Sample Date	12/15/2021
Units	µg/m^3
COMPOUND	
Carbon Tetrachloride	0.46

TO BUILDING 21



Sample ID	IA-B22-2
Sample Date	12/15/2021
Units	µg/m^3
COMPOUND	
Tetrachloroethene	0.3
Carbon Tetrachloride	0.45

LEGEND:

DOOR
WINDOW
INTERIOR WALL
EXTERIOR WALL
STAIRS
HAND RAIL
CAGED AREA
COLUMNS

NOT TO SCALE

BUILDING 22 – FIRE STATION

WATERVLIET ARSENAL
WATERVLIET, NEW YORK

	Name	Date	Rev.	Date	Description
DRAWN	TAL	–			
CHECKED	EAG	6/22/07			
SUBMITTED	–	–	Scale: 1/8"=1'-0"		
			Date: DECEMBER 2007		
CHIEF ENGINEERING DIVISION			Drawing Number		Sheet
DIRECTOR, ENGINEERING & HOUSING			6019-22-1		1 OF 1

ARCADIS Design & Consultancy for natural and built assets

Figure 6-5
Indoor Air VOC Concentrations
Building 25 – Type B SSDS

Watervliet Arsenal
Watervliet, New York

Sample ID	IA-B25-5
Sample Date	12/15/2021
Units	µg/m^3
COMPOUND	
Carbon Tetrachloride	0.58

Sample ID	IA-B25-2
Sample Date	12/15/2021
Units	µg/m^3
COMPOUND	
Trichloroethene	0.16
1,2-Dichloroethane	0.13
Carbon Tetrachloride	0.44



Sample ID	IA-B25-4
Sample Date	12/15/2021
Units	µg/m^3
COMPOUND	
Carbon Tetrachloride	0.45
Trichloroethene	0.18
1,2-Dichloroethane	0.16

Sample ID	IA-B25-3
Sample Date	12/15/2021
Units	µg/m^3
COMPOUND	
1,2-Dichloroethane	0.11 J
Carbon Tetrachloride	0.64

LEGEND:
DOOR
WINDOW
INTERIOR WALL
EXTERIOR WALL
STAIRS
HAND RAIL
CAGED AREA
COLUMNS

Sample ID	IA-B25-1
Sample Date	12/15/2021
Units	µg/m^3
COMPOUND	
Trichloroethene	0.38
Carbon Tetrachloride	0.45

NOT TO SCALE

BUILDING 25 – THIRD FLOOR

WATERVLIET ARSENAL
WATERVLIET, NEW YORK

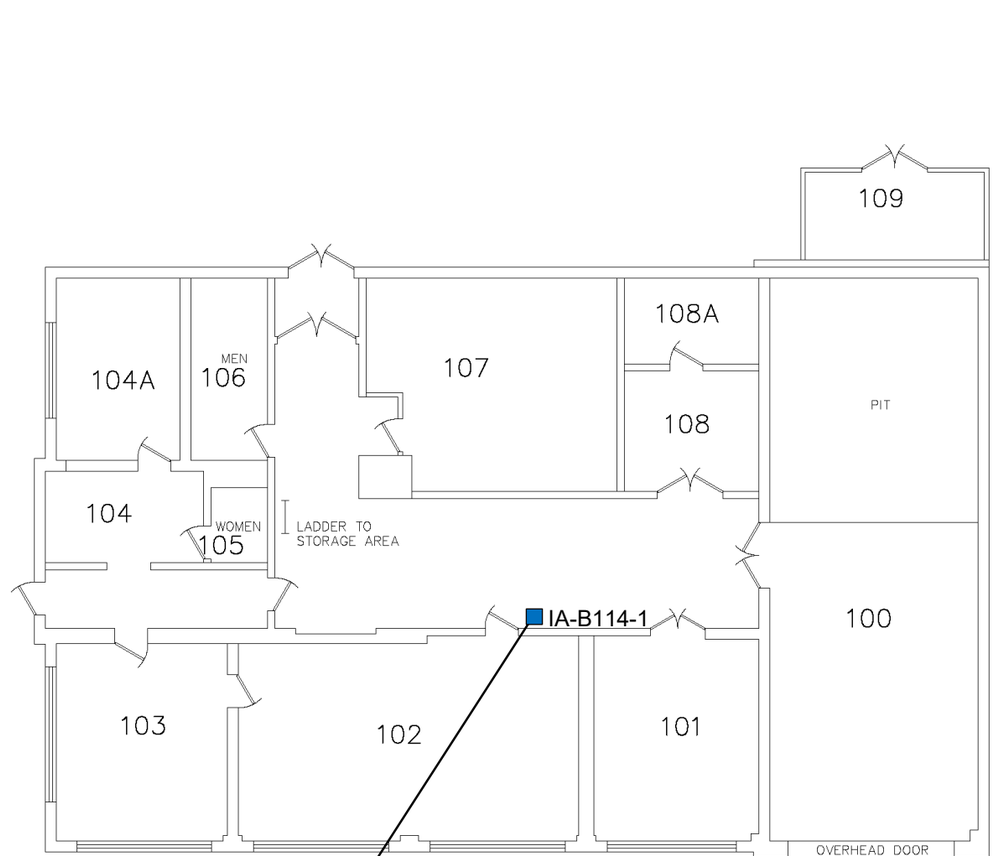
	Name	Date	Rev.	Date	Description
DRAWN	RNT	–			
CHECKED	EAG	6/22/07			
SUBMITTED	–	–			

Scale: 3/32"=1'-0"
Date: APRIL 2007
CHIEF ENGINEERING DIVISION
DIRECTOR, ENGINEERING & HOUSING
Drawing Number: 6003-25-3
Sheet: 3 OF 3

ARCADIS Design & Consultancy for natural and built assets

Figure 6-6
Indoor Air VOC Concentrations
Building 114 – Type A SSDS

Watervliet Arsenal
Watervliet, New York



Sample ID	IA-B114-1
Sample Date	12/15/2021
Units	µg/m^3
COMPOUND	
Carbon Tetrachloride	0.48
Tetrachloroethene	0.24
1,1,1-Trichloroethane	0.48

LEGEND:

DOOR
WINDOW
INTERIOR WALL
EXTERIOR WALL
STAIRS
HAND RAIL
CAGED AREA
COLUMNS

NOT TO SCALE

BUILDING 114

WATERVLIET ARSENAL
WATERVLIET, NEW YORK

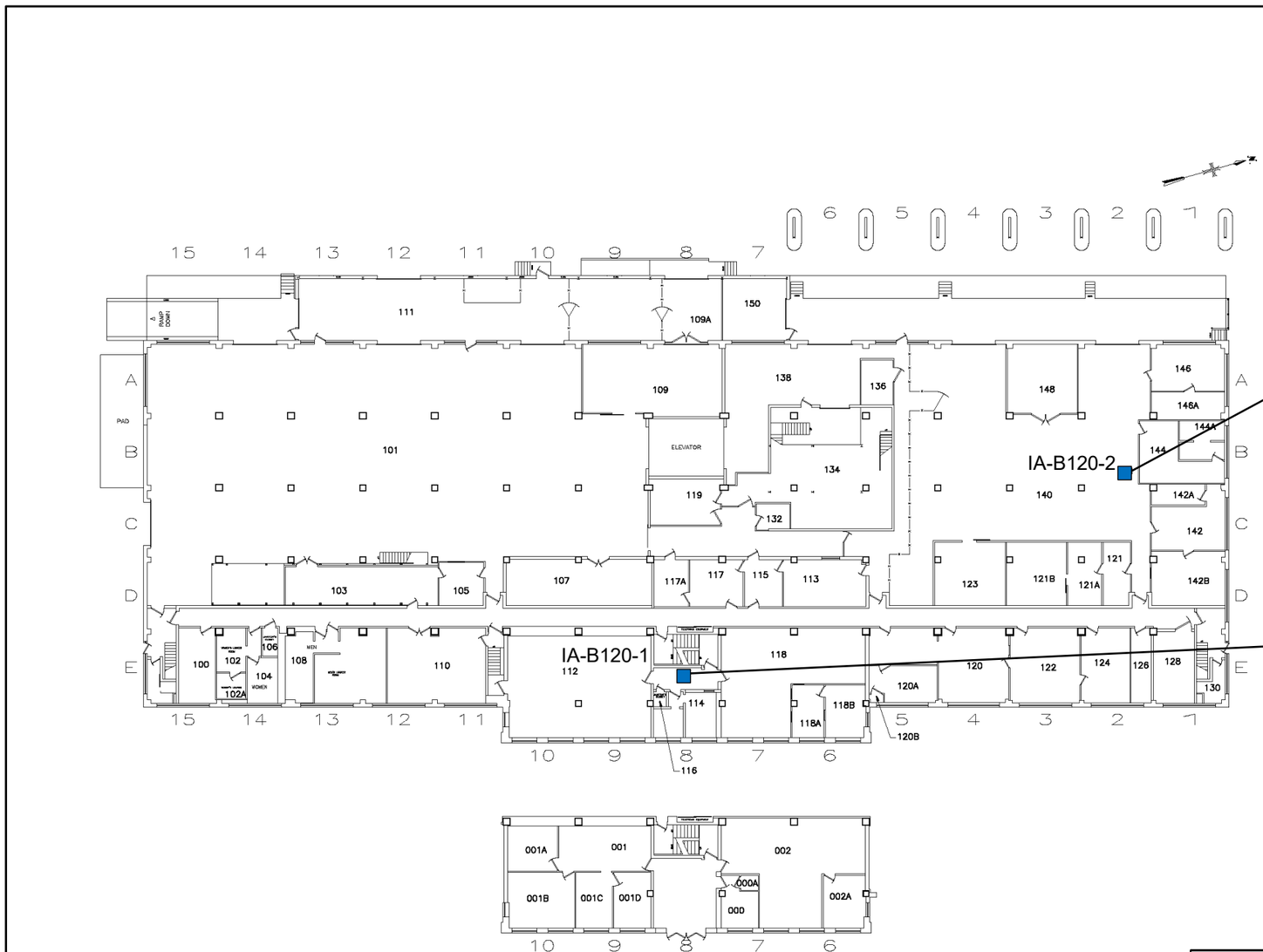
	Name	Date	Rev.	Date	Description
DRAWN	RNT	–			
CHECKED	EAG	6/22/07			
SUBMITTED	–	–	Scale: 1/4"=1'-0"		
CHIEF ENGINEERING DIVISION			Date: APRIL 2007		
DIRECTOR, ENGINEERING & HOUSING			Drawing Number: 6010–114		Sheet: 1 OF 1

3/8/21 RAISE3.tmw
User: Lawrenchewis Spec:PWWE STANDARD File:\\CAD\PROJ\2161\WVA BUILDING AS-BUILTS\DRAWINGS\2161B-B114.DWG Scale:1:1 Date:3/16/2006 Time:08:13 Layout:Layout1

ARCADIS Design & Consultancy for natural and built assets

Figure 6-7
Indoor Air VOC Concentrations
Building 120 Type C SSDS

Watervliet Arsenal
Watervliet, New York



BUILDING 120 – FIRST FLOOR "A"

NOT TO SCALE

BUILDING 120 – FIRST FLOOR					
WATERVLIET ARSENAL, WATERVLIET, NEW YORK					
	Name	Date	Rev.	Date	Description
DRAWN	RNT	–			
CHECKED	EAG	6/22/07			
SUBMITTED	–	–	Scale: SCALE: 3/32"=1'-0"		
CHIEF ENGINEERING DIVISION			Date: APRIL 2007		
DIRECTOR, ENGINEERING & HOUSING			Drawing Number: 6012-120-1		Sheet: 1 OF 3

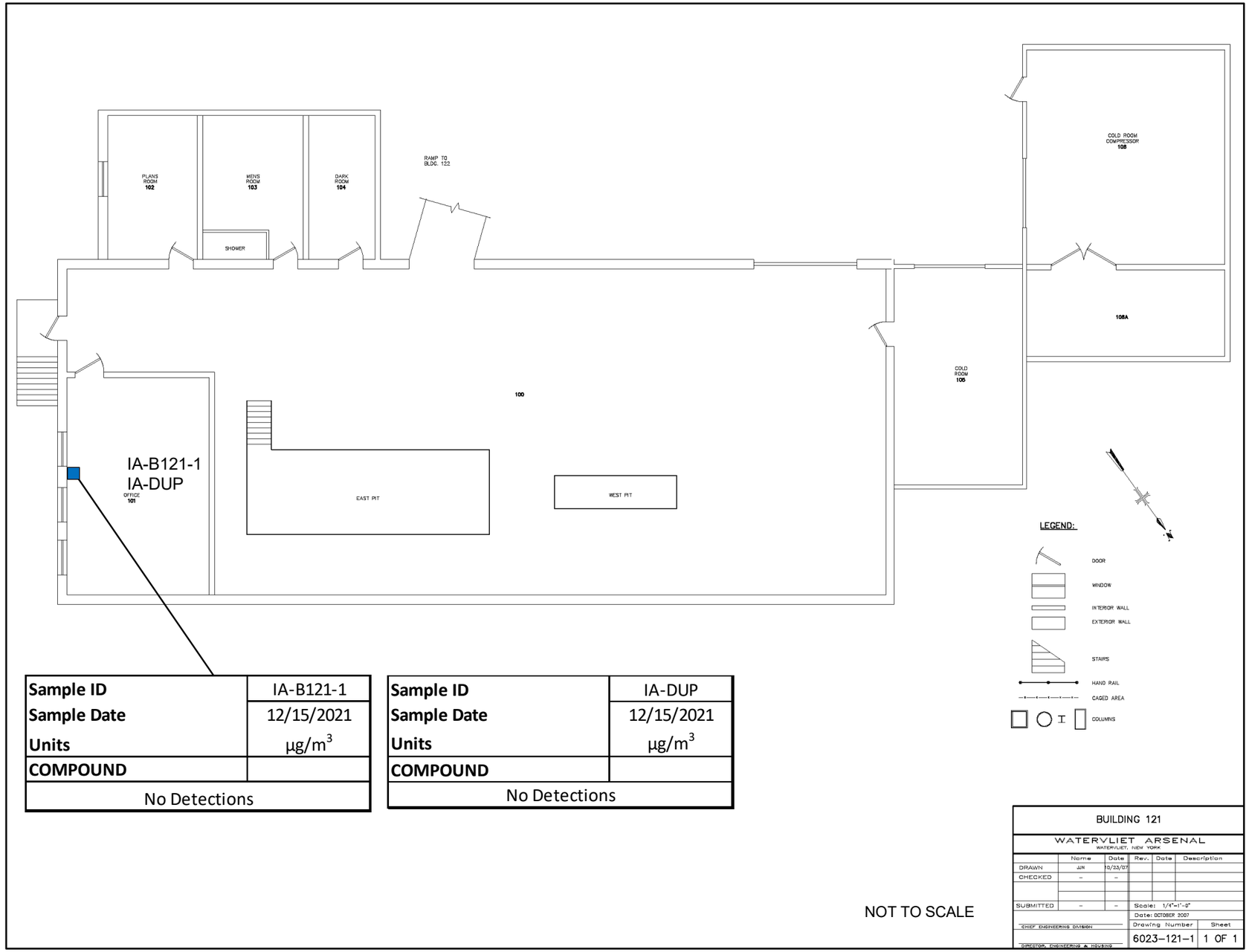
Sample ID	IA-B120-2
Sample Date	12/15/2021
Units	µg/m^3
COMPOUND	
Trichloroethene	0.2
Tetrachloroethene	0.24
Carbon Tetrachloride	0.47
1,1,1-Trichloroethane	0.23

Sample ID	IA-B120-1
Sample Date	12/15/2021
Units	µg/m^3
COMPOUND	
Trichloroethene	0.22
Tetrachloroethene	0.22
1,1,1-Trichloroethane	0.27
Carbon Tetrachloride	0.48

ARCADIS Design & Consultancy for natural and built assets

Figure 6-8
Indoor Air VOC Concentrations
Building 121 – Type C SSDS

Watervliet Arsenal
Watervliet, New York



Sample ID	IA-B121-1
Sample Date	12/15/2021
Units	µg/m^3
COMPOUND	
No Detections	

Sample ID	IA-DUP
Sample Date	12/15/2021
Units	µg/m^3
COMPOUND	
No Detections	

NOT TO SCALE

BUILDING 121
WATERVLIET ARSENAL
WATERVLIET, NEW YORK

	Name	Date	Rev.	Date	Description
DRAWN	JJN	10/23/07			
CHECKED	–	–			
SUBMITTED	–	–	Scale: 1/4"=1'-0"		
			Date: OCTOBER 2007		
CHIEF ENGINEERING DIVISION			Drawing Number		Sheet
			6023–121–1		1 OF 1
DIRECTOR, ENGINEERING & HOUSING					

ARCADIS Design & Consultancy for natural and built assets

Figure 6-9
Indoor Air VOC Concentrations
Building 130 – Type C SSDS

Watervliet Arsenal
Watervliet, New York



Sample ID	IA-B130-1
Sample Date	12/15/2021
Units	µg/m^3
COMPOUND	
Tetrachloroethene	0.54
Carbon Tetrachloride	0.48

LEGEND:

DOOR
WINDOW
INTERIOR WALL
EXTERIOR WALL
STAIRS
HAND RAIL
CAGED AREA
COLUMNS

NOT TO SCALE

BUILDING 130

WATERVLIET ARSENAL
WATERVLIET, NEW YORK

	Name	Date
DRAWN	TAL	–
CHECKED		
SUBMITTED	–	–

Rev.	Date	Description

Scale: 1/8"=1'-0"
Date: DECEMBER 2007
Drawing Number: 6026–130
Sheet: 1 OF 1

CHIEF, ENGINEERING DIVISION

DIRECTOR, ENGINEERING & HOUSING

TABLES

LTM - 2021
Long Term Monitoring Sampling Wells (Updated Sept 2021)
Main Manufacturing Area
Watervliet Arsenal, Watervliet, New York

Well	Area Monitored	Geologic Unit	VOCs	Metals	Frequency
83DM-SP-3	WWTP	Bedrock	**X**	**X** (c)	
83DM-SP-4	WWTP	Bedrock	**X** (b)		
86EM-SP-1A	Building 25	Overburden	**X** (b)		
86EM-SP-6	WWTP	Overburden	**X**	**X**	
92EM-SP-8	WWTP	Overburden	**X** (b)	**X (c)**	
93EM-SP-9	WVA boundary	Overburden	**X** (b)		
93EM-SP-11	Building 25	Overburden	**X**	**X (**d**)**	
93EM-SP-13	Building 135	Bedrock	**X** (b)		VOCs every 5 yrs. - Next in 2026
94EM-MW-19	Building 15	Bedrock	**X**	**X**	
94EM-MW-20	Building 15	Bedrock	**X**	**X**	
94EM-MW-21	Building 15	Bedrock	**X**	**X**	
93EM-RW-2	Building 114	Bedrock	**X** (b)		
WVA-AW-25-MW-2	Building 25	Bedrock	**X** (b)		
WVA-AW-25-MW-3	Building 25	Overburden	**X** (b)		
WVA-AW-25-MW-6	Building 25	Overburden	**X** (b)		
WVA-AW-35-MW-12	Building 35	Overburden		**X (**d**)**	
NMT Pit	Building 35	--		**X (**d**)**	
WVA-AW-135-MW-4	Building 135	Bedrock	**X** (b)		VOCs every 5 yrs. - Next in 2026
WVA-AW-MW-26	WVA boundary	Bedrock	**X** (b)		VOCs every 5 yrs. - Next in 2026
WVA-AW-MW-27	WVA boundary	Overburden	**X** (b)		VOCs every 5 yrs. - Next in 2026
WVA-AW-MW-32	WVA boundary	Weathered	**X** (b)		VOCs every 5 yrs. - Next in 2026
WVA-AW-MW-35	Building 20	Bedrock	**X** (b)		
WVA-AW-MW-38	WVA boundary	Bedrock	**X** (b)		VOCs every 5 yrs. - Next in 2026

Notes:
WWTP - Wastewater treatment plant.
(b) Well sampled using passive diffusion bags.
(c) Chromium only.
(d) Hexavalent Chromium only.

LTM - 2021
Long Term Monitoring Sampling Wells (Updated Sept 2021)
Main Manufacturing Area
Watervliet Arsenal, Watervliet, New York

Well	Area Monitored	Geologic Unit	VOCs	Metals	Frequency
WVA-AW-MW-47	WVA boundary	Weathered	**X** (b)		
WVA-AW-MW-52	Building 114	Bedrock	**X** (b)		
WVA-AW-MW-64	Building 114	Bedrock	**X** (b)		
B121-N	Building 121	Hybrid (a)	**X** (b)		VOCs every 5 yrs. - Next in 2026
B121-S	Building 121	Hybrid (a)	**X** (b)		VOCs every 5 yrs. - Next in 2026
WVA-AW-MW-BLD-110	Building 110	Bedrock	**X** (b)		VOCs every 5 yrs. - Next in 2026
WVA-B35-PW-1	Building 110	Bedrock	**X** (b)		VOCs every 5 yrs. - Next in 2026
WVA-MW-82R-1	Building 40	Bedrock	**X**		
WVA-MW-82R-2	Building 40	Bedrock	**X**		
WVA-MW-82R-3	Building 40	Bedrock	**X**		
WVA-MW-83-1	Building 40	Bedrock	**X**		
WVA-MW-83-2	Building 40	Bedrock	**X**		
WVA-MW-83-3	Building 40	Bedrock	**X**		
WVA-MW-84R-1	Building 40	Bedrock	**X**		
WVA-MW-84R-2	Building 40	Bedrock	**X**		
WVA-MW-84R-3	Building 40	Bedrock	**X**		
WVA-MW-85R-1	Building 40	Bedrock	**X**		
WVA-MW-85R-2	Building 40	Bedrock	**X**		
WVA-MW-85R-3	Building 40	Bedrock	**X**		
WVA-MW-86R-1	Building 40	Bedrock	**X**		
WVA-MW-86R-2	Building 40	Bedrock	**X**		
WVA-MW-86R-3	Building 40	Bedrock	**X**		

Notes:
WWTP - Wastewater treatment plant.
(b) Well sampled using passive diffusion bags.
(c) Chromium only.
(d) Hexavalent Chromium only.

LTM - 2021
Long Term Monitoring Sampling Wells (Updated Sept 2021)
Siberia Area
Watervliet Arsenal, Watervliet, New York

Well	Area Monitored	Geologic Unit	VOCs (b)
WVA-SA-MW-32	Burn Pit	Overburden	**X** (b)
WVA-SA-MW-33	WVA boundary	Overburden	**X** (b)
WVA-SA-MW-39	Burn Pit	Weathered	**X** (b)
WVA-SA-MW-60	Reactive Wall	Weathered	**X** (b)
WVA-SA-MW-70	Reactive Wall	Overburden	**X** (b)
WVA-SA-MW-78	Burn Pit	Bedrock	**X** (b)
WVA-SA-MW-79	Burn Pit	Bedrock	**X** (b)
WVA-SA-MW-80	Burn Pit	Bedrock	**X** (b)
WVA-SA-MW-81	Burn Pit	Bedrock	**X** (b)
WVA-SA-MW-83	Burn Pit	Bedrock	**X** (b)
WVA-SA-MW-84	Burn Pit	Bedrock	**X** (b)
WVA-SA-STS-3	Sewer	Storm Sewer	**X**
WVA-SA-STS-5	Sewer	Storm Sewer	**X**
WVA-SA-STS-6	Sewer	Storm Sewer	**X**
WVA-SA-SNS-6	Sewer	Sanitary Sewer	**X**

Notes:
(b) Well sampled using passive diffusion bags.

Table 2-3
Summary of Incomplete Sampling Locations
2021 Long Term Monitoring
Watervliet Arsenal
Watervliet, New York

Monitoring Well	September 2021
Main Manufacturing Area	
	All wells sampled
Siberia Area	
	All wells sampled

Table 3-1
Groundwater Sample Exceedances (2021)
Main Manufacturing Area
Watervliet Arsenal, Watervliet, New York

Well	Parameter	Result (µg/L)		NYSDEC GA Standard (µg/L)
86EM-SP-1A	Trichloroethene	8.8		5
93EM-RW-2	cis-1 2-Dichloroethene	63		5
	Tetrachloroethene	35		5
	Trichloroethene	76		5
94EM-MW-19	Chromium	382		50
94EM-MW-20	Chromium	72.8		50
94EM-MW-21	Chromium	191		50
B121-N	cis-1 2-Dichloroethene	34		5
	Vinyl Chloride	26		2
NMT PIT	Hexavalent Chromium	21,700		50
WVA-AW-25-MW-2	1 1-Dichloroethane	5.4		5
	cis-1 2-Dichloroethene	22		5
	Vinyl Chloride	14		2
WVA-AW-25-MW-3	cis-1 2-Dichloroethene	6		5
WVA-AW-MW-47	Vinyl Chloride	3.2		2
WVA-AW-MW-52	Tetrachloroethene	7.4		5
WVA-AW-MW-64	cis-1 2-Dichloroethene	56		5
	Tetrachloroethene	130		5
	Trichloroethene	47		5
WVA-MW-82R-1	cis-1 2-Dichloroethene	67		5
	Vinyl Chloride	56		2
WVA-MW-82R-2	cis-1 2-Dichloroethene	63		5
	Vinyl Chloride	28		2
WVA-MW-82R-3	cis-1 2-Dichloroethene	26		5
	Vinyl Chloride	20		2
WVA-MW-83-1	cis-1 2-Dichloroethene	3,400	D	5
	Tetrachloroethene	7,700	D	5
	Trichloroethene	3,100	D	5
	Vinyl Chloride	260		2
WVA-MW-83-2	cis-1 2-Dichloroethene	2,600	D	5
	Tetrachloroethene	6,400	D	5
	Trichloroethene	1,400	D	5
	Vinyl Chloride	260		2
WVA-MW-83-3	Tetrachloroethene	15		5
	Trichloroethene	13		5
WVA-MW-84R-1	cis-1 2-Dichloroethene	3,300	D	5
	Tetrachloroethene	230		5
	Trichloroethene	300		5
	Vinyl Chloride	280		2

Notes:
D - Dilution. Results obtained from analysis of a diluted sample.

Table 3-1
Groundwater Sample Exceedances (2021)
Main Manufacturing Area
Watervliet Arsenal, Watervliet, New York

Well	Parameter	Result (µg/L)		NYSDEC GA Standard (µg/L)
WVA-MW-84R-2	cis-1 2-Dichloroethene	23,000	D	5
	Tetrachloroethene	6,900	D	5
	Trichloroethene	3,200	D	5
	Vinyl Chloride	4,100	D	2
WVA-MW-84R-3	cis-1 2-Dichloroethene	4,400	D	5
	Tetrachloroethene	250		5
	Trichloroethene	240		5
	Vinyl Chloride	2,600	D	2
WVA-MW-85R-2	cis-1 2-Dichloroethene	1,600	D	5
	Tetrachloroethene	350	D	5
	Trichloroethene	230		5
	Vinyl Chloride	490	D	2
WVA-MW-85R-3	cis-1 2-Dichloroethene	1,500		5
	Tetrachloroethene	18,000	D	5
	Trichloroethene	1,600		5
	Vinyl Chloride	580		2
WVA-MW-86R-2	cis-1 2-Dichloroethene	3,700	D	5
	Vinyl Chloride	1,700	D	2
WVA-MW-86R-3	cis-1 2-Dichloroethene	1,200	D	5
	Tetrachloroethene	250		5
	trans-1 2-Dichloroethene	21		5
	Trichloroethene	110		5
	Vinyl Chloride	570	D	2

Notes:
D - Dilution. Results obtained from analysis of a diluted sample.

Table 3-2
Groundwater Sample Exceedances (2021)
Siberia Area
Watervliet Arsenal, Watervliet, New York

Well	Parameter	Result (µg/L)		NYSDEC GA Standard (µg/L)
WVA-SA-MW-39	cis-1 2-Dichloroethene	56		5
	Trichloroethene	14		5
WVA-SA-MW-81	Vinyl Chloride	26		2
WVA-SA-STS-5	Vinyl Chloride	4.2		2

Table 3-3
Summary of Baseline Groundwater Data and Trigger Values
Long-Term Monitoring
Watervliet Arsenal, Watervliet, New York

Monitoring Well	Area Monitored	Contaminant	Baseline Data (a)				Trigger Concentration (b)
			Minimum Concentration (ug/l)	Maximum Concentration (ug/l)	Average Concentration (ug/)	Standard Deviation (ug/l)	(ug/l)
MW-82R-1	Building 40	Vinyl chloride	45	250	88	73	307
		cis-1,2 DCE	170	940	526	261	1,310
		TCE	20	480	177	141	599
		PCE	41	2,200	746	650	2,696
MW-82R-2	Building 40	Vinyl chloride	48	160	89	42	214
		cis-1,2 DCE	110	350	224	77	454
		TCE	1	10	4.7	4	17
		PCE	1	10	4.6	3.7	16
MW-82R-3	Building 40	Vinyl chloride	4.2	76	22	25	97
		cis-1,2 DCE	1.1	65	35	46	174
		TCE	2.5	2.5	2.3	0.4	4
		PCE	0.6	2.5	2.2	0.8	4
MW-83-1	Building 40	Vinyl chloride	120	1,000	396	307	1,318
		cis-1,2 DCE	4,300	6,000	5,278	626	7,156
		TCE	2,400	10,000	4,022	2,313	10,963
		PCE	6,100	29,000	10,078	7,320	32,039
MW-83-2	Building 40	Vinyl chloride	320	980	550	197	1,141
		cis-1,2 DCE	5,900	11,000	8,344	1,671	13,358
		TCE	960	5,300	3,473	1,530	8,064
		PCE	250	12,000	7,283	4,369	20,391
MW-83-3	Building 40	Vinyl chloride	49	670	320	203	928
		cis-1,2 DCE	1,300	6,350	2,979	1,659	7,955
		TCE	190	915	361	260	1,141
		PCE	410	2,600	943	776	3,272

Table 3-3
Summary of Baseline Groundwater Data and Trigger Values
Long-Term Monitoring
Watervliet Arsenal, Watervliet, New York

Monitoring Well	Area Monitored	Contaminant	Baseline Data (a)				Trigger Concentration (b)
			Minimum Concentration (ug/l)	Maximum Concentration (ug/l)	Average Concentration (ug/)	Standard Deviation (ug/l)	(ug/l)
MW-84R-1	Building 40	Vinyl chloride	125	1,200	436	365	1,530
		cis-1,2 DCE	3,300	9,200	6,810	1,962	12,696
		TCE	1,300	5,100	2,085	1,125	5,461
		PCE	940	6,900	2,834	1,974	8,756
MW-84R-2	Building 40	Vinyl chloride	440	5,000	1,560	1,527	6,141
		cis-1,2 DCE	5,100	11,000	8,550	2,217	15,202
		TCE	8,150	20,000	13,675	3,583	24,423
		PCE	47,000	75,000	59,000	9,006	86,019
MW-84R-3	Building 40	Vinyl chloride	380	1,900	872	480	2,311
		cis-1,2 DCE	6,600	21,000	10,717	4,240	23,438
		TCE	3,400	14,000	7,333	3,319	17,290
		PCE	3,800	20,500	12,967	5,334	28,968
MW-85R-1	Building 40	Vinyl chloride	4	130	53	41	175
		cis-1,2 DCE	2	1,400	346	466	1,743
		TCE	0.5	235	30	77	261
		PCE	0.5	950	109	315	1,055
MW-85R-2	Building 40	Vinyl chloride	3	230	125	92	399
		cis-1,2 DCE	88	3,500	2,261	1,025	5,335
		TCE	16	730	436	275	1,261
		PCE	43	2,600	1,451	979	4,388

Table 3-3
Summary of Baseline Groundwater Data and Trigger Values
Long-Term Monitoring
Watervliet Arsenal, Watervliet, New York

Monitoring Well	Area Monitored	Contaminant	Baseline Data (a)				Trigger Concentration (b)
			Minimum Concentration (ug/l)	Maximum Concentration (ug/l)	Average Concentration (ug/)	Standard Deviation (ug/l)	(ug/l)
MW-85R-3	Building 40	Vinyl chloride	510	1,900	834	439	2,150
		cis-1,2 DCE	120	4,100	2,719	1,136	6,126
		TCE	255	3,400	1,346	928	4,130
		PCE	100	32,000	23,200	11,366	57,299
MW-86R-1	Building 40	Vinyl chloride	11	89	36	27	118
		cis-1,2 DCE	26	850	321	275	1,146
		TCE	1	305	45	99	342
		PCE	1.1	1,200	142	397	1,333
MW-86R-2	Building 40	Vinyl chloride	19	91	39	21	102
		cis-1,2 DCE	390	1,400	1,054	322	2,021
		TCE	92	440	240	128	625
		PCE	290	5,350	1,684	1,660	6,665
MW-86R-3	Building 40	Vinyl chloride	28	1,200	575	357	1,647
		cis-1,2 DCE	2,150	8,400	5,594	2,113	11,934
		TCE	240	1,800	753	564	2,445
		PCE	330	6,900	2,036	2,161	8,520

Table 3-3
Summary of Baseline Groundwater Data and Trigger Values
Long-Term Monitoring
Watervliet Arsenal, Watervliet, New York

Monitoring Well	Area Monitored	Contaminant	Baseline Data (a)				Trigger Concentration (b)
			Minimum Concentration (ug/l)	Maximum Concentration (ug/l)	Average Concentration (ug/)	Standard Deviation (ug/l)	(ug/l)
83DM-SP-1	Building 25	Vinyl chloride	0.4	25	4.1	7.4	26
		cis-1,2 DCE	1.2	89	14.5	27.0	95
		TCE	3.6	76	16	21.7	81
		PCE	0.25	2.5	1.6	1.1	5
86EM-SP-1A	Building 25	Vinyl chloride	0.4	2.5	1.7	1.0	5
		cis-1,2 DCE	1.5	3.2	2.3	0.6	4
		TCE	8.2	15	11.5	2.2	18
		PCE	0.25	2.5	1.4	1.1	5
WVA-AW-25-MW-2	Building 25	Vinyl chloride	2.8	15	7.8	3.8	19
		cis-1,2 DCE	9.4	64	22.7	15.8	70
		TCE	6	75	21.8	20.7	84
		PCE	0.3	2.5	1.6	1.1	5
WVA-AW-25-MW-3	Building 25	Vinyl chloride	13	27	20.7	5	36
		cis-1,2 DCE	100	190	143	33	242
		TCE	16	170	81.9	52.4	239
		PCE	0.25	5	2.3	1.7	7
WVA-AW-25-MW-6	Building 25	Vinyl chloride	0.8	12.5	4.9	3.8	16
		cis-1,2 DCE	0.6	12.5	4.7	4.1	17
		TCE	250	360	287	37.4	399
		PCE	0.5	12.5	3.8	3.8	15
WVA-AW-25-MW-7	Building 25	Vinyl chloride	0.5	2.5	1.5	0.9	4
		cis-1,2 DCE	0.25	16	3	4.8	17
		TCE	0.25	4	1.8	1.3	6
		PCE	0.25	14	2.8	4.1	15

Table 3-3
Summary of Baseline Groundwater Data and Trigger Values
Long-Term Monitoring
Watervliet Arsenal, Watervliet, New York

Monitoring Well	Area Monitored	Contaminant	Baseline Data (a)				Trigger Concentration (b)
			Minimum Concentration (ug/l)	Maximum Concentration (ug/l)	Average Concentration (ug/)	Standard Deviation (ug/l)	(ug/l)
WVA-AW-MW-52	Building 114	Vinyl chloride	0.4	2.5	1.7	1	5
		cis-1,2 DCE	0.5	2	1.2	0.5	3
		TCE	2	3.1	2.4	0.4	4
		PCE	2.5	7.4	5.4	1.4	10
WVA-AW-MW-64	Building 114	Vinyl chloride	58	780	503.8	214.8	1,148
		cis-1,2 DCE	380	2,500	1,648	569.1	3,355
		TCE	300	2,200	1,350	464.9	2,745
		PCE	990	5,300	3,619	1,218.8	7,275

Notes:
(a) Building 40 Baseline data calculated from 10 monitoring events (August 2004 through May 2009).
Building 25 and 114 baseline data calculated from 10 monitoring events (May 2004 through June 2009).
(b) Proposed trigger set at the 99% confidence interval (average plus 3 times standard deviation).
ug/l - micrograms per liter
DCE - Dichloroethene
TCE - Trichloroethene
PCE - Tetrachloroethene

Table 4-1
Summary of 2021 SSDS Operational Parameters - Building 20
Watervliet Arsenal
Watervliet, New York

Date	Total Flow (cfm)	VFD Speed (%)	Vacuum (inches H_2O)	Run Time (hours)	Alarm	Pre-carbon PID (ppm)	Post-carbon PID (ppm)	Notes
1/13/2021	192	85	-40	82308.3	None	NM	NM	C2 Offline
2/19/2021	206	85	-42	83142.9	Yes	NM	NM	C2 Offline. Influent Pressure Low Alarm. Offline
3/18/2021	222	93	-49	83320.2	Yes	NM	NM	Carbon Bypassed. Influent pressure low alarm
4/16/2021	222	93	-48	83949.1	Yes	NM	NM	Carbon Bypassed. Influent pressure low alarm
5/10/2021	222	93	-48	84487.9	Yes	NM	NM	Carbon Bypassed. Influent pressure low alarm
6/11/2021	292	50 HZ	-78	85193.2	None	NM	NM	Carbon Bypassed
7/19/2021	289	50 HZ	-78	86050.8	None	NM	NM	Carbon Bypassed
8/17/2021	292	50 HZ	-78	86695.6	Yes	NM	NM	Carbon Bypassed. Influent pressure low alarm
9/14/2021	292	50 HZ	-78	87325.4	None	NM	NM	Carbon Bypassed
10/15/2021	292	51HZ	-80	88020.7	None	NM	NM	Carbon Bypassed
11/15/2021	289	51 HZ	-80	88714.2	None	NM	NM	Carbon Bypassed
12/14/2021	292	51 HZ	-76	89370.3	None	NM	NM	Carbon Bypassed. New Vaccum Gauges Installed

NM - Not Measured

Table 4-2
Summary of 2021 Type A SSDS Operational Parameters - Building 21
Watervliet Arsenal
Watervliet, New York

Date	Total Flow (cfm)	Vacuum (inches H_2O)	Run Time (hours)	Alarm	Pre-carbon PID (ppm)	Post-carbon PID (ppm)	Notes
1/13/2021	25	-28	80859.1	None	NM	NM	Carbon Bypassed
2/19/2021	26	-29	81690.9	None	NM	NM	Carbon Bypassed
3/18/2021	25	-29	82318.8	None	NM	NM	Carbon Bypassed
4/16/2021	25	-28	82947.7	None	NM	NM	Carbon Bypassed
5/10/2021	23	-27	83490	None	NM	NM	Carbon Bypassed
6/10/2021	34	-31	84204.4	None	NM	NM	Carbon Bypassed
7/19/2021	33	-31	85060.5	None	NM	NM	Carbon Bypassed
8/17/2021	34	-31	85712.7	None	NM	NM	Carbon Bypassed
9/14/2021	36	-31	86342.6	None	NM	NM	Carbon Bypassed
10/15/2021	34	-31	87044.2	None	NM	NM	Carbon Bypassed. Vent fan shut down
11/15/2021	34	-32	87737.5	None	NM	NM	Carbon Bypassed
12/14/2021	30	-35	88393.5	None	NM	NM	Carbon Bypassed

NM - Not Measured

Table 4-3
Summary of 2021 SSDS Operational Parameters - Building 22
Watervliet Arsenal
Watervliet, New York

Date	Extraction Point	System On?	Vacuum (inches H_2O)	Total Flow (cfm)	Notes
1/13/2021	EW-1	Yes	-2.4	9.82	
	EW-2	Yes	-2	52	
2/19/2021	EW-1	Yes	-2.5	12.15	
	EW-2	Yes	-2	58.8	
3/18/2021	EW-1	Yes	-2.6	11.5	
	EW-2	Yes	-2	57.6	
4/16/2021	EW-1	Yes	-2.5	11.2	
	EW-2	Yes	-1.8	61.1	
5/10/2021	EW-1	Yes	-2.6	13.45	
	EW-2	Yes	-1.9	57	
6/10/2021	EW-1	Yes	-2.2	16.2	
	EW-2	Yes	-1.9	62.1	
7/19/2021	EW-1	Yes	-2.6	14.95	
	EW-2	Yes	-2	53.2	
8/17/2021	EW-1	Yes	-2.2	17	
	EW-2	Yes	-2	45.7	
9/14/2021	EW-1	Yes	-2.6	15.2	
	EW-2	Yes	-2	50.2	
10/15/2021	EW-1	Yes	-2.6	15.8	
	EW-2	Yes	-2	55.6	
11/15/2021	EW-1	Yes	-2.4	12	
	EW-2	Yes	-2	53.7	
12/14/2021	EW-1	Yes	-2.2	15.1	
	EW-2	Yes	-2	60.1	

NM - Not Measured

Table 4-4
Summary of 2021 SSDS Operational Parameters - Building 25
Watervliet Arsenal
Watervliet, New York

Date	Total Flow (cfm)	VFD Speed (%)	Vacuum (inches H_2O)	Run Time (hours)	Alarm	Pre-carbon PID (ppm)	Post-carbon PID (ppm)	Notes
1/13/2021	420	95	-46	84502.20	None	NM	NM	C2 Offline
2/19/2021				85199.70	Yes	NM	NM	C2 Offline. VFD Over Current. Offline.
3/18/2021				85199.70	None	NM	NM	Carbon Bypassed. Offline needs repair
4/16/2021				85199.70	None	NM	NM	Carbon Bypassed. Offline needs repair
5/10/2021				85199.70	None	NM	NM	Carbon Bypassed. Offline needs repair
6/10/2021	416	55 HZ	-46	85553.90	None	NM	NM	Carbon Bypassed
7/19/2021	406	55 HZ	-48	86411.60	None	NM	NM	Carbon Bypassed
8/17/2021	406	55 HZ	-50	87056.40	None	NM	NM	Carbon Bypassed
9/14/2021	403	55 HZ	-52	87686.10	None	NM	NM	Carbon Bypassed
10/15/2021	400	55 HZ	-54	88381.70	None	NM	NM	Carbon Bypassed
11/15/2021	403	55 HZ	-52	89075.20	None	NM	NM	Carbon Bypassed
12/14/2021	406	55HZ	-46	89731.30	None	NM	NM	Carbon Bypassed. New Vaccum Gauges Installed

NM - Not Measured

Table 4-5
Summary of 2021 SSDS Operational Parameters - Building 114
Watervliet Arsenal
Watervliet, New York

Date	Total Flow (cfm)	Vacuum (inches H_2O)	Run Time (hours)	Alarm	Pre-carbon PID (ppm)	Post-carbon PID (ppm)	Notes
1/13/2021	67	-10	79961.8	Yes	NM	NM	KO Tank High Alarm
2/19/2021	67	-9	80794	None	NM	NM	
3/18/2021	69	-10	81422	None	NM	NM	
4/16/2021	70	-10	82050	None	NM	NM	
5/10/2021	58	-22	82593.1	None	NM	NM	
6/10/2021	59	-22.5	83287	None	NM	NM	
7/19/2021	57	-22	84133.7	None	NM	NM	
8/17/2021	57	-23	84775.4	None	NM	NM	
9/14/2021	58	-23	85396.1	None	NM	NM	
10/15/2021	57	-24	86097.7	None	NM	NM	Vent fan shut down
11/15/2021	49	-31	86775.6	None	NM	NM	
12/14/2021	48	-29	87430	None	NM	NM	

NM - Not Measured
(1) Sum of flow measured at extraction wells

Table 4-6
Summary of 2021 SSDS Operational Parameters - Building 120
Watervliet Arsenal
Watervliet, New York

Date	Extraction Point	System On?	Vacuum (inches H_2O)	Total Flow (cfm)	Notes
1/13/2021	EW-1	Yes	-14.5	14.85	
	EW-2		-11.5	19.6	
2/19/2021	EW-1	Yes	-15	13.14	
	EW-2		-12.5	19.5	
3/18/2021	EW-1	Yes	-15	4.1	
	EW-2		-14	19.8	
4/16/2021	EW-1	Yes	-15	3.63	
	EW-2		-13	20.3	
5/10/2021	EW-1	Yes	-15	3.98	
	EW-2		-12.5	20.6	
6/10/2021	EW-1	Yes	-13.5	7.61	
	EW-2		-14	20.1	
7/19/2021	EW-1	Yes	-15	5.25	
	EW-2		-13.5	19.7	
8/17/2021	EW-1	Yes	-15	4.52	
	EW-2		-15.5	17.4	
9/14/2021	EW-1	Yes	-13.5	8.39	
	EW-2		-20	16.9	
10/15/2021	EW-1	Yes	-15	7.02	
	EW-2		-22	18.5	
11/15/2021	EW-1	Yes	-11.5	4.12	
	EW-2		-24	24.2	
12/14/2021	EW-1	Yes	-2	6.53	New Vaccum Gauge Installed
	EW-2		-4	21.7	New Vaccum Gauge Installed

NM - Not Measured, no anemometer

Table 4-7
Summary of 2021 SSDS Operational Parameters - Building 121
Watervliet Arsenal
Watervliet, New York

Date	System On?	Vacuum (inches H_2O)	Total Flow (cfm)	Notes
1/13/2021	Yes	-1.7	48.6	
2/19/2021	Yes	-1.8	53.3	
3/18/2021	Yes	-1.8	49.4	
4/16/2021	Yes	-1.8	44.2	
5/10/2021	Yes	-1.6	51	
6/10/2021	Yes	-1.6	47.8	
7/19/2021	Yes	-1.6	48.3	
8/17/2021	Yes	-1.6	48	
9/14/2021	Yes	-1.6	48.6	
10/15/2021	Yes	-1.6	52.7	GFCI outlet tripped. Online, OK.
11/15/2021	Yes	-1.6	46.4	
12/14/2021	Yes	-1.7	53.3	New Outdoor Outlet Cover Installed

NM - Not Measured

Table 4-8
Summary of 2021 SSDS Operational Parameters - Building 130
Watervliet Arsenal
Watervliet, New York

Date	System On?	Vacuum (inches H_2O)	Total Flow (cfm)	Notes
1/13/2021	Yes	-2	48.2	
2/19/2021	Yes	-2	47.6	
3/18/2021	Yes	-2	49.7	
4/16/2021	Yes	-2	44.9	
5/10/2021	Yes	-2	47.4	
6/10/2021	Yes	-2	45.9	
7/19/2021	Yes	-2	46.3	
8/17/2021	Yes	-2	45.1	
9/14/2021	Yes	-2	44	
10/15/2021	Yes	-2	46.3	
11/15/2021	Yes	-2	47.5	
12/14/2021	Yes	-2.1	48.4	

NM - Not Measured

Table 5-1
SSDS Effluent Sample Results Summary
Buildings 20 and 25
Watervliet Arsenal
Watervliet, New York

Building	**20**								
Sample ID	**B20-Pre-carbon Effluent**	**B20-Pre-carbon Effluent**	**B20-Pre-carbon Effluent**	**B20-Pre-carbon Effluent**	**B20-Pre-carbon Effluent**	**B20-Pre-carbon Effluent**	**B20-Pre-carbon Effluent**	**B20-Pre-carbon Effluent**	**B20-Pre-carbon Effluent**
Sample Type									
Date	**9/10/2010**	**3/30/2011**	**11/17/2011**	**10/4/2012**	**5/30/2013**	**12/16/2013**	**6/12/2014**	**10/30/2014**	**3/17/2015**
Units	**ug/m^3**	**ug/m^3**	**ug/m^3**	**ug/m^3**	**ug/m^3**	**ug/m^3**	**ug/m^3**	**ug/m^3**	**ug/m^3**
VOCs (TO-15)									
Chloromethane	6.3 U	5.9 U	6.2 U	17 U	**0.32**	**0.21**	**0.27**	**0.44**	**0.35**
Vinyl Chloride	1.9 U	1.8 U	1.9 U	2.1 U	ND	0.037 U	0.048 U	**0.053**	0.033 U
Chloroethane	2.0 U	7.6 U	7.9 U	8.6 U	ND	0.15 U	0.25 U	0.24 U	0.17 U
1,1-Dichloroethene	3.0 U	2.8 U	3 U	3.2 U	ND	0.058 U	0.074 U	**0.24**	0.052 U
trans-1,2-Dichloroethene	3.0 U	2.8 U	3 U	3.2 U	ND	0.58 U	0.74 U	0.72 U	0.52 U
1,1-Dichloroethane	3.1 U	2.9 U	3 U	3.3 U	ND	0.12 U	0.15 U	**0.47**	0.11 U
cis-1,2-Dichloroethene	3.0 U	2.8 U	3 U	**3.4**	**4.3**	**2.1**	**4.8**	**4.4**	**1.3**
1,1,1-Trichloroethane	**6.4**	3.9 U	4.1 U	4.5 U	**2.2**	**1.6**	**1.9**	**37**	**0.83**
Carbon Tetrachloride	4.8 U	4.5 U	4.7 U	5.2 U	**0.63**	**0.82**	**0.63**	**0.38**	**0.57**
1,2-Dichloroethane	3.1 U	2.9 U	3 U	3.3 U	ND	0.12 U	0.15 U	0.15 U	0.11 U
Trichloroethene	**250**	**59**	**78**	**110**	**47**	**40**	**42**	**2.8**	**21**
1,1,2-Trichloroethane	4.1 U	3.9 U	4.1 U	4.5 U	ND	0.16 U	0.15 U	0.2 U	0.14 U
Tetrachloroethene	**54**	**16**	**21**	**29**	**13**	**13**	**16**	0.25 U	**7.1**
Chlorobenzene	3.5 U	3.3 U	3.4 U	3.8 U	ND	0.13 U	0.17 U	0.17 U	0.12 U
1,1,2,2-Tetrachloroethane	5.2 U	4.9 U	5.1 U	5.6 U	ND	0.20 U	0.26 U	0.25 U	0.18 U
Total CVOCs	**310**	**125**	**151.4**	**207**	**67**	**58**	**68**	**46**	**31**

Notes:
ND - Compound not detected
ug/m^3 - micrograms per cubic meter
U - Not detected. Reporting limit provided.

Table 5-1
SSDS Effluent Sample Results Summary
Buildings 20 and 25
Watervliet Arsenal
Watervliet, New York

Building	**20**					
Sample ID	**B20 Effluent**	**B20 Effluent**	**B20 Effluent**	**B20 Effluent**	**B20 Effluent**	**B20 Effluent**
Sample Type						
Date	**7/28/2016**	**12/14/2017**	**11/26/2018**	**11/25/2019**	**1/13/2021**	**12/16/2021**
Units	**ug/m^3**	**ug/m^3**	**ug/m^3**	**ug/m^3**	**ug/m^3**	**ug/m^3**
VOCs (TO-15)						
Chloromethane	17 U	1.5 U	1.6 U	1.8 U	1.6 U	1.7 U
Vinyl Chloride	2 U	0.037 U	0.04 U	0.044 U	0.040 U	0.042 U
Chloroethane	8.5 U	0.19 U	0.2 U	0.22 U	0.20 U	0.22 U
1,1-Dichloroethene	3.2 U	0.058 U	0.061 U	0.068 U	0.062 U	0.066 U
trans-1,2-Dichloroethene	3.2 U	0.58 U	0.61 U	0.68 U	0.62 U	0.66 U
1,1-Dichloroethane	3.2 U	0.12 U	0.12 U	0.14 U	0.13 U	0.13 U
cis-1,2-Dichloroethene	**3.3**	**1.0**	**0.78**	**0.74**	**0.29**	**0.72**
1,1,1-Trichloroethane	**2.2 J**	**0.86**	**0.89**	**1.0**	**0.54**	**0.92**
Carbon Tetrachloride	5.1 U	**0.5**	**0.53**	**0.55**	**0.49**	**0.48**
1,2-Dichloroethane	3.2 U	0.12 U	0.12 U	0.14 U	0.13 U	0.13 U
Trichloroethene	**77**	**27**	**35**	**23**	**18**	**25**
1,1,2-Trichloroethane	4.4 U	0.16 U	0.17 U	0.19 U	0.17 U	0.18 U
Tetrachloroethene	**32**	**12**	**11**	**13**	**9.1**	**17**
Chlorobenzene	3.7 U	0.13 U	0.71 U	0.79 U	0.72 U	0.76 U
1,1,2,2-Tetrachloroethane	5.5 U	0.2 U	0.21 U	0.23 U	0.21 U	0.23 U
Total CVOCs	**115**	**41**	**48**	**38**	**28**	**42**

Notes:
ND - Compound not detected
ug/m^3 - micrograms per cubic meter
U - Not detected. Reporting limit provided.

Table 5-1
SSDS Effluent Sample Results Summary
Buildings 20 and 25
Watervliet Arsenal
Watervliet, New York

Building	**25**								
Sample ID	**B25-Pre-carbon Effluent**	**B25-Pre-carbon Effluent**	**B25-Pre-carbon Effluent**	**B25-Pre-carbon Effluent**	**B25-Pre-carbon Effluent**	**B25-Pre-carbon Effluent**	**B25-Pre-carbon Effluent**	**B25-Pre-carbon Effluent**	**B25-Pre-carbon Effluent**
Sample Type									
Date	**8/12/2010**	**3/30/2011**	**11/17/2011**	**10/4/2012**	**5/30/2013**	**12/16/2013**	**6/12/2014**	**10/30/2014**	**3/17/2015**
Units	**ug/m^3**	**ug/m^3**	**ug/m^3**	**ug/m^3**	**ug/m^3**	**ug/m^3**	**ug/m^3**	**ug/m^3**	**ug/m^3**
VOCs (TO-15)									
Chloromethane	28 U	5.8 U	6.4 U	18 U	ND	**0.58**	**0.55**	**0.75**	**1.1**
Vinyl Chloride	8.6 U	1.8 U	2 U	2.2 U	ND	0.096 U	**0.12**	0.11 U	0.073 U
Chloroethane	8.9 U	7.4 U	8.2 U	9.1 U	ND	0.49 U	0.43 U	0.58 U	0.38 U
1,1-Dichloroethene	13 U	2.8 U	3.1 U	3.4 U	ND	0.15 U	0.13 U	0.17 U	0.11 U
trans-1,2-Dichloroethene	13 U	2.8 U	3.1 U	3.4 U	ND	1.5 U	1.3 U	1.7 U	1.1 U
1,1-Dichloroethane	14 U	2.8 U	3.1 U	3.5 U	ND	0.3 U	0.26 U	0.36 U	0.23 U
cis-1,2-Dichloroethene	**23**	**6.0**	**4.2**	3.4 U	**2.3**	**3**	**2.8**	**3**	**1.8**
1,1,1-Trichloroethane	**100**	**17**	**16**	**17**	**14**	**10**	**10**	**13**	**5.9**
Carbon Tetrachloride	21 U	4.4 U	4.9 U	5.4 U	ND	**0.96**	**0.67**	**0.79**	**0.6**
1,2-Dichloroethane	14 U	2.8 U	3.1 U	3.5 U	ND	0.30 U	0.26 U	0.36 U	0.23 U
Trichloroethene	**6,200**	**630**	**620**	**580**	**230**	**240**	**190**	**250**	**140**
1,1,2-Trichloroethane	18 U	3.8 U	4.2 U	4.7 U	ND	0.41 U	0.36 U	0.48 U	0.31 U
Tetrachloroethene	**58**	**20**	**24**	**26**	**12**	**14**	**13**	**15**	**7.4**
Chlorobenzene	16 U	3.2 U	3.6 U	4 U	ND	0.34 U	0.3 U	0.4 U	0.26 U
1,1,2,2-Tetrachloroethane	23 U	4.8 U	5.3 U	5.9 U	ND	0.51 U	0.45 U	0.6 U	0.39 U
Total CVOCs	**6,381**	**673.0**	**664**	**623**	**258**	**269**	**217**	**283**	**157**

Notes:
ND - Compound not detected
ug/m^3 - micrograms per cubic meter
U - Not detected. Reporting limit provided.

Table 5-1
SSDS Effluent Sample Results Summary
Buildings 20 and 25
Watervliet Arsenal
Watervliet, New York

Building	**25**					
Sample ID	**B25 Effluent**	**B25 Effluent**	**B25 Effluent**	**B25 Effluent**	**B25 Effluent**	**B25 Effluent**
Sample Type						
Date	**7/28/2016**	**12/14/2017**	**11/26/2018**	**11/25/2019**	**1/13/2021**	**12/16/2021**
Units	**ug/m^3**	**ug/m^3**	**ug/m^3**	**ug/m^3**	**ug/m^3**	**ug/m^3**
VOCs (TO-15)						
Chloromethane	16 U	1.6 U	3 U	1.8 U	1.5 U	2.1 U
Vinyl Chloride	2 U	**0.067**	0.076 U	**0.09**	**0.14**	0.053 U
Chloroethane	8.3 U	0.21 U	0.39 U	0.23 U	0.2 U	0.27 U
1,1-Dichloroethene	3.1 U	**0.17**	0.12 U	0.069 U	0.059 U	0.082 U
trans-1,2-Dichloroethene	3.1 U	0.63 U	1.2 U	0.69 U	0.59 U	0.82 U
1,1-Dichloroethane	3.2 U	**0.25**	0.24 U	0.14 U	**0.14**	0.17 U
cis-1,2-Dichloroethene	**6.1**	**6.5**	**3.1**	**3.1**	**3.3**	**2.2**
1,1,1-Trichloroethane	**14**	**6.8**	**7.1**	**5.5**	**5.8**	**5.7**
Carbon Tetrachloride	5 U	**0.51**	**0.51**	**0.47**	**0.68**	**0.51**
1,2-Dichloroethane	3.2 U	0.13 U	0.24 U	0.14 U	0.12 U	0.17 U
Trichloroethene	**330**	**140**	**170**	**100**	**160**	**110**
1,1,2-Trichloroethane	4.3 U	0.17 U	0.32 U	0.19 U	0.16 U	0.22 U
Tetrachloroethene	**27**	**12**	**21**	**13**	**13**	**12**
Chlorobenzene	3.6 U	0.14 U	1.4 U	0.8 U	0.69 U	0.95 U
1,1,2,2-Tetrachloroethane	5.4 U	0.22 U	0.41 U	0.24 U	0.2 U	0.28 U
Total CVOCs	**377**	**166**	**202**	**122**	**183**	**130**

Notes:
ND - Compound not detected
ug/m^3 - micrograms per cubic meter
U - Not detected. Reporting limit provided.

Table 5-1
SSDS Effluent Sample Results Summary
Buildings 20 and 25
Watervliet Arsenal
Watervliet, New York

Building	20/25								
Sample ID	B25-Post-carbon Effluent	B20/25-Post-C Effluent	B20/25-Post-C Effluent	B25-Post-carbon Effluent	B25-Post-carbon Effluent	B25-Post-carbon Effluent	B20/B25-Post-carbon Effluent	B20/B25-Post-carbon Effluent	B20/B25-Post-carbon Effluent
Sample Type									
Date	8/12/2010	3/30/2011	11/17/2011	10/4/2012	5/30/2013	12/16/2013	6/12/2014	10/30/2014	3/17/2015
Units	ug/m^3	ug/m^3	ug/m^3	ug/m^3	ug/m^3	ug/m^3	ug/m^3	ug/m^3	ug/m^3
VOCs (TO-15)									
Chloromethane	6.8 U	8.5 U	6 U	19 U	**7**	**0.37**	**0.65**	**0.23**	**0.62**
Vinyl Chloride	2.1 U	2.6 U	1.9 U	2.3 U	**0.21**	**0.063**	**0.064**	0.047 U	0.042 U
Chloroethane	2.2 U	11 U	7.7 U	9.6 U	**2.2**	0.19 U	0.24 U	0.24 U	0.22 U
1,1-Dichloroethene	3.2 U	4.1 U	2.9 U	3.6 U	**0.17**	**0.12**	**0.18**	0.072 U	0.066 U
trans-1,2-Dichloroethene	3.2 U	4.1 U	2.9 U	3.6 U	ND	0.56 U	0.71 U	0.72 U	0.66 U
1,1-Dichloroethane	3.3 U	4.2 U	3 U	3.7 U	**0.25**	**0.13**	0.14 U	0.15 U	0.13 U
cis-1,2-Dichloroethene	3.2 U	4.1 U	**5.4**	3.6 U	**4.6**	**3**	**2**	**2.2**	**1.8**
1,1,1-Trichloroethane	4.5 U	5.6 U	4 U	5 U	ND	**8.7**	**11**	**1.8**	**0.44**
Carbon Tetrachloride	5.2 U	6.5 U	4.6 U	5.8 U	ND	**0.21**	0.23 U	**0.44**	0.21 U
1,2-Dichloroethane	3.3 U	4.2 U	3 U	3.7 U	**0.19**	0.11 U	0.14 U	0.15 U	0.13 U
Trichloroethene	4.4 U	5.5 U	3.9 U	4.9 U	**0.21**	**3**	**2.8**	**48**	**0.27**
1,1,2-Trichloroethane	4.5 U	5.6 U	4 U	5 U	ND	0.15 U	0.2 U	0.2 U	0.18 U
Tetrachloroethene	5.6 U	7 U	5 U	6.2 U	ND	0.19 U	**1.2**	**17**	0.22 U
Chlorobenzene	3.8 U	4.7 U	3.4 U	4.2 U	ND	0.13 U	0.16 U	0.17 U	0.15 U
1,1,2,2-Tetrachloroethane	5.6 U	7.1 U	5 U	6.3 U	ND	0.19 U	0.25 U	0.25 U	0.23 U
Total CVOCs			**5.4**		**15**	**16**	**18**	**70**	**3**

Notes:
ND - Compound not detected
ug/m^3 - micrograms per cubic meter
U - Not detected. Reporting limit provided.

Table 5-2
SSDS Effluent Sample Results Summary
Building 21
Watervliet Arsenal
Watervliet, New York

Building	21						
Sample ID	B21-Pre-carbon Effluent	B21-Pre-carbon Effluent	B21-Pre-carbon Effluent	B21-Pre-carbon Effluent	B21-Pre-carbon Effluent	B21-Pre-carbon Effluent	B21-Pre-carbon Effluent
Sample Type	8/12/2010	11/17/2011	10/4/2012	12/16/2013	6/12/2014	10/30/2014	3/17/2015
Date	ug/m^3	ug/m^3	ug/m^3	ug/m^3	ug/m^3	ug/m^3	ug/m^3
Units							
VOCs (TO-15)							
Chloromethane	7.2 U	5.8 U	18 U	**0.19**	**0.83**	**0.77**	**1.2**
Vinyl Chloride	2.2 U	1.8 U	2.3 U	0.044 U	**0.052**	**0.047**	0.045 U
Chloroethane	2.3 U	7.4 U	9.4 U	0.18 U	0.17 U	0.21 U	0.23 U
1,1-Dichloroethene	3.5 U	2.8 U	3.5 U	**0.08**	0.065 U	0.063 U	0.07 U
trans-1,2-Dichloroethene	3.5 U	2.8 U	3.5 U	0.68 U	0.65 U	0.63 U	0.7 U
1,1-Dichloroethane	3.5 U	2.8 U	3.6 U	0.14 U	0.13 U	0.13 U	0.14 U
cis-1,2-Dichloroethene	**44**	**17**	**44**	**19**	**27**	**15**	**0.4**
1,1,1-Trichloroethane	4.8 U	3.8 U	4.9 U	0.19 U	0.18 U	0.17 U	0.19 U
Carbon Tetrachloride	5.5 U	4.4 U	5.6 U	**0.71**	**0.61**	**0.42**	**0.49**
1,2-Dichloroethane	3.5 U	2.8 U	3.6 U	0.14 U	0.13 U	0.13 U	0.14 U
Trichloroethene	**270**	**72**	**190**	**43**	**55**	**40**	**0.68**
1,1,2-Trichloroethane	4.8 U	3.8 U	4.9 U	0.19 U	0.18 U	0.17 U	0.19 U
Tetrachloroethene	**63**	**14**	**43**	**5.8**	**15**	**9.3**	**1**
Chlorobenzene	4 U	3.2 U	4.1 U	0.16 U	0.15 U	0.14 U	0.16 U
1,1,2,2-Tetrachloroethane	6 U	4.8 U	6.1 U	0.24 U	0.23 U	0.22 U	0.24 U
Total CVOCs	**377**	**103**	**277**	**69**	**98**	**66**	**4**

Notes:
ND - Compound not detected
ug/m^3 - micrograms per cubic meter
U - Not detected. Reporting limit provided.

Table 5-2
SSDS Effluent Sample Results Summary
Building 21
Watervliet Arsenal
Watervliet, New York

Building	**21**					
Sample ID	**B21 Effluent**	**B21 Effluent**	**B21 Effluent**	**B21 Effluent**	**B21 Effluent**	**B21 Effluent**
Sample Type						
Date	**7/28/2016**	**12/14/2017**	**11/26/2018**	**11/25/2019**	**1/13/2021**	**12/16/2021**
Units	**ug/m^3**	**ug/m^3**	**ug/m^3**	**ug/m^3**	**ug/m^3**	**ug/m^3**
VOCs (TO-15)						
Chloromethane	17 U	1.5 U	1.7 U	1.7 U	1.7 U	1.4 U
Vinyl Chloride	2.1 U	0.038 U	**0.042**	**0.043**	0.042 U	**0.16**
Chloroethane	8.5 U	0.2 U	0.21 U	0.22 U	0.22 U	0.18 U
1,1-Dichloroethene	3.2 U	0.059 U	0.064 U	0.065 U	0.065 U	0.055 U
trans-1,2-Dichloroethene	3.2 U	0.59 U	**1.0**	0.65 U	0.65 U	**0.72**
1,1-Dichloroethane	3.3 U	0.12 U	0.13 U	0.13 U	0.13 U	0.11 U
cis-1,2-Dichloroethene	**15**	**17**	**23**	**19**	**18**	**42**
1,1,1-Trichloroethane	4.4 U	0.16 U	0.18 U	0.18 U	0.18 U	0.15 U
Carbon Tetrachloride	5.1 U	**0.5**	**0.55**	**0.49**	**0.49**	**0.49**
1,2-Dichloroethane	3.3 U	0.12 U	0.13 U	0.13 U	0.13 U	0.11 U
Trichloroethene	**49**	**30**	**44**	**29**	**33**	**68**
1,1,2-Trichloroethane	4.4 U	0.16 U	0.18 U	0.18 U	0.18 U	0.15 U
Tetrachloroethene	**15**	**6.2**	**7.6**	**6.5**	**5.6**	**7**
Chlorobenzene	3.7 U	0.14 U	0.74 U	0.76 U	0.76 U	0.64 U
1,1,2,2-Tetrachloroethane	5.6 U	0.2 U	0.22 U	0.22 U	0.22 U	0.19 U
Total CVOCs	**79**	**54**	**76**	**56**	**58**	**118**

Notes:
ND - Compound not detected
ug/m^3 - micrograms per cubic meter
U - Not detected. Reporting limit provided.

Table 5-2
SSDS Effluent Sample Results Summary
Building 21
Watervliet Arsenal
Watervliet, New York

Building	**21**					
Sample ID	**B21-Post-carbon Effluent**	**B21-Post-carbon Effluent**	**B21-Post-carbon Effluent**	**B21-Post-carbon Effluent**	**B21-Post-carbon Effluent**	**B21-Post-carbon Effluent**
Sample Type						
Date	**8/12/2010**	**11/17/2011**	**10/4/2012**	**6/12/2014**	**10/30/2014**	**3/17/2015**
Units	**ug/m^3**	**ug/m^3**	**ug/m^3**	**ug/m^3**	**ug/m^3**	**ug/m^3**
VOCs (TO-15)						
Chloromethane	**11**	6 U	17 U	**0.81**	**0.64**	**1**
Vinyl Chloride	2 U	1.9 U	2.1 U	**0.064**	0.052 U	**0.042**
Chloroethane	2.1 U	7.7 U	8.6 U	0.22 U	0.27 U	0.19 U
1,1-Dichloroethene	3.1 U	2.9 U	3.2 U	**0.1**	0.081 U	0.056 U
trans-1,2-Dichloroethene	3.1 U	2.9 U	3.2 U	0.65 U	0.81 U	0.056 U
1,1-Dichloroethane	3.2 U	3 U	3.3 U	0.13 U	0.16 U	0.11 U
cis-1,2-Dichloroethene	3.1 U	**8.2**	**34**	**16**	0.16 U	0.11 U
1,1,1-Trichloroethane	4.3 U	4 U	4.5 U	0.18 U	0.22 U	0.15 U
Carbon Tetrachloride	5 U	4.6 U	5.2 U	0.21 U	0.26 U	**0.52**
1,2-Dichloroethane	3.2 U	3 U	3.3 U	0.13 U	0.16 U	0.11 U
Trichloroethene	4.2 U	3.9 U	4.4 U	0.18 U	0.22 U	0.15 U
1,1,2-Trichloroethane	4.3 U	4 U	4.5 U	0.18 U	0.22 U	0.15 U
Tetrachloroethene	5.4 U	5 U	5.6 U	0.22 U	0.28 U	**1.2**
Chlorobenzene	3.6 U	3.4 U	3.8 U	0.15 U	0.19 U	0.13 U
1,1,2,2-Tetrachloroethane	5.4 U	5 U	5.6 U	0.22 U	0.28 U	0.19 U
Total CVOCs	**11**	**8.2**	**34**	**17**	**0.64**	**2.8**

Notes:
ND - Compound not detected
ug/m^3 - micrograms per cubic meter
U - Not detected. Reporting limit provided.

Table 5-3
SSDS Effluent Sample Results Summary
Building 114
Watervliet Arsenal
Watervliet, New York

Building	114							
Sample ID	**B114-Pre-carbon Effluent**	**B114-Pre-carbon Effluent**	**B114-Pre-carbon Effluent**	**B114-Pre-carbon Effluent**	**B114-Pre-carbon Effluent**	**B114-Pre-carbon Effluent**	**B114-Pre-carbon Effluent**	**B114-Pre-carbon Effluent**
Sample Type								
Date	**8/12/2010**	**3/30/2011**	**11/17/2011**	**10/4/2012**	**5/30/2013**	**6/12/2014**	**10/30/2014**	**3/17/2015**
Units	**ug/m^3**	**ug/m^3**	**ug/m^3**	**ug/m^3**	**ug/m^3**	**ug/m^3**	**ug/m^3**	**ug/m^3**
VOCs (TO-15)								
Chloromethane	6.6 U	24 U	6 U	18 U	ND	1.1 U	**0.38**	0.65 U
Vinyl Chloride	2 U	7.4 U	1.9 U	2.3 U	ND	0.26 U	0.36 U	0.16 U
Chloroethane	2.1 U	30 U	7.7 U	9.4 U	ND	1.4 U	1.8 U	0.83 U
1,1-Dichloroethene	3.2 U	11 U	2.9 U	3.5 U	ND	0.41 U	0.55 U	0.51 U
trans-1,2-Dichloroethene	3.2 U	11 U	2.9 U	3.5 U	ND	4.1 U	5.5 U	2.5 U
1,1-Dichloroethane	3.2 U	12 U	3 U	3.6 U	ND	0.84 U	1.1 U	**1.1**
cis-1,2-Dichloroethene	3.2 U	**49**	**38**	**47**	**41**	**45**	**27**	**26**
1,1,1-Trichloroethane	4.4 U	16 U	4 U	4.9 U	ND	**1.2**	1.5 U	**2.4**
Carbon Tetrachloride	5.1 U	18 U	4.6 U	5.6 U	**1.7**	**2**	1.7 U	**1.2**
1,2-Dichloroethane	3.2 U	12 U	3 U	3.6 U	ND	0.84 U	1.1 U	**6.3**
Trichloroethene	**6**	**580**	**620**	**560**	**370**	**340**	**290**	**180**
1,1,2-Trichloroethane	4.4 U	16 U	4 U	4.9 U	ND	1.1 U	1.5 U	0.68 U
Tetrachloroethene	**7.1**	**1,700**	**1,800**	**1,700**	**1,000**	**1,200**	**810**	**500**
Chlorobenzene	3.7 U	13 U	3.4 U	4.1 U	ND	0.96 U	1.3 U	0.58 U
1,1,2,2-Tetrachloroethane	5.5 U	20 U	5 U	6.1 U	ND	1.4 U	1.9 U	0.86 U
Total CVOCs	**13.1**	**2,329**	**2,458**	**2,307**	**1,411**	**1,588**	**1,131**	**717**

Notes:
ND - Compound not detected
ug/m^3 - micrograms per cubic meter
U - Not detected. Reporting limit provided.

Table 5-3
SSDS Effluent Sample Results Summary
Building 114
Watervliet Arsenal
Watervliet, New York

Building	**114**					
Sample ID	**B114 Effluent**	**B114 Effluent**	**B114 Effluent**	**B114 Effluent**	**B114 Effluent**	**B114 Effluent**
Sample Type						
Date	**7/28/2016**	**12/14/2017**	**11/26/2018**	**11/25/2019**	**1/13/2021**	**12/16/2021**
Units	**ug/m^3**	**ug/m^3**	**ug/m3**	**ug/m3**	**ug/m3**	**ug/m3**
VOCs (TO-15)			11/26/2018			
Chloromethane	17 U	8.4 U	8 U	5.8 U	9.7 U	7.3 U
Vinyl Chloride	2.1 U	0.21 U	0.2 U	0.14 U	0.24 U	0.18 U
Chloroethane	8.5 U	1.1 U	1 U	0.74 U	1.2 U	0.94 U
1,1-Dichloroethene	3.2 U	0.32 U	0.3 U	0.22 U	0.37 U	0.28 U
trans-1,2-Dichloroethene	3.2 U	3.2 U	3 U	2.2 U	3.7 U	2.8 U
1,1-Dichloroethane	3.3 U	0.66 U	0.62 U	0.45 U	0.76 U	0.57 U
cis-1,2-Dichloroethene	**26**	**26**	**22**	**23**	**18**	**23**
1,1,1-Trichloroethane	**4.4**	0.89 U	0.84 U	0.61 U	1 U	0.77 U
Carbon Tetrachloride	**2.2 J**	**1.2**	0.97 U	**0.91**	**1.2**	**1.2**
1,2-Dichloroethane	3.3 U	0.66 U	0.62 U	0.45 U	0.76 U	0.57 U
Trichloroethene	**440**	**180**	**200**	**140**	**150**	**170**
1,1,2-Trichloroethane	4.4 U	0.89 U	0.84 U	0.61 U	1 U	0.77 U
Tetrachloroethene	**1,400**	**600**	**590**	**490**	**510**	**630**
Chlorobenzene	3.7 U	0.75 U	3.5 U	2.6 U	4.3 U	3.3 U
1,1,2,2-Tetrachloroethane	5.6 U	1.1 U	1 U	0.77 U	1.3 U	0.97 U
Total CVOCs	**1,873**	**807**	**812**	**654**	**679**	**824**

Notes:
ND - Compound not detected
ug/m^3 - micrograms per cubic meter
U - Not detected. Reporting limit provided.

Table 5-3
SSDS Effluent Sample Results Summary
Building 114
Watervliet Arsenal
Watervliet, New York

Building	114							
Sample ID	B114-Post-carbon Effluent	B114-Post-carbon Effluent	B114-Post-carbon Effluent	B114-Post-carbon Effluent	B114-Post-carbon Effluent	B114-Post-carbon Effluent	B114-Post-carbon Effluent	B114-Post-carbon Effluent
Sample Type								
Date	8/12/2010	3/30/2011	11/17/2011	10/4/2012	5/30/2013	6/12/2014	10/30/2014	3/17/2015
Units	ug/m^3	ug/m^3	ug/m^3	ug/m^3	ug/m^3	ug/m^3	ug/m^3	ug/m^3
VOCs (TO-15)								
Chloromethane	6.3 U	6.4 U	5.9 U	19 U	**0.26**	0.17 U	**0.38**	0.29 U
Vinyl Chloride	1.9 U	2 U	1.8 U	2.3 U	**0.084**	0.042 U	0.043 U	0.072 U
Chloroethane	2 U	8.2 U	7.6 U	9.6 U	ND	0.22 U	0.22 U	0.37 U
1,1-Dichloroethene	3 U	3.1 U	2.8 U	3.6 U	ND	0.066 U	0.067 U	0.11 U
trans-1,2-Dichloroethene	3 U	3.1 U	2.8 U	3.6 U	ND	0.66 U	0.67 U	1.1 U
1,1-Dichloroethane	3.1 U	3.1 U	2.9 U	3.7 U	ND	0.13 U	0.14 U	0.23 U
cis-1,2-Dichloroethene	3 U	**6.9**	2.8 U	**53**	**16**	**2.3**	**22**	**37**
1,1,1-Trichloroethane	4.1 U	4.2 U	3.9 U	5 U	ND	0.18 U	0.18 U	**0.96**
Carbon Tetrachloride	4.8 U	4.9 U	4.5 U	5.8 U	ND	0.21 U	0.21 U	0.36 U
1,2-Dichloroethane	3.1 U	3.1 U	2.9 U	3.7 U	ND	0.13 U	0.14 U	**6.4**
Trichloroethene	4.1 U	4.2 U	3.9 U	4.9 U	ND	0.18 U	0.18 U	**4.1**
1,1,2-Trichloroethane	4.1 U	4.2 U	3.9 U	5 U	ND	0.18 U	0.18 U	0.31 U
Tetrachloroethene	**6.6**	5.2 U	4.9 U	6.2 U	ND	0.22 U	0.23 U	0.38 U
Chlorobenzene	3.5 U	3.6 U	3.3 U	4.2 U	ND	0.15 U	0.15 U	0.26 U
1,1,2,2-Tetrachloroethane	5.2 U	5.3 U	4.9 U	6.3 U	ND	0.23 U	0.23 U	0.39 U
Total CVOCs	**6.6**	**6.9**		**53**	**16**	**2**	**22**	**48**

Notes:
ND - Compound not detected
ug/m^3 - micrograms per cubic meter
U - Not detected. Reporting limit provided.

Table 5-4
VOC Mass Removal Summary - Building 20
Watervliet Arsenal
Watervliet, New York

Building 20 Flow Rates (cfm)

Date	**9/10/10**	**3/30/11**	**11/17/11**	**10/4/12**	**5/30/13**	**12/16/13**	**6/12/14**	**10/30/14**	**3/17/15**	**7/28/16**	**12/14/17**
Extraction Well											
EW-1	185	177	160	168	177	180	156	150	172	172	160
EW-2	85	117	87	106	109	130	80	82	84	110.5	73.7
EW-3	84	90	89	92	98	93	90	87	92	97.2	89.1
Flow Rate for Mass Removal Calculation*	**118**	**128**	**112**	**122**	**128**	**134**	**109**	**106**	**116**	**127**	**108**

Building 20 Mass Removal (lb/year)**

Date	**9/10/10**	**3/30/11**	**11/17/11**	**10/4/12**	**5/30/13**	**12/16/13**	**6/12/14**	**10/30/14**	**3/17/15**	**7/28/16**	**12/14/17**
SSDS Flow Rate (cfm)	**118**	**128**	**112**	**122**	**128**	**134**	**109**	**106**	**116**	**127**	**108**
Chloromethane	ND	ND	ND	ND	**0.001**	**0.001**	**0.001**	**0.002**	**0.001**	ND	ND
Vinyl Chloride	ND	ND	ND	ND	ND	ND	ND	**0.0002**	ND	ND	ND
Chloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	**0.001**	ND	ND	ND
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	**0.002**	ND	ND	ND
cis-1,2-Dichloroethene	ND	ND	ND	**0.01**	**0.018**	**0.009**	**0.017**	**0.016**	**0.005**	**0.012**	**0.004**
1,1,1-Trichloroethane	**0.025**	ND	ND	ND	**0.009**	**0.007**	**0.007**	**0.132**	**0.003**	**0.008**	**0.003**
Carbon Tetrachloride	ND	ND	ND	ND	**0.003**	**0.004**	**0.002**	**0.001**	**0.002**	ND	**0.002**
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	**0.97**	**0.25**	**0.29**	**0.44**	**0.197**	**0.176**	**0.149**	**0.010**	**0.080**	**0.271**	**0.095**
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	**0.21**	**0.07**	**0.08**	**0.12**	**0.054**	**0.057**	**0.057**	ND	**0.03**	**0.113**	**0.042**
Chlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total CVOC Mass Removal	**1.20**	**0.31**	**0.36**	**0.57**	**0.28**	**0.25**	**0.23**	**0.16**	**0.12**	**0.40**	**0.15**

Notes:
* Per NYSDEC, calculated as sum of flow rates divided by the number of extraction wells
** Calculated based on pre-carbon effluent concentrations
SSDS - sub-slab depressurization system
ND - compound not detected
ug/m^3 - micrograms per cubic meter
lb/year- pounds per year
cfm - cubic feet per minute

Conversion Factors:
2.2 E-09 lb/ug
0.0283 m^3/ft^3
525,600 min/year

Table 5-4
VOC Mass Removal Summary - Building 20
Watervliet Arsenal
Watervliet, New York

Building 20 Flow Rates (cfm)

Date	**11/26/18**	**11/25/19**	**1/13/21**	**12/14/21**
Extraction Well				
EW-1	159	123.5	82	139
EW-2	68	75	40	77.5
EW-3	96.9	102	49.3	84
Flow Rate for Mass Removal Calculation*	**108**	**100**	**57**	**100**

Building 20 Mass Removal (lb/year)**

Date	**11/26/18**	**11/25/19**	**1/13/21**	**12/16/21**
SSDS Flow Rate (cfm)	**108**	**100**	**57**	**100**
Chloromethane	ND	ND	ND	ND
Vinyl Chloride	ND	ND	ND	ND
Chloroethane	ND	ND	ND	ND
1,1-Dichloroethene	ND	ND	ND	ND
trans-1,2-Dichloroethene	ND	ND	ND	ND
1,1-Dichloroethane	ND	ND	ND	ND
cis-1,2-Dichloroethene	**0.003**	**0.002**	**0.002**	**0.003**
1,1,1-Trichloroethane	**0.003**	**0.003**	**0.002**	**0.003**
Carbon Tetrachloride	**0.002**	**0.002**	**0.002**	**0.002**
1,2-Dichloroethane	ND	ND	ND	ND
Trichloroethene	**0.124**	**0.075**	**0.059**	**0.082**
1,1,2-Trichloroethane	ND	ND	ND	ND
Tetrachloroethene	**0.039**	**0.043**	**0.030**	**0.056**
Chlorobenzene	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND
Total CVOC Mass Removal	**0.17**	**0.13**	**0.09**	**0.15**

Notes:
* Per NYSDEC, calculated as sum of flow rates divided by the number of extraction wells
** Calculated based on pre-carbon effluent concentrations
SSDS - sub-slab depressurization system
ND - compound not detected
ug/m^3 - micrograms per cubic meter
lb/year- pounds per year
cfm - cubic feet per minute

Conversion Factors:
2.2 E-09 lb/ug
0.0283 m^3/ft^3
525,600 min/year

Table 5-5
VOC Mass Removal Summary - Building 21
Watervliet Arsenal
Watervliet, New York

Building 21 Flow Rates (cfm)

Date	**8/12/10**	**11/17/11**	**10/4/12**	**12/16/13**	**6/12/14**	**10/30/14**	**3/17/15**	**7/28/16**	**12/14/17**	**11/26/18**	**11/25/19**	**1/13/21**
Extraction Well												
EW-1	43	26	38	27	45	46	35	9.03	9.57	11.90	10.70	22.00
Flow Rate for Mass Removal Calculation*	**43**	**26**	**38**	**27**	**45**	**46**	**35**	**9.03**	**9.57**	**11.90**	**10.70**	**22.00**

Building 21 Mass Removal (lb/year)**

Date	**8/12/10**	**11/17/11**	**10/4/12**	**12/16/13**	**6/12/14**	**10/30/14**	**3/17/15**	**7/28/16**	**12/14/17**	**11/26/18**	**11/25/19**	**1/13/21**
SSDS Flow Rate (cfm)	**43**	**26**	**38**	**27**	**45**	**46**	**35**	**9.03**	**9.57**	**11.90**	**10.70**	**22.00**
Chloromethane	ND	ND	ND	**0.0002**	**0.0012**	**0.0011**	**0.0014**	ND	ND	ND	ND	ND
Vinyl Chloride	ND	ND	ND	ND	**0.0001**	**0.0001**	ND	ND	ND	**0.00001**	**0.00002**	ND
Chloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	**0.0003**	ND	ND
1,1-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	**0.062**	**0.014**	**0.055**	**0.017**	**0.040**	**0.0221**	**0.0005**	**0.0044**	**0.0050**	**0.0068**	**0.0067**	**0.0063**
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	ND	ND	ND	**0.001**	**0.001**	**0.0006**	**0.0006**	ND	ND	**0.0002**	**0.0002**	**0.0002**
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	**0.380**	**0.061**	**0.236**	**0.038**	**0.081**	**0.0589**	**0.0008**	**0.0145**	**0.0089**	**0.0130**	**0.0102**	**0.0116**
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	**0.089**	**0.012**	**0.053**	**0.005**	**0.022**	**0.0137**	**0.0011**	**0.0044**	**0.0018**	**0.0022**	**0.0023**	**0.0020**
Chlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total CVOC Mass Removal	**0.53**	**0.09**	**0.34**	**0.06**	**0.14**	**0.10**	**0.0043**	**0.0233**	**0.0157**	**0.0225**	**0.0193**	**0.0200**

Notes:
* Per NYSDEC, calculated as sum of flow rates divided by the number of extraction wells
** Calculated based on pre-carbon effluent concentrations
SSDS - sub-slab depressurization system
ND - compound not detected
ug/m^3 - micrograms per cubic meter
lb/year- pounds per year
cfm - cubic feet per minute

Conversion Factors:
2.2 E-09 lb/ug
0.0283 m^3/ft^3
525,600 min/year

Table 5-5
VOC Mass Removal Summary - Building 21
Watervliet Arsenal
Watervliet, New York

Building 21 Flow Rates (cfm)

Date	**12/14/21**
Extraction Well	
EW-1	8.1
Flow Rate for Mass Removal Calculation*	**8.1**

Building 21 Mass Removal (lb/year)**

Date	**12/14/21**
SSDS Flow Rate (cfm)	**8.1**
Chloromethane	ND
Vinyl Chloride	**0.000**
Chloroethane	ND
1,1-Dichloroethene	ND
trans-1,2-Dichloroethene	**0.000**
1,1-Dichloroethane	ND
cis-1,2-Dichloroethene	**0.011**
1,1,1-Trichloroethane	ND
Carbon Tetrachloride	**0.000**
1,2-Dichloroethane	ND
Trichloroethene	**0.018**
1,1,2-Trichloroethane	ND
Tetrachloroethene	**0.002**
Chlorobenzene	ND
1,1,2,2-Tetrachloroethane	ND
Total CVOC Mass Removal	**0.03**

Notes:
* Per NYSDEC, calculated as sum of flow rates divided by the number of extraction wells
** Calculated based on pre-carbon effluent concentrations
SSDS - sub-slab depressurization system
ND - compound not detected
ug/m^3 - micrograms per cubic meter
lb/year- pounds per year
cfm - cubic feet per minute

Conversion Factors:
2.2 E-09 lb/ug
0.0283 m^3/ft^3
525,600 min/year

Table 5-6
VOC Mass Removal Summary - Building 25
Watervliet Arsenal
Watervliet, New York

Building 25 Flow Rates (cfm)

Date	**8/12/10**	**3/30/11**	**11/17/11**	**10/4/12**	**5/30/13**	**12/16/13**	**6/12/14**	**10/30/14**	**3/17/15**	**7/28/16**	**12/14/17**
Extraction Well											
EW-1	162	196	222	129	142	148	134	141	149	168.5	190
EW-2	117	125	86	149	150	174	160	159	173	185.5	219
EW-3	115	56	21	153	152	150	125	126	109	87.0	38.7
EW-4	148	177	186	114	126	110	100	102	105	98.5	68.8
Flow Rate for Mass Removal Calculation*	**136**	**139**	**129**	**136**	**143**	**146**	**130**	**132**	**134**	**135**	**129**

Building 25 Mass Removal (lb/year)**

Date	**8/12/10**	**3/30/11**	**11/17/11**	**10/4/12**	**5/30/13**	**12/16/13**	**6/12/14**	**10/30/14**	**3/17/15**	**7/28/16**	**12/14/17**
SSDS Flow Rate (cfm)	**136**	**139**	**129**	**136**	**143**	**146**	**130**	**132**	**134**	**135**	**129**
Chloromethane	ND	ND	ND	ND	ND	**0.003**	**0.002**	**0.003**	**0.005**	ND	ND
Vinyl Chloride	ND	ND	ND	ND	ND	ND	**0.0005**	ND	ND	ND	**0.0003**
Chloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**0.001**
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**0.001**
cis-1,2-Dichloroethene	**0.1**	**0.0**	**0.02**	ND	**0.011**	**0.014**	**0.012**	**0.013**	**0.008**	**0.029**	**0.027**
1,1,1-Trichloroethane	**0.4**	**0.1**	**0.1**	**0.1**	**0.065**	**0.048**	**0.042**	**0.055**	**0.026**	**0.030**	**0.029**
Carbon Tetrachloride	ND	ND	ND	ND	ND	**0.005**	**0.003**	**0.003**	**0.003**	ND	**0.002**
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	**27.5**	**2.9**	**2.6**	**2.6**	**1.073**	**1.143**	**0.807**	**1.061**	**0.614**	**0.618**	**0.592**
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	**0.3**	**0.1**	**0.1**	**0.1**	**0.056**	**0.067**	**0.055**	**0.064**	**0.032**	**0.053**	**0.051**
Chlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total CVOC Mass Removal	**28.3**	**3.1**	**2.8**	**2.8**	**1.2**	**1.3**	**0.9**	**1.2**	**0.7**	**0.7**	**0.7**

Notes:
* Per NYSDEC, calculated as sum of flow rates divided by the number of extraction wells
** Calculated based on pre-carbon effluent concentrations
SSDS - sub-slab depressurization system
ND - compound not detected
ug/m^3 - micrograms per cubic meter
lb/year- pounds per year
cfm - cubic feet per minute

Conversion Factors:
2.2 E-09 lb/ug
0.0283 m^3/ft^3
525,600 min/year

Table 5-6
VOC Mass Removal Summary - Building 25
Watervliet Arsenal
Watervliet, New York

Building 25 Flow Rates (cfm)

Date **Extraction Well**	**11/26/18**	**11/25/19**	**1/13/21**	**12/14/21**
EW-1	197.5	167	172.5	186
EW-2	235	182.5	179	229
EW-3	22.4	67.5	47.1	16.2
EW-4	58.8	53.5	46.6	39.7
Flow Rate for Mass Removal Calculation*	**128**	**118**	**111**	**118**

Building 25 Mass Removal (lb/year)**

Date **SSDS Flow Rate (cfm)**	**11/26/18** **128**	**11/25/19** **118**	**1/13/21** **111**	**12/16/21** **118**
Chloromethane	ND	ND	ND	ND
Vinyl Chloride	ND	**0.0003**	**0.0005**	ND
Chloroethane	ND	ND	ND	ND
1,1-Dichloroethene	ND	ND	ND	ND
trans-1,2-Dichloroethene	ND	ND	ND	ND
1,1-Dichloroethane	ND	ND	**0.001**	ND
cis-1,2-Dichloroethene	**0.013**	**0.012**	**0.013**	**0.008**
1,1,1-Trichloroethane	**0.030**	**0.021**	**0.022**	**0.022**
Carbon Tetrachloride	**0.002**	**0.002**	**0.003**	**0.002**
1,2-Dichloroethane	ND	ND	ND	ND
Trichloroethene	**0.718**	**0.385**	**0.616**	**0.423**
1,1,2-Trichloroethane	ND	ND	ND	ND
Tetrachloroethene	**0.089**	**0.050**	**0.050**	**0.046**
Chlorobenzene	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND
Total CVOC Mass Removal	**0.9**	**0.5**	**0.7**	**0.5**

Notes:
* Per NYSDEC, calculated as sum of flow rates divided by the number of extraction wells
** Calculated based on pre-carbon effluent concentrations
SSDS - sub-slab depressurization system
ND - compound not detected
ug/m^3 - micrograms per cubic meter
lb/year- pounds per year
cfm - cubic feet per minute

Conversion Factors:
2.2 E-09 lb/ug
0.0283 m^3/ft^3
525,600 min/year

Table 5-7
VOC Mass Removal Summary - Building 114
Watervliet Arsenal
Watervliet, New York

Building 114 Flow Rates (cfm)

Date / **Extraction Well**	**8/12/10**	**3/30/11*** **	**11/17/11**	**10/4/12**	**5/30/13**	**6/12/14**	**10/30/14**	**3/17/15**	**7/28/16**	**12/14/17**	**11/26/18**
EW-1	69	64	58	65	60	32	48	55	43	55	58
EW-2	21	22	23	22	30	30	28	31	31	20	22
Flow Rate for Mass Removal Calculation*	**45**	**43**	**40.5**	**43.5**	**45**	**31**	**37.75**	**43**	**36.8**	**37.5**	**39.6**

Building 114 Mass Removal (lb/year)**

Date / **SSDS Flow Rate (cfm)**	**8/12/10** **45**	**3/30/11** **43**	**11/17/11** **40.5**	**10/4/12** **43.5**	**5/30/13** **45**	**6/12/14** **31**	**10/30/14** **37.75**	**3/17/15** **43**	**7/28/16** **36.8**	**12/14/17** **37.5**	**11/26/18** **39.6**
Chloromethane	ND	ND	ND	ND	ND	ND	**0.0005**	ND	ND	ND	ND
Vinyl Chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	**0.002**	ND	ND	ND
cis-1,2-Dichloroethene	ND	**0.069**	**0.050**	**0.067**	**0.066**	**0.046**	**0.03**	**0.04**	**0.03**	**0.03**	**0.03**
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	**0.001**	ND	**0.003**	**0.01**	ND	ND
Carbon Tetrachloride	ND	ND	ND	ND	**0.003**	**0.002**	ND	**0.002**	**0.003**	**0.001**	ND
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	**0.009**	ND	ND	ND
Trichloroethene	**0.009**	**0.816**	**0.822**	**0.797**	**0.545**	**0.345**	**0.358**	**0.253**	**0.53**	**0.22**	**0.24**
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	**0.010**	**2.39**	**2.39**	**2.42**	**1.47**	**1.22**	**1.001**	**0.704**	**1.69**	**0.72**	**0.71**
Chlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total CVOC Mass Removal	**0.02**	**3.3**	**3.3**	**3.3**	**2.1**	**1.6**	**1.4**	**1.0**	**2.3**	**1.0**	**1.0**

Notes:
* Per NYSDEC, calculated as sum of flow rates divided by the number of extraction wells
** Calculated based on pre-carbon effluent concentrations
*** No access to extraction wells - flow rates from 2/24/2011 site inspection.
****11/14/13 flow rates and 10/4/12 analytical used for calculations.
SSDS - sub-slab depressurization system
ND - compound not detected
ug/m^3 - micrograms per cubic meter
lb/year- pounds per year
cfm - cubic feet per minute

Conversion Factors:
2.2 E-09 lb/ug
0.0283 m^3/ft^3
525,600 min/year

Table 5-7
VOC Mass Removal Summary - Building 114
Watervliet Arsenal
Watervliet, New York

Building 114 Flow Rates (cfm)

Date **Extraction Well**	**11/25/19**	**1/13/21**	**12/14/21**
EW-1	43	44	26
EW-2	25	24	20
Flow Rate for Mass Removal Calculation*	**34.0**	**34.0**	**23.3**

Building 114 Mass Removal (lb/year)**

Date **SSDS Flow Rate (cfm)**	**11/25/19** **34.0**	**1/13/21** **34.0**	**12/16/21** **23.3**
Chloromethane	ND	ND	ND
Vinyl Chloride	ND	ND	ND
Chloroethane	ND	ND	ND
1,1-Dichloroethene	ND	ND	ND
trans-1,2-Dichloroethene	ND	ND	ND
1,1-Dichloroethane	ND	ND	ND
cis-1,2-Dichloroethene	**0.03**	**0.02**	**0.03**
1,1,1-Trichloroethane	ND	ND	ND
Carbon Tetrachloride	**0.001**	**0.001**	**0.001**
1,2-Dichloroethane	ND	ND	ND
Trichloroethene	**0.16**	**0.17**	**0.19**
1,1,2-Trichloroethane	ND	ND	ND
Tetrachloroethene	**0.55**	**0.57**	**0.70**
Chlorobenzene	ND	ND	ND
1,1,2,2-Tetrachloroethane	ND	ND	ND
Total CVOC Mass Removal	**0.7**	**0.8**	**0.9**

Notes:
* Per NYSDEC, calculated as sum of flow rates divided by the number of extraction wells
** Calculated based on pre-carbon effluent concentrations
*** No access to extraction wells - flow rates from 2/24/2011 site inspection.
****11/14/13 flow rates and 10/4/12 analytical used for calculations.
SSDS - sub-slab depressurization system
ND - compound not detected
ug/m^3 - micrograms per cubic meter
lb/year- pounds per year
cfm - cubic feet per minute

Conversion Factors:
2.2 E-09 lb/ug
0.0283 m^3/ft^3
525,600 min/year

Table 6-1
Summary of Indoor Air Sampling
Watervliet Arsenal
Watervliet, New York

Building	Building 25								
Sample ID	IA-B25-1	IA-B25-1	IA-B25-1	IA-B25-1	IA-B25-1	IA-B25-1	IA-B25-1	IA-B25-1	IA-B25-1
Sample Date	3/31/2010	11/21/2011	12/6/2012	12/16/2013	11/24/2014	11/24/2015	11/22/2016	12/15/2017	11/27/2018
Dilution	2.06	1.68	1.75	1.76	1.67	1.29	1.77	1.73	1.76
Units	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3
COMPOUND									
Vinyl Chloride	0.053 U	0.043 U	0.045 UJ	0.045 U	0.043 U	0.033 U	0.045 U	0.044 U	0.045 U
Trichloroethene	0.22 U	0.18 U	0.19 U	0.19 U	0.18 U	0.35	0.2	6.4	2.3
trans-1,2-Dichloroethene	0.82 U	0.67 U	0.69 U	0.7 U	0.66 U	0.51 U	0.7 U	0.68 U	0.7 U
Tetrachloroethene	0.28 U	0.31	0.24 U	0.24 U	0.23 U	0.59	0.24 U	0.23 U	0.24 U
cis-1,2-Dichloroethene	0.3	0.13 U	0.14 U	0.14 U	0.13 U	0.1 U	0.14 U	0.14 U	0.14 U
Chloromethane	1	0.93	0.97	0.98	1.4	0.95	0.95	1.8 U	1.8 U
Chloroethane	0.27 U	0.22 U	0.23 U	0.23 U	0.22 U	0.17 U	0.23 U	0.23 U	0.23 U
Chlorobenzene	0.19 U	0.15 U	0.16 U	0.16 U	0.15 U	0.12 U	0.16 U	0.16 U	0.81 U
Carbon Tetrachloride	0.42	0.44	0.62	0.47	0.44	0.42	0.42	0.38	0.51
1,2-Dichloroethane	0.17 U	0.14 U	0.14 U	0.14 U	0.14 U	0.13	0.14 U	0.14 U	0.17
1,1-Dichloroethene	0.082 U	0.067 U	0.069 U	0.07 U	0.066 U	0.056	0.07 U	0.068 U	0.07 U
1,1-Dichloroethane	0.17 U	0.14 U	0.14 U	0.14 U	0.14 U	0.1 U	0.14 U	0.14 U	0.14 U
1,1,2-Trichloroethane	0.22 U	0.18 U	0.19 U	0.19 U	0.18 U	0.14 U	0.19 U	0.19 U	0.19 U
1,1,2,2-Tetrachloroethane	0.28 U	0.23 U	0.24 U	0.24 U	0.23 U	0.18 U	0.24 U	0.24 U	0.24 U
1,1,1-Trichloroethane	0.22 U	0.18 U	0.19 U	0.19 U	0.18 U	0.14 U	0.19 U	0.19 U	0.19 U

Building	Building 25		
Sample ID	IA-B25-1	IA-B25-1	IA-B25-1
Sample Date	11/26/2019	1/13/2021	12/16/2021
Dilution	1.68	1.73	1.45
Units	µg/m^3	µg/m^3	µg/m^3
COMPOUND			
Vinyl Chloride	0.043 U	0.044 U	0.037 U
Trichloroethene	3.3	13	0.38
trans-1,2-Dichloroethene	0.67 U	0.68 U	0.57 U
Tetrachloroethene	0.34	1.0	0.2 U
cis-1,2-Dichloroethene	0.13 U	0.14 U	0.11 U
Chloromethane	1.7 U	1.8 U	1.5 U
Chloroethane	0.22 U	0.23 U	0.19 U
Chlorobenzene	0.77 U	0.80 U	0.67 U
Carbon Tetrachloride	0.44	0.44	0.45
1,2-Dichloroethane	0.25	0.14	0.12 U
1,1-Dichloroethene	0.067 U	0.068 U	0.057 U
1,1-Dichloroethane	0.14 U	0.14 U	0.12 U
1,1,2-Trichloroethane	0.18 U	0.19 U	0.16 U
1,1,2,2-Tetrachloroethane	0.23 U	0.24 U	0.2 U
1,1,1-Trichloroethane	0.18 U	0.19 U	0.16 U

Notes:

µg/m3 - micrograms per cubic meter

U - not detected at indicated concentration

J - estimated concentration

NS - Not Sampled

Table 6-1
Summary of Indoor Air Sampling
Watervliet Arsenal
Watervliet, New York

Building	Building 25								
Sample ID	IA-B25-2	IA-B25-2	IA-B25-2	IA-B25-2	IA-B25-2	IA-B25-2	IA-B25-2	IA-B25-2	IA-B25-2
Sample Date	3/31/2010	11/21/2011	12/6/2012	12/16/2013	11/24/2014	11/24/2015	11/22/2016	12/15/2017	11/27/2018
Dilution	1.79	1.68	1.79	1.65	1.79	1.41	1.67	1.53	1.67
Units	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3
COMPOUND									
Vinyl Chloride	0.046 U	0.043 U	0.046 UJ	0.042 U	0.046 U	0.036 U	0.043 U	0.039 U	0.043 U
Trichloroethene	0.25	0.18 U	0.19 U	2.7	0.25	0.54	0.59	0.45	10
trans-1,2-Dichloroethene	0.71 U	0.67 U	0.71 U	0.65 U	0.71 U	0.56 U	0.66 U	0.61 U	0.66 U
Tetrachloroethene	0.24 U	0.33	0.24 U	0.22 U	0.24 U	0.35	0.23 U	0.21 U	0.23 U
cis-1,2-Dichloroethene	0.14 U	0.13 U	0.14 U	0.13 U	0.14 U	0.11 U	0.13 U	0.12 U	0.13 U
Chloromethane	1.2	0.91	1.1	0.98	1.4	0.96	0.95	1.6 U	1.7 U
Chloroethane	0.24 U	0.22 U	0.24 U	0.22 U	0.24 U	0.19 U	0.22 U	0.2 U	0.22 U
Chlorobenzene	0.16 U	0.15 U	0.16 U	0.15 U	0.16 U	0.13 U	0.15 U	0.14 U	0.77 U
Carbon Tetrachloride	0.44	0.47	0.76	0.42	0.94	0.42	0.4	0.46	0.52
1,2-Dichloroethane	0.14 U	0.14 U	0.18	0.13 U	0.14 U	0.11 U	0.14 U	0.12 U	0.14
1,1-Dichloroethene	0.071 U	0.067 U	0.071 U	0.065 U	0.071 U	0.071	0.066 U	0.061 U	0.066 U
1,1-Dichloroethane	0.14 U	0.14 U	0.14 U	0.13 U	0.14 U	0.11 U	0.14 U	0.12 U	0.14 U
1,1,2-Trichloroethane	0.2 U	0.18 U	0.2 U	0.18 U	0.2 U	0.15 U	0.18 U	0.17 U	0.18 U
1,1,2,2-Tetrachloroethane	0.24 U	0.23 U	0.24 U	0.23 U	0.24 U	0.19 U	0.23 U	0.21 U	0.23 U
1,1,1-Trichloroethane	0.2 U	0.18 U	0.2 U	0.18 U	0.2 U	0.15 U	0.18 U	0.17 U	0.18 U

Building	Building 25		
Sample ID	IA-B25-2	IA-B25-2	IA-B25-2
Sample Date	11/26/2019	1/13/2021	12/16/2021
Dilution	1.98	1.66	1.51
Units	µg/m^3	µg/m^3	µg/m^3
COMPOUND			
Vinyl Chloride	0.051 U	0.042 U	0.038 U
Trichloroethene	1.6	0.24	0.16
trans-1,2-Dichloroethene	0.78 U	0.66 U	0.6 U
Tetrachloroethene	0.52	0.22 U	0.2 U
cis-1,2-Dichloroethene	0.16 U	0.13 U	0.12 U
Chloromethane	2 U	1.7 U	1.6 U
Chloroethane	0.26 U	0.22 U	0.2 U
Chlorobenzene	0.91 U	0.76 U	0.7 U
Carbon Tetrachloride	0.46	0.47	0.44
1,2-Dichloroethane	0.19	0.13 U	0.13
1,1-Dichloroethene	0.078 U	0.066 U	0.06 U
1,1-Dichloroethane	0.16 U	0.13 U	0.12 U
1,1,2-Trichloroethane	0.22 U	0.18 U	0.16 U
1,1,2,2-Tetrachloroethane	0.27 U	0.23 U	0.21 U
1,1,1-Trichloroethane	0.22 U	0.18 U	0.16 U

Notes:

µg/m3 - micrograms per cubic meter

U - not detected at indicated concentration

J - estimated concentration

NS - Not Sampled

Table 6-1
Summary of Indoor Air Sampling
Watervliet Arsenal
Watervliet, New York

Building	Building 25								
Sample ID	IA-B25-3	IA-B25-3	IA-B25-3	IA-B25-3	IA-B25-3	IA-B25-3	IA-B25-3	IA-B25-3	IA-B25-3
Sample Date	3/31/2010	11/21/2011	12/6/2012	12/16/2013	11/24/2014	11/24/2015	11/22/2016	12/15/2017	11/27/2018
Dilution	1.68	1.75	1.79	1.66	1.77	1.31	1.59	1.72	1.68
Units	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3
COMPOUND									
Vinyl Chloride	0.043 U	0.045 U	0.046 UJ	0.042 U	0.045 U	0.033 U	0.041 U	0.044 U	0.043 U
Trichloroethene	0.22	0.19 U	0.19 U	0.83	0.2	0.44	0.36	0.28	4.3
trans-1,2-Dichloroethene	0.67 U	0.69 U	0.71 U	0.66 U	0.7 U	0.52 U	0.63 U	0.68 U	0.67 U
Tetrachloroethene	0.24	0.47	0.24 U	0.22 U	0.24 U	0.55	0.22 U	0.23 U	0.23 U
cis-1,2-Dichloroethene	0.13 U	0.14 U	0.14 U	0.13 U	0.14 U	0.1 U	0.13 U	0.14 U	0.13 U
Chloromethane	1.1	0.87	1	0.92	1.7	1.2	1	1.8 U	1.7 U
Chloroethane	0.22 U	0.23 U	0.24 U	0.22 U	0.23 U	0.17 U	0.21 U	0.23 U	0.22 U
Chlorobenzene	0.15 U	0.16 U	0.16 U	0.15 U	0.16 U	0.12 U	0.15 U	0.16 U	0.77 U
Carbon Tetrachloride	0.43	0.49	0.59	0.4	0.87	0.42	0.43	0.46	0.52
1,2-Dichloroethane	0.14 U	0.14 U	0.14 U	0.13 U	0.14 U	0.11 U	0.13 U	0.14 U	0.14 U
1,1-Dichloroethene	0.067 U	0.069 U	0.071 U	0.066 U	0.07 U	0.076	0.063 U	0.068 U	0.067 U
1,1-Dichloroethane	0.14 U	0.14 U	0.14 U	0.13 U	0.14 U	0.11 U	0.13 U	0.14 U	0.14 U
1,1,2-Trichloroethane	0.18 U	0.19 U	0.2 U	0.18 U	0.19 U	0.14 U	0.17 U	0.19 U	0.18 U
1,1,2,2-Tetrachloroethane	0.23 U	0.24 U	0.24 U	0.23 U	0.24 U	0.18 U	0.22 U	0.24 U	0.23 U
1,1,1-Trichloroethane	0.18 U	0.19 U	0.2 U	0.18 U	0.19 U	0.14 U	0.17 U	0.19 U	0.18 U

Building	Building 25		
Sample ID	IA-B25-3	IA-B25-3	IA-B25-3
Sample Date	11/26/2019	1/13/2021	12/16/2021
Dilution	1.64	3.36	1.31
Units	µg/m^3	µg/m^3	µg/m^3
COMPOUND			
Vinyl Chloride	0.042 U	0.086 U	0.036 U
Trichloroethene	0.56	0.36 U	0.15 U
trans-1,2-Dichloroethene	0.65 U	1.3 U	0.55 U
Tetrachloroethene	0.33	0.46 U	0.19 U
cis-1,2-Dichloroethene	0.13 U	0.27 U	0.11 U
Chloromethane	1.7 U	3.5 U	1.4 U
Chloroethane	0.22 U	0.44 U	0.18 U
Chlorobenzene	0.76 U	1.5 U	0.64 U
Carbon Tetrachloride	0.46	0.44	0.64
1,2-Dichloroethane	0.16	0.27 U	0.11 J
1,1-Dichloroethene	0.065 U	0.13 U	0.055 U
1,1-Dichloroethane	0.13 U	0.27 U	0.11 U
1,1,2-Trichloroethane	0.18 U	0.37 U	0.15 U
1,1,2,2-Tetrachloroethane	0.22 U	0.46 U	0.19 U
1,1,1-Trichloroethane	0.18 U	0.37 U	0.15 U

Notes:

µg/m3 - micrograms per cubic meter

U - not detected at indicated concentration

J - estimated concentration

NS - Not Sampled

Table 6-1
Summary of Indoor Air Sampling
Watervliet Arsenal
Watervliet, New York

Building	Building 25								
Sample ID	IA-B25-4	IA-B25-4	IA-B25-4	IA-B25-4	IA-B25-4	IA-B25-4	IA-B25-4	IA-B25-4	IA-B25-4
Sample Date	3/31/2010	11/21/2011	12/6/2012	12/16/2013	11/24/2014	11/24/2015	11/22/2016	12/15/2017	11/27/2018
Dilution	1.79	1.75	1.91	1.55	1.77	1.34	1.66	1.5	1.68
Units	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3
COMPOUND									
Vinyl Chloride	0.046 U	0.045 U	0.049 UJ	0.04 U	0.045 U	0.034 U	0.042 U	0.038 U	0.043 U
Trichloroethene	0.19 U	0.19 U	0.2 U	0.17 U	0.19 U	0.2	0.18 U	0.17	0.49
trans-1,2-Dichloroethene	0.71 U	0.69 U	0.76 U	0.61 U	0.7 U	0.53 U	0.66 U	0.59 U	0.67 U
Tetrachloroethene	0.24 U	0.32	0.26 U	0.21 U	0.24 U	0.4	0.22 U	0.2 U	0.23 U
cis-1,2-Dichloroethene	0.14 U	0.14 U	0.15 U	0.12 U	0.14 U	0.11 U	0.13 U	0.12 U	0.13 U
Chloromethane	1.2	0.91	1.2	0.88	1.2	0.95	1	1.5 U	1.8
Chloroethane	0.24 U	0.23 U	0.25 U	0.2 U	0.23 U	0.18 U	0.22 U	0.2 U	0.22 U
Chlorobenzene	0.16 U	0.16 U	0.18 U	0.14 U	0.16 U	0.12 U	0.15 U	0.14 U	0.77 U
Carbon Tetrachloride	0.45	0.5	0.64	0.49	0.27	0.34	0.4	0.45	0.51
1,2-Dichloroethane	0.14 U	0.14 U	0.15 U	0.12 U	0.14 U	0.11 U	0.13 U	0.12 U	0.14 U
1,1-Dichloroethene	0.071 U	0.069 U	0.076 U	0.061 U	0.07 U	0.054	0.066 U	0.059 U	0.067 U
1,1-Dichloroethane	0.14 U	0.14 U	0.15 U	0.12 U	0.14 U	0.11 U	0.13 U	0.12 U	0.14 U
1,1,2-Trichloroethane	0.2 U	0.19 U	0.21 U	0.17 U	0.19 U	0.15 U	0.18 U	0.16 U	0.18 U
1,1,2,2-Tetrachloroethane	0.24 U	0.24 U	0.26 U	0.21 U	0.24 U	0.18 U	0.23 U	0.2 U	0.23 U
1,1,1-Trichloroethane	0.2 U	0.19 U	0.21 U	0.17 U	0.19 U	0.15 U	0.18 U	0.16 U	0.18 U

Building	Building 25		
Sample ID	IA-B25-4	IA-B25-4	IA-B25-4
Sample Date	11/26/2019	1/13/2021	12/16/2021
Dilution	1.82	1.65	1.51
Units	µg/m^3	µg/m^3	µg/m^3
COMPOUND			
Vinyl Chloride	0.046 U	0.042 U	0.038 U
Trichloroethene	1.2	0.18 U	0.18
trans-1,2-Dichloroethene	0.72 U	0.65 U	0.6 U
Tetrachloroethene	0.34	0.22 U	0.2 U
cis-1,2-Dichloroethene	0.14 U	0.13 U	0.12 U
Chloromethane	1.9 U	1.7 U	1.6 U
Chloroethane	0.24 U	0.22 U	0.2 U
Chlorobenzene	0.84 U	0.76 U	0.7 U
Carbon Tetrachloride	0.56	0.48	0.45
1,2-Dichloroethane	0.33	0.31	0.16
1,1-Dichloroethene	0.072 U	0.065 U	0.06 U
1,1-Dichloroethane	0.15 U	0.13 U	0.12 U
1,1,2-Trichloroethane	0.2 U	0.18 U	0.16 U
1,1,2,2-Tetrachloroethane	0.25 U	0.23 U	0.21 U
1,1,1-Trichloroethane	0.2 U	0.18 U	0.16 U

Notes:

µg/m3 - micrograms per cubic meter

U - not detected at indicated concentration

J - estimated concentration

NS - Not Sampled

Table 6-1
Summary of Indoor Air Sampling
Watervliet Arsenal
Watervliet, New York

Building	Building 25								
Sample ID	IA-B25-5	IA-B25-5	IA-B25-5	IA-B25-5	IA-B25-5	IA-B25-5	IA-B25-5	IA-B25-5	IA-B25-5
Sample Date	3/31/2010	11/21/2011	12/6/2012	12/16/2013	11/24/2014	11/24/2015	11/22/2016	12/15/2017	11/27/2018
Dilution	1.79	1.79	1.75	1.66	1.79	1.43	1.65	1.63	1.64
Units	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3
COMPOUND									
Vinyl Chloride	0.046 U	0.046 U	0.045 UJ	0.042 U	0.046 U	0.036 U	0.042 U	0.042 U	0.042 U
Trichloroethene	0.19 U	0.19 U	0.19 U	0.98	0.25	3.1	0.84	0.77	7.3
trans-1,2-Dichloroethene	0.71 U	0.71 U	0.69 U	0.66 U	0.71 U	0.57 U	0.65 U	0.65 U	0.65 U
Tetrachloroethene	0.24 U	0.43	0.24 U	0.22 U	1.3	0.29	0.22 U	0.22 U	0.22 U
cis-1,2-Dichloroethene	0.14 U	0.14 U	0.14 U	0.13 U	0.14 U	0.11 U	0.13 U	0.13 U	0.13 U
Chloromethane	1	0.85	0.99	0.98	1.2	0.94	0.96	1.7 U	1.7 U
Chloroethane	0.24 U	0.24 U	0.23 U	0.22 U	0.24 U	0.19 U	0.22 U	0.22 U	0.22 U
Chlorobenzene	0.16 U	0.16 U	0.16 U	0.15 U	0.16 U	0.13 U	0.15 U	0.15 U	0.76 U
Carbon Tetrachloride	0.46	0.46	0.52	0.53	1.6	0.34	0.42	0.46	0.53
1,2-Dichloroethane	0.14 U	0.14 U	0.14 U	0.13 U	0.14 U	0.12 U	0.13 U	0.13 U	0.13 U
1,1-Dichloroethene	0.071 U	0.071 U	0.069 U	0.066 U	0.071 U	0.075	0.065 U	0.065 U	0.065 U
1,1-Dichloroethane	0.14 U	0.14 U	0.14 U	0.13 U	0.14 U	0.12 U	0.13 U	0.13 U	0.13 U
1,1,2-Trichloroethane	0.2 U	0.2 U	0.19 U	0.18 U	0.2 U	0.16 U	0.18 U	0.18 U	0.18 U
1,1,2,2-Tetrachloroethane	0.24 U	0.24 U	0.24 U	0.23 U	0.24 U	0.2 U	0.23 U	0.22 U	0.22 U
1,1,1-Trichloroethane	0.2 U	0.2 U	0.19 U	0.18 U	0.2 U	0.16 U	0.18 U	0.18 U	0.18 U

Building	Building 25		
Sample ID	IA-B25-5	IA-B25-5	IA-B25-5
Sample Date	11/26/2019	1/13/2021	12/16/2021
Dilution	1.75	1.57	1.55
Units	µg/m^3	µg/m^3	µg/m^3
COMPOUND			
Vinyl Chloride	0.045 U	0.04 U	0.04 U
Trichloroethene	0.52	0.19	0.17 U
trans-1,2-Dichloroethene	0.69 U	0.78	0.61 U
Tetrachloroethene	0.38	0.21 U	0.21 U
cis-1,2-Dichloroethene	0.14 U	0.12 U	0.12 U
Chloromethane	1.8 U	1.6 U	1.6 U
Chloroethane	0.23 U	0.21 U	0.2 U
Chlorobenzene	0.80 U	0.72 U	0.71 U
Carbon Tetrachloride	0.42	0.51	0.58
1,2-Dichloroethane	0.14 U	0.13	0.12 U
1,1-Dichloroethene	0.069 U	0.062 U	0.061 U
1,1-Dichloroethane	0.14 U	0.13 U	0.12 U
1,1,2-Trichloroethane	0.19 U	0.17 U	0.17 U
1,1,2,2-Tetrachloroethane	0.24 UJ	0.22 U	0.21 U
1,1,1-Trichloroethane	0.19 U	0.17 U	0.17 U

Notes:

µg/m3 - micrograms per cubic meter

U - not detected at indicated concentration

J - estimated concentration

NS - Not Sampled

Table 6-1
Summary of Indoor Air Sampling
Watervliet Arsenal
Watervliet, New York

Building	Building 20								
Sample ID	IA-B20-1	IA-B20-1	IA-B20-1	IA-B20-1	IA-B20-1	IA-B20-1	IA-B20-1	IA-B20-1	IA-B20-1
Sample Date	3/31/2010	11/21/2011	12/6/2012	12/16/2013	11/24/2014	11/24/2015	11/22/2016	12/15/2017	11/27/2018
Dilution	1.75	1.68	1.87	1.71	2.15	1.71	1.52	1.66	1.67
Units	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3
COMPOUND									
Vinyl Chloride	0.045 U	0.043 U	0.048 UJ	0.044 U	0.055 U	0.044 U	0.039 U	0.042 U	0.043 U
Trichloroethene	0.19 U	0.18 U	0.2 U	0.18 U	0.23 U	0.18 U	0.16 U	0.18 U	0.18 U
trans-1,2-Dichloroethene	0.69 U	0.67 U	0.74 U	0.68 U	0.85 U	0.68 U	0.6 U	0.66 U	0.66 U
Tetrachloroethene	0.24 U	0.23 U	0.25 U	0.23 U	0.29 U	0.24	0.21 U	0.22 U	0.23 U
cis-1,2-Dichloroethene	0.14 U	0.13 U	0.15 U	0.14 U	0.17 U	0.14 U	0.12 U	0.13 U	0.13 U
Chloromethane	1.1	0.89	0.96	1.2	1.5	1.0	0.98	1.7 U	1.7 U
Chloroethane	0.23 U	0.22 U	0.25 U	0.22 U	0.28 U	0.22 U	0.2 U	0.22 U	0.22 U
Chlorobenzene	0.16 U	0.15 U	0.17 U	0.16 U	0.2 U	0.16 U	0.14 U	0.15 U	0.77 U
Carbon Tetrachloride	0.41	0.35	0.28	0.43	0.54	0.37	0.43	0.46	0.51
1,2-Dichloroethane	0.14 U	0.14 U	0.15 U	0.14	0.17 U	0.14 U	0.12 U	0.13 U	0.14 U
1,1-Dichloroethene	0.069 U	0.067 U	0.074 U	0.068 U	0.085 U	0.078	0.06 U	0.066 U	0.066 U
1,1-Dichloroethane	0.14 U	0.14 U	0.15 U	0.14 U	0.17 U	0.14 U	0.12 U	0.13 U	0.14 U
1,1,2-Trichloroethane	0.19 U	0.18 U	0.2 U	0.19 U	0.23 U	0.19 U	0.16 U	0.18 U	0.18 U
1,1,2,2-Tetrachloroethane	0.24 U	0.23 U	0.26 U	0.23 U	0.3 U	0.23 U	0.21 U	0.23 U	0.23 U
1,1,1-Trichloroethane	0.19 U	0.18 U	0.2 U	0.19 U	0.23 U	0.19 U	0.16 U	0.18 U	0.18 U

Building	Building 20		
Sample ID	IA-B20-1	IA-B20-1	IA-B20-1
Sample Date	11/26/2019	1/13/2021	12/16/2021
Dilution	1.7	1.73	1.62
Units	µg/m^3	µg/m^3	µg/m^3
COMPOUND			
Vinyl Chloride	0.043 U	0.044 U	0.041 U
Trichloroethene	0.18 U	0.18 U	0.17 U
trans-1,2-Dichloroethene	0.67 U	0.68 U	0.64 U
Tetrachloroethene	0.31	0.23 U	0.22 U
cis-1,2-Dichloroethene	0.13 U	0.14 U	0.13 U
Chloromethane	1.8 U	1.8 U	1.7 U
Chloroethane	0.22 U	0.23 U	0.21 U
Chlorobenzene	0.78 U	0.8 U	0.74 U
Carbon Tetrachloride	0.46	0.48	0.45
1,2-Dichloroethane	0.14	0.14 U	0.13 U
1,1-Dichloroethene	0.067 U	0.068 U	0.064 U
1,1-Dichloroethane	0.14 U	0.14 U	0.13 U
1,1,2-Trichloroethane	0.18 U	0.19 U	0.18 U
1,1,2,2-Tetrachloroethane	0.23 U	0.24 U	0.22 U
1,1,1-Trichloroethane	0.18 U	0.19 U	0.18 U

Notes:

µg/m3 - micrograms per cubic meter

U - not detected at indicated concentration

J - estimated concentration

NS - Not Sampled

Table 6-1
Summary of Indoor Air Sampling
Watervliet Arsenal
Watervliet, New York

Building	Building 22								
Sample ID	IA-B22-1	IA-B22-1	IA-B22-1	IA-B22-1	IA-B22-1	IA-B22-1	IA-B22-1	IA-B22-1	IA-B22-1
Sample Date	3/31/2010	11/21/2011	12/6/2012	12/16/2013	11/24/2014	11/24/2015	11/22/2016	12/15/2017	11/27/2018
Dilution	1.75	1.68	1.61	1.62	1.73	1.29	1.76	--	1.58
Units	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3
COMPOUND									
Vinyl Chloride	0.3	0.043 U	0.041 U	0.041 U	0.044 U	0.033 U	0.045 UJ	NS	0.04 U
Trichloroethene	0.19 U	0.18 U	0.17 U	0.17 U	0.18 U	0.14 U	0.19 UJ	NS	0.17 U
trans-1,2-Dichloroethene	0.69 U	0.67 U	0.64 U	0.64 U	0.68 U	0.51 U	0.7 UJ	NS	0.63 U
Tetrachloroethene	0.25	0.31	0.22 U	0.22	0.23 U	0.29	0.74 J	NS	0.28
cis-1,2-Dichloroethene	1.1	0.13 U	0.13 U	0.13 U	0.14 U	0.1 U	0.14 UJ	NS	0.12 U
Chloromethane	1.1	0.9	1.4	1.1	1.2	1.1	0.98 J	NS	1.7
Chloroethane	0.23 U	0.22 U	0.21 U	0.21 U	0.23 U	0.17 U	0.23 UJ	NS	0.21 U
Chlorobenzene	0.16 U	0.15 U	0.15 U	0.15 U	0.16 U	0.12 U	0.16 UJ	NS	0.73 U
Carbon Tetrachloride	0.4	0.47	0.62	0.46	0.46	0.42	0.43 J	NS	0.54
1,2-Dichloroethane	0.14 U	0.14 U	0.26	0.74	0.14 U	0.13	0.48 J	NS	0.15
1,1-Dichloroethene	0.069 U	0.067 U	0.064 U	0.064 U	0.068 U	0.051 U	0.07 UJ	NS	0.063 U
1,1-Dichloroethane	0.14 U	0.14 U	0.13 U	0.13 U	0.14 U	0.1 U	0.14 UJ	NS	0.13 U
1,1,2-Trichloroethane	0.19 U	0.18 U	0.18 U	0.18 U	0.19 U	0.14 U	0.19 UJ	NS	0.17 U
1,1,2,2-Tetrachloroethane	0.24 U	0.23 U	0.22 U	0.22 U	0.24 U	0.18 U	0.24 UJ	NS	0.22 U
1,1,1-Trichloroethane	0.19 U	0.18 U	0.18 U	0.18 U	0.19 U	0.14 U	0.19 UJ	NS	0.17 U

Building	Building 22		
Sample ID	IA-B22-1	IA-B22-1	IA-B22-1
Sample Date	11/26/2019	1/13/2020	12/16/2021
Dilution	1.81	1.56	1.42
Units	µg/m^3	µg/m^3	µg/m^3
COMPOUND			
Vinyl Chloride	0.046 U	0.04 U	0.036 U
Trichloroethene	0.19 U	0.17 U	0.15 U
trans-1,2-Dichloroethene	0.72 U	0.62 U	0.56 U
Tetrachloroethene	0.59	0.26	0.19 U
cis-1,2-Dichloroethene	0.14 U	0.12 U	0.11 U
Chloromethane	1.9 U	1.6 U	1.5 U
Chloroethane	0.24 U	0.2 U	0.19 U
Chlorobenzene	0.83 U	0.72 U	0.65 U
Carbon Tetrachloride	0.65	0.53	0.46
1,2-Dichloroethane	0.18	0.13 U	0.11 U
1,1-Dichloroethene	0.072 U	0.062 U	0.056 U
1,1-Dichloroethane	0.15 U	0.13 U	0.11 U
1,1,2-Trichloroethane	0.2 U	0.17 U	0.15 U
1,1,2,2-Tetrachloroethane	0.25 U	0.21 U	0.19 U
1,1,1-Trichloroethane	0.2 U	0.17 U	0.15 U

Notes:

µg/m3 - micrograms per cubic meter

U - not detected at indicated concentration

J - estimated concentration

NS - Not Sampled

Table 6-1
Summary of Indoor Air Sampling
Watervliet Arsenal
Watervliet, New York

Building	Building 22								
Sample ID	IA-B22-2	IA-B22-2	IA-B22-2	IA-B22-2	IA-B22-2	IA-B22-2	IA-B22-2	IA-B22-2	IA-B22-2
Sample Date	3/31/2010	11/21/2011	12/6/2012	12/16/2013	11/24/2014	11/24/2015	11/22/2016	12/15/2017	11/27/2018
Dilution	1.75	1.71	1.68		1.73	1.37	1.62	--	1.67
Units	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3
COMPOUND									
Vinyl Chloride	0.045 U	0.044 U	0.043 U	0.042 U	0.044 U	0.035 U	0.041 U	NS	0.043 U
Trichloroethene	0.19 U	0.18 U	0.18 U	0.18 U	0.18 U	0.15 U	0.17 U	NS	0.20
trans-1,2-Dichloroethene	0.69 U	0.68 U	0.67 U	0.65 U	0.68 U	0.54 U	0.64 U	NS	0.66 U
Tetrachloroethene	0.3	0.23 U	0.23 U	0.22 U	0.27	0.4	0.22 U	NS	0.59
cis-1,2-Dichloroethene	0.14 U	0.14 U	0.13 U	0.13 U	0.14 U	0.11 U	0.13 U	NS	0.13 U
Chloromethane	1.1	0.82	1.2	1.7	1.4	1.0	1.1	NS	1.7 U
Chloroethane	0.23 U	0.22 U	0.22 U	0.22 U	0.23 U	0.18 U	0.21 U	NS	0.22 U
Chlorobenzene	0.16 U	0.16 U	0.15 U	0.15 U	0.16 U	0.13 U	0.15 U	NS	0.77 U
Carbon Tetrachloride	0.43	0.22 U	0.75	0.63	0.49	0.45	0.43	NS	0.53
1,2-Dichloroethane	0.14 U	0.14 U	0.49	0.27	0.36	0.25	0.13 U	NS	0.29
1,1-Dichloroethene	0.069 U	0.068 U	0.067 U	0.065 U	0.068 U	0.054 U	0.064 U	NS	0.066 U
1,1-Dichloroethane	0.14 U	0.14 U	0.14 U	0.13 U	0.14 U	0.11 U	0.13 U	NS	0.14 U
1,1,2-Trichloroethane	0.19 U	0.19 U	0.18 U	0.18 U	0.19 U	0.15 U	0.18 U	NS	0.18 U
1,1,2,2-Tetrachloroethane	0.24 U	0.23 U	0.23 U	0.23 U	0.24 U	0.19 U	0.22 U	NS	0.23 U
1,1,1-Trichloroethane	0.33	0.19 U	0.19	0.18 U	0.19 U	0.15 U	0.18 U	NS	0.18 U

Building	Building 22		
Sample ID	IA-B22-2	IA-B22-2	IA-B22-2
Sample Date	11/26/2019	1/13/2021	12/16/2021
Dilution	1.72	1.75	1.48
Units	µg/m^3	µg/m^3	µg/m^3
COMPOUND			
Vinyl Chloride	0.044 U	0.045 U	0.038 U
Trichloroethene	0.18 U	0.19 U	0.16 U
trans-1,2-Dichloroethene	0.68 U	0.69 U	0.59 U
Tetrachloroethene	0.69	0.37	0.3
cis-1,2-Dichloroethene	0.14 U	0.14 U	0.12 U
Chloromethane	1.8 U	1.8 U	1.5 U
Chloroethane	0.23 U	0.23 U	0.2 U
Chlorobenzene	0.79 U	0.8 U	0.68 U
Carbon Tetrachloride	0.68	0.56	0.45
1,2-Dichloroethane	0.26	0.14 U	0.12 U
1,1-Dichloroethene	0.068 U	0.069 U	0.059 U
1,1-Dichloroethane	0.14 U	0.14 U	0.12 U
1,1,2-Trichloroethane	0.19 U	0.19 U	0.16 U
1,1,2,2-Tetrachloroethane	0.24 U	0.24 U	0.2 U
1,1,1-Trichloroethane	0.19 U	0.19 U	0.16 U

Notes:

µg/m3 - micrograms per cubic meter

U - not detected at indicated concentration

J - estimated concentration

NS - Not Sampled

Table 6-1
Summary of Indoor Air Sampling
Watervliet Arsenal
Watervliet, New York

Building	Building 15								
Sample ID	IA-B15-1	IA-B15-1	IA-B15-1	IA-B15-1	IA-B15-1	IA-B15-1	IA-B15-1	IA-B15-1	IA-B15-1
Sample Date	3/31/2010	11/21/2011	12/6/2012	12/16/2013	11/24/2014	11/24/2015	11/22/2016	12/15/2017	11/27/2018
Dilution	2.12	1.64	1.75	1.66	2.05	1.28	1.43	1.69	1.78
Units	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3
COMPOUND									
Vinyl Chloride	0.054 U	0.042 U	0.045 UJ	0.042 U	0.052 U	0.033 U	0.036 U	0.043 U	0.046 U
Trichloroethene	0.23 U	0.18 U	0.19 U	0.18 U	1.7	0.14 U	0.15 U	0.18 U	1.6
trans-1,2-Dichloroethene	0.84 U	0.65 U	0.69 U	0.66 U	0.81 U	0.51 U	0.57 U	0.67 U	0.7 U
Tetrachloroethene	0.29 U	0.22 U	0.24 U	0.59	1.4	7.4	0.27	0.25	0.24 U
cis-1,2-Dichloroethene	0.17 U	0.13 U	0.14 U	0.13 U	0.16 U	0.1 U	0.11 U	0.13 U	0.14 U
Chloromethane	1.8	0.86	0.98	1	1.2	0.94	0.88	1.7 U	1.8 U
Chloroethane	0.28 U	0.22 U	0.23 U	0.22 U	0.27 U	0.17 U	0.19 U	0.22 U	0.23 U
Chlorobenzene	0.2 U	0.15 U	0.16 U	0.15 U	0.19 U	0.12 U	0.13 U	0.16 U	0.82 U
Carbon Tetrachloride	0.43	0.5	0.81	0.43	0.5	0.41	0.39	0.35	0.51
1,2-Dichloroethane	0.17 U	0.13 U	0.14 U	0.13 U	0.16 U	0.1 U	0.12 U	0.14 U	0.14 U
1,1-Dichloroethene	0.084 U	0.065 U	0.069 U	0.066 U	0.081 U	0.055	0.057 U	0.067 U	0.07 U
1,1-Dichloroethane	0.17 U	0.13 U	0.14 U	0.13 U	0.16 U	0.1 U	0.12 U	0.14 U	0.14 U
1,1,2-Trichloroethane	0.23 U	0.18 U	0.19 U	0.18 U	0.22 U	0.14 U	0.16 U	0.18 U	0.19 U
1,1,2,2-Tetrachloroethane	0.29 U	0.22 U	0.24 U	0.23 U	0.28 U	0.18 U	0.2 U	0.23 U	0.24 U
1,1,1-Trichloroethane	0.23 U	0.18 U	0.19 U	0.18 U	0.31	0.14 U	0.16 U	0.18 U	0.19 U

Building	Building 15		
Sample ID	IA-B15-1	IA-B15-1	IA-B15-1
Sample Date	11/26/2019	1/13/2021	12/16/2021
Dilution	1.75	1.69	1.55
Units	µg/m^3	µg/m^3	µg/m^3
COMPOUND			
Vinyl Chloride	0.045 U	0.043 U	0.04 U
Trichloroethene	0.19 U	0.22	0.17 U
trans-1,2-Dichloroethene	0.69 U	0.67 U	0.61 U
Tetrachloroethene	0.4	0.24	0.21 U
cis-1,2-Dichloroethene	0.14 U	0.13 U	0.12 U
Chloromethane	1.8 U	1.7 U	1.6 U
Chloroethane	0.23 U	0.22 U	0.2 U
Chlorobenzene	0.8 U	0.78 U	0.71 U
Carbon Tetrachloride	0.54	0.46	0.46
1,2-Dichloroethane	0.16	0.14 U	0.12 U
1,1-Dichloroethene	0.069 U	0.13	0.061 U
1,1-Dichloroethane	0.14 U	0.14 U	0.12 U
1,1,2-Trichloroethane	0.19 U	0.18 U	0.17 U
1,1,2,2-Tetrachloroethane	0.24 U	0.23 U	0.21 U
1,1,1-Trichloroethane	0.19 U	0.18 U	0.17 U

Notes:

µg/m3 - micrograms per cubic meter

U - not detected at indicated concentration

J - estimated concentration

NS - Not Sampled

Table 6-1
Summary of Indoor Air Sampling
Watervliet Arsenal
Watervliet, New York

Building	Building 15								
Sample ID	IA-B15-2	IA-B15-2	IA-B15-2	IA-B15-2	IA-B15-2	IA-B15-2	IA-B15-2	IA-B15-2	IA-B15-2
Sample Date	3/31/2010	11/21/2011	12/6/2012	12/16/2013	11/24/2014	11/24/2015	11/22/2016	12/15/2017	11/27/2018
Dilution	1.58	1.71	1.75	1.71	1.85	1.68	1.3	1.66	1.71
Units	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3
COMPOUND									
Vinyl Chloride	0.04 U	0.044 U	0.045 UJ	0.44 U	0.047 U	0.043 U	0.033 U	0.042 U	0.044 U
Trichloroethene	0.51	0.18 U	0.19 U	1.8 U	0.93	0.18 U	0.15	0.18 U	0.93
trans-1,2-Dichloroethene	0.63 U	0.68 U	0.69 U	6.8 U	0.73 U	0.67 U	0.52 U	0.66 U	0.68 U
Tetrachloroethene	16	0.23 U	0.24 U	2.3 U	0.47	70	0.23	0.22 U	0.23 U
cis-1,2-Dichloroethene	0.12 U	0.14 U	0.14 U	1.4 U	0.15 U	0.13 U	0.1 U	0.13 U	0.14 U
Chloromethane	1.6	0.92	1.2	1.8 U	1.2	1.1	0.87	1.7 U	1.8 U
Chloroethane	0.21 U	0.22 U	0.23 U	2.2 U	0.24 U	0.22 U	0.17 U	0.22 U	0.22 U
Chlorobenzene	0.14 U	0.16 U	0.16 U	1.6 U	0.17 U	0.15 U	0.12 U	0.46	0.79 U
Carbon Tetrachloride	0.42	0.48	0.78	2.2 U	0.41	0.4	0.41	0.41	0.52
1,2-Dichloroethane	0.14	0.14 U	0.14 U	1.4 U	0.15 U	0.14 U	0.1 U	0.13 U	0.14 U
1,1-Dichloroethene	0.063 U	0.068 U	0.069 U	0.68 U	0.073 U	0.066 J	0.052 U	0.066 U	0.068 U
1,1-Dichloroethane	0.13 U	0.14 U	0.14 U	1.4 U	0.15 U	0.14 U	0.1 U	0.13 U	0.14 U
1,1,2-Trichloroethane	0.17 U	0.19 U	0.19 U	1.9 U	0.2 U	0.18 U	0.14 U	0.18 U	0.19 U
1,1,2,2-Tetrachloroethane	0.22 U	0.23 U	0.24 U	2.3 U	0.25 U	0.23 U	0.18 U	0.23 U	0.23 U
1,1,1-Trichloroethane	0.17 U	0.19 U	0.19 U	1.9 U	0.2 U	0.18 U	0.14 U	0.18 U	0.19 U

Building	Building 15		
Sample ID	IA-B15-2	IA-B15-2	IA-B15-2
Sample Date	11/26/2019	1/13/2021	12/16/2021
Dilution	1.76	1.69	1.55
Units	µg/m^3	µg/m^3	µg/m^3
COMPOUND			
Vinyl Chloride	0.045 U	0.043 U	0.04 U
Trichloroethene	0.19 U	0.2	0.17 U
trans-1,2-Dichloroethene	0.7 U	0.67 U	0.61 U
Tetrachloroethene	0.54	0.23 U	0.21 U
cis-1,2-Dichloroethene	0.14 U	0.13 U	0.12 U
Chloromethane	1.8 U	1.7 U	1.6 U
Chloroethane	0.23 U	0.22 U	0.2 U
Chlorobenzene	0.81 U	0.78 U	0.71 U
Carbon Tetrachloride	0.49	0.48	0.45
1,2-Dichloroethane	0.16	0.14 U	0.12 U
1,1-Dichloroethene	0.07 U	0.072	0.061 U
1,1-Dichloroethane	0.14 U	0.14 U	0.12 U
1,1,2-Trichloroethane	0.19 U	0.18 U	0.17 U
1,1,2,2-Tetrachloroethane	0.24 U	0.23 U	0.21 U
1,1,1-Trichloroethane	0.19 U	0.18 U	0.17 U

Notes:

µg/m3 - micrograms per cubic meter

U - not detected at indicated concentration

J - estimated concentration

NS - Not Sampled

Table 6-1
Summary of Indoor Air Sampling
Watervliet Arsenal
Watervliet, New York

Building	Building 21								
Sample ID	IA-B21-1	IA-B21-1	IA-B21-1	IA-B21-1	IA-B21-1	IA-B21-1	IA-B21-1	IA-B21-1	IA-B21-1
Sample Date	3/31/2010	11/21/2011	12/6/2012	12/16/2013	11/24/2014	12/16/2014	11/24/2015	12/15/2017	11/27/2018
Dilution	1.52	1.71	1.68	1.73	1.87	1.41	1.6	1.58	1.85
Units	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3
COMPOUND									
Vinyl Chloride	0.039 U	0.044 U	0.043 U	0.044 U	0.048 U	0.036 U	0.041 U	0.04 U	0.047 U
Trichloroethene	0.52	0.18 U	0.18 U	0.18 U	0.2 U	0.25	0.17 U	0.17 U	0.2 U
trans-1,2-Dichloroethene	0.6 U	0.68 U	0.67 U	0.68 U	0.74 U	0.56 U	0.63 U	0.63 U	0.73 U
Tetrachloroethene	0.31	0.23 U	0.23 U	0.23 U	0.25 U	0.22	0.83	0.28	0.25 U
cis-1,2-Dichloroethene	0.12 U	0.14 U	0.13 U	0.14 U	0.15 U	0.11 U	0.13 U	0.12 U	0.15 U
Chloromethane	1.5	0.78	0.93	1.1	1.7	1.2	0.96	1.6 U	1.9 U
Chloroethane	0.2 U	0.22 U	0.22 U	0.23 U	0.25 U	0.19 U	0.21 U	0.21 U	0.24 U
Chlorobenzene	0.14 U	0.16 U	0.15 U	0.16 U	0.17 U	0.13 U	0.15 U	0.14 U	0.85 U
Carbon Tetrachloride	0.43	0.43	0.55	0.43	0.55	0.52	0.44	0.45	0.39
1,2-Dichloroethane	0.12 U	0.14 U	0.14 U	0.14 U	0.15 U	0.15	0.13 U	0.13 U	0.15 U
1,1-Dichloroethene	0.06 U	0.068 U	0.067 U	0.068 U	0.074 U	0.056 U	0.072	0.063 U	0.073 U
1,1-Dichloroethane	0.12 U	0.14 U	0.14 U	0.14 U	0.15 U	0.11 U	0.13 U	0.13 U	0.15 U
1,1,2-Trichloroethane	0.16 U	0.19 U	0.18 U	0.19 U	0.2 U	0.15 U	0.17 U	0.17 U	0.2 U
1,1,2,2-Tetrachloroethane	0.21 U	0.23 U	0.23 U	0.24 U	0.26 U	0.19 U	0.22 U	0.22 U	0.25 U
1,1,1-Trichloroethane	0.16 U	0.19 U	0.18 U	0.19 U	0.2 U	0.15 U	0.17 U	0.17 U	0.2 U

Building	Building 21		
Sample ID	IA-B21-1	IA-B21-1	IA-B21-1
Sample Date	11/26/2019	1/13/2021	12/16/2021
Dilution	1.8	1.69	1.42
Units	µg/m^3	µg/m^3	µg/m^3
COMPOUND			
Vinyl Chloride	0.046 U	0.043 U	0.036 U
Trichloroethene	0.19 U	0.18 U	0.15 U
trans-1,2-Dichloroethene	0.71 U	0.67 U	0.56 U
Tetrachloroethene	0.48	0.23 U	0.19 U
cis-1,2-Dichloroethene	0.14 U	0.13 U	0.11 U
Chloromethane	1.8 U	1.7 U	1.5 U
Chloroethane	0.24 U	0.22 U	0.19 U
Chlorobenzene	0.83 U	0.78 U	0.65 U
Carbon Tetrachloride	0.59	0.7	0.26
1,2-Dichloroethane	0.18	0.14 U	0.11 U
1,1-Dichloroethene	0.071 U	0.067 U	0.056 U
1,1-Dichloroethane	0.14 U	0.14 U	0.11 U
1,1,2-Trichloroethane	0.2 U	0.18 U	0.15 U
1,1,2,2-Tetrachloroethane	0.25 U	0.23 U	0.19 U
1,1,1-Trichloroethane	0.2 U	0.18 U	0.15 U

Notes:

µg/m3 - micrograms per cubic meter

U - not detected at indicated concentration

J - estimated concentration

NS - Not Sampled

Table 6-1
Summary of Indoor Air Sampling
Watervliet Arsenal
Watervliet, New York

Building	Building 21						
Sample ID	AA-B21-1	AA-B21-1	AA-B21-1	AA-B21-1	AA-B21-1	AA-B21-1	AA-B21-1
Sample Date	12/16/2014	11/24/2015	12/15/2017	11/27/2018	11/26/2019	1/13/2021	12/16/2021
Dilution	1.5	1.48	1.4	1.54	1.57	1.47	4.01
Units	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3
COMPOUND							
Vinyl Chloride	0.038 U	0.038 U	0.036 U	0.039 U	0.04 U	0.038 U	0.1 U
Trichloroethene	0.16	0.16 U	0.22	0.16 U	0.17 U	0.16 U	0.43 U
trans-1,2-Dichloroethene	0.59 U	0.59 U	0.56 U	0.61 U	0.62 U	0.58 U	1.6 U
Tetrachloroethene	0.2 U	0.62	0.27	0.21 U	0.32	0.2 U	0.54 U
cis-1,2-Dichloroethene	0.12 U	0.12 U	0.11 U	0.12 U	0.12 U	0.12 U	0.32 U
Chloromethane	1.5	1.0	1.4 U	1.6 U	1.6 U	1.5 U	4.1 U
Chloroethane	0.2 U	0.2 U	0.18 U	0.2 U	0.21 U	0.19 U	0.53 U
Chlorobenzene	0.14 U	0.14 U	0.13 U	0.71 U	0.72 U	0.68 U	1.8 U
Carbon Tetrachloride	0.56	0.38	0.46	0.39	0.55	0.48	0.5 U
1,2-Dichloroethane	0.12 U	0.12 U	0.14	0.12 U	0.13	0.12 U	0.32 U
1,1-Dichloroethene	0.059 U	0.059 U	0.056 U	0.061 U	0.062 U	0.058 U	0.16 U
1,1-Dichloroethane	0.12 U	0.12 U	0.11 U	0.12 U	0.13 U	0.12 U	0.32 U
1,1,2-Trichloroethane	0.16 U	0.16 U	0.15 U	0.17 U	0.17 U	0.16 U	0.44 U
1,1,2,2-Tetrachloroethane	0.2 U	0.2 U	0.19 U	0.21 U	0.22 U	0.2 U	0.55 U
1,1,1-Trichloroethane	0.16 U	0.16 U	0.15 U	0.17 U	0.17 U	0.16 U	0.44 U

Building
Sample ID
Sample Date
Dilution
Units
COMPOUND
Vinyl Chloride
Trichloroethene
trans-1,2-Dichloroethene
Tetrachloroethene
cis-1,2-Dichloroethene
Chloromethane
Chloroethane
Chlorobenzene
Carbon Tetrachloride
1,2-Dichloroethane
1,1-Dichloroethene
1,1-Dichloroethane
1,1,2-Trichloroethane
1,1,2,2-Tetrachloroethane
1,1,1-Trichloroethane

Notes:

µg/m3 - micrograms per cubic meter

U - not detected at indicated concentration

J - estimated concentration

NS - Not Sampled

Table 6-1
Summary of Indoor Air Sampling
Watervliet Arsenal
Watervliet, New York

Building	Building 21								
Sample ID	IA-B21-2	IA-B21-2	IA-B21-2	IA-B21-2	IA-B21-2	*IA-B21-2 Duplicate*	IA-B21-2	IA-B21-2	*IA-B21-2 Duplicate*
Sample Date	3/31/2010	11/21/2011	12/6/2012	12/16/2013	3/25/2014	3/25/2014	4/2/2014	11/24/2014	4/2/2014
Dilution	1.68	1.71	1.71	1.60	1.93	1.88	1.90	1.73	
Units	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3
COMPOUND									
Vinyl Chloride	0.043 U	0.044 U	0.044 UJ	0.041 U	0.049 U	0.048 U	0.048 U	0.044 U	0.046 U
Trichloroethene	0.18 U	0.18 U	0.18 U	0.17 U	0.21 U	0.2 U	0.2 U	0.18 U	0.19 U
trans-1,2-Dichloroethene	0.67 U	0.68 U	0.68 U	0.63 U	0.76 U	0.74 U	0.75 U	0.68 U	0.7 U
Tetrachloroethene	0.23 U	0.23 U	0.23 U	0.22 U	0.26 U	0.26 U	0.26 U	0.23 U	0.34
cis-1,2-Dichloroethene	0.13 U	0.14 U	0.14 U	0.13 U	0.15 U	0.15 U	0.15 U	0.14 U	0.14 U
Chloromethane	1.6	0.85	1.2	1	2.1	2.1	0.94	1.4	1.3
Chloroethane	0.22 U	0.22 U	0.22 U	0.21 U	0.25 U	0.25 U	0.25 U	0.23 U	0.23 U
Chlorobenzene	0.15 U	0.16 U	0.16 U	0.15 U	0.18 U	0.17 U	0.17 U	0.16 U	0.16 U
Carbon Tetrachloride	0.42	0.52	0.54	0.5	0.25	0.43	0.51	0.44	0.55
1,2-Dichloroethane	0.14 U	0.14 U	0.15	0.13 U	0.16 U	0.15 U	0.15 U	0.14 U	0.14 U
1,1-Dichloroethene	0.067 U	0.068 U	0.068 U	0.063 U	0.076 U	0.074 U	0.075 U	0.068 U	0.07 U
1,1-Dichloroethane	0.14 U	0.14 U	0.14 U	0.13 U	0.16 U	0.15 U	0.15 U	0.14 U	0.14 U
1,1,2-Trichloroethane	0.18 U	0.19 U	0.19 U	0.17 U	0.21 U	0.2 U	0.21 U	0.19 U	0.19 U
1,1,2,2-Tetrachloroethane	0.23 U	0.23 U	0.23 U	0.22 U	0.26 U	0.26 U	0.26 U	0.24 U	0.24 U
1,1,1-Trichloroethane	0.18 U	0.19 U	0.19 U	0.17 U	0.21 U	0.2 U	0.21 U	0.19 U	0.19 U

Building	Building 21							
Sample ID	IA-B21-2	IA-B21-2	IA-B21-2	IA-B21-2	IA-B21-2	IA-B21-2	IA-B21-2	IA-B21-2
Sample Date	12/16/2014	11/24/2015	11/22/2016	12/15/2017	11/27/2018	11/26/2019	1/13/2021	12/16/2021
Dilution	1.68	1.73	1.68	1.50	1.82	1.72	1.70	1.55
Units	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3
COMPOUND								
Vinyl Chloride	0.043 U	0.044 U	0.043 U	0.038 U	0.046 U	0.044 U	0.043 U	0.04 U
Trichloroethene	0.18 U	0.22	0.18 U	0.16 U	0.19	0.18 U	0.32	0.17 U
trans-1,2-Dichloroethene	0.67 U	0.68 U	0.67 U	0.59 U	0.72 U	0.68 U	0.67 U	0.61 U
Tetrachloroethene	0.23 U	0.42	0.23 U	0.21	0.34	0.41	0.28	0.21 U
cis-1,2-Dichloroethene	0.13 U	0.14 U	0.13 U	0.12 U	0.14 U	0.14 U	0.13 U	0.12 U
Chloromethane	1.2	1.0	0.95	1.5 U	1.9 U	1.8 U	1.8 U	1.6 U
Chloroethane	0.22 U	0.23 U	0.22 U	0.2 U	0.24 U	0.23 U	0.22 U	0.2 U
Chlorobenzene	0.15 U	0.16 U	0.15 U	0.14 U	0.84 U	0.79 U	0.78 U	0.71 U
Carbon Tetrachloride	0.49	0.41	0.38	0.46	0.4	0.49	0.5	0.48
1,2-Dichloroethane	0.14 U	0.14 U	0.14 U	0.12 U	0.15 U	0.14 U	0.14 U	0.12 U
1,1-Dichloroethene	0.067 U	0.068 U	0.067 U	0.059 U	0.072 U	0.068 U	0.067 U	0.061 U
1,1-Dichloroethane	0.14 U	0.14 U	0.14 U	0.12 U	0.15 U	0.14 U	0.14 U	0.12 U
1,1,2-Trichloroethane	0.18 U	0.19 U	0.18 U	0.16 U	0.2 U	0.19 U	0.18 U	0.17 U
1,1,2,2-Tetrachloroethane	0.23 U	0.24 U	0.23 U	0.2 U	0.25 U	0.24 U	0.23 U	0.21 U
1,1,1-Trichloroethane	0.18 U	0.19 U	0.18 U	0.16 U	0.2 U	0.19 U	0.18 U	0.17 U

Notes:

µg/m3 - micrograms per cubic meter

U - not detected at indicated concentration

J - estimated concentration

NS - Not Sampled

Table 6-1
Summary of Indoor Air Sampling
Watervliet Arsenal
Watervliet, New York

Building	Building 120								
Sample ID	IA-B120-1	IA-B120-1	IA-B120-1	IA-B120-1	IA-B120-1	IA-B120-1	IA-B120-1	IA-B120-1	IA-B120-1
Sample Date	4/1/2010	11/21/2011	12/6/2012	12/16/2013	11/24/2014	11/24/2015	11/22/2016	12/15/2017	11/27/2018
Dilution	1.75	1.71	1.61	1.72	1.71	1.5	1.74	1.59	1.77
Units	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3
COMPOUND									
Vinyl Chloride	0.045 U	0.044 U	0.041 U	0.044 U	0.044 U	0.038 U	0.044 U	0.041 U	0.045 U
Trichloroethene	0.19 U	0.18 U	0.17 U	0.18 U	0.65	0.32	0.19 U	0.17 U	0.19 U
trans-1,2-Dichloroethene	0.69 U	0.68 U	0.64 U	0.68 U	14	0.59 U	0.69 U	0.63 U	0.7 U
Tetrachloroethene	0.24 U	0.23 U	0.22 U	0.23 U	1.6	0.53	0.24 U	3.7	9.6
cis-1,2-Dichloroethene	0.14 U	0.14 U	0.13 U	0.14 U	0.14 U	0.12 U	0.14 U	0.13 U	0.14 U
Chloromethane	1.7	0.86	1.2	1.2	1.4	0.96	0.99	1.6 U	1.8 U
Chloroethane	0.23 U	0.22 U	0.21 U	0.23 U	0.22 U	0.2 U	0.23 U	0.21 U	0.23 U
Chlorobenzene	0.16 U	0.16 U	0.15 U	0.16 U	0.16 U	0.14 U	0.16 U	0.15 U	0.81 U
Carbon Tetrachloride	0.45	0.49	0.64	0.43	0.44	0.41	0.41	0.48	0.37
1,2-Dichloroethane	0.14 U	0.14 U	0.13 U	0.14 U	0.14 U	0.12 U	0.14 U	0.13 U	0.23
1,1-Dichloroethene	0.069 U	0.068 U	0.064 U	0.068 U	0.068 U	0.059 U	0.069 U	0.063 U	0.07 U
1,1-Dichloroethane	0.14 U	0.14 U	0.13 U	0.14 U	0.14 U	0.12 U	0.14 U	0.13 U	0.14 U
1,1,2-Trichloroethane	0.19 U	0.19 U	0.18 U	0.19 U	0.19 U	0.16 U	0.19 U	0.17 U	0.19 U
1,1,2,2-Tetrachloroethane	0.24 U	0.23 U	0.22 U	0.24 U	0.23 U	0.2 U	0.24 U	0.22 U	0.24 U
1,1,1-Trichloroethane	0.19 U	0.21	0.18 U	0.19 U	0.6	8.1	0.19 U	0.17 J	0.19 U

Building	Building 120		
Sample ID	IA-B120-1	IA-B120-1	IA-B120-1
Sample Date	11/26/2019	1/13/2021	12/16/2021
Dilution	1.79	1.58	1.45
Units	µg/m^3	µg/m^3	µg/m^3
COMPOUND			
Vinyl Chloride	0.046 U	0.04 U	0.037 U
Trichloroethene	0.19 U	0.19	0.22
trans-1,2-Dichloroethene	0.84	0.63 U	0.57 U
Tetrachloroethene	0.51	0.38	0.22
cis-1,2-Dichloroethene	0.14 U	0.12 U	0.11 U
Chloromethane	1.8 U	1.6 U	1.5 U
Chloroethane	0.24 U	0.21 U	0.19 U
Chlorobenzene	0.82 U	0.73 U	0.67 U
Carbon Tetrachloride	0.41	0.49	0.48
1,2-Dichloroethane	0.14 U	0.13 U	0.12 U
1,1-Dichloroethene	0.071 U	0.063 U	0.057 U
1,1-Dichloroethane	0.14 U	0.13 U	0.12 U
1,1,2-Trichloroethane	0.20 U	0.17 U	0.16 U
1,1,2,2-Tetrachloroethane	0.24 UJ	0.22 U	0.2 U
1,1,1-Trichloroethane	0.24	0.17 U	0.27

Notes:

µg/m3 - micrograms per cubic meter

U - not detected at indicated concentration

J - estimated concentration

NS - Not Sampled

Table 6-1
Summary of Indoor Air Sampling
Watervliet Arsenal
Watervliet, New York

Building	Building 120								
Sample ID	IA-B120-2	IA-B120-2	IA-B120-2	IA-B120-2	IA-B120-2	IA-B120-2	IA-B120-2	IA-B120-2	IA-B120-2
Sample Date	4/1/2010	11/21/2011	12/6/2012	12/16/2013	11/24/2014	11/24/2015	11/22/2016	12/15/2017	11/27/2018
Dilution	1.75	1.64	1.68	1.72	1.8	1.5	1.75	1.68	3.56
Units	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3
COMPOUND									
Vinyl Chloride	0.045 U	0.042 U	0.043 U	0.044 U	0.046 U	0.038 U	0.045 U	0.043 U	0.091 U
Trichloroethene	0.19 U	0.42	0.77	0.44	0.19 U	0.79	0.51	0.18 U	0.38 U
trans-1,2-Dichloroethene	0.69 U	0.65 U	0.67 U	0.68 U	0.71 U	0.59 U	0.69 U	0.67 U	1.4 U
Tetrachloroethene	1.1	0.25	0.48	0.23	0.24 U	0.5	0.51	13	240
cis-1,2-Dichloroethene	0.14 U	0.13 U	0.13 U	0.14 U	0.14 U	0.12 U	0.14 U	0.13 U	0.28 U
Chloromethane	1.5	0.83	1.2	1.1	1.2	1.0	0.91	1.7 U	3.7 U
Chloroethane	0.23 U	0.22 U	0.22 U	0.22 U	0.24 U	0.2 U	0.23 U	0.22 U	0.47 U
Chlorobenzene	0.16 U	0.15 U	0.15 U	0.16 U	0.16 U	0.14 U	0.16 U	0.15 U	1.6 U
Carbon Tetrachloride	0.4	0.47	0.63	0.48	0.45	0.42	0.4	0.45	0.45 U
1,2-Dichloroethane	0.14 U	0.13 U	0.14 U	0.14 U	0.14 U	0.12 U	0.14 U	0.14 U	0.29 U
1,1-Dichloroethene	0.069 U	0.065 U	0.067 U	0.068 U	0.071 U	0.073	0.069 U	0.067 U	0.14 U
1,1-Dichloroethane	0.14 U	0.13 U	0.14 U	0.14 U	0.14 U	0.12 U	0.14 U	0.14 U	0.29 U
1,1,2-Trichloroethane	0.19 U	0.18 U	0.18 U	0.19 U	0.2 U	0.16 U	0.19 U	0.18 U	0.39 U
1,1,2,2-Tetrachloroethane	0.24 U	0.22 U	0.23 U	0.23 U	0.25 U	0.2 U	0.24 U	0.23 U	0.49 U
1,1,1-Trichloroethane	0.19 U	0.75	1.3	0.87	0.2 U	13	0.19 U	0.18 U	0.39 U

Building	Building 120		
Sample ID	IA-B120-2	IA-B120-2	IA-B120-2
Sample Date	11/26/2019	1/13/2021	12/16/2021
Dilution	1.64	1.66	1.26
Units	µg/m^3	µg/m^3	µg/m^3
COMPOUND			
Vinyl Chloride	0.042 U	0.042 U	0.032 U
Trichloroethene	0.18 U	0.34	0.2
trans-1,2-Dichloroethene	0.88	0.66 U	0.5 U
Tetrachloroethene	0.55	0.55	0.24
cis-1,2-Dichloroethene	0.13 U	0.13 U	0.1 U
Chloromethane	1.7 U	1.7 U	1.3 U
Chloroethane	0.22 U	0.22 U	0.17 U
Chlorobenzene	0.76 U	0.76 U	0.58 U
Carbon Tetrachloride	0.44	0.48	0.47
1,2-Dichloroethane	0.13 U	0.13 U	0.1 U
1,1-Dichloroethene	0.065 U	0.066 U	0.05 U
1,1-Dichloroethane	0.13 U	0.13 U	0.1 U
1,1,2-Trichloroethane	0.18 U	0.18 U	0.14 U
1,1,2,2-Tetrachloroethane	0.22 UJ	0.23 U	0.17 U
1,1,1-Trichloroethane	0.26	0.2	0.23

Notes:

µg/m3 - micrograms per cubic meter

U - not detected at indicated concentration

J - estimated concentration

NS - Not Sampled

Table 6-1
Summary of Indoor Air Sampling
Watervliet Arsenal
Watervliet, New York

Building	Building 114								
Sample ID	IA-B114-1	IA-B114-1	IA-B114-1	IA-B114-1	IA-B114-1	IA-B114-1	IA-B114-1	IA-B114-1	IA-B114-1
Sample Date	4/1/2010	11/21/2011	12/6/2012	12/16/2013	11/24/2014	11/24/2015	11/22/2016	12/15/2017	11/27/2018
Dilution	1.87	1.75	1.64	1.66	1.76	1.28	1.32	1.34	1.89
Units	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3
COMPOUND									
Vinyl Chloride	0.048 U	0.045 U	0.042 U	0.042 U	0.045 U	0.033 U	0.034 U	0.034 U	0.048 U
Trichloroethene	3.7	0.19 U	0.44	0.73	0.19 U	0.14 U	0.14 U	0.14 U	0.2 U
trans-1,2-Dichloroethene	0.74 U	0.69 U	0.65 U	0.66 U	0.7 U	0.51 U	0.52 U	0.53 U	0.75 U
Tetrachloroethene	14	1.2	1.4	1.7	0.34	0.22	0.18 U	0.45	0.48
cis-1,2-Dichloroethene	0.32	0.14 U	0.13 U	0.13 J	0.14 U	0.1 U	0.1 U	0.11 U	0.15 U
Chloromethane	1.5	0.86	1	0.99	1.1	0.98	0.88	1.4 U	2 U
Chloroethane	0.25 U	0.23 U	0.22 U	0.22 U	0.23 U	0.17 U	0.17 U	0.18 U	0.25 U
Chlorobenzene	0.17 U	0.16 U	0.15 U	0.15 U	0.16 U	0.12 U	0.12 U	0.12 U	0.87 U
Carbon Tetrachloride	0.42	0.54	0.67	0.45	0.47	0.41	0.41	0.47	0.37
1,2-Dichloroethane	0.15 U	0.14 U	0.13 U	0.13 U	0.14 U	0.1 U	0.11 U	0.11 U	0.15 U
1,1-Dichloroethene	0.074 U	0.069 U	0.065 U	0.066 U	0.07 U	0.051 U	0.052 U	0.053 U	0.075 U
1,1-Dichloroethane	0.15 U	0.14 U	0.13 U	0.13 U	0.14 U	0.1 U	0.11 U	0.11 U	0.15 U
1,1,2-Trichloroethane	0.2 U	0.19 U	0.18 U	0.18 U	0.19 U	0.14 U	0.14 U	0.15 U	0.21 U
1,1,2,2-Tetrachloroethane	0.26 U	0.24 U	0.22 U	0.23 U	0.24 U	0.18 U	0.18 U	0.18 U	0.26 U
1,1,1-Trichloroethane	0.59	4.2	0.5	0.95	1	0.58	0.14 U	1	0.65

Building	Building 114		
Sample ID	IA-B114-1	IA-B114-1	IA-B114-1
Sample Date	11/26/2019	1/13/2021	12/16/2021
Dilution	1.91	1.7	1.45
Units	µg/m^3	µg/m^3	µg/m^3
COMPOUND			
Vinyl Chloride	0.049 U	0.043 U	0.037 U
Trichloroethene	0.20 U	0.21	0.16 U
trans-1,2-Dichloroethene	0.76 U	0.67 U	0.57 U
Tetrachloroethene	0.45	0.3	0.24
cis-1,2-Dichloroethene	0.15 U	0.13 U	0.11 U
Chloromethane	2.0 U	1.8 U	1.5 U
Chloroethane	0.25 U	0.22 U	0.19 U
Chlorobenzene	0.88 U	0.78 U	0.67 U
Carbon Tetrachloride	0.43	0.48	0.48
1,2-Dichloroethane	0.15 U	0.14 U	0.12 U
1,1-Dichloroethene	0.076 U	0.067 U	0.057 U
1,1-Dichloroethane	0.15 U	0.14 U	0.12 U
1,1,2-Trichloroethane	0.21 U	0.18 U	0.16 U
1,1,2,2-Tetrachloroethane	0.26 UJ	0.23 U	0.2 U
1,1,1-Trichloroethane	0.45	0.18 U	0.48

Notes:

µg/m3 - micrograms per cubic meter

U - not detected at indicated concentration

J - estimated concentration

NS - Not Sampled

Table 6-1
Summary of Indoor Air Sampling
Watervliet Arsenal
Watervliet, New York

Building	Building 121								
Sample ID	IA-B121-1	IA-B121-1	*IA-B121-1 Duplicate*	IA-B121-1	*IA-B121-1 Duplicate*	IA-B121-1	*IA-B121-1 Duplicate*	IA-B121-1	*IA-B121-2 Duplicate*
Sample Date	4/1/2010	11/21/2011	11/21/2011	12/6/2012	12/6/2012	12/16/2013	12/16/2013	11/24/2014	11/24/2014
Dilution	1.75	1.68	1.68	1.68	1.61	1.88	1.90	1.66	1.82
Units	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3
COMPOUND									
Vinyl Chloride	0.045 U	0.043 U	0.043 U	0.043 U	0.041 U	0.048 U	0.048 U	0.042 U	0.046 U
Trichloroethene	0.19 U	0.18 U	0.18 U	0.18 U	0.17	0.22	0.23	0.3	0.29
trans-1,2-Dichloroethene	0.69 U	0.67 U	0.67 U	0.67 U	0.64 U	0.74 U	0.75 U	0.66 U	0.72 U
Tetrachloroethene	0.24 U	0.23 U	0.23 U	0.23 U	0.22 U	0.26 U	0.26 U	0.22 U	0.25 U
cis-1,2-Dichloroethene	0.14 U	0.13 U	0.13 U	0.13 U	0.13 U	0.15 U	0.15 U	0.13 U	0.14 U
Chloromethane	1.6	0.86	0.84	0.84	0.94	1.1	1.1	1.4	1.4
Chloroethane	0.23 U	0.22 U	0.22 U	0.22 U	0.21 U	0.25 U	0.25 U	0.22 U	0.24 U
Chlorobenzene	0.16 U	0.15 U	0.15 U	0.16	0.17	0.17 U	0.17 U	0.15 U	0.17 U
Carbon Tetrachloride	0.4	0.46	0.46	0.57	0.69	0.71	0.79	0.5	0.4
1,2-Dichloroethane	0.14 U	0.14 U	0.14 U	0.14 U	0.13 U	0.15 U	0.15 U	0.13 U	0.15 U
1,1-Dichloroethene	0.069 U	0.067 U	0.067 U	0.067 U	0.064 U	0.074 U	0.075 U	0.066 U	0.072 U
1,1-Dichloroethane	0.14 U	0.14 U	0.14 U	0.14 U	0.13 U	0.15 U	0.15 U	0.13 U	0.15 U
1,1,2-Trichloroethane	0.19 U	0.18 U	0.18 U	0.24	0.26	0.2 U	0.21 U	0.18 U	0.2 U
1,1,2,2-Tetrachloroethane	0.24 U	0.23 U	0.23 U	0.23 U	0.22 U	0.26 U	0.26 U	0.23 U	0.25 U
1,1,1-Trichloroethane	0.24	0.75	0.7	3.8	4	0.2 U	0.21 U	0.22	0.21

Building	Building 121							
Sample ID	IA-B121-1	*IA-B121-1 Duplicate*	IA-B121-1	*IA-B121-1 Duplicate*	IA-B121-1	*IA-B121-1 Duplicate*	IA-B121-1	*IA-B121-1 Duplicate*
Sample Date	11/24/2015	11/24/2015	11/22/2016	11/22/2016	12/15/2017	12/15/2017	11/27/2018	11/27/2018
Dilution	1.3	1.31	1.78	1.68	1.54	1.60	1.74	1.61
Units	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3
COMPOUND								
Vinyl Chloride	0.033 U	0.033 U	0.046 U	0.043 U	0.039 U	0.041 U	0.044 U	0.041 U
Trichloroethene	0.43	0.48	0.68	0.68	0.16 U	0.17 U	0.19 U	0.17 U
trans-1,2-Dichloroethene	0.52 U	0.52 U	95	97	0.61 U	0.63 U	0.69 U	0.64 U
Tetrachloroethene	0.29	0.3	0.24 U	0.23 U	0.21 U	0.22 U	0.24 U	0.22 U
cis-1,2-Dichloroethene	0.1 U	0.1 U	0.14 U	0.13 U	0.12 U	0.13 U	0.14 U	0.13 U
Chloromethane	1.0	0.98	0.98	0.93	1.6 U	1.6 U	1.8 U	1.7 U
Chloroethane	0.17 U	0.17 U	0.23 U	0.22 U	0.2 U	0.21 U	0.23 U	0.21 U
Chlorobenzene	0.12 U	0.12 U	0.16 U	0.15 U	0.14 U	0.15 U	0.8 U	0.74 U
Carbon Tetrachloride	0.39	0.43	0.31	0.4	0.44	0.46	0.28	0.32
1,2-Dichloroethane	0.1 U	0.11 U	0.14 U	0.14 U	0.12 U	0.13 U	0.14 U	0.13 U
1,1-Dichloroethene	0.052 U	0.052 U	0.07 U	0.067 U	0.061 U	0.063 U	0.069 U	0.064 U
1,1-Dichloroethane	0.1 U	0.11 U	0.14 U	0.14 U	0.12 U	0.13 U	0.14 U	0.13 U
1,1,2-Trichloroethane	0.14 U	0.14 U	0.19 U	0.18 U	0.17 U	0.17 U	0.19 U	0.18 U
1,1,2,2-Tetrachloroethane	0.18 U	0.18 U	0.24 U	0.23 U	0.21 U	0.22 U	0.24 U	0.22 U
1,1,1-Trichloroethane	0.14 U	0.15	0.19 U	0.18 U	0.17 U	0.17 U	0.19 U	0.18 U

Notes:

µg/m3 - micrograms per cubic meter

U - not detected at indicated concentration

J - estimated concentration

NS - Not Sampled

Table 6-1
Summary of Indoor Air Sampling
Watervliet Arsenal
Watervliet, New York

Building	Building 121					
Sample ID	IA-B121-1	*IA-B121-1 Duplicate*	IA-B121-1	*IA-B121-1 Duplicate*	IA-B121-1	*IA-B121-1 Duplicate*
Sample Date	11/26/2019	11/26/2019	1/13/2021	1/13/2021	12/16/2021	12/16/2021
Dilution	1.68	1.68	1.67	1.72	14.5	12.40
Units	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3
COMPOUND						
Vinyl Chloride	0.043 U	0.043 U	0.043 U	0.044 U	0.37 U	0.32 U
Trichloroethene	0.18 U	0.18 U	0.18 U	0.18 U	1.6 U	1.3 U
trans-1,2-Dichloroethene	0.67 U	0.67 U	0.66 U	0.68 U	5.7 U	4.9 U
Tetrachloroethene	0.29	0.31	0.23 U	0.23 U	2 U	1.7 U
cis-1,2-Dichloroethene	0.13 U	0.13 U	0.13 U	0.14 U	1.1 U	0.98 U
Chloromethane	1.7 U	1.7 U	1.7 U	1.8 U	15 U	13 U
Chloroethane	0.22 U	0.22 U	0.22 U	0.23 U	1.9 U	1.6 U
Chlorobenzene	0.77 U	0.77 U	0.77 U	0.79 U	6.7 U	5.7 U
Carbon Tetrachloride	0.45	0.44	0.48	0.48	1.8 U	1.6 U
1,2-Dichloroethane	0.14 U	0.14 U	0.14 U	0.14 U	1.2 U	1 U
1,1-Dichloroethene	0.067 U	0.067 U	0.066 U	0.068 U	0.57 U	0.49 U
1,1-Dichloroethane	0.14 U	0.14 U	0.14 U	0.14 U	1.2 U	1 U
1,1,2-Trichloroethane	0.18 U	0.18 U	0.18 U	0.19 U	1.6 U	1.4 U
1,1,2,2-Tetrachloroethane	0.23 UJ	0.23 UJ	0.23 U	0.24 U	2 U	1.7 U
1,1,1-Trichloroethane	0.18 U	0.18 U	0.18 U	0.19 U	1.6 U	1.4 U

Building
Sample ID
Sample Date
Dilution
Units
COMPOUND
Vinyl Chloride
Trichloroethene
trans-1,2-Dichloroethene
Tetrachloroethene
cis-1,2-Dichloroethene
Chloromethane
Chloroethane
Chlorobenzene
Carbon Tetrachloride
1,2-Dichloroethane
1,1-Dichloroethene
1,1-Dichloroethane
1,1,2-Trichloroethane
1,1,2,2-Tetrachloroethane
1,1,1-Trichloroethane

Notes:

µg/m3 - micrograms per cubic meter

U - not detected at indicated concentration

J - estimated concentration

NS - Not Sampled

Table 6-1
Summary of Indoor Air Sampling
Watervliet Arsenal
Watervliet, New York

Building	Building 130								
Sample ID	IA-B130-1	IA-B130-1	IA-B130-1	IA-B130-1	IA-B130-1	IA-B130-1	IA-B130-1	IA-B130-1	IA-B130-1
Sample Date	4/1/2010	11/21/2011	12/6/2012	12/16/2013	11/24/2014	11/24/2015	11/22/2016	12/15/2017	11/27/2018
Dilution	1.64	1.79	2.01	1.78	1.73	1.47	1.3	1.34	1.73
Units	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3
COMPOUND									
Vinyl Chloride	0.042 U	0.046 U	0.051 U	0.046 U	0.044 U	0.038 U	0.033 U	0.034 U	0.044 U
Trichloroethene	0.19	0.33	0.28	0.44	0.18 U	0.42	0.14 U	0.58	0.25
trans-1,2-Dichloroethene	0.65 U	0.71 U	0.8 U	0.7 U	0.68 U	0.58 U	0.52 U	0.53 U	0.68 U
Tetrachloroethene	0.32	0.46	0.67	0.52	0.46	0.4	0.18 U	0.59	0.56
cis-1,2-Dichloroethene	0.13 U	0.14 U	0.16 U	0.14 U	0.14 U	0.12 U	0.1 U	0.11 U	0.14 U
Chloromethane	1.6	0.82	1	0.95	1.4	1.0	0.9	1.4 U	1.8 U
Chloroethane	0.22 U	0.24 U	0.26 U	0.23 U	0.23 U	0.19 U	0.17 U	0.18 U	0.23 U
Chlorobenzene	0.15 U	0.16 U	0.18 U	0.16 U	0.16 U	0.14 U	0.12 U	0.12 U	0.8 U
Carbon Tetrachloride	0.43	0.47	0.7	0.52	0.47	0.44	0.38	0.46	0.34
1,2-Dichloroethane	0.13 U	0.14 U	0.16 U	0.14 U	0.14 U	0.12 U	0.1 U	0.11 U	0.14 U
1,1-Dichloroethene	0.065 U	0.071 U	0.08 U	0.07 U	0.068 U	0.07	0.052 U	0.053 U	0.068 U
1,1-Dichloroethane	0.13 U	0.14 U	0.16 U	0.14 U	0.14 U	0.12 U	0.1 U	0.11 U	0.14 U
1,1,2-Trichloroethane	0.18 U	0.2 U	0.22 U	0.19 U	0.19 U	0.16 U	0.14 U	0.15 U	0.19 U
1,1,2,2-Tetrachloroethane	0.22 U	0.24 U	0.28 U	0.24 U	0.24 U	0.2 U	0.18 U	0.18 U	0.24 U
1,1,1-Trichloroethane	0.18 U	0.2 U	0.22 U	0.19 U	0.19 U	0.16 U	0.14 U	0.15 U	0.19 U

Building	Building 130		
Sample ID	IA-B130-1	IA-B130-1	IA-B130-1
Sample Date	11/26/2019	1/13/2021	12/16/2021
Dilution	1.75	1.66	1.42
Units	µg/m^3	µg/m^3	µg/m^3
COMPOUND			
Vinyl Chloride	0.045 U	0.042 U	0.036 U
Trichloroethene	0.19 U	0.21	0.15 U
trans-1,2-Dichloroethene	0.69 U	0.66 U	0.56 U
Tetrachloroethene	0.59	0.36	0.54
cis-1,2-Dichloroethene	0.14 U	0.13 U	0.11 U
Chloromethane	1.8 U	1.7 U	1.5 U
Chloroethane	0.23 U	0.22 U	0.19 U
Chlorobenzene	0.80 U	0.76 U	0.65 U
Carbon Tetrachloride	0.43	0.49	0.48
1,2-Dichloroethane	0.14 U	0.13 U	0.11 U
1,1-Dichloroethene	0.069 U	0.066 U	0.056 U
1,1-Dichloroethane	0.14 U	0.13 U	0.11 U
1,1,2-Trichloroethane	0.19 U	0.18 U	0.15 U
1,1,2,2-Tetrachloroethane	0.24 UJ	0.23 U	0.19 U
1,1,1-Trichloroethane	0.19 U	0.18 U	0.15 U

Notes:

µg/m3 - micrograms per cubic meter

U - not detected at indicated concentration

J - estimated concentration

NS - Not Sampled

Appendix A

Purge Logs

ARCADIS

WELL DEVELOPMENT/ PURGING LOG

WELL NUMBER: 83DM-SP-3 **DATE:** 9/16/24 @ 1130

PROJECT NAME: WVA LTM, 2021, Watervliet, New York
PROJECT NUMBER: 30001988
SAMPLERS: K. Hilson
DUPLICATE? Y/N: N

A: Total Casing and Screen Length: 23.82' (historical)

B: Casing Internal Diameter: 2"

C: Water Level Below Top of Casing: 6.69'

D: Volume of Water in Casing: 17.13'

Well I.D.	Vol. Gal./ft.
1"	0.04
2"	0.17
3"	0.38
4"	0.66
5"	1.04
6"	1.50
8"	2.60

$v = 0.0408 (B)^2 \times (A-C) = D$

$v = 0.0408 (2)^2 \times (23.82 - 6.69) = 2.79$ gal gal.

PARAMETER	ACCUMULATED VOLUME PURGED											
Time	1050	1055	1100	1105	1110	1115	1120	1125				
Gallons	0.2	0.4	0.6	0.8	1.0	1.2	1.4	1.6				
Rate (mL/min)	200											
Depth to Water (ft.)	8.32	8.55	8.73	8.75	8.69	8.71	8.70	8.69				
Temperature (°C)	21.71	17.44	18.30	17.54	17.34	17.25	17.26	17.30				
pH	7.08	7.04	7.02	6.99	6.99	6.97	6.96	6.96				
REDOX (mV)	213	146	110	91	89	85	82	82				
Conductivity (mohm/cm)	2.01	2.24	2.27	2.30	2.32	2.30	2.24	2.24				
Turbidity	2.31	2.02	1.38	6.0	5.4	5.1	5.9	5.2				
Dissolved Oxygen	2.31	1.99	1.37	1.17	1.12	0.98	0.90	0.89				
TDS	1.29	1.43	1.45	1.47	1.48	1.47	1.45	1.45				
Salinity	1.0	1.1	1.2	1.2	1.2	1.2	1.2	1.2				

Notes: Bladder pump VOC + Chromium (Total) sampled. Bladder pump

ARCADIS

WELL DEVELOPMENT/ PURGING LOG

WELL NUMBER: 86EM-SP-6 **DATE:** 9/16/21 @ 1230

PROJECT NAME: WVA LTM, 2021, Watervliet, New York

PROJECT NUMBER: 30001988

SAMPLERS: K. Stilson

DUPLICATE? Y/N: N

A: Total Casing and Screen Length: 16.41'

B: Casing Internal Diameter: 2"

C: Water Level Below Top of Casing: 7.17'

D: Volume of Water in Casing: 9.24' / 1.5 gal

Well I.D.	Vol. Gal./ft.
1"	0.04
2"	0.17
3"	0.38
4"	0.66
5"	1.04
6"	1.50
8"	2.60

$v = 0.0408 (B)^2 \times (A-C) = D$

$v = 0.0408 (2)^2 \times (16.41 - 7.17) = 1.5$ gal.

PARAMETER	ACCUMULATED VOLUME PURGED											
Time	1150	1155	1200	1205	1210	1215	1220	1225				
Gallons	0.20	0.40	0.60	0.80	1.0	1.2	1.4	1.6				
Rate (mL/min)	200	200	200									
Depth to Water (ft.)	7.52	7.62	7.68	7.73	7.81	7.82	7.83	7.83				
Temperature (°C)	20.22	20.37	20.45	20.59	21.13	20.25	20.06	20.09				
pH	6.94	6.93	6.93	6.94	6.98	6.94	6.94	6.92				
REDOX (mV)	130	131	132	134	143	141	140	141				
Conductivity (mohm/cm)	1.62	1.62	1.61	1.60	1.60	1.58	1.57	1.58				
Turbidity 182	~~13.00~~	131	102	86.0	28.9	15.6	15.3	15.1				
Dissolved Oxygen	0.0	0.00	0.00	0.0	0.09	0.00	0.00	0.00				
TDS	1.04	1.04	1.03	1.02	1.02	1.01	1.01	1.01				
Salinity	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8				

Notes: PCRA Metals + VOC sampled.
Peri pump. Well located behind fenced in area. Access from 83DM-SP-3.
Could not get battery out to well, used peri pump.

ARCADIS

WELL DEVELOPMENT/ PURGING LOG

WELL NUMBER: 92EM-SP-8 **DATE:** 9/16/202, @ 1040

PROJECT NAME: WVA LTM, 2021, Watervliet, New York

PROJECT NUMBER: 30001988

SAMPLERS: K.Sh/Sam

DUPLICATE? Y/N: N

A: Total Casing and Screen Length: 10.04'

B: Casing Internal Diameter: 4"

C: Water Level Below Top of Casing: 5.25'

D: Volume of Water in Casing: 4.79' / 3.16 gal

v = 0.0408 (B)^2 x (A-C) = D

v = 0.0408 (4)^2 x (10.04 - 5.25) = 3.16 gal.

Well I.D.	Vol. Gal./ft.
1"	0.04
2"	0.17
3"	0.38
4"	0.66
5"	1.04
6"	1.50
8"	2.60

PARAMETER	ACCUMULATED VOLUME PURGED											
Time	0955	1000	1005	1010	1015	1020	1025	1030	1035			
Gallons	0.25	.50	0.75	1.0	1.25	1.5	1.75	2.0	2.25			
Rate (mL/min)	200	—	—	—	—	—	—	—	—			
~~Depth to Water (ft.)~~ Turbidity	5.44	67.4	74.4	55.1	50.9	55.4	56.3	55.9	56.1			
Temperature (°C)	22.52	22.17	22.21	22.22	22.09	21.87	21.93	21.94	21.93			
pH	7.67	7.66	7.65	7.65	7.65	7.64	7.64	7.64	7.63			
REDOX (mV)	49	53	56	60	60	61	61	62	63			
Conductivity (mohm/cm)	0.532	0.522	0.520	0.519	.0.512	0.509	0.506	5.09	0.507			
~~Turbidity~~ Depth to Water	5.44	5.56	5.90	5.89	5.97	6.57	6.66	6.73	6.76			
Dissolved Oxygen	2.19	5.15	4.33	3.01	1.99	1.31	1.11	1.07	0.99			
TDS	0.340	0.333	0.330	0.330	0.329	0.327	0.326	0.325	0.324			
Salinity	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.2	0.2			

Notes: Sample for VOC + Chromium total + chrom Diss. Peri pump used.

ARCADIS

WELL DEVELOPMENT/ PURGING LOG

WELL NUMBER: 93EM-SP-11 **DATE:** 9/14/21 @ 1155

PROJECT NAME: WVA LTM, 2021, Watervliet, New York
PROJECT NUMBER: 30001988
SAMPLERS: K. Stilson
DUPLICATE? Y/N: N

A: Total Casing and Screen Length: 14.29'

B: Casing Internal Diameter: 2"

C: Water Level Below Top of Casing: 9.04'

D: Volume of Water in Casing: 5.25' | 0.85 gal

Well I.D.	Vol. Gal./ft.
1"	0.04
2"	0.17
3"	0.38
4"	0.66
5"	1.04
6"	1.50
8"	2.60

$v = 0.0408 (B)^2 \times (A-C) = D$

$v = 0.0408 (2)^2 \times (14.29 - 9.04) =$ 0.85 gal.

PARAMETER	ACCUMULATED VOLUME PURGED											
Time	1115	1120	1125	1130	1135	1140	1145	1150				
Gallons	0.30	0.60	0.90	1.20	1.50	1.80	2.10	2.40				
Rate (mL/min)	200							↓				
Depth to Water (ft.)	9.00	9.24	9.36	9.45	9.57	9.62	9.68	9.72				
Temperature (°C)	20.97	20.17	20.11	20.05	20.03	19.31	19.33	19.35				
pH	6.51	6.68	7.01	7.09	7.15	6.95	6.99	6.95				
REDOX (mV)	52	63	21	18	22	-27	-28	-30				
Conductivity (mohm/cm)	5.08	1.97	1.93	1.83	1.77	2.02	2.02	2.00				
Turbidity	73.1	47.6	46.9	44.5	49.7	33.9	33.5	33.0				
Dissolved Oxygen	1.01	1.28	1.30	1.32	1.60	0.03	0.02	0.03				
TDS	1.01	1.01	1.01	1.02	1.02	1.02	1.02	1.02				
Salinity	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2				

Notes: Sample VOC + ~~EPA 8~~ hex chrome per pump.

ARCADIS

WELL DEVELOPMENT/ PURGING LOG

WELL NUMBER: 94EM-MW-19 **DATE:** 9/15/21 @ 0840

PROJECT NAME: WVA LTM, 2021, Watervliet, New York

PROJECT NUMBER: 30001988

SAMPLERS: K. Stilson

DUPLICATE? Y/N: Y DUP-1 (20210915) @ 0820

A: Total Casing and Screen Length: 13.63'

B: Casing Internal Diameter: 4"

C: Water Level Below Top of Casing: 7.87'

D: Volume of Water in Casing: 5.76' / 3.8 gal

Well I.D.	Vol. Gal./ft.
1"	0.04
2"	0.17
3"	0.38
4"	0.66
5"	1.04
6"	1.50
8"	2.60

SS.

$v = 0.0408 (B)^2 \times (A-C) = D$

$v = 0.0408 (4)^2 \times (13.63 - 7.87) = 3.8$ gal.

PARAMETER	ACCUMULATED VOLUME PURGED											
Time	0750	0755	0800	0805	0810	0815	0820	0825	0830	0835		
Gallons	0.30	0.60	0.90	1.20	1.50	1.80	2.10	2.40	2.70	3.00		
Rate (mL/min)	200	200								↓		
Depth to Water (ft.)	5.14	5.18	5.20	5.21	5.23	5.25	5.26	5.27	5.27	5.28		
Temperature (°C)	20.40	20.21	20.18	20.22	20.17	20.10	20.15	20.26	20.20	20.17		
pH	6.62	6.65	6.70	6.74	6.76	6.78	6.79	6.79	6.79	6.74		
REDOX (mV)	7	-4	-7	-10	-12	-18	-20	-20	-22	-23		
Conductivity (mohm/cm)	32.7	2.12	2.11	2.13	2.10	2.14	2.13	2.14	2.14	2.13		
Turbidity	32.3	17.3	20.9	25.3	26.1	25.4	24.9	24.9	24.1	24.4		
Dissolved Oxygen	3.24	0.38	0.34	0.33	0.31	0.34	0.36	0.34	0.27	0.21		
TDS	1.37	1.36	1.35	1.35	1.38	1.37	1.36	1.37	1.37	1.36		
Salinity	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1		

Notes: Stainless Steel pipe DUP-1 (20210915) Taken here.
VOC + RCRA Metals

ARCADIS

WELL DEVELOPMENT/ PURGING LOG

WELL NUMBER: 94EM-MW-20 **DATE:** 9/15/21 @ 1325

PROJECT NAME: WVA LTM, 2021, Watervliet, New York

PROJECT NUMBER: 30001988

SAMPLERS: K Stilson

DUPLICATE? Y/N: N

A: Total Casing and Screen Length: 12.73'

B: Casing Internal Diameter: 4"

C: Water Level Below Top of Casing: 6.55'

D: Volume of Water in Casing: 5.58' / 3.68gal

v = 0.0408 (B)² x (A-C) = D

v = 0.0408 (4)² x (12.13 - 6.55) = 3.68 gal.

Well I.D.	Vol. Gal./ft.
1"	0.04
2"	0.17
3"	0.38
4"	0.66
5"	1.04
6"	1.50
8"	2.60

perm pump

PARAMETER	1320 ACCUMULATED VOLUME PURGED											
Time	1245	1250	1255	1300	1305	1310	1315	1320	1325			
Gallons	~~2000~~	0.4	0.6	0.8	1.0	1.2	1.4	1.6	1.8			
Rate (mL/min)	200	200	—	—	—	—	—	—	→			
Depth to Water (ft.)	6.79	6.87	6.90	6.92	6.97	6.98	6.98	6.99	6.99			
Temperature (°C)	22.54	22.39	22.47	22.57	22.58	22.48	22.48	22.49	22.51			
pH	7.02	6.99	6.92	6.89	6.89	6.89	6.90	6.90	6.92			
REDOX (mV)	-127	-131	-135	-137	-138	-141	-142	-143	-142			
Conductivity (mohm/cm)	0.353	0.343	0.230	0.199	0.195	0.191	0.191	0.191	0.191			
Turbidity	154	117	69.6	66.3	62.7	59.3	55.9	56.0	~~56.0~~ 55.9			
Dissolved Oxygen	0.39	0.33	0.20	0.12	0.07	0.00	0.00	0.00	0.00			
TDS	0.324	0.250	0.148	0.129	0.126	0.123	0.124	0.126	0.125			
Salinity	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1			

Notes: * Bladder pump not working. VOC + RCRA total + Diss metals sampled.

ARCADIS

WELL DEVELOPMENT/ PURGING LOG

WELL NUMBER: 94EM-MW-21 **DATE:** 9/15/2021 @ 1230

PROJECT NAME: WVA LTM, 2021, Watervliet, New York
PROJECT NUMBER: 30001988
SAMPLERS: K. Sullivan
DUPLICATE? Y/N: N

A: Total Casing and Screen Length: 17.48

B: Casing Internal Diameter: 4"

C: Water Level Below Top of Casing: 5.97

D: Volume of Water in Casing: 11.51' | 7.59 gal

v = 0.0408 $(B)^2$ x (A-C) = D

v = 0.0408 (4)^2 x (17.48 - 5.97) = 7.59 gal.

Well I.D.	Vol. Gal./ft.
1"	0.04
2"	0.17
3"	0.38
4"	0.66
5"	1.04
6"	1.50
8"	2.60

PARAMETER	ACCUMULATED VOLUME PURGED											
Time	1200	1205	1210	1215	1220	1225						
Gallons	0.20	0.40	0.60	0.80	1.0	1.2						
Rate (mL/min)	150											
Depth to Water (ft.)	6.37	6.75	6.99	7.88	7.90	7.99						
Temperature (°C)	20.07	20.00	19.77	14.63	19.65	19.67						
pH	7.12	7.09	7.06	7.04	7.05	7.00						
REDOX (mV)	-89	-87	-88	-85	-82	-86						
Conductivity (mohm/cm)	1.60	1.62	1.63	1.62	1.60	1.58						
Turbidity	36.4	26.2	19.9	15.7	15.9	19.9						
Dissolved Oxygen	0.03	0.00	0.00	0.00	0.00	0.00						
TDS	1.03	1.04	1.04	1.03	1.03	1.03						
Salinity	0.8	0.8	0.8	0.8	0.8	0.8						

Notes: Bladder Pump used. VOC + RCRA Metals sampled

ARCADIS

WELL DEVELOPMENT/ PURGING LOG

WELL NUMBER: WVA-AW-35-MW-12 **DATE:** 9/14/2021 @ 1330

PROJECT NAME: WVA LTM, 2021, Watervliet, New York

PROJECT NUMBER: 30001988

SAMPLERS: K. Stilson

DUPLICATE? Y/N: No

A: Total Casing and Screen Length: 13.38

B: Casing Internal Diameter: 2"

C: Water Level Below Top of Casing: 13.13

D: Volume of Water in Casing: 0.04

Well I.D.	Vol. Gal./ft.
1"	0.04
2"	0.17
3"	0.38
4"	0.66
5"	1.04
6"	1.50
8"	2.60

$v = 0.0408 (B)^2 \times (A-C) = D$

v = 0.0408 (2)^2 x (13.38 - 13.13) = 0.04 gal.

PARAMETER	ACCUMULATED VOLUME PURGED											
Time	Low Water Volume											
Gallons												
Rate (mL/min)												
Depth to Water (ft.)												
Temperature (°C)												
pH												
REDOX (mV)												
Conductivity (mohm/cm)												
Turbidity												
Dissolved Oxygen												
TDS												
Salinity												

Notes: Heavy brown sample 9/14/2021 @ 1330

ARCADIS

WELL DEVELOPMENT/ PURGING LOG

WELL NUMBER: WVA-MW-82R-1 **DATE:** 9-16-21 @ 1235

PROJECT NAME: WVA LTM, 2021, Watervliet, New York
PROJECT NUMBER: 30001988
SAMPLERS: Colby Churchill
DUPLICATE? Y/N: N

A: Total Casing and Screen Length: 56.78'
B: Casing Internal Diameter: 1.0"
C: Water Level Below Top of Casing: 9.80'
D: Volume of Water in Casing: 1.91 gal

Well I.D.	Vol. Gal./ft.
1"	0.04
2"	0.17
3"	0.38
4"	0.66
5"	1.04
6"	1.50
8"	2.60

$v = 0.0408 (B)^2 \times (A-C) = D$

$v = 0.0408 (1.0'')^2 \times (56.78' - 9.8') =$ 1.91 gal.

PARAMETER	ACCUMULATED VOLUME PURGED											
Time	1200	1205	1210	1215	1220	1225	1230	1235				
Gallons	0	0.25	0.5	0.75	1.0	1.25	1.5	1.75				
Rate (mL/min)	200	200	200	200	200	200	200	200				
Depth to Water (ft.)	↓	9.90	9.90	9.90	9.90	9.90	9.90	9.90				
Temperature (°C)	↓	16.82	17.01	17.04	16.48	16.16	16.38	16.51				
pH	3.	6.70	6.58	6.56	6.52	6.49	6.49	6.49				
REDOX (mV)	-.	-77	-67	-66	-63	-60	-62	-61				
Conductivity (~~mohm~~/cm)	±	5.61	5.16	5.15	5.12	5.01	5.04	5.04				
Turbidity	—	287	116	57.2	42.7	30.1	22.2	19.1				
Dissolved Oxygen (mg/L)	↓	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
TDS (g/L)	↓	3.51	3.25	3.24	3.21	3.15	3.17	3.17				
Salinity (ppt)	↓	3.0	2.8	2.8	2.7	2.7	2.7	2.7				

Notes: Collected 3x 40 mL VOA @ 1235

ARCADIS

WELL DEVELOPMENT/ PURGING LOG

WELL NUMBER: WVA-MW-82R-2 DATE: 9-16-21 @1310

PROJECT NAME: WVA LTM, 2021, Watervliet, New York

PROJECT NUMBER: 30001988

SAMPLERS: Colby/Churchill

DUPLICATE? Y/N: N

A: Total Casing and Screen Length: 100.60'

B: Casing Internal Diameter: 1.0"

C: Water Level Below Top of Casing: 9.41'

D: Volume of Water in Casing: 3.72 gal

Well I.D.	Vol. Gal./ft.
1"	0.04
2"	0.17
3"	0.38
4"	0.66
5"	1.04
6"	1.50
8"	2.60

v = 0.0408 $(B)^2$ x (A-C) = D

v = 0.0408 (1.0")^2 x (100.6' - 9.41') = 3.72 gal.

PARAMETER	ACCUMULATED VOLUME PURGED											
Time	1240	1245	1250	1255	1300	1305	1310					
Gallons	0.25	0.5	0.75	1.0	1.25	1.5	1.75					
Rate (mL/min)	250	250	250	250	250	250	250					
Depth to Water (ft.)	9.84	9.84	9.84	9.84	9.84	9.84	9.84					
Temperature (°C)	17.10	17.00	16.28	16.11	16.05	16.12	16.07					
pH	6.61	6.47	6.42	6.42	6.44	6.43	6.43					
REDOX (mV)	-84	-62	-55	-57	-60	-59	-59					
Conductivity (~~mohm~~ mS/cm)	5.30	5.00	5.00	4.98	4.98	4.97	4.97					
Turbidity	4.9	0.9	1.1	0.0	0.0	0.0	0.0					
Dissolved Oxygen (mg/L)	0.0	0.0	0.0	0.0	0.0	0.0	0.0					
TDS (g/L)	3.33	3.15	3.20	3.19	3.19	3.18	3.18					
Salinity (ppt)	2.8	2.7	2.7	2.7	2.7	2.7	2.7					

Notes: Collected 3x 40 mL VOA @ 1310

ARCADIS

WELL DEVELOPMENT/ PURGING LOG

WELL NUMBER: WVA-MW-82R-3 **DATE:** 9-16-21 @ 1345

PROJECT NAME: WVA LTM, 2021, Watervliet, New York

PROJECT NUMBER: 30001988

SAMPLERS: Colby Church, II

DUPLICATE? Y/N: N

A: Total Casing and Screen Length: 148.65'

B: Casing Internal Diameter: 1.0"

C: Water Level Below Top of Casing: 9.36

D: Volume of Water in Casing: 5.68 gal

Well I.D.	Vol. Gal./ft.
1"	0.04
2"	0.17
3"	0.38
4"	0.66
5"	1.04
6"	1.50
8"	2.60

$v = 0.0408 (B)^2 \times (A-C) = D$

$v = 0.0408 (1.0'')^2 \times (148.65' - 9.36') = 5.68$ gal.

PARAMETER	ACCUMULATED VOLUME PURGED											
Time	1315	1320	1325	1330	1335	1340	1345					
Gallons	0.25	0.50	0.75	1.0	1.25	1.50	1.75					
Rate (mL/min)	250	250	250	250	250	250	250					
Depth to Water (ft.)	19.70	22.30	25.00	27.21	29.18	30.15	31.21					
Temperature (°C)	16.79	17.28	17.47	17.87	18.23	18.41	18.55					
pH	7.04	7.43	7.57	7.56	7.51	7.50	7.50					
REDOX (mV)	-116	-153	-168	-165	-151	-149	-148					
Conductivity (mS/cm)	3.70	3.70	3.74	3.76	3.74	3.74	3.73					
Turbidity	41.4	51.6	15.1	17.2	20.3	19.1	17.2					
Dissolved Oxygen (mg/L)	0.0	0.0	0.0	0.0	0.0	0.0	0.0					
TDS (g/L)	2.37	2.36	2.39	2.40	2.41	2.41	2.42					
Salinity (ppt)	1.9	1.9	2.0	2.0	2.0	2.0	2.0					

Notes: Collected 3 x 40mL VOA @ 1345

ARCADIS

WELL DEVELOPMENT/ PURGING LOG

WELL NUMBER: WVA-MW-83R-1 **DATE:** 9-16-21 @ 1005

PROJECT NAME: WVA LTM, 2021, Watervliet, New York

PROJECT NUMBER: 30001988

SAMPLERS: Colby Churchill

DUPLICATE? Y/N: No

A: Total Casing and Screen Length: 56.50'

B: Casing Internal Diameter: 1.0"

C: Water Level Below Top of Casing: 9.15'

D: Volume of Water in Casing: 1.93 gal

v = 0.0408 $(B)^2$ x (A-C) = D

v = 0.0408 (1.0")^2 x (56.5' - 9.15') = 1.93 gal.

Well I.D.	Vol. Gal./ft.
1"	0.04
2"	0.17
3"	0.38
4"	0.66
5"	1.04
6"	1.50
8"	2.60

PARAMETER	ACCUMULATED VOLUME PURGED											
Time	0930	0935	0940	0945	0950	0955	1000	1005				
Gallons		0.25	0.5	0.75	1.0	1.25	1.50	1.75				
Rate (mL/min)		250	250	250	250	250	250	250				
Depth to Water (ft.)		9.80	9.80	9.80	9.80	9.80	9.80	9.80				
Temperature (°C)		15.19	14.96	14.96	14.94	14.93	14.94	14.96				
pH		7.05	7.06	7.11	7.14	7.14	7.17	7.18				
REDOX (mV)		-67	-64	-65	-67	-68	-69	-69				
Conductivity (mS/cm)		4.63	4.26	3.42	3.17	3.00	2.98	2.97				
Turbidity		71000	304	101	67.4	25.2	29.9	28.7				
Dissolved Oxygen (mg/L)		0.0	0.0	0.0	0.0	0.0	0.0	0.0				
TDS (g/L)		2.97	2.71	2.19	2.03	1.93	1.91	1.91				
Salinity (ppt)		2.5	2.2	1.8	1.6	1.6	1.5	1.5				
								Sample				

Notes: Collected 3 x 40 mL VOA @ 1005

ARCADIS

WELL DEVELOPMENT/ PURGING LOG

WELL NUMBER: WVA-MW-83R-2 DATE: 9-16-21 @1045

PROJECT NAME: WVA LTM, 2021, Watervliet, New York

PROJECT NUMBER: 30001988

SAMPLERS: Colby Churchill

DUPLICATE? Y/N: No

A: Total Casing and Screen Length: 99.60'

B: Casing Internal Diameter: 1.0"

C: Water Level Below Top of Casing: 9.50'

D: Volume of Water in Casing: 3.67 gal

v = 0.0408 $(B)^2$ x (A-C) = D

v = 0.0408 (1.0")^2 x (99.6' - 9.5') = 3.67 gal.

Well I.D.	Vol. Gal./ft.
1"	0.04
2"	0.17
3"	0.38
4"	0.66
5"	1.04
6"	1.50
8"	2.60

PARAMETER	ACCUMULATED VOLUME PURGED											
Time	1010	1015	1020	1025	1030	1035	1040	1045				
Gallons		0.25	0.5	0.75	1.0	1.25	1.50	1.75				
Rate (mL/min)		200	200	200	200	200	200	200				
Depth to Water (ft.)		15.33	15.89	17.11	18.12	18.72	19.20	19.77				
Temperature (°C)	15	15.56	15.63	15.21	15.02	14.98	15.03	15.10				
pH	7	7.30	7.12	7.07	6.96	6.93	6.92	6.92				
REDOX (mV)	-71	-89	-79	-74	-71	-72	-72	-73				
Conductivity (mS/cm)	5	4.25	4.90	4.85	4.87	4.91	4.93	4.94				
Turbidity		29.0	29.5	15.5	9.2	8.5	5.1	6.2				
Dissolved Oxygen (mg/L)		0.0	0.0	0.0	0.0	0.0	0.0	0.0				
TDS (g/L)		2.73	3.15	3.10	3.12	3.14	3.15	3.15				
Salinity (ppt)		2.3	2.6	2.6	2.6	2.6	2.6	2.6				
								Sample				

Notes: Collected 3 x 40 mL VOA @ 1045

ARCADIS

WELL DEVELOPMENT/ PURGING LOG

WELL NUMBER: WVA-MW-83R-3 **DATE:** 9-16-21 @ 1135

PROJECT NAME: WVA LTM, 2021, Watervliet, New York
PROJECT NUMBER: 30001988
SAMPLERS: Colby Churchill
DUPLICATE? Y/N: No

A: Total Casing and Screen Length: 128.40'
B: Casing Internal Diameter: 1.0"
C: Water Level Below Top of Casing: 8.40'
D: Volume of Water in Casing: 4.896 gal

Well I.D.	Vol. Gal./ft.
1"	0.04
2"	0.17
3"	0.38
4"	0.66
5"	1.04
6"	1.50
8"	2.60

$v = 0.0408 (B)^2 \times (A-C) = D$

$v = 0.0408 (1.0'')^2 \times (128.4' - 8.4') = 4.896$ gal.

PARAMETER	ACCUMULATED VOLUME PURGED											
Time	1100	1105	1110	1115	1120	1125	1130	1135				
Gallons	0.25	0.50	0.75	1.0	1.25	1.5	1.75	2.0				
Rate (mL/min)	200	200	200	200	200	200	200	200				
Depth to Water (ft.)	10.62	11.53	11.80	11.80	11.80	11.80	11.80	11.80				
Temperature (°C)	15.91	15.29	15.08	15.10	15.05	15.04	15.06	15.07				
pH	7.38	7.37	7.37	7.51	7.58	7.58	7.58	7.59				
REDOX (mV)	-39	-20	-81	-114	-133	-141	-143	-144				
Conductivity (~~mohm~~/cm)	1.31	0.393	1.86	1.92	1.94	1.95	1.97	1.97				
Turbidity	92.9	250	36.0	22.3	15.2	10.7	8.7	7.1				
Dissolved Oxygen (mg/L)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
TDS (g/L)	0.685	0.234	1.19	1.23	1.24	1.25	1.26	1.26				
Salinity (ppt)	0.5	0.2	0.9	1.0	1.0	1.0	1.0	1.0				

Notes: Collected 3 x 40 mL VOA @ 1135

ARCADIS

WELL DEVELOPMENT/ PURGING LOG

WELL NUMBER: WVA-MW-84R-1 **DATE:** 9-15-21 @ 1415

PROJECT NAME: WVA LTM, 2021, Watervliet, New York

PROJECT NUMBER: 30001988

SAMPLERS: Colby Church

DUPLICATE? Y/N: No

A: Total Casing and Screen Length: 58.80'

B: Casing Internal Diameter: 1.0"

C: Water Level Below Top of Casing: 9.04'

D: Volume of Water in Casing: 2.03 gal

Well I.D.	Vol. Gal./ft.
1"	0.04
2"	0.17
3"	0.38
4"	0.66
5"	1.04
6"	1.50
8"	2.60

$v = 0.0408 (B)^2 \times (A-C) = D$

$v = 0.0408 (1.0'')^2 \times (58.8' - 9.04') = 2.03$ gal.

PARAMETER	ACCUMULATED VOLUME PURGED											
Time	1345	1350	1355	1400	1405	1410	1415					
Gallons	0.25	0.5	0.75	1.0	1.25	1.50	1.75					
Rate (mL/min)	250	250	250	250	250	250	250					
Depth to Water (ft.)	11.25	10.96	10.96	10.96	10.96	10.96	10.96					
Temperature (°C)	20.41	17.00	16.76	16.74	16.69	16.65	16.67					
pH	8.09	8.58	8.60	8.57	8.54	8.52	8.51					
REDOX (mV)	-123	-164	-157	-149	-155	-157	-158					
Conductivity (~~mS~~/cm)	2.36	2.37	2.35	2.34	2.30	2.30	2.30					
Turbidity	411	612	324	184	56.0	51.2	49.3					
Dissolved Oxygen (mg/L)	0.16	0.0	0.0	0.0	0.0	0.0	0.0					
TDS (g/L)	1.52	1.52	1.50	1.49	1.47	1.47	1.46					
Salinity (ppt)	1.2	1.2	1.2	1.2	1.2	1.2	1.2					

Notes: Collected 3 x 40 mL VOA @ 1415

ARCADIS

WELL DEVELOPMENT/ PURGING LOG

WELL NUMBER: WVA-MW-84R-2 **DATE:** 9-15-21 @ 1450

PROJECT NAME: WVA LTM, 2021, Watervliet, New York

PROJECT NUMBER: 30001988

SAMPLERS: Colby/Churchill

DUPLICATE? Y/N: N

A: Total Casing and Screen Length: DTB: 104.60'

B: Casing Internal Diameter: 1.0"

C: Water Level Below Top of Casing: 9.10'

D: Volume of Water in Casing: 3.89 gal

v = 0.0408 (B)^2 x (A-C) = D

v = 0.0408 (1.0")^2 x (104.6' - 9.10') = 3.89 gal.

Well I.D.	Vol. Gal./ft.
1"	0.04
2"	0.17
3"	0.38
4"	0.66
5"	1.04
6"	1.50
8"	2.60

PARAMETER	ACCUMULATED VOLUME PURGED											
Time	1420	1425	1430	1435	1440	1445	1450					
Gallons	0.25	0.5	0.75	1.0	1.25	1.5	1.75					
Rate (mL/min)	250	250	250	250	250	250	250					
Depth to Water (ft.)	11.30	14.0	14.80	15.15	15.45	15.58	15.62					
Temperature (°C)	18.71	17.03	17.06	16.87	16.64	16.42	16.45					
pH	7.84	7.56	7.52	7.55	7.59	7.59	7.54					
REDOX (mV)	-86	-102	-100	-101	-105	-106	-107					
Conductivity (~~mohm~~mS/cm)	2.70	2.94	2.94	2.90	2.85	2.83	2.82					
Turbidity	150	8.3	4.7	4.0	9.1	4.6	3.9					
Dissolved Oxygen (mg/L)	0.0	0.0	0.0	0.0	0.0	0.0	0.0					
TDS (g/L)	1.73	1.88	1.88	1.86	1.83	1.81	1.81					
Salinity (ppt)	1.4	1.5	1.5	1.5	1.5	1.5	1.5					
							5 3x40mL					

Notes: Collected 3x 40 mL VOA @ 1450

ARCADIS

WELL DEVELOPMENT/ PURGING LOG

WELL NUMBER: WVA-MW-84R-3 **DATE:** 9-16-21 @ 0905

PROJECT NAME: WVA LTM, 2021, Watervliet, New York

PROJECT NUMBER: 30001988

SAMPLERS: Colby/Churchill

DUPLICATE? Y/N: No

A: Total Casing and Screen Length: > 75' ☆ skinny dipper stuck on tubing

B: Casing Internal Diameter: 1.0"

C: Water Level Below Top of Casing: 8.60'

D: Volume of Water in Casing: NA gal

v = 0.0408 (B)² x (A-C) = D

v = 0.0408 (1.0')² x (NA - 8.6') = NA gal.

Well I.D.	Vol. Gal./ft.
1"	0.04
2"	0.17
3"	0.38
4"	0.66
5"	1.04
6"	1.50
8"	2.60

PARAMETER	ACCUMULATED VOLUME PURGED											
Time	0835	0840	0845	0850	0855	0900	0905					
Gallons	0.25	0.5	0.75	1.0	1.25	1.5	1.75					
Rate (mL/min)	250	250	250	250	250	250	250					
Depth to Water (ft.)	9.58	9.72	10.40	10.60	10.60	10.60	10.60					
Temperature (°C)	16.72	15.89	15.89	15.07	15.00	15.16	15.23					
pH	5.84	6.57	7.10	7.15	7.17	7.19	7.18					
REDOX (mV)	-20	-103	-130	-140	-142	-141	-142					
Conductivity (~~mS/cm~~)	2.62	2.60	2.71	2.70	2.65	2.68	2.70					
Turbidity	9.4	16.1	8.6	5.3	3.0	3.8	2.7					
Dissolved Oxygen (mg/L)	1.68	0.0	0.0	0.0	0.0	0.0	0.0					
TDS (g/L)	1.68	1.66	1.74	1.71	1.70	1.73	1.74					
Salinity (ppt)	1.3	1.3	1.3	1.4	1.4	1.4	1.4					
							Stable					

Notes: Skinny dipper stuck on dedicated tubing, unable to reach bottom for DTB

☆ collected 3 x 40mL VOA @ 0905

ARCADIS

WELL DEVELOPMENT/ PURGING LOG

WELL NUMBER: WVA-MW-85R-1 DATE: 9-15-21 @ 1140

PROJECT NAME: WVA LTM, 2021, Watervliet, New York

PROJECT NUMBER: 30001988

SAMPLERS: Colby Church-Hill

DUPLICATE? Y/N: No

A: Total Casing and Screen Length: DTB: 56.90'

B: Casing Internal Diameter: 1"

C: Water Level Below Top of Casing: 9.43'

D: Volume of Water in Casing: 1.93

Well I.D.	Vol. Gal./ft.
1"	0.04
2"	0.17
3"	0.38
4"	0.66
5"	1.04
6"	1.50
8"	2.60

$v = 0.0408 (B)^2 \times (A-C) = D$

$v = 0.0408 (1.0'')^2 \times (56.9' - 9.43') =$ 1.93 gal.

PARAMETER	ACCUMULATED VOLUME PURGED											
Time	1110	1115	1120	1125	1130	1135	1140					
Gallons	0.25	0.50	0.75	1.0	1.25	1.50	1.75					
Rate (mL/min)	200	200	200	200	200	200	200					
Depth to Water (ft.)	16.65	18.25	19.67	20.05	20.05	20.05	20.05					
Temperature (°C)	18.50	17.97	18.02	17.70	17.73	17.61	17.85					
pH	8.50	8.56	8.47	8.42	8.30	8.28	8.25					
REDOX (mV)	-140	-160	-168	-174	-174	-172	-171					
Conductivity (~~mohm~~ mS/cm)	2.08	2.01	1.98	1.96	1.97	1.97	1.96					
Turbidity	18.3	8.3	7.2	8.7	12.0	14.1	12.9					
Dissolved Oxygen (mg/L)	0.0	0.0	0.0	0.0	0.0	0.0	0.0					
TDS (g/L)	1.33	1.29	1.26	1.26	1.26	1.26	1.26					
Salinity (ppt)	1.1	1.0	1.0	1.0	1.0	1.0	1.0					
							Sample					

Notes: Collected 3 x 40 mL VOA @ 1140

ARCADIS

WELL DEVELOPMENT/ PURGING LOG

WELL NUMBER: WVA-MW-85R-2 **DATE:** 9-15-21 @ 1225

PROJECT NAME: WVA LTM, 2021, Watervliet, New York

PROJECT NUMBER: 30001988

SAMPLERS: Colby Churchill

DUPLICATE? Y/N: Yes Dup-02 (20210915) collected here @ 1000

A: Total Casing and Screen Length: DTB: 101.42'

B: Casing Internal Diameter: 1"

C: Water Level Below Top of Casing: 9.13'

D: Volume of Water in Casing: 3.76 gal

Well I.D.	Vol. Gal./ft.
1"	0.04
2"	0.17
3"	0.38
4"	0.66
5"	1.04
6"	1.50
8"	2.60

$v = 0.0408 (B)^2 \times (A-C) = D$

$v = 0.0408 (1.0'')^2 \times (101.42' - 9.13') =$ 3.76 gal.

PARAMETER	ACCUMULATED VOLUME PURGED											
Time	1155	1200	1205	1210	1215	1220	1225					
Gallons	0.25	0.5	0.75	1.0	1.25	1.50	1.75					
Rate (mL/min)	200	200	200	200	200	200	200					
Depth to Water (ft.)	9.50	9.50	9.50	9.50	9.50	9.50	9.50					
Temperature (°C)	18.95	17.63	17.35	17.71	18.01	18.33	18.49					
pH	7.63	8.04	8.26	8.38	8.35	8.38	8.40					
REDOX (mV)	-77	-127	-137	-158	-156	-159	-161					
Conductivity (~~mohm~~ mS/cm)	2.61	2.83	2.69	2.58	2.51	2.49	2.48					
Turbidity	69.7	30.3	18.0	10.1	8.1	9.8	7.9					
Dissolved Oxygen (mg/L)	0.0	0.0	0.0	0.0	0.0	0.0	0.0					
TDS (g/L)	1.68	1.81	1.72	1.65	1.61	1.59	1.60					
Salinity (PPT)	1.4	1.5	1.4	1.3	1.3	1.3	1.3					
							Turbid					

Notes: Collected 3 x 40mL VOA @ 1225

also collected 3x40mL VOA for Dup-02 @ 1000

ARCADIS

WELL DEVELOPMENT/ PURGING LOG

WELL NUMBER: WVA-MW-85R-3 **DATE:** 9-15-21 @ 1310

PROJECT NAME: WVA LTM, 2021, Watervliet, New York

PROJECT NUMBER: 30001988

SAMPLERS: Colby Churchill

DUPLICATE? Y/N: No

A: Total Casing and Screen Length: DTB: 148.09'

B: Casing Internal Diameter: 1"

C: Water Level Below Top of Casing: 8.84'

D: Volume of Water in Casing: 5.68 gal

v = 0.0408 $(B)^2$ x (A-C) = D

v = 0.0408 (1.0")^2 x (148.09' - 8.84') = 5.68 gal.

Well I.D.	Vol. Gal./ft.
1"	0.04
2"	0.17
3"	0.38
4"	0.66
5"	1.04
6"	1.50
8"	2.60

PARAMETER	ACCUMULATED VOLUME PURGED											
Time	1240	1245	1250	1255	1300	1305	1310					
Gallons	0.25	0.5	0.75	1.0	1.25	1.5	1.75					
Rate (mL/min)	200	200	200	200	200	200	200					
Depth to Water (ft.)	10.59	10.59	10.59	10.59	10.59	10.59	10.59					
Temperature (°C)	19.89	16.95	17.01	16.51	16.55	16.52	16.49					
pH	7.63	8.17	8.29	8.14	8.12	8.13	8.13					
REDOX (mV)	+4	-66	-80	-110	-131	-135	-136					
Conductivity (~~mS/cm~~ mS/cm)	3.06	3.17	3.21	3.01	2.90	2.90	2.90					
Turbidity	6.6	52.0	33.0	29.7	9.2	4.0	3.7					
Dissolved Oxygen (mg/L)	0.09	0.0	0.0	0.0	0.0	0.0	0.0					
TDS (g/L)	1.97	2.02	2.05	1.92	1.88	1.86	1.85					
Salinity (ppt)	1.6	1.6	1.7	1.6	1.5	1.5	1.5					
							Sample					

Notes: Collected 3 x 40mL VOA @ 1310

ARCADIS

WELL DEVELOPMENT/ PURGING LOG

WELL NUMBER: WVA-MW-86R-1 **DATE:** 9-15-21 @ 0925

PROJECT NAME: WVA LTM, 2021, Watervliet, New York

PROJECT NUMBER: 30001988

SAMPLERS: Colby Churchill

DUPLICATE? Y/N: N/a

A: Total Casing and Screen Length: DTB: 58.55'

B: Casing Internal Diameter: 1"

C: Water Level Below Top of Casing: 9.70'

D: Volume of Water in Casing: 1.99 gal

Well I.D.	Vol. Gal./ft.
(1")	0.04
2"	0.17
3"	0.38
4"	0.66
5"	1.04
6"	1.50
8"	2.60

$v = 0.0408 (B)^2 \times (A-C) = D$

$v = 0.0408 ($ 1.0" $)^2 \times ($ 58.55 - 9.70 $) =$ 1.99 gal.

PARAMETER	ACCUMULATED VOLUME PURGED											
Time	0845	0850	0855	0900	0905	0910	0915	0920	0925			
Gallons	0.2	0.4	0.6	0.8	1.0	1.2	1.4	1.6				
Rate (mL/min)	175	175	175	175	175	175	175	175				
Depth to Water (ft.)	9.70	11.80	12.03	12.03	12.10	12.05	12.05	12.05				
Temperature (°C)	18.97	17.36	16.88	16.75	16.48	16.49	16.46	16.44				
pH	6.52	7.67	8.02	8.01	8.01	8.01	8.00	8.00				
REDOX (mV)	-6	-85	-115	-125	-140	-150	-155	-157				
Conductivity (~~mohm~~ mS/cm)	2.60	2.61	2.53	2.45	2.48	2.55	2.55	2.55				
Turbidity	54.0	47.2	46.1	20.7	17.9	14.0	11.7	11.1				
Dissolved Oxygen (mg/L)	1.09	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
TDS (g/L)	1.66	1.67	1.62	1.57	1.59	1.62	1.63	1.63				
Salinity (ppt)	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3				

Notes: 3x 40 mL VOA collected @ 0925

ARCADIS

WELL DEVELOPMENT/ PURGING LOG

WELL NUMBER: WVA-MW-86R-2 **DATE:** 9-15-21 @ 1015

PROJECT NAME: WVA LTM, 2021, Watervliet, New York

PROJECT NUMBER: 30001988

SAMPLERS: Colby Churchill

DUPLICATE? Y/N: No

A: Total Casing and Screen Length: DTB: 149.10'

B: Casing Internal Diameter: 1"

C: Water Level Below Top of Casing: 9.0'

D: Volume of Water in Casing: 5.72 gal

Well I.D.	Vol. Gal./ft.
1"	0.04
2"	0.17
3"	0.38
4"	0.66
5"	1.04
6"	1.50
8"	2.60

$v = 0.0408 (B)^2 \times (A-C) = D$

$v = 0.0408 (1.0'')^2 \times (149.1' - 9.0') = 5.72$ gal.

PARAMETER	ACCUMULATED VOLUME PURGED											
Time	0940	0945	0950	0955	1000	1005	1010	1015				
Gallons		0.2	0.45	0.70	0.95	1.2	1.45	1.7				
Rate (mL/min)		200	200	200	200	200	200	200				
Depth to Water (ft.)		9.40	9.45	9.45	9.45	9.45	9.45	9.45				
Temperature (°C)		18.03	16.73	16.47	16.65	16.52	16.45	16.72				
pH		7.69	7.98	7.99	8.02	8.03	8.04	8.05				
REDOX (mV)		-130	-153	-159	-168	-182	-184	-185				
Conductivity (mohm/cm)		2.36	2.33	2.33	2.32	2.31	2.30	2.29				
Turbidity		4.9	4.9	4.1	4.3	3.0	1.5	2.1				
Dissolved Oxygen (mg/L)		0.05	0.0	0.0	0.0	0.0	0.0	0.0				
TDS (g/L)		1.51	1.49	1.49	1.48	1.48	1.47	1.46				
Salinity (ppt)		1.2	1.2	1.2	1.2	1.2	1.2	1.2				
								Sample				

Notes: Collected 3x 40mL VOA @ 1015

ARCADIS

WELL DEVELOPMENT/ PURGING LOG

WELL NUMBER: WVA-MW-86R-3 **DATE:** 9-15-21 @ 1055

PROJECT NAME: WVA LTM, 2021, Watervliet, New York

PROJECT NUMBER: 30001988

SAMPLERS: Colby Churchill

DUPLICATE? Y/N: No

A: Total Casing and Screen Length: DTB: 99.60'

B: Casing Internal Diameter: 1"

C: Water Level Below Top of Casing: 9.40'

D: Volume of Water in Casing: 3.68

Well I.D.	Vol. Gal./ft.
1"	0.04
2"	0.17
3"	0.38
4"	0.66
5"	1.04
6"	1.50
8"	2.60

$v = 0.0408 (B)^2 \times (A-C) = D$

$v = 0.0408 (1.0'')^2 \times (99.6' - 9.4') = 3.68$ gal.

PARAMETER	ACCUMULATED VOLUME PURGED											
Time	1025	1030	1035	1040	1045	1050	1055					
Gallons	0.25	0.50	0.75	1.0	1.25	1.5	1.75					
Rate (mL/min)	200	200	200	200	200	200	200					
Depth to Water (ft.)	9.45	9.45	9.45	9.45	9.45	9.45	9.45					
Temperature (°C)	19.02	16.68	16.43	17.04	17.01	16.90	16.82					
pH	7.58	8.03	8.11	8.15	8.18	8.20	8.21					
REDOX (mV)	-85	-160	-177	-180	-195	-196	-187					
Conductivity (~~mS/cm~~ mS/cm)	2.61	3.13	3.10	3.02	3.04	3.02	3.01					
Turbidity	6.7	38.0	19.4	10.8	11.6	10.6	10.2					
Dissolved Oxygen (mg/L)	2.11	0.0	0.0	0.0	0.0	0.0	0.0					
TDS (g/L)	1.66	2.0	1.98	1.93	1.94	1.93	1.93					
Salinity (PPT)	1.3	1.6	1.6	1.6	1.6	1.6	1.6					
							Sample					

Notes: Collected 3x 40 mL VOA @ 1055

ARCADIS

WELL DEVELOPMENT/ PURGING LOG

WELL NUMBER: WVA-SA-515-3 (location by MW-85) **DATE:** 9/14/21 @ 1635

PROJECT NAME: WVA LTM, 2021, Watervliet, New York

PROJECT NUMBER: 30001988

SAMPLERS: K. Stilson

DUPLICATE? Y/N: N

A: Total Casing and Screen Length: —

B: Casing Internal Diameter: storm drain

C: Water Level Below Top of Casing: 7.07'

D: Volume of Water in Casing: —

v = 0.0408 $(B)^2$ x (A-C) = D

v = 0.0408 (—)^2 x (—) = — gal.

Well I.D.	Vol. Gal./ft.
1"	0.04
2"	0.17
3"	0.38
4"	0.66
5"	1.04
6"	1.50
8"	2.60

PARAMETER	ACCUMULATED VOLUME PURGED											
Time	1630											
Gallons	—											
Rate (mL/min)	300											
Depth to Water (ft.)	7.07											
Temperature (°C)	24.58											
pH	7.98											
REDOX (mV)	63											
Conductivity (mohm/cm)	0.765											
Turbidity	0.0											
Dissolved Oxygen	2.72											
TDS	0.488											
Salinity	0.4											

Notes: Peristaltic pump. Sample VOC

ARCADIS

WELL DEVELOPMENT/ PURGING LOG

WELL NUMBER: WVA-SA-SS-5 **DATE:** 9/14/21 @ 1550

PROJECT NAME: WVA LTM, 2021, Watervliet, New York

PROJECT NUMBER: 30001988

SAMPLERS: K. Stilson

DUPLICATE? Y/N: N

A: Total Casing and Screen Length: —

B: Casing Internal Diameter: storm drain

C: Water Level Below Top of Casing: 6.80

D: Volume of Water in Casing: —

v = 0.0408 $(B)^2$ x (A-C) = D

v = 0.0408 (—)^2 x (—) = — gal.

Well I.D.	Vol. Gal./ft.
1"	0.04
2"	0.17
3"	0.38
4"	0.66
5"	1.04
6"	1.50
8"	2.60

PARAMETER	ACCUMULATED VOLUME PURGED											
Time	1545	~~1550~~	~~1555~~	1600	~~1605~~	1610	1615					
Gallons	—											
Rate (mL/min)	300											
Depth to Water (ft.)	6.80											
Temperature (°C)	21.29											
pH	7.14											
REDOX (mV)	-56											
Conductivity (mohm/cm)	1.52											
Turbidity	6.1											
Dissolved Oxygen	2.85											
TDS	0.97											
Salinity	0.8											

Notes: VOC collected

ARCADIS

WELL DEVELOPMENT/ PURGING LOG

WELL NUMBER: WVA-SA-STS-6 DATE: 9/16/2021 @ 0900

PROJECT NAME: WVA LTM, 2021, Watervliet, New York

PROJECT NUMBER: 30001988

SAMPLERS: K. Stilson

DUPLICATE? Y/N: N

A: Total Casing and Screen Length: —

B: Casing Internal Diameter: Manhole

C: Water Level Below Top of Casing: 9.52'

D: Volume of Water in Casing: —

$v = 0.0408 (B)^2 \times (A-C) = D$

$v = 0.0408 (—)^2 \times (— - —) = —$ gal.

Well I.D.	Vol. Gal./ft.
1"	0.04
2"	0.17
3"	0.38
4"	0.66
5"	1.04
6"	1.50
8"	2.60

PARAMETER	ACCUMULATED VOLUME PURGED												
Time	0900												
Gallons	—												
Rate (mL/min)	—												
Depth to Water (ft.)	9.52												
Temperature (°C)	20.12												
pH	7.01												
REDOX (mV)	39												
Conductivity (mohm/cm)	0.555												
Turbidity	37.8												
Dissolved Oxygen	8.94												
TDS	1.31												
Salinity	0.1												

Notes: Sample from manhole, need to lift grid & and remove screen to get to water. VOC Sample

ARCADIS

WELL DEVELOPMENT/ PURGING LOG

WELL NUMBER: WVA-SA-SNS-6 DATE: 9/16/2021 @0830

PROJECT NAME: WVA LTM, 2021, Watervliet, New York

PROJECT NUMBER: 30001988

SAMPLERS: K Stilson

DUPLICATE? Y/N: N

A: Total Casing and Screen Length: —

B: Casing Internal Diameter: manhole

C: Water Level Below Top of Casing: 6.65'

D: Volume of Water in Casing: —

v = 0.0408 $(B)^2$ x (A-C) = D

v = 0.0408 (—)^2 x (—- -) = —— gal.

Well I.D.	Vol. Gal./ft.
1"	0.04
2"	0.17
3"	0.38
4"	0.66
5"	1.04
6"	1.50
8"	2.60

PARAMETER	ACCUMULATED VOLUME PURGED											
Time	0925											
Gallons	—											
Rate (mL/min)	—											
Depth to Water (ft.)	6.65'											
Temperature (°C)	21.47											
pH	7.89											
REDOX (mV)	79											
Conductivity (mohm/cm)	1.53											
Turbidity	33.3											
Dissolved Oxygen	8.06											
TDS	1.11											
Salinity	0.1											

Notes: collect VOC. Peri pump

ARCADIS

WELL DEVELOPMENT/ PURGING LOG

WELL NUMBER: 93EM-SP-11 **DATE:** 9/14/21 @ 1155

PROJECT NAME: WVA LTM, 2021, Watervliet, New York
PROJECT NUMBER: 30001988
SAMPLERS: K. Stilson
DUPLICATE? Y/N: N

A: Total Casing and Screen Length: 14.29'

B: Casing Internal Diameter: 2"

C: Water Level Below Top of Casing: 9.04'

D: Volume of Water in Casing: 5.25' | 0.85 gal

Well I.D.	Vol. Gal./ft.
1"	0.04
2"	0.17
3"	0.38
4"	0.66
5"	1.04
6"	1.50
8"	2.60

$v = 0.0408 (B)^2 \times (A-C) = D$

$v = 0.0408 (2)^2 \times (14.29 - 9.04) =$ 0.85 gal.

PARAMETER	ACCUMULATED VOLUME PURGED											
Time	1115	1120	1125	1130	1135	1140	1145	1150				
Gallons	0.30	0.60	0.90	1.20	1.50	1.80	2.10	2.40				
Rate (mL/min)	200							↓				
Depth to Water (ft.)	9.00	9.24	9.36	9.45	9.57	9.62	9.68	9.72				
Temperature (°C)	20.97	20.17	20.11	20.05	20.03	19.31	19.33	19.35				
pH	6.51	6.68	7.01	7.09	7.15	6.95	6.99	6.95				
REDOX (mV)	52	63	21	18	22	-27	-28	-30				
Conductivity (mohm/cm)	5.08	1.97	1.93	1.83	1.77	2.02	2.02	2.00				
Turbidity	73.1	47.6	46.9	44.5	49.7	33.9	33.5	33.0				
Dissolved Oxygen	1.01	1.28	1.30	1.32	1.60	0.03	0.02	0.03				
TDS	1.01	1.01	1.01	1.02	1.02	1.02	1.02	1.02				
Salinity	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2				

Notes: Sample VOC + ~~EPA 8~~ hex chrome per pump.

ARCADIS Design & Consultancy for natural and built assets

Appendix B

Summary Tables and Analytical Laboratory Reporting Forms

Watervliet Arsenal - Long Term Monitoring

Well ID:

METHOD:

Analyte	*Units*	*Jun-09*	*Oct-09*	*Jun-10*	*May-11*	*Jun-11*	*Jun-12*	*Sept-13*	*Jun-14*	*Jun-15*	*Jul-15*	*Jun-16*	*Sept-17*	*Oct-17*	*Oct-18*	*Aug-19*	*Sept-19*	*Jun-20*	*Sept-21*	*Oct-21*

Well ID: 83DM-SP-1

METHOD: *NAT*

Analyte	*Units*	*Jun-09*	*Oct-09*	*Jun-10*	*May-11*	*Jun-11*	*Jun-12*	*Sept-13*	*Jun-14*	*Jun-15*	*Jul-15*	*Jun-16*	*Sept-17*	*Oct-17*	*Oct-18*	*Aug-19*	*Sept-19*	*Jun-20*	*Sept-21*	*Oct-21*
Alkalinity	mg/l	141	191	121	62		119	173	125				5							
Carbon Dioxide	mg/L	23	32	24	0.2 (J)		17	23 ( )	16 ( )											
Carbon dioxide	ug/l												22000							
Chloride	mg/L	960	462	744	329		500	284	596				508							
Dissolved Organic Carbon	mg/l	2.4		2.6			2	2.8	1.8				2.6							
Ferrous iron	mg/L	0.23	0.14	0.17	0.11		0.32	1.2	2.17											
Methane	ug/l	280	19	300	980		170	91	160											
Nitrate	mg/L	0.27	1.91	0.08	0.35		0.13	0.59	0.66											
Nitrite	mg/L	0.007	0.14	0.5	0.026		0.148	0.013	0.036				21							
Sulfate	mg/L		47	32	9		36	36	39											

Well ID: 83DM-SP-1

METHOD: *VOC*

Analyte	*Units*	*Jun-09*	*Oct-09*	*Jun-10*	*May-11*	*Jun-11*	*Jun-12*	*Sept-13*	*Jun-14*	*Jun-15*	*Jul-15*	*Jun-16*	*Sept-17*	*Oct-17*	*Oct-18*	*Aug-19*	*Sept-19*	*Jun-20*	*Sept-21*	*Oct-21*
1,1,1-Trichloroethane	ug/l	3		2																
1,1-Dichloroethane	ug/l	1																		
Chloroform	UG/L									1.2					1.4					
cis-1,2-Dichloroethene	ug/l	17	4	12				3.4		1.2										
cis-1,2-Dichloroethene (Dup)	ug/l						2.9													
Trichloroethene	ug/l	11	8	8				6.2	3	3.8			3.3		2.4		1.8	2.2		
Trichloroethene (Dup)	ug/l						4.7													

Well ID: 83DM-SP-3

METHOD: *NAT*

Analyte	*Units*	*Jun-09*	*Oct-09*	*Jun-10*	*May-11*	*Jun-11*	*Jun-12*	*Sept-13*	*Jun-14*	*Jun-15*	*Jul-15*	*Jun-16*	*Sept-17*	*Oct-17*	*Oct-18*	*Aug-19*	*Sept-19*	*Jun-20*	*Sept-21*	*Oct-21*
Alkalinity	mg/L			171	171		125	171	173					209						
Carbon Dioxide	mg/l			72	81		65	64	66 ( )											
Carbon dioxide	ug/l													63000						
Chloride	mg/L			365	361		880	810	828					1728						
Dissolved Organic Carbon	mg/L			1.8	1.5		1.4	1.9	1.2					1						
Ferrous Iron	mg/L			0.99	1.01		1.5	1.38												
Methane	ug/l			30	23		33	25	15					12						
Nitrate	mg/L			0.02	0.29		0.5	0.52	0.14											
Nitrite	mg/L			0.087	0.015		0.008	0.021	0.038											

Well ID: 86EM-SP-1A

METHOD: VOC

Analyte	Units	Jun-09	Oct-09	Jun-10	May-11	Jun-11	Jun-12	Sept-13	Jun-14	Jun-15	Jul-15	Jun-16	Sept-17	Oct-17	Oct-18	Aug-19	Sept-19	Jun-20	Sept-21	Oct-21
Chloroform	UG/L														3.9		1.2	1.1		
cis-1,2-Dichloroethene	ug/l	3	2		1		1.1	1		1										
cis-1,2-Dichloroethene (BS)	ug/l											1.7								
Tetrachloroethene	ug/l			1																
TRICHLOROETHENE	UG/L	11	11	3	13		9.4	14	7.7	9.6					6.6		11	8.3		8.8
Trichloroethene (BS)	ug/l											11		11						

Well ID: 86EM-SP-1B

METHOD: VOC

Analyte	Units	Jun-09	Oct-09	Jun-10	May-11	Jun-11	Jun-12	Sept-13	Jun-14	Jun-15	Jul-15	Jun-16	Sept-17	Oct-17	Oct-18	Aug-19	Sept-19	Jun-20	Sept-21	Oct-21
Bromodichloromethane	ug/l								1.1											
Chloroform	ug/l						1.7		18											
Trichloroethene	ug/l	2			1															

Well ID: 86EM-SP-5

METHOD: NAT

Analyte	Units	Jun-09	Oct-09	Jun-10	May-11	Jun-11	Jun-12	Sept-13	Jun-14	Jun-15	Jul-15	Jun-16	Sept-17	Oct-17	Oct-18	Aug-19	Sept-19	Jun-20	Sept-21	Oct-21
Alkalinity	mg/L			212	110		150	194	192					236						
Carbon Dioxide	mg/l			68	76		66	86	66 ( )											
Carbon dioxide	ug/l													70000						
Chloride	mg/L			544			235	432						609						
Dissolved Organic Carbon	mg/l			11	7		11	10	5.7					7.5						
Ferrous iron	mg/l			2.13	1.88		0.92		3.17											
Methane	ug/l			430	360		220	460	210					340						
Nitrate	mg/L			0.09	0.33		0.32	0.38	0.86					22.1						
Nitrite	mg/L			0.101	0.005		0.08	0.014	0.036											
Sulfate	mg/l			40	76		16	26						52						

METHOD: SVOC

Analyte	Units	Jun-09	Oct-09	Jun-10	May-11	Jun-11	Jun-12	Sept-13	Jun-14	Jun-15	Jul-15	Jun-16	Sept-17	Oct-17	Oct-18	Aug-19	Sept-19	Jun-20	Sept-21	Oct-21
4-Chloro-3-methylphenol	ug/l							12												

Well ID: 86EM-SP-6

METHOD: *Metals*

Analyte	*Units*	*Jun-09*	*Oct-09*	*Jun-10*	*May-11*	*Jun-11*	*Jun-12*	*Sept-13*	*Jun-14*	*Jun-15*	*Jul-15*	*Jun-16*	*Sept-17*	*Oct-17*	*Oct-18*	*Aug-19*	*Sept-19*	*Jun-20*	*Sept-21*	*Oct-21*
Barium	mg/l	0.0652		0.0596	0.0573		0.0366			0.104		0.0459		0.0865						
BARIUM	UG/L							0.0479							76.5	75.1			106	
Chromium	mg/l						0.0287	0.0201	0.0109			0.0185		0.0118						
Chromium	UG/L														18.9	34				

Well ID: 86EM-SP-6

METHOD: NAT

Analyte	Units	Jun-09	Oct-09	Jun-10	May-11	Jun-11	Jun-12	Sept-13	Jun-14	Jun-15	Jul-15	Jun-16	Sept-17	Oct-17	Oct-18	Aug-19	Sept-19	Jun-20	Sept-21	Oct-21
Alkalinity	mg/l	242		245	145			250	161					375						
Carbon Dioxide	mg/l	53		68	54		39	80	45 ( )											
Carbon dioxide	ug/l													81000						
Chloride	mg/l	306		140	58		40	82	105					91						
Dissolved Organic Carbon	mg/l	3.5		3.1	1.8		1.7	2.6	1.8					2.4						
Ferrous iron	mg/l	0.2		0.31	0.19		0.38	0.28	0.91					0.19						
Methane	ug/l	310		330	13															
Nitrate	mg/l	0.25		0.06	0.37		0.43	0.57	0.11					0						
Nitrite	mg/l	0.023		0.059	0.003		0.059	0.022	0.076					30						
Sulfate	mg/l				52		24		35					50						
Sulfide-Dissolved	mg/l			1.3			5		1.4											

METHOD: VOC

Analyte	Units	Jun-09	Oct-09	Jun-10	May-11	Jun-11	Jun-12	Sept-13	Jun-14	Jun-15	Jul-15	Jun-16	Sept-17	Oct-17	Oct-18	Aug-19	Sept-19	Jun-20	Sept-21	Oct-21
Chloroform	ug/l							5.6	13											

Well ID: 92EM-SP-7

METHOD: *NAT*

Analyte	*Units*	*Jun-09*	*Oct-09*	*Jun-10*	*May-11*	*Jun-11*	*Jun-12*	*Sept-13*	*Jun-14*	*Jun-15*	*Jul-15*	*Jun-16*	*Sept-17*	*Oct-17*	*Oct-18*	*Aug-19*	*Sept-19*	*Jun-20*	*Sept-21*	*Oct-21*
Alkalinity	mg/L			171	93		145	238	173				224							
Carbon Dioxide	mg/l			37	42		30	35	19 ( )											
Carbon dioxide	ug/l												6500							
Chloride	mg/L			1345	989		948	510	244				54							
Dissolved Organic Carbon	mg/l			2.9	2.8		2.7	4	1.8				1.2							
Ferrous iron	mg/L			0.25	0.27		0.62	0.38	0.12											
Methane	ug/l			49	60		37	61												
Nitrate	mg/L			0.07	0.3		0.45	0.39	0.15				19.1							
Nitrite	mg/L			0.39	0.014		0.04	0.032	0.054				0							
Sulfate	mg/L						80		77				25							
Sulfide-Dissolved	mg/l																			

Well ID: 92EM-SP-7

METHOD: *VOC*

Analyte	*Units*	*Jun-09*	*Oct-09*	*Jun-10*	*May-11*	*Jun-11*	*Jun-12*	*Sept-13*	*Jun-14*	*Jun-15*	*Jul-15*	*Jun-16*	*Sept-17*	*Oct-17*	*Oct-18*	*Aug-19*	*Sept-19*	*Jun-20*	*Sept-21*	*Oct-21*
1,1-Dichloroethane	ug/l			2	1		1.3	2												
cis-1,2-Dichloroethene	ug/l			1				1.4												

Well ID: 92EM-SP-8

METHOD: *Metals*

Analyte	*Units*	*Jun-09*	*Oct-09*	*Jun-10*	*May-11*	*Jun-11*	*Jun-12*	*Sept-13*	*Jun-14*	*Jun-15*	*Jul-15*	*Jun-16*	*Sept-17*	*Oct-17*	*Oct-18*	*Aug-19*	*Sept-19*	*Jun-20*	*Sept-21*	*Oct-21*
CHROMIUM	UG/L																		23.9	

METHOD: *Metals*

Analyte	*Units*	*Jun-09*	*Oct-09*	*Jun-10*	*May-11*	*Jun-11*	*Jun-12*	*Sept-13*	*Jun-14*	*Jun-15*	*Jul-15*	*Jun-16*	*Sept-17*	*Oct-17*	*Oct-18*	*Aug-19*	*Sept-19*	*Jun-20*	*Sept-21*	*Oct-21*
CHROMIUM	UG/L																		12.1	

Well ID: 92EM-SP-8

METHOD: NAT

Analyte	Units	Jun-09	Oct-09	Jun-10	May-11	Jun-11	Jun-12	Sept-13	Jun-14	Jun-15	Jul-15	Jun-16	Sept-17	Oct-17	Oct-18	Aug-19	Sept-19	Jun-20	Sept-21	Oct-21
Alkalinity	mg/l			93	110		205	211	279				265							
Carbon Dioxide	mg/l			44	36		34	20	18 ( )											
Carbon dioxide	ug/l												14000							
Chloride	mg/L			2098	790		1020	238	279				62							
Dissolved Organic Carbon	mg/l			4.9	3.2		3.9	5	3.4				3.6							
Ferrous iron	mg/L			0.33	0.47		0.62	1.05	0.77											
Methane	ug/l			76	18		43	36	25				14							
Nitrate	mg/L			0.06	0.27		0.43	0.63	0.22				8							
Nitrite	mg/L			0.028	0.004		0.068	0.256	0.179				38							

METHOD: VOC

Analyte	Units	Jun-09	Oct-09	Jun-10	May-11	Jun-11	Jun-12	Sept-13	Jun-14	Jun-15	Jul-15	Jun-16	Sept-17	Oct-17	Oct-18	Aug-19	Sept-19	Jun-20	Sept-21	Oct-21
1,1-Dichloroethane	ug/l			2			1.3	1.6												
cis-1,2-Dichloroethene	ug/l			1			1.1	1.6												

Well ID: 93EM-RW-2

METHOD: *NAT*

Analyte	*Units*	*Jun-09*	*Oct-09*	*Jun-10*	*May-11*	*Jun-11*	*Jun-12*	*Sept-13*	*Jun-14*	*Jun-15*	*Jul-15*	*Jun-16*	*Sept-17*	*Oct-17*	*Oct-18*	*Aug-19*	*Sept-19*	*Jun-20*	*Sept-21*	*Oct-21*
Alkalinity	mg/l			10	70		94	125	82				452							
Carbon Dioxide	mg/l			31	12		17		13 ( )											
Carbon dioxide	ug/l												22000							
Chloride	mg/l			115	272		76	48	114											
Dissolved Organic Carbon	mg/l			2	1.5		1.7	2.3	1.6				1.5							
Ethane	ug/l				790															
Ethene	ug/l				550															
Ferrous iron	mg/l			0.1	0.24		0.31	0.81	0.04											
Methane	ug/l			83	8000 (E)		11	10					46							
Nitrate	mg/l			0.02	0.28		0.47	0.52	0.54											
Nitrite	mg/l			0.043	0.018		0.015	0.03	0.013				62							
Sulfate	mg/l			30	52		14	11	13				20							
Sulfide-Dissolved	mg/l								1.4											

Well ID: 93EM-RW-2

METHOD: *VOC*

Analyte	*Units*	*Jun-09*	*Oct-09*	*Jun-10*	*May-11*	*Jun-11*	*Jun-12*	*Sept-13*	*Jun-14*	*Jun-15*	*Jul-15*	*Jun-16*	*Sept-17*	*Oct-17*	*Oct-18*	*Aug-19*	*Sept-19*	*Jun-20*	*Sept-21*	*Oct-21*
Bromodichloromethane	ug/l							6.2												
Chloroform	ug/l				15		13	56	62	57										
Chloroform (BS)	ug/l											9.3								
cis-1 2-Dichloroethene	UG/L														65					
cis-1,2-Dichloroethene	ug/l			140	63		61	1.8	13	4.6			60				49	38		63
cis-1,2-Dichloroethene (BS)	ug/l											50								
Tetrachloroethene	ug/l			29	18		25	1.3	6.8	4.7			27		29		26	14		35
Tetrachloroethene (BS)	ug/l											16								
Trichloroethene	ug/l			56	44		48	2.4	14	10			34		58		56	28		76
Trichloroethene (BS)	ug/l											39								
Vinyl chloride	ug/l			6	5															

Well ID: 93EM-SP-11

METHOD: VOC

Analyte	Units	Jun-09	Oct-09	Jun-10	May-11	Jun-11	Jun-12	Sept-13	Jun-14	Jun-15	Jul-15	Jun-16	Sept-17	Oct-17	Oct-18	Aug-19	Sept-19	Jun-20	Sept-21	Oct-21
Bromodichloromethane	ug/l				9		5.8		4.3											
Bromodichloromethane (Dup)	ug/l							11												
Chloroform	ug/l				72		69		53											
Chloroform (Dup)	ug/l							70												
Dibromochloromethane	ug/l						4.8													

Well ID: 93EM-SP-13

METHOD: VOC

Analyte	Units	Jun-09	Oct-09	Jun-10	May-11	Jun-11	Jun-12	Sept-13	Jun-14	Jun-15	Jul-15	Jun-16	Sept-17	Oct-17	Oct-18	Aug-19	Sept-19	Jun-20	Sept-21	Oct-21
TRICHLOROETHENE	UG/L																			1

Well ID: 93EM-SP-9

METHOD: VOC

Analyte	Units	Jun-09	Oct-09	Jun-10	May-11	Jun-11	Jun-12	Sept-13	Jun-14	Jun-15	Jul-15	Jun-16	Sept-17	Oct-17	Oct-18	Aug-19	Sept-19	Jun-20	Sept-21	Oct-21
Chloroform	ug/l							3.8												

Well ID: 94EM-MW-19

METHOD: *Metals*

Analyte	*Units*	*Jun-09*	*Oct-09*	*Jun-10*	*May-11*	*Jun-11*	*Jun-12*	*Sept-13*	*Jun-14*	*Jun-15*	*Jul-15*	*Jun-16*	*Sept-17*	*Oct-17*	*Oct-18*	*Aug-19*	*Sept-19*	*Jun-20*	*Sept-21*	*Oct-21*
Barium	mg/l	0.648		0.341	0.382		0.0963		0.193		0.191	0.185	0.154							
BARIUM	UG/L														143	116			186	
BARIUM (Dup)	UG/L							0.164											184	
Chromium	mg/l	1.26		2.97	0.0414		0.0186		0.0214		0.23	0.2	0.189							
Chromium	UG/L														109	30.4 (N*E)			382	
Chromium (Dup)	mg/l							0.156												
CHROMIUM (Dup)	UG/L																		380	
Lead	mg/l				0.005							0.007	0.011							
MERCURY	UG/L																			

Well ID: 94EM-MW-20

METHOD: Metals

Analyte	Units	Jun-09	Oct-09	Jun-10	May-11	Jun-11	Jun-12	Sept-13	Jun-14	Jun-15	Jul-15	Jun-16	Sept-17	Oct-17	Oct-18	Aug-19	Sept-19	Jun-20	Sept-21	Oct-21
Barium	UG/L							0.0639							59.6	101		49.7	27	
Barium	mg/l	0.388		0.42	0.477		0.166		0.296	0.293		0.199	0.0449							
Chromium	mg/l	3.14		3.86	0.725		6.37	0.75	2.12	6.54		6.62	0.216							
Chromium	UG/L														406	144		119	72.8	
Lead	mg/l						0.009			0.009		0.011	0.018							
Lead	UG/L														70.5	38.3		16.9	19	
Mercury	ug/l								0.44											

METHOD: Metals

Analyte	Units	Jun-09	Oct-09	Jun-10	May-11	Jun-11	Jun-12	Sept-13	Jun-14	Jun-15	Jul-15	Jun-16	Sept-17	Oct-17	Oct-18	Aug-19	Sept-19	Jun-20	Sept-21	Oct-21
BARIUM	UG/L																		46.8	

Well ID: 94EM-MW-20

METHOD: NAT

Analyte	Units	Jun-09	Oct-09	Jun-10	May-11	Jun-11	Jun-12	Sept-13	Jun-14	Jun-15	Jul-15	Jun-16	Sept-17	Oct-17	Oct-18	Aug-19	Sept-19	Jun-20	Sept-21	Oct-21
Alkalinity	mg/l												126							
Chloride	mg/l												554							
Nitrate	mg/l												5.5							
Nitrite	mg/l												9							

METHOD: VOC

Analyte	Units	Jun-09	Oct-09	Jun-10	May-11	Jun-11	Jun-12	Sept-13	Jun-14	Jun-15	Jul-15	Jun-16	Sept-17	Oct-17	Oct-18	Aug-19	Sept-19	Jun-20	Sept-21	Oct-21
Tetrachloroethene	UG/L														30	15				
Trichloroethene	UG/L														1.6	1				

Well ID: 94EM-MW-21

METHOD: *Metals*

Analyte	Units	Jun-09	Oct-09	Jun-10	May-11	Jun-11	Jun-12	Sept-13	Jun-14	Jun-15	Jul-15	Jun-16	Sept-17	Oct-17	Oct-18	Aug-19	Sept-19	Jun-20	Sept-21	Oct-21
Arsenic	mg/L	0.047		0.01	0.012															
Barium	mg/l			0.0421	0.13		0.0212		0.117	0.0939		0.0647	0.0476							
Barium	UG/L							1.13							38.4	69.4		41.2	121	
Chromium	mg/l			0.302	0.234					0.394		0.406	0.699							
Chromium	UG/L														366	742		498	191	
Lead	mg/L				0.009															
LEAD	UG/L																	9.2		

METHOD: *NAT*

Analyte	Units	Jun-09	Oct-09	Jun-10	May-11	Jun-11	Jun-12	Sept-13	Jun-14	Jun-15	Jul-15	Jun-16	Sept-17	Oct-17	Oct-18	Aug-19	Sept-19	Jun-20	Sept-21	Oct-21
Alkalinity	mg/l												178							
Chloride	mg/l												118							
Nitrate	mg/l												18.1							
Nitrite	mg/l												0							

Well ID: 94EM-MW-21

METHOD: SVOC

Analyte	Units	Jun-09	Oct-09	Jun-10	May-11	Jun-11	Jun-12	Sept-13	Jun-14	Jun-15	Jul-15	Jun-16	Sept-17	Oct-17	Oct-18	Aug-19	Sept-19	Jun-20	Sept-21	Oct-21
Chromium	mg/l	1.64																		

METHOD: VOC

Analyte	Units	Jun-09	Oct-09	Jun-10	May-11	Jun-11	Jun-12	Sept-13	Jun-14	Jun-15	Jul-15	Jun-16	Sept-17	Oct-17	Oct-18	Aug-19	Sept-19	Jun-20	Sept-21	Oct-21
Barium	mg/l	0.141																		
cis-1,2-Dichloroethene	ug/l			1																
Lead	mg/l	0.014																		
Tetrachloroethene	UG/L														44	21				
Trichloroethene	UG/L														1.9	1.7				

Well ID: B121-N

METHOD: *NAT*

Analyte	*Units*	*Jun-09*	*Oct-09*	*Jun-10*	*May-11*	*Jun-11*	*Jun-12*	*Sept-13*	*Jun-14*	*Jun-15*	*Jul-15*	*Jun-16*	*Sept-17*	*Oct-17*	*Oct-18*	*Aug-19*	*Sept-19*	*Jun-20*	*Sept-21*	*Oct-21*
Alkalinity	mg/l	258		138	54		144	144	138				172							
Carbon Dioxide	mg/l	5.1		18	6.4		5.5	8 ( )	3.6 (J)											
Carbon dioxide	ug/l												6200							
Chloride	mg/l	11		326	344		374	280	376				179							
Dissolved Organic Carbon	mg/l	13		2.6	2		4.5	2.4	4.8				7.1							
Ethane	ug/l			63	38			71	16											
Ethene	ug/l				25			51												
Ferrous iron	mg/L	0.7		0.89	1.1		1.66	1.94	2.06											
Methane	ug/l	4900		2900	1100		1600 (E)	4100	1400 (D)				980							
Nitrate	mg/L	0.27		0.08	0.31		0.2	0.79	0.46				25.9							
Nitrite	mg/L	0.006		0.134	0.009		0.149	0.01	0.027				43							
Sulfate	mg/L	4		18	72		4	20	28											
Sulfide-Dissolved	mg/L						2.2													

Well ID: B121-N

METHOD: VOC

Analyte	Units	Jun-09	Oct-09	Jun-10	May-11	Jun-11	Jun-12	Sept-13	Jun-14	Jun-15	Jul-15	Jun-16	Sept-17	Oct-17	Oct-18	Aug-19	Sept-19	Jun-20	Sept-21	Oct-21
cis-1 2-Dichloroethene	UG/L														1.3					
cis-1,2-Dichloroethene	ug/l			290	74			170	3.4				1.3							34
trans-1,2-Dichloroethene	ug/l			4	3			4.1												1.1
Vinyl chloride	ug/l			160	110			100	11											26

Well ID: B121-S

METHOD: *NAT*

Analyte	*Units*	*Jun-09*	*Oct-09*	*Jun-10*	*May-11*	*Jun-11*	*Jun-12*	*Sept-13*	*Jun-14*	*Jun-15*	*Jul-15*	*Jun-16*	*Sept-17*	*Oct-17*	*Oct-18*	*Aug-19*	*Sept-19*	*Jun-20*	*Sept-21*	*Oct-21*
Alkalinity	mg/l	92		5	45		100	145	93				81							
Carbon Dioxide	mg/l	2.3 (J)		11	3.8 (J)		1.7 (J)	5.7 ( )	4.6 (J)											
Chloride	mg/L	261		1087	163		150	173	309				247							
Dissolved Organic Carbon	mg/l	2.1		1.6	1.9		2.2	3	1.8				1.7							
Ferrous iron	mg/L	0.26			0.09		0.35	1.9	0.6											
Methane	ug/l	960		8300	34		400	200	850				2100 (D)							
Nitrate	mg/L	0.22		0.09	0.42		0.24	0.62	0.12				260							
Nitrite	mg/L	0.02		0.117	0.011		0.128	0.01	0.012				0							
Sulfate	mg/L	22			58		37	80	57											
Sulfide-Dissolved	mg/l			4.8					1.1											

Well ID: B121-S

METHOD: *VOC*

Analyte	Units	Jun-09	Oct-09	Jun-10	May-11	Jun-11	Jun-12	Sept-13	Jun-14	Jun-15	Jul-15	Jun-16	Sept-17	Oct-17	Oct-18	Aug-19	Sept-19	Jun-20	Sept-21	Oct-21
1,1,1-Trichloroethane	ug/l						1.1						2.5							
cis-1,2-Dichloroethene	ug/l	1		110	1		1	1.7	3.2				2							2
Vinyl chloride	ug/l			21																

Well ID: NMT PIT

METHOD: *Metals*

Analyte	Units	Jun-09	Oct-09	Jun-10	May-11	Jun-11	Jun-12	Sept-13	Jun-14	Jun-15	Jul-15	Jun-16	Sept-17	Oct-17	Oct-18	Aug-19	Sept-19	Jun-20	Sept-21	Oct-21
Hexavalent Chromium	UG/L																	1500		

Well ID: WVA-AW-135-MW-4

METHOD: *NAT*

Analyte	*Units*	*Jun-09*	*Oct-09*	*Jun-10*	*May-11*	*Jun-11*	*Jun-12*	*Sept-13*	*Jun-14*	*Jun-15*	*Jul-15*	*Jun-16*	*Sept-17*	*Oct-17*	*Oct-18*	*Aug-19*	*Sept-19*	*Jun-20*	*Sept-21*	*Oct-21*
Alkalinity	mg/L				67															
Carbon Dioxide	mg/L				6.3							8								
Chloride	mg/L				581															
Ferrous Iron	mg/L				2.1															
Nitrate	mg/L				0.18															
Nitrite	mg/L				0.018															
Sulfate	mg/L				7															

Well ID: WVA-AW-25-MW-2

METHOD: *NAT*

Analyte	*Units*	*Jun-09*	*Oct-09*	*Jun-10*	*May-11*	*Jun-11*	*Jun-12*	*Sept-13*	*Jun-14*	*Jun-15*	*Jul-15*	*Jun-16*	*Sept-17*	*Oct-17*	*Oct-18*	*Aug-19*	*Sept-19*	*Jun-20*	*Sept-21*	*Oct-21*
Alkalinity	mg/l	206	143	178	101		251	252	206				185							
Carbon Dioxide	mg/l	71	61	58	45		48	73 ( )	160 ( )											
Carbon dioxide	ug/l												55000							
Chloride	mg/l	533	580	561	589		894	519	550				568							
Dissolved Organic Carbon	mg/l	15		30	4.2		1.6	53	490				8.8							
Ethene	ug/l				11			16												
Ferrous iron	mg/L	1.07	0.79	1.41	0.52		0.3	1.47												
Methane	ug/l	4100	2900	3200	1200		3100 (D)	10000 (D)	1100				8300 (D)							
Nitrate	mg/l	0.86	0.11	0.08	0.42		0.43	0.82	0.73				7.1							
Nitrite	mg/L	0.054	0.084	0.021	0.018		0.036	0.041	0.033				20							
Sulfate	mg/L							30	24				52							
Sulfide-Dissolved	mg/l	7.2																		

Well ID: WVA-AW-25-MW-2

METHOD: *VOC*

Analyte	*Units*	*Jun-09*	*Oct-09*	*Jun-10*	*May-11*	*Jun-11*	*Jun-12*	*Sept-13*	*Jun-14*	*Jun-15*	*Jul-15*	*Jun-16*	*Sept-17*	*Oct-17*	*Oct-18*	*Aug-19*	*Sept-19*	*Jun-20*	*Sept-21*	*Oct-21*
1 1 1-Trichloroethane	UG/L														1.7					
1 1-Dichloroethane	UG/L														9					
1,1,1-Trichloroethane	ug/l	2	12	10	10		6.1	9	4	2.2			6.3					1.4		
1,1-TRICHLOROETHANE (Du	UG/L																	1.3		
1,1-Dichloroethane	ug/l	11	14	11	10		7.2	7.7	6.6	5.8			6.4				6	6.2		5.4
1,1-DICHLOROETHANE (Dup	UG/L																	6.2		
1,1-Dichloroethene	ug/l							1.3												
2-Butanone (MEK)	ug/l								13											
Carbon disulfide	ug/l									1.1										
cis-1 2-Dichloroethene	UG/L														6.1					
cis-1,2-Dichloroethene	ug/l	12	64	52	30		25	33	18	17			30				4.2	16		22
S-1,2-DICHLOROETHENE (Du	UG/L																	17		
trans-1 2-Dichloroethene	UG/L														2.7					

Well ID: WVA-AW-25-MW-2

METHOD: *VOC*

Analyte	*Units*	*Jun-09*	*Oct-09*	*Jun-10*	*May-11*	*Jun-11*	*Jun-12*	*Sept-13*	*Jun-14*	*Jun-15*	*Jul-15*	*Jun-16*	*Sept-17*	*Oct-17*	*Oct-18*	*Aug-19*	*Sept-19*	*Jun-20*	*Sept-21*	*Oct-21*
trans-1,2-Dichloroethene	ug/l		1							5.7			1.8				2	1.6		1.8
NS-1,2-DICHLOROETHENE (	UG/L																	1.6		
Trichloroethene	ug/l	6	17	18	33		11	24	16	7.8			19		1.8		1.4	3.6		1.2
TRICHLOROETHENE (Dup)	UG/L																	3		
Vinyl chloride	ug/l	5	21	16				8					7.3				3.6	9.8		14
VINYL CHLORIDE (Dup)	UG/L																	10		

Well ID: WVA-AW-25-MW-3

METHOD: *NAT*

Analyte	*Units*	*Jun-09*	*Oct-09*	*Jun-10*	*May-11*	*Jun-11*	*Jun-12*	*Sept-13*	*Jun-14*	*Jun-15*	*Jul-15*	*Jun-16*	*Sept-17*	*Oct-17*	*Oct-18*	*Aug-19*	*Sept-19*	*Jun-20*	*Sept-21*	*Oct-21*
Alkalinity	mg/l	295	153	118	138		221	216	212				184							
Carbon Dioxide	mg/l	49	51	44	61		56	50 ( )	49 ( )											
Carbon dioxide	ug/l												52000							
Chloride	mg/l	583	772	1041	1068		945	531	601				4.4							
Dissolved Organic Carbon	mg/l	2.8		3.2	2.9		3.3	4.2	3.4				3.8							
Ethane	ug/l						27	12												
Ethene	ug/l				12															
Ferrous iron	mg/l	0.59	0.41	0.97	0.47		1.24	2.93	1.07											
Methane	ug/l	1900	1800	3000	770		4000 (D)	2000 (D)					350							
Nitrate	mg/l	0.3	0.33	0.02	0.18		0.27	0.61	0.63				15.6							
Nitrite	mg/l	0.02	0.072	0.015	0.018		0.015	0.045	0.017				150							
Sulfate	mg/L	80						80					15							
Sulfide-Dissolved	mg/L						6.8													

Well ID: WVA-AW-25-MW-3

METHOD: *VOC*

Analyte	*Units*	*Jun-09*	*Oct-09*	*Jun-10*	*May-11*	*Jun-11*	*Jun-12*	*Sept-13*	*Jun-14*	*Jun-15*	*Jul-15*	*Jun-16*	*Sept-17*	*Oct-17*	*Oct-18*	*Aug-19*	*Sept-19*	*Jun-20*	*Sept-21*	*Oct-21*
1 1-Dichloroethane	UG/L														1.6					
1,1,1-Trichloroethane	ug/l	11	12	9	8		5.1		1.6				2.9							
1,1-Dichloroethane	ug/l	8	9	8	8		7.8	5.7	4.2	3			5.1				1.4			
1,1-Dichloroethene	ug/l	1	1		1															
CHLOROFORM	UG/L											3								1.7
cis-1 2-Dichloroethene	UG/L														21					
cis-1,2-Dichloroethene	ug/l	150	170	190	130		120	110	92	62			60				24	12		6
trans-1,2-Dichloroethene	ug/l	1	1				1	2.4		1 (J)										
Trichloroethene	ug/l	28	40	19	13		11	7.2	4	2.8		3.6	61		3.4		2.7	2.3		
Vinyl chloride	ug/l	19	24	22	19		15	10	8.9	9.6			2.3		4.8		3.7			

Well ID: WVA-AW-25-MW-5

METHOD: SVOC

Analyte	Units	Jun-09	Oct-09	Jun-10	May-11	Jun-11	Jun-12	Sept-13	Jun-14	Jun-15	Jul-15	Jun-16	Sept-17	Oct-17	Oct-18	Aug-19	Sept-19	Jun-20	Sept-21	Oct-21
Bis(2-Ethylhexyl)phthalate	ug/l	17		20			26													
Diethyl phthalate	ug/l							24												

Well ID: WVA-AW-25-MW-6

METHOD: VOC

Analyte	Units	Jun-09	Oct-09	Jun-10	May-11	Jun-11	Jun-12	Sept-13	Jun-14	Jun-15	Jul-15	Jun-16	Sept-17	Oct-17	Oct-18	Aug-19	Sept-19	Jun-20	Sept-21	Oct-21
1,1,1-Trichloroethane	ug/l	9	11		8		5.7	7.4 (D)	6.6	5.9										
1,1,1-Trichloroethane (BS)	ug/l											4.8		4.6						
cis-1,2-Dichloroethene	ug/l	2	2	2	2		1.3		1.2	1.2										
cis-1,2-Dichloroethene (BS)	ug/l											1		1.3						
Trichloroethene	ug/l	250	260	10	310		210 (D)	260 (D)	270	250 (D)					27					
Trichloroethene (BS)	ug/l											160		160 (D)						

Well ID: WVA-AW-25-MW-7

METHOD: *NAT*

Analyte	Units	Jun-09	Oct-09	Jun-10	May-11	Jun-11	Jun-12	Sept-13	Jun-14	Jun-15	Jul-15	Jun-16	Sept-17	Oct-17	Oct-18	Aug-19	Sept-19	Jun-20	Sept-21	Oct-21
Alkalinity	mg/l	98		99	48		1427	115	103					91						
Carbon Dioxide	mg/l	13		5.5	7.6		1.3 (J)	3.6 (J)	4.8 (J)											
Carbon dioxide	ug/l													3500 (J)						
Chloride	mg/l													78						
Dissolved Organic Carbon	mg/l	4		7.8	6.1		7.8	8.6	4.9					11						
Ferrous iron	mg/L	2.87		0.92	1.55		0.11	0.87												
Methane	ug/l	1600		600	790		220	640	260					24						
Nitrate	mg/L	0.33		0.06	0.35		0.44	0.5	0.14					3.9						
Nitrite	mg/L	0.011		0.144	0.03		0.155	0.223	0.19											
Sulfate	mg/L			41			41	80						74						

Well ID: WVA-AW-35-MW-12

METHOD: *Metals*

Analyte	Units	Jun-09	Oct-09	Jun-10	May-11	Jun-11	Jun-12	Sept-13	Jun-14	Jun-15	Jul-15	Jun-16	Sept-17	Oct-17	Oct-18	Aug-19	Sept-19	Jun-20	Sept-21	Oct-21
exavalent Chromium, Dissolve	UG/L																	120		

Well ID: WVA-AW-MW-32

METHOD: VOC

Analyte	Units	Jun-09	Oct-09	Jun-10	May-11	Jun-11	Jun-12	Sept-13	Jun-14	Jun-15	Jul-15	Jun-16	Sept-17	Oct-17	Oct-18	Aug-19	Sept-19	Jun-20	Sept-21	Oct-21
Tetrachloroethene	ug/l				3															

Well ID: WVA-AW-MW-35

METHOD: VOC

Analyte	Units	Jun-09	Oct-09	Jun-10	May-11	Jun-11	Jun-12	Sept-13	Jun-14	Jun-15	Jul-15	Jun-16	Sept-17	Oct-17	Oct-18	Aug-19	Sept-19	Jun-20	Sept-21	Oct-21
cis-1 2-Dichloroethene	UG/L														45					
CIS-1,2-DICHLOROETHENE	UG/L	11		8	21		7.4	8.4	4	11							16	24		
cis-1,2-Dichloroethene (BS)	ug/l											17		23						
trans-1 2-Dichloroethene	UG/L														2.7					
trans-1,2-Dichloroethene	ug/l				2															
trans-1,2-Dichloroethene (BS)	ug/l													1.4						
Trichloroethene	ug/l	52		53	63		43	59	34	23					40		29	19		
Trichloroethene (BS)	ug/l											23		44						

Well ID: WVA-AW-MW-36

METHOD: *VOC*

Analyte	*Units*	*Jun-09*	*Oct-09*	*Jun-10*	*May-11*	*Jun-11*	*Jun-12*	*Sept-13*	*Jun-14*	*Jun-15*	*Jul-15*	*Jun-16*	*Sept-17*	*Oct-17*	*Oct-18*	*Aug-19*	*Sept-19*	*Jun-20*	*Sept-21*	*Oct-21*
cis-1 2-Dichloroethene	UG/L														2.3					
cis-1,2-Dichloroethene	ug/l	2			20		50	70	28	18							9.9			
cis-1,2-Dichloroethene (BS)	ug/l											22								
trans-1,2-Dichloroethene	ug/l						1.4	2												
Trichloroethene	UG/L	4			11		9.8	22	4.5	4.8					4.5		5.8			
Trichloroethene (BS)	ug/l											10		1.2						

Well ID: WVA-AW-MW-43

METHOD: SVOC

Analyte	Units	Jun-09	Oct-09	Jun-10	May-11	Jun-11	Jun-12	Sept-13	Jun-14	Jun-15	Jul-15	Jun-16	Sept-17	Oct-17	Oct-18	Aug-19	Sept-19	Jun-20	Sept-21	Oct-21
4-Chloro-3-methylphenol	ug/l			13																
Diethyl phthalate	ug/l								26											

METHOD: VOC

Analyte	Units	Jun-09	Oct-09	Jun-10	May-11	Jun-11	Jun-12	Sept-13	Jun-14	Jun-15	Jul-15	Jun-16	Sept-17	Oct-17	Oct-18	Aug-19	Sept-19	Jun-20	Sept-21	Oct-21
1 1-Dichloroethane	UG/L														1.9					
1,1-Dichloroethane	ug/l	2		3	2		2.4	3.1	1.7	2.4										
1,1-Dichloroethane (BS)	ug/l											1.8		1.1						

Well ID: WVA-AW-MW-44

METHOD: SVOC

Analyte	Units	Jun-09	Oct-09	Jun-10	May-11	Jun-11	Jun-12	Sept-13	Jun-14	Jun-15	Jul-15	Jun-16	Sept-17	Oct-17	Oct-18	Aug-19	Sept-19	Jun-20	Sept-21	Oct-21
4-Chloro-3-methylphenol	ug/l			18																

METHOD: VOC

Analyte	Units	Jun-09	Oct-09	Jun-10	May-11	Jun-11	Jun-12	Sept-13	Jun-14	Jun-15	Jul-15	Jun-16	Sept-17	Oct-17	Oct-18	Aug-19	Sept-19	Jun-20	Sept-21	Oct-21
1,1-Dichloroethane	ug/l			2	1		1.5	3.5		1.2										

Well ID: WVA-AW-MW-47

METHOD: *NAT*

Analyte	*Units*	*Jun-09*	*Oct-09*	*Jun-10*	*May-11*	*Jun-11*	*Jun-12*	*Sept-13*	*Jun-14*	*Jun-15*	*Jul-15*	*Jun-16*	*Sept-17*	*Oct-17*	*Oct-18*	*Aug-19*	*Sept-19*	*Jun-20*	*Sept-21*	*Oct-21*
Alkalinity	mg/l	224		175	145		215	194	183				163							
Carbon Dioxide	mg/l	27		26	17		18	26 ( )	15 ( )											
Carbon dioxide	ug/l												53000							
Chloride	mg/l	722		365			434	508	362				457							
Dissolved Organic Carbon	mg/l	1.9		2.7	2.2		2.1	2.6	1.8				1.4							
Ethane	ug/l			11																
Ferrous iron	mg/l	0.51		0.57	0.62		0.53	0.18	0.07											
Methane	ug/l	1100		4900	2800		4900	3600 (D)	2400 (D)				51							
Nitrate	mg/l	0.21		0.07	0.24		0.27	0.61	0.1				7.4							
Nitrite	mg/l	0.007		0.022	0.012		0.024	0.009	0.005				14							
Sulfate	mg/l	33		6	4		1	1	4				37							

Well ID: WVA-AW-MW-47

METHOD: *VOC*

Analyte	*Units*	*Jun-09*	*Oct-09*	*Jun-10*	*May-11*	*Jun-11*	*Jun-12*	*Sept-13*	*Jun-14*	*Jun-15*	*Jul-15*	*Jun-16*	*Sept-17*	*Oct-17*	*Oct-18*	*Aug-19*	*Sept-19*	*Jun-20*	*Sept-21*	*Oct-21*
cis-1 2-Dichloroethene	UG/L														70					
cis-1,2-Dichloroethene	ug/l			1	1			2.8					22				57	3		1.3
cis-1,2-Dichloroethene (BS)	ug/l											1								
trans-1 2-Dichloroethene	UG/L														1.2					
trans-1,2-Dichloroethene	ug/l												1							
Trichloroethene	ug/l						1.6	4							2.6		2.3			
VINYL CHLORIDE	UG/L	6		3									18		3.8		2.4	7		3.2

Well ID: WVA-AW-MW-52

METHOD: *NAT*

Analyte	*Units*	*Jun-09*	*Oct-09*	*Jun-10*	*May-11*	*Jun-11*	*Jun-12*	*Sept-13*	*Jun-14*	*Jun-15*	*Jul-15*	*Jun-16*	*Sept-17*	*Oct-17*	*Oct-18*	*Aug-19*	*Sept-19*	*Jun-20*	*Sept-21*	*Oct-21*
Alkalinity	mg/L		888	905	844		881	617	675				67							
Chloride	mg/l		31	15	0		0.5	2	2				19							
Dissolved Organic Carbon	mg/l			2.2	1.9		1.5	1.9	1.1											
Ethene	ug/l						11													
Ferrous iron	mg/l		0.03	0.56	0.15		2.4	0.02	0.05											
Methane	ug/l		2000	2700	1800		1600	720												
Nitrate	mg/l		1.58	0.34	1.17		1.31	1.28	1.39				0							
Nitrite	mg/L		0.071	0.065	0.2		0.154	0.041	0.051				0							
Sulfate	mg/L		0	15	2		14	1	5				13							
Sulfide-Dissolved	mg/L		3.1																	

Well ID: WVA-AW-MW-52

METHOD: *VOC*

Analyte	*Units*	*Jun-09*	*Oct-09*	*Jun-10*	*May-11*	*Jun-11*	*Jun-12*	*Sept-13*	*Jun-14*	*Jun-15*	*Jul-15*	*Jun-16*	*Sept-17*	*Oct-17*	*Oct-18*	*Aug-19*	*Sept-19*	*Jun-20*	*Sept-21*	*Oct-21*
Bromomethane	ug/l									8.9										
Chloromethane	ug/l									2.8										
Tetrachloroethene	ug/l		6	6	5		6.1	5.1	3.2	3.6			2.5		2.3		1.8	1.7		7.4
Tetrachloroethene (BS)	ug/l											1.6								
Trichloroethene	ug/l		2	2	2		1.8	1.7	1.2	1.3							1.7	1.7		
Trichloroethene (BS)	ug/l											1.8								

Well ID: WVA-AW-MW-64

METHOD: *NAT*

Analyte	*Units*	*Jun-09*	*Oct-09*	*Jun-10*	*May-11*	*Jun-11*	*Jun-12*	*Sept-13*	*Jun-14*	*Jun-15*	*Jul-15*	*Jun-16*	*Sept-17*	*Oct-17*	*Oct-18*	*Aug-19*	*Sept-19*	*Jun-20*	*Sept-21*	*Oct-21*
Alkalinity	mg/l		136	39	87		97	86	112											
Carbon Dioxide	mg/l		5.4	0.32 (J)	0.47 (J)			0.59 (J)	19 ( )											
Chloride	mg/l		191	197	265		149	255	261											
Dissolved Organic Carbon	mg/l			1.8	1.1		1.6	1.6												
Ethane	ug/l		67	67	33			69 (D)	110											
Ethene	ug/l							13	19											
Ferrous iron	mg/l		1.43	0.08	0.13		0.02	0.24	1.07											
Methane	ug/l		2400	2600	1900		12	2400 (D)	2300 (D)											
Nitrate	mg/l		0.63	0.6	0.28		0.5	0.48	0.6											
Nitrite	mg/l		0.145	0.58	0.013		0.02	0.017	0.006											
Sulfate	mg/l		3	1	4		5	2	66											
Sulfide-Dissolved	mg/L		3.2																	

Well ID: WVA-AW-MW-64

METHOD: *VOC*

Analyte	*Units*	*Jun-09*	*Oct-09*	*Jun-10*	*May-11*	*Jun-11*	*Jun-12*	*Sept-13*	*Jun-14*	*Jun-15*	*Jul-15*	*Jun-16*	*Sept-17*	*Oct-17*	*Oct-18*	*Aug-19*	*Sept-19*	*Jun-20*	*Sept-21*	*Oct-21*
1,1-DICHLOROETHENE	UG/L		9	7	6			5.6	8.7	6.6							4.3	3		
1,1-Dichloroethene (BS)	ug/l											7								
2-Butanone (MEK)	ug/l							92 (D)												
Benzene	ug/l		2																	
Carbon disulfide	ug/l		3																	
Chlorobenzene	ug/l							10 (D)												
cis-1 2-Dichloroethene	UG/L														130					
cis-1,2-Dichloroethene	ug/l		2200	1200	1300		230 (D)	980 (D)	1200 (D)	1100 (D)							1400			56
cis-1,2-Dichloroethene (BS)	ug/l											2900 (D)								
S-1,2-DICHLOROETHENE (Du	UG/L																			55
Tetrachloroethene	ug/l		4200	3000	3200		320 (D)	2800 (D)	2000	2300 (D)							72			130
Tetrachloroethene (BS)	ug/l											13								
ETRACHLOROETHENE (Dup	UG/L																			130

Well ID: WVA-AW-MW-64

METHOD: VOC

Analyte	Units	Jun-09	Oct-09	Jun-10	May-11	Jun-11	Jun-12	Sept-13	Jun-14	Jun-15	Jul-15	Jun-16	Sept-17	Oct-17	Oct-18	Aug-19	Sept-19	Jun-20	Sept-21	Oct-21
Toluene	ug/l							11 (D)												
trans-1,2-Dichloroethene	ug/l		11	10	7			7.5 (D)	12								22	24		
trans-1,2-Dichloroethene (BS)	ug/l											35								
Trichloroethene	ug/l		1700	1400	1400		130	760 (D)	1300	880 (D)					97		99	5.3		47
Trichloroethene (BS)	ug/l											14								
TRICHLOROETHENE (Dup)	UG/L																			50
Vinyl chloride	ug/l			240	320		10	230 (D)	410	440					23		1700	2500		
Vinyl Chloride (BS)	ug/l											2000 (D)								

Well ID: WVA-MW-79

METHOD: VOC

Analyte	Units	Jun-09	Oct-09	Jun-10	May-11	Jun-11	Jun-12	Sept-13	Jun-14	Jun-15	Jul-15	Jun-16	Sept-17	Oct-17	Oct-18	Aug-19	Sept-19	Jun-20	Sept-21	Oct-21
TETRACHLOROETHENE	UG/L																3.2			

Well ID: WVA-MW-81-1

METHOD: VOC

Analyte	Units	Jun-09	Oct-09	Jun-10	May-11	Jun-11	Jun-12	Sept-13	Jun-14	Jun-15	Jul-15	Jun-16	Sept-17	Oct-17	Oct-18	Aug-19	Sept-19	Jun-20	Sept-21	Oct-21
cis-1,2-Dichloroethene	ug/l																			

Well ID: WVA-MW-81-2

METHOD: VOC

Analyte	Units	Jun-09	Oct-09	Jun-10	May-11	Jun-11	Jun-12	Sept-13	Jun-14	Jun-15	Jul-15	Jun-16	Sept-17	Oct-17	Oct-18	Aug-19	Sept-19	Jun-20	Sept-21	Oct-21
cis-1,2-Dichloroethene	ug/l																			

Well ID: WVA-MW-81-3

METHOD: VOC

Analyte	Units	Jun-09	Oct-09	Jun-10	May-11	Jun-11	Jun-12	Sept-13	Jun-14	Jun-15	Jul-15	Jun-16	Sept-17	Oct-17	Oct-18	Aug-19	Sept-19	Jun-20	Sept-21	Oct-21
cis-1,2-Dichloroethene	ug/l																			
trans-1,2-Dichloroethene	ug/l																			

Well ID: WVA-MW-82R-1

METHOD: NAT

Analyte	Units	Jun-09	Oct-09	Jun-10	May-11	Jun-11	Jun-12	Sept-13	Jun-14	Jun-15	Jul-15	Jun-16	Sept-17	Oct-17	Oct-18	Aug-19	Sept-19	Jun-20	Sept-21	Oct-21
Alkalinity	mg/l													1370						
Chloride	mg/l													1667						
Nitrate	mg/l													13.9						
Nitrite	mg/l													32						
Sulfate	mg/l													45						

METHOD: VOC

Analyte	Units	Jun-09	Oct-09	Jun-10	May-11	Jun-11	Jun-12	Sept-13	Jun-14	Jun-15	Jul-15	Jun-16	Sept-17	Oct-17	Oct-18	Aug-19	Sept-19	Jun-20	Sept-21	Oct-21
cis-1 2-Dichloroethene	UG/L														93					
cis-1,2-Dichloroethene	ug/l			170	65		95	150 (D)	39	42		180		220 (D)		150		160	67	
Tetrachloroethene	UG/L			23	5		3.3	7.4 (D)				4.8		12	2.2	2.4		1.6		
trans-1,2-Dichloroethene	ug/l			1				1.4				1.3		1.2		1.1		1.1		
Trichloroethene	ug/l			10	4		2.8	5.4 (D)	1.5	1.2		5.2		7.7	2.4	3.8		3.3	1.2	
Vinyl Chloride	ug/l			58	27		38	42 (D)	33	48		24		18	31	36		34	56	

Well ID: WVA-MW-82R-2

METHOD: NAT

Analyte	Units	Jun-09	Oct-09	Jun-10	May-11	Jun-11	Jun-12	Sept-13	Jun-14	Jun-15	Jul-15	Jun-16	Sept-17	Oct-17	Oct-18	Aug-19	Sept-19	Jun-20	Sept-21	Oct-21
Alkalinity	mg/l													349						
Chloride	mg/l													1303						
Ferrous Iron	mg/l													1.3						
Nitrate	mg/l													15.3						
Nitrite	mg/l													20						

METHOD: VOC

Analyte	Units	Jun-09	Oct-09	Jun-10	May-11	Jun-11	Jun-12	Sept-13	Jun-14	Jun-15	Jul-15	Jun-16	Sept-17	Oct-17	Oct-18	Aug-19	Sept-19	Jun-20	Sept-21	Oct-21
cis-1 2-Dichloroethene	UG/L														96					
CIS-1,2-DICHLOROETHENE	UG/L			370	160		170	200 (D)	73	100		110		140		110		94	63	
Tetrachloroethene	ug/l			1										24						
trans-1,2-Dichloroethene	ug/l			2	1			1.8												
Trichloroethene	ug/l													3						
Vinyl Chloride	ug/l			170	56		67	78 (D)	36	43		33		33	33	35		30	28	

Well ID: WVA-MW-82R-3

METHOD: *VOC*

Analyte	*Units*	*Jun-09*	*Oct-09*	*Jun-10*	*May-11*	*Jun-11*	*Jun-12*	*Sept-13*	*Jun-14*	*Jun-15*	*Jul-15*	*Jun-16*	*Sept-17*	*Oct-17*	*Oct-18*	*Aug-19*	*Sept-19*	*Jun-20*	*Sept-21*	*Oct-21*
Carbon disulfide	ug/l							1.2												
cis-1,2-Dichloroethene	ug/l							1.1 (D)	2.5					2.6					26	
Tetrachloroethene	UG/L														1.3					
VINYL CHLORIDE	UG/L																		20	

Well ID: WVA-MW-83-1

METHOD: *NAT*

Analyte	*Units*	*Jun-09*	*Oct-09*	*Jun-10*	*May-11*	*Jun-11*	*Jun-12*	*Sept-13*	*Jun-14*	*Jun-15*	*Jul-15*	*Jun-16*	*Sept-17*	*Oct-17*	*Oct-18*	*Aug-19*	*Sept-19*	*Jun-20*	*Sept-21*	*Oct-21*
Alkalinity	mg/l													155						
Chloride	mg/l													1020						
Nitrate	mg/l													4.7						
Nitrite	mg/l													24						
Sulfate	mg/l													16						

Well ID: WVA-MW-83-1

METHOD: *VOC*

Analyte	*Units*	*Jun-09*	*Oct-09*	*Jun-10*	*May-11*	*Jun-11*	*Jun-12*	*Sept-13*	*Jun-14*	*Jun-15*	*Jul-15*	*Jun-16*	*Sept-17*	*Oct-17*	*Oct-18*	*Aug-19*	*Sept-19*	*Jun-20*	*Sept-21*	*Oct-21*
1,1-DICHLOROETHENE	UG/L			13	12		9.4	12										12		
1,1-Dichloroethene (Dup)	ug/l									15										
cis-1 2-Dichloroethene	UG/L														3900					
cis-1,2-Dichloroethene	ug/l			4800	3800		4100	3400 (D)						3100 (D)		3300		4800		
S-1,2-DICHLOROETHENE (B	UG/L																		3400 (D)	
cis-1,2-Dichloroethene (Dup)	ug/l								3100	3200 (D)		3700								
Tetrachloroethene	ug/l			5800	8400		8400 (D)	8500 (D)						4100 (D)	11000	6600		13000		
TETRACHLOROETHENE (BS	UG/L																		7700 (D)	
Tetrachloroethene (Dup)	ug/l								120 (D)	10000 (D)		5600 (D)								
trans-1,2-Dichloroethene	ug/l			29	47		18	29						27		26		34		
rans-1,2-Dichloroethene (Dup)	ug/l											20 (J)								
Trichloroethene	ug/l			2500	2400		2700 (D)	2800 (D)						1600	3900	2600		4700		
TRICHLOROETHENE (BS)	UG/L																		3100 (D)	

Well ID: WVA-MW-83-1

METHOD: *VOC*

Analyte	*Units*	*Jun-09*	*Oct-09*	*Jun-10*	*May-11*	*Jun-11*	*Jun-12*	*Sept-13*	*Jun-14*	*Jun-15*	*Jul-15*	*Jun-16*	*Sept-17*	*Oct-17*	*Oct-18*	*Aug-19*	*Sept-19*	*Jun-20*	*Sept-21*	*Oct-21*
Trichloroethene (Dup)	ug/l								3100	3200 (D)		2700								
Vinyl Chloride	ug/l			150	120		130	150 (D)						250	250	200		230		
VINYL CHLORIDE (BS)	UG/L																		260	
Vinyl Chloride (Dup)	ug/l								120			100								

Well ID: WVA-MW-83-2

METHOD: *NAT*

Analyte	*Units*	*Jun-09*	*Oct-09*	*Jun-10*	*May-11*	*Jun-11*	*Jun-12*	*Sept-13*	*Jun-14*	*Jun-15*	*Jul-15*	*Jun-16*	*Sept-17*	*Oct-17*	*Oct-18*	*Aug-19*	*Sept-19*	*Jun-20*	*Sept-21*	*Oct-21*
Alkalinity	mg/l													229						
Chloride	mg/l													1083						
Nitrate	mg/l													12.7						
Nitrite	mg/l													134						
Sulfate	mg/l													52						

Well ID: WVA-MW-83-2

METHOD: VOC

Analyte	Units	Jun-09	Oct-09	Jun-10	May-11	Jun-11	Jun-12	Sept-13	Jun-14	Jun-15	Jul-15	Jun-16	Sept-17	Oct-17	Oct-18	Aug-19	Sept-19	Jun-20	Sept-21	Oct-21
1,1-Dichloroethene	ug/l			20	18		12	10	14	22										
Carbon disulfide	ug/l									1.9										
cis-1 2-Dichloroethene	UG/L														3600					
cis-1,2-Dichloroethene	ug/l			6000	6300		5300 (D)	4900 (D)	5500 (D)	4000 (D)		3700		3600 (D)		2500		3600		
S-1,2-DICHLOROETHENE (B	UG/L																		2600 (D)	
S-1,2-DICHLOROETHENE (Du	UG/L															3300				
Tetrachloroethene	ug/l			8000	14000		12000 (D)	10000 (D)	26000 (D)	37000 (D)		22000 (D)		9600 (D)	27000	13000		13000		
TETRACHLOROETHENE (BS	UG/L																		6400 (D)	
ETRACHLOROETHENE (Dup	UG/L															14000				
trans-1,2-Dichloroethene	ug/l			98	40		23	30	26	120				32		26				
Trichloroethene	ug/l			1400	2500		1800	1900 (D)	8000 (D)	4900 (D)		3500		1800	3500	2000		2000		
TRICHLOROETHENE (BS)	UG/L																		1400 (D)	
TRICHLOROETHENE (Dup)	UG/L															2300				

Well ID: WVA-MW-83-2

METHOD: *VOC*

Analyte	*Units*	*Jun-09*	*Oct-09*	*Jun-10*	*May-11*	*Jun-11*	*Jun-12*	*Sept-13*	*Jun-14*	*Jun-15*	*Jul-15*	*Jun-16*	*Sept-17*	*Oct-17*	*Oct-18*	*Aug-19*	*Sept-19*	*Jun-20*	*Sept-21*	*Oct-21*
Vinyl Chloride	ug/l			500	500		380	480 (D)	710			290		410		200		310		
VINYL CHLORIDE (BS)	UG/L																		260	
VINYL CHLORIDE (Dup)	UG/L															280				

Well ID: WVA-MW-83-3

METHOD: *NAT*

Analyte	*Units*	*Jun-09*	*Oct-09*	*Jun-10*	*May-11*	*Jun-11*	*Jun-12*	*Sept-13*	*Jun-14*	*Jun-15*	*Jul-15*	*Jun-16*	*Sept-17*	*Oct-17*	*Oct-18*	*Aug-19*	*Sept-19*	*Jun-20*	*Sept-21*	*Oct-21*
Alkalinity	mg/l													636						
Chloride	mg/l													682						
Nitrate	mg/l													7.3						
Nitrite	mg/l													58						
Sulfate	mg/l													13						

Well ID: WVA-MW-83-3

METHOD: *VOC*

Analyte	*Units*	*Jun-09*	*Oct-09*	*Jun-10*	*May-11*	*Jun-11*	*Jun-12*	*Sept-13*	*Jun-14*	*Jun-15*	*Jul-15*	*Jun-16*	*Sept-17*	*Oct-17*	*Oct-18*	*Aug-19*	*Sept-19*	*Jun-20*	*Sept-21*	*Oct-21*
1,1-Dichloroethene	ug/l			3	3		2.9	2.6 (D)	1.2											
cis-1 2-Dichloroethene	UG/L														140					
CIS-1,2-DICHLOROETHENE	UG/L			1000	920		1000 (D)	1200 (D)	680 (D)	320 (D)		340 (D)		480 (D)		330		260		
S-1,2-DICHLOROETHENE (Du	UG/L																	260		
Tetrachloroethene	UG/L			400	400		280 (D)	150 (D)	39	37		32		87	3.9	47		6.7	15	
ETRACHLOROETHENE (Dup	UG/L																	6.1		
trans-1 2-Dichloroethene	UG/L														2.6					
trans-1,2-Dichloroethene	ug/l			8	6		5.5	8 (D)	4.9	3.1		3.4		4.5		3.3		3.6	4	
NS-1,2-DICHLOROETHENE (	UG/L																	3		
Trichloroethene	ug/l			180	170		160	100 (D)	35	26		22		43	2.5	30		5.4	13	
TRICHLOROETHENE (Dup)	UG/L																	4.2		
Vinyl Chloride	ug/l			42	49		49	130 (D)	340 (D)	240 (D)		290 (D)		380 (D)	340	420		400		
VINYL CHLORIDE (Dup)	UG/L																	330		

Well ID: WVA-MW-84R-1

METHOD: *NAT*

Analyte	*Units*	*Jun-09*	*Oct-09*	*Jun-10*	*May-11*	*Jun-11*	*Jun-12*	*Sept-13*	*Jun-14*	*Jun-15*	*Jul-15*	*Jun-16*	*Sept-17*	*Oct-17*	*Oct-18*	*Aug-19*	*Sept-19*	*Jun-20*	*Sept-21*	*Oct-21*
Alkalinity	mg/l													68						
Chloride	mg/l													563						
Nitrate	mg/l													13.7						
Nitrite	mg/l													14						
Sulfate	mg/l													38						

Well ID: WVA-MW-84R-1

METHOD: VOC

Analyte	Units	Jun-09	Oct-09	Jun-10	May-11	Jun-11	Jun-12	Sept-13	Jun-14	Jun-15	Jul-15	Jun-16	Sept-17	Oct-17	Oct-18	Aug-19	Sept-19	Jun-20	Sept-21	Oct-21
1,1-Dichloroethene	ug/l			13	8		7.5	7.8	6	9.1				5	8.7					
cis-1 2-Dichloroethene	UG/L														3300					
cis-1,2-Dichloroethene	ug/l			4400	3400		3400 (D)	4200 (D)	2500 (D)	2900 (D)		2600 (D)		2700 (D)		3200		4000		
S-1,2-DICHLOROETHENE (B	UG/L																		3300 (D)	
Tetrachloroethene	ug/l			740	500		380	340 (D)	240	260 (D)		230		200	300	180		220		
TETRACHLOROETHENE (BS	UG/L																		230	
trans-1 2-Dichloroethene	UG/L														24					
trans-1,2-Dichloroethene	ug/l			29	20		14	18 (D)	13			39		17		26		26		
Trichloroethene	ug/l			890	440		340	410 (D)	240	200 (D)		250		220	260	290		310		
TRICHLOROETHENE (BS)	UG/L																		300	
Vinyl chloride	ug/l			180	110		110	220 (D)	150	180 (D)		210		200	420	400		420		
VINYL CHLORIDE (BS)	UG/L																		280	

Well ID: WVA-MW-84R-2

METHOD: *NAT*

Analyte	*Units*	*Jun-09*	*Oct-09*	*Jun-10*	*May-11*	*Jun-11*	*Jun-12*	*Sept-13*	*Jun-14*	*Jun-15*	*Jul-15*	*Jun-16*	*Sept-17*	*Oct-17*	*Oct-18*	*Aug-19*	*Sept-19*	*Jun-20*	*Sept-21*	*Oct-21*
Alkalinity	mg/l													172						
Chloride	mg/l													696						
Nitrate	mg/l													12.7						
Nitrite	mg/l													30						
Sulfate	mg/l													13						

Well ID: WVA-MW-84R-2

METHOD: *VOC*

Analyte	*Units*	*Jun-09*	*Oct-09*	*Jun-10*	*May-11*	*Jun-11*	*Jun-12*	*Sept-13*	*Jun-14*	*Jun-15*	*Jul-15*	*Jun-16*	*Sept-17*	*Oct-17*	*Oct-18*	*Aug-19*	*Sept-19*	*Jun-20*	*Sept-21*	*Oct-21*
1,1-Dichloroethene	UG/L			24	36			59 (D)	52	83					72	58		61		
Chloromethane	ug/l									2.7										
cis-1,2-Dichloroethene	ug/l			8600	13000		18000 (D)	22000 (D)	19000 (D)	20000 (D)		22000 (D)		19000 (D)		24000		29000		
S-1,2-DICHLOROETHENE (B	UG/L																		23000 (D)	
Tetrachloroethene	ug/l			37000	54000		53000 (D)	38000 (D)	36000 (D)	33000 (D)		17000 (D)		25000 (D)	18000	6000		10000		
TETRACHLOROETHENE (BS	UG/L																		6900 (D)	
trans-1,2-Dichloroethene	ug/l			68	36			77 (D)	58					76		130		110		
Trichloroethene	ug/l			12000	11000		12000 (D)	11000 (D)	12000 (D)	8900 (D)		8900		8400 (D)	7700	3100		3600		
TRICHLOROETHENE (BS)	UG/L																		3200 (D)	
Vinyl Chloride	ug/l			420	580		990	1600 (D)	1600	2000 (D)		3000		1700	3400	3700		3800		
VINYL CHLORIDE (BS)	UG/L																		4100 (D)	

Well ID: WVA-MW-84R-3

METHOD: *NAT*

Analyte	*Units*	*Jun-09*	*Oct-09*	*Jun-10*	*May-11*	*Jun-11*	*Jun-12*	*Sept-13*	*Jun-14*	*Jun-15*	*Jul-15*	*Jun-16*	*Sept-17*	*Oct-17*	*Oct-18*	*Aug-19*	*Sept-19*	*Jun-20*	*Sept-21*	*Oct-21*
Alkalinity	mg/l													119						
Chloride	mg/l													607						
Ferrous Iron	mg/l													77						
Nitrate	mg/l													12.5						
Nitrite	mg/l													0						
Sulfate	mg/l													33						

Well ID: WVA-MW-84R-3

METHOD: VOC

Analyte	Units	Jun-09	Oct-09	Jun-10	May-11	Jun-11	Jun-12	Sept-13	Jun-14	Jun-15	Jul-15	Jun-16	Sept-17	Oct-17	Oct-18	Aug-19	Sept-19	Jun-20	Sept-21	Oct-21
1,1-Dichloroethene	UG/L			24	28		20	20 (D)	19	23					13					
Carbon disulfide	ug/l									2.4										
cis-1 2-Dichloroethene	UG/L														5800					
cis-1,2-Dichloroethene	ug/l			9500	10000		12000 (D)	11000 (D)	7100 (D)	6600 (D)		6300 (D)		7200 (D)		4400		5000		
S-1,2-DICHLOROETHENE (B	UG/L																		4400 (D)	
Tetrachloroethene	ug/l			2400	2600		1700	1900 (D)	1400	1600 (D)		1300		1700	270	220		230		
TETRACHLOROETHENE (BS	UG/L																		250	
trans-1 2-Dichloroethene	UG/L														75					
trans-1,2-Dichloroethene	ug/l			41	200		59	43 (D)	29	81		60		43		23		19		
Trichloroethene	ug/l			2400	2200		1600	1700 (D)	1600	1100 (D)		1200		1100	330	270		200		
TRICHLOROETHENE (BS)	UG/L																		240	
Vinyl Chloride	ug/l			770	960		1200	1600 (D)	1000	1200 (D)		1700		890	3200	720		3200		
VINYL CHLORIDE (BS)	UG/L																		2600 (D)	

Well ID: WVA-MW-85R-1

METHOD: NAT

Analyte	Units	Jun-09	Oct-09	Jun-10	May-11	Jun-11	Jun-12	Sept-13	Jun-14	Jun-15	Jul-15	Jun-16	Sept-17	Oct-17	Oct-18	Aug-19	Sept-19	Jun-20	Sept-21	Oct-21
Alkalinity	mg/l													193						
Chloride	mg/l													368						

METHOD: VOC

Analyte	Units	Jun-09	Oct-09	Jun-10	May-11	Jun-11	Jun-12	Sept-13	Jun-14	Jun-15	Jul-15	Jun-16	Sept-17	Oct-17	Oct-18	Aug-19	Sept-19	Jun-20	Sept-21	Oct-21
cis-1 2-Dichloroethene	UG/L														2.5					
CIS-1,2-DICHLOROETHENE	UG/L			5	2		1.6	2.8 (D)	3.6	12		1.5		1.4		1.6		1.1	1.3	
Tetrachloroethene	ug/l			3	7		4.3	2 (D)	1.2	1.8				1	2	2		1.7	1.3	
Trichloroethene	ug/l			1	2															
Vinyl Chloride	ug/l			4						3.3					3.4	2				

Well ID: WVA-MW-85R-2

METHOD: *NAT*

Analyte	*Units*	*Jun-09*	*Oct-09*	*Jun-10*	*May-11*	*Jun-11*	*Jun-12*	*Sept-13*	*Jun-14*	*Jun-15*	*Jul-15*	*Jun-16*	*Sept-17*	*Oct-17*	*Oct-18*	*Aug-19*	*Sept-19*	*Jun-20*	*Sept-21*	*Oct-21*
Alkalinity	mg/l													101						
Chloride	mg/l													568						
Sulfate	mg/l													34						

Well ID: WVA-MW-85R-2

METHOD: *VOC*

Analyte	*Units*	*Jun-09*	*Oct-09*	*Jun-10*	*May-11*	*Jun-11*	*Jun-12*	*Sept-13*	*Jun-14*	*Jun-15*	*Jul-15*	*Jun-16*	*Sept-17*	*Oct-17*	*Oct-18*	*Aug-19*	*Sept-19*	*Jun-20*	*Sept-21*	*Oct-21*
1,1-Dichloroethene	UG/L			4	7		5.9	6.7	7.1	8.5					5.5					
cis-1 2-Dichloroethene	UG/L														2300					
cis-1,2-Dichloroethene	ug/l			1100	4000		3300 (D)	3900 (D)	2800 (D)	2400 (D)		1900 (D)		2200 (D)		1900		2100		
S-1,2-DICHLOROETHENE (B	UG/L																		1400 (D)	
Tetrachloroethene	UG/L			970	6700		5100 (D)	3500 (D)	2700 (D)	1900 (D)		1400 (D)		1800 (D)	1600	870		1300		
TETRACHLOROETHENE (BS	UG/L																		350 (D)	
trans-1 2-Dichloroethene	UG/L														19					
trans-1,2-Dichloroethene	ug/l			14	15		15	21 (D)	15	42		31		15		16		14		
Trichloroethene	ug/l			380	1600		960	780 (D)	740	500 (D)		600		370	340	250		290		
TRICHLOROETHENE (BS)	UG/L																		230	
Vinyl Chloride	ug/l			120	190		150	300 (D)	320	300 (D)		340		320	580	380		540		
VINYL CHLORIDE (BS)	UG/L																		490 (D)	

Well ID: WVA-MW-85R-3

METHOD: *NAT*

Analyte	*Units*	*Jun-09*	*Oct-09*	*Jun-10*	*May-11*	*Jun-11*	*Jun-12*	*Sept-13*	*Jun-14*	*Jun-15*	*Jul-15*	*Jun-16*	*Sept-17*	*Oct-17*	*Oct-18*	*Aug-19*	*Sept-19*	*Jun-20*	*Sept-21*	*Oct-21*
Alkalinity	mg/l													201						
Chloride	mg/l													737						
Nitrate	mg/l													13.7						
Nitrite	mg/l													17						

Well ID: WVA-MW-85R-3

METHOD: *VOC*

Analyte	*Units*	*Jun-09*	*Oct-09*	*Jun-10*	*May-11*	*Jun-11*	*Jun-12*	*Sept-13*	*Jun-14*	*Jun-15*	*Jul-15*	*Jun-16*	*Sept-17*	*Oct-17*	*Oct-18*	*Aug-19*	*Sept-19*	*Jun-20*	*Sept-21*	*Oct-21*
1,1-Dichloroethene	UG/L			8						11					6.9					
Carbon disulfide	ug/l			2						4.6										
cis-1 2-Dichloroethene	UG/L														2400					
cis-1,2-Dichloroethene	ug/l			2100	1400		1900	2500 (D)	4400	2400 (D)		1600		1200		1800		1900		
S-1,2-DICHLOROETHENE (B	UG/L																		1500	
Tetrachloroethene	ug/l			24000	23000		23000 (D)	20000 (D)	33000 (D)	29000 (D)		13000 (D)		16000 (D)	27000	17000		24000		
TETRACHLOROETHENE (BS	UG/L																		18000 (D)	
trans-1 2-Dichloroethene	UG/L														20					
trans-1,2-Dichloroethene	ug/l			20						46										
Trichloroethene	ug/l			1900	1300		1000	1100 (D)	2400	1300 (D)		920		610	1300	1100		1300		
TRICHLOROETHENE (BS)	UG/L																		1600	
Vinyl Chloride	ug/l				300		240	410 (D)	610			380		330	870	470		580		
VINYL CHLORIDE (BS)	UG/L																		580	

Well ID: WVA-MW-86R-1

METHOD: NAT

Analyte	Units	Jun-09	Oct-09	Jun-10	May-11	Jun-11	Jun-12	Sept-13	Jun-14	Jun-15	Jul-15	Jun-16	Sept-17	Oct-17	Oct-18	Aug-19	Sept-19	Jun-20	Sept-21	Oct-21
Alkalinity	mg/l													128						
Chloride	mg/l													650						

METHOD: VOC

Analyte	Units	Jun-09	Oct-09	Jun-10	May-11	Jun-11	Jun-12	Sept-13	Jun-14	Jun-15	Jul-15	Jun-16	Sept-17	Oct-17	Oct-18	Aug-19	Sept-19	Jun-20	Sept-21	Oct-21
cis-1 2-Dichloroethene	UG/L														2.2					
CIS-1,2-DICHLOROETHENE	UG/L			18	42		24		6.9	2.6		2.2		2.1		1.5		1.8	1.8	
cis-1,2-Dichloroethene (Dup)	ug/l							15 (D)												
Tetrachloroethene	ug/l			2	3															
trans-1,2-Dichloroethene	ug/l								1.2	2.5		1.7								
Trichloroethene	ug/l			1	4															
Vinyl Chloride	ug/l			10	36		23		4.5	2.7		2.7						2.3		
Vinyl chloride (Dup)	ug/l							15 (D)												

Well ID: WVA-MW-86R-2

METHOD: *NAT*

Analyte	*Units*	*Jun-09*	*Oct-09*	*Jun-10*	*May-11*	*Jun-11*	*Jun-12*	*Sept-13*	*Jun-14*	*Jun-15*	*Jul-15*	*Jun-16*	*Sept-17*	*Oct-17*	*Oct-18*	*Aug-19*	*Sept-19*	*Jun-20*	*Sept-21*	*Oct-21*
Alkalinity	mg/l													182						
Chloride	mg/l													448						
Nitrate	mg/l													0.8						

Well ID: WVA-MW-86R-2

METHOD: *VOC*

Analyte	*Units*	*Jun-09*	*Oct-09*	*Jun-10*	*May-11*	*Jun-11*	*Jun-12*	*Sept-13*	*Jun-14*	*Jun-15*	*Jul-15*	*Jun-16*	*Sept-17*	*Oct-17*	*Oct-18*	*Aug-19*	*Sept-19*	*Jun-20*	*Sept-21*	*Oct-21*
1,1-Dichloroethene	UG/L			2	3		3.2	3.2 (D)	7.7	8.1				6.6	10					
cis-1 2-Dichloroethene	UG/L														4700					
cis-1,2-Dichloroethene	ug/l			860	1200		1300 (D)	1600 (D)	2300 (D)	2500 (D)		4600 (D)		4400 (D)		4600		4700		
S-1,2-DICHLOROETHENE (B	UG/L																		3700 (D)	
Tetrachloroethene	ug/l			700	670		590 (D)	510 (D)	720 (D)	640 (D)				18	26	23		130		
trans-1 2-Dichloroethene	UG/L														54					
trans-1,2-Dichloroethene	ug/l			14	11		8.9	22 (D)	25	47		38		36		27		24		
Trichloroethene	ug/l			220	210		260	270 (D)	400	210 (D)				16	23	24		17		
Vinyl Chloride	ug/l			54	91		110	180 (D)	280	300 (D)		1400		1400 (D)	2600	1500		1300		
VINYL CHLORIDE (BS)	UG/L																		1700 (D)	

Well ID: WVA-MW-86R-3

METHOD: *NAT*

Analyte	*Units*	*Jun-09*	*Oct-09*	*Jun-10*	*May-11*	*Jun-11*	*Jun-12*	*Sept-13*	*Jun-14*	*Jun-15*	*Jul-15*	*Jun-16*	*Sept-17*	*Oct-17*	*Oct-18*	*Aug-19*	*Sept-19*	*Jun-20*	*Sept-21*	*Oct-21*
Alkalinity	mg/l													79						
Chloride	mg/l													681						
Nitrate	mg/l													1.2						
Sulfate	mg/l													0						

Well ID: WVA-MW-86R-3

METHOD: *VOC*

Analyte	*Units*	*Jun-09*	*Oct-09*	*Jun-10*	*May-11*	*Jun-11*	*Jun-12*	*Sept-13*	*Jun-14*	*Jun-15*	*Jul-15*	*Jun-16*	*Sept-17*	*Oct-17*	*Oct-18*	*Aug-19*	*Sept-19*	*Jun-20*	*Sept-21*	*Oct-21*
1,1-Dichloroethene	UG/L			11	12		12	12 (D)	12	10					4.3	3.4		2.6		
Carbon disulfide	ug/l			4						9.1										
cis-1 2-Dichloroethene	UG/L														1600					
cis-1,2-Dichloroethene	ug/l			4800	5600		5200 (D)	6400 (D)	5800 (D)	4400 (D)		1300 (D)		660 (D)		1500		1400		
S-1,2-DICHLOROETHENE (B	UG/L																		1200 (D)	
Tetrachloroethene	UG/L			67	120		160	18 (D)		1.2		410		93	390	290		160		
TETRACHLOROETHENE (BS	UG/L																		250	
trans-1 2-Dichloroethene	UG/L														34					
trans-1,2-Dichloroethene	ug/l			30	30		26	60 (D)	29			16		11		20		21		
NS-1,2-DICHLOROETHENE (	UG/L																		21	
Trichloroethene	ug/l			80	43		62	18		1.2		210		120	140	160		150		
TRICHLOROETHENE (BS)	UG/L																		110	
Vinyl Chloride	ug/l			830	980		730	1100 (D)	1300 (D)	1800 (D)		210		95	440	460		390		

Well ID: WVA-MW-86R-3

METHOD: *VOC*

Analyte	*Units*	*Jun-09*	*Oct-09*	*Jun-10*	*May-11*	*Jun-11*	*Jun-12*	*Sept-13*	*Jun-14*	*Jun-15*	*Jul-15*	*Jun-16*	*Sept-17*	*Oct-17*	*Oct-18*	*Aug-19*	*Sept-19*	*Jun-20*	*Sept-21*	*Oct-21*
VINYL CHLORIDE (BS)	UG/L																		570 (D)	

Well ID: WVA-SA-MW-19R

METHOD: NAT

Analyte	Units	Jun-09	Oct-09	Jun-10	May-11	Jun-11	Jun-12	Sept-13	Jun-14	Jun-15	Jul-15	Jun-16	Sept-17	Oct-17	Oct-18	Aug-19	Sept-19	Jun-20	Sept-21	Oct-21
Alkalinity	mg/L			260	146		217	193	196											
Carbon Dioxide	mg/l			150	50		140 ( )	100 ( )	63 ( )											
Chloride	mg/L			1	524		87	90	36											
Dissolved Organic Carbon	mg/l			3.7	3.7		2.6	4.4	3.1											
Ferrous iron	mg/L				2.72			0.32	1.68											
Methane	ug/l			260			120	17												
Nitrate	mg/L			0.09	0.24		0.5	0.33	0.33											
Nitrite	mg/L			0.043	0.019		0.008	0.012	0.008											
Sulfate	mg/L			24	24		2	14	30											
Sulfide-Dissolved	mg/l																			

METHOD: VOC

Analyte	Units	Jun-09	Oct-09	Jun-10	May-11	Jun-11	Jun-12	Sept-13	Jun-14	Jun-15	Jul-15	Jun-16	Sept-17	Oct-17	Oct-18	Aug-19	Sept-19	Jun-20	Sept-21	Oct-21
cis-1 2-Dichloroethene	UG/L														1.2					
cis-1,2-Dichloroethene	ug/l							1.1												

Well ID: WVA-SA-MW-20

METHOD: NAT

Analyte	Units	Jun-09	Oct-09	Jun-10	May-11	Jun-11	Jun-12	Sept-13	Jun-14	Jun-15	Jul-15	Jun-16	Sept-17	Oct-17	Oct-18	Aug-19	Sept-19	Jun-20	Sept-21	Oct-21
Alkalinity	mg/L			233	80		104	231	208											
Carbon Dioxide	mg/l			40	14		20	24 ( )	14 ( )											
Chloride	mg/L			1	317		1	29	68											
Dissolved Organic Carbon	mg/L			3.4			3	4.4	3											
Ferrous Iron	mg/L			0.23	0.16		2.15	0.09	0.24											
Methane	ug/l			17																
Nitrate	mg/L			0.3	0.3		0.14	0.57	0.59											
Nitrite	mg/L			0.031	0.01		0.072	0.02	0.037											
Sulfate	mg/L			24	74		75	55												

METHOD: VOC

Analyte	Units	Jun-09	Oct-09	Jun-10	May-11	Jun-11	Jun-12	Sept-13	Jun-14	Jun-15	Jul-15	Jun-16	Sept-17	Oct-17	Oct-18	Aug-19	Sept-19	Jun-20	Sept-21	Oct-21
cis-1,2-Dichloroethene	ug/l			2	1															

Well ID: WVA-SA-MW-22

METHOD: *NAT*

Analyte	*Units*	*Jun-09*	*Oct-09*	*Jun-10*	*May-11*	*Jun-11*	*Jun-12*	*Sept-13*	*Jun-14*	*Jun-15*	*Jul-15*	*Jun-16*	*Sept-17*	*Oct-17*	*Oct-18*	*Aug-19*	*Sept-19*	*Jun-20*	*Sept-21*	*Oct-21*
Alkalinity	mg/L							216												
Chloride	mg/L							34												
Ferrous iron	mg/L							0.08												
Nitrate	mg/L							0.8												
Nitrite	mg/L							0.037												
Sulfate	mg/L							28												

Well ID: WVA-SA-MW-23

METHOD: *NAT*

Analyte	*Units*	*Jun-09*	*Oct-09*	*Jun-10*	*May-11*	*Jun-11*	*Jun-12*	*Sept-13*	*Jun-14*	*Jun-15*	*Jul-15*	*Jun-16*	*Sept-17*	*Oct-17*	*Oct-18*	*Aug-19*	*Sept-19*	*Jun-20*	*Sept-21*	*Oct-21*
Alkalinity	mg/l			120	168		108	133	153											
Carbon dioxide	ug/l												45000							
Carbon Dioxide	mg/l			54	34		58	73 ( )												
Carbon Dioxide (Dup)	mg/l								61 ( )											
Chloride	mg/L			209	181		215	203	237				314							
Ferrous iron	mg/L			1.17	0.23		1.13	1.23												
Methane	ug/l			64	23		140	84												
Methane (Dup)	ug/l								11											
Nitrate	mg/L			0.07	0.24		0.38	0.57	0.54				22.1							
Nitrite	mg/l			0.024	0.008		0.081	0.001	0.02				8							
Sulfate	mg/L			37	43		33	33	40											

Well ID: WVA-SA-MW-32

METHOD: *NAT*

Analyte	*Units*	*Jun-09*	*Oct-09*	*Jun-10*	*May-11*	*Jun-11*	*Jun-12*	*Sept-13*	*Jun-14*	*Jun-15*	*Jul-15*	*Jun-16*	*Sept-17*	*Oct-17*	*Oct-18*	*Aug-19*	*Sept-19*	*Jun-20*	*Sept-21*	*Oct-21*
Alkalinity	mg/L			87	34		19													
Carbon Dioxide	mg/l			3.1 (J)	2.2 (J)		3.3 (J)	4 (J)	9.5 ( )											
Carbon dioxide	ug/l												10000							
Chloride	mg/L			2	12		9													
Dissolved Organic Carbon	mg/l			2.4	1.4		1.5	2.8	1.8				1.6							
Ferrous Iron	mg/L			0.19	0.38		0.29													
Methane	ug/l																			
Nitrate	mg/L			0.07	0.24		0.61													
Nitrite	mg/L			0.075	0.052		0.197													
Sulfate	mg/L			16			60													
Sulfide-Dissolved	mg/L						2.4		1.1											

Well ID: WVA-SA-MW-32

METHOD: *VOC*

Analyte	*Units*	*Jun-09*	*Oct-09*	*Jun-10*	*May-11*	*Jun-11*	*Jun-12*	*Sept-13*	*Jun-14*	*Jun-15*	*Jul-15*	*Jun-16*	*Sept-17*	*Oct-17*	*Oct-18*	*Aug-19*	*Sept-19*	*Jun-20*	*Sept-21*	*Oct-21*
cis-1 2-Dichloroethene	UG/L														2					
cis-1,2-Dichloroethene	ug/l			11	110		9.1	7.1	3.5	2.7			9.1					3.6		
cis-1,2-Dichloroethene (BS)	ug/l											12								
Tetrachloroethene	ug/l			3	5		2.5	5	5.3	6.9			8.6		3			5.3		
Tetrachloroethene (BS)	ug/l											9.6								
Trichloroethene	ug/l			2	13		2	4.3		2.3			4.4		1.3			2.6		
Trichloroethene (BS)	ug/l											8								
Vinyl chloride	ug/l				49															

Well ID: WVA-SA-MW-33

METHOD: NAT

Analyte	Units	Jun-09	Oct-09	Jun-10	May-11	Jun-11	Jun-12	Sept-13	Jun-14	Jun-15	Jul-15	Jun-16	Sept-17	Oct-17	Oct-18	Aug-19	Sept-19	Jun-20	Sept-21	Oct-21
Alkalinity	mg/L				157		171													
Carbon Dioxide	mg/L				9.7															
Chloride	mg/L				1		1													
Ferrous Iron	mg/L				0.13		0.22													
Methane	ug/l							11												
Nitrate	mg/L				0.29		0.23													
Nitrite	mg/L				0.007		0.168													
Sulfate	mg/L				19		25													

METHOD: SVOC

Analyte	Units	Jun-09	Oct-09	Jun-10	May-11	Jun-11	Jun-12	Sept-13	Jun-14	Jun-15	Jul-15	Jun-16	Sept-17	Oct-17	Oct-18	Aug-19	Sept-19	Jun-20	Sept-21	Oct-21
Diethyl phthalate	ug/l								16											

Well ID: WVA-SA-MW-33

METHOD: *VOC*

Analyte	*Units*	*Jun-09*	*Oct-09*	*Jun-10*	*May-11*	*Jun-11*	*Jun-12*	*Sept-13*	*Jun-14*	*Jun-15*	*Jul-15*	*Jun-16*	*Sept-17*	*Oct-17*	*Oct-18*	*Aug-19*	*Sept-19*	*Jun-20*	*Sept-21*	*Oct-21*
TOLUENE	UG/L								2.3	32							580	100		
Toluene (BS)	ug/l											120								

Well ID: WVA-SA-MW-34

METHOD: *NAT*

Analyte	*Units*	*Jun-09*	*Oct-09*	*Jun-10*	*May-11*	*Jun-11*	*Jun-12*	*Sept-13*	*Jun-14*	*Jun-15*	*Jul-15*	*Jun-16*	*Sept-17*	*Oct-17*	*Oct-18*	*Aug-19*	*Sept-19*	*Jun-20*	*Sept-21*	*Oct-21*
Alkalinity	mg/l			210	168		198	290	233											
Carbon Dioxide	mg/l			42	26		28		32 ( )											
Carbon dioxide	ug/l												20000							
Chloride	mg/L			805	671		531	462	696				158.6							
Dissolved Organic Carbon	mg/l			2.7	2.2		2.6	3.3	2.2				2.2							
Ferrous iron	mg/L			0.76	1.28		1.16	0.24	2.22											
Methane	ug/l			13000	8600		9000 (D)	14000 (D)	5700 (D)				5700 (D)							
Nitrate	mg/L			0.11	0.46		0.63	0.7	0.97				19.2							
Nitrite	mg/L			0.252	0.156		0.298	0.044	0.068				43							
Sulfate	mg/L			1	6		5	0	1				2							

Well ID: WVA-SA-MW-38

METHOD: *NAT*

Analyte	*Units*	*Jun-09*	*Oct-09*	*Jun-10*	*May-11*	*Jun-11*	*Jun-12*	*Sept-13*	*Jun-14*	*Jun-15*	*Jul-15*	*Jun-16*	*Sept-17*	*Oct-17*	*Oct-18*	*Aug-19*	*Sept-19*	*Jun-20*	*Sept-21*	*Oct-21*
Alkalinity	mg/L			294	212		239	263	236											
Carbon Dioxide	mg/l			160	120		110	150 ( )	130 ( )											
Carbon dioxide	ug/l												170000							
Chloride	mg/L			1	262		1	109	200				197							
Dissolved Organic Carbon	mg/l			3.1	2.5		2.7	2.7	2.3				2.6							
Ferrous iron	mg/L			0.16	0.25		0.13	0.13	0.15											
Methane	ug/l				110								51							
Nitrate	mg/L			0.1	0.29		0.73	0.73	0.59				54							
Nitrite	mg/L			0.022	0.016		0.016	0.002	0.032				11							
Sulfate	mg/L			29	61		41	61	35				40							
Sulfide-Dissolved	mg/L						1.5		1.2											

Well ID: WVA-SA-MW-39

METHOD: *NAT*

Analyte	*Units*	*Jun-09*	*Oct-09*	*Jun-10*	*May-11*	*Jun-11*	*Jun-12*	*Sept-13*	*Jun-14*	*Jun-15*	*Jul-15*	*Jun-16*	*Sept-17*	*Oct-17*	*Oct-18*	*Aug-19*	*Sept-19*	*Jun-20*	*Sept-21*	*Oct-21*
Alkalinity	mg/l			201	133		109	173	201											
Carbon Dioxide	mg/l			200	210		160 ( )	170 ( )	190 ( )											
Carbon dioxide	ug/l												310000							
Chloride	mg/l			146	181		123	167	191				260							
Dissolved Organic Carbon	mg/l			8.8	7.9		7.4	8.9	7				7.1							
Ethane	ug/l			440	300		320	430 (D)	380				410							
Ethene	ug/l			370	240		210	270 (D)	260				220							
Ferrous iron	mg/l			2.49	2.53		2.2		2.62											
Methane	ug/l			5900	5500		4900 (D)	5300 (D)	5100 (D)				5400 (D)							
Nitrate	mg/l			0.06	0.31		0.47	0.74	0.14				14.9							
Nitrite	mg/l			0.028	0.012		0.223	0.025	0.021				10							
Sulfate	mg/l			22	19		18	53	19				40							

Well ID: WVA-SA-MW-39

METHOD: *VOC*

Analyte	*Units*	*Jun-09*	*Oct-09*	*Jun-10*	*May-11*	*Jun-11*	*Jun-12*	*Sept-13*	*Jun-14*	*Jun-15*	*Jul-15*	*Jun-16*	*Sept-17*	*Oct-17*	*Oct-18*	*Aug-19*	*Sept-19*	*Jun-20*	*Sept-21*	*Oct-21*
1,1-Dichloroethane (BS)	ug/l											14								
1,1-Dichloroethene	ug/l			16	19		13	13 (D)	15				12					14		
Benzene	ug/l			27	30		19	15 (D)	22				25					16		
Benzene (BS)	ug/l											25								
cis-1 2-Dichloroethene	UG/L														2600					
cis-1,2-Dichloroethene	ug/l			7600	4300		5400 (D)	3800 (D)	6600 (D)	5100 (D)			5900 (D)				150	4100		56
cis-1,2-Dichloroethene (BS)	ug/l											5700 (D)								
Tetrachloroethene	ug/l			300	200		230	110 (D)	170	190			58		83		11	240		4.9
Tetrachloroethene (BS)	ug/l											320								
Toluene	ug/l			2	2			9.9 (D)												
trans-1,2-Dichloroethene	ug/l			46	36		24	87 (D)	41				30				1.1	19		
trans-1,2-Dichloroethene (BS)	ug/l											28								
Trichloroethene	ug/l			720	580		600	530 (D)	870	540			370		240		37	550		14

Well ID: WVA-SA-MW-39

METHOD: *VOC*

Analyte	*Units*	*Jun-09*	*Oct-09*	*Jun-10*	*May-11*	*Jun-11*	*Jun-12*	*Sept-13*	*Jun-14*	*Jun-15*	*Jul-15*	*Jun-16*	*Sept-17*	*Oct-17*	*Oct-18*	*Aug-19*	*Sept-19*	*Jun-20*	*Sept-21*	*Oct-21*
Trichloroethene (BS)	ug/l											880								
Vinyl Chloride	ug/l			2900	1700		1900 (D)	1400 (D)	3000 (D)	2100 (D)			2000 (D)		940		3.9	1500		
Vinyl Chloride (BS)	ug/l											1900								
Xylenes, Total	ug/l			1																

Well ID: WVA-SA-MW-41

METHOD: *NAT*

Analyte	*Units*	*Jun-09*	*Oct-09*	*Jun-10*	*May-11*	*Jun-11*	*Jun-12*	*Sept-13*	*Jun-14*	*Jun-15*	*Jul-15*	*Jun-16*	*Sept-17*	*Oct-17*	*Oct-18*	*Aug-19*	*Sept-19*	*Jun-20*	*Sept-21*	*Oct-21*
Alkalinity	mg/L			68	65		28	45	46											
Carbon Dioxide	mg/l			1.3 (J)	1.3 (J)		0.77 (J)	0.68 (J)	0.94 (J)											
Chloride	mg/L			1	5		12	7	2				17							
Dissolved Organic Carbon	mg/l			1.3	1.2		2	1.6	1.3											
Ferrous iron	mg/L			0.63	0.51		1.54	0.7	1.99											
Methane	ug/l								4400 (D)				1000							
Nitrate	mg/L			0.09	0.46		0.17	0.73	0.48				32.1							
Nitrite	mg/L			0.57	0.023		0.158	0.03	0.043				22							
Sulfate	mg/L			21	16		19	17	12											
Sulfide-Dissolved	mg/l								1.2											

Well ID: WVA-SA-MW-41

METHOD: VOC

Analyte	Units	Jun-09	Oct-09	Jun-10	May-11	Jun-11	Jun-12	Sept-13	Jun-14	Jun-15	Jul-15	Jun-16	Sept-17	Oct-17	Oct-18	Aug-19	Sept-19	Jun-20	Sept-21	Oct-21
cis-1,2-Dichloroethene	ug/l				36															
Tetrachloroethene	ug/l				3															
Trichloroethene	ug/l				4															
Vinyl chloride	ug/l				2															

Well ID: WVA-SA-MW-49

METHOD: VOC

Analyte	Units	Jun-09	Oct-09	Jun-10	May-11	Jun-11	Jun-12	Sept-13	Jun-14	Jun-15	Jul-15	Jun-16	Sept-17	Oct-17	Oct-18	Aug-19	Sept-19	Jun-20	Sept-21	Oct-21
cis-1,2-Dichloroethene (BS)	ug/l			1																
Tetrachloroethene (BS)	ug/l			1																

Well ID: WVA-SA-MW-54

METHOD: VOC

Analyte	Units	Jun-09	Oct-09	Jun-10	May-11	Jun-11	Jun-12	Sept-13	Jun-14	Jun-15	Jul-15	Jun-16	Sept-17	Oct-17	Oct-18	Aug-19	Sept-19	Jun-20	Sept-21	Oct-21
Tetrachloroethene (BS)	ug/l			1																

Well ID: WVA-SA-MW-59

METHOD: VOC

Analyte	Units	Jun-09	Oct-09	Jun-10	May-11	Jun-11	Jun-12	Sept-13	Jun-14	Jun-15	Jul-15	Jun-16	Sept-17	Oct-17	Oct-18	Aug-19	Sept-19	Jun-20	Sept-21	Oct-21
Tetrachloroethene (BS)	ug/l			1																

Well ID: WVA-SA-MW-60

METHOD: VOC

Analyte	Units	Jun-09	Oct-09	Jun-10	May-11	Jun-11	Jun-12	Sept-13	Jun-14	Jun-15	Jul-15	Jun-16	Sept-17	Oct-17	Oct-18	Aug-19	Sept-19	Jun-20	Sept-21	Oct-21
CIS-1,2-DICHLOROETHENE	UG/L	31															6.3			1.2
cis-1,2-Dichloroethene (BS)	ug/l			12	17		37	12	49		87	88		30						
trans-1,2-Dichloroethene (BS)	ug/l										1.3	1								
Vinyl Chloride (BS)	ug/l						94		140 (D)		820 (D)	520 (D)		150						

Well ID: WVA-SA-MW-70

METHOD: VOC

Analyte	Units	Jun-09	Oct-09	Jun-10	May-11	Jun-11	Jun-12	Sept-13	Jun-14	Jun-15	Jul-15	Jun-16	Sept-17	Oct-17	Oct-18	Aug-19	Sept-19	Jun-20	Sept-21	Oct-21
cis-1 2-Dichloroethene	UG/L														2.4					
CIS-1,2-DICHLOROETHENE	UG/L	61															2.9	4.6		
cis-1,2-Dichloroethene (BS)	ug/l			56	60		64	7.9	4.2		5	15		11						
TETRACHLOROETHENE	UG/L																1.1			
Tetrachloroethene (BS)	ug/l							1.2	1.9											
Trichloroethene (BS)	ug/l				1															
Vinyl chloride	ug/l	8																		
Vinyl Chloride (BS)	ug/l			4	7		10					5.8								

Well ID: WVA-SA-MW-77

METHOD: VOC

Analyte	Units	Jun-09	Oct-09	Jun-10	May-11	Jun-11	Jun-12	Sept-13	Jun-14	Jun-15	Jul-15	Jun-16	Sept-17	Oct-17	Oct-18	Aug-19	Sept-19	Jun-20	Sept-21	Oct-21
2-Butanone (MEK) (BS)	ug/l					18														

Well ID: WVA-SA-MW-78

METHOD: *VOC*

Analyte	*Units*	*Jun-09*	*Oct-09*	*Jun-10*	*May-11*	*Jun-11*	*Jun-12*	*Sept-13*	*Jun-14*	*Jun-15*	*Jul-15*	*Jun-16*	*Sept-17*	*Oct-17*	*Oct-18*	*Aug-19*	*Sept-19*	*Jun-20*	*Sept-21*	*Oct-21*
BENZENE	UG/L														1.5		1.1			
BENZENE (Dup)	UG/L																1.1			
cis-1 2-Dichloroethene	UG/L														28					
CIS-1,2-DICHLOROETHENE	UG/L																26	7.4		
S-1,2-DICHLOROETHENE (Du	UG/L																24			
Tetrachloroethene	UG/L														2					
TRICHLOROETHENE	UG/L														3.5		1.8	1.1		
TRICHLOROETHENE (Dup)	UG/L																1.8			
VINYL CHLORIDE	UG/L														39		14	14		
VINYL CHLORIDE (Dup)	UG/L																13			

Well ID: WVA-SA-MW-79

METHOD: NAT

Analyte	Units	Jun-09	Oct-09	Jun-10	May-11	Jun-11	Jun-12	Sept-13	Jun-14	Jun-15	Jul-15	Jun-16	Sept-17	Oct-17	Oct-18	Aug-19	Sept-19	Jun-20	Sept-21	Oct-21
Alkalinity	mg/l			62	104		46	145	86											
Chloride	mg/L			62	2		12	9	15											
Dissolved Organic Carbon	mg/l			1.9	1		2.1	2.2	1.2				1.5							
Ferrous iron	mg/L			0.04	0.24		0.51	0.32	0.61											
Methane	ug/l			7800	1700		2700 (D)	2700 (D)	530				2500 (D)							
Nitrate	mg/L			0.06	0.35		0.45	0.7	0.67				26.4							
Nitrite	mg/L			0.011	0.019		0.178	0.03	0.02				32							
Sulfate	mg/L			2	5		80	22	15											

METHOD: VOC

Analyte	Units	Jun-09	Oct-09	Jun-10	May-11	Jun-11	Jun-12	Sept-13	Jun-14	Jun-15	Jul-15	Jun-16	Sept-17	Oct-17	Oct-18	Aug-19	Sept-19	Jun-20	Sept-21	Oct-21
Benzene	ug/l			2	1			1					1.2		1.1					
Benzene (BS)	ug/l											5.5								
cis-1,2-Dichloroethene	ug/l								1.1											

Well ID: WVA-SA-MW-80

METHOD: *NAT*

Analyte	*Units*	*Jun-09*	*Oct-09*	*Jun-10*	*May-11*	*Jun-11*	*Jun-12*	*Sept-13*	*Jun-14*	*Jun-15*	*Jul-15*	*Jun-16*	*Sept-17*	*Oct-17*	*Oct-18*	*Aug-19*	*Sept-19*	*Jun-20*	*Sept-21*	*Oct-21*
Alkalinity	mg/l			282	113		196	59	121											
Carbon Dioxide	mg/l			79	62			12 ( )	19 ( )											
Carbon dioxide	ug/l												43000							
Chloride	mg/L			1	24		6	3	20				103							
Dissolved Organic Carbon	mg/l			5.1	3.5		4.8	2.2	1.5				2.5							
Ethane	ug/l						22													
Ethene	ug/l						23													
Ferrous iron	mg/L			1.07	0.38			0.53	0.22											
Methane	ug/l			3500	1200		4100 (D)	440	470				920							
Nitrate	mg/L			0.12	0.32		0.64	0.75	0.75				25.7							
Nitrite	mg/L			0.09	0.033		0.705	0.035	0.042				57							
Sulfate	mg/L			8	7		56	11	53				72							
Sulfide-Dissolved	mg/l								1.2											

Well ID: WVA-SA-MW-80

METHOD: *VOC*

Analyte	*Units*	*Jun-09*	*Oct-09*	*Jun-10*	*May-11*	*Jun-11*	*Jun-12*	*Sept-13*	*Jun-14*	*Jun-15*	*Jul-15*	*Jun-16*	*Sept-17*	*Oct-17*	*Oct-18*	*Aug-19*	*Sept-19*	*Jun-20*	*Sept-21*	*Oct-21*
cis-1,2-Dichloroethene	ug/l			35	22		99		1.5											
Trichloroethene	ug/l			6	5		17		2.1											
Vinyl chloride	ug/l			15	8		58			2.5			3.1							

Well ID: WVA-SA-MW-81

METHOD: *NAT*

Analyte	*Units*	*Jun-09*	*Oct-09*	*Jun-10*	*May-11*	*Jun-11*	*Jun-12*	*Sept-13*	*Jun-14*	*Jun-15*	*Jul-15*	*Jun-16*	*Sept-17*	*Oct-17*	*Oct-18*	*Aug-19*	*Sept-19*	*Jun-20*	*Sept-21*	*Oct-21*
Alkalinity	mg/l			169	256		51	243	201											
Carbon dioxide	ug/l												9400							
Carbon Dioxide	mg/l			9.6	8.4		1.6 (J)	6.4 ( )	6.1 ( )											
Chloride	mg/l			177	186		46	153	156				425.9							
Dissolved Organic Carbon	mg/l			2.4	2.3			2.2	1.6				1.8							
Ethane	ug/l				36			33	32				36							
Ethene	ug/l				170			120	150				110							
Ferrous iron	mg/l			0.14	0.22		0.1	0.09	1.78											
Methane	ug/l			28000	14000		770	27000 (D)	23000 (D)				14000 (D)							
Nitrate	mg/l			0.06	0.33		0.35	0.13	0.41				3.5							
Nitrite	mg/l			0.008	0.011		0.023	0.011	0.115				26							
Sulfate	mg/l			1	4		5	1	1				11							
Sulfide-Dissolved	mg/l						1.2		1.8											

Well ID: WVA-SA-MW-81

METHOD: VOC

Analyte	*Units*	*Jun-09*	*Oct-09*	*Jun-10*	*May-11*	*Jun-11*	*Jun-12*	*Sept-13*	*Jun-14*	*Jun-15*	*Jul-15*	*Jun-16*	*Sept-17*	*Oct-17*	*Oct-18*	*Aug-19*	*Sept-19*	*Jun-20*	*Sept-21*	*Oct-21*
Carbon disulfide	ug/l									3.4										
cis-1 2-Dichloroethene	UG/L														28					
cis-1,2-Dichloroethene	ug/l			28	18		2.2	37	19	41			39				2.1	16		1.4
cis-1,2-Dichloroethene (BS)	ug/l											16								
Vinyl chloride	ug/l			460	400		2.7	480 (D)	340 (D)	730 (D)			520 (D)		540		26	500		26
Vinyl Chloride (BS)	ug/l											300 (D)								

Well ID: WVA-SA-MW-82

METHOD: NAT

Analyte	Units	Jun-09	Oct-09	Jun-10	May-11	Jun-11	Jun-12	Sept-13	Jun-14	Jun-15	Jul-15	Jun-16	Sept-17	Oct-17	Oct-18	Aug-19	Sept-19	Jun-20	Sept-21	Oct-21
Alkalinity	mg/l				219		119	197	130											
Carbon Dioxide	mg/l				6.6		4 (J)	3.9 (J)	4.2 (J)											
Carbon dioxide	ug/l												12000							
Chloride	mg/L				3		8	1	28				104.6							
Dissolved Organic Carbon	mg/l				2.2		3	2.9	1.2				3.3							
Ferrous iron	mg/L						0.99	2.12	0.38											
Methane	ug/l				10000		93	14000 (D)	5500 (D)				370							
Nitrate	mg/L				2.09		0.33	0.2	0.71				14.7							
Nitrite	mg/L				0.273		0.055	0.164	0.185				29							
Sulfate	mg/L						10	53	15											

METHOD: VOC

Analyte	Units	Jun-09	Oct-09	Jun-10	May-11	Jun-11	Jun-12	Sept-13	Jun-14	Jun-15	Jul-15	Jun-16	Sept-17	Oct-17	Oct-18	Aug-19	Sept-19	Jun-20	Sept-21	Oct-21
Vinyl chloride	ug/l							3.2		3.3										

Well ID: WVA-SA-MW-83

METHOD: *NAT*

Analyte	*Units*	*Jun-09*	*Oct-09*	*Jun-10*	*May-11*	*Jun-11*	*Jun-12*	*Sept-13*	*Jun-14*	*Jun-15*	*Jul-15*	*Jun-16*	*Sept-17*	*Oct-17*	*Oct-18*	*Aug-19*	*Sept-19*	*Jun-20*	*Sept-21*	*Oct-21*
Alkalinity	mg/l			240	248		146	285	734											
Carbon Dioxide	mg/l			9	8.1		5.2 ( )		7.2 ( )											
Carbon dioxide	ug/l												8700							
Chloride	mg/l			145	6		147	146	198				162							
Dissolved Organic Carbon	mg/l			2.6	2.3		2.1	4.1 (D)	1.7				1.8							
Ethane	ug/l				28		40	44 (D)					65							
Ethene	ug/l				94		120	150 (D)					140							
Ferrous iron	mg/l			0.4	0.07		0.05	0.49	0.09											
Methane	ug/l			30000	26000		29000 (D)	38000 (D)	300				29000 (D)							
Nitrate	mg/l			0.11	0.34		0.57	0.36	0.94				18.9							
Nitrite	mg/l			0.039	0.022		0.085	0.154	0.034				28							
Sulfate	mg/l			10	2		4	9	0				48							
Sulfide-Dissolved	mg/l						1.2		4.2											

Well ID: WVA-SA-MW-83

METHOD: *VOC*

Analyte	*Units*	*Jun-09*	*Oct-09*	*Jun-10*	*May-11*	*Jun-11*	*Jun-12*	*Sept-13*	*Jun-14*	*Jun-15*	*Jul-15*	*Jun-16*	*Sept-17*	*Oct-17*	*Oct-18*	*Aug-19*	*Sept-19*	*Jun-20*	*Sept-21*	*Oct-21*
Carbon disulfide	ug/l							3.9		3.9										
cis-1 2-Dichloroethene	UG/L														5.8					
cis-1,2-Dichloroethene	ug/l			66	45		46	56 (D)	48	23			22				4	3		
cis-1,2-Dichloroethene (BS)	ug/l											20								
Vinyl chloride	ug/l			990	700		590 (D)	810 (D)	640 (D)	660 (D)			590 (D)		32		6.2	4.7		
Vinyl Chloride (BS)	ug/l											460 (D)								

Well ID: WVA-SA-MW-84

METHOD: *NAT*

Analyte	*Units*	*Jun-09*	*Oct-09*	*Jun-10*	*May-11*	*Jun-11*	*Jun-12*	*Sept-13*	*Jun-14*	*Jun-15*	*Jul-15*	*Jun-16*	*Sept-17*	*Oct-17*	*Oct-18*	*Aug-19*	*Sept-19*	*Jun-20*	*Sept-21*	*Oct-21*
Alkalinity	mg/l			162	122		127	167	163											
Carbon Dioxide	mg/l				180		160 ( )	190 ( )	170 ( )											
Carbon dioxide	ug/l												100000							
Chloride	mg/l			81	156		156	192	79				159							
Dissolved Organic Carbon	mg/l			6.3	6		5.4	10 (D)	4.7				2.8							
Ethane	ug/l			210	180		220	320 (D)	170				110							
Ethene	ug/l			340	270		320	480 (D)	250				120							
Ferrous iron	mg/L			1.75				1.69												
Methane	ug/l			2300	2200		1300 (D)	3400 (D)	1700				1000							
Nitrate	mg/l			0.28	0.31		0.46	0.25	0.2				20.3							
Nitrite	mg/l			0.015	0.009		0.165	0.07	0.048				11							
Sulfate	mg/l			59	24			18	44											

Well ID: WVA-SA-MW-84

METHOD: VOC

Analyte	Units	Jun-09	Oct-09	Jun-10	May-11	Jun-11	Jun-12	Sept-13	Jun-14	Jun-15	Jul-15	Jun-16	Sept-17	Oct-17	Oct-18	Aug-19	Sept-19	Jun-20	Sept-21	Oct-21
1,1-Dichloroethene	ug/l			5	6		7.7	8.4 (D)	6.6	3.8			3.1							
Benzene	ug/l			6	8		7.4	13 (D)	6.1				3.1							
Carbon Dioxide	mg/l																			
cis-1 2-Dichloroethene	UG/L														340					
cis-1,2-Dichloroethene	ug/l			2100	1900		2600 (D)	3300 (D)	1600 (D)	1200 (D)			910 (D)				140	110		
cis-1,2-Dichloroethene (BS)	ug/l											340 (D)								
S-1,2-DICHLOROETHENE (Du	UG/L																	100		
Ethene	ug/l																			
Methane	ug/l																			
trans-1 2-Dichloroethene	UG/L														2.3					
trans-1,2-Dichloroethene	ug/l			10	8		9.3	21	8.4	3.8			3.4							
trans-1,2-Dichloroethene (BS)	ug/l											1.6								
NS-1,2-DICHLOROETHENE (	UG/L																	1.9		

Well ID: WVA-SA-MW-84

METHOD: *VOC*

Analyte	*Units*	*Jun-09*	*Oct-09*	*Jun-10*	*May-11*	*Jun-11*	*Jun-12*	*Sept-13*	*Jun-14*	*Jun-15*	*Jul-15*	*Jun-16*	*Sept-17*	*Oct-17*	*Oct-18*	*Aug-19*	*Sept-19*	*Jun-20*	*Sept-21*	*Oct-21*
Trichloroethene	ug/l			1																
Vinyl chloride	ug/l			2400	2300		2400 (D)	3500 (D)	1600 (D)	1300 (D)			960 (D)		310		70	46		
Vinyl Chloride (BS)	ug/l											170								
VINYL CHLORIDE (Dup)	UG/L																	45		

Well ID: WVA-SA-MW-EA-6

METHOD: *NAT*

Analyte	*Units*	*Jun-09*	*Oct-09*	*Jun-10*	*May-11*	*Jun-11*	*Jun-12*	*Sept-13*	*Jun-14*	*Jun-15*	*Jul-15*	*Jun-16*	*Sept-17*	*Oct-17*	*Oct-18*	*Aug-19*	*Sept-19*	*Jun-20*	*Sept-21*	*Oct-21*
Alkalinity	mg/L			328	143		163	214	115											
Carbon Dioxide	mg/l			68	67		80	110 ( )	79 ( )											
Chloride	mg/L			90	246		95	83	280											
Dissolved Organic Carbon	mg/l			2.7	2.2		2.4	3.2	1.5											
Ferrous iron	mg/L			0.43	0.23		0.43	2.8	1.71											
Methane	ug/l			36	34		31	64	14											
Nitrate	mg/L			0.09	0.3		0.15	0.12	0.62											
Nitrite	mg/L			0.075	0.012		0.104	0	0.023											
Sulfate	mg/l			42	79				32											
Sulfide-Dissolved	mg/L						1.4													

Well ID: WVA-SA-MW-EA-6

METHOD: *VOC*

Analyte	*Units*	*Jun-09*	*Oct-09*	*Jun-10*	*May-11*	*Jun-11*	*Jun-12*	*Sept-13*	*Jun-14*	*Jun-15*	*Jul-15*	*Jun-16*	*Sept-17*	*Oct-17*	*Oct-18*	*Aug-19*	*Sept-19*	*Jun-20*	*Sept-21*	*Oct-21*
cis-1 2-Dichloroethene	UG/L														1.1					
cis-1,2-Dichloroethene	ug/l			1																
Trichloroethene	ug/l			22	13		12	15	3.5	13					1.6					
Trichloroethene (BS)	ug/l											1.7								

Well ID: WVA-SA-MW-ESE-6

METHOD: *NAT*

Analyte	*Units*	*Jun-09*	*Oct-09*	*Jun-10*	*May-11*	*Jun-11*	*Jun-12*	*Sept-13*	*Jun-14*	*Jun-15*	*Jul-15*	*Jun-16*	*Sept-17*	*Oct-17*	*Oct-18*	*Aug-19*	*Sept-19*	*Jun-20*	*Sept-21*	*Oct-21*
Alkalinity	mg/L			338	251		286	297	274											
Carbon Dioxide	mg/l			63	59		55 ( )	51 ( )	61 ( )											
Chloride	mg/L			1	1		19	26	13											
Dissolved Organic Carbon	mg/l			4.2	4.4		3.8	4.4	3.3											
Ferrous iron	mg/l				2.92				2.69											
Methane	ug/l			18000	15000		15000 (D)	24000 (D)	11000 (D)											
Nitrate	mg/l			0.11	0.33		0.31	0.56	0.61											
Nitrite	mg/L			0.024	0.015		0.137	0	0.021											
Sulfate	mg/L			21	3		2	5	34											
Sulfide-Dissolved	mg/L						1.2													

Well ID: WVA-SA-SNS-6

METHOD: NAT

Analyte	Units	Jun-09	Oct-09	Jun-10	May-11	Jun-11	Jun-12	Sept-13	Jun-14	Jun-15	Jul-15	Jun-16	Sept-17	Oct-17	Oct-18	Aug-19	Sept-19	Jun-20	Sept-21	Oct-21
Alkalinity	mg/l	144		260	144		219	235	188											
Carbon Dioxide	mg/l	65		66	42		41	59 ( )	38 ( )											
Chloride	mg/L	136		17	21		88	107	181											
Dissolved Organic Carbon	mg/l	12		6.4	7.3		9.2	6.4	6.6											
Ethane	ug/l								12											
Ethene	ug/l								11											
Ferrous iron	mg/L	0.66		2.02	0.049		0.64	0.67	0.53											
Methane	ug/l	1000		300	38		68	62												
Nitrate	mg/L	0.54		0.24	0.33		0.24	0.71	0.19											
Nitrite	mg/L	0.024		0.36	0.014		0.026	0.013	0.029											
Sulfate	mg/L	31		48	52		27	10	19											

METHOD: SVOC

Analyte	Units	Jun-09	Oct-09	Jun-10	May-11	Jun-11	Jun-12	Sept-13	Jun-14	Jun-15	Jul-15	Jun-16	Sept-17	Oct-17	Oct-18	Aug-19	Sept-19	Jun-20	Sept-21	Oct-21
Diethyl phthalate	ug/l								12											

Well ID: WVA-SA-SNS-6

METHOD: *VOC*

Analyte	*Units*	*Jun-09*	*Oct-09*	*Jun-10*	*May-11*	*Jun-11*	*Jun-12*	*Sept-13*	*Jun-14*	*Jun-15*	*Jul-15*	*Jun-16*	*Sept-17*	*Oct-17*	*Oct-18*	*Aug-19*	*Sept-19*	*Jun-20*	*Sept-21*	*Oct-21*
Bromodichloromethane	UG/L														2.8					
Bromomethane	ug/l						2.6													
CHLOROFORM	UG/L	4							2.6						18			4.9		
cis-1 2-Dichloroethene	UG/L														1.3					
cis-1,2-Dichloroethene	ug/l	8		39	13		18	22	6.6	4.7		3				4.1			3.6	
Tetrachloroethene	ug/l				2		1.9								63					
TOLUENE	UG/L																	12		
Trichloroethene	ug/l	2			1		1.6	1.2				1.8			4.2	3.5		9	2.6	
Vinyl chloride	ug/l	4		4			2.1	5.7		3										

Well ID: WVA-SA-STS-3

METHOD: VOC

Analyte	Units	Jun-09	Oct-09	Jun-10	May-11	Jun-11	Jun-12	Sept-13	Jun-14	Jun-15	Jul-15	Jun-16	Sept-17	Oct-17	Oct-18	Aug-19	Sept-19	Jun-20	Sept-21	Oct-21
Bromomethane	ug/l						2.4													
Carbon disulfide	ug/l			2																
CHLOROFORM	UG/L																	1.8		
cis-1 2-Dichloroethene	UG/L														1.2					
cis-1,2-Dichloroethene	ug/l			1	1		1.3	1.2												
Tetrachloroethene	UG/L									1.2					110					
Toluene	ug/l				1															
Trichloroethene	UG/L														2.9					

Well ID: WVA-SA-STS-5

METHOD: SVOC

Analyte	Units	Jun-09	Oct-09	Jun-10	May-11	Jun-11	Jun-12	Sept-13	Jun-14	Jun-15	Jul-15	Jun-16	Sept-17	Oct-17	Oct-18	Aug-19	Sept-19	Jun-20	Sept-21	Oct-21
Diethyl phthalate	ug/l								11											

METHOD: VOC

Analyte	Units	Jun-09	Oct-09	Jun-10	May-11	Jun-11	Jun-12	Sept-13	Jun-14	Jun-15	Jul-15	Jun-16	Sept-17	Oct-17	Oct-18	Aug-19	Sept-19	Jun-20	Sept-21	Oct-21
Chloroform	ug/l											1.7								
cis-1 2-Dichloroethene	UG/L														3.8					
cis-1,2-Dichloroethene	ug/l	2		5	1		3.8	2.2	4.9	1.5		1.3						2	2	
Tetrachloroethene	UG/L														82					
Trichloroethene	UG/L														2.2					
Vinyl Chloride	ug/l						6.4		4	3.5		6						4.3	4.2	

Well ID: WVA-SA-STS-6

METHOD: SVOC

Analyte	Units	Jun-09	Oct-09	Jun-10	May-11	Jun-11	Jun-12	Sept-13	Jun-14	Jun-15	Jul-15	Jun-16	Sept-17	Oct-17	Oct-18	Aug-19	Sept-19	Jun-20	Sept-21	Oct-21
Diethyl phthalate	ug/l								12											

METHOD: VOC

Analyte	Units	Jun-09	Oct-09	Jun-10	May-11	Jun-11	Jun-12	Sept-13	Jun-14	Jun-15	Jul-15	Jun-16	Sept-17	Oct-17	Oct-18	Aug-19	Sept-19	Jun-20	Sept-21	Oct-21
1,1-Dichloroethene	ug/l						1.7													
cis-1 2-Dichloroethene	UG/L														4.5					
CIS-1,2-DICHLOROETHENE	UG/L	7		7	8		620 (D)	4.4	4.6	4.6		12				3.2		10	2.7	
S-1,2-DICHLOROETHENE (Du	UG/L															3.3				
Tetrachloroethene	ug/l	3		1	6		430 (D)			1		1.1							2	
trans-1,2-Dichloroethene	ug/l						4.2													
Trichloroethene	ug/l	2					230 (D)					2.2								
Vinyl chloride	ug/l						45													

ARCADIS
WATERVLIET ARSENAL LTM
SO6182

KATAHDIN ANALYTICAL SERVICES
600 TECHNOLOGY WAY
SCARBOROUGH, ME 04074

TABLE OF CONTENTS

Total number of pages: 129

SAMPLE DATA PACKAGE		0000001		
Narrative	----------	0000002	to	0000003
Supporting Documents	----------	0000004	to	0000005
Chain of Custody Record	----------	0000006	to	0000006
Login Report	----------	0000007	to	0000008
SAMPLE DATA SUMMARY				
Report of Analytical Results	----------	A0000001	to	A0000009
VOLATILES DATA		1000001		
QC Summary	----------	1000002	to	1000008
Sample Data	----------	1000009	to	1000020
Standards Data	----------	1000021	to	1000079
Raw QC Data	----------	1000080	to	1000094
Logbooks and Supporting Documents	----------	1000095	to	1000097
CONVENTIONAL AND PHYSICAL ANALYTICAL DATA		5000001		
QC Summary	----------	5000002	to	5000004
Sample Data	----------	5000005	to	5000008
Raw Data	----------	5000009	to	5000015

SAMPLE DATA PACKAGE

NARRATIVE
KATAHDIN ANALYTICAL SERVICES
ARCADIS
WATERVLIET ARSENAL LTM
SO6182

Sample Receipt

The following samples were received on September 15, 2021 and were logged in under Katahdin Analytical Services work order number SO6182 for a hardcopy due date of September 27, 2021.

KATAHDIN Sample No.	ARCADIS Sample Identification
SO6182-1	93EM-SP-11(20210914)
SO6182-2	TRIP BLANK (20210914)
SO6182-3	NMTPIT (20210914)

The samples were logged in for the analyses specified on the chain of custody form. All problems encountered and resolved during sample receipt have been documented on the applicable chain of custody forms.

We certify that the test results provided in this report meet all the requirements of the NELAP standards unless otherwise noted in this narrative or in the Report of Analysis.

Sample analyses have been performed by the methods as noted herein.

Should you have any questions or comments concerning this Report of Analysis, please do not hesitate to contact your Katahdin Analytical Services Project Manager, **Ms. Heather Manz**. This narrative is an integral part of the Report of Analysis.

Organics Analysis

The samples of Work Order # SO6182 were analyzed in accordance with Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, EPA publication SW-846, Third Edition, Final Updates I (1993), II (1995), IIA (1994), IIB (1995), III (1997), IIIA (1999), IIIB (2005), IV (2008), and V (2015) and/or for the specific methods listed below or on the Report of Analysis.

8260B Analysis

The reported percent recovery acceptance limits for the Laboratory Control Samples (LCSs) are statistically derived for the full list of spiked compounds. The recoveries of the spiked analytes in the LCS are compared to these acceptance limits. Katahdin standard operating procedure is to take corrective action only if the number of spiked analytes in the LCS that are outside of the QC limits is greater than ten percent of the client compound list.

There were no other protocol deviations or observations noted by the organics laboratory staff.

Wet Chemistry Analysis

The samples of Work Order SO6182 were analyzed in accordance with the specific methods listed on the Report of Analysis.

Analyses for hexavalent chromium were performed according to "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", EPA publication SW-846, Third Edition, Final Updates I (1993), II (1995), IIA (1994), IIB (1995), III (1997), IIIA (1999), IIIB (2005), IV (2008), and V (2015).

All quality control criteria were met. All analyses were performed within analytical holding times, with the following exceptions:

Katahdin Sample Nos. SO6182-(1, 2) were collected on 09/14/21 and were received by the laboratory on 09/15/21, within the method-specified 24-hour holding time for hexavalent chromium analysis. However, due to laboratory error, these samples were not analyzed for hexavalent chromium until 09/17/21, two days after the expiration of the holding time. We apologize for the error.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Quality Assurance Officer, or their designee, as verified by the following signature.

Leslie Dimond *Oct 05, 2021*

Leslie Dimond
Quality Assurance Officer

Katahdin Analytical Services, Inc.

Manual Integration Codes For GC/MS, GC, HPLC and/or IC

M1	Peak splitting.
M2	Well defined peaks on the shoulders of the other peaks.
M3	There is additional area due to a coeluting interferant.
M4	There are negative spikes in the baseline.
M5	There are rising or falling baselines.
M6	The software has failed to detect a peak or misidentified a peak.
M7	Excessive peak tailing.
M8	Analysis such as GRO, DRO and TPH require a baseline hold.
M9	Peak was not completely integrated as in GC/MS.
M10	Primary ion was correctly integrated, but secondary or tertiary ion needed manual integration as in GC/MS.
M11	For GC analysis, when a sample is diluted by 1:10 or more, the surrogate is set to undetected and then the area under the surrogate is manually integrated.
M12	Manual integration saved in method due to TurboChrom floating point error.

Katahdin Analytical Services, LLC. — Sample Receipt Condition Report

Client: Arlad/S	KAS PM: HHM	Sampled By: Client
Project:	KIMS Entry By: GM	Delivered By: FedEx
KAS Work Order#: 506182	KIMS Review By: HHM	Received By: GM
	Labeled By: GM	
SDG #:	Cooler: 1 of 1	Date/Time Rec.: 9/15/21 1512

Receipt Criteria	Y	N	EX*	NA	Comments and/or Resolution
1. Custody seals present / intact?	✓				
2. Chain of Custody present in cooler?	✓				
3. Chain of Custody signed by client?	✓				
4. Chain of Custody matches samples?	✓				
5. Temperature Blanks present? If not, take temperature of any sample w/ IR gun.	✓				Temp (°C): 1.6 — Thermometer ID: IR-1
Samples received at <6 °C w/o freezing?	✓				Note: Not required for metals (except Hg soil) analysis.
Ice packs or ice present?	✓				The lack of ice or ice packs (i.e. no attempt to begin cooling process) or insufficient ice may not meet certain regulatory requirements and may invalidate certain data.
If yes, was there sufficient ice to meet temperature requirements?	✓				
If temp. out, has the cooling process begun (i.e. ice or packs present) and sample collection times <6hrs., but samples are not yet cool?				✓	Note: No cooling process required for metals (except Hg soil) analysis.
6. Volatiles:					
Aqueous: No bubble larger than a pea?	✓			✓ (GM)	
Soil/Sediment:					
Received in airtight container?					
Received in methanol?					
Methanol covering soil?					
D.I. Water - Received within 48 hour HT?					
7. Trip Blank present in cooler?	✓			✓	
8. Proper sample containers and volume?	✓				
9. Samples within hold time upon receipt?	✓				
10. Aqueous samples properly preserved? Metals, COD, NH3, TKN, O/G, phenol, TPO4, N+N, TOC, DRO, TPH – pH <2				✓	
Sulfide - >9					
Cyanide – pH >12					
11. Bottleware Prepped on:					

* Log-In Notes to Exceptions: document any problems with samples or discrepancies or pH adjustments.

Katahdin ANALYTICAL SERVICES
600 Technology Way
Scarborough, ME 04074
Tel: (207) 874-2400
Fax: (207) 775-4029

CHAIN of CUSTODY

PLEASE BEAR DOWN AND PRINT LEGIBLY IN PEN

Client	Contact	Phone #	Fax #
Arcadis	Danielle Giroux	(518) 250-7327	( )

Address	City	State	Zip Code
855 Route 146 Suite 210	Clifton Park	NY	12065

Purchase Order #	Proj. Name / No.	Katahdin Quote #
PN# 30001988	WVALTM	

Bill (if different than above) | Address

Sampler (Print / Sign) K Stilson K Atk

Copies To: Danielle Giroux

LAB USE ONLY

WORK ORDER #:

KATAHDIN PROJECT NUMBER 506182

REMARKS:

SHIPPING INFO: ☐ FED EX ☐ UPS ☐ CLIENT

AIRBILL NO:

TEMP°C ☒ TEMP BLANK ☐ INTACT ☐ NOT INTACT

★	Sample Description	Date / Time coll'd	Matrix	No. of Cntrs.	ANALYSIS AND CONTAINER TYPE PRESERVATIVES: Filt. ☐Y ☐N	VOC 8260	Filt. ☐Y ☐N	Her Chrome SW846 7196
	93EM-SP-11(20210914)	9/14/21/1155	GW	4		✓		✓
	Trip Blank(20210914)	8/31/21/0900	W	3		✓		
	Temp Blank	— / —	W	1				
	NMT PIT (20210914)	9/14/21/1430	W	1				✓
		/						
		/						
		/						
		/						
		/						
		/						
		/						
		/						
		/						
		/						
		/						
		/						

KA 9/14/21

COMMENTS

Relinquished By: (Signature)	Date / Time	Received By: (Signature)	Relinquished By: (Signature)	Date / Time	Received By: (Signature)
K Atk	9/14/21 1500				
Relinquished By: (Signature)	Date / Time	Received By: (Signature)	Relinquished By: (Signature)	Date / Time	Received By: (Signature)
	9/15/21 1009				

THE TERMS AND CONDITIONS ON THE REVERSE SIDE HEREOF SHALL GOVERN SERVICES, EXCEPT WHEN A SIGNED CONTRACTUAL AGREEMENT EXISTS.

Katahdin
ANALYTICAL SERVICES

Katahdin Analytical Services

Login Chain of Custody Report (lno1)

Oct. 01, 2021
03:52 PM

Quote/Incoming: ARCADIS-WATERVLIET

Login Number: SO6182

Account: ARCADIS002
ARCADIS

Project: ARCADIS-WATERVLIET

Primary Report Address:

Stefan Bagnato
ARCADIS
855 Route 146
Suite 210
Clifton Park, NY 12065
USA
stefan.bagnato@arcadis-us.com

Primary Invoice Address:

Accounts Payable
ARCADIS U.S., Inc.
630 Plaza Drive
Suite 100
Highlands Ranch,CO 80129

Report CC Addresses:
Invoice CC Addresses:

Login Information:

ANALYSIS INSTRUCTIONS	:	Not DOD, NELAP. ND to PQL, no J flags.
CHECK NO.	:	
CLIENT PO#	:	30001988.0001D
CLIENT PROJECT MANAGEI	:	Andy Vitolins
CONTRACT	:	W912DR-18-D-0004
COOLER TEMPERATURE	:	1.6
DELIVERY SERVICES	:	FedEx
EDD FORMAT	:	KAS121-CSV & KAS136QC-CSV
LOGIN INITIALS	:	GM
PM	:	HHM
PROJECT NAME	:	Watervliet Arsenal LTM
QC LEVEL	:	IV
REPORT INSTRUCTIONS	:	Email PDF & EDD to Stefan & Danielle.Giroux@arcadis.com. No HC. Need to put "1 Buffington Street (Bldg 36), Watervliet Arsenal, Watervliet, NY 12189" in comments of invoice. Email invoices to Terry Huber (Terry.Huber@arcadis.com), stefan.bagnato@arcadis.com and AccountsPayable.Administration@arcadis.com.
SDG ID	:	
SDG STATUS	:	
VERBAL TAT	:	

HHM

3:53 pm, Oct 01, 2021

Katahdin Analytical Services

Login Chain of Custody Report (lno1)

Oct. 01, 2021
03:52 PM

Login Number: SO6182

Account: ARCADIS002
ARCADIS

Project: ARCADIS-WATERVLIET

Quote/Incoming: ARCADIS-WATERVLIET

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	PR	Verbal Date	Due Date	Mailed
SO6182-1	93EM-SP-11(20210914)	14-SEP-21 11:55	15-SEP-21			27-SEP-21	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	SW7196A-CRVI	15-SEP-21	250mL Plastic		
Aqueous	S	SW8260-S	28-SEP-21	40mL Vial+HCl		

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	PR	Verbal Date	Due Date	Mailed
SO6182-2	TRIP BLANK (20210914)	14-SEP-21 09:00	15-SEP-21			27-SEP-21	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	SW8260-S	28-SEP-21	40mL Vial+HCl		

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	PR	Verbal Date	Due Date	Mailed
SO6182-3	NMTPIT (20210914)	14-SEP-21 14:30	15-SEP-21			27-SEP-21	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	SW7196A-CRVI	15-SEP-21	250mL Plastic		

Total Samples: 3 ***Total Analyses: 4***

3:53 pm, Oct 01, 2021

SAMPLE DATA SUMMARY PACKAGE

KATAHDIN ANALYTICAL SERVICES - ORGANIC DATA QUALIFIERS

The sampled date indicated on the attached Report(s) of Analysis (ROA) is the date for which a grab sample was collected or the date for which a composite sample was completed. Beginning and start times for composite samples can be found on the Chain-of-Custody.

U Indicates the compound was analyzed for but not detected above the specified level. This level may be the Limit of Quantitation (LOQ)(previously called Practical Quantitation Level (PQL)), the Limit of Detection (LOD) or Method Detection Limit (MDL) as required by the client.

Note: All results reported as "U" MDL have a 50% rate for false negatives compared to those results reported as "U" PQL/LOQ or "U" LOD, where the rate of false negatives is <1%.

* Compound recovery or percent RPD (relative percent difference) was outside of quality control limits.

D Indicates the result was obtained from analysis of a diluted sample. Surrogate recoveries may not be calculable.

E Estimated value. This flag identifies compounds whose concentrations exceed the upper level of the calibration range of the instrument for that specific analysis.

J Estimated value. The analyte was detected in the sample at a concentration less than the laboratory Limit of Quantitation (LOQ)(previously called Practical Quantitation Limit (PQL)), but above the Method Detection Limit (MDL).

or

J Used for Pesticides, PCBs, Herbicides, Formaldehyde, Explosives and Method 504.1 analytes when there is a greater than 40% difference for detected concentrations between the two GC columns.

B Indicates the analyte was detected in the laboratory method blank analyzed concurrently with the sample.

C Indicates that the flagged compound did not meet DoD criteria in the corresponding daily calibration verification (CV).

L Indicates that the flagged compound did not meet DoD criteria in the corresponding Laboratory Control Sample (LCS) and/or Laboratory Control Sample Duplicate (LCSD) prepared and/or analyzed concurrently with the sample.

M Indicates that the flagged compound did not meet DoD criteria in the Matrix Spike and/or Matrix Spike Duplicate prepared and/or analyzed concurrently with the native sample.

N Presumptive evidence of a compound based on a mass spectral library search.

A Indicates that a tentatively identified compound is a suspected aldol-condensation product.

P Used for Pesticide/Aroclor analyte when there is a greater than 25% difference for detected concentrations between the two GC columns. (for CLP methods only).

KATAHDIN ANALYTICAL SERVICES – INORGANIC DATA QUALIFIERS

The sampled date indicated on the attached Report(s) of Analysis (ROA) is the date for which a grab sample was collected or the date for which a composite sample was completed. Beginning and start times for composite samples can be found on the Chain-of-Custody.

U Indicates the compound was analyzed for but not detected above the specified level. This level may be the Practical Quantitation Level (PQL) (also called Limit of Quantitation (LOQ)), the Limit of Detection (LOD) or Method Detection Limit (MDL) as required by the client.

Note: All results reported as "U" MDL have a 50% rate for false negatives compared to those results reported as "U" PQL "U" LOQ or "U" LOD, where the rate of false negatives is <1%.

E Estimated value. This flag identifies compounds whose concentrations exceed the upper level of the calibration range of the instrument for that specific analysis.

J Estimated value. The analyte was detected in the sample at a concentration less than the laboratory Practical Quantitation Level (PQL) (also called Limit of Quantitation (LOQ)), but above the Method Detection Limit (MDL).

I-7 The laboratory's Practical Quantitation Level (PQL) or LOQ could not be achieved for this parameter due to sample composition, matrix effects, sample volume, or quantity used for analysis.

A-4 Please refer to cover letter or narrative for further information.

H_ Please note that the regulatory holding time for _____ is "analyze immediately". Ideally, this analysis must be performed in the field at the time of sample collection. _____ for this sample was not performed at the time of sample collection. The analysis was performed as soon as possible after receipt by the laboratory.

H1 - pH H2 - DO H3 - sulfite H4 - residual chlorine

T1 The client did not provide the full volume of at least one liter for analysis of TSS. Therefore, the PQL of 2.5 mg/L could not be achieved.

T2 The client provided the required volume of at least one liter for analysis of TSS, but the laboratory could not filter the full one liter volume due to the sample matrix. Therefore, the PQL of 2.5 mg/L could not be achieved.

M1 The matrix spike and/or matrix spike duplicate recovery performed on this sample was outside of the laboratory acceptance criteria. Sample matrix is suspected. The laboratory criteria was met for the Laboratory Control Sample (LCS) analyzed concurrently with this sample.

M2 The matrix spike and/or matrix spike duplicate recovery was outside of the laboratory acceptance criteria. The native sample concentration is greater than four times the spike added concentration so the spike added could not be distinguished from the native sample concentration.

R1 The relative percent difference (RPD) between the duplicate analyses performed on this sample was outside of the laboratory acceptance criteria (when both values are greater than ten times the PQL).

MCL	Maximum Contaminant Level	NL	No limit
NFL	No Free Liquid Present	FLP	Free Liquid Present
NOD	No Odor Detected	TON	Threshold Odor Number

D-1 As required by Method 5210B, APHA Standard Methods for the Examination of Water and Wastewater (21st edition), the BOD value reported for this sample is 'qualified' because the check standard run concurrently with the sample analysis did not meet the criteria specified in the method (198 +/- 30.5 mg/L). These results may not be reportable for compliance purposes.

D-2 The measured final dissolved oxygen concentrations of all dilutions were less than the method-specified limit of 1 mg/L. The reported BOD result was calculated assuming a final oxygen concentration equal to 1 mg/L. The reported value should be considered a minimum value.

D-3 The dilution water used to prepare this sample did not meet the method and/or regulatory criteria of less than 0.2 or 0.4 mg/L dissolved oxygen (DO) uptake over the five day period of incubation. These results may not be reportable for compliance purposes.

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6182-1
Client ID: 93EM-SP-11(20210914)
Project: Watervliet Arsenal LTM
SDG: SO6182
Lab File ID: C0763.D

Sample Date: 14-SEP-21
Received Date: 15-SEP-21
Extract Date: 21-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306380

Analysis Date: 21-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 05-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	2.0	ug/L	1	2	2.0
Vinyl Chloride	U	2.0	ug/L	1	2	2.0
Bromomethane	U	2.0	ug/L	1	2	2.0
Chloroethane	U	2.0	ug/L	1	2	2.0
Trichlorofluoromethane	U	2.0	ug/L	1	2	2.0
1,1-Dichloroethene	U	1.0	ug/L	1	1	1.0
Carbon Disulfide	U	1.0	ug/L	1	1	1.0
Methylene Chloride	U	5.0	ug/L	1	5	5.0
trans-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
1,1-Dichloroethane	U	1.0	ug/L	1	1	1.0
cis-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
Chloroform	U	1.0	ug/L	1	1	1.0
Carbon Tetrachloride	U	1.0	ug/L	1	1	1.0
1,1,1-Trichloroethane	U	1.0	ug/L	1	1	1.0
2-Butanone	U	5.0	ug/L	1	5	5.0
Benzene	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethane	U	1.0	ug/L	1	1	1.0
Trichloroethene	U	1.0	ug/L	1	1	1.0
1,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Bromodichloromethane	U	1.0	ug/L	1	1	1.0
cis-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
Toluene	U	1.0	ug/L	1	1	1.0
4-Methyl-2-Pentanone	U	5.0	ug/L	1	5	5.0
Tetrachloroethene	U	1.0	ug/L	1	1	1.0
trans-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
1,1,2-Trichloroethane	U	1.0	ug/L	1	1	1.0
Dibromochloromethane	U	1.0	ug/L	1	1	1.0
Chlorobenzene	U	1.0	ug/L	1	1	1.0
Ethylbenzene	U	1.0	ug/L	1	1	1.0
m+p-Xylenes	U	2.0	ug/L	1	2	2.0
o-Xylene	U	1.0	ug/L	1	1	1.0
Bromoform	U	1.0	ug/L	1	1	1.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
P-Bromofluorobenzene		97.5	%			
Toluene-d8		101.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6182-1
Client ID: 93EM-SP-11(20210914)
Project: Watervliet Arsenal LTM
SDG: SO6182
Lab File ID: C0763.D

Sample Date: 14-SEP-21
Received Date: 15-SEP-21
Extract Date: 21-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306380

Analysis Date: 21-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 05-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		128.	%			
Dibromofluoromethane		108.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6182-2
Client ID: TRIP BLANK (20210914)
Project: Watervliet Arsenal LTM
SDG: SO6182
Lab File ID: C0760.D

Sample Date: 14-SEP-21
Received Date: 15-SEP-21
Extract Date: 21-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306380

Analysis Date: 21-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 05-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	2.0	ug/L	1	2	2.0
Vinyl Chloride	U	2.0	ug/L	1	2	2.0
Bromomethane	U	2.0	ug/L	1	2	2.0
Chloroethane	U	2.0	ug/L	1	2	2.0
Trichlorofluoromethane	U	2.0	ug/L	1	2	2.0
1,1-Dichloroethene	U	1.0	ug/L	1	1	1.0
Carbon Disulfide	U	1.0	ug/L	1	1	1.0
Methylene Chloride	U	5.0	ug/L	1	5	5.0
trans-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
1,1-Dichloroethane	U	1.0	ug/L	1	1	1.0
cis-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
Chloroform	U	1.0	ug/L	1	1	1.0
Carbon Tetrachloride	U	1.0	ug/L	1	1	1.0
1,1,1-Trichloroethane	U	1.0	ug/L	1	1	1.0
2-Butanone	U	5.0	ug/L	1	5	5.0
Benzene	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethane	U	1.0	ug/L	1	1	1.0
Trichloroethene	U	1.0	ug/L	1	1	1.0
1,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Bromodichloromethane	U	1.0	ug/L	1	1	1.0
cis-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
Toluene	U	1.0	ug/L	1	1	1.0
4-Methyl-2-Pentanone	U	5.0	ug/L	1	5	5.0
Tetrachloroethene	U	1.0	ug/L	1	1	1.0
trans-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
1,1,2-Trichloroethane	U	1.0	ug/L	1	1	1.0
Dibromochloromethane	U	1.0	ug/L	1	1	1.0
Chlorobenzene	U	1.0	ug/L	1	1	1.0
Ethylbenzene	U	1.0	ug/L	1	1	1.0
m+p-Xylenes	U	2.0	ug/L	1	2	2.0
o-Xylene	U	1.0	ug/L	1	1	1.0
Bromoform	U	1.0	ug/L	1	1	1.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
P-Bromofluorobenzene		96.5	%			
Toluene-d8		99.9	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6182-2
Client ID: TRIP BLANK (20210914)
Project: Watervliet Arsenal LTM
SDG: SO6182
Lab File ID: C0760.D

Sample Date: 14-SEP-21
Received Date: 15-SEP-21
Extract Date: 21-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306380

Analysis Date: 21-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 05-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		121.	%			
Dibromofluoromethane		105.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: Stefan Bagnato
ARCADIS
855 Route 146
Clifton Park,NY 12065

Lab Sample ID: SO6182-1
Report Date: 01-OCT-21
Project: Watervliet Arsenal LTM
SDG: SO6182

Sample Description	Matrix	Date Sampled	Date Received
93EM-SP-11(20210914)	AQ	14-SEP-21 11:55:00	15-SEP-21

Parameter	Result	Adj PQL	Adj MDL	Anal. Method	QC Batch	Analysis Date	Prep. Method	Prep. Date	Analyst	Footnotes	RPD/RSD
Chromium, Hexavalent	U0.025 mg/L	0.025	0.00076	SW846 7196A	WG306361	17-SEP-21 13:12:00	N/A	N/A	ES		

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: Stefan Bagnato
ARCADIS
855 Route 146
Clifton Park,NY 12065

Lab Sample ID: SO6182-3
Report Date: 01-OCT-21
Project: Watervliet Arsenal LTM
SDG: SO6182

Sample Description	Matrix	Date Sampled	Date Received
NMTPIT (20210914)	AQ	14-SEP-21 14:30:00	15-SEP-21

Parameter	Result	Adj PQL	Adj MDL	Anal. Method	QC Batch	Analysis Date	Prep. Method	Prep. Date	Analyst	Footnotes	RPD/RSD
Chromium, Hexavalent	0.75 mg/L	0.025	0.00076	SW846 7196A	WG306361	17-SEP-21 13:12:00	N/A	N/A	ES		

VOLATILES DATA

QC Summary Section

Katahdin
ANALYTICAL SERVICES

Form 2
System Monitoring Compound Recovery

Lab Name: Katahdin Analytical Services **Project:** Watervliet Arsenal LTM **Matrix:** AQ
Lab Code: KAS **SDG:** SO6182

Client Sample ID	Lab Sample ID	Col. ID	BFB	#	DBF	#	DCA	#	TOL	#
93EM-SP-11(20210914)	SO6182-1		97.5		108.		128.		101.	
TRIP BLANK (20210914)	SO6182-2		96.5		105.		121.		99.9	
Laboratory Control S	WG306380-1		100.		107.		113.		99.7	
Method Blank	WG306380-2		96.0		106.		122.		101.	
Laboratory Control S	WG306380-6		101.		107.		112.		97.9	

		QC Limits
BFB	P-BROMOFLUOROBENZENE	56-133
DBF	DIBROMOFLUOROMETHANE	68-128
DCA	1,2-DICHLOROETHANE-D4	67-135
TOL	TOLUENE-D8	65-128

= Column to be used to flag recovery limits.
* = Values outside of contract required QC limits.
D= System Monitoring Compound diluted out.

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://katahdinlab.com
sales@katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Form 4
Method Blank Summary - VOA

Lab Name : Katahdin Analytical Services
Project : Watervliet Arsenal LTM
Lab File ID : C0758.D
Instrument ID : GCMS-C
Heated Purge : No

SDG : SO6182
Lab Sample ID : WG306380-2
Date Analyzed : 21-SEP-21
Time Analyzed : 11:06

This Method Blank applies to the following samples, LCS, MS and MSD:

Client Sample ID	Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed
Laboratory Control S	WG306380-1	C0755.D	09/21/21	08:39
Laboratory Control S	WG306380-6	C0756.D	09/21/21	09:42
TRIP BLANK (20210914)	SO6182-2	C0760.D	09/21/21	12:08
93EM-SP-11(20210914)	SO6182-1	C0763.D	09/21/21	13:41

Katahdin
ANALYTICAL SERVICES

Form 5
Volatile Organic Instrument Performance Check

Lab Name : Katahdin Analytical Services
Project : Watervliet Arsenal LTM
Lab File ID : CB627A.D
Instrument ID : GCMS-C

SDG : SO6182
Date Analyzed : 20-SEP-21
Time Analyzed : 08:50
Heated Purge : No

m/e	Ion Abundance Criteria	% Relative Abundance		
50	15.0 - 40.0% of mass 95	17.1		
75	30.0 - 60.0% of mass 95	52.1		
95	Base Peak, 100% relative abundance	100		
96	5.0 - 9.0% of mass 95	7.4		
173	Less than 2.0% of mass 174	0.7	1.08	1
174	Greater than 50.0% of mass 95	68.1		
175	5.0 - 9.0% of mass 174	5.7	8.40	1
176	95.0 - 101.0% of mass 174	68.4	100.39	1
177	5.0 - 9.0% of mass 176	4.3	6.34	2

1-Value is % mass 174 2-Value is % mass 176

This check applies to the following samples, LCS, MS, MSD and standards:

Client Sample ID	Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed
Initial Calibration	WG306314-4	C0724.D	09/20/21	09:15
Initial Calibration	WG306314-3	C0725.D	09/20/21	09:46
Initial Calibration	WG306314-8	C0726.D	09/20/21	10:17
Initial Calibration	WG306314-2	C0727.D	09/20/21	10:48
Initial Calibration	WG306314-1	C0728.D	09/20/21	11:19
Initial Calibration	WG306314-6	C0729.D	09/20/21	11:50
Initial Calibration	WG306314-5	C0730.D	09/20/21	12:21
Initial Calibration	WG306314-7	C0731.D	09/20/21	12:52
Independent Source	WG306314-10	C0732A.D	09/20/21	13:55

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://katahdinlab.com
sales@katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Form 5
Volatile Organic Instrument Performance Check

Lab Name : Katahdin Analytical Services
Project : Watervliet Arsenal LTM
Lab File ID : CB628A.D
Instrument ID : GCMS-C

SDG : SO6182
Date Analyzed : 21-SEP-21
Time Analyzed : 07:23
Heated Purge : No

m/e	Ion Abundance Criteria	% Relative Abundance		
50	15.0 - 40.0% of mass 95	18.3		
75	30.0 - 60.0% of mass 95	53.4		
95	Base Peak, 100% relative abundance	100		
96	5.0 - 9.0% of mass 95	7.5		
173	Less than 2.0% of mass 174	0.3	0.41	1
174	Greater than 50.0% of mass 95	68.2		
175	5.0 - 9.0% of mass 174	4.7	6.89	1
176	95.0 - 101.0% of mass 174	68.0	99.74	1
177	5.0 - 9.0% of mass 176	4.8	7.01	2

1-Value is % mass 174 2-Value is % mass 176

This check applies to the following samples, LCS, MS, MSD and standards:

Client Sample ID	Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed
Continuing Calibrati	WG306380-4	C0754.D	09/21/21	07:49
Laboratory Control S	WG306380-1	C0755.D	09/21/21	08:39
Laboratory Control S	WG306380-6	C0756.D	09/21/21	09:42
Method Blank	WG306380-2	C0758.D	09/21/21	11:06
TRIP BLANK (20210914)	SO6182-2	C0760.D	09/21/21	12:08
93EM-SP-11(20210914)	SO6182-1	C0763.D	09/21/21	13:41

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://katahdinlab.com
sales@katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Form 8
Internal Standard Area and RT Summary

Lab Name : Katahdin Analytical Services
Project : Watervliet Arsenal LTM
Lab ID : WG306380-4
Lab File ID : C0754.D

SDG: SO6182
Analytical Date: 09/21/21 07:49
Instrument ID: GCMS-C

		PENTAFLUOROBENZENE		1,4-DIFLUOROBENZENE		CHLOROBENZENE-D5	
		Area #	RT #	Area #	RT #	Area #	RT #
	Std .	177849	6.56	312116	7.22	294649	10.47
	Upper Limit	355698	6.73	624232	7.38	589298	10.64
	Lower Limit	88924.5	6.40	156058	7.05	147324.5	10.31
Client Sample ID	Lab Sample ID						
Laboratory Control S	WG306380-1	180465	6.57	328283	7.22	297595	10.48
Laboratory Control S	WG306380-6	195403	6.56	357083	7.22	324501	10.48
Method Blank	WG306380-2	150331	6.57	279496	7.22	256213	10.48
TRIP BLANK (202109	SO6182-2	146291	6.57	267809	7.22	247427	10.48
93EM-SP-11(20210914	SO6182-1	141026	6.57	259525	7.22	242206	10.48

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area
RT Upper Limit = + 10 seconds of internal standard RT
RT Lower Limit = - 10 seconds of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://katahdinlab.com
sales@katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Form 8
Internal Standard Area and RT Summary

Lab Name : Katahdin Analytical Services
Project : Watervliet Arsenal LTM
Lab ID : WG306380-4
Lab File ID : C0754.D

SDG: SO6182
Analytical Date: 09/21/21 07:49
Instrument ID: GCMS-C

		1,4-DICHLOROBENZENE-D4			
		Area	#	RT	#
	Std .	152413		13.32	
	Upper Limit	304826		13.48	
	Lower Limit	76206.5		13.15	
Client Sample ID	Lab Sample ID				
Laboratory Control S	WG306380-1	156772		13.32	
Laboratory Control S	WG306380-6	162939		13.32	
Method Blank	WG306380-2	126752		13.32	
TRIP BLANK (202109	SO6182-2	120821		13.32	
93EM-SP-11(20210914	SO6182-1	118176		13.32	

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area
RT Upper Limit = + 10 seconds of internal standard RT
RT Lower Limit = - 10 seconds of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://katahdinlab.com
sales@katahdinlab.com

Sample Data Section

KATAHDIN ANALYTICAL SERVICES - ORGANIC DATA QUALIFIERS

The sampled date indicated on the attached Report(s) of Analysis (ROA) is the date for which a grab sample was collected or the date for which a composite sample was completed. Beginning and start times for composite samples can be found on the Chain-of-Custody.

U Indicates the compound was analyzed for but not detected above the specified level. This level may be the Limit of Quantitation (LOQ)(previously called Practical Quantitation Level (PQL)), the Limit of Detection (LOD) or Method Detection Limit (MDL) as required by the client.

Note: All results reported as "U" MDL have a 50% rate for false negatives compared to those results reported as "U" PQL/LOQ or "U" LOD, where the rate of false negatives is <1%.

* Compound recovery or percent RPD (relative percent difference) was outside of quality control limits.

D Indicates the result was obtained from analysis of a diluted sample. Surrogate recoveries may not be calculable.

E Estimated value. This flag identifies compounds whose concentrations exceed the upper level of the calibration range of the instrument for that specific analysis.

J Estimated value. The analyte was detected in the sample at a concentration less than the laboratory Limit of Quantitation (LOQ)(previously called Practical Quantitation Limit (PQL)), but above the Method Detection Limit (MDL).

or

J Used for Pesticides, PCBs, Herbicides, Formaldehyde, Explosives and Method 504.1 analytes when there is a greater than 40% difference for detected concentrations between the two GC columns.

B Indicates the analyte was detected in the laboratory method blank analyzed concurrently with the sample.

C Indicates that the flagged compound did not meet DoD criteria in the corresponding daily calibration verification (CV).

L Indicates that the flagged compound did not meet DoD criteria in the corresponding Laboratory Control Sample (LCS) and/or Laboratory Control Sample Duplicate (LCSD) prepared and/or analyzed concurrently with the sample.

M Indicates that the flagged compound did not meet DoD criteria in the Matrix Spike and/or Matrix Spike Duplicate prepared and/or analyzed concurrently with the native sample.

N Presumptive evidence of a compound based on a mass spectral library search.

A Indicates that a tentatively identified compound is a suspected aldol-condensation product.

P Used for Pesticide/Aroclor analyte when there is a greater than 25% difference for detected concentrations between the two GC columns. (for CLP methods only).

Katahdin Analytical Services, Inc.

Manual Integration Codes For GC/MS, GC, HPLC and/or IC

M1	Peak splitting.
M2	Well defined peaks on the shoulders of the other peaks.
M3	There is additional area due to a coeluting interferant.
M4	There are negative spikes in the baseline.
M5	There are rising or falling baselines.
M6	The software has failed to detect a peak or misidentified a peak.
M7	Excessive peak tailing.
M8	Analysis such as GRO, DRO and TPH require a baseline hold.
M9	Peak was not completely integrated as in GC/MS.
M10	Primary ion was correctly integrated, but secondary or tertiary ion needed manual integration as in GC/MS.
M11	For GC analysis, when a sample is diluted by 1:10 or more, the surrogate is set to undetected and then the area under the surrogate is manually integrated.
M12	Manual integration saved in method due to TurboChrom floating point error.

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6182-1
Client ID: 93EM-SP-11(20210914)
Project: Watervliet Arsenal LTM
SDG: SO6182
Lab File ID: C0763.D

Sample Date: 14-SEP-21
Received Date: 15-SEP-21
Extract Date: 21-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306380

Analysis Date: 21-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 05-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	2.0	ug/L	1	2	2.0
Vinyl Chloride	U	2.0	ug/L	1	2	2.0
Bromomethane	U	2.0	ug/L	1	2	2.0
Chloroethane	U	2.0	ug/L	1	2	2.0
Trichlorofluoromethane	U	2.0	ug/L	1	2	2.0
1,1-Dichloroethene	U	1.0	ug/L	1	1	1.0
Carbon Disulfide	U	1.0	ug/L	1	1	1.0
Methylene Chloride	U	5.0	ug/L	1	5	5.0
trans-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
1,1-Dichloroethane	U	1.0	ug/L	1	1	1.0
cis-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
Chloroform	U	1.0	ug/L	1	1	1.0
Carbon Tetrachloride	U	1.0	ug/L	1	1	1.0
1,1,1-Trichloroethane	U	1.0	ug/L	1	1	1.0
2-Butanone	U	5.0	ug/L	1	5	5.0
Benzene	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethane	U	1.0	ug/L	1	1	1.0
Trichloroethene	U	1.0	ug/L	1	1	1.0
1,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Bromodichloromethane	U	1.0	ug/L	1	1	1.0
cis-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
Toluene	U	1.0	ug/L	1	1	1.0
4-Methyl-2-Pentanone	U	5.0	ug/L	1	5	5.0
Tetrachloroethene	U	1.0	ug/L	1	1	1.0
trans-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
1,1,2-Trichloroethane	U	1.0	ug/L	1	1	1.0
Dibromochloromethane	U	1.0	ug/L	1	1	1.0
Chlorobenzene	U	1.0	ug/L	1	1	1.0
Ethylbenzene	U	1.0	ug/L	1	1	1.0
m+p-Xylenes	U	2.0	ug/L	1	2	2.0
o-Xylene	U	1.0	ug/L	1	1	1.0
Bromoform	U	1.0	ug/L	1	1	1.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
P-Bromofluorobenzene		97.5	%			
Toluene-d8		101.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6182-1
Client ID: 93EM-SP-11(20210914)
Project: Watervliet Arsenal LTM
SDG: SO6182
Lab File ID: C0763.D

Sample Date: 14-SEP-21
Received Date: 15-SEP-21
Extract Date: 21-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306380

Analysis Date: 21-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 05-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		128.	%			
Dibromofluoromethane		108.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Data File: \\target_server\gg\chem\gcms-c.i\C092121.b\C0763.D
Report Date: 24-Sep-2021 13:16

Katahdin Analytical Services

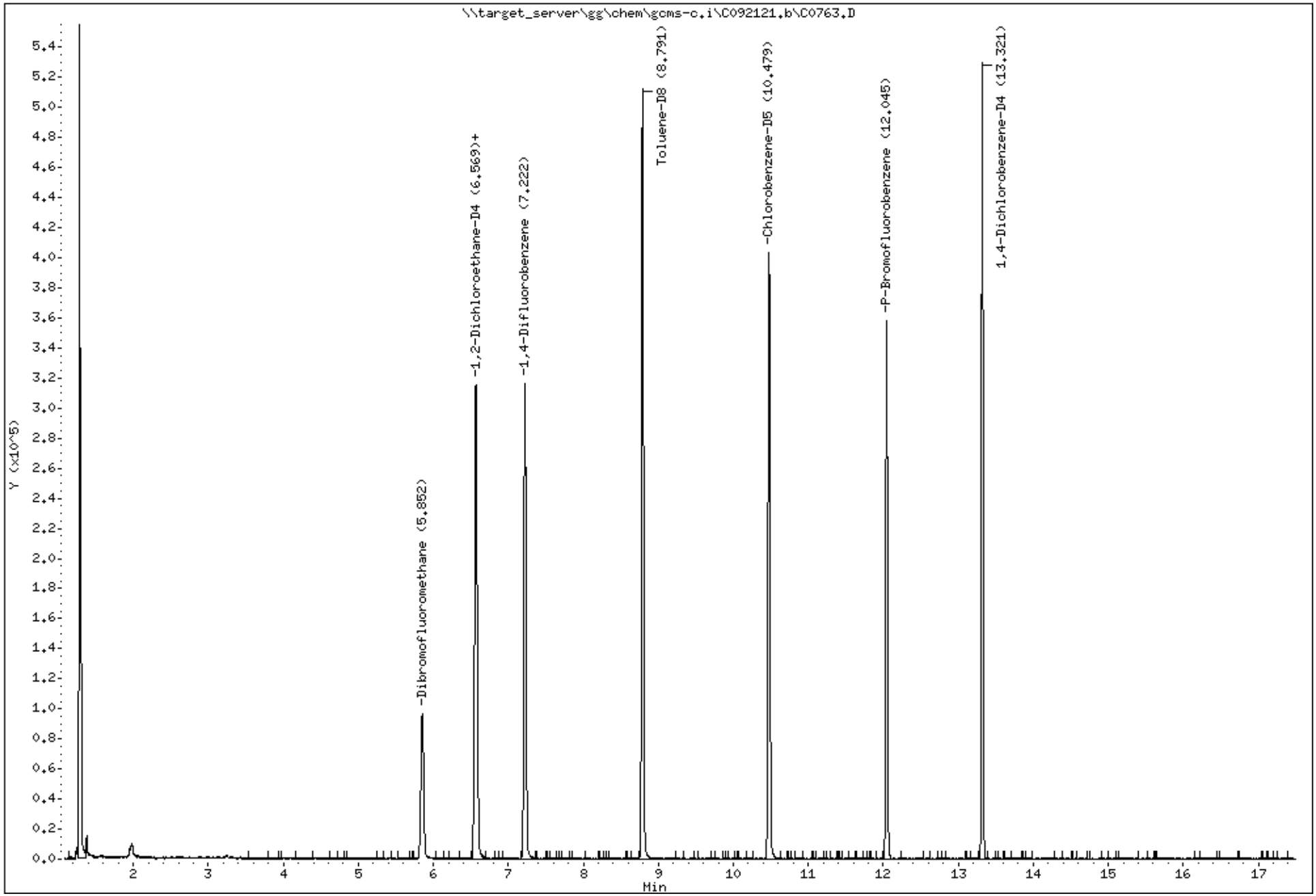
Data file : \\target_server\gg\chem\gcms-c.i\C092121.b\C0763.D
Lab Smp Id: SO6182-1 Client Smp ID: 3EM-SP-11(20210914)
Inj Date : 21-SEP-2021 13:41
Operator : ES Inst ID: gcms-c.i
Smp Info : SO6182-1
Misc Info : WG306380,WG306380-4
Comment : SW846 5030
Method : \\target_server\gg\chem\gcms-c.i\C092121.b\C8A05(51).m
Meth Date : 22-Sep-2021 05:33 hgould Quant Type: ISTD
Cal Date : 20-SEP-2021 12:52 Cal File: C0731.D
Als bottle: 10
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.12
Processing Host: VOA-WS

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)	REVIEW CODE
$ 35 Dibromofluoromethane	113	5.851	5.849	(0.891)	78605	54.0813	54.1	
$ 41 1,2-Dichloroethane-D4	65	6.568	6.566	(1.000)	114996	63.9361	63.9	
* 42 Pentafluorobenzene	168	6.565	6.566	(1.000)	141026	50.0000		
* 48 1,4-Difluorobenzene	114	7.224	7.218	(1.000)	259525	50.0000		
$ 56 Toluene-D8	98	8.790	8.787	(1.217)	329132	50.5528	50.6	
* 67 Chlorobenzene-D5	117	10.478	10.475	(1.000)	242206	50.0000		
$ 76 P-Bromofluorobenzene	95	12.044	12.041	(1.667)	122900	48.7389	48.7	
* 91 1,4-Dichlorobenzene-D4	152	13.321	13.321	(1.000)	118176	50.0000		

Data File: \\target_server\gg\chem\gcms-c.i\C092121.b\C0763.D
Date : 21-SEP-2021 13:41
Client ID: 3EM-SP-11(20210914)
Instrument: gcms-c.i
Sample Info: S06182-1



Katahdin Analytical Services 1000015

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6182-2
Client ID: TRIP BLANK (20210914)
Project: Watervliet Arsenal LTM
SDG: SO6182
Lab File ID: C0760.D

Sample Date: 14-SEP-21
Received Date: 15-SEP-21
Extract Date: 21-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306380

Analysis Date: 21-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 05-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	2.0	ug/L	1	2	2.0
Vinyl Chloride	U	2.0	ug/L	1	2	2.0
Bromomethane	U	2.0	ug/L	1	2	2.0
Chloroethane	U	2.0	ug/L	1	2	2.0
Trichlorofluoromethane	U	2.0	ug/L	1	2	2.0
1,1-Dichloroethene	U	1.0	ug/L	1	1	1.0
Carbon Disulfide	U	1.0	ug/L	1	1	1.0
Methylene Chloride	U	5.0	ug/L	1	5	5.0
trans-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
1,1-Dichloroethane	U	1.0	ug/L	1	1	1.0
cis-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
Chloroform	U	1.0	ug/L	1	1	1.0
Carbon Tetrachloride	U	1.0	ug/L	1	1	1.0
1,1,1-Trichloroethane	U	1.0	ug/L	1	1	1.0
2-Butanone	U	5.0	ug/L	1	5	5.0
Benzene	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethane	U	1.0	ug/L	1	1	1.0
Trichloroethene	U	1.0	ug/L	1	1	1.0
1,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Bromodichloromethane	U	1.0	ug/L	1	1	1.0
cis-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
Toluene	U	1.0	ug/L	1	1	1.0
4-Methyl-2-Pentanone	U	5.0	ug/L	1	5	5.0
Tetrachloroethene	U	1.0	ug/L	1	1	1.0
trans-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
1,1,2-Trichloroethane	U	1.0	ug/L	1	1	1.0
Dibromochloromethane	U	1.0	ug/L	1	1	1.0
Chlorobenzene	U	1.0	ug/L	1	1	1.0
Ethylbenzene	U	1.0	ug/L	1	1	1.0
m+p-Xylenes	U	2.0	ug/L	1	2	2.0
o-Xylene	U	1.0	ug/L	1	1	1.0
Bromoform	U	1.0	ug/L	1	1	1.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
P-Bromofluorobenzene		96.5	%			
Toluene-d8		99.9	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6182-2
Client ID: TRIP BLANK (20210914)
Project: Watervliet Arsenal LTM
SDG: SO6182
Lab File ID: C0760.D

Sample Date: 14-SEP-21
Received Date: 15-SEP-21
Extract Date: 21-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306380

Analysis Date: 21-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 05-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		121.	%			
Dibromofluoromethane		105.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Data File: \\target_server\gg\chem\gcms-c.i\C092121.b\C0760.D
Report Date: 24-Sep-2021 13:16

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-c.i\C092121.b\C0760.D
Lab Smp Id: SO6182-2 Client Smp ID: RIP BLANK (20210914
Inj Date : 21-SEP-2021 12:08
Operator : ES Inst ID: gcms-c.i
Smp Info : SO6182-2
Misc Info : WG306380,WG306380-4
Comment : SW846 5030
Method : \\target_server\gg\chem\gcms-c.i\C092121.b\C8A05(51).m
Meth Date : 22-Sep-2021 05:33 hgould Quant Type: ISTD
Cal Date : 20-SEP-2021 12:52 Cal File: C0731.D
Als bottle: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.12
Processing Host: VOA-WS

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

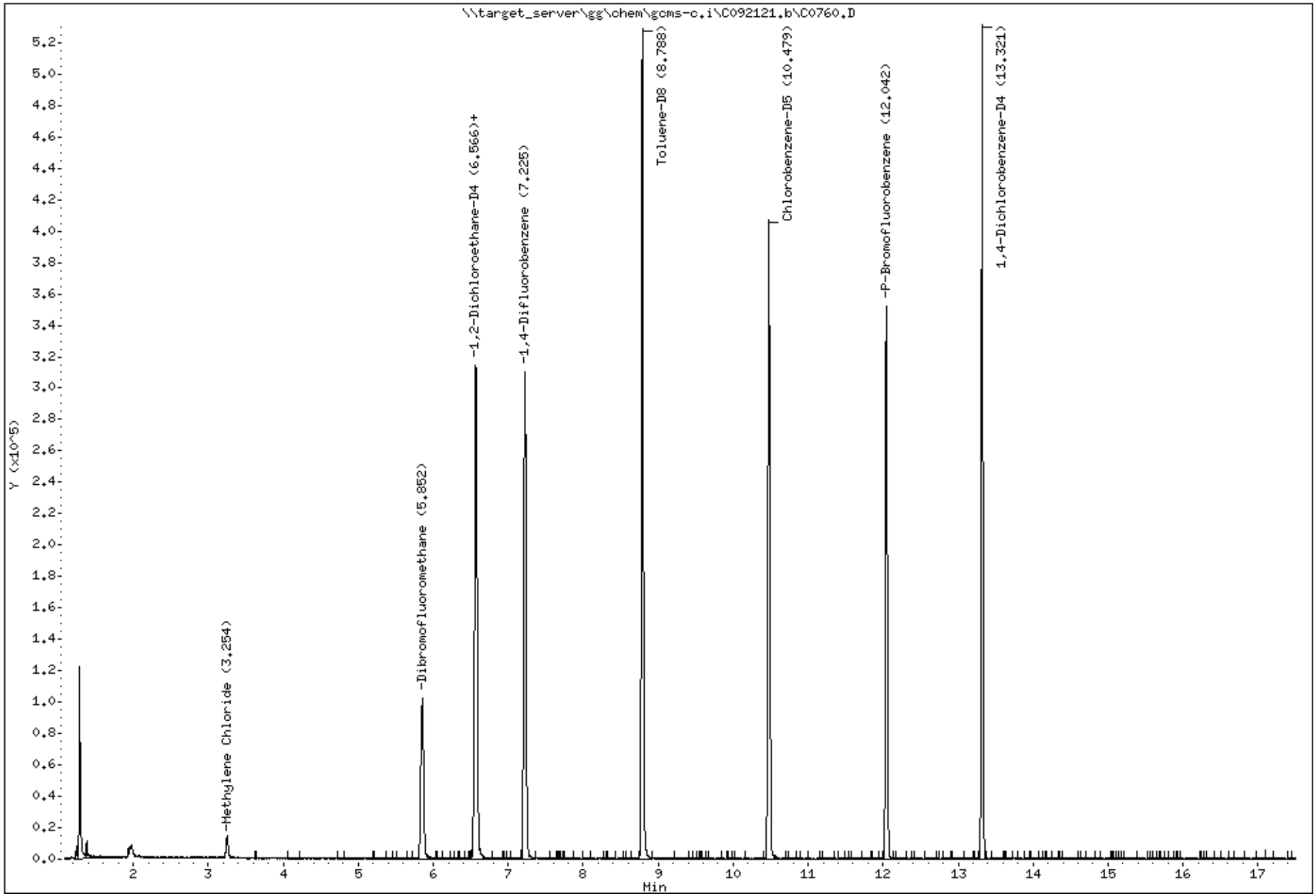
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)	REVIEW CODE
	14 Methylene Chloride	84	3.254	3.247	(0.496)	7307	3.68603	3.7(a)	
$	35 Dibromofluoromethane	113	5.852	5.849	(0.891)	78889	52.3233	52.3	
$	41 1,2-Dichloroethane-D4	65	6.572	6.566	(1.001)	112632	60.3680	60.4	
*	42 Pentafluorobenzene	168	6.565	6.566	(1.000)	146291	50.0000		
*	48 1,4-Difluorobenzene	114	7.224	7.218	(1.000)	267809	50.0000		
$	56 Toluene-D8	98	8.790	8.787	(1.217)	335521	49.9401	49.9	
*	67 Chlorobenzene-D5	117	10.478	10.475	(1.000)	247427	50.0000		
$	76 P-Bromofluorobenzene	95	12.041	12.041	(1.667)	125546	48.2481	48.2	
*	91 1,4-Dichlorobenzene-D4	152	13.321	13.321	(1.000)	120821	50.0000		

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Data File: \\target_server\gg\chem\gcms-c.i\C092121.b\C0760.D
Date : 21-SEP-2021 12:08
Client ID: RIP BLANK (20210914
Sample Info: S06182-2

Instrument: gcms-c.i



Katahdin Analytical Services 1000019

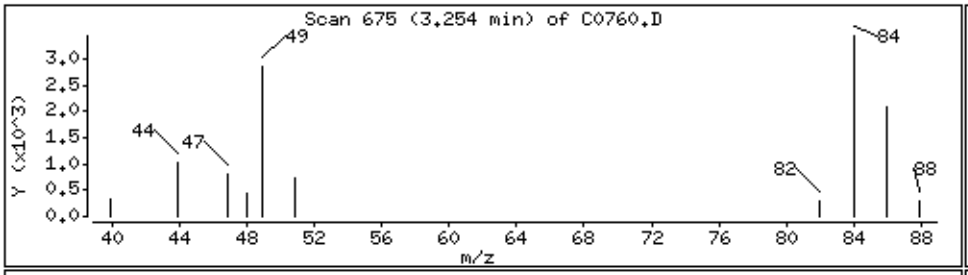
Data File: \\target_server\gg\chem\gcms-c.i\C092121.b\C0760.D

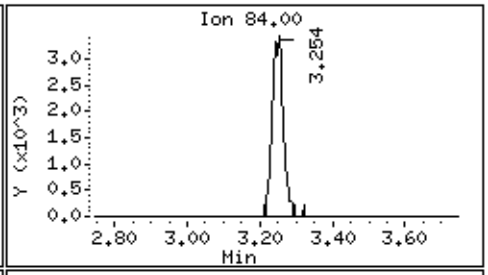
Date : 21-SEP-2021 12:08

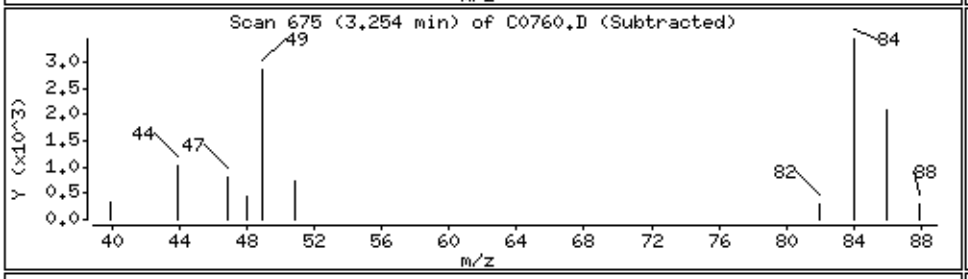
Client ID: RIP BLANK (20210914 Instrument: gcms-c.i

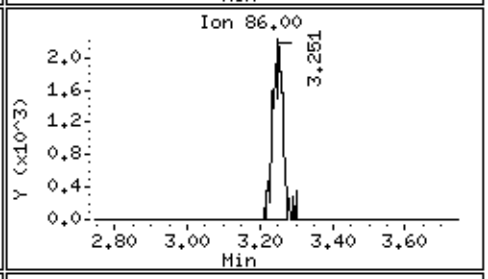
Sample Info: SO6182-2

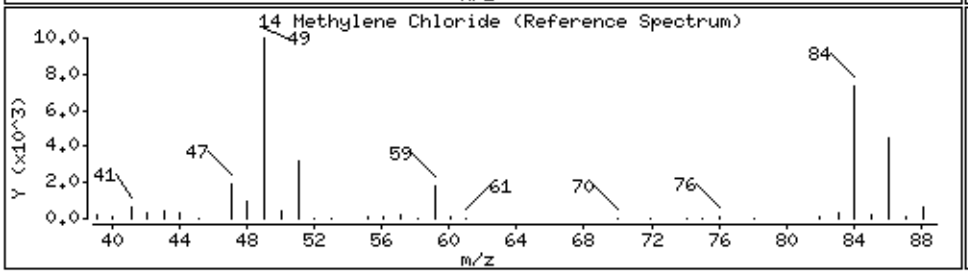
14 Methylene Chloride Concentration: 3.7 ug/l

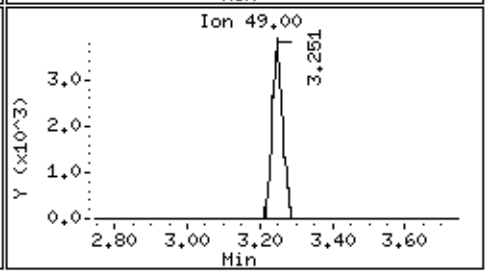












Standards Data Section

Katahdin
ANALYTICAL SERVICES

Form 6
Initial Calibration Summary

Lab Name : Katahdin Analytical Services
SDG: SO6182
Project : Watervliet Arsenal LTM
Instrument ID: GCMS-C
Lab File IDs : C0728.D C0727.D C0725.D C0724.D C0730.D C0729.D C0731.D C0726.D
Calibration Date(s): 20-SEP-21 09:15 20-SEP-21 12:52

	1.0000 Level 1	5.0000 Level 2	20.0000 Level 3	50.0000 Level 4	100.0000 Level 5	150.0000 Level 6	75.0000 Level 7	10.0000 Level 8	Curve Type	b	m1	m2	%RSD	MAX %RSD	
Chloromethane	0.78987	0.64449	0.68858	0.65366	0.66188	0.64483	0.66109	0.68203	AVG		.6783		7.049	15	O
Vinyl chloride	0.80493	0.56434	0.61049	0.59502	0.63587	0.63954	0.63486	0.59062	AVG		.6345		11.62	15	O
Bromomethane	2565	9544	37124	87850	202211	279192	151115	19890	LNR	0	.3645		.9984	.99	O
Chloroethane	2259	8330	34291	81571	+++++	+++++	126450	17756	LNR	0	.3173		.9991	.99	O
Trichlorofluoromethane	1.16753	0.89733	0.91300	0.92188	0.93123	0.95412	0.97042	0.92580	AVG		.9602		9.045	15	O
1,1-Dichloroethene	0.80582	0.58415	0.56825	0.56922	0.59371	0.60242	0.60599	0.57158	AVG		.6126		12.97	15	O
Carbon Disulfide	1.57332	1.20577	1.24153	1.29557	1.36894	1.36220	1.37734	1.22948	AVG		1.332		8.908	15	O
Methylene Chloride	5775	17614	75863	186272	343135	541422	256613	40715	LNR	0	.6775		.9955	.99	O
trans-1,2-Dichloroethene	0.88467	0.72337	0.70970	0.70075	0.71052	0.71966	0.72135	0.72760	AVG		.7372		8.169	15	O
1,1-Dichloroethane	1.47674	1.34442	1.32093	1.29936	1.34163	1.34800	1.36319	1.34984	AVG		1.356		3.895	15	O
cis-1,2-Dichloroethene	0.92388	0.75195	0.76179	0.75331	0.74783	0.76009	0.75717	0.79053	AVG		.7808		7.591	15	O
Chloroform	1.41915	1.26851	1.29608	1.30534	1.30029	1.33034	1.32249	1.33157	AVG		1.322		3.369	15	O
Carbon Tetrachloride	0.56339	0.47534	0.55241	0.56792	0.57760	0.59903	0.58748	0.52729	AVG		.5563		7.077	15	O
1,1,1-Trichloroethane	1.19322	1.11935	1.19443	1.21638	1.23024	1.27754	1.26507	1.15630	AVG		1.206		4.383	15	O
2-Butanone	0.32277	0.33976	0.34249	0.33701	0.29509	0.29092	0.31254	0.35709	AVG		.3247		7.282	15	O
Benzene	2.01816	1.65775	1.69671	1.65608	1.62914	1.62086	1.64762	1.71060	AVG		1.705		7.646	15	O
1,2-Dichloroethane	0.65690	0.56708	0.55878	0.55519	0.54820	0.55829	0.53830	0.56871	AVG		.5689		6.48	15	O
Trichloroethene	0.47898	0.42565	0.41470	0.40743	0.41255	0.41419	0.41362	0.42472	AVG		.424		5.439	15	O
1,2-Dichloropropane	0.46975	0.42356	0.41162	0.42269	0.42674	0.43517	0.42216	0.43192	AVG		.4304		4.037	15	O
Bromodichloromethane	0.49784	0.44609	0.50209	0.53274	0.54546	0.55878	0.53490	0.50218	AVG		.515		6.935	15	O
cis-1,3-dichloropropene	0.61216	0.54296	0.64671	0.69947	0.69309	0.70739	0.68510	0.61426	AVG		.6501		8.818	15	O
Toluene	2.04547	1.74436	1.75767	1.73382	1.66824	1.61948	1.69222	1.78567	AVG		1.756		7.322	15	O
4-methyl-2-pentanone	0.29350	0.37447	0.38231	0.40378	0.33708	0.32147	0.35099	0.40065	AVG		.358		10.95	15	O
Tetrachloroethene	0.39469	0.33102	0.33918	0.34601	0.34719	0.34587	0.34967	0.34254	AVG		.3495		5.482	15	O
trans-1,3-Dichloropropene	0.49134	0.50830	0.58873	0.64151	0.63265	0.65288	0.61970	0.57017	AVG		.5882		10.38	15	O
1,1,2-Trichloroethane	0.29743	0.30787	0.30554	0.31513	0.30442	0.31290	0.30284	0.31542	AVG		.3077		2.079	15	O
Dibromochloromethane	0.28534	0.31936	0.37767	0.42225	0.43125	0.44611	0.42026	0.36468	AVG		.3834		15.01	15	WO
Chlorobenzene	1.48167	1.24479	1.21753	1.21590	1.18684	1.18936	1.18668	1.23956	AVG		1.245		7.887	15	O
Ethylbenzene	2.40517	2.10786	2.18309	2.19354	2.12787	2.06695	2.16061	2.21019	AVG		2.182		4.676	15	O
m+p-Xylenes	1.73007	1.65197	1.67657	1.67630	1.57020	1.46213	1.61935	1.68085	AVG		1.633		5.131	15	O
o-Xylene	1.65863	1.52947	1.70166	1.72236	1.69207	1.66332	1.68395	1.64734	AVG		1.662		3.551	15	O
Bromoform	1084	7447	37475	115504	236795	362886	171656	17900	LNR	0	.2799		.9977	.99	O
1,1,2,2-Tetrachloroethane	1.06821	1.07875	1.09538	1.14895	1.03147	1.03084	1.04812	1.12803	AVG		1.079		4.028	15	O
Dibromofluoromethane	0.50661	0.51135	0.51577	0.50753	0.52150	0.52636	0.52770	0.50572	AVG		.5153		1.733	15	
1,2-Dichloroethane-D4	0.64958	0.62699	0.62656	0.62388	0.63882	0.66073	0.64035	0.63458	AVG		.6377		1.983	15	
Toluene-D8	1.27785	1.24674	1.25291	1.25089	1.25391	1.25719	1.24524	1.24999	AVG		1.254		.8167	15	

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://katahdinlab.com
sales@katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Form 6
Initial Calibration Summary

Lab Name : Katahdin Analytical Services
SDG: SO6182
Project : Watervliet Arsenal LTM
Instrument ID: GCMS-C
Lab File IDs : C0728.D C0727.D C0725.D C0724.D C0730.D C0729.D C0731.D C0726.D
Calibration Date(s): 20-SEP-21 09:15 20-SEP-21 12:52

P-Bromofluorobenzene	0.48831	0.48073	0.48379	0.49078	0.48845	0.49270	0.47999	0.48174	AVG		.4858		1.001	15	

Legend: O = Kept Original Curve
Y = Failed Minimum RF
W = Failed %RSD Value

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://katahdinlab.com
sales@katahdinlab.com

Data File: \\target_server\gg\chem\gcms-c.i\C092021.b\C0732a.D
Report Date: 24-Sep-2021 13:12

	SPIKE COMPOUND	CONC ADDED ug/l	CONC RECOVERED ug/l	% RECOVERED	LIMITS
	29 Cyclohexane	50.0	50.1	100.28	80-120
	62 Ethyl Methacrylate	50.0	48.3	96.64	80-120
	43 Tertiary-amyl meth	50.0	51.4	102.85	80-120
	45 1,2-Dichloroethane	50.0	47.3	94.62	80-120
	47 Trichloroethene	50.0	49.8	99.52	80-120
	49 Dibromomethane	50.0	48.0	96.01	80-120
	50 1,2-Dichloropropan	50.0	49.1	98.18	80-120
	51 Bromodichlorometha	50.0	50.7	101.35	80-120
	55 cis-1,3-dichloropr	50.0	53.1	106.20	80-120
	52 1,4-Dioxane	1000	945	94.54	80-120
	54 2-Chloroethylvinyl	50.0	57.5	115.05	80-120
	57 Toluene	50.0	50.4	100.88	80-120
	59 4-methyl-2-pentano	50.0	48.1	96.13	80-120
	58 Tetrachloroethene	50.0	48.9	97.89	80-120
	60 trans-1,3-Dichloro	50.0	52.7	105.48	80-120
	61 1,1,2-Trichloroeth	50.0	50.5	101.07	80-120
	63 Dibromochlorometha	50.0	51.9	103.81	80-120
	64 1,3-Dichloropropan	50.0	49.1	98.20	80-120
	65 1,2-Dibromoethane	50.0	50.4	100.87	80-120
	66 2-Hexanone	50.0	47.8	95.71	80-120
	68 Chlorobenzene	50.0	49.6	99.23	80-120
	69 Ethylbenzene	50.0	51.5	102.98	80-120
	70 1,1,1,2-Tetrachlor	50.0	54.1	108.25	80-120
M	104 Xylenes (total)	150	158	105.50	80-120
	71 m+p-Xylenes	100	105	104.82	80-120
	72 o-Xylene	50.0	53.4	106.84	80-120
	74 Styrene	50.0	55.3	110.57	80-120
	73 Bromoform	50.0	45.7	91.41	80-120
	75 Isopropylbenzene	50.0	54.7	109.45	80-120
	78 cis-1,4-Dichloro-2	50.0	50.4	100.74	80-120
	84 trans-1,4-Dichloro	50.0	53.3	106.66	80-120
	77 Bromobenzene	50.0	51.8	103.53	80-120
	79 N-Propylbenzene	50.0	53.8	107.68	80-120
	80 1,1,2,2-Tetrachlor	50.0	51.7	103.40	80-120
	83 1,3,5-Trimethylben	50.0	54.0	108.02	80-120
	81 2-Chlorotoluene	50.0	52.0	104.02	80-120
	82 1,2,3-Trichloropro	50.0	50.4	100.81	80-120
	85 4-Chlorotoluene	50.0	52.4	104.73	80-120
	86 tert-Butylbenzene	50.0	53.2	106.46	80-120
	94 Pentachloroethane	50.0	0.00	0.00*	80-120
	87 1,2,4-Trimethylben	50.0	53.4	106.89	80-120
	89 P-Isopropyltoluene	50.0	55.7	111.35	80-120
	90 1,3-Dichlorobenzen	50.0	51.9	103.81	80-120
	92 1,4-Dichlorobenzen	50.0	49.7	99.36	80-120
	95 N-Butylbenzene	50.0	55.2	110.36	80-120
	88 sec-Butylbenzene	50.0	55.4	110.83	80-120
	96 1,2-Dichlorobenzen	50.0	51.6	103.22	80-120
	97 1,2-Dibromo-3-Chlo	50.0	48.3	96.70	80-120
	98 1,3,5-Trichloroben	50.0	51.8	103.60	80-120
	100 Hexachlorobutadien	50.0	53.0	106.09	80-120
	99 1,2,4-Trichloroben	50.0	53.5	106.97	80-120
	93 1,2,3-Trimethylben	50.0	53.0	105.96	80-120
	101 Naphthalene	50.0	50.5	101.04	80-120
	102 1,2,3-Trichloroben	50.0	53.9	107.83	80-120

Data File: \\target_server\gg\chem\gcms-c.i\C092021.b\C0732a.D
Report Date: 24-Sep-2021 13:12

SPIKE COMPOUND	CONC ADDED ug/l	CONC RECOVERED ug/l	% RECOVERED	LIMITS
17 Methyl Acetate	50.0	37.5	74.97*	80-120
46 Methylcyclohexane	50.0	54.0	107.98	80-120
M 105 Total Alkylbenzene	350	381	108.80	80-120

SURROGATE COMPOUND	AMOUNT ADDED ug/l	AMOUNT RECOVERED ug/l	% RECOVERED	LIMITS
$ 35 Dibromofluorometha	50.0	49.8	99.51	68-128
$ 41 1,2-Dichloroethane	50.0	48.2	96.49	67-135
$ 56 Toluene-D8	50.0	49.6	99.14	65-128
$ 76 P-Bromofluorobenze	50.0	49.8	99.72	56-133

Data File: \\target_server\gg\chem\gcms-c.i\C092021.b\C0732a.D
Report Date: 24-Sep-2021 13:12

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-c.i\C092021.b\C0732a.D
Lab Smp Id: WG306314-10
Inj Date : 20-SEP-2021 13:55
Operator : ES   Inst ID: gcms-c.i
Smp Info : WG306314-10,SO6182
Misc Info : WG306314,WG306314-4,SO6182-1
Comment   : SW846 5030
Method   : \\target_server\gg\chem\gcms-c.i\C092021.b\C8A05(51).m
Meth Date : 21-Sep-2021 08:25 hgould   Quant Type: ISTD
Cal Date : 20-SEP-2021 12:52   Cal File: C0731.D
Als bottle: 9   QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE   Compound Sublist: all.sub
Target Version: 4.12

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)	REVIEW CODE
1	Dichlorodifluoromethane	85	1.414	1.411	(0.215)	170493	61.3644	61.4(R)	
2	Chloromethane	50	1.578	1.579	(0.240)	194707	55.2331	55.2	
3	Vinyl chloride	62	1.646	1.643	(0.251)	182204	55.2582	55.2	
4	Bromomethane	94	1.919	1.919	(0.292)	99851	52.7073	52.7	
5	Chloroethane	64	2.025	2.019	(0.308)	97267	58.9912	59.0	
6	Trichlorofluoromethane	101	2.154	2.150	(0.328)	270978	54.3038	54.3	
7	Diethyl Ether	59	2.446	2.444	(0.372)	128827	51.0920	51.1	
8	1,1-Dichloroethene	96	2.633	2.630	(0.401)	139770	43.8984	43.9	
9	Carbon Disulfide	76	2.655	2.656	(0.404)	347422	50.1962	50.2	
10	Freon-113	151	2.681	2.681	(0.408)	109732	52.2449	52.2	
11	Iodomethane	142	2.774	2.772	(0.422)	135336	47.3820	47.4	
12	Acrolein	56	2.980	2.977	(0.454)	60321	248.199	248	
13	Allyl Chloride	41	3.128	3.128	(0.476)	184375	49.6824	49.7	
14	Methylene Chloride	84	3.247	3.247	(0.494)	165882	47.1095	47.1	
15	Acetone	43	3.311	3.312	(0.504)	60589	42.5545	42.6	
16	trans-1,2-Dichloroethene	96	3.437	3.434	(0.523)	179095	46.7454	46.7	
17	Methyl Acetate	43	3.469	3.469	(0.528)	132973	37.4874	37.5(R)	
18	Methyl tert-butyl ether	73	3.588	3.591	(0.546)	496341	47.1851	47.2	
19	Tertiary-butyl alcohol	59	3.739	3.746	(0.569)	87810	214.243	214	
20	Acetonitrile	41	3.877	3.878	(0.590)	251866	470.269	470	
21	Di-isopropyl ether	45	4.118	4.122	(0.627)	546808	51.3589	51.4	
22	Chloroprene	53	4.221	4.218	(0.643)	290156	52.5430	52.5	
23	1,1-Dichloroethane	63	4.250	4.244	(0.647)	345433	49.0345	49.0	
24	Acrylonitrile	52	4.324	4.325	(0.658)	304588	248.969	249	

Data File: \\target_server\gg\chem\gcms-c.i\C092021.b\C0732a.D
Report Date: 24-Sep-2021 13:12

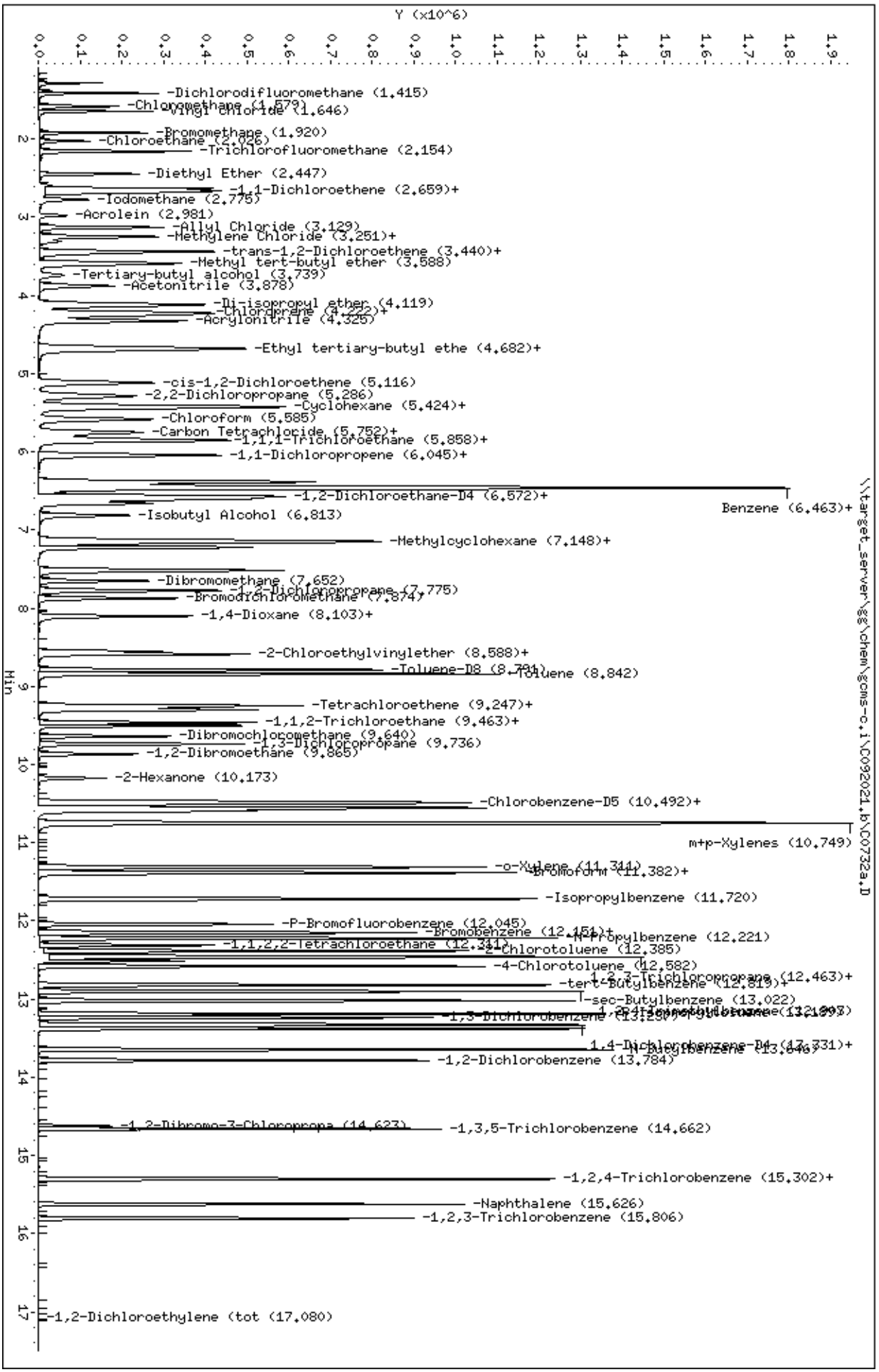
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)	REVIEW CODE
	25 Ethyl tertiary-butyl ether	59	4.681	4.675	(0.713)	523081	51.7134	51.7	
	26 Vinyl Acetate	43	4.684	4.678	(0.649)	398916	76.6715	76.7(R)	
	27 cis-1,2-Dichloroethene	96	5.115	5.106	(0.779)	193198	47.6097	47.6	
	28 2,2-Dichloropropane	77	5.286	5.286	(0.805)	263952	50.3918	50.4	
	29 Cyclohexane	56	5.424	5.421	(0.826)	317891	50.1413	50.1	
	30 Bromochloromethane	128	5.433	5.424	(0.827)	81499	52.7765	52.8	
	31 Chloroform	83	5.585	5.582	(0.850)	326001	47.4592	47.4	
	32 Carbon Tetrachloride	117	5.752	5.752	(0.797)	250631	49.3418	49.3	
	33 Tetrahydrofuran	42	5.803	5.797	(0.884)	53443	40.0942	40.1	
	34 1,1,1-Trichloroethane	97	5.858	5.852	(0.892)	306063	48.8093	48.8	
$	35 Dibromofluoromethane	113	5.855	5.849	(0.891)	133244	49.7526	49.8	
	36 1,1-Dichloropropene	75	6.041	6.038	(0.837)	280428	49.8993	49.9	
	37 2-Butanone	43	6.051	6.045	(0.921)	83056	49.2175	49.2	
	38 Benzene	78	6.382	6.379	(0.884)	768626	49.3837	49.4	
	39 Propionitrile	54	6.427	6.427	(0.978)	282631	479.857	480	
	40 Methacrylonitrile	41	6.462	6.459	(0.984)	1040385	501.287	501	
$	41 1,2-Dichloroethane-D4	65	6.572	6.566	(1.000)	159891	48.2457	48.2	
*	42 Pentafluorobenzene	168	6.568	6.566	(1.000)	259853	50.0000		
	43 Tertiary-amyl methyl ether	73	6.601	6.604	(1.005)	473093	51.4252	51.4	
	44 Isobutyl Alcohol	43	6.810	6.813	(1.037)	168423	883.106	883	
	45 1,2-Dichloroethane	62	6.658	6.656	(0.922)	245774	47.3120	47.3	
	46 Methylcyclohexane	83	7.134	7.128	(1.086)	348634	53.9882	54.0	
	47 Trichloroethene	95	7.160	7.157	(0.992)	192635	49.7604	49.8	
*	48 1,4-Difluorobenzene	114	7.221	7.218	(1.000)	456536	50.0000		
	49 Dibromomethane	93	7.655	7.652	(1.060)	113767	48.0067	48.0	
	50 1,2-Dichloropropane	63	7.774	7.771	(1.077)	192932	49.0878	49.1	
	51 Bromodichloromethane	83	7.874	7.874	(1.090)	238301	50.6762	50.7	
	52 1,4-Dioxane	88	8.112	8.109	(1.123)	56062	945.385	945	
	53 Methyl Methacrylate	41	8.099	8.099	(1.122)	152658	49.1085	49.1	
	54 2-Chloroethylvinylether	63	8.552	8.553	(1.184)	131698	57.5226	57.5	
	55 cis-1,3-dichloropropene	75	8.588	8.587	(1.189)	315229	53.1023	53.1	
$	56 Toluene-D8	98	8.790	8.787	(1.217)	567701	49.5678	49.6	
	57 Toluene	91	8.842	8.842	(1.224)	808679	50.4405	50.4	
	58 Tetrachloroethene	164	9.247	9.247	(0.883)	140211	48.9453	48.9	
	59 4-methyl-2-pentanone	43	9.272	9.273	(1.284)	157132	48.0661	48.1	
	60 trans-1,3-Dichloropropene	75	9.301	9.302	(1.288)	283244	52.7424	52.7	
	61 1,1,2-Trichloroethane	83	9.462	9.459	(1.310)	141973	50.5339	50.5	
	62 Ethyl Methacrylate	69	9.504	9.504	(1.316)	254593	48.3218	48.3	
	63 Dibromochloromethane	129	9.639	9.636	(0.920)	163085	51.9049	51.9	
	64 1,3-Dichloropropane	76	9.735	9.736	(0.929)	311017	49.0993	49.1	
	65 1,2-Dibromoethane	107	9.864	9.868	(1.366)	168843	50.4329	50.4	
	66 2-Hexanone	43	10.173	10.173	(0.971)	106990	47.8565	47.8	
*	67 Chlorobenzene-D5	117	10.475	10.475	(1.000)	409794	50.0000		
	68 Chlorobenzene	112	10.498	10.495	(1.002)	506386	49.6153	49.6	
	69 Ethylbenzene	91	10.552	10.553	(1.007)	920808	51.4916	51.5	
	70 1,1,1,2-Tetrachloroethane	131	10.591	10.594	(1.011)	168579	54.1246	54.1	
	71 m+p-Xylenes	91	10.752	10.749	(1.026)	1403315	104.824	105	
	72 o-Xylene	91	11.311	11.311	(1.080)	727836	53.4214	53.4	
	73 Bromoform	173	11.388	11.389	(1.087)	104838	45.7063	45.7	
	74 Styrene	104	11.382	11.382	(1.087)	544314	55.2869	55.3	
	75 Isopropylbenzene	105	11.719	11.720	(0.880)	893469	54.7231	54.7	
$	76 P-Bromofluorobenzene	95	12.044	12.041	(1.668)	221165	49.8591	49.8	
	77 Bromobenzene	156	12.153	12.151	(0.912)	194081	51.7628	51.8	
	78 cis-1,4-Dichloro-2-Butene	53	12.141	12.138	(0.911)	69298	50.3683	50.4	

Data File: \\target_server\gg\chem\gcms-c.i\C092021.b\C0732a.D
Report Date: 24-Sep-2021 13:12

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)	REVIEW CODE
	79 N-Propylbenzene	91	12.221	12.221	(0.917)	1068022	53.8406	53.8	
	80 1,1,2,2-Tetrachloroethane	83	12.311	12.311	(0.924)	225618	51.7017	51.7	
	81 2-Chlorotoluene	91	12.385	12.382	(0.930)	626645	52.0108	52.0	
	82 1,2,3-Trichloropropane	75	12.449	12.450	(0.935)	202246	50.4037	50.4	
	83 1,3,5-Trimethylbenzene	105	12.462	12.462	(0.936)	716212	54.0103	54.0	
	84 trans-1,4-Dichloro-2-Butene	53	12.514	12.511	(0.939)	72372	53.3306	53.3	
	85 4-Chlorotoluene	91	12.581	12.578	(0.944)	658239	52.3646	52.4	
	86 tert-Butylbenzene	119	12.822	12.819	(0.963)	600630	53.2313	53.2	
	87 1,2,4-Trimethylbenzene	105	12.899	12.900	(0.968)	723841	53.4432	53.4	
	88 sec-Butylbenzene	105	13.022	13.022	(0.978)	930934	55.4132	55.4	
	89 P-Isopropyltoluene	119	13.189	13.189	(0.990)	741164	55.6729	55.7	
	90 1,3-Dichlorobenzene	146	13.237	13.234	(0.994)	365769	51.9065	51.9	
*	91 1,4-Dichlorobenzene-D4	152	13.321	13.321	(1.000)	202270	50.0000		
	92 1,4-Dichlorobenzene	146	13.337	13.337	(1.001)	368153	49.6825	49.7	
	93 1,2,3-Trimethylbenzene	105	13.378	13.376	(1.004)	736199	52.9779	53.0	
	94 Pentachloroethane	165	12.825	12.832	(0.963)	425		(aR)	
	95 N-Butylbenzene	91	13.645	13.646	(1.024)	730799	55.1812	55.2	
	96 1,2-Dichlorobenzene	146	13.784	13.784	(1.035)	350647	51.6086	51.6	
	97 1,2-Dibromo-3-Chloropropane	157	14.623	14.620	(1.098)	40444	48.3499	48.3	
	98 1,3,5-Trichlorobenzene	180	14.661	14.662	(1.101)	262685	51.8006	51.8	
	99 1,2,4-Trichlorobenzene	180	15.308	15.305	(1.149)	242845	53.4869	53.5	
	100 Hexachlorobutadiene	225	15.292	15.295	(1.148)	104371	53.0473	53.0	
	101 Naphthalene	128	15.626	15.626	(1.173)	666493	50.5183	50.5	
	102 1,2,3-Trichlorobenzene	180	15.806	15.803	(1.187)	235542	53.9154	53.9	
M	103 1,2-Dichloroethylene (total)	96				372293	94.3550	94.4	
M	104 Xylenes (total)	91				2131151	158.245	158	
M	105 Total Alkylbenzenes	100				5511602	380.793	381	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.


Y (x10^6)
Min
-Dichlorodifluoromethane (1.415)
-Chloromethane (1.579)
-Vinyl chloride (1.646)
-Bromomethane (1.920)
-Chloroethane (2.026)
-Trichlorofluoromethane (2.154)
-Diethyl Ether (2.447)
-1,1-Dichloroethene (2.659)+
-Iodomethane (2.775)
-Acrolein (2.981)
-Allyl Chloride (3.129)
-Methylene Chloride (3.251)+
-trans-1,2-Dichloroethene (3.440)+
-Methyl tert-butyl ether (3.588)
-Tertiary-butyl alcohol (3.739)
-Acetonitrile (3.878)
-Di-isopropyl ether (4.119)
-Chloroprene (4.222)+
-Acrylonitrile (4.325)
-Ethyl tertiary-butyl ethe (4.682)+
-cis-1,2-Dichloroethene (5.116)
-2,2-Dichloropropane (5.286)
-Cyclohexane (5.424)+
-Chloroform (5.585)
-Carbon Tetrachloride (5.752)+
-1,1,1-Trichloroethane (5.858)+
-1,1-Dichloropropene (6.045)+
-1,2-Dichloroethane-D4 (6.572)+
Benzene (6.463)+
-Isobutyl Alcohol (6.813)
-Methylcyclohexane (7.148)+
-Dibromomethane (7.652)
-1,2-Dichloropropane (7.775)
-Bromodichloromethane (7.874)
-1,4-Dioxane (8.103)+
-2-Chloroethylvinylether (8.588)+
-Toluene-D8 (8.794)+
Toluene (8.842)
-Tetrachloroethene (9.247)+
-1,1,2-Trichloroethane (9.463)+
-Dibromochloromethane (9.640)
-1,3-Dichloropropane (9.736)
-1,2-Dibromoethane (9.865)
-2-Hexanone (10.173)
-Chlorobenzene-D5 (10.492)+
m+p-Xylenes (10.749)
-o-Xylene (11.341)
-Bromoform (11.382)+
-Isopropylbenzene (11.720)
-P-Bromofluorobenzene (12.045)
-Bromobenzene (12.151)+
-N-Propylbenzene (12.221)
-1,1,2,2-Tetrachloroethane (12.341)
-2-Chlorotoluene (12.385)
-4-Chlorotoluene (12.582)
-1,2,3-Trichloropropane (12.463)+
-tert-Butylbenzene (12.819)+
-sec-Butylbenzene (13.022)
-1,3-Dichlorobenzene
1,4-Dichlorobenzene-D4 (17.331)+
-N-Butylbenzene (13.046)
-1,2-Dichlorobenzene (13.784)
-1,2-Dibromo-3-Chloropropa (14.623)
-1,3,5-Trichlorobenzene (14.662)
-1,2,4-Trichlorobenzene (15.302)+
-Naphthalene (15.626)
-1,2,3-Trichlorobenzene (15.806)
-1,2-Dichloroethylene (tot (17.080)
Data File: \\target_server\gg\chem\gcms-c.i\C092021.b\C0732a.D
Date : 20-SEP-2021 13:55
Client ID:
Sample Info: WG306314-10,S06182
Purge Volume: 5.0
Column phase: RTX-VMS
Instrument: gcms-c.i
Operator: ES
Column diameter: 0.18
\\target_server\gg\chem\gcms-c.i\C092021.b\C0732a.D

Data File: \\target_server\gg\chem\gcms-c.i\C092021.b\C0724.D
Report Date: 24-Sep-2021 13:11

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-c.i\C092021.b\C0724.D
Lab Smp Id: WG306314-4
Inj Date : 20-SEP-2021 09:15
Operator : ES Inst ID: gcms-c.i
Smp Info : WG306314-4
Misc Info :
Comment   : SW846 5030
Method   : \\target_server\gg\chem\gcms-c.i\C092021.b\C8A05(51).m
Meth Date : 21-Sep-2021 08:25 hgould Quant Type: ISTD
Cal Date : 20-SEP-2021 09:15 Cal File: C0724.D
Als bottle: 1 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.12

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)	REVIEW CODE
1	Dichlorodifluoromethane	85	1.411	1.411	(0.215)	134715	50.0000	48.9	
2	Chloromethane	50	1.578	1.579	(0.240)	168407	50.0000	48.2	
3	Vinyl chloride	62	1.642	1.643	(0.250)	153298	50.0000	46.9	
4	Bromomethane	94	1.919	1.919	(0.292)	87850	50.0000	46.8	
5	Chloroethane	64	2.019	2.019	(0.308)	81571	50.0000	49.9	
6	Trichlorofluoromethane	101	2.150	2.150	(0.328)	237511	50.0000	48.0	
7	Diethyl Ether	59	2.443	2.444	(0.372)	118077	50.0000	47.2	
8	1,1-Dichloroethene	96	2.630	2.630	(0.401)	146653	50.0000	46.4	
9	Carbon Disulfide	76	2.655	2.656	(0.404)	333786	50.0000	48.6	
10	Freon-113	151	2.681	2.681	(0.408)	102912	50.0000	49.4	
11	Iodomethane	142	2.771	2.772	(0.422)	129479	50.0000	45.7	
12	Acrolein	56	2.977	2.977	(0.453)	61467	250.000	255	
13	Allyl Chloride	41	3.128	3.128	(0.476)	170062	50.0000	46.2	
14	Methylene Chloride	84	3.247	3.247	(0.495)	186272	50.0000	53.4	
15	Acetone	43	3.311	3.312	(0.504)	273066	250.000	264	
16	trans-1,2-Dichloroethene	96	3.433	3.434	(0.523)	180538	50.0000	47.5	
17	Methyl Acetate	43	3.469	3.469	(0.528)	174878	50.0000	49.7	
18	Methyl tert-butyl ether	73	3.591	3.591	(0.547)	521898	50.0000	50.0	
19	Tertiary-butyl alcohol	59	3.745	3.746	(0.571)	96444	250.000	245	
20	Acetonitrile	41	3.877	3.878	(0.591)	251833	500.000	474	
21	Di-isopropyl ether	45	4.121	4.122	(0.628)	532345	50.0000	50.4	
22	Chloroprene	53	4.218	4.218	(0.643)	274249	50.0000	50.1	
23	1,1-Dichloroethane	63	4.244	4.244	(0.646)	334762	50.0000	47.9	
24	Acrylonitrile	52	4.324	4.325	(0.659)	318926	250.000	263	

Data File: \\target_server\gg\chem\gcms-c.i\C092021.b\C0724.D
Report Date: 24-Sep-2021 13:11

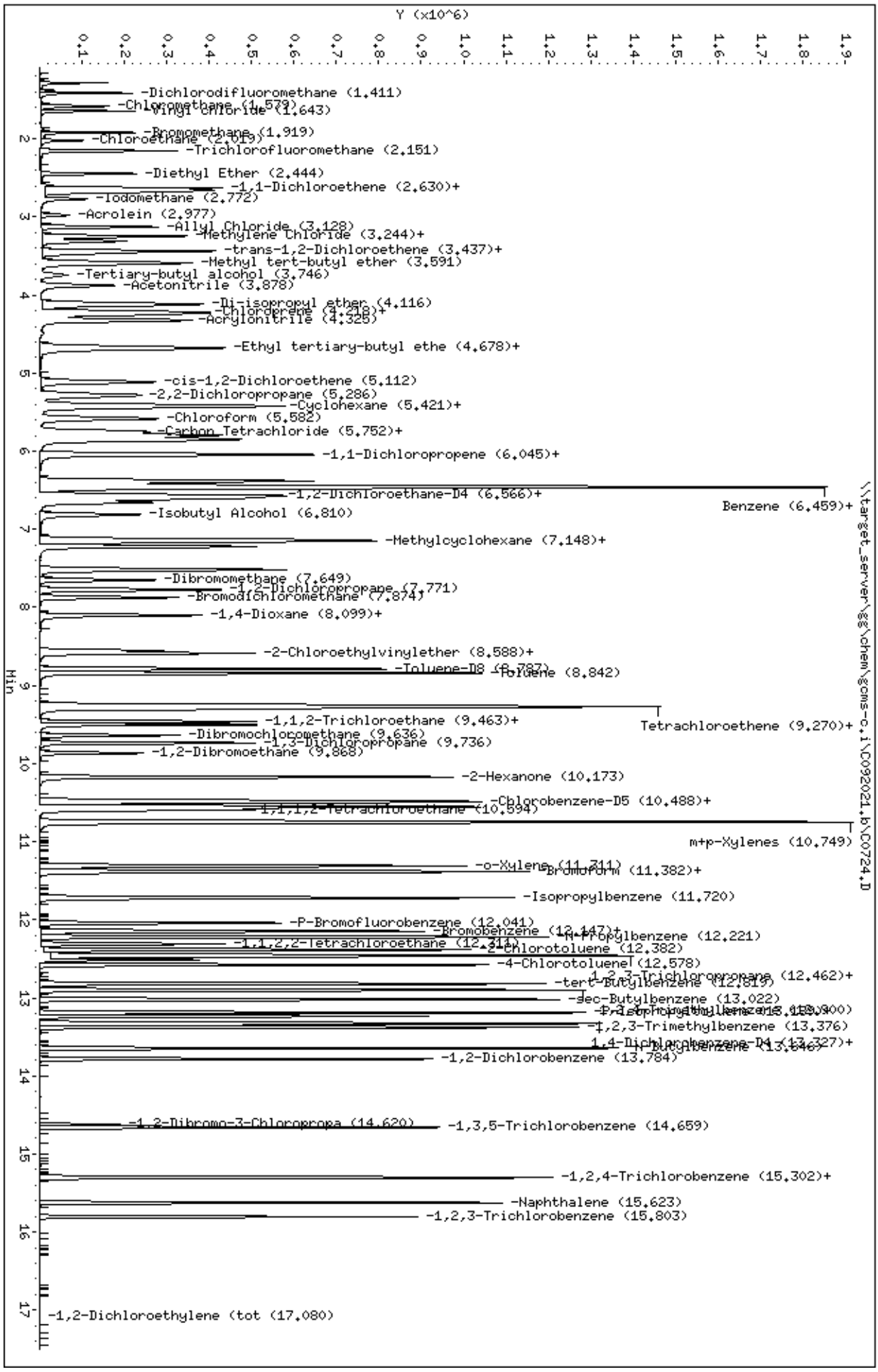
			QUANT SIG					AMOUNTS		
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)	REVIEW CODE
	25	Ethyl tertiary-butyl ether	59	4.674	4.675	(0.712)	514969	50.0000	51.3	
	26	Vinyl Acetate	43	4.678	4.678	(0.648)	273684	50.0000	53.4	
	27	cis-1,2-Dichloroethene	96	5.105	5.106	(0.778)	194081	50.0000	48.2	
	28	2,2-Dichloropropane	77	5.285	5.286	(0.805)	277844	50.0000	53.5	
	29	Cyclohexane	56	5.420	5.421	(0.826)	317163	50.0000	50.4	
	30	Bromochloromethane	128	5.424	5.424	(0.826)	75325	50.0000	49.2	
	31	Chloroform	83	5.581	5.582	(0.850)	336305	50.0000	49.4	
	32	Carbon Tetrachloride	117	5.752	5.752	(0.797)	255324	50.0000	51.0	
	33	Tetrahydrofuran	42	5.797	5.797	(0.883)	344761	250.000	261	
	34	1,1,1-Trichloroethane	97	5.851	5.852	(0.891)	313384	50.0000	50.4	
$	35	Dibromofluoromethane	113	5.848	5.849	(0.891)	130758	50.0000	49.2	
	36	1,1-Dichloropropene	75	6.038	6.038	(0.837)	275937	50.0000	49.9	
	37	2-Butanone	43	6.044	6.045	(0.921)	434129	250.000	259	
	38	Benzene	78	6.379	6.379	(0.884)	744533	50.0000	48.6	
	39	Propionitrile	54	6.427	6.427	(0.979)	289673	500.000	496	
	40	Methacrylonitrile	41	6.459	6.459	(0.984)	1074615	500.000	522	
$	41	1,2-Dichloroethane-D4	65	6.565	6.566	(1.000)	160734	50.0000	48.9	
*	42	Pentafluorobenzene	168	6.565	6.566	(1.000)	257637	50.0000		
	43	Tertiary-amyl methyl ether	73	6.604	6.604	(1.006)	484477	50.0000	53.1	
	44	Isobutyl Alcohol	43	6.813	6.813	(1.038)	178756	1000.00	957	
	45	1,2-Dichloroethane	62	6.655	6.656	(0.922)	249600	50.0000	48.8	
	46	Methylcyclohexane	83	7.128	7.128	(1.086)	336559	50.0000	52.6	
	47	Trichloroethene	95	7.157	7.157	(0.992)	183172	50.0000	48.0	
*	48	1,4-Difluorobenzene	114	7.218	7.218	(1.000)	449575	50.0000		
	49	Dibromomethane	93	7.652	7.652	(1.060)	118434	50.0000	50.7	
	50	1,2-Dichloropropane	63	7.771	7.771	(1.077)	190032	50.0000	49.1	
	51	Bromodichloromethane	83	7.874	7.874	(1.091)	239507	50.0000	51.7	
	52	1,4-Dioxane	88	8.108	8.109	(1.123)	57276	1000.00	981	
	53	Methyl Methacrylate	41	8.099	8.099	(1.122)	157379	50.0000	51.4	
	54	2-Chloroethylvinylether	63	8.552	8.553	(1.185)	130304	50.0000	57.8	
	55	cis-1,3-dichloropropene	75	8.588	8.587	(1.190)	314466	50.0000	53.8	
$	56	Toluene-D8	98	8.787	8.787	(1.217)	562370	50.0000	49.9	
	57	Toluene	91	8.842	8.842	(1.225)	779482	50.0000	49.4	
	58	Tetrachloroethene	164	9.247	9.247	(0.883)	141673	50.0000	49.5	
	59	4-methyl-2-pentanone	43	9.272	9.273	(1.285)	907642	250.000	282	
	60	trans-1,3-Dichloropropene	75	9.301	9.302	(1.289)	288406	50.0000	54.5	
	61	1,1,2-Trichloroethane	83	9.459	9.459	(1.310)	141674	50.0000	51.2	
	62	Ethyl Methacrylate	69	9.504	9.504	(1.317)	269282	50.0000	51.9	
	63	Dibromochloromethane	129	9.636	9.636	(0.920)	172887	50.0000	55.1	
	64	1,3-Dichloropropane	76	9.735	9.736	(0.929)	318639	50.0000	50.3	
	65	1,2-Dibromoethane	107	9.867	9.868	(1.367)	169378	50.0000	51.4	
	66	2-Hexanone	43	10.173	10.173	(0.971)	645525	250.000	289	
*	67	Chlorobenzene-D5	117	10.475	10.475	(1.000)	409442	50.0000		
	68	Chlorobenzene	112	10.494	10.495	(1.002)	497841	50.0000	48.8	
	69	Ethylbenzene	91	10.552	10.553	(1.007)	898127	50.0000	50.3	
	70	1,1,1,2-Tetrachloroethane	131	10.594	10.594	(1.011)	162935	50.0000	52.4	
	71	m+p-Xylenes	91	10.748	10.749	(1.026)	1372695	100.000	103	
	72	o-Xylene	91	11.311	11.311	(1.080)	705207	50.0000	51.8	
	73	Bromoform	173	11.388	11.389	(1.087)	115504	50.0000	50.4	
	74	Styrene	104	11.382	11.382	(1.087)	534697	50.0000	54.4	
	75	Isopropylbenzene	105	11.719	11.720	(0.880)	861647	50.0000	53.2	
$	76	P-Bromofluorobenzene	95	12.041	12.041	(1.668)	220641	50.0000	50.5	
	77	Bromobenzene	156	12.150	12.151	(0.912)	188265	50.0000	50.6	
	78	cis-1,4-Dichloro-2-Butene	53	12.137	12.138	(0.911)	75826	50.0000	55.6	

Data File: \\target_server\gg\chem\gcms-c.i\C092021.b\C0724.D
Report Date: 24-Sep-2021 13:11

			QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)	REVIEW CODE
	79	N-Propylbenzene	91	12.221	12.221	(0.917)	1043614	50.0000	53.0	
	80	1,1,2,2-Tetrachloroethane	83	12.311	12.311	(0.924)	230522	50.0000	53.2	
	81	2-Chlorotoluene	91	12.382	12.382	(0.930)	614174	50.0000	51.4	
	82	1,2,3-Trichloropropane	75	12.449	12.450	(0.935)	213724	50.0000	53.7	
	83	1,3,5-Trimethylbenzene	105	12.462	12.462	(0.936)	694369	50.0000	52.8	
	84	trans-1,4-Dichloro-2-Butene	53	12.510	12.511	(0.939)	79335	50.0000	58.9	
	85	4-Chlorotoluene	91	12.578	12.578	(0.944)	646462	50.0000	51.8	
	86	tert-Butylbenzene	119	12.819	12.819	(0.962)	581903	50.0000	52.0	
	87	1,2,4-Trimethylbenzene	105	12.899	12.900	(0.968)	713553	50.0000	53.1	
	88	sec-Butylbenzene	105	13.021	13.022	(0.978)	882515	50.0000	53.0	
	89	P-Isopropyltoluene	119	13.189	13.189	(0.990)	706312	50.0000	53.5	
	90	1,3-Dichlorobenzene	146	13.234	13.234	(0.993)	353017	50.0000	50.5	
*	91	1,4-Dichlorobenzene-D4	152	13.320	13.321	(1.000)	200637	50.0000		
	92	1,4-Dichlorobenzene	146	13.337	13.337	(1.001)	363442	50.0000	49.4	
	93	1,2,3-Trimethylbenzene	105	13.375	13.376	(1.004)	722837	50.0000	52.4	
	95	N-Butylbenzene	91	13.645	13.646	(1.024)	709794	50.0000	54.0	
	96	1,2-Dichlorobenzene	146	13.783	13.784	(1.035)	335858	50.0000	49.8	
	97	1,2-Dibromo-3-Chloropropane	157	14.619	14.620	(1.098)	45285	50.0000	54.6	
	98	1,3,5-Trichlorobenzene	180	14.661	14.662	(1.101)	260120	50.0000	51.7	
	99	1,2,4-Trichlorobenzene	180	15.304	15.305	(1.149)	236543	50.0000	52.5	
	100	Hexachlorobutadiene	225	15.295	15.295	(1.148)	99936	50.0000	51.2	
	101	Naphthalene	128	15.626	15.626	(1.173)	685663	50.0000	52.6	
	102	1,2,3-Trichlorobenzene	180	15.803	15.803	(1.186)	229237	50.0000	52.9	
M	103	1,2-Dichloroethylene (total)	96				374619	50.0000	(a)	
M	104	Xylenes (total)	91				2077902	150.000	(a)	
M	105	Total Alkylbenzenes	100				5332060	50.0000	(a)	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).


Data File: \\target_server\gg\chem\gcms-c.i\C092021.b\C0724.D
Date : 20-SEP-2021 09:15
Client ID:
Sample Info: WG306314-4
Purge Volume: 5.0
Column phase: RTX-VMS
Instrument: gcms-c.i
Operator: ES
Column diameter: 0.18
Y (x10^6)
Min
\\target_server\gg\chem\gcms-c.i\C092021.b\C0724.D
-Dichlorodifluoromethane (1.411)
-Chloromethane (1.579)
-Vinyl Chloride (1.643)
-Bromomethane (1.919)
-Chloroethane (2.019)
-Trichlorofluoromethane (2.151)
-Diethyl Ether (2.444)
-1,1-Dichloroethene (2.630)+
-Iodomethane (2.772)
-Acrolein (2.977)
-Allyl Chloride (3.128)
-Methylene Chloride (3.244)+
-trans-1,2-Dichloroethene (3.437)+
-Methyl tert-butyl ether (3.591)
-Tertiary-butyl alcohol (3.746)
-Acetonitrile (3.878)
-Di-isopropyl ether (4.116)
-Chloroprene (4.278)+
-Acrylonitrile (4.328)
-Ethyl tertiary-butyl ethe (4.678)+
-cis-1,2-Dichloroethene (5.112)
-2,2-Dichloropropane (5.286)
-Cyclohexane (5.421)+
-Chloroform (5.582)
-Carbon Tetrachloride (5.752)+
-1,1-Dichloropropene (6.045)+
-1,2-Dichloroethane-D4 (6.566)+
Benzene (6.459)+
-Isobutyl Alcohol (6.810)
-Methylcyclohexane (7.148)+
-Dibromomethane (7.649)
-1,2-Dichloropropane (7.771)
-Bromodichloromethane (7.874)
-1,4-Dioxane (8.099)+
-2-Chloroethylvinylether (8.588)+
-Toluene-D8 (8.787)
Toluene (8.842)
Tetrachloroethene (9.270)+
-1,1,2-Trichloroethane (9.463)+
-Dibromochloromethane (9.636)
-1,3-Dichloropropane (9.736)
-1,2-Dibromoethane (9.868)
-2-Hexanone (10.173)
-Chlorobenzene-D5 (10.488)+
-1,1,1,2-Tetrachloroethane (10.594)
m+p-Xylenes (10.749)
-o-Xylene (11.211)
Bromoform (11.382)+
-Isopropylbenzene (11.720)
-P-Bromofluorobenzene (12.041)
-Bromobenzene (12.147)+
-n-Propylbenzene (12.221)
-1,1,2,2-Tetrachloroethane (12.311)
-2-Chlorotoluene (12.382)
-4-Chlorotoluene (12.578)
-1,2,3-Trichloropropane (12.462)+
-tert-Butylbenzene (12.819)
-sec-Butylbenzene (13.022)
-1,3,5-Trimethylbenzene (13.376)
-1,4-Dichlorobenzene-D4 (13.327)+
-1,2-Dichlorobenzene (13.784)
-1,2-Dibromo-3-Chloropropa (14.620)
-1,3,5-Trichlorobenzene (14.659)
-1,2,4-Trichlorobenzene (15.302)+
-Naphthalene (15.623)
-1,2,3-Trichlorobenzene (15.803)
-1,2-Dichloroethylene (tot (17.080)

Data File: \\target_server\gg\chem\gcms-c.i\C092021.b\C0725.D
Report Date: 24-Sep-2021 13:11

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-c.i\C092021.b\C0725.D
Lab Smp Id: WG306314-3
Inj Date : 20-SEP-2021 09:46
Operator : ES   Inst ID: gcms-c.i
Smp Info : WG306314-3
Misc Info :
Comment   : SW846 5030
Method   : \\target_server\gg\chem\gcms-c.i\C092021.b\C8A05(51).m
Meth Date : 21-Sep-2021 08:25 hgould   Quant Type: ISTD
Cal Date : 20-SEP-2021 09:46   Cal File: C0725.D
Als bottle: 2   Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE   Compound Sublist: all.sub
Target Version: 4.12

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)	REVIEW CODE
1	Dichlorodifluoromethane	85	1.411	1.411	(0.215)	51536	20.0000	19.2	
2	Chloromethane	50	1.575	1.579	(0.240)	69275	20.0000	20.3	
3	Vinyl chloride	62	1.642	1.643	(0.250)	61418	20.0000	19.2	
4	Bromomethane	94	1.919	1.919	(0.292)	37124	20.0000	20.2	
5	Chloroethane	64	2.025	2.019	(0.309)	34291	20.0000	21.5	
6	Trichlorofluoromethane	101	2.154	2.150	(0.328)	91853	20.0000	19.0	
7	Diethyl Ether	59	2.443	2.444	(0.372)	46485	20.0000	19.0	
8	1,1-Dichloroethene	96	2.626	2.630	(0.400)	57169	20.0000	18.6	
9	Carbon Disulfide	76	2.652	2.656	(0.404)	124904	20.0000	18.6	
10	Freon-113	151	2.671	2.681	(0.407)	40371	20.0000	19.8	
11	Iodomethane	142	2.768	2.772	(0.422)	44550	20.0000	16.1	
12	Acrolein	56	2.974	2.977	(0.453)	23300	100.000	99.0	
13	Allyl Chloride	41	3.128	3.128	(0.477)	73367	20.0000	20.4	
14	Methylene Chloride	84	3.247	3.247	(0.495)	75863	20.0000	22.2	
15	Acetone	43	3.311	3.312	(0.505)	119535	100.000	96.0	
16	trans-1,2-Dichloroethene	96	3.437	3.434	(0.524)	71400	20.0000	19.2	
17	Methyl Acetate	43	3.472	3.469	(0.529)	70579	20.0000	20.6	
18	Methyl tert-butyl ether	73	3.588	3.591	(0.547)	200186	20.0000	19.7	
19	Tertiary-butyl alcohol	59	3.742	3.746	(0.570)	41063	100.000	87.7	
20	Acetonitrile	41	3.880	3.878	(0.591)	105643	200.000	204	
21	Di-isopropyl ether	45	4.118	4.122	(0.628)	202960	20.0000	19.7	
22	Chloroprene	53	4.218	4.218	(0.643)	106100	20.0000	19.8	
23	1,1-Dichloroethane	63	4.244	4.244	(0.647)	132892	20.0000	19.5	
24	Acrylonitrile	52	4.324	4.325	(0.659)	118823	100.000	100	

Data File: \\target_server\gg\chem\gcms-c.i\C092021.b\C0725.D
Report Date: 24-Sep-2021 13:11

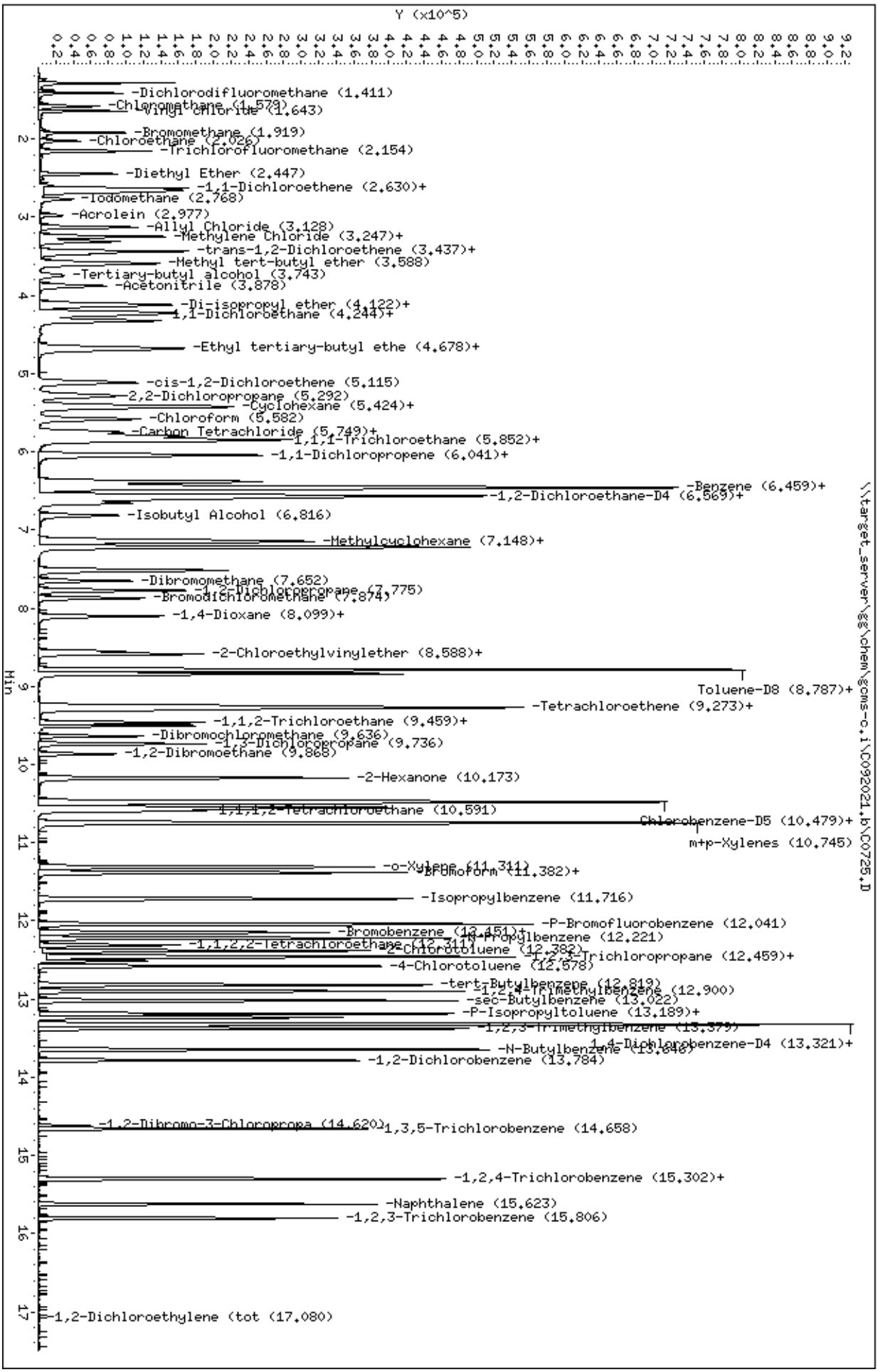
			QUANT SIG					AMOUNTS		
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)	REVIEW CODE
	25	Ethyl tertiary-butyl ether	59	4.684	4.675	(0.714)	196362	20.0000	20.0	
	26	Vinyl Acetate	43	4.681	4.678	(0.648)	102416	20.0000	20.7	
	27	cis-1,2-Dichloroethene	96	5.115	5.106	(0.780)	76640	20.0000	19.5	
	28	2,2-Dichloropropane	77	5.292	5.286	(0.806)	104032	20.0000	20.5	
	29	Cyclohexane	56	5.424	5.421	(0.827)	121178	20.0000	19.7	
	30	Bromochloromethane	128	5.427	5.424	(0.827)	30635	20.0000	20.5	
	31	Chloroform	83	5.581	5.582	(0.851)	130392	20.0000	19.6	
	32	Carbon Tetrachloride	117	5.748	5.752	(0.796)	96032	20.0000	19.8	
	33	Tetrahydrofuran	42	5.797	5.797	(0.883)	131191	100.000	102	
	34	1,1,1-Trichloroethane	97	5.851	5.852	(0.892)	120166	20.0000	19.8	
$	35	Dibromofluoromethane	113	5.851	5.849	(0.892)	129722	50.0000	50.0	
	36	1,1-Dichloropropene	75	6.041	6.038	(0.837)	105048	20.0000	19.6	
	37	2-Butanone	43	6.041	6.045	(0.921)	172280	100.000	105	
	38	Benzene	78	6.382	6.379	(0.884)	294961	20.0000	19.9	
	39	Propionitrile	54	6.427	6.427	(0.979)	117003	200.000	205	
	40	Methacrylonitrile	41	6.459	6.459	(0.984)	421456	200.000	210	
$	41	1,2-Dichloroethane-D4	65	6.568	6.566	(1.001)	157589	50.0000	49.1	
*	42	Pentafluorobenzene	168	6.562	6.566	(1.000)	251513	50.0000		
	43	Tertiary-amyl methyl ether	73	6.604	6.604	(1.006)	175036	20.0000	19.6	
	44	Isobutyl Alcohol	43	6.806	6.813	(1.037)	73055	400.000	357	
	45	1,2-Dichloroethane	62	6.658	6.656	(0.922)	97139	20.0000	19.6	
	46	Methylcyclohexane	83	7.134	7.128	(1.087)	126790	20.0000	20.3	
	47	Trichloroethene	95	7.160	7.157	(0.992)	72092	20.0000	19.6	
*	48	1,4-Difluorobenzene	114	7.221	7.218	(1.000)	434606	50.0000		
	49	Dibromomethane	93	7.652	7.652	(1.060)	44927	20.0000	19.9	
	50	1,2-Dichloropropane	63	7.771	7.771	(1.076)	71557	20.0000	19.1	
	51	Bromodichloromethane	83	7.874	7.874	(1.090)	87285	20.0000	19.5	
	52	1,4-Dioxane	88	8.115	8.109	(1.124)	26772	400.000	474	
	53	Methyl Methacrylate	41	8.102	8.099	(1.122)	57506	20.0000	19.4	
	54	2-Chloroethylvinylether	63	8.552	8.553	(1.184)	45323	20.0000	20.8	
	55	cis-1,3-dichloropropene	75	8.587	8.587	(1.189)	112426	20.0000	19.9	
$	56	Toluene-D8	98	8.787	8.787	(1.217)	544523	50.0000	49.9	
	57	Toluene	91	8.842	8.842	(1.224)	305558	20.0000	20.0	
	58	Tetrachloroethene	164	9.247	9.247	(0.883)	53873	20.0000	19.4	
	59	4-methyl-2-pentanone	43	9.272	9.273	(1.284)	332312	100.000	107	
	60	trans-1,3-Dichloropropene	75	9.301	9.302	(1.288)	102346	20.0000	20.0	
	61	1,1,2-Trichloroethane	83	9.462	9.459	(1.310)	53115	20.0000	19.8	
	62	Ethyl Methacrylate	69	9.504	9.504	(1.316)	94633	20.0000	18.9	
	63	Dibromochloromethane	129	9.636	9.636	(0.920)	59986	20.0000	19.7	
	64	1,3-Dichloropropane	76	9.735	9.736	(0.930)	120160	20.0000	19.6	
	65	1,2-Dibromoethane	107	9.867	9.868	(1.366)	63663	20.0000	20.0	
	66	2-Hexanone	43	10.173	10.173	(0.971)	235409	100.000	109	
*	67	Chlorobenzene-D5	117	10.472	10.475	(1.000)	397081	50.0000		
	68	Chlorobenzene	112	10.497	10.495	(1.002)	193383	20.0000	19.6	
	69	Ethylbenzene	91	10.552	10.553	(1.008)	346745	20.0000	20.0	
	70	1,1,1,2-Tetrachloroethane	131	10.591	10.594	(1.011)	58960	20.0000	19.5	
	71	m+p-Xylenes	91	10.745	10.749	(1.026)	532588	40.0000	41.0	
	72	o-Xylene	91	11.311	11.311	(1.080)	270278	20.0000	20.5	
	73	Bromoform	173	11.388	11.389	(1.088)	37475	20.0000	16.9	
	74	Styrene	104	11.382	11.382	(1.087)	197479	20.0000	20.7	
	75	Isopropylbenzene	105	11.719	11.720	(0.880)	327932	20.0000	20.4	
$	76	P-Bromofluorobenzene	95	12.041	12.041	(1.667)	210256	50.0000	49.8	
	77	Bromobenzene	156	12.150	12.151	(0.912)	72593	20.0000	19.7	
	78	cis-1,4-Dichloro-2-Butene	53	12.140	12.138	(0.911)	25982	20.0000	19.2	

Data File: \\target_server\gg\chem\gcms-c.i\C092021.b\C0725.D
Report Date: 24-Sep-2021 13:11

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)	REVIEW CODE
	79 N-Propylbenzene	91	12.221	12.221	(0.917)	401544	20.0000	20.6	
	80 1,1,2,2-Tetrachloroethane	83	12.308	12.311	(0.924)	87027	20.0000	20.3	
	81 2-Chlorotoluene	91	12.382	12.382	(0.930)	236463	20.0000	20.0	
	82 1,2,3-Trichloropropane	75	12.449	12.450	(0.935)	77589	20.0000	19.7	
	83 1,3,5-Trimethylbenzene	105	12.462	12.462	(0.936)	262481	20.0000	20.2	
	84 trans-1,4-Dichloro-2-Butene	53	12.510	12.511	(0.939)	26230	20.0000	19.7	
	85 4-Chlorotoluene	91	12.574	12.578	(0.944)	247157	20.0000	20.0	
	86 tert-Butylbenzene	119	12.819	12.819	(0.962)	223544	20.0000	20.2	
	87 1,2,4-Trimethylbenzene	105	12.899	12.900	(0.968)	274653	20.0000	20.6	
	88 sec-Butylbenzene	105	13.021	13.022	(0.978)	341108	20.0000	20.7	
	89 P-Isopropyltoluene	119	13.189	13.189	(0.990)	268750	20.0000	20.6	
	90 1,3-Dichlorobenzene	146	13.237	13.234	(0.994)	137390	20.0000	19.8	
*	91 1,4-Dichlorobenzene-D4	152	13.320	13.321	(1.000)	198623	50.0000		
	92 1,4-Dichlorobenzene	146	13.337	13.337	(1.001)	140306	20.0000	19.3	
	93 1,2,3-Trimethylbenzene	105	13.375	13.376	(1.004)	275185	20.0000	20.2	
	95 N-Butylbenzene	91	13.645	13.646	(1.024)	267808	20.0000	20.6	
	96 1,2-Dichlorobenzene	146	13.783	13.784	(1.035)	131492	20.0000	19.7	
	97 1,2-Dibromo-3-Chloropropane	157	14.619	14.620	(1.098)	13803	20.0000	16.8	
	98 1,3,5-Trichlorobenzene	180	14.658	14.662	(1.100)	101263	20.0000	20.3	
	99 1,2,4-Trichlorobenzene	180	15.307	15.305	(1.149)	91286	20.0000	20.5	
	100 Hexachlorobutadiene	225	15.291	15.295	(1.148)	39096	20.0000	20.2	
	101 Naphthalene	128	15.626	15.626	(1.173)	247332	20.0000	18.1	
	102 1,2,3-Trichlorobenzene	180	15.806	15.803	(1.187)	87738	20.0000	20.4	
M	103 1,2-Dichloroethylene (total)	96				148040	20.0000	(a)	
M	104 Xylenes (total)	91				802866	60.0000	(a)	
M	105 Total Alkylbenzenes	100				2039888	20.0000	(a)	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).


Data File: \\target_server\gg\chem\gcms-c.i\C092021.b\C0725.D
Date : 20-SEP-2021 09:46
Client ID:
Sample Info: WG306314-3
Purge Volume: 5.0
Column phase: RTX-VMS
Instrument: gcms-c.i
Operator: ES
Column diameter: 0.18
Y (x10^5)
Min
\\target_server\gg\chem\gcms-c.i\C092021.b\C0725.D
-Dichlorodifluoromethane (1.411)
-Chloromethane (1.579)
Vinyl chloride (1.643)
-Bromomethane (1.919)
-Chloroethane (2.026)
-Trichlorofluoromethane (2.154)
-Diethyl Ether (2.447)
-1,1-Dichloroethene (2.630)+
-Iodomethane (2.768)
-Acrolein (2.977)
-Allyl Chloride (3.128)
-Methylene Chloride (3.247)+
-trans-1,2-Dichloroethene (3.437)+
-Methyl tert-butyl ether (3.588)
-Tertiary-butyl alcohol (3.743)
-Acetonitrile (3.878)
-Di-isopropyl ether (4.122)+
1,1-Dichloroethane (4.244)+
-Ethyl tertiary-butyl ethe (4.678)+
-cis-1,2-Dichloroethene (5.115)
2,2-Dichloropropane (5.292)
-Cyclohexane (5.424)+
-Chloroform (5.582)
-Carbon Tetrachloride (5.749)+
1,1,1-Trichloroethane (5.852)+
-1,1-Dichloropropene (6.041)+
-Benzene (6.459)+
-1,2-Dichloroethane-D4 (6.569)+
-Isobutyl Alcohol (6.816)
-Methylcyclohexane (7.148)+
-Dibromomethane (7.652)
-1,2-Dichloropropane (7.775)
-Bromodichloromethane (7.874)
-1,4-Dioxane (8.099)+
-2-Chloroethylvinylether (8.588)+
Toluene-D8 (8.787)+
-Tetrachloroethene (9.273)+
-1,1,2-Trichloroethane (9.459)+
-Dibromochloromethane (9.636)
-1,3-Dichloropropane (9.736)
-1,2-Dibromoethane (9.868)
-2-Hexanone (10.173)
1,1,1,2-Tetrachloroethane (10.591)
Chlorobenzene-D5 (10.479)+
m+p-Xylenes (10.745)
-o-Xylene (11.311)
Bromoform (11.382)+
-Isopropylbenzene (11.716)
-P-Bromofluorobenzene (12.041)
-Bromobenzene (12.151)+
-n-Propylbenzene (12.221)
-1,1,2,2-Tetrachloroethane (12.311)
-2-Chlorotoluene (12.382)
-1,2,3-Trichloropropane (12.459)+
-4-Chlorotoluene (12.578)
-tert-Butylbenzene (12.819)
-1,2,4-Trimethylbenzene (12.900)
-sec-Butylbenzene (13.022)
-P-Isopropyltoluene (13.189)+
-1,2,3-Trimethylbenzene (13.379)
1,4-Dichlorobenzene-D4 (13.321)+
-N-Butylbenzene (13.646)
-1,2-Dichlorobenzene (13.784)
-1,2-Dibromo-3-Chloropropa (14.620)
1,3,5-Trichlorobenzene (14.658)
-1,2,4-Trichlorobenzene (15.302)+
-Naphthalene (15.623)
-1,2,3-Trichlorobenzene (15.806)
-1,2-Dichloroethylene (tot (17.080)

Data File: \\target_server\gg\chem\gcms-c.i\C092021.b\C0726.D
Report Date: 24-Sep-2021 13:11

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-c.i\C092021.b\C0726.D
Lab Smp Id: WG306314-8
Inj Date : 20-SEP-2021 10:17
Operator : ES Inst ID: gcms-c.i
Smp Info : WG306314-8
Misc Info :
Comment : SW846 5030
Method : \\target_server\gg\chem\gcms-c.i\C092021.b\C8A05(51).m
Meth Date : 21-Sep-2021 08:25 hgould Quant Type: ISTD
Cal Date : 20-SEP-2021 10:17 Cal File: C0726.D
Als bottle: 3 Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.12

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)	REVIEW CODE
1	Dichlorodifluoromethane	85	1.411	1.411	(0.215)	26445	10.0000	9.7	
2	Chloromethane	50	1.581	1.579	(0.241)	34919	10.0000	10.0	
3	Vinyl chloride	62	1.643	1.643	(0.250)	30239	10.0000	9.3	
4	Bromomethane	94	1.919	1.919	(0.292)	19890	10.0000	10.6	
5	Chloroethane	64	2.025	2.019	(0.309)	17756	10.0000	10.9	
6	Trichlorofluoromethane	101	2.154	2.150	(0.328)	47400	10.0000	9.6	
7	Diethyl Ether	59	2.443	2.444	(0.372)	25368	10.0000	10.2	
8	1,1-Dichloroethene	96	2.630	2.630	(0.401)	29264	10.0000	9.3	
9	Carbon Disulfide	76	2.655	2.656	(0.405)	62948	10.0000	9.2	
10	Freon-113	151	2.671	2.681	(0.407)	21132	10.0000	10.2	
11	Iodomethane	142	2.771	2.772	(0.422)	19784	10.0000	7.0	
12	Acrolein	56	2.977	2.977	(0.453)	12681	50.0000	53.0	
13	Allyl Chloride	41	3.125	3.128	(0.476)	35876	10.0000	9.8	
14	Methylene Chloride	84	3.247	3.247	(0.495)	40715	10.0000	11.7	
15	Acetone	43	3.311	3.312	(0.504)	60859	50.0000	43.5	
16	trans-1,2-Dichloroethene	96	3.437	3.434	(0.524)	37252	10.0000	9.9	
17	Methyl Acetate	43	3.472	3.469	(0.529)	38867	10.0000	11.1	
18	Methyl tert-butyl ether	73	3.594	3.591	(0.547)	103823	10.0000	10.0	
19	Tertiary-butyl alcohol	59	3.749	3.746	(0.571)	22295	50.0000	43.1	
20	Acetonitrile	41	3.877	3.878	(0.591)	56923	100.000	108	
21	Di-isopropyl ether	45	4.122	4.122	(0.628)	106558	10.0000	10.2	
22	Chloroprene	53	4.221	4.218	(0.643)	56141	10.0000	10.3	
23	1,1-Dichloroethane	63	4.244	4.244	(0.646)	69110	10.0000	10	
24	Acrylonitrile	52	4.324	4.325	(0.659)	66157	50.0000	54.9	

Data File: \\target_server\gg\chem\gcms-c.i\C092021.b\C0726.D
Report Date: 24-Sep-2021 13:11

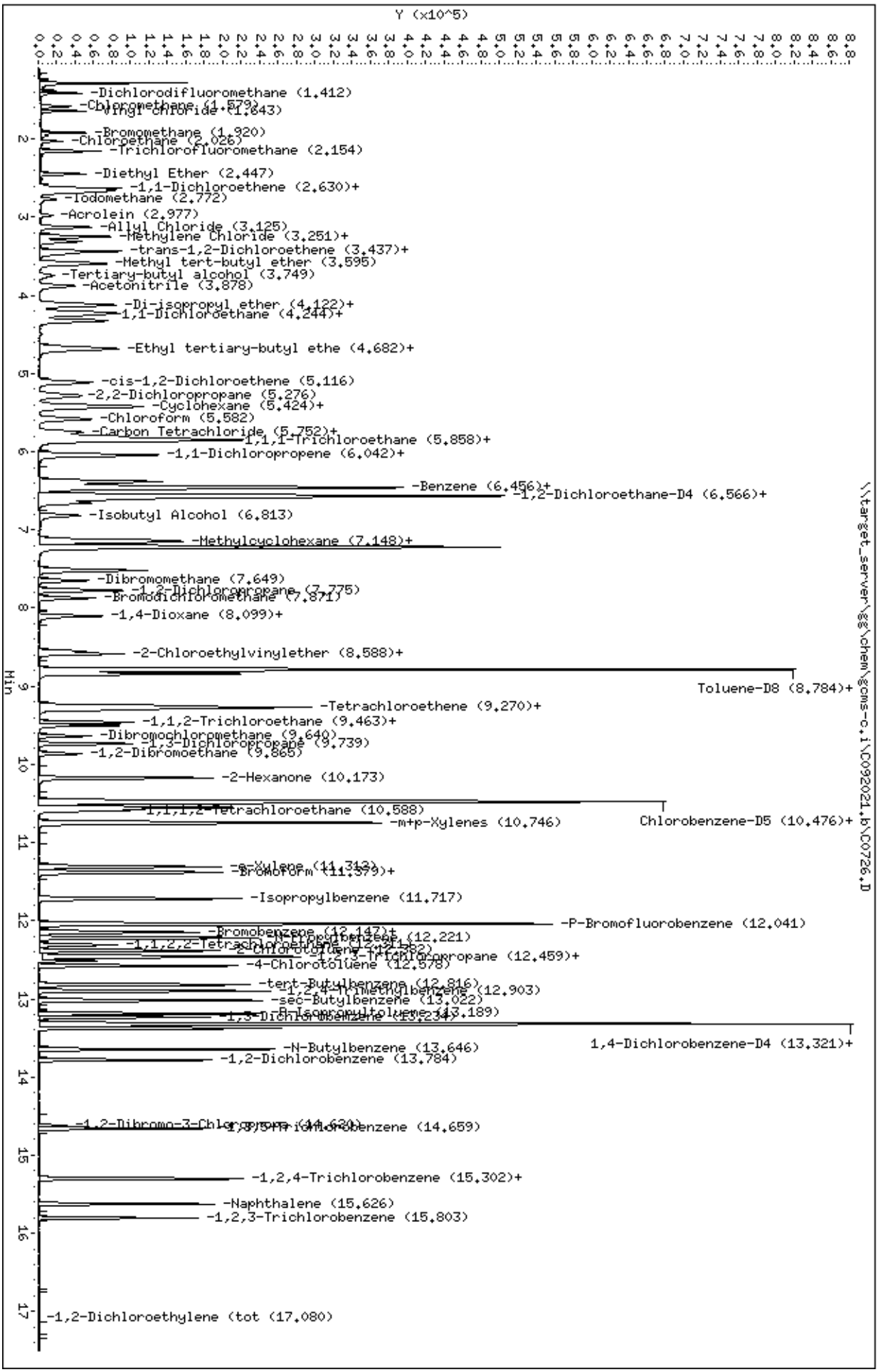
			QUANT SIG					AMOUNTS		
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)	REVIEW CODE
	25	Ethyl tertiary-butyl ether	59	4.687	4.675	(0.714)	99499	10.0000	10	
	26	Vinyl Acetate	43	4.675	4.678	(0.647)	52203	10.0000	10.2	
	27	cis-1,2-Dichloroethene	96	5.115	5.106	(0.779)	40474	10.0000	10.1	
	28	2,2-Dichloropropane	77	5.276	5.286	(0.804)	50869	10.0000	9.8	
	29	Cyclohexane	56	5.424	5.421	(0.826)	59390	10.0000	9.5	
	30	Bromochloromethane	128	5.427	5.424	(0.827)	14943	10.0000	9.8	
	31	Chloroform	83	5.581	5.582	(0.850)	68175	10.0000	10.1	
	32	Carbon Tetrachloride	117	5.752	5.752	(0.797)	47153	10.0000	9.5	
	33	Tetrahydrofuran	42	5.800	5.797	(0.883)	70560	50.0000	53.7	
	34	1,1,1-Trichloroethane	97	5.858	5.852	(0.892)	59201	10.0000	9.6	
$	35	Dibromofluoromethane	113	5.851	5.849	(0.891)	129461	50.0000	49.1	
	36	1,1-Dichloropropene	75	6.041	6.038	(0.837)	53667	10.0000	9.8	
	37	2-Butanone	43	6.051	6.045	(0.922)	91414	50.0000	55.0	
	38	Benzene	78	6.379	6.379	(0.883)	152971	10.0000	10.0	
	39	Propionitrile	54	6.430	6.427	(0.979)	63502	100.000	109	
	40	Methacrylonitrile	41	6.456	6.459	(0.983)	230073	100.000	112	
$	41	1,2-Dichloroethane-D4	65	6.568	6.566	(1.000)	162449	50.0000	49.8	
*	42	Pentafluorobenzene	168	6.565	6.566	(1.000)	255994	50.0000		
	43	Tertiary-amyl methyl ether	73	6.601	6.604	(1.005)	89388	10.0000	9.9	
	44	Isobutyl Alcohol	43	6.813	6.813	(1.038)	34014	200.000	156	
	45	1,2-Dichloroethane	62	6.662	6.656	(0.923)	50857	10.0000	10	
	46	Methylcyclohexane	83	7.131	7.128	(1.086)	66967	10.0000	10.5	
	47	Trichloroethene	95	7.157	7.157	(0.991)	37981	10.0000	10.0	
*	48	1,4-Difluorobenzene	114	7.221	7.218	(1.000)	447127	50.0000		
	49	Dibromomethane	93	7.649	7.652	(1.059)	22960	10.0000	9.9	
	50	1,2-Dichloropropane	63	7.771	7.771	(1.076)	38625	10.0000	10.0	
	51	Bromodichloromethane	83	7.871	7.874	(1.090)	44908	10.0000	9.8	
	52	1,4-Dioxane	88	8.115	8.109	(1.124)	13441	200.000	231	
	53	Methyl Methacrylate	41	8.099	8.099	(1.122)	28937	10.0000	9.5	
	54	2-Chloroethylvinylether	63	8.552	8.553	(1.184)	23734	10.0000	10.6	
	55	cis-1,3-dichloropropene	75	8.588	8.587	(1.189)	54930	10.0000	9.4	
$	56	Toluene-D8	98	8.784	8.787	(1.216)	558904	50.0000	49.8	
	57	Toluene	91	8.838	8.842	(1.224)	159684	10.0000	10.2	
	58	Tetrachloroethene	164	9.244	9.247	(0.882)	27915	10.0000	9.8	
	59	4-methyl-2-pentanone	43	9.273	9.273	(1.284)	179141	50.0000	56.0	
	60	trans-1,3-Dichloropropene	75	9.298	9.302	(1.288)	50988	10.0000	9.7	
	61	1,1,2-Trichloroethane	83	9.462	9.459	(1.310)	28207	10.0000	10.2	
	62	Ethyl Methacrylate	69	9.504	9.504	(1.316)	47340	10.0000	9.2	
	63	Dibromochloromethane	129	9.639	9.636	(0.920)	29719	10.0000	9.5	
	64	1,3-Dichloropropane	76	9.739	9.736	(0.930)	63236	10.0000	10.0	
	65	1,2-Dibromoethane	107	9.864	9.868	(1.366)	33115	10.0000	10.1	
	66	2-Hexanone	43	10.173	10.173	(0.971)	123603	50.0000	55.6	
*	67	Chlorobenzene-D5	117	10.475	10.475	(1.000)	407472	50.0000		
	68	Chlorobenzene	112	10.494	10.495	(1.002)	101017	10.0000	10	
	69	Ethylbenzene	91	10.552	10.553	(1.007)	180118	10.0000	10.1	
	70	1,1,1,2-Tetrachloroethane	131	10.588	10.594	(1.011)	30005	10.0000	9.7	
	71	m+p-Xylenes	91	10.745	10.749	(1.026)	273960	20.0000	20.6	
	72	o-Xylene	91	11.311	11.311	(1.080)	134249	10.0000	9.9	
	73	Bromoform	173	11.391	11.389	(1.087)	17900	10.0000	7.8	
	74	Styrene	104	11.379	11.382	(1.086)	96634	10.0000	9.9	
	75	Isopropylbenzene	105	11.716	11.720	(0.880)	165935	10.0000	10.2	
$	76	P-Bromofluorobenzene	95	12.044	12.041	(1.668)	215401	50.0000	49.6	
	77	Bromobenzene	156	12.150	12.151	(0.912)	38164	10.0000	10.2	
	78	cis-1,4-Dichloro-2-Butene	53	12.141	12.138	(0.912)	13115	10.0000	9.6	

Data File: \\target_server\gg\chem\gcms-c.i\C092021.b\C0726.D
Report Date: 24-Sep-2021 13:11

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)	REVIEW CODE
	79 N-Propylbenzene	91	12.221	12.221	(0.918)	203721	10.0000	10.3	
	80 1,1,2,2-Tetrachloroethane	83	12.308	12.311	(0.924)	45443	10.0000	10.4	
	81 2-Chlorotoluene	91	12.382	12.382	(0.930)	120818	10.0000	10.1	
	82 1,2,3-Trichloropropane	75	12.446	12.450	(0.935)	42070	10.0000	10.5	
	83 1,3,5-Trimethylbenzene	105	12.462	12.462	(0.936)	134141	10.0000	10.2	
	84 trans-1,4-Dichloro-2-Butene	53	12.510	12.511	(0.939)	14629	10.0000	10.8	
	85 4-Chlorotoluene	91	12.578	12.578	(0.944)	127509	10.0000	10.2	
	86 tert-Butylbenzene	119	12.819	12.819	(0.963)	112833	10.0000	10.0	
	87 1,2,4-Trimethylbenzene	105	12.903	12.900	(0.969)	137841	10.0000	10.2	
	88 sec-Butylbenzene	105	13.022	13.022	(0.978)	167906	10.0000	10.0	
	89 P-Isopropyltoluene	119	13.189	13.189	(0.990)	134322	10.0000	10.1	
	90 1,3-Dichlorobenzene	146	13.237	13.234	(0.994)	71255	10.0000	10.2	
*	91 1,4-Dichlorobenzene-D4	152	13.317	13.321	(1.000)	201426	50.0000		
	92 1,4-Dichlorobenzene	146	13.333	13.337	(1.001)	73740	10.0000	10	
	93 1,2,3-Trimethylbenzene	105	13.375	13.376	(1.004)	140747	10.0000	10.2	
	95 N-Butylbenzene	91	13.645	13.646	(1.025)	132198	10.0000	10.0	
	96 1,2-Dichlorobenzene	146	13.784	13.784	(1.035)	68019	10.0000	10.0	
	97 1,2-Dibromo-3-Chloropropane	157	14.623	14.620	(1.098)	7240	10.0000	8.7	
	98 1,3,5-Trichlorobenzene	180	14.658	14.662	(1.101)	50002	10.0000	9.9	
	99 1,2,4-Trichlorobenzene	180	15.304	15.305	(1.149)	43826	10.0000	9.7	
	100 Hexachlorobutadiene	225	15.292	15.295	(1.148)	19159	10.0000	9.8	
	101 Naphthalene	128	15.626	15.626	(1.173)	115981	10.0000	8.2	
	102 1,2,3-Trichlorobenzene	180	15.803	15.803	(1.187)	43270	10.0000	9.9	
M	103 1,2-Dichloroethylene (total)	96				77726	10.0000	(a)	
M	104 Xylenes (total)	91				408209	10.0000	(a)	
M	105 Total Alkylbenzenes	100				1022962	10.0000	(a)	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).


Data File: \\target_server\gg\chem\gcms-c.i\C092021.b\C0726.D
Date : 20-SEP-2021 10:17
Client ID:
Sample Info: WG306314-8
Purge Volume: 5.0
Column phase: RTX-VMS
Instrument: gcms-c.i
Operator: ES
Column diameter: 0.18
\\target_server\gg\chem\gcms-c.i\C092021.b\C0726.D
Y (x10^5)
Min
-Dichlorodifluoromethane (1.412)
-Chloromethane (1.579)
-Vinyl chloride (1.643)
-Bromomethane (1.920)
-Chloroethane (2.026)
-Trichlorofluoromethane (2.154)
-Diethyl Ether (2.447)
-1,1-Dichloroethene (2.630)+
-Iodomethane (2.772)
-Acrolein (2.977)
-Allyl Chloride (3.125)
-Methylene Chloride (3.251)+
-trans-1,2-Dichloroethene (3.437)+
-Methyl tert-butyl ether (3.595)
-Tertiary-butyl alcohol (3.749)
-Acetonitrile (3.878)
-Di-isopropyl ether (4.122)+
-1,1-Dichloroethane (4.244)+
-Ethyl tertiary-butyl ethe (4.682)+
-cis-1,2-Dichloroethene (5.116)
-2,2-Dichloropropane (5.276)
-Cyclohexane (5.424)+
-Chloroform (5.582)
-Carbon Tetrachloride (5.752)+
-1,1,1-Trichloroethane (5.858)+
-1,1-Dichloropropene (6.042)+
-Benzene (6.456)+
-1,2-Dichloroethane-D4 (6.566)+
-Isobutyl Alcohol (6.813)
-Methylcyclohexane (7.148)+
-Dibromomethane (7.649)
-1,2-Dichloropropane (7.775)
-Bromodichloromethane (7.871)
-1,4-Dioxane (8.099)+
-2-Chloroethylvinylether (8.588)+
Toluene-D8 (8.784)+
-Tetrachloroethene (9.270)+
-1,1,2-Trichloroethane (9.463)+
-Dibromochloromethane (9.640)
-1,3-Dichloropropane (9.739)
-1,2-Dibromoethane (9.865)
-2-Hexanone (10.173)
-1,1,1,2-Tetrachloroethane (10.588)
-m+p-Xylenes (10.746)
Chlorobenzene-D5 (10.476)+
-o-Xylene (11.313)
-Bromoform (11.579)+
-Isopropylbenzene (11.717)
-P-Bromofluorobenzene (12.041)
-Bromobenzene (12.147)+
-n-Propylbenzene (12.221)
-1,1,2,2-Tetrachloroethane (12.282)
-2-Chlorotoluene (12.341)
-1,2,3-Trichloropropane (12.459)+
-4-Chlorotoluene (12.578)
-tert-Butylbenzene (12.816)
-1,2,4-Trimethylbenzene (12.903)
-sec-Butylbenzene (13.022)
-P-Isopropyltoluene (13.189)
-1,3-Dichlorobenzene (13.234)
1,4-Dichlorobenzene-D4 (13.321)+
-N-Butylbenzene (13.646)
-1,2-Dichlorobenzene (13.784)
-1,2-Dibromo-3-Chloropropane (14.620)
-1,3,5-Trichlorobenzene (14.659)
-1,2,4-Trichlorobenzene (15.302)+
-Naphthalene (15.626)
-1,2,3-Trichlorobenzene (15.803)
-1,2-Dichloroethylene (tot (17.080)

Data File: \\target_server\gg\chem\gcms-c.i\C092021.b\C0727.D
Report Date: 24-Sep-2021 13:11

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-c.i\C092021.b\C0727.D
Lab Smp Id: WG306314-2
Inj Date : 20-SEP-2021 10:48
Operator : ES   Inst ID: gcms-c.i
Smp Info : WG306314-2
Misc Info :
Comment   : SW846 5030
Method   : \\target_server\gg\chem\gcms-c.i\C092021.b\C8A05(51).m
Meth Date : 21-Sep-2021 08:25 hgould   Quant Type: ISTD
Cal Date : 20-SEP-2021 10:48   Cal File: C0727.D
Als bottle: 4   Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE   Compound Sublist: all.sub
Target Version: 4.12

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)	REVIEW CODE
1	Dichlorodifluoromethane	85	1.414	1.411	(0.215)	11486	5.00000	4.4	
2	Chloromethane	50	1.581	1.579	(0.241)	15809	5.00000	4.8	
3	Vinyl chloride	62	1.643	1.643	(0.250)	13843	5.00000	4.4	
4	Bromomethane	94	1.919	1.919	(0.292)	9544	5.00000	5.3	
5	Chloroethane	64	2.032	2.019	(0.309)	8330	5.00000	5.4	
6	Trichlorofluoromethane	101	2.154	2.150	(0.328)	22011	5.00000	4.7	
7	Diethyl Ether	59	2.446	2.444	(0.373)	13127	5.00000	5.5	
8	1,1-Dichloroethene	96	2.630	2.630	(0.401)	14329	5.00000	4.8	
9	Carbon Disulfide	76	2.655	2.656	(0.405)	29577	5.00000	4.5	
10	Freon-113	151	2.678	2.681	(0.408)	9934	5.00000	5.0	
11	Iodomethane	142	2.771	2.772	(0.422)	9002	5.00000	3.3	
12	Acrolein	56	2.977	2.977	(0.453)	6008	25.0000	26.2	
13	Allyl Chloride	41	3.131	3.128	(0.477)	17492	5.00000	5.0	
14	Methylene Chloride	84	3.250	3.247	(0.495)	17614	5.00000	5.3	
15	Acetone	43	3.308	3.312	(0.504)	26780	25.0000	18.8	
16	trans-1,2-Dichloroethene	96	3.433	3.434	(0.523)	17744	5.00000	4.9	
17	Methyl Acetate	43	3.469	3.469	(0.528)	18900	5.00000	5.6	
18	Methyl tert-butyl ether	73	3.588	3.591	(0.547)	49254	5.00000	5.0	
19	Tertiary-butyl alcohol	59	3.745	3.746	(0.571)	10956	25.0000	21.0	
20	Acetonitrile	41	3.877	3.878	(0.591)	28821	50.0000	57.0	
21	Di-isopropyl ether	45	4.122	4.122	(0.628)	50109	5.00000	5.0	
22	Chloroprene	53	4.215	4.218	(0.642)	24066	5.00000	4.6	
23	1,1-Dichloroethane	63	4.250	4.244	(0.647)	32978	5.00000	5.0	
24	Acrylonitrile	52	4.324	4.325	(0.659)	30816	25.0000	26.7	

Data File: \\target_server\gg\chem\gcms-c.i\C092021.b\C0727.D
Report Date: 24-Sep-2021 13:11

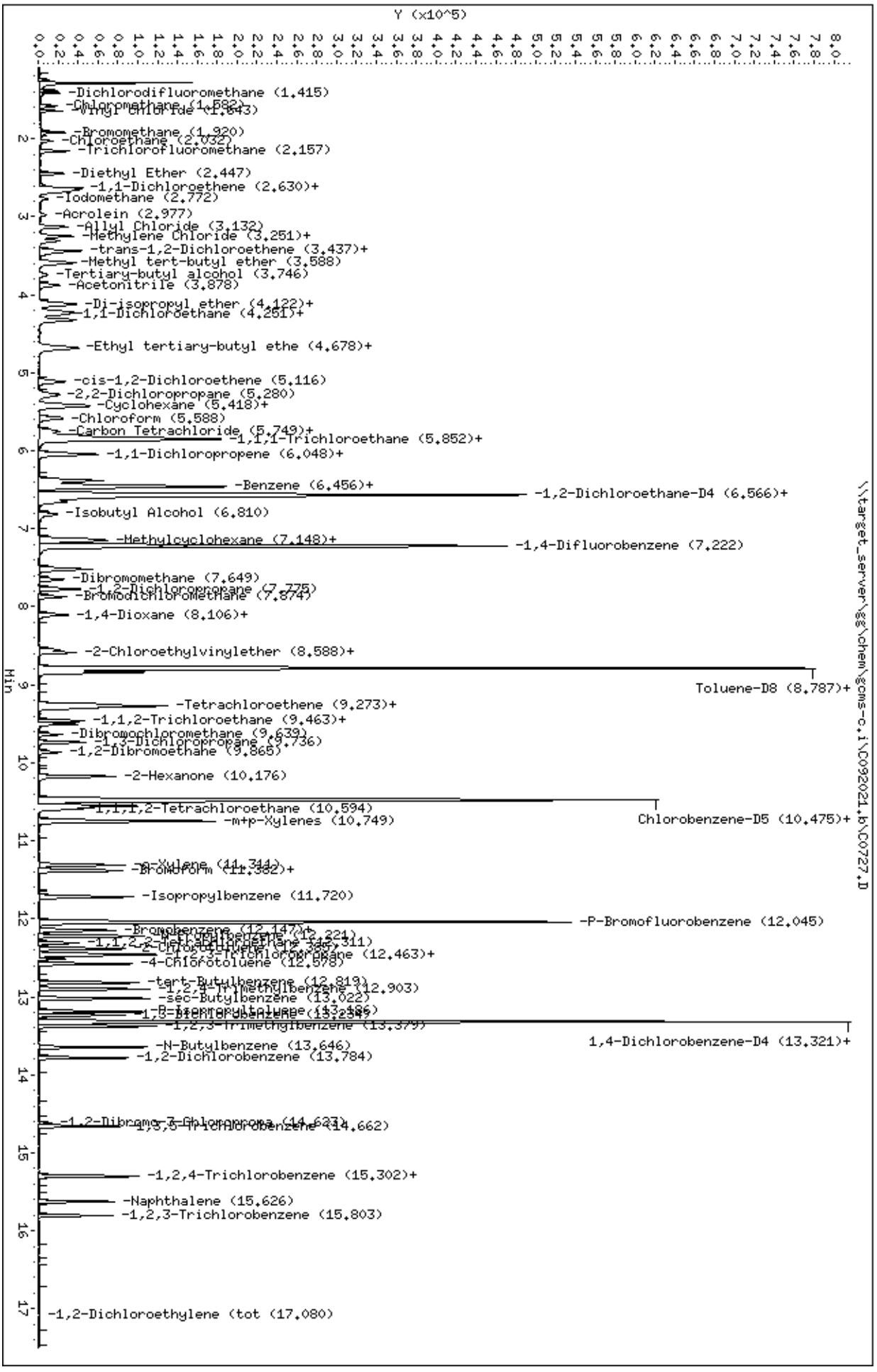
			QUANT SIG					AMOUNTS		
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)	REVIEW CODE
	25	Ethyl tertiary-butyl ether	59	4.678	4.675	(0.713)	46519	5.00000	4.9	
	26	Vinyl Acetate	43	4.684	4.678	(0.649)	23437	5.00000	4.8	
	27	cis-1,2-Dichloroethene	96	5.115	5.106	(0.779)	18445	5.00000	4.8	
	28	2,2-Dichloropropane	77	5.279	5.286	(0.804)	21801	5.00000	4.4	
	29	Cyclohexane	56	5.417	5.421	(0.825)	27953	5.00000	4.7	
	30	Bromochloromethane	128	5.430	5.424	(0.827)	6576	5.00000	4.5	
	31	Chloroform	83	5.578	5.582	(0.850)	31116	5.00000	4.8	
	32	Carbon Tetrachloride	117	5.748	5.752	(0.796)	20300	5.00000	4.3	
	33	Tetrahydrofuran	42	5.797	5.797	(0.883)	32714	25.0000	26.0	
	34	1,1,1-Trichloroethane	97	5.855	5.852	(0.892)	27457	5.00000	4.6	
$	35	Dibromofluoromethane	113	5.848	5.849	(0.891)	125431	50.0000	49.6	
	36	1,1-Dichloropropene	75	6.044	6.038	(0.837)	24714	5.00000	4.7	
	37	2-Butanone	43	6.051	6.045	(0.922)	41671	25.0000	26.2	
	38	Benzene	78	6.379	6.379	(0.884)	70797	5.00000	4.9	
	39	Propionitrile	54	6.427	6.427	(0.979)	30356	50.0000	54.6	
	40	Methacrylonitrile	41	6.459	6.459	(0.984)	109551	50.0000	55.9	
$	41	1,2-Dichloroethane-D4	65	6.565	6.566	(1.000)	153797	50.0000	49.2	
*	42	Pentafluorobenzene	168	6.565	6.566	(1.000)	245295	50.0000		
	43	Tertiary-amyl methyl ether	73	6.604	6.604	(1.006)	41711	5.00000	4.8	
	44	Isobutyl Alcohol	43	6.813	6.813	(1.038)	16660	100.000	77.9	
	45	1,2-Dichloroethane	62	6.658	6.656	(0.922)	24218	5.00000	5.0	
	46	Methylcyclohexane	83	7.131	7.128	(1.086)	26603	5.00000	4.4	
	47	Trichloroethene	95	7.157	7.157	(0.992)	18178	5.00000	5.0	
*	48	1,4-Difluorobenzene	114	7.218	7.218	(1.000)	427067	50.0000		
	49	Dibromomethane	93	7.649	7.652	(1.060)	10331	5.00000	4.7	
	50	1,2-Dichloropropane	63	7.774	7.771	(1.077)	18089	5.00000	4.9	
	51	Bromodichloromethane	83	7.874	7.874	(1.091)	19051	5.00000	4.3	
	52	1,4-Dioxane	88	8.112	8.109	(1.124)	6163	100.000	111	
	53	Methyl Methacrylate	41	8.099	8.099	(1.122)	12985	5.00000	4.5	
	54	2-Chloroethylvinylether	63	8.552	8.553	(1.185)	9795	5.00000	4.6	
	55	cis-1,3-dichloropropene	75	8.588	8.587	(1.190)	23188	5.00000	4.2	
$	56	Toluene-D8	98	8.787	8.787	(1.217)	532443	50.0000	49.7	
	57	Toluene	91	8.842	8.842	(1.225)	74496	5.00000	5.0	
	58	Tetrachloroethene	164	9.247	9.247	(0.883)	12715	5.00000	4.7	
	59	4-methyl-2-pentanone	43	9.276	9.273	(1.285)	79961	25.0000	26.1	
	60	trans-1,3-Dichloropropene	75	9.295	9.302	(1.288)	21708	5.00000	4.3	
	61	1,1,2-Trichloroethane	83	9.459	9.459	(1.310)	13148	5.00000	5.0	
	62	Ethyl Methacrylate	69	9.504	9.504	(1.317)	20457	5.00000	4.2	
	63	Dibromochloromethane	129	9.639	9.636	(0.920)	12267	5.00000	4.2	
	64	1,3-Dichloropropane	76	9.739	9.736	(0.930)	29795	5.00000	5.0	
	65	1,2-Dibromoethane	107	9.864	9.868	(1.367)	14701	5.00000	4.7	
	66	2-Hexanone	43	10.176	10.173	(0.971)	52997	25.0000	25.3	
*	67	Chlorobenzene-D5	117	10.475	10.475	(1.000)	384114	50.0000		
	68	Chlorobenzene	112	10.491	10.495	(1.002)	47814	5.00000	5.0	
	69	Ethylbenzene	91	10.552	10.553	(1.007)	80966	5.00000	4.8	
	70	1,1,1,2-Tetrachloroethane	131	10.594	10.594	(1.011)	13053	5.00000	4.5	
	71	m+p-Xylenes	91	10.751	10.749	(1.026)	126909	10.0000	10.1	
	72	o-Xylene	91	11.311	11.311	(1.080)	58749	5.00000	4.6	
	73	Bromoform	173	11.391	11.389	(1.087)	7447	5.00000	3.5	
	74	Styrene	104	11.385	11.382	(1.087)	40901	5.00000	4.4	
	75	Isopropylbenzene	105	11.719	11.720	(0.880)	72977	5.00000	4.8	
$	76	P-Bromofluorobenzene	95	12.044	12.041	(1.669)	205302	50.0000	49.5	
	77	Bromobenzene	156	12.150	12.151	(0.912)	17611	5.00000	5.0	
	78	cis-1,4-Dichloro-2-Butene	53	12.140	12.138	(0.911)	6079	5.00000	4.7	

Data File: \\target_server\gg\chem\gcms-c.i\C092021.b\C0727.D
Report Date: 24-Sep-2021 13:11

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)	REVIEW CODE
	79 N-Propylbenzene	91	12.224	12.221	(0.918)	90042	5.00000	4.8	
	80 1,1,2,2-Tetrachloroethane	83	12.311	12.311	(0.924)	20513	5.00000	5.0	
	81 2-Chlorotoluene	91	12.385	12.382	(0.930)	55307	5.00000	4.9	
	82 1,2,3-Trichloropropane	75	12.449	12.450	(0.935)	19592	5.00000	5.2	
	83 1,3,5-Trimethylbenzene	105	12.462	12.462	(0.936)	58667	5.00000	4.7	
	84 trans-1,4-Dichloro-2-Butene	53	12.513	12.511	(0.939)	5916	5.00000	4.6	
	85 4-Chlorotoluene	91	12.578	12.578	(0.944)	56538	5.00000	4.8	
	86 tert-Butylbenzene	119	12.816	12.819	(0.962)	50385	5.00000	4.7	
	87 1,2,4-Trimethylbenzene	105	12.903	12.900	(0.969)	61219	5.00000	4.8	
	88 sec-Butylbenzene	105	13.021	13.022	(0.978)	77180	5.00000	4.9	
	89 P-Isopropyltoluene	119	13.192	13.189	(0.990)	58258	5.00000	4.6	
	90 1,3-Dichlorobenzene	146	13.234	13.234	(0.993)	32789	5.00000	4.9	
*	91 1,4-Dichlorobenzene-D4	152	13.321	13.321	(1.000)	190156	50.0000		
	92 1,4-Dichlorobenzene	146	13.337	13.337	(1.001)	35117	5.00000	5.0	
	93 1,2,3-Trimethylbenzene	105	13.378	13.376	(1.004)	67037	5.00000	5.1	
	95 N-Butylbenzene	91	13.645	13.646	(1.024)	56372	5.00000	4.5	
	96 1,2-Dichlorobenzene	146	13.784	13.784	(1.035)	31891	5.00000	5.0	
	97 1,2-Dibromo-3-Chloropropane	157	14.619	14.620	(1.098)	3050	5.00000	3.9	
	98 1,3,5-Trichlorobenzene	180	14.661	14.662	(1.101)	23004	5.00000	4.8	
	99 1,2,4-Trichlorobenzene	180	15.304	15.305	(1.149)	19147	5.00000	4.5	
	100 Hexachlorobutadiene	225	15.291	15.295	(1.148)	8553	5.00000	4.6	
	101 Naphthalene	128	15.626	15.626	(1.173)	48468	5.00000	3.6	
	102 1,2,3-Trichlorobenzene	180	15.806	15.803	(1.187)	19700	5.00000	4.8	
M	103 1,2-Dichloroethylene (total)	96				36189	5.00000	(a)	
M	104 Xylenes (total)	91				185658	15.0000	(a)	
M	105 Total Alkylbenzenes	100				452123	5.00000	(a)	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).



Data File: \\target_server\gg\chem\gcms-c.i\C092021.b\C0727.D
Date : 20-SEP-2021 10:48
Client ID:
Sample Info: WG306314-2
Purge Volume: 5.0
Column phase: RTX-VMS

Instrument: gcms-c.i
Operator: ES
Column diameter: 0.18

\\target_server\gg\chem\gcms-c.i\C092021.b\C0727.D

Data File: \\target_server\gg\chem\gcms-c.i\C092021.b\C0728.D
Report Date: 24-Sep-2021 13:11

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-c.i\C092021.b\C0728.D
Lab Smp Id: WG306314-1
Inj Date : 20-SEP-2021 11:19
Operator : ES Inst ID: gcms-c.i
Smp Info : WG306314-1
Misc Info :
Comment : SW846 5030
Method : \\target_server\gg\chem\gcms-c.i\C092021.b\C8A05(51).m
Meth Date : 21-Sep-2021 08:25 hgould Quant Type: ISTD
Cal Date : 20-SEP-2021 11:19 Cal File: C0728.D
Als bottle: 5 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.12

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

JLP
2:35 pm, Sep 24, 2021

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)	REVIEW CODE
1	Dichlorodifluoromethane	85	1.411	1.411	(0.215)	3068	1.00000	1.3(M)	M6
2	Chloromethane	50	1.578	1.579	(0.240)	3566	1.00000	1.2	
3	Vinyl chloride	62	1.642	1.643	(0.250)	3634	1.00000	1.3	
4	Bromomethane	94	1.922	1.919	(0.293)	2565	1.00000	1.6	
5	Chloroethane	64	2.031	2.019	(0.309)	2259	1.00000	1.6	
6	Trichlorofluoromethane	101	2.160	2.150	(0.329)	5271	1.00000	1.2	
7	Diethyl Ether	59	2.440	2.444	(0.372)	2125	1.00000	0.97(a)	
8	1,1-Dichloroethene	96	2.636	2.630	(0.402)	3638	1.00000	1.3	
9	Carbon Disulfide	76	2.655	2.656	(0.404)	7103	1.00000	1.2	
10	Freon-113	151	2.674	2.681	(0.407)	1667	1.00000	0.91(a)	
11	Iodomethane	142	2.777	2.772	(0.423)	2005	1.00000	0.81(a)	
12	Acrolein	56	2.977	2.977	(0.453)	967	5.00000	4.6(a)	
13	Allyl Chloride	41	3.134	3.128	(0.477)	3620	1.00000	1.1	
14	Methylene Chloride	84	3.250	3.247	(0.495)	5775	1.00000	1.9(a)	
15	Acetone	43	3.305	3.312	(0.503)	6618	5.00000	4.9(a)	
16	trans-1,2-Dichloroethene	96	3.440	3.434	(0.524)	3994	1.00000	1.2	
17	Methyl Acetate	43	3.472	3.469	(0.529)	2718	1.00000	0.88(a)	
18	Methyl tert-butyl ether	73	3.584	3.591	(0.546)	9405	1.00000	1.0	
19	Tertiary-butyl alcohol	59	3.736	3.746	(0.569)	1899	5.00000	3.8(a)	
20	Acetonitrile	41	3.880	3.878	(0.591)	5436	10.0000	11.7(a)	
21	Di-isopropyl ether	45	4.115	4.122	(0.627)	8191	1.00000	0.88(a)	
22	Chloroprene	53	4.231	4.218	(0.644)	4226	1.00000	0.88(aM)	M9
23	1,1-Dichloroethane	63	4.244	4.244	(0.646)	6667	1.00000	1.1	
24	Acrylonitrile	52	4.330	4.325	(0.660)	4734	5.00000	4.4(a)	

Data File: \\target_server\gg\chem\gcms-c.i\C092021.b\C0728.D
Report Date: 24-Sep-2021 13:11

JLP

2:35 pm, Sep 24, 2021

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)	REVIEW CODE
	25 Ethyl tertiary-butyl ether	59	4.690	4.675	(0.714)	7321	1.00000	0.83(a)	
	26 Vinyl Acetate	43	4.684	4.678	(0.649)	3654	1.00000	0.83(Ta)	
	27 cis-1,2-Dichloroethene	96	5.112	5.106	(0.779)	4171	1.00000	1.2(M)	M9
	28 2,2-Dichloropropane	77	5.285	5.286	(0.805)	4245	1.00000	0.93(a)	
	29 Cyclohexane	56	5.420	5.421	(0.826)	5489	1.00000	1.00	
	30 Bromochloromethane	128	5.430	5.424	(0.827)	1635	1.00000	1.2	
	31 Chloroform	83	5.591	5.582	(0.852)	6407	1.00000	1.1	
	32 Carbon Tetrachloride	117	5.745	5.752	(0.796)	4332	1.00000	1.0	
	33 Tetrahydrofuran	42	5.813	5.797	(0.885)	5702	5.00000	4.9(a)	
	34 1,1,1-Trichloroethane	97	5.867	5.852	(0.894)	5387	1.00000	0.99(a)	
$	35 Dibromofluoromethane	113	5.851	5.849	(0.891)	114359	50.0000	49.2	
	36 1,1-Dichloropropene	75	6.044	6.038	(0.837)	5217	1.00000	1.1	
	37 2-Butanone	43	6.051	6.045	(0.922)	7286	5.00000	5.0	
	38 Benzene	78	6.382	6.379	(0.884)	15518	1.00000	1.2	
	39 Propionitrile	54	6.427	6.427	(0.979)	5464	10.0000	10.7	
	40 Methacrylonitrile	41	6.462	6.459	(0.984)	15464	10.0000	8.6(a)	
$	41 1,2-Dichloroethane-D4	65	6.565	6.566	(1.000)	146631	50.0000	50.9	
*	42 Pentafluorobenzene	168	6.565	6.566	(1.000)	225733	50.0000		
	43 Tertiary-amyl methyl ether	73	6.613	6.604	(1.007)	6766	1.00000	0.85(a)	
	44 Isobutyl Alcohol	43	6.832	6.813	(1.041)	1862	20.0000	9.3(TaM)	M9
	45 1,2-Dichloroethane	62	6.668	6.656	(0.923)	5051	1.00000	1.2	
	46 Methylcyclohexane	83	7.131	7.128	(1.086)	4166	1.00000	0.74(a)	
	47 Trichloroethene	95	7.160	7.157	(0.992)	3683	1.00000	1.1	
*	48 1,4-Difluorobenzene	114	7.221	7.218	(1.000)	384460	50.0000		
	49 Dibromomethane	93	7.658	7.652	(1.061)	2175	1.00000	1.1	
	50 1,2-Dichloropropane	63	7.780	7.771	(1.077)	3612	1.00000	1.1(T)	
	51 Bromodichloromethane	83	7.880	7.874	(1.091)	3828	1.00000	0.97(Ta)	
	52 1,4-Dioxane	88	8.121	8.109	(1.125)	1081	20.0000	21.6	
	53 Methyl Methacrylate	41	8.095	8.099	(1.121)	1524	1.00000	0.58(a)	
	54 2-Chloroethylvinylether	63	8.552	8.553	(1.184)	1353	1.00000	0.70(a)	
	55 cis-1,3-dichloropropene	75	8.591	8.587	(1.190)	4707	1.00000	0.94(a)	
$	56 Toluene-D8	98	8.790	8.787	(1.217)	491284	50.0000	50.9	
	57 Toluene	91	8.845	8.842	(1.225)	15728	1.00000	1.2	
	58 Tetrachloroethene	164	9.253	9.247	(0.883)	2837	1.00000	1.1	
	59 4-methyl-2-pentanone	43	9.275	9.273	(1.285)	11284	5.00000	4.1(a)	
	60 trans-1,3-Dichloropropene	75	9.298	9.302	(1.288)	3778	1.00000	0.84(a)	
	61 1,1,2-Trichloroethane	83	9.465	9.459	(1.311)	2287	1.00000	0.97(a)	
	62 Ethyl Methacrylate	69	9.504	9.504	(1.316)	2481	1.00000	0.56(a)	
	63 Dibromochloromethane	129	9.639	9.636	(0.920)	2051	1.00000	0.74(a)	
	64 1,3-Dichloropropane	76	9.738	9.736	(0.930)	5753	1.00000	1.0	
	65 1,2-Dibromoethane	107	9.870	9.868	(1.367)	2991	1.00000	1.1(T)	
	66 2-Hexanone	43	10.176	10.173	(0.971)	6708	5.00000	3.4(a)	
*	67 Chlorobenzene-D5	117	10.475	10.475	(1.000)	359392	50.0000		
	68 Chlorobenzene	112	10.497	10.495	(1.002)	10650	1.00000	1.2	
	69 Ethylbenzene	91	10.555	10.553	(1.008)	17288	1.00000	1.1	
	70 1,1,1,2-Tetrachloroethane	131	10.587	10.594	(1.011)	2533	1.00000	0.93(a)	
	71 m+p-Xylenes	91	10.755	10.749	(1.027)	24871	2.00000	2.1	
	72 o-Xylene	91	11.317	11.311	(1.080)	11922	1.00000	1.00	
	73 Bromoform	173	11.391	11.389	(1.087)	1084	1.00000	0.54(a)	
	74 Styrene	104	11.378	11.382	(1.086)	6777	1.00000	0.78(a)	
	75 Isopropylbenzene	105	11.719	11.720	(0.880)	13802	1.00000	0.96(a)	
$	76 P-Bromofluorobenzene	95	12.041	12.041	(1.667)	187736	50.0000	50.2	
	77 Bromobenzene	156	12.156	12.151	(0.913)	3634	1.00000	1.1	
	78 cis-1,4-Dichloro-2-Butene	53	12.144	12.138	(0.912)	593	1.00000	0.49(a)	

Data File: \\target_server\gg\chem\gcms-c.i\C092021.b\C0728.D
Report Date: 24-Sep-2021 13:11

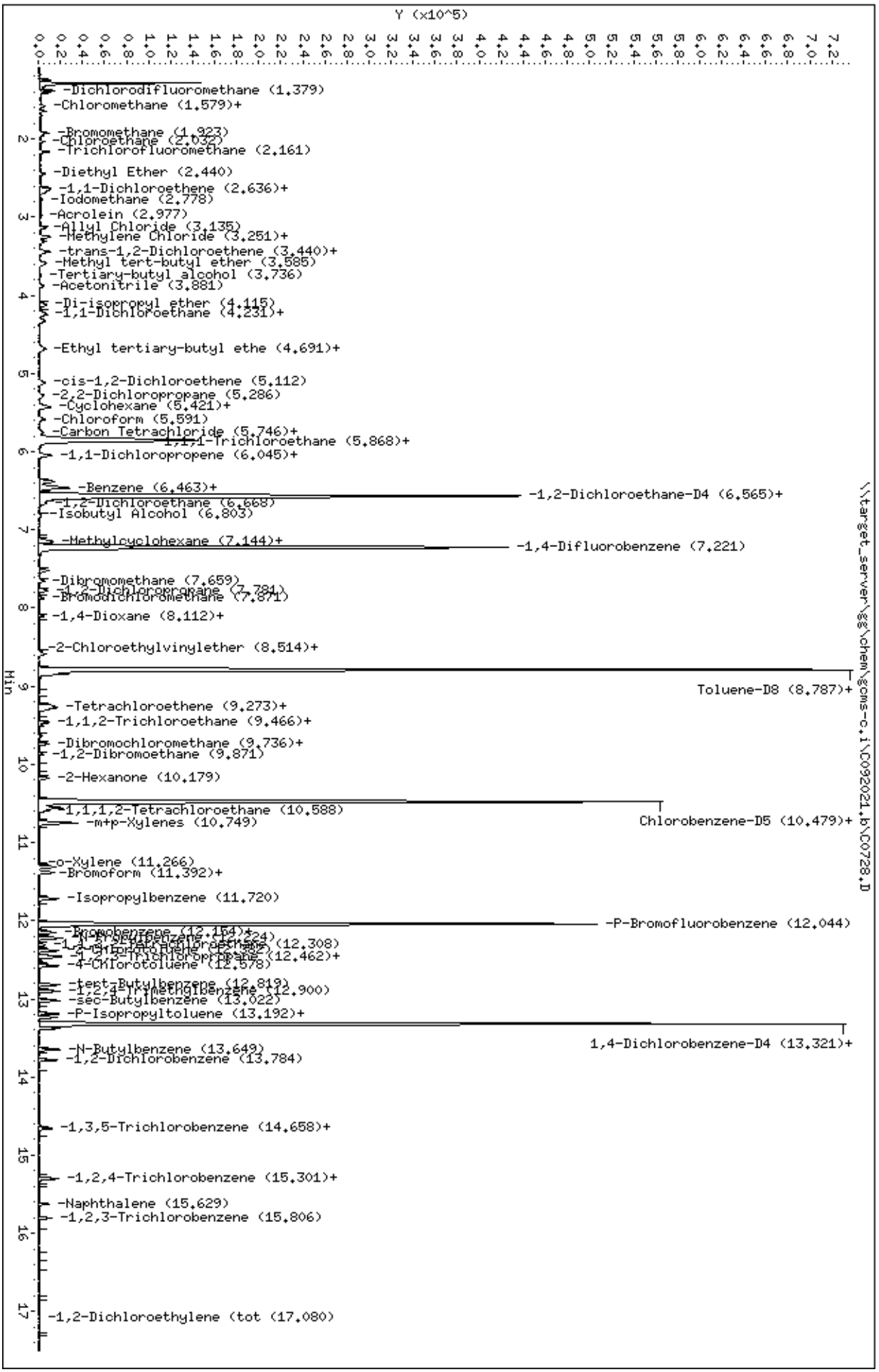
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)	REVIEW CODE
	79 N-Propylbenzene	91	12.224	12.221	(0.918)	17844	1.00000	1.0	
	80 1,1,2,2-Tetrachloroethane	83	12.314	12.311	(0.924)	3801	1.00000	0.99(Ta)	
	81 2-Chlorotoluene	91	12.385	12.382	(0.930)	11198	1.00000	1.0	
	82 1,2,3-Trichloropropane	75	12.449	12.450	(0.935)	3389	1.00000	0.96(a)	
	83 1,3,5-Trimethylbenzene	105	12.465	12.462	(0.936)	11163	1.00000	0.96(a)	
	84 trans-1,4-Dichloro-2-Butene	53	12.507	12.511	(0.939)	840	1.00000	0.70(a)	
	85 4-Chlorotoluene	91	12.581	12.578	(0.944)	11638	1.00000	1.0	
	86 tert-Butylbenzene	119	12.819	12.819	(0.962)	9853	1.00000	0.99(a)	
	87 1,2,4-Trimethylbenzene	105	12.899	12.900	(0.968)	10798	1.00000	0.91(a)	
	88 sec-Butylbenzene	105	13.025	13.022	(0.978)	13814	1.00000	0.93(a)	
	89 P-Isopropyltoluene	119	13.192	13.189	(0.990)	10539	1.00000	0.90(a)	
	90 1,3-Dichlorobenzene	146	13.237	13.234	(0.994)	6473	1.00000	1.0	
*	91 1,4-Dichlorobenzene-D4	152	13.320	13.321	(1.000)	177915	50.0000		
	92 1,4-Dichlorobenzene	146	13.336	13.337	(1.001)	7838	1.00000	1.2	
	93 1,2,3-Trimethylbenzene	105	13.378	13.376	(1.004)	11187	1.00000	0.92(a)	
	95 N-Butylbenzene	91	13.648	13.646	(1.025)	10464	1.00000	0.90(a)	
	96 1,2-Dichlorobenzene	146	13.787	13.784	(1.035)	6609	1.00000	1.1	
	97 1,2-Dibromo-3-Chloropropane	157	14.629	14.620	(1.098)	291	1.00000	0.40(aM)	M9
	98 1,3,5-Trichlorobenzene	180	14.661	14.662	(1.101)	4170	1.00000	0.93(a)	
	99 1,2,4-Trichlorobenzene	180	15.307	15.305	(1.149)	3898	1.00000	0.98(a)	
	100 Hexachlorobutadiene	225	15.291	15.295	(1.148)	1715	1.00000	0.99(a)	
	101 Naphthalene	128	15.626	15.626	(1.173)	6119	1.00000	0.48(a)	
	102 1,2,3-Trichlorobenzene	180	15.809	15.803	(1.187)	3451	1.00000	0.90(a)	
M	103 1,2-Dichloroethylene (total)	96				8165	1.00000	(a)	
M	104 Xylenes (total)	91				36793	5.00000	(a)	
M	105 Total Alkylbenzenes	100				84475	1.00000	(a)	

QC Flag Legend

T - Target compound detected outside RT window.
a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.



2:35 pm, Sep 24, 2021



Data File: \\target_server\gg\chem\gcms-c.i\C092021.b\C0728.D
Date : 20-SEP-2021 11:19
Client ID:
Sample Info: WG306314-1
Purge Volume: 5.0
Column phase: RTX-VMS

Instrument: gcms-c.i
Operator: ES
Column diameter: 0.18

Data File: \\target_server\gg\chem\gcms-c.i\C092021.b\C0729.D
Report Date: 24-Sep-2021 13:11

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-c.i\C092021.b\C0729.D
Lab Smp Id: WG306314-6
Inj Date : 20-SEP-2021 11:50
Operator : ES   Inst ID: gcms-c.i
Smp Info : WG306314-6
Misc Info :
Comment   : SW846 5030
Method   : \\target_server\gg\chem\gcms-c.i\C092021.b\C8A05(51).m
Meth Date : 21-Sep-2021 08:25 hgould   Quant Type: ISTD
Cal Date : 20-SEP-2021 11:50   Cal File: C0729.D
Als bottle: 6   Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE   Compound Sublist: all.sub
Target Version: 4.12

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)	REVIEW CODE
1	Dichlorodifluoromethane	85	1.411	1.411	(0.215)	414841	150.000	150	
2	Chloromethane	50	1.578	1.579	(0.240)	501987	150.000	142	
3	Vinyl chloride	62	1.643	1.643	(0.250)	497868	150.000	151(A)	
4	Bromomethane	94	1.919	1.919	(0.292)	279192	150.000	148	
5	Chloroethane	64	2.016	2.019	(0.307)	156703	150.000	95.2	
6	Trichlorofluoromethane	101	2.147	2.150	(0.327)	742767	150.000	149	
7	Diethyl Ether	59	2.446	2.444	(0.373)	372144	150.000	148	
8	1,1-Dichloroethene	96	2.630	2.630	(0.401)	468971	150.000	147	
9	Carbon Disulfide	76	2.655	2.656	(0.405)	1060452	150.000	153(A)	
10	Freon-113	151	2.675	2.681	(0.407)	324119	150.000	154(A)	
11	Iodomethane	142	2.771	2.772	(0.422)	436103	150.000	153(A)	
12	Acrolein	56	2.980	2.977	(0.454)	175175	750.000	722	
13	Allyl Chloride	41	3.125	3.128	(0.476)	542414	150.000	146	
14	Methylene Chloride	84	3.250	3.247	(0.495)	541422	150.000	154(A)	
15	Acetone	43	3.311	3.312	(0.504)	670273	750.000	959(A)	
16	trans-1,2-Dichloroethene	96	3.440	3.434	(0.524)	560242	150.000	146	
17	Methyl Acetate	43	3.472	3.469	(0.529)	491851	150.000	139	
18	Methyl tert-butyl ether	73	3.591	3.591	(0.547)	1568563	150.000	149	
19	Tertiary-butyl alcohol	59	3.749	3.746	(0.571)	208660	750.000	718	
20	Acetonitrile	41	3.880	3.878	(0.591)	652471	1500.00	1220	
21	Di-isopropyl ether	45	4.115	4.122	(0.627)	1638828	150.000	154(A)	
22	Chloroprene	53	4.218	4.218	(0.643)	875838	150.000	159(A)	
23	1,1-Dichloroethane	63	4.250	4.244	(0.647)	1049397	150.000	149	
24	Acrylonitrile	52	4.324	4.325	(0.659)	862461	750.000	706	

Data File: \\target_server\gg\chem\gcms-c.i\C092021.b\C0729.D
Report Date: 24-Sep-2021 13:11

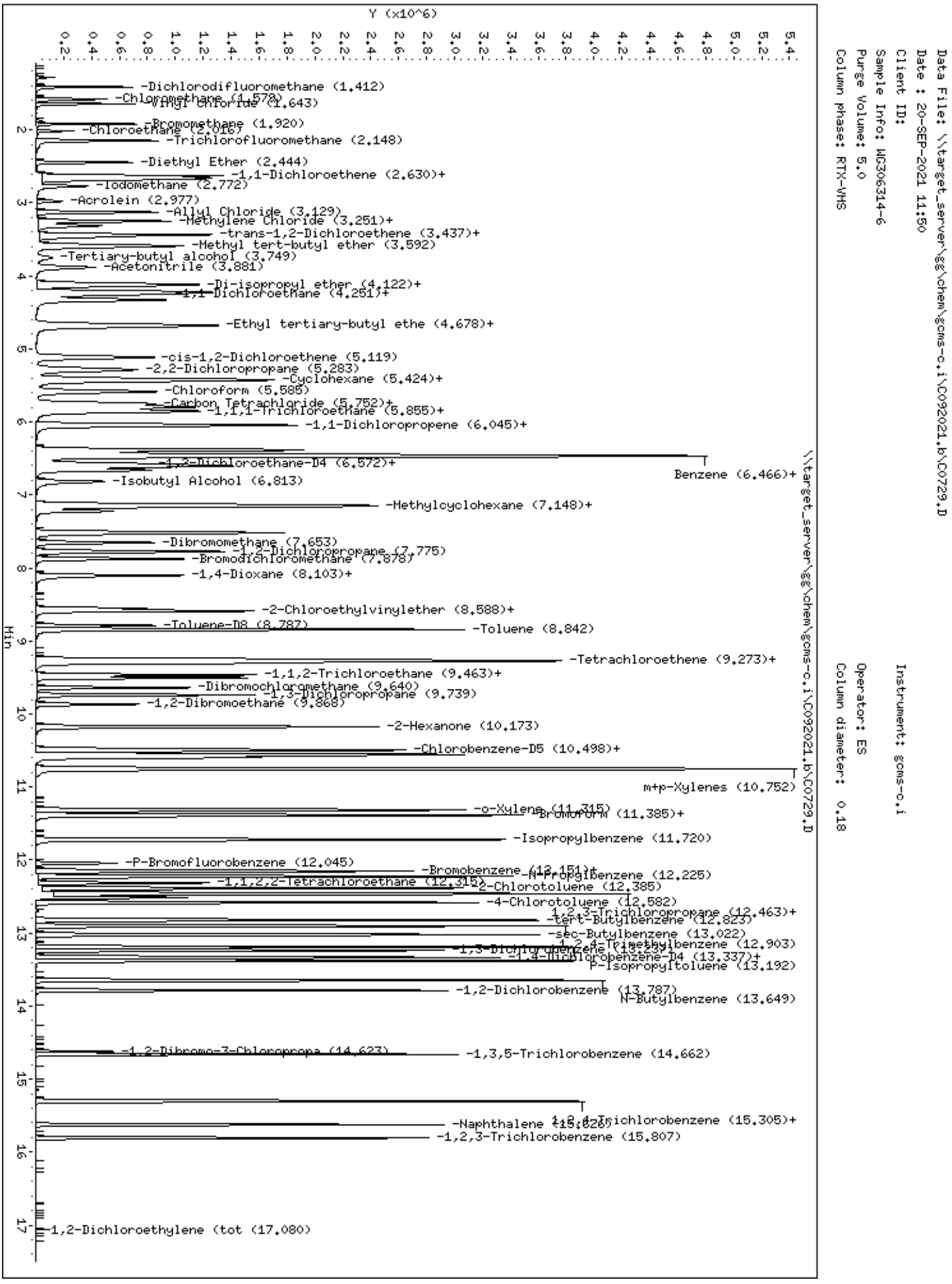
							AMOUNTS		
		QUANT SIG					CAL-AMT	ON-COL	
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/l)	(ug/l)	REVIEW CODE
	25 Ethyl tertiary-butyl ether	59	4.678	4.675	(0.713)	1596185	150.000	158(A)	
	26 Vinyl Acetate	43	4.681	4.678	(0.648)	813369	150.000	154(A)	
	27 cis-1,2-Dichloroethene	96	5.118	5.106	(0.780)	591717	150.000	146	
	28 2,2-Dichloropropane	77	5.282	5.286	(0.805)	837710	150.000	160(A)	
	29 Cyclohexane	56	5.424	5.421	(0.826)	1002979	150.000	158(A)	
	30 Bromochloromethane	128	5.430	5.424	(0.827)	218582	150.000	142	
	31 Chloroform	83	5.585	5.582	(0.851)	1035642	150.000	151(A)	
	32 Carbon Tetrachloride	117	5.752	5.752	(0.797)	835519	150.000	162(A)	
	33 Tetrahydrofuran	42	5.797	5.797	(0.883)	923314	750.000	694	
	34 1,1,1-Trichloroethane	97	5.855	5.852	(0.892)	994544	150.000	159(A)	
$	35 Dibromofluoromethane	113	5.851	5.849	(0.891)	136587	50.0000	51.1	
	36 1,1-Dichloropropene	75	6.044	6.038	(0.837)	867597	150.000	152(A)	
	37 2-Butanone	43	6.044	6.045	(0.921)	1132361	750.000	672	
	38 Benzene	78	6.385	6.379	(0.884)	2260767	150.000	143	
	39 Propionitrile	54	6.433	6.427	(0.980)	756159	1500.00	1280	
	40 Methacrylonitrile	41	6.466	6.459	(0.985)	2749253	1500.00	1330	
$	41 1,2-Dichloroethane-D4	65	6.572	6.566	(1.001)	171456	50.0000	51.8	
*	42 Pentafluorobenzene	168	6.565	6.566	(1.000)	259494	50.0000		
	43 Tertiary-amyl methyl ether	73	6.601	6.604	(1.005)	1469230	150.000	160(A)	
	44 Isobutyl Alcohol	43	6.816	6.813	(1.038)	431444	3000.00	2890	
	45 1,2-Dichloroethane	62	6.662	6.656	(0.923)	778704	150.000	147	
	46 Methylcyclohexane	83	7.134	7.128	(1.087)	1078205	150.000	167(A)	
	47 Trichloroethene	95	7.160	7.157	(0.992)	577704	150.000	146	
*	48 1,4-Difluorobenzene	114	7.221	7.218	(1.000)	464931	50.0000		
	49 Dibromomethane	93	7.652	7.652	(1.060)	364262	150.000	151(A)	
	50 1,2-Dichloropropane	63	7.774	7.771	(1.077)	606971	150.000	152(A)	
	51 Bromodichloromethane	83	7.874	7.874	(1.090)	779377	150.000	163(A)	
	52 1,4-Dioxane	88	8.115	8.109	(1.124)	119693	3000.00	1980	
	53 Methyl Methacrylate	41	8.099	8.099	(1.122)	473679	150.000	150	
	54 2-Chloroethylvinylether	63	8.552	8.553	(1.184)	363122	150.000	156(A)	
	55 cis-1,3-dichloropropene	75	8.591	8.587	(1.190)	986657	150.000	163(A)	
$	56 Toluene-D8	98	8.787	8.787	(1.217)	584506	50.0000	50.1	
	57 Toluene	91	8.842	8.842	(1.224)	2258844	150.000	138	
	58 Tetrachloroethene	164	9.247	9.247	(0.882)	438607	150.000	148	
	59 4-methyl-2-pentanone	43	9.276	9.273	(1.285)	2241904	750.000	673	
	60 trans-1,3-Dichloropropene	75	9.301	9.302	(1.288)	910634	150.000	166(A)	
	61 1,1,2-Trichloroethane	83	9.462	9.459	(1.310)	436427	150.000	152(A)	
	62 Ethyl Methacrylate	69	9.504	9.504	(1.316)	800662	150.000	149	
	63 Dibromochloromethane	129	9.642	9.636	(0.920)	565711	150.000	174(A)	
	64 1,3-Dichloropropane	76	9.739	9.736	(0.929)	973260	150.000	149	
	65 1,2-Dibromoethane	107	9.867	9.868	(1.366)	513639	150.000	151(A)	
	66 2-Hexanone	43	10.173	10.173	(0.971)	1653453	750.000	717	
*	67 Chlorobenzene-D5	117	10.478	10.475	(1.000)	422703	50.0000		
	68 Chlorobenzene	112	10.498	10.495	(1.002)	1508239	150.000	143	
	69 Ethylbenzene	91	10.555	10.553	(1.007)	2621112	150.000	142	
	70 1,1,1,2-Tetrachloroethane	131	10.591	10.594	(1.011)	521407	150.000	162(A)	
	71 m+p-Xylenes	91	10.752	10.749	(1.026)	3708269	300.000	268	
	72 o-Xylene	91	11.314	11.311	(1.080)	2109271	150.000	150(A)	
	73 Bromoform	173	11.391	11.389	(1.087)	362886	150.000	153(A)	
	74 Styrene	104	11.385	11.382	(1.087)	1628555	150.000	160(A)	
	75 Isopropylbenzene	105	11.719	11.720	(0.880)	2503001	150.000	142	
$	76 P-Bromofluorobenzene	95	12.044	12.041	(1.668)	229072	50.0000	50.7	
	77 Bromobenzene	156	12.153	12.151	(0.912)	577674	150.000	143	
	78 cis-1,4-Dichloro-2-Butene	53	12.141	12.138	(0.911)	218614	150.000	148	

Data File: \\target_server\gg\chem\gcms-c.i\C092021.b\C0729.D
Report Date: 24-Sep-2021 13:11

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)	REVIEW CODE
	79 N-Propylbenzene	91	12.224	12.221	(0.917)	2901781	150.000	136	
	80 1,1,2,2-Tetrachloroethane	83	12.314	12.311	(0.924)	672711	150.000	143	
	81 2-Chlorotoluene	91	12.385	12.382	(0.930)	1855639	150.000	143	
	82 1,2,3-Trichloropropane	75	12.452	12.450	(0.935)	614714	150.000	142	
	83 1,3,5-Trimethylbenzene	105	12.465	12.462	(0.936)	2098859	150.000	147	
	84 trans-1,4-Dichloro-2-Butene	53	12.514	12.511	(0.939)	225404	150.000	154(A)	
	85 4-Chlorotoluene	91	12.581	12.578	(0.944)	1936062	150.000	143	
	86 tert-Butylbenzene	119	12.822	12.819	(0.962)	1779420	150.000	147	
	87 1,2,4-Trimethylbenzene	105	12.903	12.900	(0.968)	2138126	150.000	147	
	88 sec-Butylbenzene	105	13.022	13.022	(0.977)	2576701	150.000	143	
	89 P-Isopropyltoluene	119	13.192	13.189	(0.990)	2113871	150.000	148	
	90 1,3-Dichlorobenzene	146	13.237	13.234	(0.993)	1104922	150.000	146	
*	91 1,4-Dichlorobenzene-D4	152	13.324	13.321	(1.000)	217529	50.0000		
	92 1,4-Dichlorobenzene	146	13.340	13.337	(1.001)	1122718	150.000	141	
	93 1,2,3-Trimethylbenzene	105	13.382	13.376	(1.004)	2128123	150.000	142	
	95 N-Butylbenzene	91	13.649	13.646	(1.024)	2116800	150.000	149	
	96 1,2-Dichlorobenzene	146	13.787	13.784	(1.035)	1053507	150.000	144	
	97 1,2-Dibromo-3-Chloropropane	157	14.626	14.620	(1.098)	136119	150.000	151(A)	
	98 1,3,5-Trichlorobenzene	180	14.661	14.662	(1.100)	819057	150.000	150(A)	
	99 1,2,4-Trichlorobenzene	180	15.308	15.305	(1.149)	747070	150.000	153(A)	
	100 Hexachlorobutadiene	225	15.295	15.295	(1.148)	326750	150.000	154(A)	
	101 Naphthalene	128	15.626	15.626	(1.173)	1880163	150.000	150(A)	
	102 1,2,3-Trichlorobenzene	180	15.806	15.803	(1.186)	717555	150.000	153(A)	
M	103 1,2-Dichloroethylene (total)	96				1151959	150.000	(a)	
M	104 Xylenes (total)	91				5817540	150.000	(a)	
M	105 Total Alkylbenzenes	100				15725558	150.000	(a)	

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount exceeded maximum amount.


Data File: \\target_server\gg\chem\gcms-c.i\C092021.b\C0729.D
Date : 20-SEP-2021 11:50
Client ID:
Sample Info: WG306314-6
Purge Volume: 5.0
Column phase: RTX-VMS
Instrument: gcms-c.i
Operator: ES
Column diameter: 0.18
\\target_server\gg\chem\gcms-c.i\C092021.b\C0729.D
Y (x10^6)
Min
-Dichlorodifluoromethane (1.412)
-Chloromethane (1.578)
-Vinyl chloride (1.643)
-Bromomethane (1.920)
-Chloroethane (2.016)
-Trichlorofluoromethane (2.148)
-Diethyl Ether (2.444)
-1,1-Dichloroethene (2.630)+
-Iodomethane (2.772)
-Acrolein (2.977)
-Allyl Chloride (3.129)
-Methylene Chloride (3.251)+
-trans-1,2-Dichloroethene (3.437)+
-Methyl tert-butyl ether (3.592)
-Tertiary-butyl alcohol (3.749)
-Acetonitrile (3.881)
-Di-isopropyl ether (4.122)+
-1,1-Dichloroethane (4.251)+
-Ethyl tertiary-butyl ethe (4.678)+
-cis-1,2-Dichloroethene (5.119)
-2,2-Dichloropropane (5.283)
-Cyclohexane (5.424)+
-Chloroform (5.585)
-Carbon Tetrachloride (5.752)+
-1,1,1-Trichloroethane (5.855)+
-1,1-Dichloropropene (6.045)+
-1,2-Dichloroethane-D4 (6.572)+
Benzene (6.466)+
-Isobutyl Alcohol (6.813)
-Methylcyclohexane (7.148)+
-Dibromomethane (7.653)
-1,2-Dichloropropane (7.775)
-Bromodichloromethane (7.878)
-1,4-Dioxane (8.103)+
-2-Chloroethylvinylether (8.588)+
-Toluene-D8 (8.787)
-Toluene (8.842)
-Tetrachloroethene (9.273)+
-1,1,2-Trichloroethane (9.463)+
-Dibromochloromethane (9.640)
-1,3-Dichloropropane (9.739)
-1,2-Dibromoethane (9.868)
-2-Hexanone (10.173)
-Chlorobenzene-D5 (10.498)+
m+p-Xylenes (10.752)
-o-Xylene (11.315)
Bromoform (11.385)+
-Isopropylbenzene (11.720)
-P-Bromofluorobenzene (12.045)
-Bromobenzene (12.151)+
N-Propylbenzene (12.225)
-1,1,2,2-Tetrachloroethane (12.315)
2-Chlorotoluene (12.385)
-4-Chlorotoluene (12.582)
1,2,3-Trichloropropane (12.463)+
-tert-Butylbenzene (12.823)
-sec-Butylbenzene (13.022)
1,2,4-Trimethylbenzene (12.903)
-1,3-Dichlorobenzene (13.257)
-1,4-Dichlorobenzene-D4 (13.337)+
P-Isopropyltoluene (13.192)
-1,2-Dichlorobenzene (13.787)
N-Butylbenzene (13.649)
-1,2-Dibromo-3-Chloropropa (14.623)
-1,3,5-Trichlorobenzene (14.662)
1,2,4-Trichlorobenzene (15.305)+
-Naphthalene (15.626)
-1,2,3-Trichlorobenzene (15.807)
-1,2-Dichloroethylene (tot (17.080)

Data File: \\target_server\gg\chem\gcms-c.i\C092021.b\C0730.D
Report Date: 24-Sep-2021 13:11

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-c.i\C092021.b\C0730.D
Lab Smp Id: WG306314-5
Inj Date : 20-SEP-2021 12:21
Operator : ES   Inst ID: gcms-c.i
Smp Info : WG306314-5
Misc Info :
Comment   : SW846 5030
Method   : \\target_server\gg\chem\gcms-c.i\C092021.b\C8A05(51).m
Meth Date : 21-Sep-2021 08:25 hgould   Quant Type: ISTD
Cal Date : 20-SEP-2021 12:21   Cal File: C0730.D
Als bottle: 7   Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE   Compound Sublist: all.sub
Target Version: 4.12

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)	REVIEW CODE
1	Dichlorodifluoromethane	85	1.411	1.411	(0.215)	278202	100.000	96.6	
2	Chloromethane	50	1.575	1.579	(0.240)	356641	100.000	97.6	
3	Vinyl chloride	62	1.646	1.643	(0.251)	342626	100.000	100	
4	Bromomethane	94	1.919	1.919	(0.292)	202211	100.000	103	
5	Chloroethane	64	2.016	2.019	(0.307)	130736	100.000	76.5	
6	Trichlorofluoromethane	101	2.151	2.150	(0.328)	501776	100.000	97.0	
7	Diethyl Ether	59	2.446	2.444	(0.373)	269899	100.000	103	
8	1,1-Dichloroethene	96	2.630	2.630	(0.401)	319910	100.000	96.9	
9	Carbon Disulfide	76	2.655	2.656	(0.405)	737627	100.000	103	
10	Freon-113	151	2.678	2.681	(0.408)	223865	100.000	103	
11	Iodomethane	142	2.771	2.772	(0.422)	293530	100.000	99.1	
12	Acrolein	56	2.974	2.977	(0.453)	127165	500.000	505	
13	Allyl Chloride	41	3.128	3.128	(0.476)	383771	100.000	99.7	
14	Methylene Chloride	84	3.247	3.247	(0.495)	343135	100.000	94.0	
15	Acetone	43	3.311	3.312	(0.504)	406201	500.000	429	
16	trans-1,2-Dichloroethene	96	3.437	3.434	(0.524)	382852	100.000	96.4	
17	Methyl Acetate	43	3.466	3.469	(0.528)	352719	100.000	95.9	
18	Methyl tert-butyl ether	73	3.591	3.591	(0.547)	1087120	100.000	99.7	
19	Tertiary-butyl alcohol	59	3.749	3.746	(0.571)	182018	500.000	555	
20	Acetonitrile	41	3.877	3.878	(0.591)	502851	1000.00	906	
21	Di-isopropyl ether	45	4.118	4.122	(0.627)	1158546	100.000	105	
22	Chloroprene	53	4.218	4.218	(0.643)	602859	100.000	105	
23	1,1-Dichloroethane	63	4.250	4.244	(0.647)	722911	100.000	99.0	
24	Acrylonitrile	52	4.327	4.325	(0.659)	616183	500.000	486	

Data File: \\target_server\gg\chem\gcms-c.i\C092021.b\C0730.D
Report Date: 24-Sep-2021 13:11

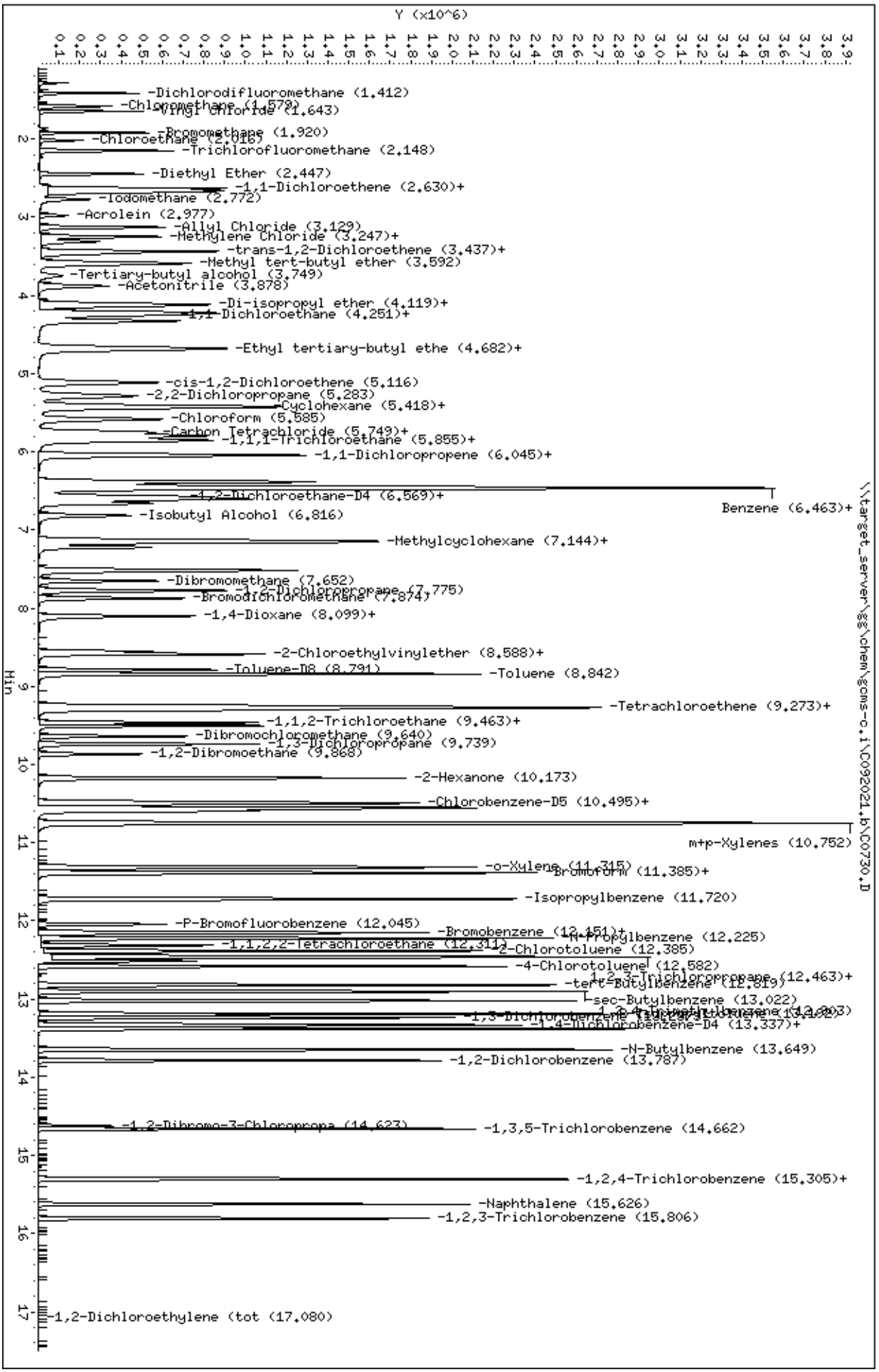
							AMOUNTS		
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)	REVIEW CODE
	25 Ethyl tertiary-butyl ether	59	4.681	4.675	(0.713)	1121339	100.000	107	
	26 Vinyl Acetate	43	4.681	4.678	(0.648)	559155	100.000	103	
	27 cis-1,2-Dichloroethene	96	5.115	5.106	(0.779)	402951	100.000	95.8	
	28 2,2-Dichloropropane	77	5.282	5.286	(0.805)	553247	100.000	102	
	29 Cyclohexane	56	5.417	5.421	(0.825)	667592	100.000	102	
	30 Bromochloromethane	128	5.427	5.424	(0.827)	153697	100.000	96.0	
	31 Chloroform	83	5.585	5.582	(0.851)	700637	100.000	98.4	
	32 Carbon Tetrachloride	117	5.748	5.752	(0.796)	549954	100.000	104	
	33 Tetrahydrofuran	42	5.797	5.797	(0.883)	647980	500.000	469	
	34 1,1,1-Trichloroethane	97	5.855	5.852	(0.892)	662888	100.000	102	
$	35 Dibromofluoromethane	113	5.855	5.849	(0.892)	140499	50.0000	50.6	
	36 1,1-Dichloropropene	75	6.041	6.038	(0.836)	583408	100.000	99.6	
	37 2-Butanone	43	6.044	6.045	(0.921)	795016	500.000	454	
	38 Benzene	78	6.382	6.379	(0.883)	1551154	100.000	95.6	
	39 Propionitrile	54	6.433	6.427	(0.980)	572235	1000.00	937	
	40 Methacrylonitrile	41	6.462	6.459	(0.984)	2043787	1000.00	950	
$	41 1,2-Dichloroethane-D4	65	6.568	6.566	(1.000)	172108	50.0000	50.1	
*	42 Pentafluorobenzene	168	6.565	6.566	(1.000)	269415	50.0000		
	43 Tertiary-amyl methyl ether	73	6.604	6.604	(1.006)	1019228	100.000	107	
	44 Isobutyl Alcohol	43	6.816	6.813	(1.038)	363960	2000.00	2190	
	45 1,2-Dichloroethane	62	6.658	6.656	(0.922)	521962	100.000	96.4	
	46 Methylcyclohexane	83	7.134	7.128	(1.087)	717086	100.000	107	
	47 Trichloroethene	95	7.160	7.157	(0.991)	392804	100.000	97.3	
*	48 1,4-Difluorobenzene	114	7.224	7.218	(1.000)	476065	50.0000		
	49 Dibromomethane	93	7.652	7.652	(1.059)	245455	100.000	99.3	
	50 1,2-Dichloropropane	63	7.777	7.771	(1.077)	406315	100.000	99.1	
	51 Bromodichloromethane	83	7.874	7.874	(1.090)	519349	100.000	106	
	52 1,4-Dioxane	88	8.115	8.109	(1.123)	109618	2000.00	1770	
	53 Methyl Methacrylate	41	8.099	8.099	(1.121)	327345	100.000	101	
	54 2-Chloroethylvinylether	63	8.552	8.553	(1.184)	250444	100.000	105	
	55 cis-1,3-dichloropropene	75	8.588	8.587	(1.189)	659911	100.000	107	
$	56 Toluene-D8	98	8.790	8.787	(1.217)	596941	50.0000	50.0	
	57 Toluene	91	8.842	8.842	(1.224)	1588386	100.000	95.0	
	58 Tetrachloroethene	164	9.250	9.247	(0.883)	299912	100.000	99.3	
	59 4-methyl-2-pentanone	43	9.272	9.273	(1.283)	1604737	500.000	471	
	60 trans-1,3-Dichloropropene	75	9.301	9.302	(1.287)	602367	100.000	108	
	61 1,1,2-Trichloroethane	83	9.462	9.459	(1.310)	289845	100.000	98.9	
	62 Ethyl Methacrylate	69	9.504	9.504	(1.316)	561185	100.000	102	
	63 Dibromochloromethane	129	9.639	9.636	(0.920)	372525	100.000	112	
	64 1,3-Dichloropropane	76	9.739	9.736	(0.929)	658747	100.000	98.7	
	65 1,2-Dibromoethane	107	9.867	9.868	(1.366)	345090	100.000	98.8	
	66 2-Hexanone	43	10.173	10.173	(0.971)	1158827	500.000	492	
*	67 Chlorobenzene-D5	117	10.478	10.475	(1.000)	431918	50.0000		
	68 Chlorobenzene	112	10.497	10.495	(1.002)	1025233	100.000	95.3	
	69 Ethylbenzene	91	10.552	10.553	(1.007)	1838133	100.000	97.5	
	70 1,1,1,2-Tetrachloroethane	131	10.594	10.594	(1.011)	348429	100.000	106	
	71 m+p-Xylenes	91	10.752	10.749	(1.026)	2712789	200.000	192	
	72 o-Xylene	91	11.314	11.311	(1.080)	1461671	100.000	102	
	73 Bromoform	173	11.391	11.389	(1.087)	236795	100.000	97.9	
	74 Styrene	104	11.382	11.382	(1.086)	1128144	100.000	109	
	75 Isopropylbenzene	105	11.723	11.720	(0.880)	1782996	100.000	100	
$	76 P-Bromofluorobenzene	95	12.044	12.041	(1.667)	232533	50.0000	50.3	
	77 Bromobenzene	156	12.150	12.151	(0.912)	391689	100.000	95.8	
	78 cis-1,4-Dichloro-2-Butene	53	12.141	12.138	(0.911)	153325	100.000	102	

Data File: \\target_server\gg\chem\gcms-c.i\C092021.b\C0730.D
Report Date: 24-Sep-2021 13:11

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)	REVIEW CODE
	79 N-Propylbenzene	91	12.224	12.221	(0.917)	2098250	100.000	97.0	
	80 1,1,2,2-Tetrachloroethane	83	12.311	12.311	(0.924)	454755	100.000	95.6	
	81 2-Chlorotoluene	91	12.385	12.382	(0.930)	1293759	100.000	98.5	
	82 1,2,3-Trichloropropane	75	12.449	12.450	(0.934)	422587	100.000	96.6	
	83 1,3,5-Trimethylbenzene	105	12.465	12.462	(0.936)	1458530	100.000	101	
	84 trans-1,4-Dichloro-2-Butene	53	12.510	12.511	(0.939)	158816	100.000	107	
	85 4-Chlorotoluene	91	12.581	12.578	(0.944)	1344710	100.000	98.2	
	86 tert-Butylbenzene	119	12.822	12.819	(0.962)	1235368	100.000	100	
	87 1,2,4-Trimethylbenzene	105	12.903	12.900	(0.968)	1486661	100.000	101	
	88 sec-Butylbenzene	105	13.022	13.022	(0.977)	1835457	100.000	100	
	89 P-Isopropyltoluene	119	13.192	13.189	(0.990)	1482101	100.000	102	
	90 1,3-Dichlorobenzene	146	13.237	13.234	(0.993)	750458	100.000	97.7	
*	91 1,4-Dichlorobenzene-D4	152	13.324	13.321	(1.000)	220441	50.0000		
	92 1,4-Dichlorobenzene	146	13.337	13.337	(1.001)	761981	100.000	94.4	
	93 1,2,3-Trimethylbenzene	105	13.378	13.376	(1.004)	1551415	100.000	102	
	95 N-Butylbenzene	91	13.648	13.646	(1.024)	1482534	100.000	103	
	96 1,2-Dichlorobenzene	146	13.787	13.784	(1.035)	713250	100.000	96.3	
	97 1,2-Dibromo-3-Chloropropane	157	14.623	14.620	(1.097)	88640	100.000	97.2	
	98 1,3,5-Trichlorobenzene	180	14.661	14.662	(1.100)	578407	100.000	105	
	99 1,2,4-Trichlorobenzene	180	15.308	15.305	(1.149)	505901	100.000	102	
	100 Hexachlorobutadiene	225	15.295	15.295	(1.148)	215640	100.000	100	
	101 Naphthalene	128	15.626	15.626	(1.173)	1324563	100.000	98.4	
	102 1,2,3-Trichlorobenzene	180	15.806	15.803	(1.186)	485575	100.000	102	
M	103 1,2-Dichloroethylene (total)	96				785803	100.000		(a)
M	104 Xylenes (total)	91				4174460	100.000		(a)
M	105 Total Alkylbenzenes	100				11078901	100.000		(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).


Data File: \\target_server\gg\chem\gcms-c.i\C092021.b\C0730.D
Date : 20-SEP-2021 12:21
Client ID:
Sample Info: WG306314-5
Purge Volume: 5.0
Column phase: RTX-VMS
Instrument: gcms-c.i
Operator: ES
Column diameter: 0.18
\\target_server\gg\chem\gcms-c.i\C092021.b\C0730.D
Y (x10^6)
Min
-Dichlorodifluoromethane (1.412)
-Chloromethane (1.579)
-Vinyl Chloride (1.643)
-Bromomethane (1.920)
-Chloroethane (2.016)
-Trichlorofluoromethane (2.148)
-Diethyl Ether (2.447)
-1,1-Dichloroethene (2.630)+
-Iodomethane (2.772)
-Acrolein (2.977)
-Allyl Chloride (3.129)
-Methylene Chloride (3.247)+
-trans-1,2-Dichloroethene (3.437)+
-Methyl tert-butyl ether (3.592)
-Tertiary-butyl alcohol (3.749)
-Acetonitrile (3.878)
-Di-isopropyl ether (4.119)+
-1,1-Dichloroethane (4.251)+
-Ethyl tertiary-butyl ethe (4.682)+
-cis-1,2-Dichloroethene (5.116)
-2,2-Dichloropropane (5.283)
-Cyclohexane (5.418)+
-Chloroform (5.585)
-Carbon Tetrachloride (5.749)+
-1,1,1-Trichloroethane (5.855)+
-1,1-Dichloropropene (6.045)+
-1,2-Dichloroethane-D4 (6.569)+
Benzene (6.463)+
-Isobutyl Alcohol (6.816)
-Methylcyclohexane (7.144)+
-Dibromomethane (7.652)
-1,2-Dichloropropane (7.775)
-Bromodichloromethane (7.874)
-1,4-Dioxane (8.099)+
-2-Chloroethylvinylether (8.588)+
-Toluene-D8 (8.791)
-Toluene (8.842)
-Tetrachloroethene (9.273)+
-1,1,2-Trichloroethane (9.463)+
-Dibromochloromethane (9.640)
-1,3-Dichloropropane (9.739)
-1,2-Dibromoethane (9.868)
-2-Hexanone (10.173)
-Chlorobenzene-D5 (10.495)+
m+p-Xylenes (10.752)
-o-Xylene (11.315)
-Bromoform (11.385)+
-Isopropylbenzene (11.720)
-P-Bromofluorobenzene (12.045)
-Bromobenzene (12.151)+
-n-Propylbenzene (12.225)
-1,1,2,2-Tetrachloroethane (12.311)
-2-Chlorotoluene (12.385)
-4-Chlorotoluene (12.582)
-1,2,3-Trichloropropane (12.463)+
-tert-Butylbenzene (12.819)
-sec-Butylbenzene (13.022)
-1,3-Dichlorobenzene (13.232)
-1,4-Dichlorobenzene-D4 (13.337)+
-N-Butylbenzene (13.649)
-1,2-Dichlorobenzene (13.787)
-1,2-Dibromo-3-Chloropropa (14.623)
-1,3,5-Trichlorobenzene (14.662)
-1,2,4-Trichlorobenzene (15.305)+
-Naphthalene (15.626)
-1,2,3-Trichlorobenzene (15.806)
-1,2-Dichloroethylene (tot (17.080)

Data File: \\target_server\gg\chem\gcms-c.i\C092021.b\C0731.D
Report Date: 24-Sep-2021 13:11

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-c.i\C092021.b\C0731.D
Lab Smp Id: WG306314-7
Inj Date : 20-SEP-2021 12:52
Operator : ES   Inst ID: gcms-c.i
Smp Info : WG306314-7
Misc Info :
Comment   : SW846 5030
Method   : \\target_server\gg\chem\gcms-c.i\C092021.b\C8A05(51).m
Meth Date : 21-Sep-2021 08:25 hgould   Quant Type: ISTD
Cal Date : 20-SEP-2021 12:52   Cal File: C0731.D
Als bottle: 8   Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE   Compound Sublist: all.sub
Target Version: 4.12

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)	REVIEW CODE
1	Dichlorodifluoromethane	85	1.411	1.411	(0.215)	212017	75.0000	74.1	
2	Chloromethane	50	1.575	1.579	(0.240)	265377	75.0000	73.1	
3	Vinyl chloride	62	1.643	1.643	(0.250)	254850	75.0000	75.0	
4	Bromomethane	94	1.919	1.919	(0.293)	151115	75.0000	77.4	
5	Chloroethane	64	2.016	2.019	(0.307)	126450	75.0000	74.5	
6	Trichlorofluoromethane	101	2.151	2.150	(0.328)	389551	75.0000	75.8	
7	Diethyl Ether	59	2.446	2.444	(0.373)	192991	75.0000	74.3	
8	1,1-Dichloroethene	96	2.630	2.630	(0.401)	243259	75.0000	74.2	
9	Carbon Disulfide	76	2.655	2.656	(0.405)	552898	75.0000	77.6	
10	Freon-113	151	2.678	2.681	(0.408)	166034	75.0000	76.8	
11	Iodomethane	142	2.771	2.772	(0.422)	217828	75.0000	74.0	
12	Acrolein	56	2.977	2.977	(0.454)	93351	375.000	373	
13	Allyl Chloride	41	3.128	3.128	(0.477)	280429	75.0000	73.4	
14	Methylene Chloride	84	3.247	3.247	(0.495)	256613	75.0000	70.8	
15	Acetone	43	3.311	3.312	(0.505)	361121	375.000	367	
16	trans-1,2-Dichloroethene	96	3.437	3.434	(0.524)	289566	75.0000	73.4	
17	Methyl Acetate	43	3.469	3.469	(0.529)	265670	75.0000	72.7	
18	Methyl tert-butyl ether	73	3.588	3.591	(0.547)	812998	75.0000	75.0	
19	Tertiary-butyl alcohol	59	3.742	3.746	(0.570)	133586	375.000	361	
20	Acetonitrile	41	3.877	3.878	(0.591)	383196	750.000	695	
21	Di-isopropyl ether	45	4.122	4.122	(0.628)	847666	75.0000	77.3	
22	Chloroprene	53	4.218	4.218	(0.643)	451166	75.0000	79.3	
23	1,1-Dichloroethane	63	4.250	4.244	(0.648)	547218	75.0000	75.4	
24	Acrylonitrile	52	4.324	4.325	(0.659)	461085	375.000	366	

Data File: \\target_server\gg\chem\gcms-c.i\C092021.b\C0731.D
Report Date: 24-Sep-2021 13:11

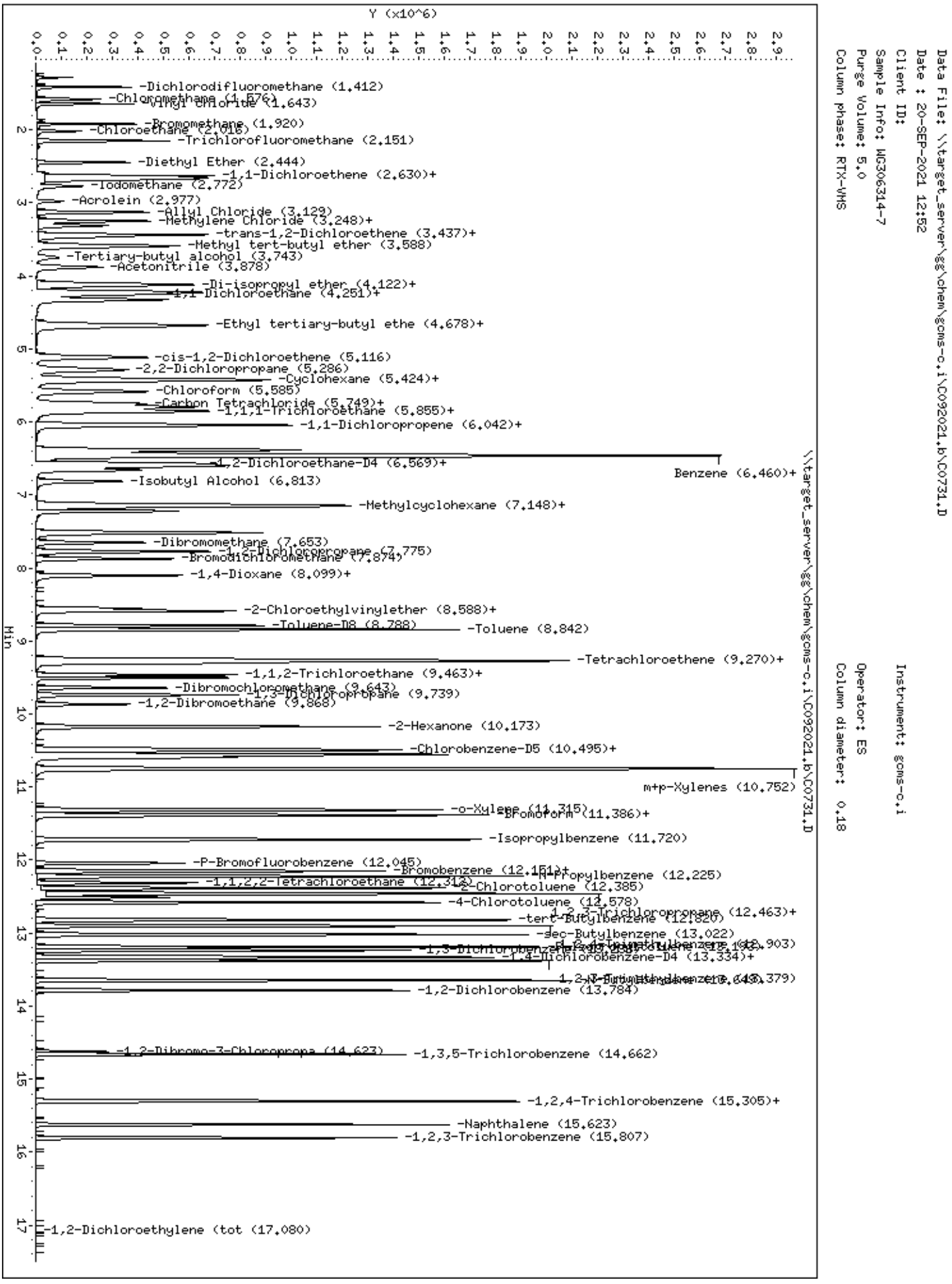
			QUANT SIG					AMOUNTS		
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)	REVIEW CODE
	25	Ethyl tertiary-butyl ether	59	4.675	4.675	(0.712)	813617	75.0000	78.1	
	26	Vinyl Acetate	43	4.681	4.678	(0.648)	417727	75.0000	76.7	
	27	cis-1,2-Dichloroethene	96	5.115	5.106	(0.780)	303946	75.0000	72.7	
	28	2,2-Dichloropropane	77	5.286	5.286	(0.805)	411493	75.0000	76.3	
	29	Cyclohexane	56	5.424	5.421	(0.827)	514208	75.0000	78.8	
	30	Bromochloromethane	128	5.427	5.424	(0.827)	117248	75.0000	73.7	
	31	Chloroform	83	5.585	5.582	(0.851)	530880	75.0000	75.0	
	32	Carbon Tetrachloride	117	5.749	5.752	(0.796)	421271	75.0000	79.2	
	33	Tetrahydrofuran	42	5.794	5.797	(0.883)	503201	375.000	366	
	34	1,1,1-Trichloroethane	97	5.855	5.852	(0.892)	507828	75.0000	78.6	
$	35	Dibromofluoromethane	113	5.851	5.849	(0.892)	141222	50.0000	51.2	
	36	1,1-Dichloropropene	75	6.044	6.038	(0.837)	440154	75.0000	74.8	
	37	2-Butanone	43	6.044	6.045	(0.921)	627307	375.000	361	
	38	Benzene	78	6.382	6.379	(0.884)	1181472	75.0000	72.5	
	39	Propionitrile	54	6.430	6.427	(0.980)	424601	750.000	700	
	40	Methacrylonitrile	41	6.466	6.459	(0.985)	1556643	750.000	728	
$	41	1,2-Dichloroethane-D4	65	6.568	6.566	(1.001)	171369	50.0000	50.2	
*	42	Pentafluorobenzene	168	6.562	6.566	(1.000)	267616	50.0000		
	43	Tertiary-amyl methyl ether	73	6.601	6.604	(1.006)	729435	75.0000	77.0	
	44	Isobutyl Alcohol	43	6.816	6.813	(1.039)	263306	1500.00	1460	
	45	1,2-Dichloroethane	62	6.659	6.656	(0.922)	386003	75.0000	71.0	
	46	Methylcyclohexane	83	7.134	7.128	(1.087)	538981	75.0000	81.0	
	47	Trichloroethene	95	7.160	7.157	(0.992)	296600	75.0000	73.2	
*	48	1,4-Difluorobenzene	114	7.221	7.218	(1.000)	478053	50.0000		
	49	Dibromomethane	93	7.652	7.652	(1.060)	182139	75.0000	73.4	
	50	1,2-Dichloropropane	63	7.777	7.771	(1.077)	302722	75.0000	73.6	
	51	Bromodichloromethane	83	7.874	7.874	(1.090)	383569	75.0000	77.9	
	52	1,4-Dioxane	88	8.109	8.109	(1.123)	87194	1500.00	1400	
	53	Methyl Methacrylate	41	8.099	8.099	(1.122)	239819	75.0000	73.7	
	54	2-Chloroethylvinylether	63	8.552	8.553	(1.184)	187391	75.0000	78.2	
	55	cis-1,3-dichloropropene	75	8.591	8.587	(1.190)	491268	75.0000	79.0	
$	56	Toluene-D8	98	8.787	8.787	(1.217)	595289	50.0000	49.6	
	57	Toluene	91	8.842	8.842	(1.224)	1213455	75.0000	72.3	
	58	Tetrachloroethene	164	9.247	9.247	(0.883)	225499	75.0000	75.0	
	59	4-methyl-2-pentanone	43	9.273	9.273	(1.284)	1258427	375.000	368	
	60	trans-1,3-Dichloropropene	75	9.301	9.302	(1.288)	444372	75.0000	79.0	
	61	1,1,2-Trichloroethane	83	9.462	9.459	(1.310)	217163	75.0000	73.8	
	62	Ethyl Methacrylate	69	9.504	9.504	(1.316)	400964	75.0000	72.7	
	63	Dibromochloromethane	129	9.642	9.636	(0.921)	271020	75.0000	82.2	
	64	1,3-Dichloropropane	76	9.739	9.736	(0.930)	494123	75.0000	74.4	
	65	1,2-Dibromoethane	107	9.867	9.868	(1.366)	255350	75.0000	72.8	
	66	2-Hexanone	43	10.173	10.173	(0.971)	888212	375.000	379	
*	67	Chlorobenzene-D5	117	10.475	10.475	(1.000)	429926	50.0000		
	68	Chlorobenzene	112	10.501	10.495	(1.002)	765274	75.0000	71.5	
	69	Ethylbenzene	91	10.552	10.553	(1.007)	1393355	75.0000	74.3	
	70	1,1,1,2-Tetrachloroethane	131	10.591	10.594	(1.011)	255458	75.0000	78.2	
	71	m+p-Xylenes	91	10.752	10.749	(1.026)	2088601	150.000	149	
	72	o-Xylene	91	11.314	11.311	(1.080)	1085959	75.0000	76.0	
	73	Bromoform	173	11.395	11.389	(1.088)	171656	75.0000	71.3	
	74	Styrene	104	11.382	11.382	(1.087)	823577	75.0000	79.7	
	75	Isopropylbenzene	105	11.719	11.720	(0.880)	1329110	75.0000	77.1	
$	76	P-Bromofluorobenzene	95	12.041	12.041	(1.667)	229463	50.0000	49.4	
	77	Bromobenzene	156	12.153	12.151	(0.912)	286385	75.0000	72.4	
	78	cis-1,4-Dichloro-2-Butene	53	12.141	12.138	(0.911)	105167	75.0000	72.4	

Data File: \\target_server\gg\chem\gcms-c.i\C092021.b\C0731.D
Report Date: 24-Sep-2021 13:11

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)	REVIEW CODE
	79 N-Propylbenzene	91	12.224	12.221	(0.918)	1588365	75.0000	75.9	
	80 1,1,2,2-Tetrachloroethane	83	12.311	12.311	(0.924)	335648	75.0000	72.9	
	81 2-Chlorotoluene	91	12.385	12.382	(0.930)	946727	75.0000	74.4	
	82 1,2,3-Trichloropropane	75	12.452	12.450	(0.935)	309242	75.0000	73.0	
	83 1,3,5-Trimethylbenzene	105	12.465	12.462	(0.936)	1083203	75.0000	77.4	
	84 trans-1,4-Dichloro-2-Butene	53	12.514	12.511	(0.939)	109561	75.0000	76.5	
	85 4-Chlorotoluene	91	12.578	12.578	(0.944)	992630	75.0000	74.8	
	86 tert-Butylbenzene	119	12.819	12.819	(0.962)	913095	75.0000	76.7	
	87 1,2,4-Trimethylbenzene	105	12.903	12.900	(0.969)	1103796	75.0000	77.2	
	88 sec-Butylbenzene	105	13.022	13.022	(0.978)	1380287	75.0000	77.8	
	89 P-Isopropyltoluene	119	13.192	13.189	(0.990)	1109046	75.0000	78.9	
	90 1,3-Dichlorobenzene	146	13.237	13.234	(0.994)	556871	75.0000	74.9	
*	91 1,4-Dichlorobenzene-D4	152	13.321	13.321	(1.000)	213492	50.0000		
	92 1,4-Dichlorobenzene	146	13.337	13.337	(1.001)	559724	75.0000	71.6	
	93 1,2,3-Trimethylbenzene	105	13.378	13.376	(1.004)	1111681	75.0000	75.8	
	95 N-Butylbenzene	91	13.649	13.646	(1.025)	1117091	75.0000	79.9	
	96 1,2-Dichlorobenzene	146	13.787	13.784	(1.035)	529093	75.0000	73.8	
	97 1,2-Dibromo-3-Chloropropane	157	14.623	14.620	(1.098)	64900	75.0000	73.5	
	98 1,3,5-Trichlorobenzene	180	14.661	14.662	(1.101)	405877	75.0000	75.8	
	99 1,2,4-Trichlorobenzene	180	15.308	15.305	(1.149)	374089	75.0000	78.1	
	100 Hexachlorobutadiene	225	15.295	15.295	(1.148)	161247	75.0000	77.6	
	101 Naphthalene	128	15.623	15.626	(1.173)	1013900	75.0000	75.5	
	102 1,2,3-Trichlorobenzene	180	15.806	15.803	(1.187)	356000	75.0000	77.2	
M	103 1,2-Dichloroethylene (total)	96				593512	75.0000	(a)	
M	104 Xylenes (total)	91				3174560	75.0000	(a)	
M	105 Total Alkylbenzenes	100				8294883	75.0000	(a)	

QC Flag Legend

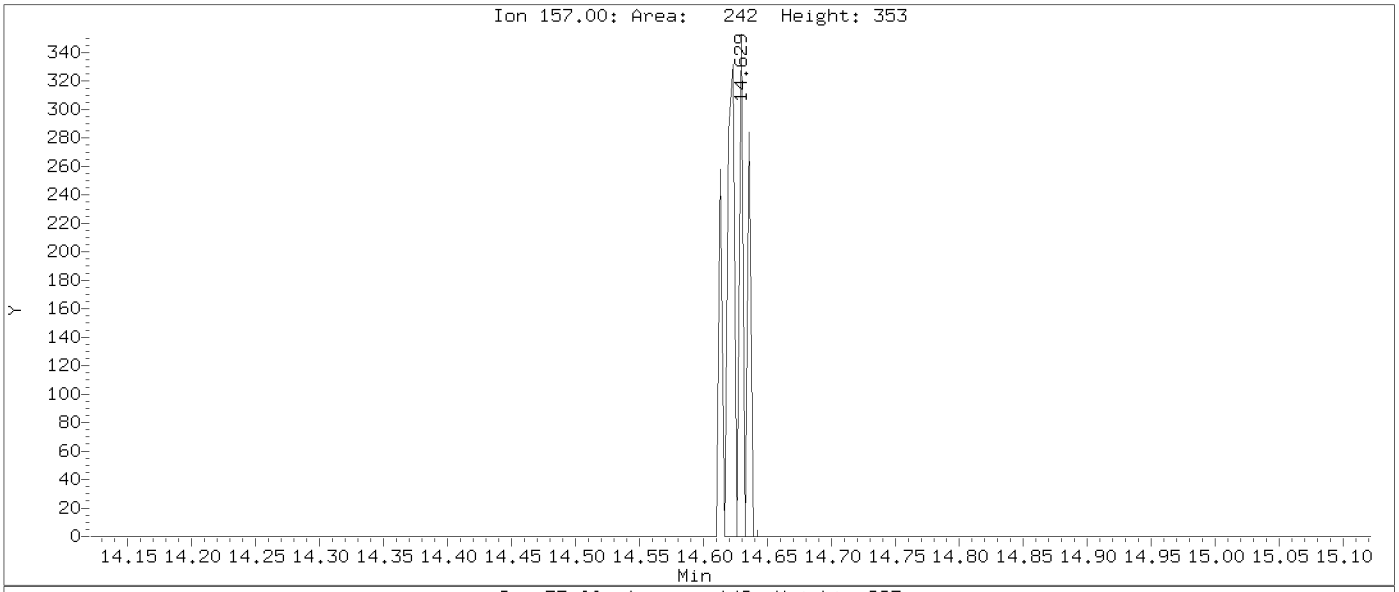
a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

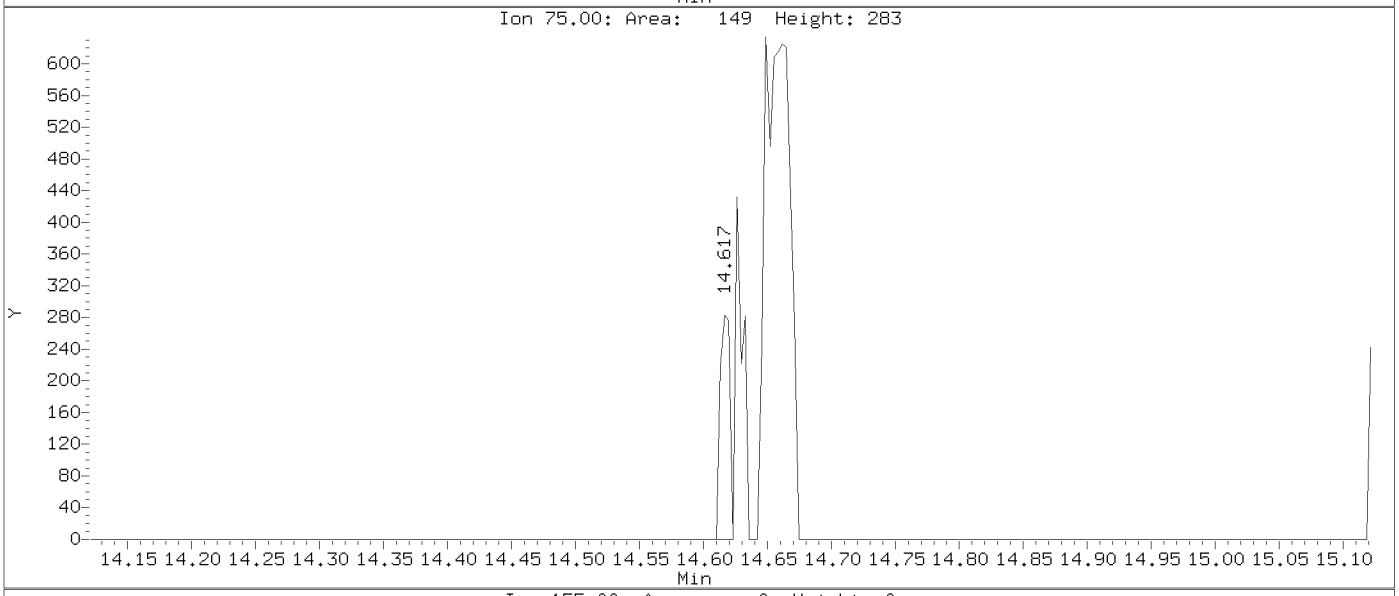

Data File: \\target_server\gg\chem\gcms-c.i\C092021.b\C0731.D
Date : 20-SEP-2021 12:52
Client ID:
Sample Info: WG306314-7
Purge Volume: 5.0
Column phase: RTX-VMS
Instrument: gcms-c.i
Operator: ES
Column diameter: 0.18
\\target_server\gg\chem\gcms-c.i\C092021.b\C0731.D
Y (x10^6)
Min
-Dichlorodifluoromethane (1.412)
-Chloromethane (1.576)
-Vinyl Chloride (1.643)
-Bromomethane (1.920)
-Chloroethane (2.016)
-Trichlorofluoromethane (2.151)
-Diethyl Ether (2.444)
-1,1-Dichloroethene (2.630)+
-Iodomethane (2.772)
-Acrolein (2.977)
-Allyl Chloride (3.129)
-Methylene Chloride (3.248)+
-trans-1,2-Dichloroethene (3.437)+
-Methyl tert-butyl ether (3.588)
-Tertiary-butyl alcohol (3.743)
-Acetonitrile (3.878)
-Di-isopropyl ether (4.122)+
-1,1-Dichloroethane (4.251)+
-Ethyl tertiary-butyl ethe (4.678)+
-cis-1,2-Dichloroethene (5.116)
-2,2-Dichloropropane (5.286)
-Cyclohexane (5.424)+
-Chloroform (5.585)
-Carbon Tetrachloride (5.749)+
-1,1,1-Trichloroethane (5.855)+
-1,1-Dichloropropene (6.042)+
-1,2-Dichloroethane-D4 (6.569)+
Benzene (6.460)+
-Isobutyl Alcohol (6.813)
-Methylcyclohexane (7.148)+
-Dibromomethane (7.653)
-1,2-Dichloropropane (7.775)
-Bromodichloromethane (7.874)
-1,4-Dioxane (8.099)+
-2-Chloroethylvinylether (8.588)+
-Toluene-D8 (8.788)
-Toluene (8.842)
-Tetrachloroethene (9.270)+
-1,1,2-Trichloroethane (9.463)+
-Dibromochloromethane (9.643)
-1,3-Dichloropropane (9.739)
-1,2-Dibromoethane (9.868)
-2-Hexanone (10.173)
-Chlorobenzene-D5 (10.495)+
m+p-Xylenes (10.752)
-o-Xylene (11.315)
-Bromoform (11.386)+
-Isopropylbenzene (11.720)
-P-Bromofluorobenzene (12.045)
-Bromobenzene (12.151)+
-n-Propylbenzene (12.225)
-1,1,2,2-Tetrachloroethane (12.312)
-2-Chlorotoluene (12.385)
-4-Chlorotoluene (12.578)
-1,2,3-Trichloropropane (12.463)+
-tert-Butylbenzene (12.820)
-sec-Butylbenzene (13.022)
-1,3-Dichlorobenzene (13.
-1,4-Dichlorobenzene-D4 (13.334)+
-1,2-Dichlorobenzene (13.784)
-1,2-Dibromo-3-Chloropropa (14.623)
-1,3,5-Trichlorobenzene (14.662)
-1,2,4-Trichlorobenzene (15.305)+
-Naphthalene (15.623)
-1,2,3-Trichlorobenzene (15.807)
-1,2-Dichloroethylene (tot (17.080)

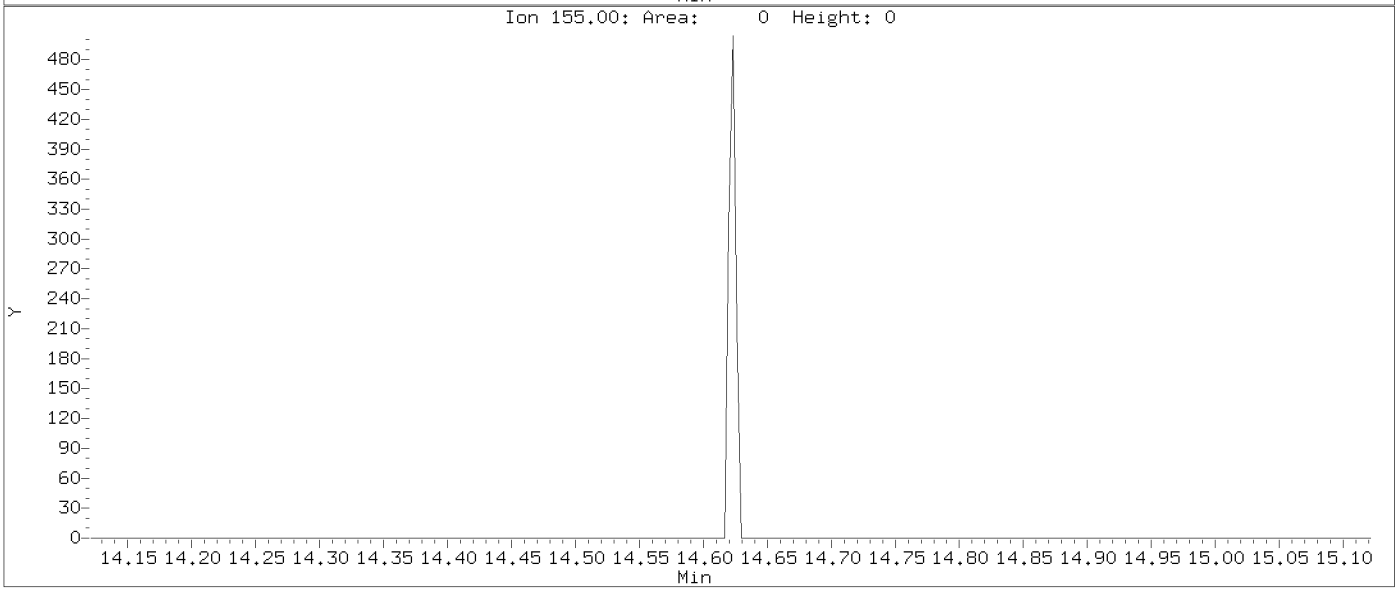
Data File: \\target_server\gg\chem\gcms-c.i\C092021.b\C0728.D
Injection Date: 20-SEP-2021 11:19
Instrument: gcms-c.i
Client Sample ID:

Compound: 1,2-Dibromo-3-Chloropropane
CAS Number: 96-12-8

BEFORE MANUAL INTEGRATION



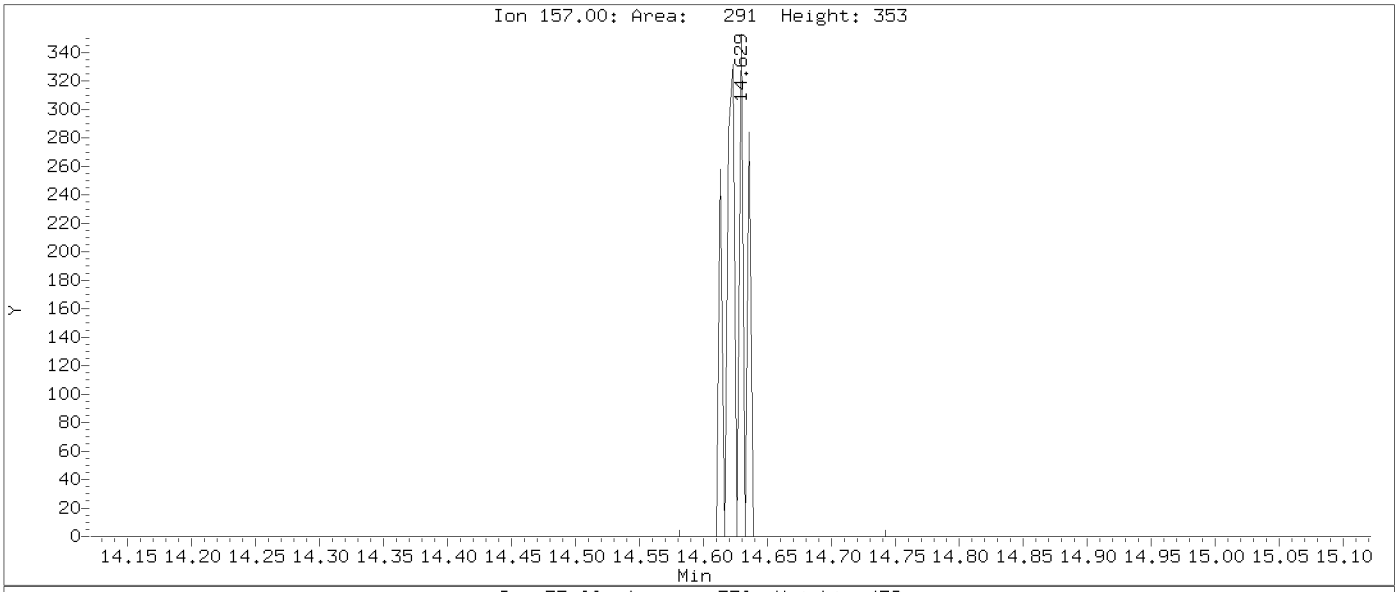


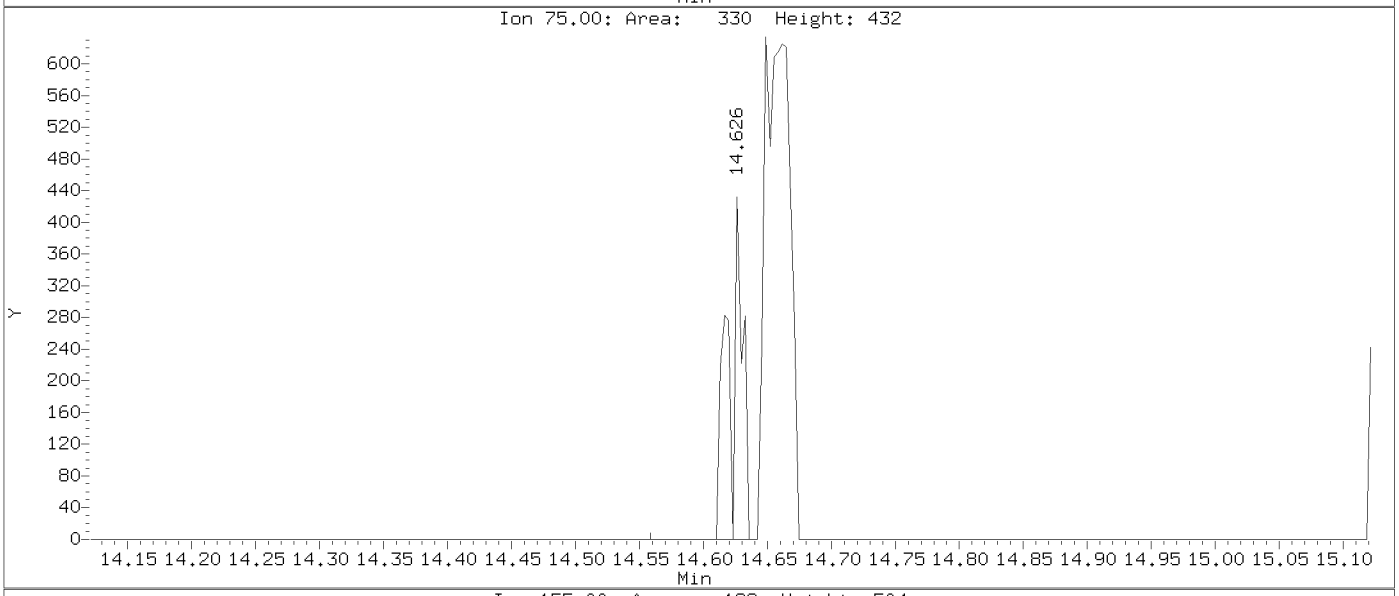


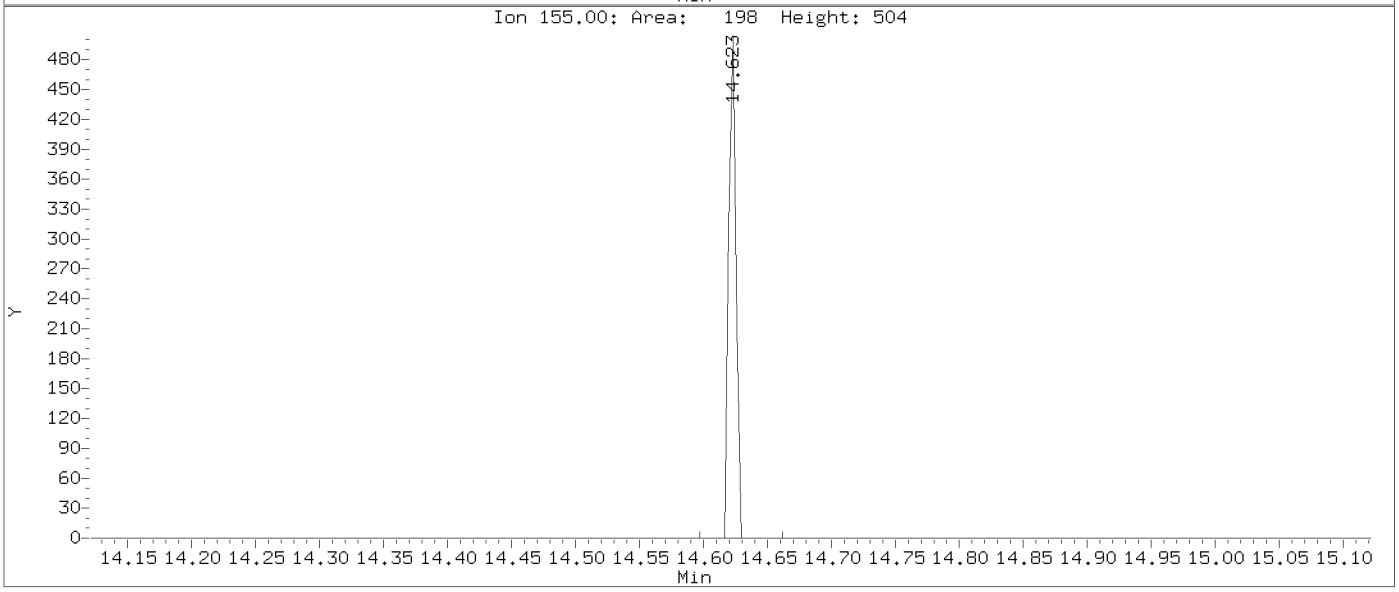
Data File: \\target_server\gg\chem\gcms-c.i\C092021.b\C0728.D
Injection Date: 20-SEP-2021 11:19
Instrument: gcms-c.i
Client Sample ID:

Compound: 1,2-Dibromo-3-Chloropropane
CAS Number: 96-12-8

AFTER MANUAL INTEGRATION



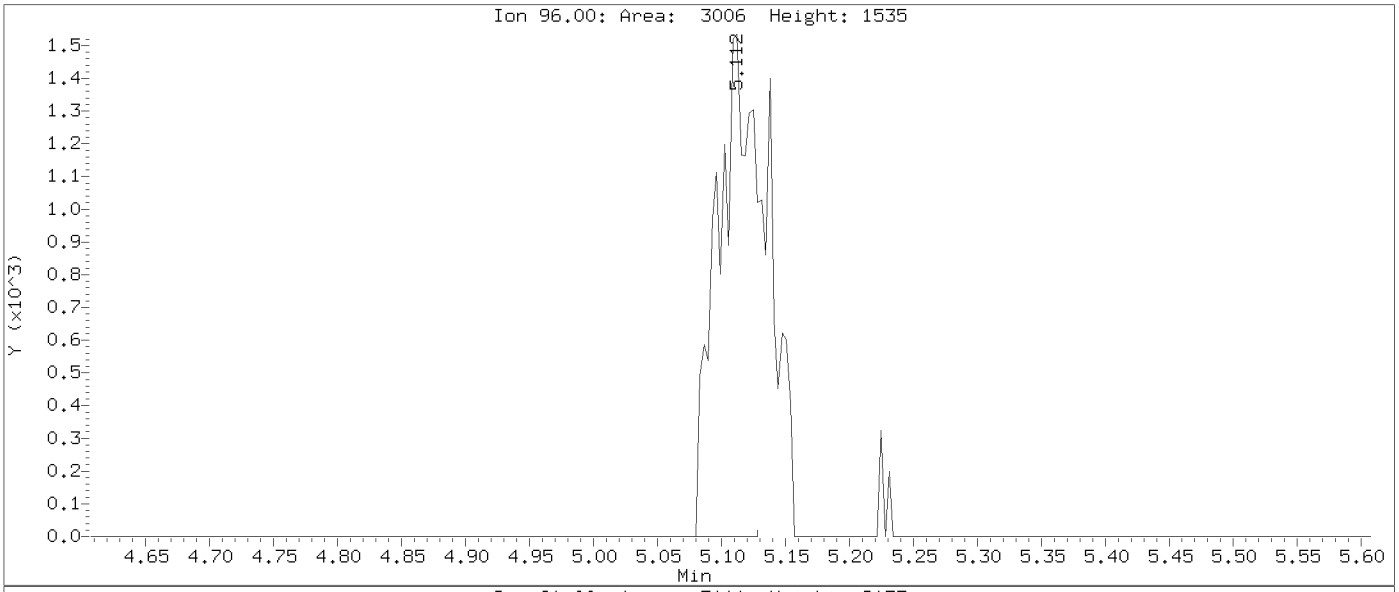


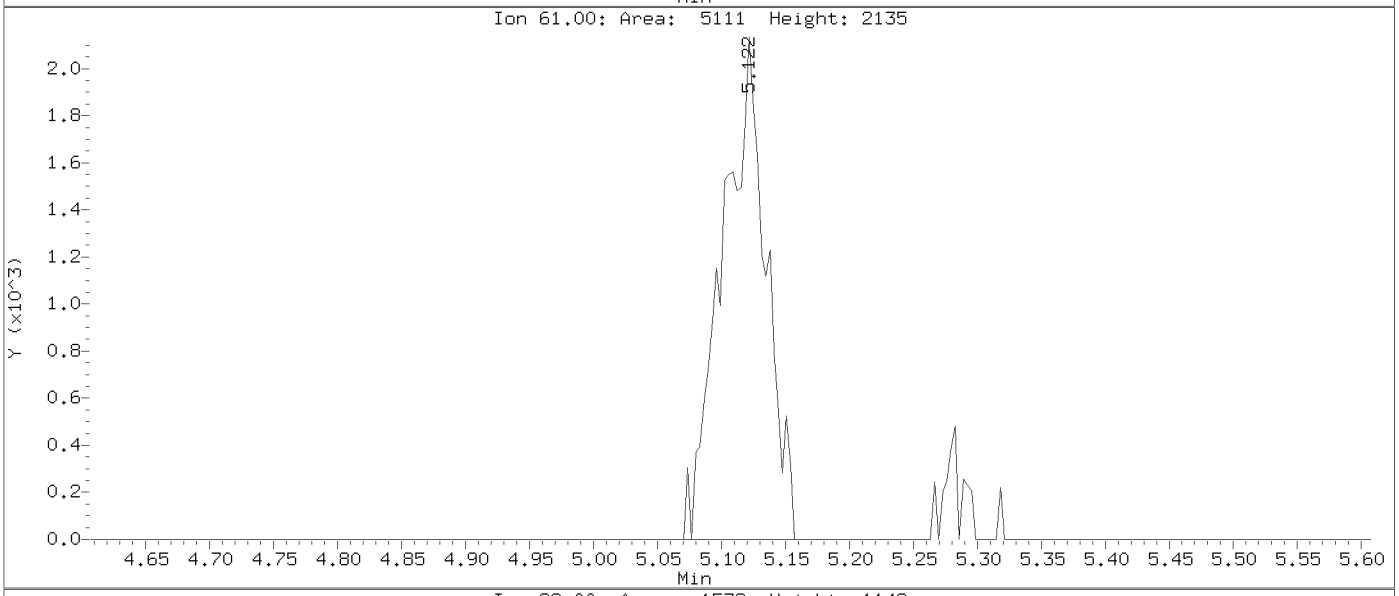


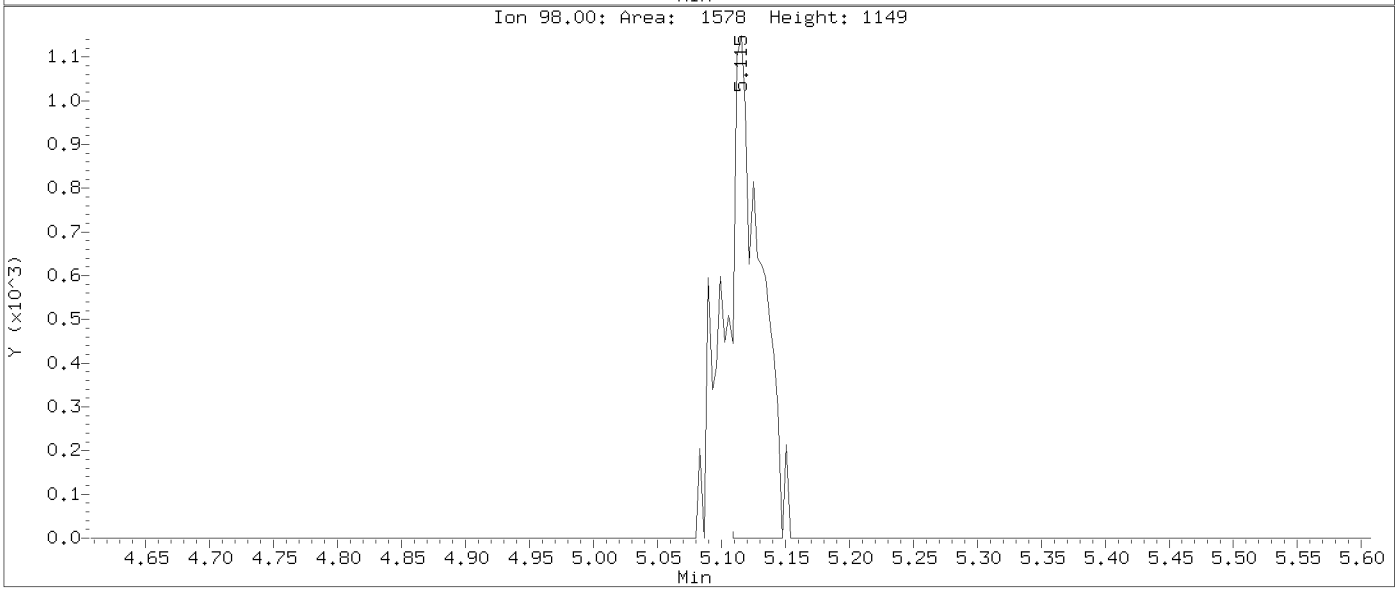
Data File: \\target_server\gg\chem\gcms-c.i\C092021.b\C0728.D
Injection Date: 20-SEP-2021 11:19
Instrument: gcms-c.i
Client Sample ID:

Compound: cis-1,2-Dichloroethene
CAS Number: 156-59-2

BEFORE MANUAL INTEGRATION



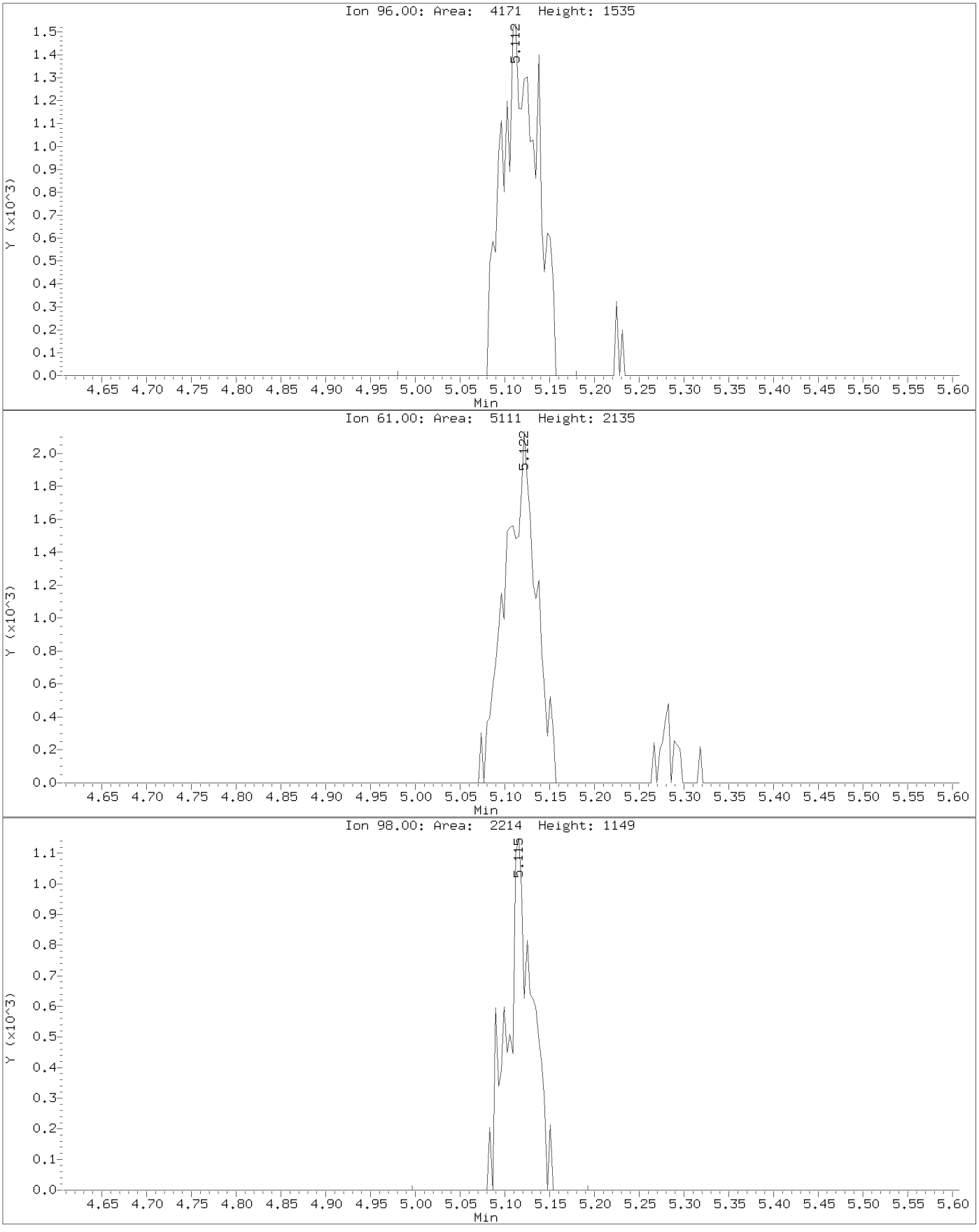




Data File: \\target_server\gg\chem\gcms-c.i\C092021.b\C0728.D
Injection Date: 20-SEP-2021 11:19
Instrument: gcms-c.i
Client Sample ID:

Compound: cis-1,2-Dichloroethene
CAS Number: 156-59-2

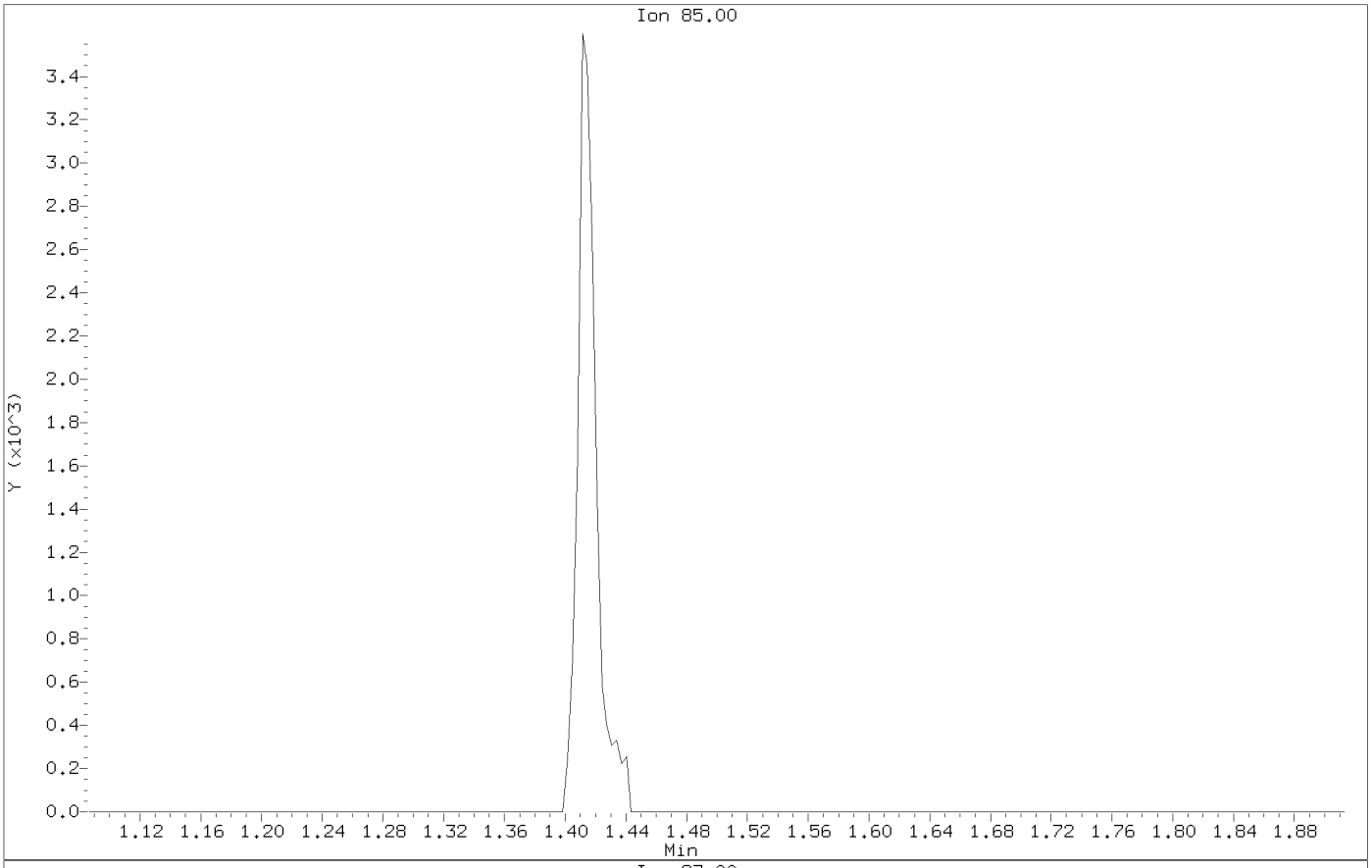
AFTER MANUAL INTEGRATION

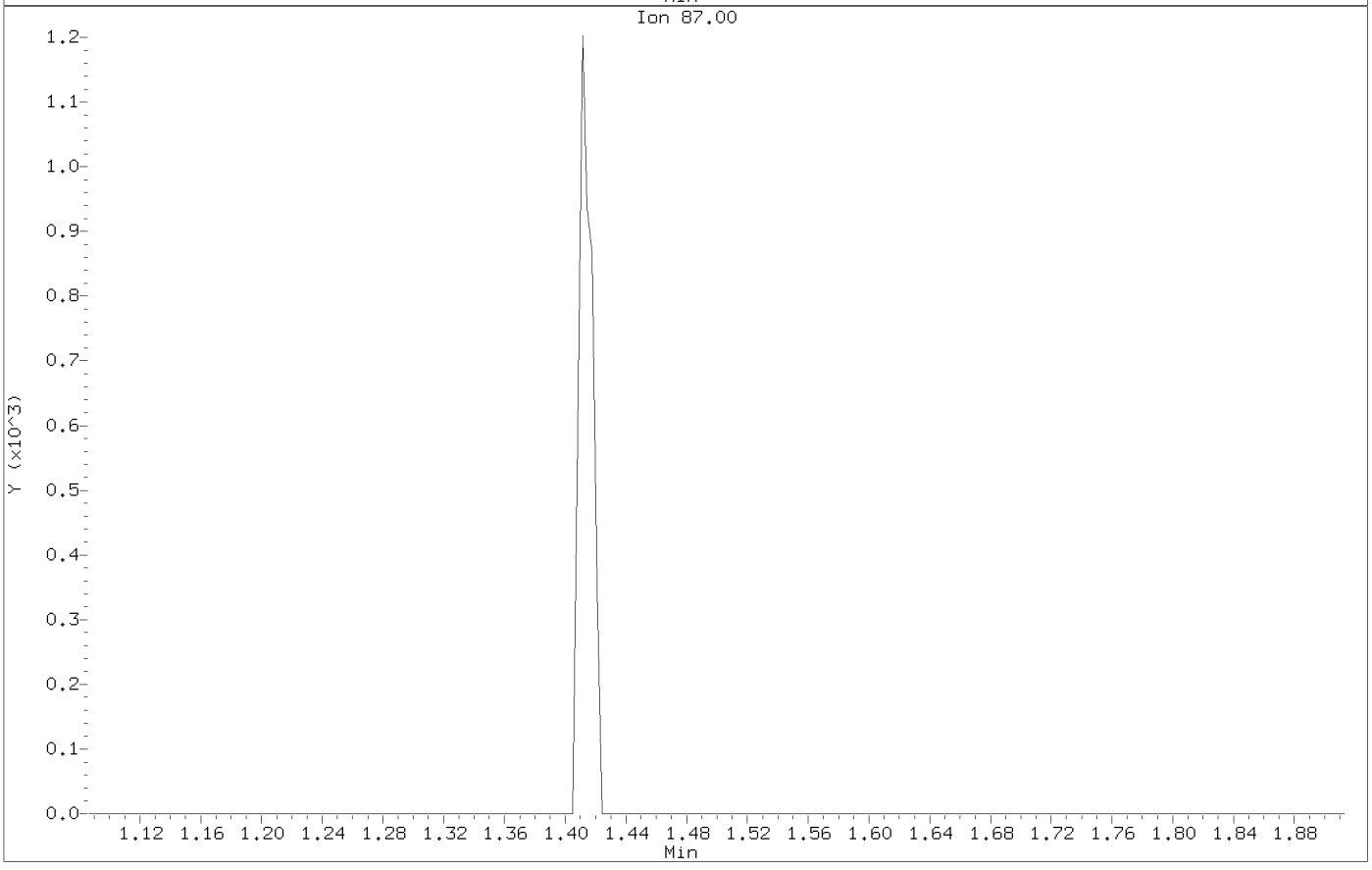


Data File: \\target_server\gg\chem\gcms-c.i\C092021.b\C0728.D
Injection Date: 20-SEP-2021 11:19
Instrument: gcms-c.i
Client Sample ID:

Compound: Dichlorodifluoromethane
CAS Number: 75-00-3

BEFORE MANUAL INTEGRATION

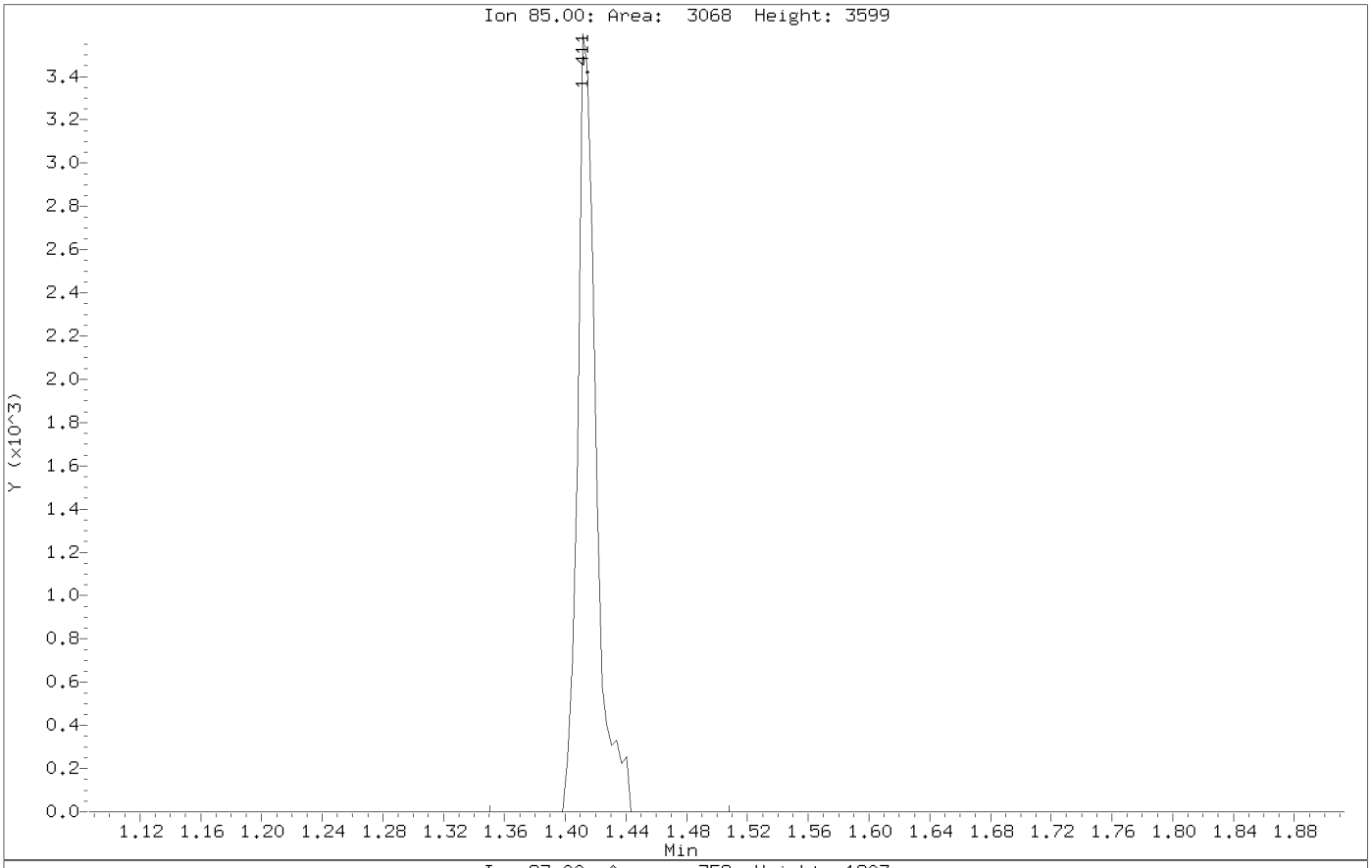


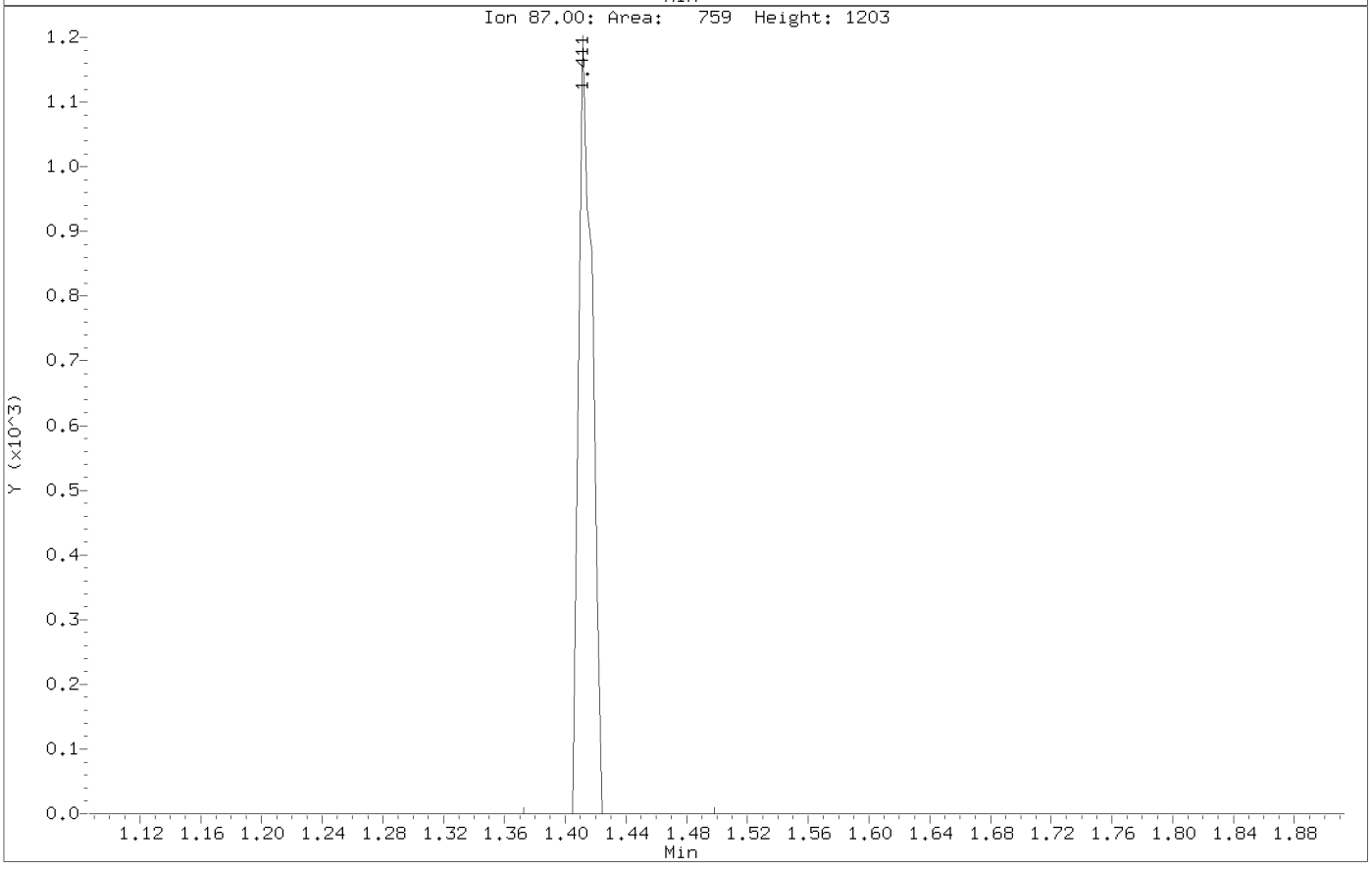


Data File: \\target_server\gg\chem\gcms-c.i\C092021.b\C0728.D
Injection Date: 20-SEP-2021 11:19
Instrument: gcms-c.i
Client Sample ID:

Compound: Dichlorodifluoromethane
CAS Number: 75-00-3

AFTER MANUAL INTEGRATION





Form 7
Calibration Verification Summary

Lab Name : Katahdin Analytical Services
Project : Watervliet Arsenal LTM **SDG:** SO6182
Lab ID : WG306380-4 **Analytical Date:** 09/21/21 07:49
Lab File ID : C0754.D **Instrument ID:** GCMS-C
Initial Calibration Date(s): 09/20/21 09:15 09/20/21 12:52 **Column ID:**

	Compound	$\overline{RRF}$/Amount	RF50	CCAL RRF50	Min	%D/ %Drift	Max %D/ %Drift	Curve Type	
2	Chloromethane	0.67830	0.69498	0.69498	0.100	2.45897	20.00000	Averaged	
3	Vinyl chloride	0.63446	0.64617	0.64617	0.100	1.84621	20.00000	Averaged	
4	Bromomethane	50.00000	54.91367	0.40035	0.100	9.82733	20.00000	Linear	
5	Chloroethane	50.00000	61.83599	0.39237	0.100	23.67197	20.00000	Linear	*
6	Trichlorofluoromethane	0.96017	1.21558	1.21558	0.100	26.60068	20.00000	Averaged	*
8	1,1-Dichloroethene	0.61264	0.64138	0.64138	0.100	4.68995	20.00000	Averaged	
9	Carbon Disulfide	1.33177	1.39584	1.39584	0.100	4.81104	20.00000	Averaged	
14	Methylene Chloride	50.00000	55.20243	0.74803	0.100	10.40486	20.00000	Linear	
16	trans-1,2-Dichloroethene	0.73720	0.70091	0.70091	0.100	-4.92318	20.00000	Averaged	
23	1,1-Dichloroethane	1.35551	1.42801	1.42801	0.200	5.34859	20.00000	Averaged	
27	cis-1,2-Dichloroethene	0.78082	0.74704	0.74704	0.100	-4.32622	20.00000	Averaged	
31	Chloroform	1.32172	1.39925	1.39925	0.200	5.86595	20.00000	Averaged	
32	Carbon Tetrachloride	0.55631	0.63780	0.63780	0.100	14.64975	20.00000	Averaged	
34	1,1,1-Trichloroethane	1.20657	1.34095	1.34095	0.100	11.13799	20.00000	Averaged	
37	2-Butanone	0.32471	0.36556	0.36556	0.100	12.57977	20.00000	Averaged	
38	Benzene	1.70461	1.68485	1.68485	0.500	-1.15943	20.00000	Averaged	
45	1,2-Dichloroethane	0.56893	0.64595	0.64595	0.100	13.53681	20.00000	Averaged	
47	Trichloroethene	0.42398	0.43920	0.43920	0.200	3.58934	20.00000	Averaged	
50	1,2-Dichloropropane	0.43045	0.44706	0.44706	0.100	3.85914	20.00000	Averaged	
51	Bromodichloromethane	0.51501	0.57289	0.57289	0.200	11.23892	20.00000	Averaged	
55	cis-1,3-dichloropropene	0.65014	0.72454	0.72454	0.200	11.44275	20.00000	Averaged	
57	Toluene	1.75587	1.82488	1.82488	0.400	3.93020	20.00000	Averaged	
58	Tetrachloroethene	0.34952	0.34915	0.34915	0.200	-0.10736	20.00000	Averaged	
59	4-methyl-2-pentanone	0.35803	0.43289	0.43289	0.100	20.90954	20.00000	Averaged	*
60	trans-1,3-Dichloropropene	0.58816	0.66636	0.66636	0.100	13.29638	20.00000	Averaged	
61	1,1,2-Trichloroethane	0.30769	0.32323	0.32323	0.100	5.04920	20.00000	Averaged	
63	Dibromochloromethane	0.38336	0.43773	0.43773	0.100	14.18271	20.00000	Averaged	
68	Chlorobenzene	1.24529	1.23473	1.23473	0.500	-0.84768	20.00000	Averaged	
69	Ethylbenzene	2.18191	2.29171	2.29171	0.100	5.03242	20.00000	Averaged	
71	m+p-Xylenes	1.63343	1.77482	1.77482	0.100	8.65580	20.00000	Averaged	
72	o-Xylene	1.66235	1.77661	1.77661	0.300	6.87356	20.00000	Averaged	
73	Bromoform	50.00000	48.39103	0.27086	0.100	-3.21794	20.00000	Linear	
80	1,1,2,2-Tetrachloroethane	1.07872	1.08555	1.08555	0.300	0.63345	20.00000	Averaged	
35	Dibromofluoromethane	0.51532	0.53125	0.53125	0.010	3.09276	20.00000	Averaged	
41	1,2-Dichloroethane-D4	0.63769	0.70804	0.70804	0.010	11.03236	20.00000	Averaged	
56	Toluene-D8	1.25434	1.25764	1.25764	0.010	0.26316	20.00000	Averaged	
76	P-Bromofluorobenzene	0.48581	0.50109	0.50109	0.010	3.14560	20.00000	Averaged	

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://katahdinlab.com
sales@katahdinlab.com

Form 7
Calibration Verification Summary

Lab Name : Katahdin Analytical Services
Project : Watervliet Arsenal LTM
SDG: SO6182
Lab ID : WG306380-4
Analytical Date: 09/21/21 07:49
Lab File ID : C0754.D
Instrument ID: GCMS-C
Initial Calibration Date(s): 09/20/21 09:15 09/20/21 12:52
Column ID:

*** = Compound out of QC criteria**

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://katahdinlab.com
sales@katahdinlab.com

Data File: \\target_server\gg\chem\gcms-c.i\C092121.b\C0754.D
Report Date: 24-Sep-2021 13:16

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-c.i\C092121.b\C0754.D
Lab Smp Id: WG306380-4 Client Smp ID: ontinuing Calibrati
Inj Date : 21-SEP-2021 07:49
Operator : ES Inst ID: gcms-c.i
Smp Info : WG306380-4,SO6182
Misc Info : WG306380,WG306314-4,SO6182-1
Comment : SW846 5030
Method : \\target_server\gg\chem\gcms-c.i\C092121.b\C8A05(51).m
Meth Date : 22-Sep-2021 05:33 hgould Quant Type: ISTD
Cal Date : 20-SEP-2021 12:52 Cal File: C0731.D
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.12
Processing Host: VOA-WS

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)	REVIEW CODE
1	Dichlorodifluoromethane	85	1.411	1.411	(0.215)	95337	50.0000	50.1	
2	Chloromethane	50	1.578	1.579	(0.241)	123602	50.0000	51.2	
3	Vinyl chloride	62	1.643	1.643	(0.250)	114921	50.0000	50.9	
4	Bromomethane	94	1.919	1.919	(0.293)	71201	50.0000	54.9	
5	Chloroethane	64	2.022	2.019	(0.308)	69782	50.0000	61.8	
6	Trichlorofluoromethane	101	2.151	2.150	(0.328)	216189	50.0000	63.3	
7	Diethyl Ether	59	2.446	2.444	(0.373)	91303	50.0000	52.9	
8	1,1-Dichloroethene	96	2.630	2.630	(0.401)	114068	50.0000	52.3	
9	Carbon Disulfide	76	2.652	2.656	(0.404)	248249	50.0000	52.4	
10	Freon-113	151	2.671	2.681	(0.407)	84292	50.0000	58.6	
11	Iodomethane	142	2.768	2.772	(0.422)	96647	50.0000	49.4	
12	Acrolein	56	2.974	2.977	(0.453)	41166	250.000	247	
13	Allyl Chloride	41	3.125	3.128	(0.476)	189095	50.0000	74.4	
14	Methylene Chloride	84	3.247	3.247	(0.495)	133037	50.0000	55.2	
15	Acetone	43	3.308	3.312	(0.504)	226431	250.000	339	
16	trans-1,2-Dichloroethene	96	3.434	3.434	(0.523)	124656	50.0000	47.5	
17	Methyl Acetate	43	3.466	3.469	(0.528)	128530	50.0000	52.9	
18	Methyl tert-butyl ether	73	3.588	3.591	(0.547)	346530	50.0000	48.1	
19	Tertiary-butyl alcohol	59	3.749	3.746	(0.571)	49526	250.000	167	
20	Acetonitrile	41	3.874	3.878	(0.590)	169709	500.000	463	
21	Di-isopropyl ether	45	4.118	4.122	(0.628)	375336	50.0000	51.5	
22	Chloroprene	53	4.218	4.218	(0.643)	206804	50.0000	54.7	
23	1,1-Dichloroethane	63	4.244	4.244	(0.647)	253971	50.0000	52.7	

Data File: \\target_server\gg\chem\gcms-c.i\C092121.b\C0754.D
Report Date: 24-Sep-2021 13:16

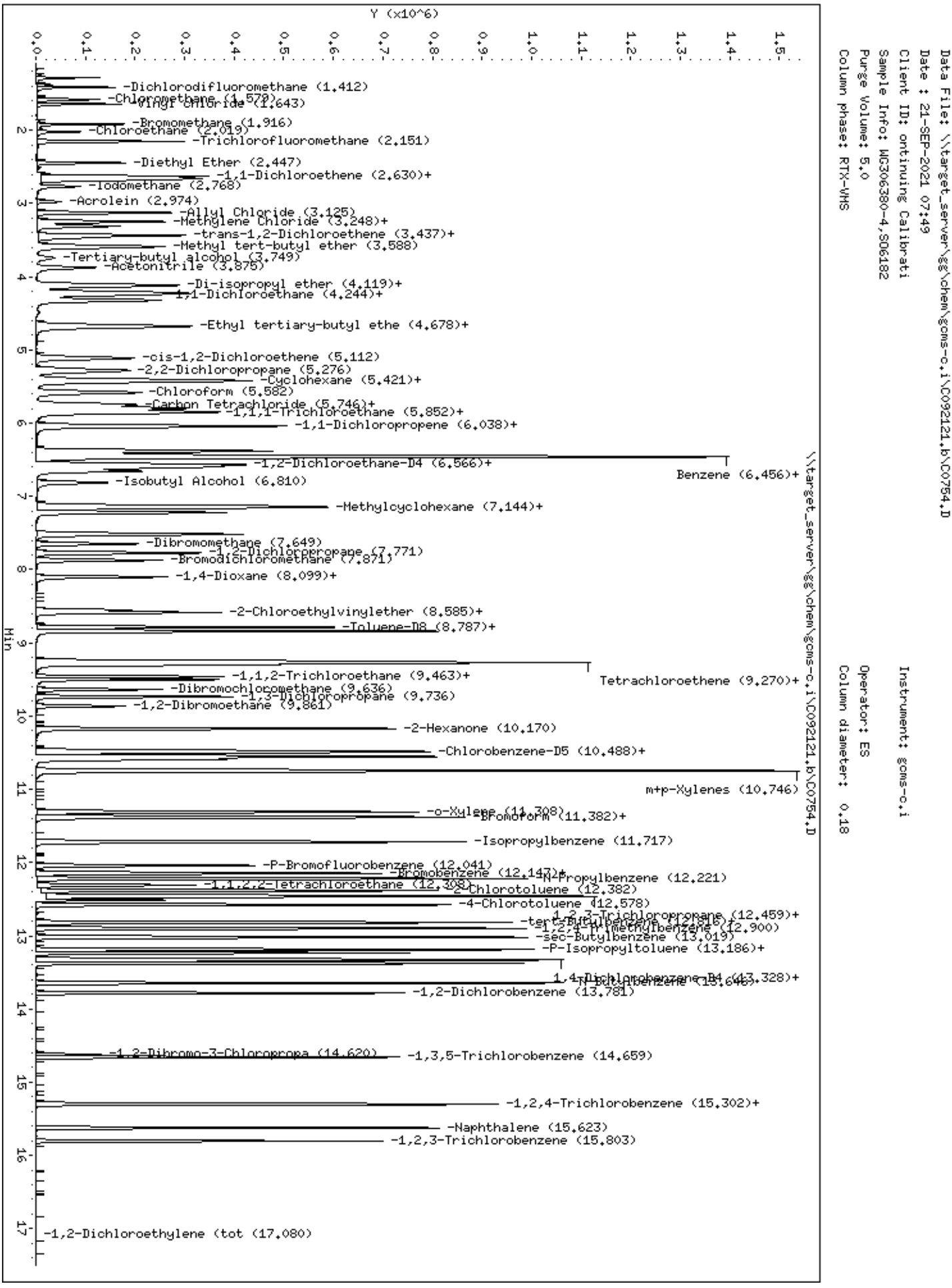
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)	REVIEW CODE
	24 Acrylonitrile	52	4.321	4.325	(0.659)	217268	250.000	259	
	25 Ethyl tertiary-butyl ether	59	4.671	4.675	(0.712)	350591	50.0000	50.6	
	26 Vinyl Acetate	43	4.681	4.678	(0.649)	199952	50.0000	56.2	
	27 cis-1,2-Dichloroethene	96	5.112	5.106	(0.779)	132860	50.0000	47.8	
	28 2,2-Dichloropropane	77	5.276	5.286	(0.804)	200327	50.0000	55.9	
	29 Cyclohexane	56	5.421	5.421	(0.826)	233700	50.0000	53.8	
	30 Bromochloromethane	128	5.424	5.424	(0.827)	56294	50.0000	53.3	
	31 Chloroform	83	5.581	5.582	(0.851)	248856	50.0000	52.9	
	32 Carbon Tetrachloride	117	5.745	5.752	(0.796)	199069	50.0000	57.3	
	33 Tetrahydrofuran	42	5.800	5.797	(0.884)	247371	250.000	271	
	34 1,1,1-Trichloroethane	97	5.851	5.852	(0.892)	238487	50.0000	55.6	
$	35 Dibromofluoromethane	113	5.848	5.849	(0.891)	94483	50.0000	51.5	
	36 1,1-Dichloropropene	75	6.038	6.038	(0.837)	199681	50.0000	52.0	
	37 2-Butanone	43	6.044	6.045	(0.921)	325069	250.000	281	
	38 Benzene	78	6.382	6.379	(0.884)	525869	50.0000	49.4	
	39 Propionitrile	54	6.427	6.427	(0.979)	196929	500.000	488	
	40 Methacrylonitrile	41	6.459	6.459	(0.984)	818755	500.000	576	
$	41 1,2-Dichloroethane-D4	65	6.565	6.566	(1.000)	125924	50.0000	55.5	
*	42 Pentafluorobenzene	168	6.562	6.566	(1.000)	177849	50.0000		
	43 Tertiary-amyl methyl ether	73	6.597	6.604	(1.005)	313347	50.0000	49.8	
	44 Isobutyl Alcohol	43	6.810	6.813	(1.038)	106596	1000.00	806	
	45 1,2-Dichloroethane	62	6.655	6.656	(0.922)	201610	50.0000	56.8	
	46 Methylcyclohexane	83	7.131	7.128	(1.087)	235333	50.0000	53.2	
	47 Trichloroethene	95	7.157	7.157	(0.992)	137081	50.0000	51.8	
*	48 1,4-Difluorobenzene	114	7.218	7.218	(1.000)	312116	50.0000		
	49 Dibromomethane	93	7.652	7.652	(1.060)	85742	50.0000	52.9	
	50 1,2-Dichloropropane	63	7.768	7.771	(1.076)	139536	50.0000	51.9	
	51 Bromodichloromethane	83	7.871	7.874	(1.090)	178809	50.0000	55.6	
	52 1,4-Dioxane	88	8.112	8.109	(1.124)	31750	1000.00	783	
	53 Methyl Methacrylate	41	8.099	8.099	(1.122)	112811	50.0000	53.1	
	54 2-Chloroethylvinylether	63	8.549	8.553	(1.184)	83537	50.0000	53.4	
	55 cis-1,3-dichloropropene	75	8.584	8.587	(1.189)	226139	50.0000	55.7	
$	56 Toluene-D8	98	8.787	8.787	(1.217)	392530	50.0000	50.1	
	57 Toluene	91	8.842	8.842	(1.225)	569573	50.0000	52.0	
	58 Tetrachloroethene	164	9.244	9.247	(0.883)	102876	50.0000	49.9	
	59 4-methyl-2-pentanone	43	9.269	9.273	(1.284)	675565	250.000	302	
	60 trans-1,3-Dichloropropene	75	9.301	9.302	(1.289)	207983	50.0000	56.6	
	61 1,1,2-Trichloroethane	83	9.459	9.459	(1.310)	100885	50.0000	52.5	
	62 Ethyl Methacrylate	69	9.498	9.504	(1.316)	181210	50.0000	50.3	
	63 Dibromochloromethane	129	9.639	9.636	(0.920)	128978	50.0000	57.1	
	64 1,3-Dichloropropane	76	9.732	9.736	(0.929)	231627	50.0000	50.8	
	65 1,2-Dibromoethane	107	9.864	9.868	(1.367)	122148	50.0000	53.4	
	66 2-Hexanone	43	10.170	10.173	(0.971)	482531	250.000	300	
*	67 Chlorobenzene-D5	117	10.472	10.475	(1.000)	294649	50.0000		
	68 Chlorobenzene	112	10.494	10.495	(1.002)	363813	50.0000	49.6	
	69 Ethylbenzene	91	10.552	10.553	(1.008)	675251	50.0000	52.5	
	70 1,1,1,2-Tetrachloroethane	131	10.584	10.594	(1.011)	123156	50.0000	55.0	
	71 m+p-Xylenes	91	10.745	10.749	(1.026)	1045896	100.000	109	
	72 o-Xylene	91	11.308	11.311	(1.080)	523477	50.0000	53.4	
	73 Bromoform	173	11.388	11.389	(1.088)	79808	50.0000	48.4	
	74 Styrene	104	11.379	11.382	(1.087)	392847	50.0000	55.5	
	75 Isopropylbenzene	105	11.716	11.720	(0.880)	639044	50.0000	51.9	
$	76 P-Bromofluorobenzene	95	12.041	12.041	(1.668)	156399	50.0000	51.6	
	77 Bromobenzene	156	12.150	12.151	(0.912)	143216	50.0000	50.7	

Data File: \\target_server\gg\chem\gcms-c.i\C092121.b\C0754.D
Report Date: 24-Sep-2021 13:16

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)	REVIEW CODE
	78 cis-1,4-Dichloro-2-Butene	53	12.137	12.138	(0.911)	55539	50.0000	53.6	
	79 N-Propylbenzene	91	12.221	12.221	(0.918)	797395	50.0000	53.3	
	80 1,1,2,2-Tetrachloroethane	83	12.308	12.311	(0.924)	165452	50.0000	50.3	
	81 2-Chlorotoluene	91	12.382	12.382	(0.930)	467954	50.0000	51.5	
	82 1,2,3-Trichloropropane	75	12.446	12.450	(0.935)	157178	50.0000	52.0	
	83 1,3,5-Trimethylbenzene	105	12.462	12.462	(0.936)	531617	50.0000	53.2	
	84 trans-1,4-Dichloro-2-Butene	53	12.510	12.511	(0.939)	57055	50.0000	55.8	
	85 4-Chlorotoluene	91	12.578	12.578	(0.944)	493719	50.0000	52.1	
	86 tert-Butylbenzene	119	12.816	12.819	(0.962)	447730	50.0000	52.7	
	87 1,2,4-Trimethylbenzene	105	12.899	12.900	(0.969)	545892	50.0000	53.5	
	88 sec-Butylbenzene	105	13.018	13.022	(0.978)	678456	50.0000	53.6	
	89 P-Isopropyltoluene	119	13.186	13.189	(0.990)	545701	50.0000	54.4	
	90 1,3-Dichlorobenzene	146	13.234	13.234	(0.994)	277380	50.0000	52.2	
*	91 1,4-Dichlorobenzene-D4	152	13.317	13.321	(1.000)	152413	50.0000		
	92 1,4-Dichlorobenzene	146	13.333	13.337	(1.001)	281296	50.0000	50.4	
	93 1,2,3-Trimethylbenzene	105	13.375	13.376	(1.004)	539114	50.0000	51.5	
	94 Pentachloroethane	165	12.816	12.832	(0.962)	1252	50.0000	(a)	
	95 N-Butylbenzene	91	13.645	13.646	(1.025)	553201	50.0000	55.4	
	96 1,2-Dichlorobenzene	146	13.780	13.784	(1.035)	262385	50.0000	51.2	
	97 1,2-Dibromo-3-Chloropropane	157	14.620	14.620	(1.098)	28618	50.0000	45.4	
	98 1,3,5-Trichlorobenzene	180	14.658	14.662	(1.101)	195218	50.0000	51.1	
	99 1,2,4-Trichlorobenzene	180	15.308	15.305	(1.149)	176318	50.0000	51.5	
	100 Hexachlorobutadiene	225	15.292	15.295	(1.148)	76274	50.0000	51.4	
	101 Naphthalene	128	15.623	15.626	(1.173)	498492	50.0000	50.1	
	102 1,2,3-Trichlorobenzene	180	15.803	15.803	(1.187)	172723	50.0000	52.5	
M	103 1,2-Dichloroethylene (total)	96				257516	50.0000	95.4	
M	104 Xylenes (total)	91				1569373	150.000	162	
M	105 Total Alkylbenzenes	100				4099992	50.0000	376	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).


Data File: \\target_server\gg\chem\gcms-c.i\C092121.b\C0754.D
Date : 21-SEP-2021 07:49
Client ID: ontinuing Calibrati
Sample Info: WG306380-4,SD6182
Purge Volume: 5.0
Column phase: RTX-VMS
Instrument: gcms-c.i
Operator: ES
Column diameter: 0.18
Y (x10^6)
Min
\\target_server\gg\chem\gcms-c.i\C092121.b\C0754.D
-Dichlorodifluoromethane (1.412)
-Chloromethane (1.579)
Vinyl Chloride (1.643)
-Bromomethane (1.916)
-Chloroethane (2.019)
-Trichlorofluoromethane (2.151)
-Diethyl Ether (2.447)
-1,1-Dichloroethene (2.630)+
-Iodomethane (2.768)
-Acrolein (2.974)
-Allyl Chloride (3.125)
-Methylene Chloride (3.248)+
-trans-1,2-Dichloroethene (3.437)+
-Methyl tert-butyl ether (3.588)
-Tertiary-butyl alcohol (3.749)
-Acetonitrile (3.875)
-Di-isopropyl ether (4.119)+
1,1-Dichloroethane (4.244)+
-Ethyl tertiary-butyl ethe (4.678)+
-cis-1,2-Dichloroethene (5.112)
-2,2-Dichloropropane (5.276)
-Cyclohexane (5.421)+
-Chloroform (5.582)
-Carbon Tetrachloride (5.746)+
-1,1,1-Trichloroethane (5.852)+
-1,1-Dichloropropene (6.038)+
-1,2-Dichloroethane-D4 (6.566)+
Benzene (6.456)+
-Isobutyl Alcohol (6.810)
-Methylcyclohexane (7.144)+
-Dibromomethane (7.649)
-1,2-Dichloropropane (7.771)
-Bromodichloromethane (7.871)
-1,4-Dioxane (8.099)+
-2-Chloroethylvinylether (8.585)+
-Toluene-D8 (8.787)+
Tetrachloroethene (9.270)+
-1,1,2-Trichloroethane (9.463)+
-Dibromochloromethane (9.636)
-1,3-Dichloropropane (9.736)
-1,2-Dibromoethane (9.861)
-2-Hexanone (10.170)
-Chlorobenzene-D5 (10.488)+
m+p-Xylenes (10.746)
-o-Xylene (11.308)
Bromoform (11.382)+
-Isopropylbenzene (11.717)
-P-Bromofluorobenzene (12.041)
-Bromobenzene (12.147)+
N-Propylbenzene (12.221)
-1,1,2,2-Tetrachloroethane (12.308)
2-Chlorotoluene (12.382)
-4-Chlorotoluene (12.578)
1,2,3-Trichloropropane (12.459)+
-tert-Butylbenzene (12.816)+
1,2,4-Trimethylbenzene (12.900)
-sec-Butylbenzene (13.019)
-P-Isopropyltoluene (13.186)+
1,4-Dichlorobenzene-D4 (13.328)+
N-Butylbenzene (13.646)
-1,2-Dichlorobenzene (13.781)
-1,2-Dibromo-3-Chloropropa (14.620)
-1,3,5-Trichlorobenzene (14.659)
-1,2,4-Trichlorobenzene (15.302)+
-Naphthalene (15.623)
-1,2,3-Trichlorobenzene (15.803)
-1,2-Dichloroethylene (tot (17.080)

Data File: \\target_server\gg\chem\gcms-c.i\C092021.b\CB627a.D

Date : 20-SEP-2021 08:50

Client ID:

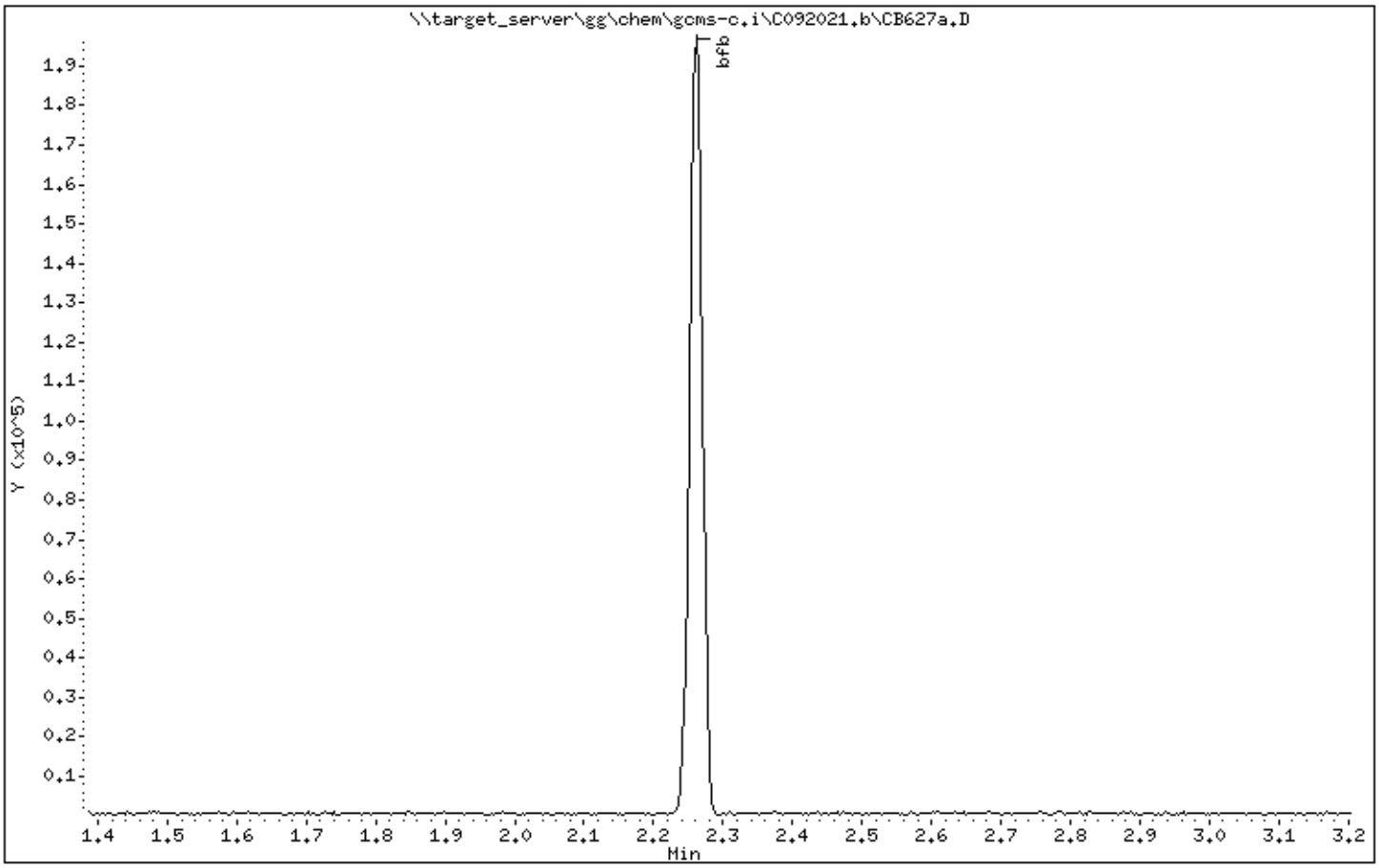
Instrument: gcms-c.i

Sample Info: WG306314-12,SO6182

Operator: ES

Column phase: RTX-VMS

Column diameter: 0.25



Data File: \\target_server\gg\chem\gcms-c.i\C092021.b\CB627a.D

Date : 20-SEP-2021 08:50

Client ID:

Instrument: gcms-c.i

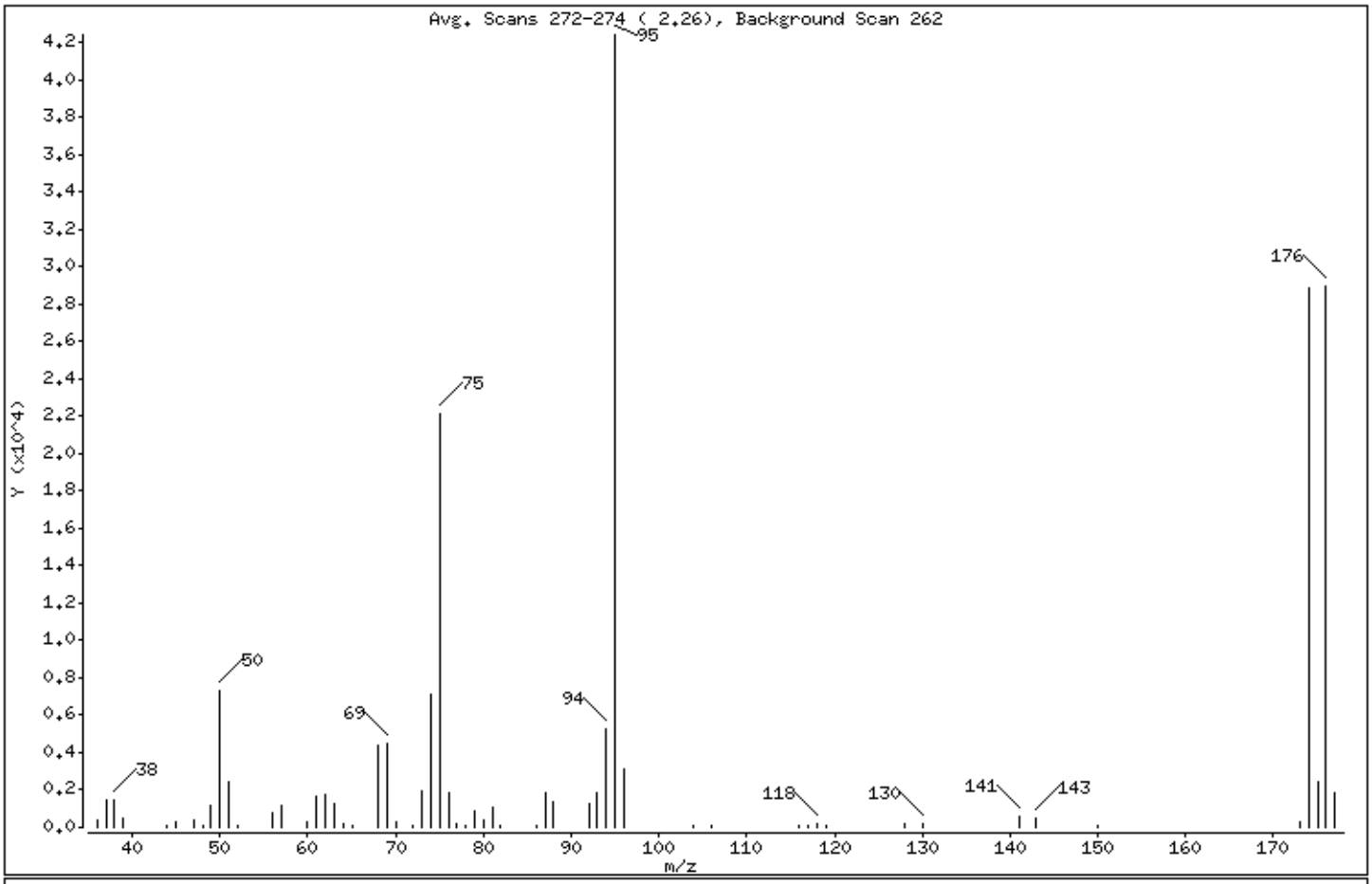
Sample Info: WG306314-12,SO6182

Operator: ES

Column phase: RTX-VMS

Column diameter: 0.25

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	17.14
75	30.00 - 60.00% of mass 95	52.07
96	5.00 - 9.00% of mass 95	7.36
173	Less than 2.00% of mass 174	0.74 (1.08)
174	Greater than 50.00% of mass 95	68.09
175	5.00 - 9.00% of mass 174	5.72 (8.40)
176	95.00 - 101.00% of mass 174	68.35 (100.39)
177	5.00 - 9.00% of mass 176	4.33 (6.34)

Date : 20-SEP-2021 08:50

Client ID: Instrument: gcms-c.i

Sample Info: WG306314-12,SO6182

Operator: ES

Column phase: RTX-VMS Column diameter: 0.25

Data File: CB627a.D
Spectrum: Avg. Scans 272-274 (2.26), Background Scan 262
Location of Maximum: 95.00
Number of points: 58

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	363	61.00	1658	79.00	848	117.00	74
37.00	1478	62.00	1739	80.00	357	118.00	148
38.00	1510	63.00	1311	81.00	1031	119.00	96
39.00	511	64.00	200	82.00	79	128.00	197
44.00	58	65.00	68	86.00	74	130.00	213
45.00	269	68.00	4413	87.00	1835	141.00	566
47.00	429	69.00	4464	88.00	1336	143.00	491
48.00	87	70.00	332	92.00	1247	150.00	81
49.00	1209	72.00	97	93.00	1844	173.00	313
50.00	7269	73.00	1946	94.00	5306	174.00	28880
51.00	2404	74.00	7137	95.00	42416	175.00	2426
52.00	70	75.00	22088	96.00	3123	176.00	28992
56.00	732	76.00	1812	104.00	113	177.00	1838
57.00	1170	77.00	186	106.00	70		
60.00	338	78.00	127	116.00	89		

Data File: \\target_server\gg\chem\gcms-c.i\C092121.b\CB628a.D

Date : 21-SEP-2021 07:23

Client ID:

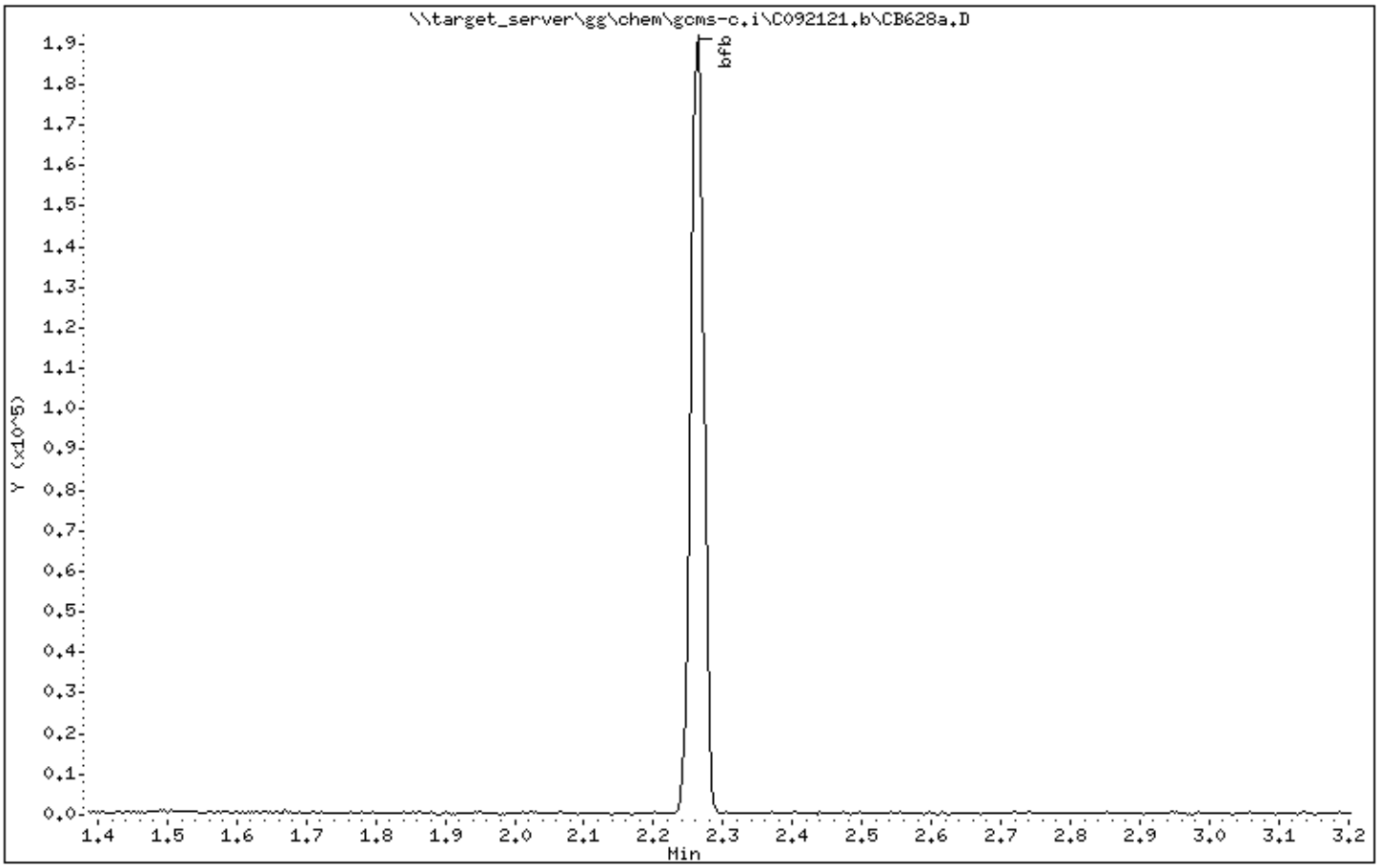
Instrument: gcms-c.i

Sample Info: WG306380-3,SO6182

Operator: ES

Column phase: RTX-VMS

Column diameter: 0.25



Data File: \\target_server\gg\chem\gcms-c.i\C092121.b\CB628a.D

Date : 21-SEP-2021 07:23

Client ID:

Instrument: gcms-c.i

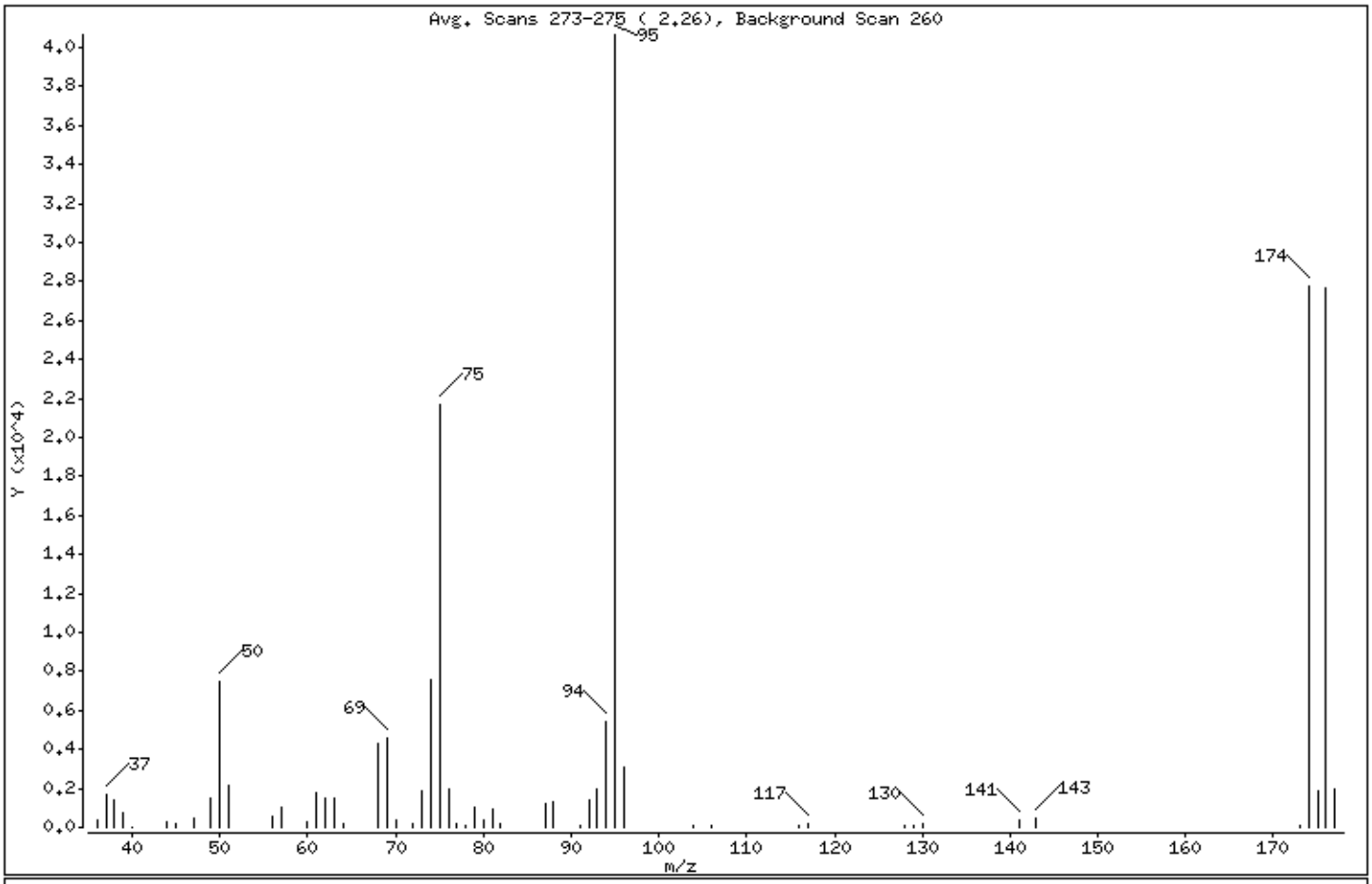
Sample Info: WG306380-3,SO6182

Operator: ES

Column phase: RTX-VMS

Column diameter: 0.25

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	18.28
75	30.00 - 60.00% of mass 95	53.36
96	5.00 - 9.00% of mass 95	7.54
173	Less than 2.00% of mass 174	0.28 (0.41)
174	Greater than 50.00% of mass 95	68.16
175	5.00 - 9.00% of mass 174	4.70 (6.89)
176	95.00 - 101.00% of mass 174	67.99 (99.74)
177	5.00 - 9.00% of mass 176	4.76 (7.01)

Date : 21-SEP-2021 07:23

Client ID: Instrument: gcms-c.i

Sample Info: WG306380-3,SO6182

Operator: ES

Column phase: RTX-VMS Column diameter: 0.25

Data File: CB628a.D
Spectrum: Avg. Scans 273-275 (2.26), Background Scan 260
Location of Maximum: 95.00
Number of points: 54

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	359	61.00	1790	79.00	994	116.00	69
37.00	1701	62.00	1539	80.00	330	117.00	212
38.00	1413	63.00	1454	81.00	898	128.00	76
39.00	768	64.00	147	82.00	178	129.00	71
40.00	40	68.00	4291	87.00	1239	130.00	166
44.00	317	69.00	4543	88.00	1276	141.00	358
45.00	195	70.00	375	91.00	139	143.00	465
47.00	466	72.00	180	92.00	1357	173.00	113
49.00	1489	73.00	1849	93.00	1996	174.00	27712
50.00	7432	74.00	7586	94.00	5386	175.00	1910
51.00	2172	75.00	21696	95.00	40656	176.00	27640
56.00	601	76.00	1935	96.00	3065	177.00	1937
57.00	1069	77.00	165	104.00	75		
60.00	314	78.00	83	106.00	69		

Raw QC Data Section

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Lab ID: WG306380-2
Client ID: Method Blank
SDG: SO6182
Lab File ID: C0758.D

Extract Date: 21-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306380
% Solids: NA

Analysis Date: 21-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
Report Date: 05-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	2.0	ug/L	1	2	2.0
Vinyl Chloride	U	2.0	ug/L	1	2	2.0
Bromomethane	U	2.0	ug/L	1	2	2.0
Chloroethane	U	2.0	ug/L	1	2	2.0
Trichlorofluoromethane	U	2.0	ug/L	1	2	2.0
1,1-Dichloroethene	U	1.0	ug/L	1	1	1.0
Carbon Disulfide	U	1.0	ug/L	1	1	1.0
Methylene Chloride	U	5.0	ug/L	1	5	5.0
trans-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
1,1-Dichloroethane	U	1.0	ug/L	1	1	1.0
cis-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
Chloroform	U	1.0	ug/L	1	1	1.0
Carbon Tetrachloride	U	1.0	ug/L	1	1	1.0
1,1,1-Trichloroethane	U	1.0	ug/L	1	1	1.0
2-Butanone	U	5.0	ug/L	1	5	5.0
Benzene	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethane	U	1.0	ug/L	1	1	1.0
Trichloroethene	U	1.0	ug/L	1	1	1.0
1,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Bromodichloromethane	U	1.0	ug/L	1	1	1.0
cis-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
Toluene	U	1.0	ug/L	1	1	1.0
4-Methyl-2-Pentanone	U	5.0	ug/L	1	5	5.0
Tetrachloroethene	U	1.0	ug/L	1	1	1.0
trans-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
1,1,2-Trichloroethane	U	1.0	ug/L	1	1	1.0
Dibromochloromethane	U	1.0	ug/L	1	1	1.0
Chlorobenzene	U	1.0	ug/L	1	1	1.0
Ethylbenzene	U	1.0	ug/L	1	1	1.0
m+p-Xylenes	U	2.0	ug/L	1	2	2.0
o-Xylene	U	1.0	ug/L	1	1	1.0
Bromoform	U	1.0	ug/L	1	1	1.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
P-Bromofluorobenzene		96.0	%			
Toluene-d8		101.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Lab ID: WG306380-2
Client ID: Method Blank
SDG: SO6182
Lab File ID: C0758.D

Extract Date: 21-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306380
% Solids: NA

Analysis Date: 21-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
Report Date: 05-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		122.	%			
Dibromofluoromethane		106.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Data File: \\target_server\gg\chem\gcms-c.i\C092121.b\C0758.D
Report Date: 24-Sep-2021 13:16

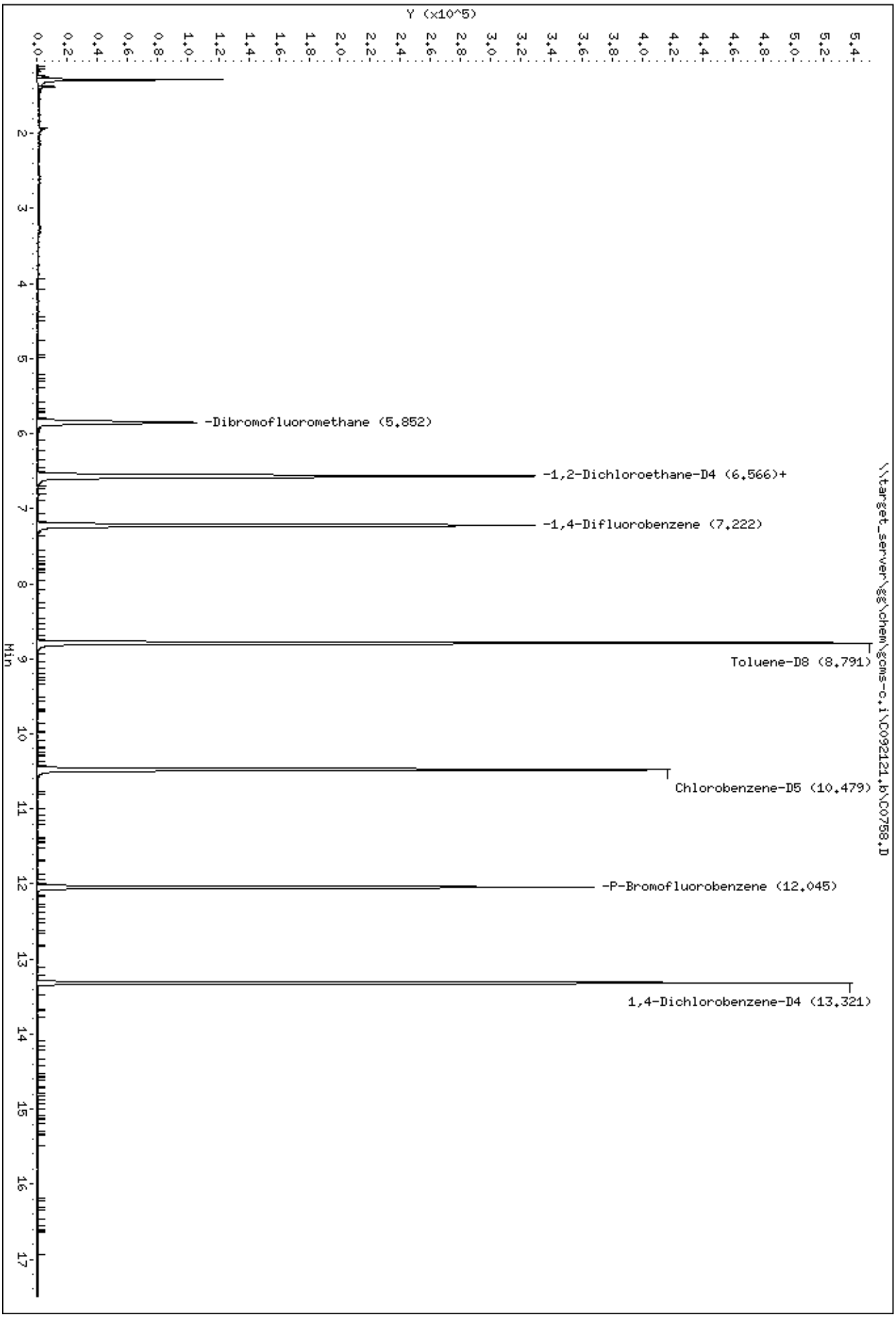
Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-c.i\C092121.b\C0758.D
Lab Smp Id: WG306380-2 Client Smp ID: WG306380-Blank
Inj Date : 21-SEP-2021 11:06
Operator : ES Inst ID: gcms-c.i
Smp Info : WG306380-2,SO6182
Misc Info : WG306380,WG306380-4,SO6182-1
Comment : SW846 5030
Method : \\target_server\gg\chem\gcms-c.i\C092121.b\C8A05(51).m
Meth Date : 22-Sep-2021 05:33 hgould Quant Type: ISTD
Cal Date : 20-SEP-2021 12:52 Cal File: C0731.D
Als bottle: 5 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.12
Processing Host: VOA-WS

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)	REVIEW CODE
$ 35 Dibromofluoromethane	113	5.851	5.849	(0.891)	81992	52.9199	52.9	
$ 41 1,2-Dichloroethane-D4	65	6.565	6.566	(1.000)	116536	60.7819	60.8	
* 42 Pentafluorobenzene	168	6.565	6.566	(1.000)	150331	50.0000		
* 48 1,4-Difluorobenzene	114	7.221	7.218	(1.000)	279496	50.0000		
$ 56 Toluene-D8	98	8.790	8.787	(1.217)	354152	50.5090	50.5	
* 67 Chlorobenzene-D5	117	10.478	10.475	(1.000)	256213	50.0000		
$ 76 P-Bromofluorobenzene	95	12.047	12.041	(1.668)	130393	48.0155	48.0	
* 91 1,4-Dichlorobenzene-D4	152	13.320	13.321	(1.000)	126752	50.0000		


Y (x10^5)
Min
-Dibromofluoromethane (5.852)
-1,2-Dichloroethane-D4 (6.566)+
-1,4-Difluorobenzene (7.222)
Toluene-D8 (8.791)
Chlorobenzene-D5 (10.479)
-P-Bromofluorobenzene (12.045)
1,4-Dichlorobenzene-D4 (13.321)
\\target_server\gg\chem\gcms-c.i\C092121.b\C0758.D
Data File: \\target_server\gg\chem\gcms-c.i\C092121.b\C0758.D
Date : 21-SEP-2021 11:06
Client ID: WG306380-Blank
Sample Info: WG306380-2,SD6182
Instrument: gcms-c.i

Katahdin
ANALYTICAL SERVICES

LCS/LCSD Recovery Report

LCS ID: WG306380-1
LCSD ID: WG306380-6
SDG: SO6182
LCS File ID: C0755.D

Extract Date: 21-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306380
LCSD File ID: C0756.D

Analysis Date: 21-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
Report Date: 24-SEP-21

Compound	Spike Amt	LCS Conc	LCS Rec (%)	LCSD Conc	LCSD Rec (%)	Conc Units	RPD (%)	RPD Limit	Limits
Chloromethane	50.0	62.0	124.*	59.2	118.	ug/L	5	20	59-123
Vinyl Chloride	50.0	60.7	121.	58.1	116.	ug/L	4	20	64-131
Bromomethane	50.0	59.2	118.	56.0	112.	ug/L	6	20	57-135
Chloroethane	50.0	68.4	137.	65.7	131.	ug/L	4	20	53-157
Trichlorofluoromethane	50.0	69.3	139.	65.6	131.	ug/L	5	20	70-149
1,1-Dichloroethene	50.0	48.3	96.6	46.5	93.0	ug/L	4	20	88-127
Carbon Disulfide	50.0	45.2	90.4	44.1	88.2	ug/L	2	20	71-129
Methylene Chloride	50.0	51.4	103.	51.3	103.	ug/L	0	20	72-129
trans-1,2-Dichloroethene	50.0	46.3	92.6	45.1	90.2	ug/L	3	20	78-125
1,1-Dichloroethane	50.0	51.8	104.	49.8	99.6	ug/L	4	20	76-130
cis-1,2-Dichloroethene	50.0	46.0	92.0	44.3	88.6	ug/L	4	20	85-123
Chloroform	50.0	50.4	101.	48.4	96.8	ug/L	4	20	78-128
Carbon Tetrachloride	50.0	50.8	102.	48.7	97.4	ug/L	4	20	87-126
1,1,1-Trichloroethane	50.0	51.9	104.	50.1	100.	ug/L	4	20	77-129
2-Butanone	50.0	52.7	105.	49.0	98.0	ug/L	7	20	71-132
Benzene	50.0	47.8	95.6	46.0	92.0	ug/L	4	20	86-116
1,2-Dichloroethane	50.0	52.9	106.	51.4	103.	ug/L	3	20	81-125
Trichloroethene	50.0	48.6	97.2	47.6	95.2	ug/L	2	20	79-121
1,2-Dichloropropane	50.0	48.5	97.0	47.3	94.6	ug/L	2	20	84-118
Bromodichloromethane	50.0	51.5	103.	50.0	100.	ug/L	3	20	85-122
cis-1,3-Dichloropropene	50.0	53.4	107.	50.4	101.	ug/L	6	20	83-119
Toluene	50.0	49.6	99.2	47.7	95.4	ug/L	4	20	84-118
4-Methyl-2-Pentanone	50.0	51.3	103.	49.5	99.0	ug/L	4	20	83-122
Tetrachloroethene	50.0	48.7	97.4	46.6	93.2	ug/L	4	20	47-155
trans-1,3-Dichloropropene	50.0	53.9	108.	51.7	103.	ug/L	4	20	85-135
1,1,2-Trichloroethane	50.0	50.8	102.	48.5	97.0	ug/L	5	20	84-115
Dibromochloromethane	50.0	51.8	104.	50.2	100.	ug/L	3	20	85-119
Chlorobenzene	50.0	48.5	97.0	46.6	93.2	ug/L	4	20	89-113
Ethylbenzene	50.0	51.2	102.	49.4	98.8	ug/L	4	20	88-113
m+p-Xylenes	100.	105.	105.	102.	102.	ug/L	3	20	88-116
o-Xylene	50.0	52.6	105.	51.0	102.	ug/L	3	20	90-116
Bromoform	50.0	45.1	90.2	44.9	89.8	ug/L	0	20	86-117
1,1,2,2-Tetrachloroethane	50.0	49.9	99.8	50.0	100.	ug/L	0	20	79-121
P-Bromofluorobenzene			100.		101.				56-133
Toluene-d8			99.7		97.9				65-128
1,2-Dichloroethane-d4			113.		112.				67-135

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

LCS/LCSD Recovery Report

LCS ID: WG306380-1
LCSD ID: WG306380-6
SDG: SO6182
LCS File ID: C0755.D

Extract Date: 21-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306380
LCSD File ID: C0756.D

Analysis Date: 21-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
Report Date: 24-SEP-21

Dibromofluoromethane	107.	107.	68-128

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://www.katahdinlab.com

Data File: \\target_server\gg\chem\gcms-c.i\C092121.b\C0755.D
Report Date: 24-Sep-2021 13:16

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-c.i\C092121.b\C0755.D
Lab Smp Id: WG306380-1 Client Smp ID: WG306380-LCS
Inj Date : 21-SEP-2021 08:39
Operator : ES Inst ID: gcms-c.i
Smp Info : WG306380-1,SO6182
Misc Info : WG306380,WG306380-4,SO6182-1
Comment : SW846 5030
Method : \\target_server\gg\chem\gcms-c.i\C092121.b\C8A05(51).m
Meth Date : 22-Sep-2021 05:33 hgould Quant Type: ISTD
Cal Date : 20-SEP-2021 12:52 Cal File: C0731.D
Als bottle: 2 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.12
Processing Host: VOA-WS

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)	REVIEW CODE
1	Dichlorodifluoromethane	85	1.411	1.411	(0.215)	138374	71.7132	71.7	
2	Chloromethane	50	1.578	1.579	(0.240)	151826	62.0153	62.0(R)	
3	Vinyl chloride	62	1.643	1.643	(0.250)	138923	60.6664	60.7	
4	Bromomethane	94	1.916	1.919	(0.292)	77837	59.1615	59.2	
5	Chloroethane	64	2.022	2.019	(0.308)	78301	68.3791	68.4	
6	Trichlorofluoromethane	101	2.151	2.150	(0.328)	240132	69.2917	69.3	
7	Diethyl Ether	59	2.443	2.444	(0.372)	104265	59.5414	59.5	
8	1,1-Dichloroethene	96	2.630	2.630	(0.401)	106759	48.2808	48.3	
9	Carbon Disulfide	76	2.652	2.656	(0.404)	217323	45.2120	45.2	
10	Freon-113	151	2.671	2.681	(0.407)	89044	61.0450	61.0	
11	Iodomethane	142	2.768	2.772	(0.422)	94441	47.6097	47.6	
12	Acrolein	56	2.977	2.977	(0.453)	47298	280.227	280	
13	Allyl Chloride	41	3.125	3.128	(0.476)	208209	80.7858	80.8(R)	
14	Methylene Chloride	84	3.247	3.247	(0.495)	125644	51.3790	51.4	
15	Acetone	43	3.308	3.312	(0.504)	45017	45.8526	45.8	
16	trans-1,2-Dichloroethene	96	3.437	3.434	(0.524)	123105	46.2664	46.3	
17	Methyl Acetate	43	3.469	3.469	(0.528)	112170	45.5337	45.5	
18	Methyl tert-butyl ether	73	3.588	3.591	(0.547)	345350	47.2736	47.3	
19	Tertiary-butyl alcohol	59	3.745	3.746	(0.571)	62891	222.993	223	
20	Acetonitrile	41	3.877	3.878	(0.591)	204304	549.273	549	
21	Di-isopropyl ether	45	4.122	4.122	(0.628)	419007	56.6679	56.7	
22	Chloroprene	53	4.215	4.218	(0.642)	223539	58.2869	58.3	
23	1,1-Dichloroethane	63	4.247	4.244	(0.647)	253387	51.7914	51.8	

Data File: \\target_server\gg\chem\gcms-c.i\C092121.b\C0755.D
Report Date: 24-Sep-2021 13:16

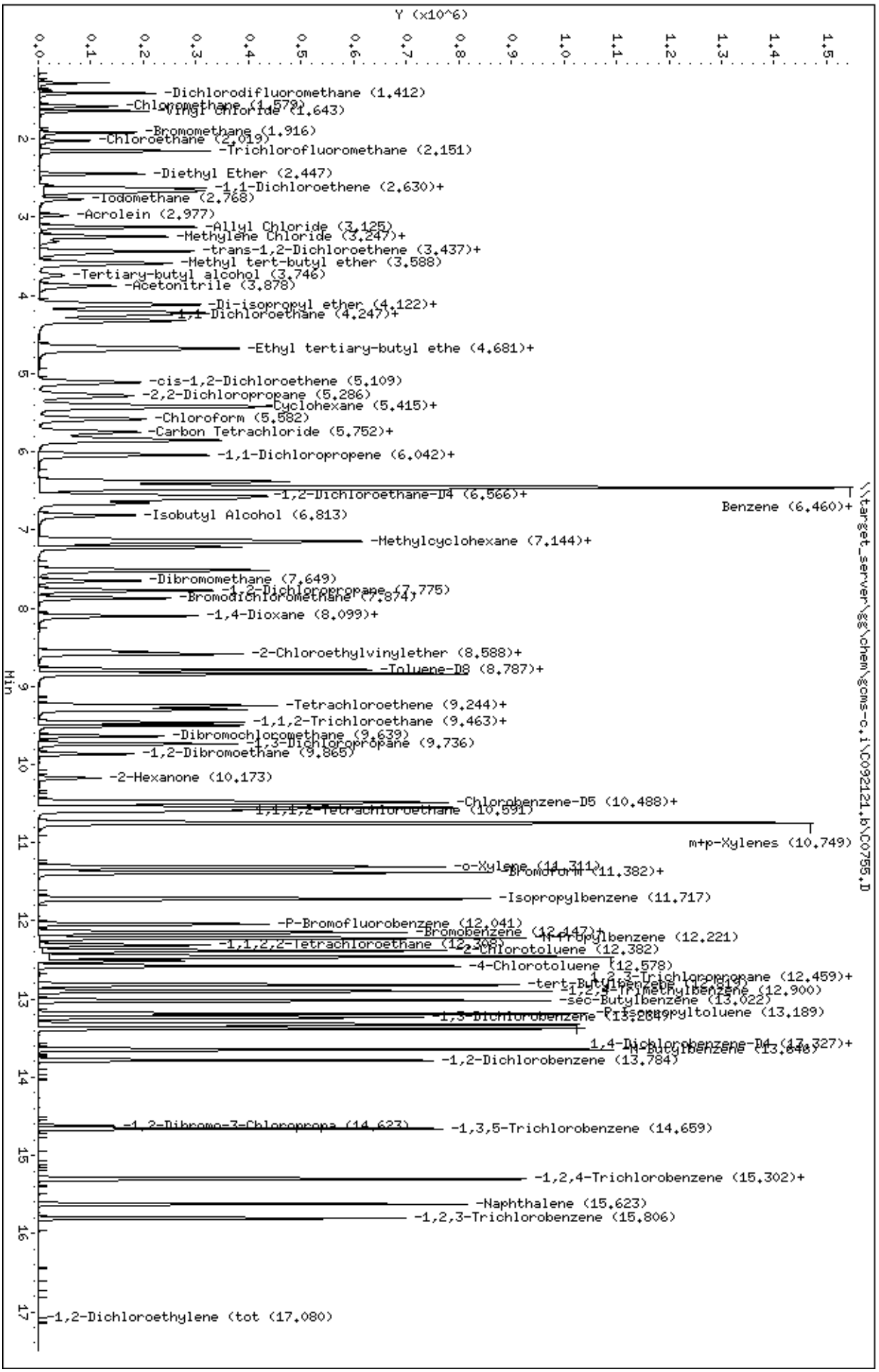
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)	REVIEW CODE
	24 Acrylonitrile	52	4.324	4.325	(0.659)	243137	286.167	286	
	25 Ethyl tertiary-butyl ether	59	4.675	4.675	(0.712)	386952	55.0841	55.1	
	26 Vinyl Acetate	43	4.678	4.678	(0.648)	297264	79.4551	79.4(R)	
	27 cis-1,2-Dichloroethene	96	5.109	5.106	(0.778)	129724	46.0307	46.0	
	28 2,2-Dichloropropane	77	5.285	5.286	(0.805)	193996	53.3289	53.3	
	29 Cyclohexane	56	5.414	5.421	(0.825)	232248	52.7478	52.7	
	30 Bromochloromethane	128	5.424	5.424	(0.826)	57858	53.9494	53.9	
	31 Chloroform	83	5.581	5.582	(0.850)	240470	50.4078	50.4	
	32 Carbon Tetrachloride	117	5.752	5.752	(0.797)	185444	50.7715	50.8	
	33 Tetrahydrofuran	42	5.797	5.797	(0.883)	42739	46.1690	46.2	
	34 1,1,1-Trichloroethane	97	5.851	5.852	(0.891)	225872	51.8667	51.9	
$	35 Dibromofluoromethane	113	5.851	5.849	(0.891)	99145	53.3057	53.3	
	36 1,1-Dichloropropene	75	6.041	6.038	(0.837)	196040	48.5115	48.5	
	37 2-Butanone	43	6.044	6.045	(0.921)	61759	52.6967	52.7	
	38 Benzene	78	6.379	6.379	(0.884)	535548	47.8513	47.8	
	39 Propionitrile	54	6.427	6.427	(0.979)	222954	545.057	545	
	40 Methacrylonitrile	41	6.459	6.459	(0.984)	901291	625.306	625(R)	
$	41 1,2-Dichloroethane-D4	65	6.565	6.566	(1.000)	130555	56.7235	56.7	
*	42 Pentafluorobenzene	168	6.565	6.566	(1.000)	180465	50.0000		
	43 Tertiary-amyl methyl ether	73	6.597	6.604	(1.005)	337515	52.8272	52.8	
	44 Isobutyl Alcohol	43	6.810	6.813	(1.037)	136281	1059.02	1060	
	45 1,2-Dichloroethane	62	6.655	6.656	(0.922)	197507	52.8743	52.9	
	46 Methylcyclohexane	83	7.134	7.128	(1.087)	249181	55.5621	55.6	
	47 Trichloroethene	95	7.157	7.157	(0.992)	135207	48.5707	48.6	
*	48 1,4-Difluorobenzene	114	7.218	7.218	(1.000)	328283	50.0000		
	49 Dibromomethane	93	7.649	7.652	(1.060)	83788	49.1693	49.2	
	50 1,2-Dichloropropane	63	7.771	7.771	(1.077)	137100	48.5103	48.5	
	51 Bromodichloromethane	83	7.874	7.874	(1.091)	174199	51.5170	51.5	
	52 1,4-Dioxane	88	8.105	8.109	(1.123)	39743	932.024	932	
	53 Methyl Methacrylate	41	8.099	8.099	(1.122)	126182	56.4497	56.4	
	54 2-Chloroethylvinylether	63	8.549	8.553	(1.184)	89850	54.5763	54.6	
	55 cis-1,3-dichloropropene	75	8.588	8.587	(1.190)	228099	53.4364	53.4	
$	56 Toluene-D8	98	8.787	8.787	(1.217)	410704	49.8695	49.9	
	57 Toluene	91	8.842	8.842	(1.225)	571409	49.5652	49.6	
	58 Tetrachloroethene	164	9.243	9.247	(0.882)	101404	48.7443	48.7	
	59 4-methyl-2-pentanone	43	9.272	9.273	(1.285)	120635	51.3186	51.3	
	60 trans-1,3-Dichloropropene	75	9.301	9.302	(1.289)	208121	53.8942	53.9	
	61 1,1,2-Trichloroethane	83	9.462	9.459	(1.311)	102638	50.8056	50.8	
	62 Ethyl Methacrylate	69	9.501	9.504	(1.316)	193558	51.0898	51.1	
	63 Dibromochloromethane	129	9.639	9.636	(0.920)	118293	51.8434	51.8	
	64 1,3-Dichloropropane	76	9.735	9.736	(0.929)	228360	49.6423	49.6	
	65 1,2-Dibromoethane	107	9.864	9.868	(1.367)	122255	50.7837	50.8	
	66 2-Hexanone	43	10.173	10.173	(0.971)	79219	48.7940	48.8	
*	67 Chlorobenzene-D5	117	10.475	10.475	(1.000)	297595	50.0000		
	68 Chlorobenzene	112	10.494	10.495	(1.002)	359252	48.4700	48.5	
	69 Ethylbenzene	91	10.552	10.553	(1.007)	664304	51.1534	51.2	
	70 1,1,1,2-Tetrachloroethane	131	10.591	10.594	(1.011)	123040	54.3973	54.4	
	71 m+p-Xylenes	91	10.748	10.749	(1.026)	1020800	104.999	105	
	72 o-Xylene	91	11.311	11.311	(1.080)	520945	52.6519	52.6	
	73 Bromoform	173	11.391	11.389	(1.087)	75079	45.0730	45.1	
	74 Styrene	104	11.382	11.382	(1.087)	388117	54.2845	54.3	
	75 Isopropylbenzene	105	11.716	11.720	(0.880)	628244	49.6458	49.6	
$	76 P-Bromofluorobenzene	95	12.041	12.041	(1.668)	159905	50.1322	50.1	
	77 Bromobenzene	156	12.150	12.151	(0.912)	139496	48.0020	48.0	

Data File: \\target_server\gg\chem\gcms-c.i\C092121.b\C0755.D
Report Date: 24-Sep-2021 13:16

			QUANT SIG					CONCENTRATIONS		
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/l)	FINAL (ug/l)	REVIEW CODE
	78	cis-1,4-Dichloro-2-Butene	53	12.140	12.138	(0.911)	57215	53.6549	53.6	
	79	N-Propylbenzene	91	12.221	12.221	(0.917)	774866	50.3987	50.4	
	80	1,1,2,2-Tetrachloroethane	83	12.308	12.311	(0.924)	168756	49.8945	49.9	
	81	2-Chlorotoluene	91	12.382	12.382	(0.930)	456498	48.8848	48.9	
	82	1,2,3-Trichloropropane	75	12.449	12.450	(0.935)	154861	49.7952	49.8	
	83	1,3,5-Trimethylbenzene	105	12.462	12.462	(0.936)	518554	50.4536	50.4	
	84	trans-1,4-Dichloro-2-Butene	53	12.510	12.511	(0.939)	61034	58.0285	58.0	
	85	4-Chlorotoluene	91	12.578	12.578	(0.944)	477744	49.0357	49.0	
	86	tert-Butylbenzene	119	12.819	12.819	(0.962)	436030	49.8585	49.8	
	87	1,2,4-Trimethylbenzene	105	12.899	12.900	(0.968)	534977	50.9621	51.0	
	88	sec-Butylbenzene	105	13.021	13.022	(0.978)	672451	51.6438	51.6	
	89	P-Isopropyltoluene	119	13.189	13.189	(0.990)	550520	53.3538	53.4	
	90	1,3-Dichlorobenzene	146	13.234	13.234	(0.993)	268974	49.2479	49.2	
*	91	1,4-Dichlorobenzene-D4	152	13.320	13.321	(1.000)	156772	50.0000		
	92	1,4-Dichlorobenzene	146	13.333	13.337	(1.001)	274423	47.7813	47.8	
	93	1,2,3-Trimethylbenzene	105	13.375	13.376	(1.004)	568264	52.7609	52.8	
	95	N-Butylbenzene	91	13.645	13.646	(1.024)	549333	53.5170	53.5	
	96	1,2-Dichlorobenzene	146	13.783	13.784	(1.035)	259790	49.3330	49.3	
	97	1,2-Dibromo-3-Chloropropane	157	14.623	14.620	(1.098)	31784	49.0245	49.0	
	98	1,3,5-Trichlorobenzene	180	14.658	14.662	(1.100)	206488	52.5361	52.5	
	99	1,2,4-Trichlorobenzene	180	15.304	15.305	(1.149)	177552	50.4553	50.4	
	100	Hexachlorobutadiene	225	15.291	15.295	(1.148)	76231	49.9894	50.0	
	101	Naphthalene	128	15.623	15.626	(1.173)	509920	49.8145	49.8	
	102	1,2,3-Trichlorobenzene	180	15.806	15.803	(1.187)	171904	50.7684	50.8	
M	103	1,2-Dichloroethylene (total)	96				252829	92.2971	92.3	
M	104	Xylenes (total)	91				1541745	157.651	158	
M	105	Total Alkylbenzenes	100				4036731	360.188	360	

QC Flag Legend

R - Spike/Surrogate failed recovery limits.


Data File: \\target_server\gg\chem\gcms-c.i\C092121.b\C0755.D
Date : 21-SEP-2021 08:39
Client ID: WG306380-LCS
Sample Info: WG306380-1,SD6182
Purge Volume: 5.0
Column phase: RTX-VMS
Instrument: gcms-c.i
Operator: ES
Column diameter: 0.18
\\target_server\gg\chem\gcms-c.i\C092121.b\C0755.D
Y (x10^6)
Min
-Dichlorodifluoromethane (1.412)
-Chloromethane (1.579)
-Vinyl Chloride (1.643)
-Bromomethane (1.916)
-Chloroethane (2.019)
-Trichlorofluoromethane (2.151)
-Diethyl Ether (2.447)
-1,1-Dichloroethene (2.630)+
-Iodomethane (2.768)
-Acrolein (2.977)
-Allyl Chloride (3.125)
-Methylene Chloride (3.247)+
-trans-1,2-Dichloroethene (3.437)+
-Methyl tert-butyl ether (3.588)
-Tertiary-butyl alcohol (3.746)
-Acetonitrile (3.878)
-Di-isopropyl ether (4.122)+
-1,1-Dichloroethane (4.247)+
-Ethyl tertiary-butyl ethe (4.681)+
-cis-1,2-Dichloroethene (5.109)
-2,2-Dichloropropane (5.286)
-Cyclohexane (5.415)+
-Chloroform (5.582)
-Carbon Tetrachloride (5.752)+
-1,1-Dichloropropene (6.042)+
-1,2-Dichloroethane-D4 (6.566)+
Benzene (6.460)+
-Isobutyl Alcohol (6.813)
-Methylcyclohexane (7.144)+
-Dibromomethane (7.649)
-1,2-Dichloropropane (7.775)
-Bromodichloromethane (7.874)
-1,4-Dioxane (8.099)+
-2-Chloroethylvinylether (8.588)+
-Toluene-D8 (8.787)+
-Tetrachloroethene (9.244)+
-1,1,2-Trichloroethane (9.463)+
-Dibromochloromethane (9.639)
-1,3-Dichloropropane (9.736)
-1,2-Dibromoethane (9.865)
-2-Hexanone (10.173)
-Chlorobenzene-D5 (10.488)+
-1,1,1,2-Tetrachloroethane (10.591)
m+p-Xylenes (10.749)
-o-Xylene (11.311)
-Bromoform (11.382)+
-Isopropylbenzene (11.717)
-P-Bromofluorobenzene (12.041)
-Bromobenzene (12.147)+
-n-Propylbenzene (12.221)
-1,1,2,2-Tetrachloroethane (12.308)
-2-Chlorotoluene (12.382)
-4-Chlorotoluene (12.578)
-1,2,3-Trichloropropane (12.459)+
-tert-Butylbenzene (12.814)
-1,2,4-Trimethylbenzene (12.900)
-sec-Butylbenzene (13.022)
-p-Isopropyltoluene (13.189)
-1,3-Dichlorobenzene (13.284)
-1,4-Dichlorobenzene-D4 (13.327)+
-n-Butylbenzene (13.648)
-1,2-Dichlorobenzene (13.784)
-1,2-Dibromo-3-Chloropropa (14.623)
-1,3,5-Trichlorobenzene (14.659)
-1,2,4-Trichlorobenzene (15.302)+
-Naphthalene (15.623)
-1,2,3-Trichlorobenzene (15.806)
-1,2-Dichloroethylene (tot (17.080)

Data File: \\target_server\gg\chem\gcms-c.i\C092121.b\C0756.D
Report Date: 24-Sep-2021 13:16

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-c.i\C092121.b\C0756.D
Lab Smp Id: WG306380-6 Client Smp ID: WG306380-LCSD
Inj Date : 21-SEP-2021 09:42
Operator : ES Inst ID: gcms-c.i
Smp Info : WG306380-6,SO6182
Misc Info : WG306380,WG306380-4,SO6182-1
Comment : SW846 5030
Method : \\target_server\gg\chem\gcms-c.i\C092121.b\C8A05(51).m
Meth Date : 22-Sep-2021 05:33 hgould Quant Type: ISTD
Cal Date : 20-SEP-2021 12:52 Cal File: C0731.D
Als bottle: 3 QC Sample: LCSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.12
Processing Host: VOA-WS

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)	REVIEW CODE
1	Dichlorodifluoromethane	85	1.411	1.411	(0.215)	144695	69.2564	69.2	
2	Chloromethane	50	1.578	1.579	(0.241)	156865	59.1753	59.2	
3	Vinyl chloride	62	1.643	1.643	(0.250)	143988	58.0714	58.1	
4	Bromomethane	94	1.916	1.919	(0.292)	79766	55.9928	56.0	
5	Chloroethane	64	2.022	2.019	(0.308)	81510	65.7399	65.7	
6	Trichlorofluoromethane	101	2.154	2.150	(0.328)	246042	65.5695	65.6	
7	Diethyl Ether	59	2.446	2.444	(0.373)	105963	55.8851	55.9	
8	1,1-Dichloroethene	96	2.630	2.630	(0.401)	111288	46.4815	46.5	
9	Carbon Disulfide	76	2.652	2.656	(0.404)	229456	44.0869	44.1	
10	Freon-113	151	2.675	2.681	(0.408)	92487	58.5582	58.6	
11	Iodomethane	142	2.768	2.772	(0.422)	101316	47.1709	47.2	
12	Acrolein	56	2.980	2.977	(0.454)	49452	270.590	270	
13	Allyl Chloride	41	3.125	3.128	(0.476)	217606	77.9773	78.0(R)	
14	Methylene Chloride	84	3.244	3.247	(0.494)	135815	51.2925	51.3	
15	Acetone	43	3.311	3.312	(0.505)	41220	38.1233	38.1	
16	trans-1,2-Dichloroethene	96	3.437	3.434	(0.524)	129899	45.0876	45.1	
17	Methyl Acetate	43	3.469	3.469	(0.529)	119176	44.6793	44.7	
18	Methyl tert-butyl ether	73	3.591	3.591	(0.547)	369940	46.7684	46.8	
19	Tertiary-butyl alcohol	59	3.739	3.746	(0.570)	67303	219.616	220	
20	Acetonitrile	41	3.874	3.878	(0.590)	212012	526.422	526	
21	Di-isopropyl ether	45	4.122	4.122	(0.628)	441375	55.1297	55.1	
22	Chloroprene	53	4.218	4.218	(0.643)	231610	55.7746	55.8	
23	1,1-Dichloroethane	63	4.247	4.244	(0.647)	263694	49.7777	49.8	

Data File: \\target_server\gg\chem\gcms-c.i\C092121.b\C0756.D
Report Date: 24-Sep-2021 13:16

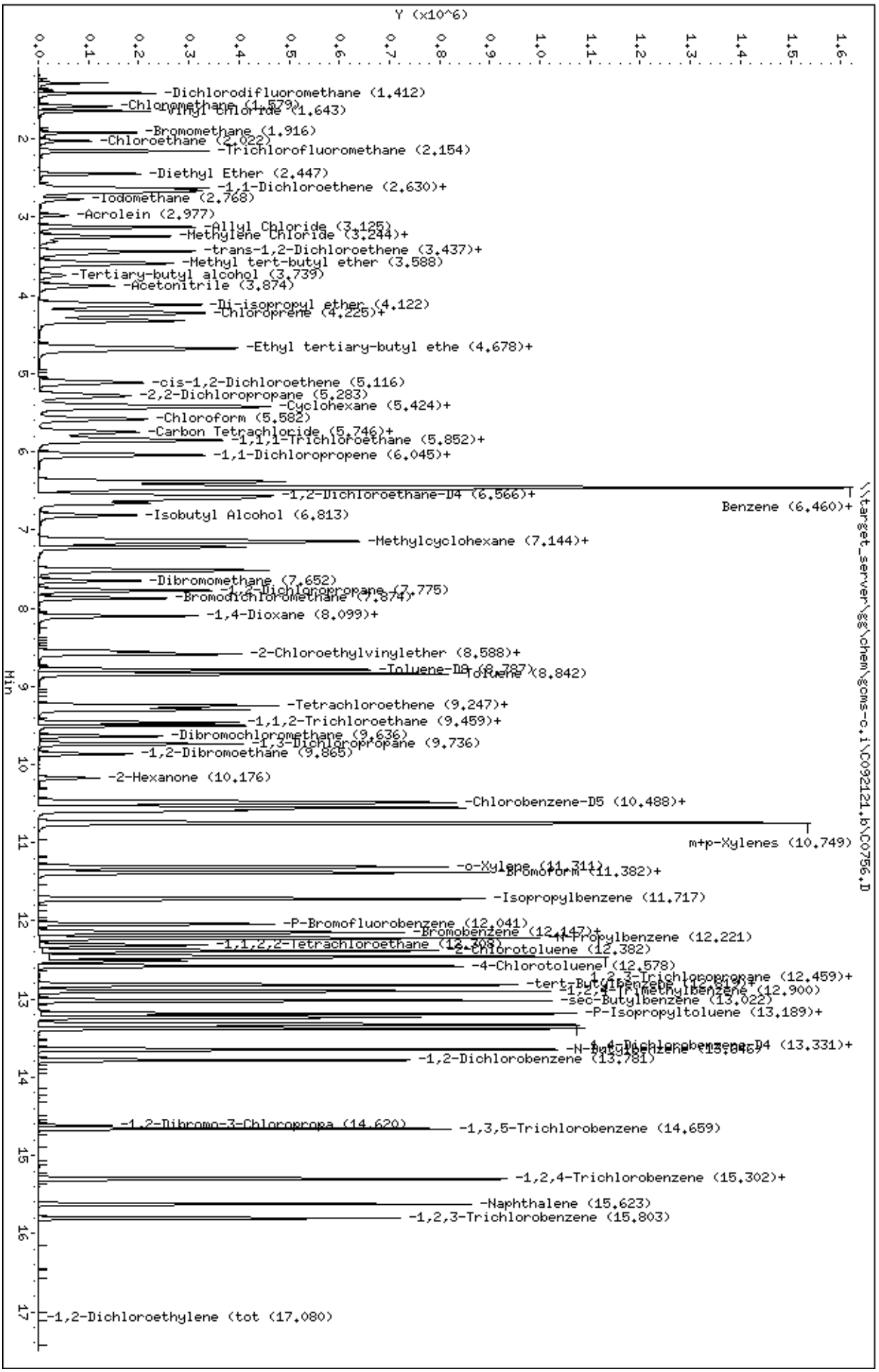
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)	REVIEW CODE
	24 Acrylonitrile	52	4.321	4.325	(0.659)	255249	277.456	277	
	25 Ethyl tertiary-butyl ether	59	4.678	4.675	(0.713)	409715	53.8657	53.9	
	26 Vinyl Acetate	43	4.681	4.678	(0.648)	313006	76.9150	76.9(R)	
	27 cis-1,2-Dichloroethene	96	5.115	5.106	(0.780)	135282	44.3332	44.3	
	28 2,2-Dichloropropane	77	5.282	5.286	(0.805)	202868	51.5045	51.5	
	29 Cyclohexane	56	5.424	5.421	(0.827)	238784	50.0863	50.1	
	30 Bromochloromethane	128	5.424	5.424	(0.827)	60657	52.2355	52.2	
	31 Chloroform	83	5.581	5.582	(0.851)	250144	48.4271	48.4	
	32 Carbon Tetrachloride	117	5.745	5.752	(0.796)	193571	48.7222	48.7	
	33 Tetrahydrofuran	42	5.800	5.797	(0.884)	44029	43.9265	43.9	
	34 1,1,1-Trichloroethane	97	5.851	5.852	(0.892)	236408	50.1361	50.1	
$	35 Dibromofluoromethane	113	5.845	5.849	(0.891)	107415	53.3371	53.3	
	36 1,1-Dichloropropene	75	6.041	6.038	(0.837)	203795	46.3631	46.4	
	37 2-Butanone	43	6.051	6.045	(0.922)	62240	49.0472	49.0	
	38 Benzene	78	6.385	6.379	(0.884)	560448	46.0373	46.0	
	39 Propionitrile	54	6.430	6.427	(0.980)	237036	535.184	535	
	40 Methacrylonitrile	41	6.459	6.459	(0.984)	941678	603.381	603	
$	41 1,2-Dichloroethane-D4	65	6.565	6.566	(1.000)	139664	56.0423	56.0	
*	42 Pentafluorobenzene	168	6.562	6.566	(1.000)	195403	50.0000		
	43 Tertiary-amyl methyl ether	73	6.604	6.604	(1.006)	355957	51.4545	51.4	
	44 Isobutyl Alcohol	43	6.813	6.813	(1.038)	144639	1033.92	1030	
	45 1,2-Dichloroethane	62	6.658	6.656	(0.922)	208731	51.3722	51.4	
	46 Methylcyclohexane	83	7.138	7.128	(1.088)	261145	53.7783	53.8	
	47 Trichloroethene	95	7.157	7.157	(0.991)	144161	47.6105	47.6	
*	48 1,4-Difluorobenzene	114	7.221	7.218	(1.000)	357083	50.0000		
	49 Dibromomethane	93	7.652	7.652	(1.060)	88093	47.5261	47.5	
	50 1,2-Dichloropropane	63	7.774	7.771	(1.077)	145548	47.3458	47.3	
	51 Bromodichloromethane	83	7.874	7.874	(1.090)	184021	50.0324	50.0	
	52 1,4-Dioxane	88	8.109	8.109	(1.123)	44608	961.742	962	
	53 Methyl Methacrylate	41	8.099	8.099	(1.122)	133025	54.7112	54.7	
	54 2-Chloroethylvinylether	63	8.552	8.553	(1.184)	96375	53.8183	53.8	
	55 cis-1,3-dichloropropene	75	8.588	8.587	(1.189)	234048	50.4078	50.4	
$	56 Toluene-D8	98	8.787	8.787	(1.217)	438360	48.9346	48.9	
	57 Toluene	91	8.842	8.842	(1.224)	597898	47.6800	47.7	
	58 Tetrachloroethene	164	9.247	9.247	(0.883)	105779	46.6313	46.6	
	59 4-methyl-2-pentanone	43	9.272	9.273	(1.284)	126485	49.4674	49.5	
	60 trans-1,3-Dichloropropene	75	9.298	9.302	(1.288)	217336	51.7412	51.7	
	61 1,1,2-Trichloroethane	83	9.459	9.459	(1.310)	106683	48.5488	48.5	
	62 Ethyl Methacrylate	69	9.504	9.504	(1.316)	207153	50.2682	50.3	
	63 Dibromochloromethane	129	9.639	9.636	(0.920)	124994	50.2381	50.2	
	64 1,3-Dichloropropane	76	9.735	9.736	(0.929)	242410	48.3272	48.3	
	65 1,2-Dibromoethane	107	9.864	9.868	(1.366)	128064	48.9062	48.9	
	66 2-Hexanone	43	10.176	10.173	(0.971)	84148	47.5325	47.5	
*	67 Chlorobenzene-D5	117	10.475	10.475	(1.000)	324501	50.0000		
	68 Chlorobenzene	112	10.498	10.495	(1.002)	377097	46.6591	46.6	
	69 Ethylbenzene	91	10.552	10.553	(1.007)	699132	49.3715	49.4	
	70 1,1,1,2-Tetrachloroethane	131	10.588	10.594	(1.011)	130159	52.7734	52.8	
	71 m+p-Xylenes	91	10.748	10.749	(1.026)	1077212	101.614	102	
	72 o-Xylene	91	11.311	11.311	(1.080)	550321	51.0091	51.0	
	73 Bromoform	173	11.388	11.389	(1.087)	81514	44.8786	44.9	
	74 Styrene	104	11.382	11.382	(1.087)	406212	52.1045	52.1	
	75 Isopropylbenzene	105	11.716	11.720	(0.880)	659495	50.1428	50.1	
$	76 P-Bromofluorobenzene	95	12.038	12.041	(1.667)	174615	50.3286	50.3	
	77 Bromobenzene	156	12.150	12.151	(0.912)	149680	49.5570	49.6	

Data File: \\target_server\gg\chem\gcms-c.i\C092121.b\C0756.D
Report Date: 24-Sep-2021 13:16

			QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)	REVIEW CODE
	78	cis-1,4-Dichloro-2-Butene	53	12.137	12.138	(0.911)	59454	53.6443	53.6	
	79	N-Propylbenzene	91	12.221	12.221	(0.918)	806887	50.4951	50.5	
	80	1,1,2,2-Tetrachloroethane	83	12.308	12.311	(0.924)	175618	49.9581	50.0	
	81	2-Chlorotoluene	91	12.382	12.382	(0.930)	481065	49.5658	49.6	
	82	1,2,3-Trichloropropane	75	12.449	12.450	(0.935)	161064	49.8296	49.8	
	83	1,3,5-Trimethylbenzene	105	12.462	12.462	(0.936)	542139	50.7519	50.8	
	84	trans-1,4-Dichloro-2-Butene	53	12.514	12.511	(0.940)	63695	58.2664	58.3	
	85	4-Chlorotoluene	91	12.578	12.578	(0.944)	507856	50.1535	50.2	
	86	tert-Butylbenzene	119	12.819	12.819	(0.963)	454049	49.9539	50.0	
	87	1,2,4-Trimethylbenzene	105	12.899	12.900	(0.969)	552823	50.6689	50.7	
	88	sec-Butylbenzene	105	13.022	13.022	(0.978)	697206	51.5183	51.5	
	89	P-Isopropyltoluene	119	13.189	13.189	(0.990)	562542	52.4554	52.4	
	90	1,3-Dichlorobenzene	146	13.234	13.234	(0.994)	283198	49.8898	49.9	
*	91	1,4-Dichlorobenzene-D4	152	13.317	13.321	(1.000)	162939	50.0000		
	92	1,4-Dichlorobenzene	146	13.333	13.337	(1.001)	285140	47.7683	47.8	
	93	1,2,3-Trimethylbenzene	105	13.375	13.376	(1.004)	582973	52.0780	52.1	
	94	Pentachloroethane	165	12.838	12.832	(0.964)	368			(aR)
	95	N-Butylbenzene	91	13.645	13.646	(1.025)	560083	52.4991	52.5	
	96	1,2-Dichlorobenzene	146	13.780	13.784	(1.035)	268337	49.0274	49.0	
	97	1,2-Dibromo-3-Chloropropane	157	14.623	14.620	(1.098)	33101	49.1235	49.1	
	98	1,3,5-Trichlorobenzene	180	14.658	14.662	(1.101)	211153	51.6896	51.7	
	99	1,2,4-Trichlorobenzene	180	15.308	15.305	(1.149)	182052	49.7760	49.8	
	100	Hexachlorobutadiene	225	15.292	15.295	(1.148)	77666	49.0028	49.0	
	101	Naphthalene	128	15.623	15.626	(1.173)	529854	49.8018	49.8	
	102	1,2,3-Trichlorobenzene	180	15.806	15.803	(1.187)	176726	50.2171	50.2	
M	103	1,2-Dichloroethylene (total)	96				265181	89.4208	89.4	
M	104	Xylenes (total)	91				1627533	152.623	153	
M	105	Total Alkylbenzenes	100				4175729	358.343	358	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.


Data File: \\target_server\gg\chem\gcms-c,i\C092121.b\C0756.D
Date : 21-SEP-2021 09:42
Client ID: WG306380-LCSD
Sample Info: WG306380-6,S06182
Purge Volume: 5.0
Column phase: RTX-VMS
Instrument: gcms-c,i
Operator: ES
Column diameter: 0.18
Y (x10^6)
Min
-Dichlorodifluoromethane (1.412)
-Chloromethane (1.579)
Vinyl Chloride (1.643)
-Bromomethane (1.916)
-Chloroethane (2.022)
-Trichlorofluoromethane (2.154)
-Diethyl Ether (2.447)
-1,1-Dichloroethene (2.630)+
-Iodomethane (2.768)
-Acrolein (2.977)
-Allyl Chloride (3.125)
-Methylene Chloride (3.244)+
-trans-1,2-Dichloroethene (3.437)+
-Methyl tert-butyl ether (3.588)
-Tertiary-butyl alcohol (3.739)
-Acetonitrile (3.874)
-Di-isopropyl ether (4.122)
-Chloroprene (4.225)+
-Ethyl tertiary-butyl ethe (4.678)+
-cis-1,2-Dichloroethene (5.116)
-2,2-Dichloropropane (5.283)
-Cyclohexane (5.424)+
-Chloroform (5.582)
-Carbon Tetrachloride (5.746)+
-1,1,1-Trichloroethane (5.852)+
-1,1-Dichloropropene (6.045)+
-1,2-Dichloroethane-D4 (6.566)+
Benzene (6.460)+
\\target_server\gg\chem\gcms-c,i\C092121.b\C0756.D
-Isobutyl Alcohol (6.813)
-Methylcyclohexane (7.144)+
-Dibromomethane (7.652)
-1,2-Dichloropropane (7.775)
-Bromodichloromethane (7.874)
-1,4-Dioxane (8.099)+
-2-Chloroethylvinylether (8.588)+
-Toluene-D8 (8.787)
Toluene (8.842)
-Tetrachloroethene (9.247)+
-1,1,2-Trichloroethane (9.459)+
-Dibromochloromethane (9.636)
-1,3-Dichloropropane (9.736)
-1,2-Dibromoethane (9.865)
-2-Hexanone (10.176)
-Chlorobenzene-D5 (10.488)+
m+p-Xylenes (10.749)
-o-Xylene (11.211)
Bromoform (11.382)+
-Isopropylbenzene (11.717)
-P-Bromofluorobenzene (12.041)
-Bromobenzene (12.147)+
-n-Propylbenzene (12.221)
-1,1,2,2-Tetrachloroethane (12.308)
2-Chlorotoluene (12.382)
-4-Chlorotoluene (12.578)
1,2,3-Trichloropropane (12.459)+
-tert-Butylbenzene (12.618)+
-1,2,4-Trimethylbenzene (12.900)
-sec-Butylbenzene (13.022)
-P-Isopropyltoluene (13.189)+
1,4-Dichlorobenzene-D4 (13.331)+
-N-Butylbenzene (13.346)
-1,2-Dichlorobenzene (13.781)
-1,2-Dibromo-3-Chloropropa (14.620)
-1,3,5-Trichlorobenzene (14.659)
-1,2,4-Trichlorobenzene (15.302)+
-Naphthalene (15.623)
-1,2,3-Trichlorobenzene (15.803)
-1,2-Dichloroethylene (tot (17.080)

Logbooks and Supporting Documents

8:50 WL

KATAHDIN ANALYTICAL SERVICES

GCMS-C INSTRUMENT RUNLOG

DATE/TIME OF BFB INJECTION: 9-20-21

Method - Check One:	8260 ✓	8260 - 10 mL	8260 SIM	624	524
STD IDs: * BFB STD: V2313	CAL STD: V2317	GAS STD: V2314A	XTRAs STD: V2318	LCS/MS STD: V2309	
SURR STD: V2305	IS STD: V2305				

Prep Method			Criteria			pH Paper Lot #:	KI Paper Lot #
5030	5035	1311	KAS	DoD	QAPP		

SAMPLE NAME	DATAFILE	DF	ALS #	METHOD	Y/N	ANALYST	pH	TRC	COMMENTS
WG603304314-12	C0027	—	—	V8260B	Y		N/A	N/A	
VSTD50_4	C0024	1	1	8260(SI)	Y				
20 -3	25		2		Y				Cumene
10 -8	26		3		Y				4-Chlorotoluene
5 -2	27		4		Y				1,4-D
1 -1	28		5		Y				Acetone+Chloroethane
10 -6	29		6		Y				4-Br
100 -5	30		7		Y				
75 -7	31		8		Y				
Inj/LCS	32		9		Y				Manual Int
LCSD V3160	33		10		N				
↓ B	34		11		Y		✓		
506230-1A	35		12		Y		12		
-2A	36		13		Y				
-3A	37		14		Y				
-4A	38		15		Y				
-5A	39		16		Y				
-6A	40		17		Y				
-7A	41		18		Y				
-8A	42		19		Y				
-9A	43		20		Y				
-10A	44		21		Y		✓		
Prim	45		22		—		N/A		
Cont'd SC								9-21-21	

* Refer to page 1 for standard preparation instructions.

WG7

KATAHDIN ANALYTICAL SERVICES

GCMS-C INSTRUMENT RUNLOG

DATE/TIME OF BFB INJECTION: 9/21/21 7:23

Method - Check One:	8260 ✓	8260 - 10 mL	8260 SIM	624	524
STD IDs: * BFB STD: V2313	CAL STD: V2317	GAS STD: V2314 B	XTRAs STD: V2318	LCS/MS STD: ~~V2309~~ V2319	
SURR STD: V2305	IS STD: V2305				

SAMPLE NAME	DATAFILE	DF	ALS #	METHOD	Prep Method: 5030	5035	1311	Criteria: KAS	DoD	QAPP	pH Paper Lot #: 600302	KI Paper Lot #	Y/N	ANALYST	pH	TRC	COMMENTS
NG30623803	CB628	—	—	VOABFB	✓								Y	✓	N/A	N/A	
VSTD050 -4	C0754	1	1	C8ADS(51)									Y				
LCS -1	55	1	2										Y				
LCSD -6	56	1	3										Y				
VBlank	57	1	4										N				
VBlank -2	58	1	5										Y				
MEOH Blank-7	59	1	6										Y				Recalculate
SOL182-2A	60	1	7					✓					Y		<2		
SOL200-10 A	61	1	8										Y		↓		
SOL254-1DL A	62	1	9										✓		NA		800ul MeOH Vol Recal
SOL182-1A	63	1	10										Y		<2		
SOL200-1 A	64	1	11										Y				
-2 A	65	1	12										Y				~~1 ISV~~
-3 A	66	1	13										Y				~~2 ISV~~ ISST THCPOL
-4 A	67	1	14										Y				~~4 ISV~~
-5 A	68	1	15										Y				~~2 ISV~~ ISST THCPOL
-6 A	69	1	16										Y				~~4 ISV~~ ISST THCPOL
-7 A	70	1	17										Y				~~3 ISV~~ ~~ISST~~ NO TH
-8 A	71	1	18										Y		↓		17:45 ~~4 ISV~~ ISST NO TH
RINSE	72	1	19										—		N/A		

* Refer to page 1 for standard preparation instructions.

Katahdin Analytical Services 1000097

CONVENTIONAL AND PHYSICAL ANALYTICAL DATA

QC Summary Section

Quality Control Report

Blank Sample Summary Report

Chromium, Hexavalent

Samp Type	QC Batch	Anal. Method	Anal. Date	Prep. Date	Result	PQL
MBLANK	WG306361	SW846 7196A	17-SEP-21	N/A	U 0.025 mg/L	0.025 mg/L

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://katahdinlab.com
sales@katahdinlab.com

Quality Control Report

Laboratory Control Sample Summary Report

Chromium, Hexavalent

Lab Sample Id	Samp Type	QC Batch	Analysis Date	Prep Date	Units	Spike Amt.	Result	Recovery	Acceptance Range	RPD
WG306361-2	LCS	WG306361	17-SEP-21	N/A	mg/L	.5	0.49	98	80-120	

Sample Data Section

KATAHDIN ANALYTICAL SERVICES – INORGANIC DATA QUALIFIERS

The sampled date indicated on the attached Report(s) of Analysis (ROA) is the date for which a grab sample was collected or the date for which a composite sample was completed. Beginning and start times for composite samples can be found on the Chain-of-Custody.

U Indicates the compound was analyzed for but not detected above the specified level. This level may be the Practical Quantitation Level (PQL) (also called Limit of Quantitation (LOQ)), the Limit of Detection (LOD) or Method Detection Limit (MDL) as required by the client.

Note: All results reported as "U" MDL have a 50% rate for false negatives compared to those results reported as "U" PQL "U" LOQ or "U" LOD, where the rate of false negatives is <1%.

E Estimated value. This flag identifies compounds whose concentrations exceed the upper level of the calibration range of the instrument for that specific analysis.

J Estimated value. The analyte was detected in the sample at a concentration less than the laboratory Practical Quantitation Level (PQL) (also called Limit of Quantitation (LOQ)), but above the Method Detection Limit (MDL).

I-7 The laboratory's Practical Quantitation Level (PQL) or LOQ could not be achieved for this parameter due to sample composition, matrix effects, sample volume, or quantity used for analysis.

A-4 Please refer to cover letter or narrative for further information.

H_ Please note that the regulatory holding time for _____ is "analyze immediately". Ideally, this analysis must be performed in the field at the time of sample collection. _____ for this sample was not performed at the time of sample collection. The analysis was performed as soon as possible after receipt by the laboratory.

H1 - pH H2 - DO H3 - sulfite H4 - residual chlorine

T1 The client did not provide the full volume of at least one liter for analysis of TSS. Therefore, the PQL of 2.5 mg/L could not be achieved.

T2 The client provided the required volume of at least one liter for analysis of TSS, but the laboratory could not filter the full one liter volume due to the sample matrix. Therefore, the PQL of 2.5 mg/L could not be achieved.

M1 The matrix spike and/or matrix spike duplicate recovery performed on this sample was outside of the laboratory acceptance criteria. Sample matrix is suspected. The laboratory criteria was met for the Laboratory Control Sample (LCS) analyzed concurrently with this sample.

M2 The matrix spike and/or matrix spike duplicate recovery was outside of the laboratory acceptance criteria. The native sample concentration is greater than four times the spike added concentration so the spike added could not be distinguished from the native sample concentration.

R1 The relative percent difference (RPD) between the duplicate analyses performed on this sample was outside of the laboratory acceptance criteria (when both values are greater than ten times the PQL).

MCL	Maximum Contaminant Level	NL	No limit
NFL	No Free Liquid Present	FLP	Free Liquid Present
NOD	No Odor Detected	TON	Threshold Odor Number

D-1 As required by Method 5210B, APHA Standard Methods for the Examination of Water and Wastewater (21st edition), the BOD value reported for this sample is 'qualified' because the check standard run concurrently with the sample analysis did not meet the criteria specified in the method (198 +/- 30.5 mg/L). These results may not be reportable for compliance purposes.

D-2 The measured final dissolved oxygen concentrations of all dilutions were less than the method-specified limit of 1 mg/L. The reported BOD result was calculated assuming a final oxygen concentration equal to 1 mg/L. The reported value should be considered a minimum value.

D-3 The dilution water used to prepare this sample did not meet the method and/or regulatory criteria of less than 0.2 or 0.4 mg/L dissolved oxygen (DO) uptake over the five day period of incubation. These results may not be reportable for compliance purposes.

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: Stefan Bagnato
ARCADIS
855 Route 146
Clifton Park,NY 12065

Lab Sample ID: SO6182-1
Report Date: 01-OCT-21
Project: Watervliet Arsenal LTM
SDG: SO6182

Sample Description	Matrix	Date Sampled	Date Received
93EM-SP-11(20210914)	AQ	14-SEP-21 11:55:00	15-SEP-21

Parameter	Result	Adj PQL	Adj MDL	Anal. Method	QC Batch	Analysis Date	Prep. Method	Prep. Date	Analyst	Footnotes	RPD/RSD
Chromium, Hexavalent	U0.025 mg/L	0.025	0.00076	SW846 7196A	WG306361	17-SEP-21 13:12:00	N/A	N/A	ES		

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: Stefan Bagnato
ARCADIS
855 Route 146
Clifton Park,NY 12065

Lab Sample ID: SO6182-3
Report Date: 01-OCT-21
Project: Watervliet Arsenal LTM
SDG: SO6182

Sample Description	Matrix	Date Sampled	Date Received
NMTPIT (20210914)	AQ	14-SEP-21 14:30:00	15-SEP-21

Parameter	Result	Adj PQL	Adj MDL	Anal. Method	QC Batch	Analysis Date	Prep. Method	Prep. Date	Analyst	Footnotes	RPD/RSD
Chromium, Hexavalent	0.75 mg/L	0.025	0.00076	SW846 7196A	WG306361	17-SEP-21 13:12:00	N/A	N/A	ES		

Raw Data Section

WET CHEMISTRY BATCH REPORT
Sep 20 2021, 02:55 pm
Batch: WG306361 Run ID 1: R576776 Run ID 2: R576777

Parameter: Chromium, Hexavalent

Prep Date: N/A

Date Analyzed: 17-SEP-21

Prep Method: N/A

Analyst Initials: ES

Prep Chemist: N/A

Sample	Samp Type	Method	Initial Amt.	Final Amt.	Rpt. DF	Result	Rpt Result	TS(%)	PQL	MDL	Adj PQL	RPD	%Rec
SO6182-1	SAMP	SW846 7196A	95.000mL	95.000mL	1	-.0115	U0.025 mg/L	NA	.025	0.00076	0.025		
SO6182-3	SAMP	SW846 7196A	95.000mL	95.000mL	1	.74975	0.75 mg/L	NA	.025	0.00076	0.025		
SO6260-1	SAMP	SW846 7196A	95.000mL	95.000mL	1	.00529	U0.025 mg/L	NA	.025	0.00076	0.025		
SO6260-2	SAMP	SW846 7196A	95.000mL	95.000mL	1	.01673	U0.025 mg/L	NA	.025	0.00076	0.025		
SO6260-3	SAMP	SW846 7196A	95.000mL	95.000mL	2	.00243	U0.050 mg/L	NA	.025	0.0015	0.050		
SO6260-4	SAMP	SW846 7196A	95.000mL	95.000mL	1	.0064	U0.025 mg/L	NA	.025	0.00076	0.025		
SO6260-6	SAMP	SW846 7196A	95.000mL	95.000mL	1	-.00299	U0.025 mg/L	NA	.025	0.00076	0.025		
SO6260-7	SAMP	SW846 7196A	95.000mL	95.000mL	1	-.0012	U0.025 mg/L	NA	.025	0.00076	0.025		
SO6260-8	SAMP	SW846 7196A	95.000mL	95.000mL	1	-.00668	U0.025 mg/L	NA	.025	0.00076	0.025		
WG306361-1	MBLANK	SW846 7196A	95.000mL	95.000mL	1	-.00105	U0.012 mg/L	NA	.025	0.00076	0.025		
WG306361-2	LCS	SW846 7196A	95.000mL	95.000mL	1	.49117	0.49 mg/L	NA	.025	0.00076	0.025		98
WG306361-3	MS	SW846 7196A	95.000mL	95.000mL	2	.00304	U0.050 mg/L	NA	.025	0.0015	0.050		0
WG306361-4	MSD	SW846 7196A	95.000mL	95.000mL	2	.00302	U0.050 mg/L	NA	.025	0.0015	0.050	1	0

Comments:

WG306361-1	SO6260-3
WG306361-2	SO6260-3
WG306361-3	SO6260-3
WG306361-4	SO6260-3

Entered by: _____ Date: 9/20/21 Accepted by: _____ Date: 09/23/21

Katahdin Analytical Services 5000010

KATAHDIN ANALYTICAL SERVICES, LLC
Wet Chemistry Analysis Run Information Sheet

Analyte:	**HEXAVALENT CHROMIUM**
Instrument:	**KONELAB 20**

Analyst:	JR
Analysis Date:	9/17/21

WG 396361 RS 76776

Analytical Method (Check all that apply):

[X] SW846 7196 [ ] SM 3500-Cr B [ ] Other (list): _____

Reagent Information:

Reagent Name	Reagent ID	Expiration Date
Diphenylcarbazide Solution	**W19953**	**4/28/2022**
10% v/v Sulfuric Acid	**W18383**	**1/14/2022**

Standards Information:

Standard Name	Concentration (mg/L as Cr^6)	ID	Expiration Date
Cal. Standard / CCV Stock	1000.0	**SWL4577**	**2/1/2021**
Cal. Std. / CCV Intermediate	25.0	**W19843**	**9/18/2021**
1.0 mg/L Calibration Standard - (1.00 mL / 25.0 mL dilution of Cal. Standard / CCV Intermediate)	1.00	HC_Cal052821	Day of use only
CCV - (0.50 mL / 25.0 mL dilution of Cal. Standard / CCV Intermediate)	0.50	HC_CCV052821	Day of use only
LCS / MS Stock	1000.0	**SWL4726**	**1/31/2022**
LCS / MS Intermediate	25.0	**W20090**	**12/16/2021**
LCS - (0.50 mL / 25.0 mL dilution of LCS / MS Intermediate)	0.50	HC_LCS052821	Day of use only

Notes:

1) Additional calibration standards (0.50, 0.10, 0.050, 0.020, 0.010 mg/L) are automatically prepared by the instrument during analysis through dilution of the 1.0 mg/L Calibration Standard.
2) Matrix spikes are prepared prior to analysis by adding 0.5 mL of LCS / MS Intermediate to 25 mL of sample. Matrix spike added = 0.50 mg/L as Cr6.

Comments:

Pipettes: W7, W8, W10

Aquakem v. 7.2									
Results from time period:									
Fri Sep 17 09:09:48 2021									
Fri Sep 17 14:46:41 2021									
Sample Id	Test short name	Result	Result unit	Result date and time	Dil. Factor	Response	Blank init abs. (A)	TEDin abs. 1	Comments
CRVI-0	Chromium	-0.0007333	mg/l	9/17/21 11:42:03	1	0.0019	-0.00088	0.00102	CAL POINT
CRVI-1.0	Chromium	0.0093472	mg/l	9/17/21 11:42:04	100	0.00807	-0.00148	0.00659	CAL POINT
CRVI-1.0	Chromium	0.0190761	mg/l	9/17/21 11:42:05	50	0.01403	-0.00163	0.0124	CAL POINT
CRVI-1.0	Chromium	0.0496656	mg/l	9/17/21 11:42:06	20	0.03277	-0.0014	0.03138	CAL POINT
CRVI-1.0	Chromium	0.1012235	mg/l	9/17/21 11:42:07	10	0.06436	-0.00116	0.0632	CAL POINT
CRVI-1.0	Chromium	0.5030031	mg/l	9/17/21 11:42:08	2	0.3105	-0.00095	0.30954	CAL POINT
CRVI-1.0	Chromium	0.9984178	mg/l	9/17/21 11:42:09	1	0.61399	-0.00096	0.61303	CAL POINT
CRVI-CCV	Chromium	0.5030752	mg/l	9/17/21 11:51:13	1	0.31054	-0.00079	0.30975	100.62%
CRVI-CCB	Chromium	-0.0010493	mg/l	9/17/21 11:51:14	1	0.00171	-0.00103	0.00068	
LCS 1	Chromium	0.4911789	mg/l	9/17/21 11:51:15	1	0.30325	-0.00081	0.30244	ACCEPTED
LCS 2	Chromium	0.4961908	mg/l	9/17/21 11:51:16	1	0.30632	-0.0009	0.30542	ACCEPTED
CRVI-CCV	Chromium	0.4990815	mg/l	9/17/21 11:53:13	1	0.30809	-0.00075	0.30735	99.82%
CRVI-CCB	Chromium	-0.000872	mg/l	9/17/21 11:53:14	1	0.00181	-0.00101	0.0008	
SO6260-1	Chromium	0.0052927	mg/l	9/17/21 12:01:33	1	0.00559	0.02192	0.02751	ACCEPTED
SO6260-2	Chromium	0.0167356	mg/l	9/17/21 12:01:34	1	0.0126	-0.00077	0.01183	ACCEPTED
SO6260-3	Chromium	0.0015201	mg/l	9/17/21 12:01:35	1	0.00328	0.0146	0.01788	ACCEPTED
SO6260-4	Chromium	0.0064071	mg/l	9/17/21 12:01:36	1	0.00627	0.00054	0.00681	ACCEPTED
SO6260-5	Chromium	-0.095489	mg/l	9/17/21 12:01:37	1	-0.05615	0.10578	0.04963	RERUN DILUTE
SO6260-6	Chromium	-0.0029899	mg/l	9/17/21 12:01:38	1	0.00052	0.00809	0.00861	ACCEPTED
SO6260-7	Chromium	-0.0011989	mg/l	9/17/21 12:01:39	1	0.00161	-0.00003	0.00159	ACCEPTED
SO6260-8	Chromium	-0.006675	mg/l	9/17/21 12:01:40	1	-0.00174	0.00414	0.0024	ACCEPTED
SO6260-3 MS	Chromium	0.0044193	mg/l	9/17/21 12:01:41	1	0.00506	0.00508	0.01014	RERUN DILUTE
SO6260-3 MSD	Chromium	-0.0605797	mg/l	9/17/21 12:01:42	1	-0.03476	0.0455	0.01074	RERUN DILUTE
CRVI-CCV	Chromium	0.5033343	mg/l	9/17/21 12:04:07	1	0.3107	-0.00058	0.31012	100.67%
CRVI-CCB	Chromium	-0.0012957	mg/l	9/17/21 12:04:08	1	0.00155	-0.00127	0.00029	
CRVI-CCV	Chromium	0.4886543	mg/l	9/17/21 12:19:31	1	0.30171	-0.00121	0.3005	97.73%
CRVI-CCB	Chromium	-0.00081	mg/l	9/17/21 12:19:32	1	0.00185	-0.00103	0.00082	
LCS 1	Chromium	0.844033	mg/l	9/17/21 12:19:33	2	0.26088	0.12735	0.38823	REJECTED
LCS 2	Chromium	0.4936863	mg/l	9/17/21 12:19:34	2	0.15357	-0.00055	0.15302	REJECTED
SO6260-3 MS	Chromium	0.003043	mg/l	9/17/21 12:19:35	2	0.00328	0.00308	0.00636	ACCEPTED
SO6260-3 MSD	Chromium	0.0030242	mg/l	9/17/21 12:19:36	2	0.00327	0.00305	0.00632	ACCEPTED
SO6260-3	Chromium	0.0024371	mg/l	9/17/21 12:23:01	2	0.00309	0.01862	0.02172	ACCEPTED
SO6260-5	Chromium	-0.1722217	mg/l	9/17/21 12:23:02	2	-0.0504	0.07472	0.02431	RERUN TO CONFIRM
CRVI-CCV	Chromium	0.5037698	mg/l	9/17/21 12:24:43	1	0.31097	-0.00071	0.31026	100.75%
CRVI-CCB	Chromium	-0.0008912	mg/l	9/17/21 12:24:44	1	0.0018	-0.00093	0.00088	
CRVI-CCV	Chromium	0.5029579	mg/l	9/17/21 13:07:56	1	0.31047	-0.00117	0.3093	100.59%
CRVI-CCB	Chromium	-0.0006864	mg/l	9/17/21 13:07:57	1	0.00193	-0.00113	0.0008	
SO6260-5	Chromium	-0.7798775	mg/l	9/17/21 13:07:58	2	-0.23653	0.26298	0.02645	REJECTED

Katahdin Analytical Services 5000012

CRVI-CCV	Chromium	0.5073386	mg/l	9/17/21 13:09:52	1	0.31315	-0.00069	0.31246	101.47%
CRVI-CCB	Chromium	-0.0006583	mg/l	9/17/21 13:09:53	1	0.00194	-0.00096	0.00098	
SO6182-1	Chromium	-0.0115003	mg/l	9/17/21 13:16:48	1	-0.0047	0.01	0.0053	ACCEPTED
SO6182-3	Chromium	0.7497594	mg/l	9/17/21 13:16:49	1	0.46166	0.00114	0.4628	ACCEPTED
CRVI-CCV	Chromium	0.5051253	mg/l	9/17/21 13:18:34	1	0.3118	-0.00055	0.31124	101.03%
CRVI-CCB	Chromium	-0.0006988	mg/l	9/17/21 13:18:35	1	0.00192	-0.0007	0.00122	
CRVI-CCV	Chromium	0.4682803	mg/l	9/17/21 14:31:28	1	0.28922	-0.0005	0.28873	93.66%
CRVI-CCB	Chromium	-0.0005977	mg/l	9/17/21 14:31:29	1	0.00198	-0.00102	0.00096	
SO6260-5*	Chromium	-0.0829541	mg/l	9/17/21 14:31:30	5	-0.00782	0.01284	0.00502	ACCEPTED
CRVI-CCV	Chromium	0.4744969	mg/l	9/17/21 14:33:22	1	0.29303	-0.00082	0.29221	94.90%
CRVI-CCB	Chromium	-0.0003486	mg/l	9/17/21 14:33:23	1	0.00213	-0.00105	0.00109	
CRVI-CCV	Chromium	0.4675801	mg/l	9/17/21 14:44:46	1	0.28879	-0.00102	0.28777	93.52%
CRVI-CCB	Chromium	-0.0012524	mg/l	9/17/21 14:44:47	1	0.00158	-0.00081	0.00077	
SO6260-5*	Chromium	-3.1935973	mg/l	9/17/21 14:44:48	10	-0.1933	0.19682	0.00353	REJECTED
CRVI-CCV	Chromium	0.4763663	mg/l	9/17/21 14:46:40	1	0.29418	-0.00095	0.29323	95.27%
CRVI-CCB	Chromium	-0.0005071	mg/l	9/17/21 14:46:41	1	0.00204	-0.0009	0.00113	

Laboratory
Analyzer User

Date : 9/20/2021
Time : 12:31

Test Chromium
Unit mg/l

Sample ID:	Result	Date and Time	Note
CRVI-CCV	0.503075	9/17/2021 11:51	
CRVI-CCB	-0.001	9/17/2021 11:51	
LCS 1		-	R
LCS 2		-	R
CRVI-CCV	0.499081	9/17/2021 11:53	
CRVI-CCB	-0.0009	9/17/2021 11:53	
SO6260-1	0.005293	9/17/2021 12:01	
SO6260-2	0.016736	9/17/2021 12:01	
SO6260-3		-	R
SO6260-4	0.006407	9/17/2021 12:01	
SO6260-5		-	R
SO6260-6	-0.003	9/17/2021 12:01	
SO6260-7	-0.001	9/17/2021 12:01	
SO6260-8	-0.007	9/17/2021 12:01	
SO6260-3 MS		-	R
SO6260-3 MSD		-	R
CRVI-CCV	0.503334	9/17/2021 12:04	
CRVI-CCB	-0.001	9/17/2021 12:04	
CRVI-CCV	0.488654	9/17/2021 12:19	
CRVI-CCB	-0.0008	9/17/2021 12:19	
LCS 1		-	R
LCS 2		-	R
SO6260-3 MS	0.003043	9/17/2021 12:19	R
SO6260-3 MSD	0.003024	9/17/2021 12:19	R
SO6260-3	0.002437	9/17/2021 12:23	R
SO6260-5		-	R
CRVI-CCV	0.503770	9/17/2021 12:24	
CRVI-CCB	-0.0009	9/17/2021 12:24	
CRVI-CCV	0.502958	9/17/2021 13:07	
CRVI-CCB	-0.0007	9/17/2021 13:07	
SO6260-5		-	R
CRVI-CCV	0.507339	9/17/2021 13:09	
CRVI-CCB	-0.0007	9/17/2021 13:09	
SO6182-1	-0.01	9/17/2021 13:16	
SO6182-3	0.749759	9/17/2021 13:16	
CRVI-CCV	0.505125	9/17/2021 13:18	
CRVI-CCB	-0.0007	9/17/2021 13:18	
CRVI-CCV	0.468280	9/17/2021 14:31	
CRVI-CCB	-0.0006	9/17/2021 14:31	
SO6260-5*		-	R
CRVI-CCV	0.474497	9/17/2021 14:33	
CRVI-CCB	-0.0003	9/17/2021 14:33	
CRVI-CCV	0.467580	9/17/2021 14:44	
CRVI-CCB	-0.001	9/17/2021 14:44	
SO6260-5*	-3	9/17/2021 14:44	R
CRVI-CCV	0.476366	9/17/2021 14:46	
CRVI-CCB	-0.0005	9/17/2021 14:46	

Laboratory
Analyzer User

9/20/2021 12:31

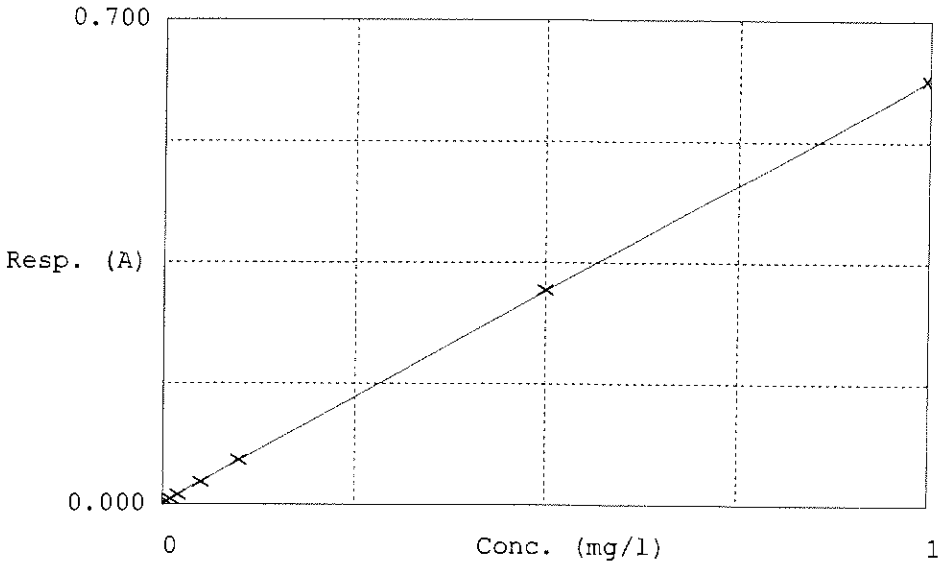
Test Chromium

Accepted 9/17/2021 11:42

Factor 1.632
Bias 0.002

Coeff. of det. 0.999983

Errors



	Calibrator	Response	Calc. con.	Conc.	Errors
1	CRVI-0	0.002	-0.0007333	0.0000000	
2	CRVI-1.0	0.008	0.0093472	0.0100000	
3	CRVI-1.0	0.014	0.0190761	0.0200000	
4	CRVI-1.0	0.033	0.0496656	0.0500000	
5	CRVI-1.0	0.064	0.1012235	0.1000000	
6	CRVI-1.0	0.310	0.5030031	0.5000000	
7	CRVI-1.0	0.614	0.9984178	1.0000000	

ARCADIS
WATERVLIET ARSENAL LTM
SO6313

KATAHDIN ANALYTICAL SERVICES
600 TECHNOLOGY WAY
SCARBOROUGH, ME 04074

TABLE OF CONTENTS

Total number of pages: 913

SAMPLE DATA PACKAGE		0000001		
Narrative	----------	0000002	to	0000005
Supporting Documents	----------	0000006	to	0000008
Chain of Custody Record	----------	0000009	to	0000010
Login Report	----------	0000011	to	0000015
SAMPLE DATA SUMMARY				
Report of Analytical Results	----------	A0000001	to	A0000093
VOLATILE DATA		1000001		
QC Summary	----------	1000002	to	1000025
Sample Data	----------	1000026	to	1000357
Standards Data	----------	1000358	to	1000513
Raw QC Data	----------	1000514	to	1000572
Logbooks and Supporting Documents	----------	1000573	to	1000579
METALS DATA		4000001		
Sample Data	----------	4000002	to	4000014
QC Summary Section	----------	4000015	to	4000281
Raw Data	----------	4000082	to	4000222
Logbooks and Supporting Documents	----------	4000223	to	4000226

SAMPLE DATA PACKAGE

NARRATIVE
KATAHDIN ANALYTICAL SERVICES
ARCADIS
WATERVLIET ARSENAL LTM
SO6313

Sample Receipt

The following samples were received on September 18, 2021 and were logged in under Katahdin Analytical Services work order number SO6313 for a hardcopy due date of September 30, 2021.

KATAHDIN Sample No.	ARCADIS Sample Identification
SO6313-1	WVA-SA-STS-5(20210914)
SO6313-2	WVA-SA-STS-3(20210914)
SO6313-3	94EM-MW-19(20210915)
SO6313-4	DUP-01(20210915)
SO6313-5	94EM-MW-21(20210915)
SO6313-6	94EM-MW-20(20210915)
SO6313-7	WVA-MW-86R-1(20210915)
SO6313-8	WVA-MW-86R-2(20210915)
SO6313-9	WVA-MW-86R-3(20210915)
SO6313-10	WVA-MW-85R-1(20210915)
SO6313-11	WVA-MW-85R-2(20210915)
SO6313-12	DUP-02-(20210915)
SO6313-13	WVA-MW-85R-3(20210915)
SO6313-14	WVA-MW-84R-1(20210915)
SO6313-15	WVA-MW-84R-2(20210915)
SO6313-16	86EM-SP-6(20210916)
SO6313-17	83DM-SP-3(20210916)
SO6313-18	92EM-SP-8(20210916)
SO6313-20	WVA-SA-STS-6(20210916)
SO6313-21	WVA-SA-SNS-6(20210916)
SO6313-22	WVA-MW-82R-1(20210916)
SO6313-23	WVA-MW-82R-2(20210916)
SO6313-24	WVA-MW-82R-3(20210916)
SO6313-25	WVA-MW-83-1(20210916)
SO6313-26	WVA-MW-83-2(20210916)
SO6313-27	WVA-MW-83-3(20210916)
SO6313-28	WVA-MW-84R-3(20210916)
SO6313-29	TRIP BLANK
SO6313-30	92EM- MW-20(20210915)
SO6313-31	92EM- SP-8(20210916)
SO6313-32	FILTER BLANK

The samples were logged in for the analyses specified on the chain of custody form. All problems encountered and resolved during sample receipt have been documented on the applicable chain of custody forms.

We certify that the test results provided in this report meet all the requirements of the NELAP standards unless otherwise noted in this narrative or in the Report of Analysis.

Sample analyses have been performed by the methods as noted herein.

Should you have any questions or comments concerning this Report of Analysis, please do not hesitate to contact your Katahdin Analytical Services Project Manager, **Ms. Heather Manz**. This narrative is an integral part of the Report of Analysis.

Organics Analysis

The samples of Work Order # SO6313 were analyzed in accordance with Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, EPA publication SW-846, Third Edition, Final Updates I (1993), II (1995), IIA (1994), IIB (1995), III (1997), IIIA (1999), IIIB (2005), IV (2008), and V (2015) and/or for the specific methods listed below or on the Report of Analysis.

8260B Analysis

Several samples were manually integrated for the target analytes vinyl chloride, trans-1,2-dichloroethene and/or bromomethane. The specific reasons for the manual integrations are indicated on the raw data by the manual integration codes (M1-M11). These codes are further explained in the attachment following this narrative.

The independent check standard (file W0106A), associated with the initial calibration analyzed on the W instrument on 09/20/21, had high concentrations for the target analytes dichlorodifluoromethane and chloroethane, which exceeded the DoD QSM acceptance limit of ±20% of the expected value from the ICAL. The independent check standard (file W0273A), associated with the initial calibration analyzed on the W instrument on 09/28/21, had low concentrations for the target analytes dichlorodifluoromethane and chloroethane, which exceeded the DoD QSM acceptance limit of ±20% of the expected value from the ICAL. The Independent Check Report consists of the full list of spiked analytes, but only the client's list of target analytes are evaluated.

The reported percent recovery acceptance limits for the Laboratory Control Samples (LCSs) are statistically derived for the full list of spiked compounds. The recoveries of the spiked analytes in the LCS are compared to these acceptance limits. Katahdin standard operating procedure is to take corrective action only if the number of spiked analytes in the LCS that are outside of the QC limits is greater than ten percent of the client compound list.

Sample SO6313-14DL2 was diluted 1:5 and was analyzed 20 minutes outside of the 12-hour analytical shift. Sample SO6313-14DL was diluted 1:50 and was analyzed within the 12-hour analytical shift. The results for both analyses are reported.

There were no other protocol deviations or observations noted by the organics laboratory staff.

Metals Analysis

The samples associated with Katahdin Work Order SO6313 were prepared and analyzed for metals in accordance with "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", EPA publication

SW846, Third Edition, Final Updates I (1993), II (1995), IIA (1994), IIB (1995), III (1997), IIIA (1999), IIIB (2005), IV (2008), and V (2015), Office of Solid Waste and Emergency Response, U.S. EPA.

Inductively-Coupled Plasma (ICP) Atomic Emission Spectroscopic Analysis

Aqueous-matrix Katahdin Sample Numbers SO6313-(3-6, 16-18, 30) were digested for ICP analysis on 09/23/21 (QC Batch OI23ICW2) in accordance USEPA Method 3010A.

Aqueous-matrix Katahdin Sample Numbers SO6313-(31-32) were digested for ICP analysis on 09/24/21 (QC Batch OI24ICW1) in accordance USEPA Method 3010A.

ICP analyses of Katahdin Work Order SO6313 samples were performed using a Thermo iCAP 6500 ICP spectrometer in accordance with USEPA Method 6010C. All samples were analyzed within holding times and all applicable analytical run QC criteria were met.

Analysis of Mercury by Cold Vapor Atomic Absorption (CVAA)

Aqueous-matrix Katahdin Sample Numbers SO6313-(3-6, 16, 30, 32) were digested for mercury analysis on 10/04/21 (QC Batch OJ04HGW1) in accordance with USEPA Method 7470A.

Mercury analyses of the Katahdin Work Order SO6313 sample digestates were performed using a Cetac M6100 automated mercury analyzer in accordance with USEPA Method 7471B. All samples were analyzed within holding times and all analytical run QC criteria were met.

Reporting of Metals Results

Per client request, analytical results for client samples on Form I, preparation blanks on Form IIIP, and matrix QC samples on Forms VA, VD, and VI have been reported using the laboratory's Practical Quantitation Limits (PQL). All results were evaluated down to the laboratory's method detection limits (MDLs). Results that are less than the PQL are flagged with "U" in the C-qualifier column, and the PQL is listed in the concentration column. Results that fall between the MDL and the PQL are flagged with "J" in the C-qualifier column, and the measured concentration appears in the concentration column. These PQLs and MDLs have been adjusted for each sample based on the sample amounts used in preparation and analysis.

Analytical results on Forms VB and IX for client samples, analysis QC samples (serial dilutions and post-digestion spikes) have been reported down to the laboratory's method detection limits (MDLs). Analytical results that are below the MDLs are flagged with "U" in the C-qualifier column, and the adjusted MDL is listed in the concentration column.

Analytical results for instrument run QC samples (ICVs, ICBs, etc.) have been reported down to the laboratory's instrument detection limits (IDLs).

IDLs, MDLs, and PQLs are listed on Form 10 of the accompanying data package.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Quality Assurance Officer, or their designee, as verified by the following signature.

10-14-2021
RcV

Leslie Dimond
Quality Assurance Officer

Katahdin Analytical Services, Inc.

Manual Integration Codes For GC/MS, GC, HPLC and/or IC

M1	Peak splitting.
M2	Well defined peaks on the shoulders of the other peaks.
M3	There is additional area due to a coeluting interferant.
M4	There are negative spikes in the baseline.
M5	There are rising or falling baselines.
M6	The software has failed to detect a peak or misidentified a peak.
M7	Excessive peak tailing.
M8	Analysis such as GRO, DRO and TPH require a baseline hold.
M9	Peak was not completely integrated as in GC/MS.
M10	Primary ion was correctly integrated, but secondary or tertiary ion needed manual integration as in GC/MS.
M11	For GC analysis, when a sample is diluted by 1:10 or more, the surrogate is set to undetected and then the area under the surrogate is manually integrated.
M12	Manual integration saved in method due to TurboChrom floating point error.

Katahdin Analytical Services, LLC. — Sample Receipt Condition Report

Client: Arcadis	KAS PM: HHM	Sampled By: client
Project:	KIMS Entry By: GM	Delivered By: FedEx
KAS Work Order#: 506313	KIMS Review By: HHM	Received By: GM
	Labeled By: JCB	
SDG #:	Cooler: 1 of 1	Date/Time Rec.: 9/20/21 0930

Receipt Criteria	Y	N	EX*	NA	Comments and/or Resolution
1. Custody seals present / intact?	✓				
2. Chain of Custody present in cooler?	✓				
3. Chain of Custody signed by client?	✓				
4. Chain of Custody matches samples?	✓				
5. Temperature Blanks present? If not, take temperature of any sample w/ IR gun.	✓				Temp (°C): 5.8 — Thermometer ID: IR-1
Samples received at <6 °C w/o freezing?	✓				Note: Not required for metals (except Hg soil) analysis.
Ice packs or ice present?	✓				The lack of ice or ice packs (i.e. no attempt to begin cooling process) or insufficient ice may not meet certain regulatory requirements and may invalidate certain data.
If yes, was there sufficient ice to meet temperature requirements?	✓				
If temp. out, has the cooling process begun (i.e. ice or packs present) and sample collection times <6hrs., but samples are not yet cool?				✓	Note: No cooling process required for metals (except Hg soil) analysis.
6. Volatiles: **Aqueous:** No bubble larger than a pea?	✓				
Soil/Sediment: Received in airtight container?				✓	
Received in methanol?				✓	
Methanol covering soil?				✓	
D.I. Water - Received within 48 hour HT?				✓	
7. Trip Blank present in cooler?	✓				
8. Proper sample containers and volume?	✓				
9. Samples within hold time upon receipt?	✓				
10. Aqueous samples properly preserved? Metals, COD, NH3, TKN, O/G, phenol, TPO4, N+N, TOC, DRO, TPH – pH <2	✓				Dissolved metals filtered/pres. @ lab HNO3 - MR3096
Sulfide - >9				✓	
Cyanide – pH >12				✓	
11. Bottleware Prepped on:					

* Log-In Notes to Exceptions: document any problems with samples or discrepancies or pH adjustments.

Heather Manz

From: Giroux, Danielle <Danielle.Giroux@arcadis.com>
Sent: Monday, September 20, 2021 1:18 PM
To: Heather Manz; Stilson, Kimberly
Cc: Leslie Dimond; Greg Lull
Subject: RE: Bottle Order for Watervliet Arsenal Project

Follow Up Flag: Follow up
Flag Status: Flagged

Great news. No, we will recollect the hex cr sample when we return to the site in a week or two for additional sampling. We may need additional bottleware for that sample, though. I will check with our field staff and get back to you.

Thank you
Danielle

From: Heather Manz <hmanz@katahdinlab.com>
Sent: Monday, September 20, 2021 12:43 PM
To: Giroux, Danielle <Danielle.Giroux@arcadis.com>; Stilson, Kimberly <Kimberly.Stilson@arcadis.com>
Cc: Leslie Dimond <ldimond@katahdinlab.com>; Greg Lull <glull@katahdinlab.com>
Subject: RE: Bottle Order for Watervliet Arsenal Project

Hi Danielle,

The cooler was delivered and it was within temperature. Do you want us to go ahead and analyze the aqueous hex cr?

Thanks
Heather

From: Giroux, Danielle <Danielle.Giroux@arcadis.com>
Sent: Monday, September 20, 2021 8:49 AM
To: Heather Manz <hmanz@katahdinlab.com>; Stilson, Kimberly <Kimberly.Stilson@arcadis.com>
Cc: Leslie Dimond <ldimond@katahdinlab.com>; Greg Lull <glull@katahdinlab.com>
Subject: RE: Bottle Order for Watervliet Arsenal Project

Heather,
Looks like the cooler never made it to you on Saturday. It is scheduled to arrive today. We had asked FedEx to hold it at their hub in Portland, though, so I'm thinking it might stay there when they receive it today. Please let me know if you can get ahold of it – depending on cooler temp we may decide to run some of the samples.
More than likely we will need some more bottles to return to the site, though. I will figure that out once we hear back from you.

Thank you
Danielle

From: Heather Manz <hmanz@katahdinlab.com>
Sent: Friday, September 17, 2021 1:51 PM

Katahdin ANALYTICAL SERVICES
600 Technology Way
Scarborough, ME 04074
Tel: (207) 874-2400
Fax: (207) 775-4029

CHAIN of CUSTODY

PLEASE BEAR DOWN AND PRINT LEGIBLY IN PEN

Client	Contact	Phone #	Fax #
Arcadis	Danielle Giroux	(518) 250-7327	( )

Address	City	State	Zip Code
855 Route 146 Suite 210	Clifton Park	NY	12065

Purchase Order #	Proj. Name / No.	Katahdin Quote #
PN# 30001988	WVA LTM	

Bill (if different than above) | Address

Sampler (Print / Sign) KStilson KStilson C. Churchill CC | Copies To: Danielle Giroux

LAB USE ONLY | WORK ORDER #: | KATAHDIN PROJECT NUMBER 506313

REMARKS:

SHIPPING INFO: ☐ FED EX ☐ UPS ☐ CLIENT

AIRBILL NO:

TEMP°C ☐ TEMP BLANK ☐ INTACT ☐ NOT INTACT

★	Sample Description	Date / Time coll'd	Matrix	No. of Cntrs.	ANALYSIS AND CONTAINER TYPE PRESERVATIVES: VOC 8260	Hex Chrome SW846 7196	RCRA Metals w/ Mercury Total	Chromium Nitric	RCRA Metals Unpreserved Diss	Chromium Unpreserved					
					Filt. ☐Y ☑N	Filt. ☐Y ☑N	Filt. ☐Y ☑N	Filt. ☐Y ☑N	Filt. ☐Y ☑N	Filt. ☐Y ☑N	Filt. ☐Y ☐N	Filt. ☐Y ☐N	Filt. ☐Y ☐N	Filt. ☐Y ☐N	Filt. ☐Y ☐N
	GWA-SA-STS-5(20210914)	9/14/21 1550	GW	3	✓										
	GWA-SA-STS-3(20210914)	9/14/21 1635	GW	3	✓										
	94EM-MW-19(20210915)	9/15/21 0840	GW	4	✓		✓								
	DUP-01(20210915)	9/15/21 0820	GW	4	✓		✓								
	94EM-MW-21(20210915)	9/15/21 1230	GW	4	✓		✓								
	94EM-MW-20(20210915)	9/15/21 1325		5	✓		✓		✓						
	GWA-MW-86R-1(20210915)	9/15/21 0925		3	✓										
	GWA-MW-86R-2(20210915)	/ 1015		3	✓										
	GWA-MW-86R-3(20210915)	/ 1055		3	✓										
	GWA-MW-85R-1(20210915)	/ 1140		3	✓										
	GWA-MW-85R-2(20210915)	/ 1225		3	✓										
	DUP-02(20210915)	/ 1000		3	✓										
	GWA-MW-85R-3(20210915)	/ 1310		3	✓										
	GWA-MW-84R-1(20210915)	/ 1415		3	✓										
	GWA-MW-84R-2(20210915)	/ 1450		3	✓										
		/													KS

COMMENTS

★ Hex Chrome sample.

Relinquished By: (Signature)	Date / Time	Received By: (Signature)	Relinquished By: (Signature)	Date / Time	Received By: (Signature)
KStilson	9/16/21 1500				
Relinquished By: (Signature)	Date / Time	Received By: (Signature)	Relinquished By: (Signature)	Date / Time	Received By: (Signature)
	9/20/21 0930				

THE TERMS AND CONDITIONS ON THE REVERSE SIDE HEREOF SHALL GOVERN SERVICES, EXCEPT WHEN A SIGNED CONTRACTUAL AGREEMENT EXISTS.

Katahdin ANALYTICAL SERVICES
600 Technology Way
Scarborough, ME 04074
Tel: (207) 874-2400
Fax: (207) 775-4029

CHAIN of CUSTODY

PLEASE BEAR DOWN AND PRINT LEGIBLY IN PEN

Client	Contact	Phone #	Fax #
Arcadis	Danielle Giroux	(518) 2507327	( )

Address: 855 Route 146 Suite 210 City: Clifton Park State: NY Zip Code: 12065

Purchase Order # PN# 30001988 Proj. Name / No. Katahdin Quote #

Bill (if different than above) Address

Sampler (Print / Sign) K. Stilson C. Churchill Copies To: Danielle Giroux

LAB USE ONLY WORK ORDER #:

KATAHDIN PROJECT NUMBER

REMARKS:

SHIPPING INFO: ❒ FED EX ❒ UPS ❒ CLIENT

AIRBILL NO:

TEMP°C ❒ TEMP BLANK ❒ INTACT ❒ NOT INTACT

ANALYSIS AND CONTAINER TYPE PRESERVATIVES

★	Sample Description	Date / Time coll'd	Matrix	No. of Cntrs.	Filt. Y N VOC 8260	Filt. Y N Hex Chrome SW846 7196	Filt. Y N RCRA Metals w/Nitric (total)	Filt. Y N Chromium Nitric	Filt. Y N RCRA Metals Unpreserved (Dis.)	Filt. Y N Chromium Unpreserved	Filt. Y N	Filt. Y N	Filt. Y N	Filt. Y N
•	86EM-SP-6(20210916)	9/16/21/1230	GW	4	✓		✓							
•	83 86EM-SP-3(20210916)	9/16/21/1130		4	✓			✓						
•	92EM-SP-8(20210916)	9/16/21/1040		5	✓			✓		✓				
	WVA-AW-35-MW-12 (20210916)	9/16/21/1330		1		✓								
•	WVA-SA-STS-6 (20210916)	9/16/21/0900		3	✓									
•	WVA-SA-SNS-6 (20210916)	9/16/21/0830		3	✓									
•	WVA-MW-82R-1 (20210916)	9/16/21/1235		3	✓									
•	WVA-MW-82R-2 (20210916)	9/16/21/1310		3	✓									
•	WVA-MW-82R-3 (20210916)	9/16/21/1345		3	✓									
•	WVA-MW-83-1 (20210916)	9/16/21/1005		3	✓									
•	WVA-MW-83-2 (20210916)	9/16/21/1045		3	✓									
•	WVA-MW-83-3 (20210916)	9/16/21/1135		3	✓									
•	WVA-MW-84R-3 (20210916)	9/16/21/0905		3	✓									
•	Trip Blank	8/31/21/0900		3	✓									
	Temp Blank	— / —	W	1										
		/												

KW

COMMENTS

Relinquished By: (Signature)	Date / Time	Received By: (Signature)	Relinquished By: (Signature)	Date / Time	Received By: (Signature)
KStilson	09/16/21 1500				
Relinquished By: (Signature)	Date / Time	Received By: (Signature)	Relinquished By: (Signature)	Date / Time	Received By: (Signature)

THE TERMS AND CONDITIONS ON THE REVERSE SIDE HEREOF SHALL GOVERN SERVICES, EXCEPT WHEN A SIGNED CONTRACTUAL AGREEMENT EXISTS.

Katahdin
ANALYTICAL SERVICES

Katahdin Analytical Services

Login Chain of Custody Report (lno1)

Sep. 21, 2021
03:41 PM

Quote/Incoming: ARCADIS-WATERVLIET

Login Number: SO6313

Account: ARCADIS002
ARCADIS

Project: ARCADIS-WATERVLIET

Primary Report Address:

Stefan Bagnato
ARCADIS
855 Route 146
Suite 210
Clifton Park, NY 12065
USA
stefan.bagnato@arcadis-us.com

Primary Invoice Address:

Accounts Payable
ARCADIS U.S., Inc.
630 Plaza Drive
Suite 100
Highlands Ranch,CO 80129

Report CC Addresses:
Invoice CC Addresses:

Login Information:

ANALYSIS INSTRUCTIONS	:	Not DOD, NELAP. ND to PQL, no J flags.
CHECK NO.	:	
CLIENT PO#	:	30001988.0001D
CLIENT PROJECT MANAGEI	:	Andy Vitolins
CONTRACT	:	W912DR-18-D-0004
COOLER TEMPERATURE	:	5.8
DELIVERY SERVICES	:	FedEx
EDD FORMAT	:	KAS121-CSV & KAS136QC-CSV
LOGIN INITIALS	:	GM
PM	:	HHM
PROJECT NAME	:	Watervliet Arsenal LTM
QC LEVEL	:	IV
REPORT INSTRUCTIONS	:	Email PDF & EDD to Stefan & Danielle.Giroux@arcadis.com. No HC. Need to put "1 Buffington Street (Bldg 36), Watervliet Arsenal, Watervliet, NY 12189" in comments of invoice. Email invoices to Terry Huber (Terry.Huber@arcadis.com), stefan.bagnato@arcadis.com and AccountsPayable.Administration@arcadis.com.
SDG ID	:	
SDG STATUS	:	
VERBAL TAT	:	

Login Number: SO6313

Account: ARCADIS002
ARCADIS

Project: ARCADIS-WATERVLIET

Quote/Incoming: ARCADIS-WATERVLIET

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	PR	Verbal Date	Due Date	Mailed
SO6313-1	WVA-SA-STS-5(20210914)	14-SEP-21 15:50	18-SEP-21			30-SEP-21	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	SW8260-S	28-SEP-21	40mL Vial+HCl		

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	PR	Verbal Date	Due Date	Mailed
SO6313-2	WVA-SA-STS-3(20210914)	14-SEP-21 16:35	18-SEP-21			30-SEP-21	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	SW8260-S	28-SEP-21	40mL Vial+HCl		

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	PR	Verbal Date	Due Date	Mailed
SO6313-3	94EM-MW-19(20210915)	15-SEP-21 08:40	18-SEP-21			30-SEP-21	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	P	RCRA-METALS				

SW3010-PREP	SW6010-ARSENIC	SW6010-BARIUM
SW6010-CADMIUM	SW6010-CHROMIUM	SW6010-LEAD
SW6010-SELENIUM	SW6010-SILVER	SW7470-MERCURY

Aqueous	S	SW8260-S	29-SEP-21	40mL Vial+HCl		

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	PR	Verbal Date	Due Date	Mailed
SO6313-4	DUP-01(20210915)	15-SEP-21 08:20	18-SEP-21			30-SEP-21	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	P	RCRA-METALS				

SW3010-PREP	SW6010-ARSENIC	SW6010-BARIUM
SW6010-CADMIUM	SW6010-CHROMIUM	SW6010-LEAD
SW6010-SELENIUM	SW6010-SILVER	SW7470-MERCURY

Aqueous	S	SW8260-S	29-SEP-21	40mL Vial+HCl		

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	PR	Verbal Date	Due Date	Mailed
SO6313-5	94EM-MW-21(20210915)	15-SEP-21 12:30	18-SEP-21			30-SEP-21	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	P	RCRA-METALS				

SW3010-PREP	SW6010-ARSENIC	SW6010-BARIUM
SW6010-CADMIUM	SW6010-CHROMIUM	SW6010-LEAD
SW6010-SELENIUM	SW6010-SILVER	SW7470-MERCURY

Aqueous	S	SW8260-S	29-SEP-21	40mL Vial+HCl		

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	PR	Verbal Date	Due Date	Mailed
SO6313-6	94EM-MW-20(20210915)	15-SEP-21 13:25	18-SEP-21			30-SEP-21	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	P	RCRA-METALS				

SW3010-PREP	SW6010-ARSENIC	SW6010-BARIUM
SW6010-CADMIUM	SW6010-CHROMIUM	SW6010-LEAD
SW6010-SELENIUM	SW6010-SILVER	SW7470-MERCURY

Aqueous	S	SW8260-S	29-SEP-21	40mL Vial+HCl		

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	PR	Verbal Date	Due Date	Mailed
SO6313-7	WVA-MW-86R-1(20210915)	15-SEP-21 09:25	18-SEP-21			30-SEP-21	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	SW8260-S	29-SEP-21	40mL Vial+HCl		

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	PR	Verbal Date	Due Date	Mailed
SO6313-8	WVA-MW-86R-2(20210915)	15-SEP-21 10:15	18-SEP-21			30-SEP-21	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	SW8260-S	29-SEP-21	40mL Vial+HCl		

Login Number: SO6313

Account: ARCADIS002
ARCADIS

Project: ARCADIS-WATERVLIET

Quote/Incoming: ARCADIS-WATERVLIET

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	PR	Verbal Date	Due Date	Mailed
SO6313-9	WVA-MW-86R-3(20210915)	15-SEP-21 10:55	18-SEP-21			30-SEP-21	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	SW8260-S	29-SEP-21	40mL Vial+HCl		

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	PR	Verbal Date	Due Date	Mailed
SO6313-10	WVA-MW-85R-1(20210915)	15-SEP-21 11:40	18-SEP-21			30-SEP-21	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	SW8260-S	29-SEP-21	40mL Vial+HCl		

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	PR	Verbal Date	Due Date	Mailed
SO6313-11	WVA-MW-85R-2(20210915)	15-SEP-21 12:25	18-SEP-21			30-SEP-21	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	SW8260-S	29-SEP-21	40mL Vial+HCl		

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	PR	Verbal Date	Due Date	Mailed
SO6313-12	DUP-02-(20210915)	15-SEP-21 10:00	18-SEP-21			30-SEP-21	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	SW8260-S	29-SEP-21	40mL Vial+HCl		

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	PR	Verbal Date	Due Date	Mailed
SO6313-13	WVA-MW-85R-3(20210915)	15-SEP-21 13:10	18-SEP-21			30-SEP-21	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	SW8260-S	29-SEP-21	40mL Vial+HCl		

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	PR	Verbal Date	Due Date	Mailed
SO6313-14	WVA-MW-84R-1(20210915)	15-SEP-21 14:15	18-SEP-21			30-SEP-21	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	SW8260-S	29-SEP-21	40mL Vial+HCl		

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	PR	Verbal Date	Due Date	Mailed
SO6313-15	WVA-MW-84R-2(20210915)	15-SEP-21 14:50	18-SEP-21			30-SEP-21	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	SW8260-S	29-SEP-21	40mL Vial+HCl		

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	PR	Verbal Date	Due Date	Mailed
SO6313-16	86EM-SP-6(20210916)	16-SEP-21 12:30	18-SEP-21			30-SEP-21	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	P	RCRA-METALS				

SW3010-PREP	SW6010-ARSENIC	SW6010-BARIUM
SW6010-CADMIUM	SW6010-CHROMIUM	SW6010-LEAD
SW6010-SELENIUM	SW6010-SILVER	SW7470-MERCURY

Aqueous	S	SW8260-S	30-SEP-21	40mL Vial+HCl		

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	PR	Verbal Date	Due Date	Mailed
SO6313-17	83DM-SP-3(20210916)	16-SEP-21 11:30	18-SEP-21			30-SEP-21	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	SW3010-PREP	15-MAR-22			
Aqueous	S	SW6010-CHROMIUM	15-MAR-22	250mL Plastic+HNO3		
Aqueous	S	SW8260-S	30-SEP-21	40mL Vial+HCl		

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	PR	Verbal Date	Due Date	Mailed
SO6313-18	92EM-SP-8(20210916)	16-SEP-21 10:40	18-SEP-21			30-SEP-21	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	SW3010-PREP	15-MAR-22			
Aqueous	S	SW6010-CHROMIUM	15-MAR-22	250mL Plastic+HNO3		
Aqueous	S	SW8260-S	30-SEP-21	40mL Vial+HCl		

Login Number: SO6313

Account: ARCADIS002
ARCADIS

Project: ARCADIS-WATERVLIET

Quote/Incoming: ARCADIS-WATERVLIET

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	PR	Verbal Date	Due Date	Mailed
SO6313-19	WVA-AW-35-MW-12(20210916)	16-SEP-21 13:30	18-SEP-21			30-SEP-21	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
						Aq hex cr arrived out of hold time, client cancelled.

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	PR	Verbal Date	Due Date	Mailed
SO6313-20	WVA-SA-STS-6(20210916)	16-SEP-21 09:00	18-SEP-21			30-SEP-21	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	SW8260-S	30-SEP-21	40mL Vial+HCl		

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	PR	Verbal Date	Due Date	Mailed
SO6313-21	WVA-SA-SNS-6(20210916)	16-SEP-21 08:30	18-SEP-21			30-SEP-21	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	SW8260-S	30-SEP-21	40mL Vial+HCl		

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	PR	Verbal Date	Due Date	Mailed
SO6313-22	WVA-MW-82R-1(20210916)	16-SEP-21 12:35	18-SEP-21			30-SEP-21	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	SW8260-S	30-SEP-21	40mL Vial+HCl		

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	PR	Verbal Date	Due Date	Mailed
SO6313-23	WVA-MW-82R-2(20210916)	16-SEP-21 13:10	18-SEP-21			30-SEP-21	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	SW8260-S	30-SEP-21	40mL Vial+HCl		

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	PR	Verbal Date	Due Date	Mailed
SO6313-24	WVA-MW-82R-3(20210916)	16-SEP-21 13:45	18-SEP-21			30-SEP-21	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	SW8260-S	30-SEP-21	40mL Vial+HCl		

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	PR	Verbal Date	Due Date	Mailed
SO6313-25	WVA-MW-83-1(20210916)	16-SEP-21 10:05	18-SEP-21			30-SEP-21	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	SW8260-S	30-SEP-21	40mL Vial+HCl		

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	PR	Verbal Date	Due Date	Mailed
SO6313-26	WVA-MW-83-2(20210916)	16-SEP-21 10:45	18-SEP-21			30-SEP-21	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	SW8260-S	30-SEP-21	40mL Vial+HCl		

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	PR	Verbal Date	Due Date	Mailed
SO6313-27	WVA-MW-83-3(20210916)	16-SEP-21 11:35	18-SEP-21			30-SEP-21	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	SW8260-S	30-SEP-21	40mL Vial+HCl		

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	PR	Verbal Date	Due Date	Mailed
SO6313-28	WVA-MW-84R-3(20210916)	16-SEP-21 09:05	18-SEP-21			30-SEP-21	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	SW8260-S	30-SEP-21	40mL Vial+HCl		

Login Number: SO6313

Account: ARCADIS002
ARCADIS

Project: ARCADIS-WATERVLIET

Quote/Incoming: ARCADIS-WATERVLIET

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	PR	Verbal Date	Due Date	Mailed
SO6313-29	TRIP BLANK	16-SEP-21 09:00	18-SEP-21			30-SEP-21	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	SW8260-S	30-SEP-21	40mL Vial+HCl		

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	PR	Verbal Date	Due Date	Mailed
SO6313-30	94EM-MW-20(20210915)	15-SEP-21 13:25	18-SEP-21			30-SEP-21	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	FILTERING				
Aqueous	P	RCRA-MET-SW846-DISS				

SW3010-PREP	SW6010-ARSENIC-DIS	SW6010-BARIUM-DIS
SW6010-CADMIUM-DIS	SW6010-CHROMIUM-DIS	SW6010-LEAD-DIS
SW6010-SELENIUM-DIS	SW6010-SILVER-DIS	SW7470-MERCURY-DIS

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	PR	Verbal Date	Due Date	Mailed
SO6313-31	92EM-SP-8(20210916)	16-SEP-21 10:40	18-SEP-21			30-SEP-21	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	FILTERING				
Aqueous	S	SW3010-PREP	15-MAR-22			
Aqueous	S	SW6010-CHROMIUM-DIS	15-MAR-22	250mL Plastic+HNO3		

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	PR	Verbal Date	Due Date	Mailed
SO6313-32	FILTER BLANK	20-SEP-21 00:00	18-SEP-21			30-SEP-21	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	FILTERING				
Aqueous	P	RCRA-MET-SW846-DISS				

SW3010-PREP	SW6010-ARSENIC-DIS	SW6010-BARIUM-DIS
SW6010-CADMIUM-DIS	SW6010-CHROMIUM-DIS	SW6010-LEAD-DIS
SW6010-SELENIUM-DIS	SW6010-SILVER-DIS	SW7470-MERCURY-DIS

Total Samples: 31 ***Total Analyses: 44***

SAMPLE DATA SUMMARY PACKAGE

KATAHDIN ANALYTICAL SERVICES - ORGANIC DATA QUALIFIERS

The sampled date indicated on the attached Report(s) of Analysis (ROA) is the date for which a grab sample was collected or the date for which a composite sample was completed. Beginning and start times for composite samples can be found on the Chain-of-Custody.

U Indicates the compound was analyzed for but not detected above the specified level. This level may be the Limit of Quantitation (LOQ)(previously called Practical Quantitation Level (PQL)), the Limit of Detection (LOD) or Method Detection Limit (MDL) as required by the client.

Note: All results reported as "U" MDL have a 50% rate for false negatives compared to those results reported as "U" PQL/LOQ or "U" LOD, where the rate of false negatives is <1%.

* Compound recovery or percent RPD (relative percent difference) was outside of quality control limits.

D Indicates the result was obtained from analysis of a diluted sample. Surrogate recoveries may not be calculable.

E Estimated value. This flag identifies compounds whose concentrations exceed the upper level of the calibration range of the instrument for that specific analysis.

J Estimated value. The analyte was detected in the sample at a concentration less than the laboratory Limit of Quantitation (LOQ)(previously called Practical Quantitation Limit (PQL)), but above the Method Detection Limit (MDL).

or

J Used for Pesticides, PCBs, Herbicides, Formaldehyde, Explosives and Method 504.1 analytes when there is a greater than 40% difference for detected concentrations between the two GC columns.

B Indicates the analyte was detected in the laboratory method blank analyzed concurrently with the sample.

C Indicates that the flagged compound did not meet DoD criteria in the corresponding daily calibration verification (CV).

L Indicates that the flagged compound did not meet DoD criteria in the corresponding Laboratory Control Sample (LCS) and/or Laboratory Control Sample Duplicate (LCSD) prepared and/or analyzed concurrently with the sample.

M Indicates that the flagged compound did not meet DoD criteria in the Matrix Spike and/or Matrix Spike Duplicate prepared and/or analyzed concurrently with the native sample.

N Presumptive evidence of a compound based on a mass spectral library search.

A Indicates that a tentatively identified compound is a suspected aldol-condensation product.

P Used for Pesticide/Aroclor analyte when there is a greater than 25% difference for detected concentrations between the two GC columns. (for CLP methods only).

METALS SAMPLE FLAGGING

FLAG	SPECIFIED MEANING
E	The reported value is estimated because of the presence of interference (as indicated by serial dilution).
N	The pre-digestion spiked sample recovery is not within control limits.
*	The duplicate sample analysis relative percent difference (RPD) is not within control limits.
B	Indicates the analyte was detected in the laboratory method blank analyzed concurrently with the sample.
A	The post-digestion spiked sample recovery is not within control limits.
•	Analytical run QC sample (e.g. ICV, CCV, ICB, CCB, ICSA, ICSAB) not within control limits.
U	The analyte was not detected above the specified level. This level may be the Limit of Quantitation (LOQ) (previously called Practical Quantitation Level (PQL)), the Limit of Detection (LOD) or Method Detection Limit (MDL) as required by the client. Note: All results reported as "U" MDL have a 50% rate for false negatives compared to those results reported as "U" PQL/LOQ or "U" LOD, where the rate of false negatives is <1%.
J	The analyte was detected in the sample at a concentration less than the laboratory Limit of Quantitation (LOQ) (previously called Practical Quantitation Limit (PQL)), but above the Method Detection Limit (MDL).
Q	One or more quality control criteria failed (e.g., LCS recovery, surrogate spike recovery or CCV).

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-1
Client ID: WVA-SA-STS-5(20210914)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0131.D

Sample Date: 14-SEP-21
Received Date: 18-SEP-21
Extract Date: 21-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306383

Analysis Date: 21-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	2.0	ug/L	1	2	2.0
Vinyl Chloride		4.2	ug/L	1	2	2.0
Bromomethane	U	2.0	ug/L	1	2	2.0
Chloroethane	U	2.0	ug/L	1	2	2.0
Trichlorofluoromethane	U	2.0	ug/L	1	2	2.0
1,1-Dichloroethene	U	1.0	ug/L	1	1	1.0
Carbon Disulfide	U	1.0	ug/L	1	1	1.0
Methylene Chloride	U	5.0	ug/L	1	5	5.0
trans-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
1,1-Dichloroethane	U	1.0	ug/L	1	1	1.0
cis-1,2-Dichloroethene		2.0	ug/L	1	1	1.0
Chloroform	U	1.0	ug/L	1	1	1.0
Carbon Tetrachloride	U	1.0	ug/L	1	1	1.0
1,1,1-Trichloroethane	U	1.0	ug/L	1	1	1.0
2-Butanone	U	5.0	ug/L	1	5	5.0
Benzene	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethane	U	1.0	ug/L	1	1	1.0
Trichloroethene	U	1.0	ug/L	1	1	1.0
1,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Bromodichloromethane	U	1.0	ug/L	1	1	1.0
cis-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
Toluene	U	1.0	ug/L	1	1	1.0
4-Methyl-2-Pentanone	U	5.0	ug/L	1	5	5.0
Tetrachloroethene	U	1.0	ug/L	1	1	1.0
trans-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
1,1,2-Trichloroethane	U	1.0	ug/L	1	1	1.0
Dibromochloromethane	U	1.0	ug/L	1	1	1.0
Chlorobenzene	U	1.0	ug/L	1	1	1.0
Ethylbenzene	U	1.0	ug/L	1	1	1.0
m+p-Xylenes	U	2.0	ug/L	1	2	2.0
o-Xylene	U	1.0	ug/L	1	1	1.0
Bromoform	U	1.0	ug/L	1	1	1.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
P-Bromofluorobenzene		99.6	%			
Toluene-d8		101.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-1
Client ID: WVA-SA-STS-5(20210914)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0131.D

Sample Date: 14-SEP-21
Received Date: 18-SEP-21
Extract Date: 21-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306383

Analysis Date: 21-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		113.	%			
Dibromofluoromethane		107.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-2
Client ID: WVA-SA-STS-3(20210914)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0132.D

Sample Date: 14-SEP-21
Received Date: 18-SEP-21
Extract Date: 21-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306383

Analysis Date: 21-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	2.0	ug/L	1	2	2.0
Vinyl Chloride	U	2.0	ug/L	1	2	2.0
Bromomethane	U	2.0	ug/L	1	2	2.0
Chloroethane	U	2.0	ug/L	1	2	2.0
Trichlorofluoromethane	U	2.0	ug/L	1	2	2.0
1,1-Dichloroethene	U	1.0	ug/L	1	1	1.0
Carbon Disulfide	U	1.0	ug/L	1	1	1.0
Methylene Chloride	U	5.0	ug/L	1	5	5.0
trans-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
1,1-Dichloroethane	U	1.0	ug/L	1	1	1.0
cis-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
Chloroform	U	1.0	ug/L	1	1	1.0
Carbon Tetrachloride	U	1.0	ug/L	1	1	1.0
1,1,1-Trichloroethane	U	1.0	ug/L	1	1	1.0
2-Butanone	U	5.0	ug/L	1	5	5.0
Benzene	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethane	U	1.0	ug/L	1	1	1.0
Trichloroethene	U	1.0	ug/L	1	1	1.0
1,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Bromodichloromethane	U	1.0	ug/L	1	1	1.0
cis-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
Toluene	U	1.0	ug/L	1	1	1.0
4-Methyl-2-Pentanone	U	5.0	ug/L	1	5	5.0
Tetrachloroethene	U	1.0	ug/L	1	1	1.0
trans-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
1,1,2-Trichloroethane	U	1.0	ug/L	1	1	1.0
Dibromochloromethane	U	1.0	ug/L	1	1	1.0
Chlorobenzene	U	1.0	ug/L	1	1	1.0
Ethylbenzene	U	1.0	ug/L	1	1	1.0
m+p-Xylenes	U	2.0	ug/L	1	2	2.0
o-Xylene	U	1.0	ug/L	1	1	1.0
Bromoform	U	1.0	ug/L	1	1	1.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
P-Bromofluorobenzene		102.	%			
Toluene-d8		101.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-2
Client ID: WVA-SA-STS-3(20210914)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0132.D

Sample Date: 14-SEP-21
Received Date: 18-SEP-21
Extract Date: 21-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306383

Analysis Date: 21-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		114.	%			
Dibromofluoromethane		106.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-3
Client ID: 94EM-MW-19(20210915)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0133.D

Sample Date: 15-SEP-21
Received Date: 18-SEP-21
Extract Date: 21-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306383

Analysis Date: 21-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	2.0	ug/L	1	2	2.0
Vinyl Chloride	U	2.0	ug/L	1	2	2.0
Bromomethane	U	2.0	ug/L	1	2	2.0
Chloroethane	U	2.0	ug/L	1	2	2.0
Trichlorofluoromethane	U	2.0	ug/L	1	2	2.0
1,1-Dichloroethene	U	1.0	ug/L	1	1	1.0
Carbon Disulfide	U	1.0	ug/L	1	1	1.0
Methylene Chloride	U	5.0	ug/L	1	5	5.0
trans-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
1,1-Dichloroethane	U	1.0	ug/L	1	1	1.0
cis-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
Chloroform	U	1.0	ug/L	1	1	1.0
Carbon Tetrachloride	U	1.0	ug/L	1	1	1.0
1,1,1-Trichloroethane	U	1.0	ug/L	1	1	1.0
2-Butanone	U	5.0	ug/L	1	5	5.0
Benzene	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethane	U	1.0	ug/L	1	1	1.0
Trichloroethene	U	1.0	ug/L	1	1	1.0
1,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Bromodichloromethane	U	1.0	ug/L	1	1	1.0
cis-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
Toluene	U	1.0	ug/L	1	1	1.0
4-Methyl-2-Pentanone	U	5.0	ug/L	1	5	5.0
Tetrachloroethene	U	1.0	ug/L	1	1	1.0
trans-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
1,1,2-Trichloroethane	U	1.0	ug/L	1	1	1.0
Dibromochloromethane	U	1.0	ug/L	1	1	1.0
Chlorobenzene	U	1.0	ug/L	1	1	1.0
Ethylbenzene	U	1.0	ug/L	1	1	1.0
m+p-Xylenes	U	2.0	ug/L	1	2	2.0
o-Xylene	U	1.0	ug/L	1	1	1.0
Bromoform	U	1.0	ug/L	1	1	1.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
P-Bromofluorobenzene		102.	%			
Toluene-d8		103.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-3
Client ID: 94EM-MW-19(20210915)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0133.D

Sample Date: 15-SEP-21
Received Date: 18-SEP-21
Extract Date: 21-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306383

Analysis Date: 21-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		113.	%			
Dibromofluoromethane		106.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-4
Client ID: DUP-01(20210915)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0281.D

Sample Date: 15-SEP-21
Received Date: 18-SEP-21
Extract Date: 28-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306817

Analysis Date: 28-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	2.0	ug/L	1	2	2.0
Vinyl Chloride	U	2.0	ug/L	1	2	2.0
Bromomethane	U	2.0	ug/L	1	2	2.0
Chloroethane	U	2.0	ug/L	1	2	2.0
Trichlorofluoromethane	U	2.0	ug/L	1	2	2.0
1,1-Dichloroethene	U	1.0	ug/L	1	1	1.0
Carbon Disulfide	U	1.0	ug/L	1	1	1.0
Methylene Chloride	U	5.0	ug/L	1	5	5.0
trans-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
1,1-Dichloroethane	U	1.0	ug/L	1	1	1.0
cis-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
Chloroform	U	1.0	ug/L	1	1	1.0
Carbon Tetrachloride	U	1.0	ug/L	1	1	1.0
1,1,1-Trichloroethane	U	1.0	ug/L	1	1	1.0
2-Butanone	U	5.0	ug/L	1	5	5.0
Benzene	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethane	U	1.0	ug/L	1	1	1.0
Trichloroethene	U	1.0	ug/L	1	1	1.0
1,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Bromodichloromethane	U	1.0	ug/L	1	1	1.0
cis-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
Toluene	U	1.0	ug/L	1	1	1.0
4-Methyl-2-Pentanone	U	5.0	ug/L	1	5	5.0
Tetrachloroethene	U	1.0	ug/L	1	1	1.0
trans-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
1,1,2-Trichloroethane	U	1.0	ug/L	1	1	1.0
Dibromochloromethane	U	1.0	ug/L	1	1	1.0
Chlorobenzene	U	1.0	ug/L	1	1	1.0
Ethylbenzene	U	1.0	ug/L	1	1	1.0
m+p-Xylenes	U	2.0	ug/L	1	2	2.0
o-Xylene	U	1.0	ug/L	1	1	1.0
Bromoform	U	1.0	ug/L	1	1	1.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
P-Bromofluorobenzene		98.4	%			
Toluene-d8		102.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-4
Client ID: DUP-01(20210915)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0281.D

Sample Date: 15-SEP-21
Received Date: 18-SEP-21
Extract Date: 28-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306817

Analysis Date: 28-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		111.	%			
Dibromofluoromethane		105.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-5
Client ID: 94EM-MW-21(20210915)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0134.D

Sample Date: 15-SEP-21
Received Date: 18-SEP-21
Extract Date: 21-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306383

Analysis Date: 21-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	2.0	ug/L	1	2	2.0
Vinyl Chloride	U	2.0	ug/L	1	2	2.0
Bromomethane	U	2.0	ug/L	1	2	2.0
Chloroethane	U	2.0	ug/L	1	2	2.0
Trichlorofluoromethane	U	2.0	ug/L	1	2	2.0
1,1-Dichloroethene	U	1.0	ug/L	1	1	1.0
Carbon Disulfide	U	1.0	ug/L	1	1	1.0
Methylene Chloride	U	5.0	ug/L	1	5	5.0
trans-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
1,1-Dichloroethane	U	1.0	ug/L	1	1	1.0
cis-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
Chloroform	U	1.0	ug/L	1	1	1.0
Carbon Tetrachloride	U	1.0	ug/L	1	1	1.0
1,1,1-Trichloroethane	U	1.0	ug/L	1	1	1.0
2-Butanone	U	5.0	ug/L	1	5	5.0
Benzene	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethane	U	1.0	ug/L	1	1	1.0
Trichloroethene	U	1.0	ug/L	1	1	1.0
1,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Bromodichloromethane	U	1.0	ug/L	1	1	1.0
cis-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
Toluene	U	1.0	ug/L	1	1	1.0
4-Methyl-2-Pentanone	U	5.0	ug/L	1	5	5.0
Tetrachloroethene	U	1.0	ug/L	1	1	1.0
trans-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
1,1,2-Trichloroethane	U	1.0	ug/L	1	1	1.0
Dibromochloromethane	U	1.0	ug/L	1	1	1.0
Chlorobenzene	U	1.0	ug/L	1	1	1.0
Ethylbenzene	U	1.0	ug/L	1	1	1.0
m+p-Xylenes	U	2.0	ug/L	1	2	2.0
o-Xylene	U	1.0	ug/L	1	1	1.0
Bromoform	U	1.0	ug/L	1	1	1.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
P-Bromofluorobenzene		102.	%			
Toluene-d8		101.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-5
Client ID: 94EM-MW-21(20210915)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0134.D

Sample Date: 15-SEP-21
Received Date: 18-SEP-21
Extract Date: 21-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306383

Analysis Date: 21-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		115.	%			
Dibromofluoromethane		107.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-6
Client ID: 94EM-MW-20(20210915)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0135.D

Sample Date: 15-SEP-21
Received Date: 18-SEP-21
Extract Date: 21-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306383

Analysis Date: 21-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	2.0	ug/L	1	2	2.0
Vinyl Chloride	U	2.0	ug/L	1	2	2.0
Bromomethane	U	2.0	ug/L	1	2	2.0
Chloroethane	U	2.0	ug/L	1	2	2.0
Trichlorofluoromethane	U	2.0	ug/L	1	2	2.0
1,1-Dichloroethene	U	1.0	ug/L	1	1	1.0
Carbon Disulfide	U	1.0	ug/L	1	1	1.0
Methylene Chloride	U	5.0	ug/L	1	5	5.0
trans-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
1,1-Dichloroethane	U	1.0	ug/L	1	1	1.0
cis-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
Chloroform	U	1.0	ug/L	1	1	1.0
Carbon Tetrachloride	U	1.0	ug/L	1	1	1.0
1,1,1-Trichloroethane	U	1.0	ug/L	1	1	1.0
2-Butanone	U	5.0	ug/L	1	5	5.0
Benzene	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethane	U	1.0	ug/L	1	1	1.0
Trichloroethene	U	1.0	ug/L	1	1	1.0
1,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Bromodichloromethane	U	1.0	ug/L	1	1	1.0
cis-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
Toluene	U	1.0	ug/L	1	1	1.0
4-Methyl-2-Pentanone	U	5.0	ug/L	1	5	5.0
Tetrachloroethene	U	1.0	ug/L	1	1	1.0
trans-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
1,1,2-Trichloroethane	U	1.0	ug/L	1	1	1.0
Dibromochloromethane	U	1.0	ug/L	1	1	1.0
Chlorobenzene	U	1.0	ug/L	1	1	1.0
Ethylbenzene	U	1.0	ug/L	1	1	1.0
m+p-Xylenes	U	2.0	ug/L	1	2	2.0
o-Xylene	U	1.0	ug/L	1	1	1.0
Bromoform	U	1.0	ug/L	1	1	1.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
P-Bromofluorobenzene		98.9	%			
Toluene-d8		100.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-6
Client ID: 94EM-MW-20(20210915)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0135.D

Sample Date: 15-SEP-21
Received Date: 18-SEP-21
Extract Date: 21-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306383

Analysis Date: 21-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		114.	%			
Dibromofluoromethane		106.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-7
Client ID: WVA-MW-86R-1(20210915)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0136.D

Sample Date: 15-SEP-21
Received Date: 18-SEP-21
Extract Date: 21-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306383

Analysis Date: 21-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	2.0	ug/L	1	2	2.0
Vinyl Chloride	U	2.0	ug/L	1	2	2.0
Bromomethane	U	2.0	ug/L	1	2	2.0
Chloroethane	U	2.0	ug/L	1	2	2.0
Trichlorofluoromethane	U	2.0	ug/L	1	2	2.0
1,1-Dichloroethene	U	1.0	ug/L	1	1	1.0
Carbon Disulfide	U	1.0	ug/L	1	1	1.0
Methylene Chloride	U	5.0	ug/L	1	5	5.0
trans-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
1,1-Dichloroethane	U	1.0	ug/L	1	1	1.0
cis-1,2-Dichloroethene		1.8	ug/L	1	1	1.0
Chloroform	U	1.0	ug/L	1	1	1.0
Carbon Tetrachloride	U	1.0	ug/L	1	1	1.0
1,1,1-Trichloroethane	U	1.0	ug/L	1	1	1.0
2-Butanone	U	5.0	ug/L	1	5	5.0
Benzene	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethane	U	1.0	ug/L	1	1	1.0
Trichloroethene	U	1.0	ug/L	1	1	1.0
1,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Bromodichloromethane	U	1.0	ug/L	1	1	1.0
cis-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
Toluene	U	1.0	ug/L	1	1	1.0
4-Methyl-2-Pentanone	U	5.0	ug/L	1	5	5.0
Tetrachloroethene	U	1.0	ug/L	1	1	1.0
trans-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
1,1,2-Trichloroethane	U	1.0	ug/L	1	1	1.0
Dibromochloromethane	U	1.0	ug/L	1	1	1.0
Chlorobenzene	U	1.0	ug/L	1	1	1.0
Ethylbenzene	U	1.0	ug/L	1	1	1.0
m+p-Xylenes	U	2.0	ug/L	1	2	2.0
o-Xylene	U	1.0	ug/L	1	1	1.0
Bromoform	U	1.0	ug/L	1	1	1.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
P-Bromofluorobenzene		101.	%			
Toluene-d8		101.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-7
Client ID: WVA-MW-86R-1(20210915)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0136.D

Sample Date: 15-SEP-21
Received Date: 18-SEP-21
Extract Date: 21-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306383

Analysis Date: 21-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		115.	%			
Dibromofluoromethane		105.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-8DL2
Client ID: WVA-MW-86R-2(20210915)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0141.D

Sample Date: 15-SEP-21
Received Date: 18-SEP-21
Extract Date: 21-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306383

Analysis Date: 21-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	4.0	ug/L	2	2	4.0
Vinyl Chloride	E	1300	ug/L	2	2	4.0
Bromomethane	U	4.0	ug/L	2	2	4.0
Chloroethane	U	4.0	ug/L	2	2	4.0
Trichlorofluoromethane	U	4.0	ug/L	2	2	4.0
1,1-Dichloroethene		5.8	ug/L	2	1	2.0
Carbon Disulfide	U	2.0	ug/L	2	1	2.0
Methylene Chloride	U	10.	ug/L	2	5	10.
trans-1,2-Dichloroethene		29.	ug/L	2	1	2.0
1,1-Dichloroethane	U	2.0	ug/L	2	1	2.0
cis-1,2-Dichloroethene	E	3400	ug/L	2	1	2.0
Chloroform	U	2.0	ug/L	2	1	2.0
Carbon Tetrachloride	U	2.0	ug/L	2	1	2.0
1,1,1-Trichloroethane	U	2.0	ug/L	2	1	2.0
2-Butanone	U	10.	ug/L	2	5	10.
Benzene	U	2.0	ug/L	2	1	2.0
1,2-Dichloroethane	U	2.0	ug/L	2	1	2.0
Trichloroethene		10.	ug/L	2	1	2.0
1,2-Dichloropropane	U	2.0	ug/L	2	1	2.0
Bromodichloromethane	U	2.0	ug/L	2	1	2.0
cis-1,3-Dichloropropene	U	2.0	ug/L	2	1	2.0
Toluene	U	2.0	ug/L	2	1	2.0
4-Methyl-2-Pentanone	U	10.	ug/L	2	5	10.
Tetrachloroethene		6.4	ug/L	2	1	2.0
trans-1,3-Dichloropropene	U	2.0	ug/L	2	1	2.0
1,1,2-Trichloroethane	U	2.0	ug/L	2	1	2.0
Dibromochloromethane	U	2.0	ug/L	2	1	2.0
Chlorobenzene	U	2.0	ug/L	2	1	2.0
Ethylbenzene	U	2.0	ug/L	2	1	2.0
m+p-Xylenes	U	4.0	ug/L	2	2	4.0
o-Xylene	U	2.0	ug/L	2	1	2.0
Bromoform	U	2.0	ug/L	2	1	2.0
1,1,2,2-Tetrachloroethane	U	2.0	ug/L	2	1	2.0
P-Bromofluorobenzene		102.	%			
Toluene-d8		101.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-8DL2
Client ID: WVA-MW-86R-2(20210915)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0141.D

Sample Date: 15-SEP-21
Received Date: 18-SEP-21
Extract Date: 21-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306383

Analysis Date: 21-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		117.	%			
Dibromofluoromethane		107.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-8DL3
Client ID: WVA-MW-86R-2(20210915)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0150.D

Sample Date: 15-SEP-21
Received Date: 18-SEP-21
Extract Date: 22-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306464

Analysis Date: 22-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	100	ug/L	50	2	100
Vinyl Chloride		1700	ug/L	50	2	100
Bromomethane	U	100	ug/L	50	2	100
Chloroethane	U	100	ug/L	50	2	100
Trichlorofluoromethane	U	100	ug/L	50	2	100
1,1-Dichloroethene	U	50.	ug/L	50	1	50.
Carbon Disulfide	U	50.	ug/L	50	1	50.
Methylene Chloride	U	250	ug/L	50	5	250
trans-1,2-Dichloroethene	U	50.	ug/L	50	1	50.
1,1-Dichloroethane	U	50.	ug/L	50	1	50.
cis-1,2-Dichloroethene		3700	ug/L	50	1	50.
Chloroform	U	50.	ug/L	50	1	50.
Carbon Tetrachloride	U	50.	ug/L	50	1	50.
1,1,1-Trichloroethane	U	50.	ug/L	50	1	50.
2-Butanone	U	250	ug/L	50	5	250
Benzene	U	50.	ug/L	50	1	50.
1,2-Dichloroethane	U	50.	ug/L	50	1	50.
Trichloroethene	U	50.	ug/L	50	1	50.
1,2-Dichloropropane	U	50.	ug/L	50	1	50.
Bromodichloromethane	U	50.	ug/L	50	1	50.
cis-1,3-Dichloropropene	U	50.	ug/L	50	1	50.
Toluene	U	50.	ug/L	50	1	50.
4-Methyl-2-Pentanone	U	250	ug/L	50	5	250
Tetrachloroethene	U	50.	ug/L	50	1	50.
trans-1,3-Dichloropropene	U	50.	ug/L	50	1	50.
1,1,2-Trichloroethane	U	50.	ug/L	50	1	50.
Dibromochloromethane	U	50.	ug/L	50	1	50.
Chlorobenzene	U	50.	ug/L	50	1	50.
Ethylbenzene	U	50.	ug/L	50	1	50.
m+p-Xylenes	U	100	ug/L	50	2	100
o-Xylene	U	50.	ug/L	50	1	50.
Bromoform	U	50.	ug/L	50	1	50.
1,1,2,2-Tetrachloroethane	U	50.	ug/L	50	1	50.
P-Bromofluorobenzene		101.	%			
Toluene-d8		101.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-8DL3
Client ID: WVA-MW-86R-2(20210915)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0150.D

Sample Date: 15-SEP-21
Received Date: 18-SEP-21
Extract Date: 22-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306464

Analysis Date: 22-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		112.	%			
Dibromofluoromethane		103.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-9DL
Client ID: WVA-MW-86R-3(20210915)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0130.D

Sample Date: 15-SEP-21
Received Date: 18-SEP-21
Extract Date: 21-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306383

Analysis Date: 21-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	40.	ug/L	20	2	40.
Vinyl Chloride		570	ug/L	20	2	40.
Bromomethane	U	40.	ug/L	20	2	40.
Chloroethane	U	40.	ug/L	20	2	40.
Trichlorofluoromethane	U	40.	ug/L	20	2	40.
1,1-Dichloroethene	U	20.	ug/L	20	1	20.
Carbon Disulfide	U	20.	ug/L	20	1	20.
Methylene Chloride	U	100	ug/L	20	5	100
trans-1,2-Dichloroethene		21.	ug/L	20	1	20.
1,1-Dichloroethane	U	20.	ug/L	20	1	20.
cis-1,2-Dichloroethene		1200	ug/L	20	1	20.
Chloroform	U	20.	ug/L	20	1	20.
Carbon Tetrachloride	U	20.	ug/L	20	1	20.
1,1,1-Trichloroethane	U	20.	ug/L	20	1	20.
2-Butanone	U	100	ug/L	20	5	100
Benzene	U	20.	ug/L	20	1	20.
1,2-Dichloroethane	U	20.	ug/L	20	1	20.
Trichloroethene		110	ug/L	20	1	20.
1,2-Dichloropropane	U	20.	ug/L	20	1	20.
Bromodichloromethane	U	20.	ug/L	20	1	20.
cis-1,3-Dichloropropene	U	20.	ug/L	20	1	20.
Toluene	U	20.	ug/L	20	1	20.
4-Methyl-2-Pentanone	U	100	ug/L	20	5	100
Tetrachloroethene		250	ug/L	20	1	20.
trans-1,3-Dichloropropene	U	20.	ug/L	20	1	20.
1,1,2-Trichloroethane	U	20.	ug/L	20	1	20.
Dibromochloromethane	U	20.	ug/L	20	1	20.
Chlorobenzene	U	20.	ug/L	20	1	20.
Ethylbenzene	U	20.	ug/L	20	1	20.
m+p-Xylenes	U	40.	ug/L	20	2	40.
o-Xylene	U	20.	ug/L	20	1	20.
Bromoform	U	20.	ug/L	20	1	20.
1,1,2,2-Tetrachloroethane	U	20.	ug/L	20	1	20.
P-Bromofluorobenzene		100.	%			
Toluene-d8		99.0	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-9DL
Client ID: WVA-MW-86R-3(20210915)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0130.D

Sample Date: 15-SEP-21
Received Date: 18-SEP-21
Extract Date: 21-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306383

Analysis Date: 21-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		111.	%			
Dibromofluoromethane		106.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-9DL2
Client ID: WVA-MW-86R-3(20210915)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0142.D

Sample Date: 15-SEP-21
Received Date: 18-SEP-21
Extract Date: 21-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306383

Analysis Date: 21-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	4.0	ug/L	2	2	4.0
Vinyl Chloride	E	640	ug/L	2	2	4.0
Bromomethane	U	4.0	ug/L	2	2	4.0
Chloroethane	U	4.0	ug/L	2	2	4.0
Trichlorofluoromethane	U	4.0	ug/L	2	2	4.0
1,1-Dichloroethene		2.7	ug/L	2	1	2.0
Carbon Disulfide	U	2.0	ug/L	2	1	2.0
Methylene Chloride	U	10.	ug/L	2	5	10.
trans-1,2-Dichloroethene		25.	ug/L	2	1	2.0
1,1-Dichloroethane	U	2.0	ug/L	2	1	2.0
cis-1,2-Dichloroethene	E	1500	ug/L	2	1	2.0
Chloroform	U	2.0	ug/L	2	1	2.0
Carbon Tetrachloride	U	2.0	ug/L	2	1	2.0
1,1,1-Trichloroethane	U	2.0	ug/L	2	1	2.0
2-Butanone	U	10.	ug/L	2	5	10.
Benzene	U	2.0	ug/L	2	1	2.0
1,2-Dichloroethane	U	2.0	ug/L	2	1	2.0
Trichloroethene		130	ug/L	2	1	2.0
1,2-Dichloropropane	U	2.0	ug/L	2	1	2.0
Bromodichloromethane	U	2.0	ug/L	2	1	2.0
cis-1,3-Dichloropropene	U	2.0	ug/L	2	1	2.0
Toluene	U	2.0	ug/L	2	1	2.0
4-Methyl-2-Pentanone	U	10.	ug/L	2	5	10.
Tetrachloroethene		290	ug/L	2	1	2.0
trans-1,3-Dichloropropene	U	2.0	ug/L	2	1	2.0
1,1,2-Trichloroethane	U	2.0	ug/L	2	1	2.0
Dibromochloromethane	U	2.0	ug/L	2	1	2.0
Chlorobenzene	U	2.0	ug/L	2	1	2.0
Ethylbenzene	U	2.0	ug/L	2	1	2.0
m+p-Xylenes	U	4.0	ug/L	2	2	4.0
o-Xylene	U	2.0	ug/L	2	1	2.0
Bromoform	U	2.0	ug/L	2	1	2.0
1,1,2,2-Tetrachloroethane	U	2.0	ug/L	2	1	2.0
P-Bromofluorobenzene		99.2	%			
Toluene-d8		99.0	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-9DL2
Client ID: WVA-MW-86R-3(20210915)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0142.D

Sample Date: 15-SEP-21
Received Date: 18-SEP-21
Extract Date: 21-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306383

Analysis Date: 21-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		120.	%			
Dibromofluoromethane		108.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-10
Client ID: WVA-MW-85R-1(20210915)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0137.D

Sample Date: 15-SEP-21
Received Date: 18-SEP-21
Extract Date: 21-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306383

Analysis Date: 21-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	2.0	ug/L	1	2	2.0
Vinyl Chloride	U	2.0	ug/L	1	2	2.0
Bromomethane	U	2.0	ug/L	1	2	2.0
Chloroethane	U	2.0	ug/L	1	2	2.0
Trichlorofluoromethane	U	2.0	ug/L	1	2	2.0
1,1-Dichloroethene	U	1.0	ug/L	1	1	1.0
Carbon Disulfide	U	1.0	ug/L	1	1	1.0
Methylene Chloride	U	5.0	ug/L	1	5	5.0
trans-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
1,1-Dichloroethane	U	1.0	ug/L	1	1	1.0
cis-1,2-Dichloroethene		1.3	ug/L	1	1	1.0
Chloroform	U	1.0	ug/L	1	1	1.0
Carbon Tetrachloride	U	1.0	ug/L	1	1	1.0
1,1,1-Trichloroethane	U	1.0	ug/L	1	1	1.0
2-Butanone	U	5.0	ug/L	1	5	5.0
Benzene	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethane	U	1.0	ug/L	1	1	1.0
Trichloroethene	U	1.0	ug/L	1	1	1.0
1,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Bromodichloromethane	U	1.0	ug/L	1	1	1.0
cis-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
Toluene	U	1.0	ug/L	1	1	1.0
4-Methyl-2-Pentanone	U	5.0	ug/L	1	5	5.0
Tetrachloroethene		1.3	ug/L	1	1	1.0
trans-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
1,1,2-Trichloroethane	U	1.0	ug/L	1	1	1.0
Dibromochloromethane	U	1.0	ug/L	1	1	1.0
Chlorobenzene	U	1.0	ug/L	1	1	1.0
Ethylbenzene	U	1.0	ug/L	1	1	1.0
m+p-Xylenes	U	2.0	ug/L	1	2	2.0
o-Xylene	U	1.0	ug/L	1	1	1.0
Bromoform	U	1.0	ug/L	1	1	1.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
P-Bromofluorobenzene		102.	%			
Toluene-d8		100.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-10
Client ID: WVA-MW-85R-1(20210915)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0137.D

Sample Date: 15-SEP-21
Received Date: 18-SEP-21
Extract Date: 21-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306383

Analysis Date: 21-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		115.	%			
Dibromofluoromethane		107.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-11DL2
Client ID: WVA-MW-85R-2(20210915)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0162.D

Sample Date: 15-SEP-21
Received Date: 18-SEP-21
Extract Date: 22-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306464

Analysis Date: 22-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	8.0	ug/L	4	2	8.0
Vinyl Chloride		540	ug/L	4	2	8.0
Bromomethane	U	8.0	ug/L	4	2	8.0
Chloroethane	U	8.0	ug/L	4	2	8.0
Trichlorofluoromethane	U	8.0	ug/L	4	2	8.0
1,1-Dichloroethene	U	4.0	ug/L	4	1	4.0
Carbon Disulfide	U	4.0	ug/L	4	1	4.0
Methylene Chloride	U	20.	ug/L	4	5	20.
trans-1,2-Dichloroethene		17.	ug/L	4	1	4.0
1,1-Dichloroethane	U	4.0	ug/L	4	1	4.0
cis-1,2-Dichloroethene	E	1800	ug/L	4	1	4.0
Chloroform	U	4.0	ug/L	4	1	4.0
Carbon Tetrachloride	U	4.0	ug/L	4	1	4.0
1,1,1-Trichloroethane	U	4.0	ug/L	4	1	4.0
2-Butanone	U	20.	ug/L	4	5	20.
Benzene	U	4.0	ug/L	4	1	4.0
1,2-Dichloroethane	U	4.0	ug/L	4	1	4.0
Trichloroethene		260	ug/L	4	1	4.0
1,2-Dichloropropane	U	4.0	ug/L	4	1	4.0
Bromodichloromethane	U	4.0	ug/L	4	1	4.0
cis-1,3-Dichloropropene	U	4.0	ug/L	4	1	4.0
Toluene	U	4.0	ug/L	4	1	4.0
4-Methyl-2-Pentanone	U	20.	ug/L	4	5	20.
Tetrachloroethene		400	ug/L	4	1	4.0
trans-1,3-Dichloropropene	U	4.0	ug/L	4	1	4.0
1,1,2-Trichloroethane	U	4.0	ug/L	4	1	4.0
Dibromochloromethane	U	4.0	ug/L	4	1	4.0
Chlorobenzene	U	4.0	ug/L	4	1	4.0
Ethylbenzene	U	4.0	ug/L	4	1	4.0
m+p-Xylenes	U	8.0	ug/L	4	2	8.0
o-Xylene	U	4.0	ug/L	4	1	4.0
Bromoform	U	4.0	ug/L	4	1	4.0
1,1,2,2-Tetrachloroethane	U	4.0	ug/L	4	1	4.0
P-Bromofluorobenzene		100.	%			
Toluene-d8		99.7	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-11DL2
Client ID: WVA-MW-85R-2(20210915)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0162.D

Sample Date: 15-SEP-21
Received Date: 18-SEP-21
Extract Date: 22-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306464

Analysis Date: 22-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		121.	%			
Dibromofluoromethane		108.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-11DL3
Client ID: WVA-MW-85R-2(20210915)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0189.D

Sample Date: 15-SEP-21
Received Date: 18-SEP-21
Extract Date: 23-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306545

Analysis Date: 23-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	40.	ug/L	20	2	40.
Vinyl Chloride		490	ug/L	20	2	40.
Bromomethane	U	40.	ug/L	20	2	40.
Chloroethane	U	40.	ug/L	20	2	40.
Trichlorofluoromethane	U	40.	ug/L	20	2	40.
1,1-Dichloroethene	U	20.	ug/L	20	1	20.
Carbon Disulfide	U	20.	ug/L	20	1	20.
Methylene Chloride	U	100	ug/L	20	5	100
trans-1,2-Dichloroethene	U	20.	ug/L	20	1	20.
1,1-Dichloroethane	U	20.	ug/L	20	1	20.
cis-1,2-Dichloroethene		1600	ug/L	20	1	20.
Chloroform	U	20.	ug/L	20	1	20.
Carbon Tetrachloride	U	20.	ug/L	20	1	20.
1,1,1-Trichloroethane	U	20.	ug/L	20	1	20.
2-Butanone	U	100	ug/L	20	5	100
Benzene	U	20.	ug/L	20	1	20.
1,2-Dichloroethane	U	20.	ug/L	20	1	20.
Trichloroethene		230	ug/L	20	1	20.
1,2-Dichloropropane	U	20.	ug/L	20	1	20.
Bromodichloromethane	U	20.	ug/L	20	1	20.
cis-1,3-Dichloropropene	U	20.	ug/L	20	1	20.
Toluene	U	20.	ug/L	20	1	20.
4-Methyl-2-Pentanone	U	100	ug/L	20	5	100
Tetrachloroethene		350	ug/L	20	1	20.
trans-1,3-Dichloropropene	U	20.	ug/L	20	1	20.
1,1,2-Trichloroethane	U	20.	ug/L	20	1	20.
Dibromochloromethane	U	20.	ug/L	20	1	20.
Chlorobenzene	U	20.	ug/L	20	1	20.
Ethylbenzene	U	20.	ug/L	20	1	20.
m+p-Xylenes	U	40.	ug/L	20	2	40.
o-Xylene	U	20.	ug/L	20	1	20.
Bromoform	U	20.	ug/L	20	1	20.
1,1,2,2-Tetrachloroethane	U	20.	ug/L	20	1	20.
P-Bromofluorobenzene		102.	%			
Toluene-d8		101.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-11DL3
Client ID: WVA-MW-85R-2(20210915)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0189.D

Sample Date: 15-SEP-21
Received Date: 18-SEP-21
Extract Date: 23-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306545

Analysis Date: 23-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		118.	%			
Dibromofluoromethane		107.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-11DL4
Client ID: WVA-MW-85R-2(20210915)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0195.D

Sample Date: 15-SEP-21
Received Date: 18-SEP-21
Extract Date: 23-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306545

Analysis Date: 23-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	4.0	ug/L	2	2	4.0
Vinyl Chloride	E	530	ug/L	2	2	4.0
Bromomethane	U	4.0	ug/L	2	2	4.0
Chloroethane	U	4.0	ug/L	2	2	4.0
Trichlorofluoromethane	U	4.0	ug/L	2	2	4.0
1,1-Dichloroethene		3.0	ug/L	2	1	2.0
Carbon Disulfide	U	2.0	ug/L	2	1	2.0
Methylene Chloride	U	10.	ug/L	2	5	10.
trans-1,2-Dichloroethene		16.	ug/L	2	1	2.0
1,1-Dichloroethane	U	2.0	ug/L	2	1	2.0
cis-1,2-Dichloroethene	E	1800	ug/L	2	1	2.0
Chloroform	U	2.0	ug/L	2	1	2.0
Carbon Tetrachloride	U	2.0	ug/L	2	1	2.0
1,1,1-Trichloroethane	U	2.0	ug/L	2	1	2.0
2-Butanone	U	10.	ug/L	2	5	10.
Benzene	U	2.0	ug/L	2	1	2.0
1,2-Dichloroethane	U	2.0	ug/L	2	1	2.0
Trichloroethene		270	ug/L	2	1	2.0
1,2-Dichloropropane	U	2.0	ug/L	2	1	2.0
Bromodichloromethane	U	2.0	ug/L	2	1	2.0
cis-1,3-Dichloropropene	U	2.0	ug/L	2	1	2.0
Toluene	U	2.0	ug/L	2	1	2.0
4-Methyl-2-Pentanone	U	10.	ug/L	2	5	10.
Tetrachloroethene	E	420	ug/L	2	1	2.0
trans-1,3-Dichloropropene	U	2.0	ug/L	2	1	2.0
1,1,2-Trichloroethane	U	2.0	ug/L	2	1	2.0
Dibromochloromethane	U	2.0	ug/L	2	1	2.0
Chlorobenzene	U	2.0	ug/L	2	1	2.0
Ethylbenzene	U	2.0	ug/L	2	1	2.0
m+p-Xylenes	U	4.0	ug/L	2	2	4.0
o-Xylene	U	2.0	ug/L	2	1	2.0
Bromoform	U	2.0	ug/L	2	1	2.0
1,1,2,2-Tetrachloroethane	U	2.0	ug/L	2	1	2.0
P-Bromofluorobenzene		99.9	%			
Toluene-d8		99.2	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-11DL4
Client ID: WVA-MW-85R-2(20210915)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0195.D

Sample Date: 15-SEP-21
Received Date: 18-SEP-21
Extract Date: 23-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306545

Analysis Date: 23-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		121.	%			
Dibromofluoromethane		108.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-12DL
Client ID: DUP-02-(20210915)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0279.D

Sample Date: 15-SEP-21
Received Date: 18-SEP-21
Extract Date: 28-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306817

Analysis Date: 28-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	40.	ug/L	20	2	40.
Vinyl Chloride		330	ug/L	20	2	40.
Bromomethane	U	40.	ug/L	20	2	40.
Chloroethane	U	40.	ug/L	20	2	40.
Trichlorofluoromethane	U	40.	ug/L	20	2	40.
1,1-Dichloroethene	U	20.	ug/L	20	1	20.
Carbon Disulfide	U	20.	ug/L	20	1	20.
Methylene Chloride	U	100	ug/L	20	5	100
trans-1,2-Dichloroethene	U	20.	ug/L	20	1	20.
1,1-Dichloroethane	U	20.	ug/L	20	1	20.
cis-1,2-Dichloroethene		1400	ug/L	20	1	20.
Chloroform	U	20.	ug/L	20	1	20.
Carbon Tetrachloride	U	20.	ug/L	20	1	20.
1,1,1-Trichloroethane	U	20.	ug/L	20	1	20.
2-Butanone	U	100	ug/L	20	5	100
Benzene	U	20.	ug/L	20	1	20.
1,2-Dichloroethane	U	20.	ug/L	20	1	20.
Trichloroethene		210	ug/L	20	1	20.
1,2-Dichloropropane	U	20.	ug/L	20	1	20.
Bromodichloromethane	U	20.	ug/L	20	1	20.
cis-1,3-Dichloropropene	U	20.	ug/L	20	1	20.
Toluene	U	20.	ug/L	20	1	20.
4-Methyl-2-Pentanone	U	100	ug/L	20	5	100
Tetrachloroethene		330	ug/L	20	1	20.
trans-1,3-Dichloropropene	U	20.	ug/L	20	1	20.
1,1,2-Trichloroethane	U	20.	ug/L	20	1	20.
Dibromochloromethane	U	20.	ug/L	20	1	20.
Chlorobenzene	U	20.	ug/L	20	1	20.
Ethylbenzene	U	20.	ug/L	20	1	20.
m+p-Xylenes	U	40.	ug/L	20	2	40.
o-Xylene	U	20.	ug/L	20	1	20.
Bromoform	U	20.	ug/L	20	1	20.
1,1,2,2-Tetrachloroethane	U	20.	ug/L	20	1	20.
P-Bromofluorobenzene		97.8	%			
Toluene-d8		99.5	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-12DL
Client ID: DUP-02-(20210915)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0279.D

Sample Date: 15-SEP-21
Received Date: 18-SEP-21
Extract Date: 28-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306817

Analysis Date: 28-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		108.	%			
Dibromofluoromethane		102.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-12DL2
Client ID: DUP-02-(20210915)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0285.D

Sample Date: 15-SEP-21
Received Date: 18-SEP-21
Extract Date: 28-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306817

Analysis Date: 28-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	4.0	ug/L	2	2	4.0
Vinyl Chloride	E	360	ug/L	2	2	4.0
Bromomethane	U	4.0	ug/L	2	2	4.0
Chloroethane	U	4.0	ug/L	2	2	4.0
Trichlorofluoromethane	U	4.0	ug/L	2	2	4.0
1,1-Dichloroethene		2.9	ug/L	2	1	2.0
Carbon Disulfide	U	2.0	ug/L	2	1	2.0
Methylene Chloride	U	10.	ug/L	2	5	10.
trans-1,2-Dichloroethene		15.	ug/L	2	1	2.0
1,1-Dichloroethane	U	2.0	ug/L	2	1	2.0
cis-1,2-Dichloroethene	E	1700	ug/L	2	1	2.0
Chloroform	U	2.0	ug/L	2	1	2.0
Carbon Tetrachloride	U	2.0	ug/L	2	1	2.0
1,1,1-Trichloroethane	U	2.0	ug/L	2	1	2.0
2-Butanone	U	10.	ug/L	2	5	10.
Benzene	U	2.0	ug/L	2	1	2.0
1,2-Dichloroethane	U	2.0	ug/L	2	1	2.0
Trichloroethene		240	ug/L	2	1	2.0
1,2-Dichloropropane	U	2.0	ug/L	2	1	2.0
Bromodichloromethane	U	2.0	ug/L	2	1	2.0
cis-1,3-Dichloropropene	U	2.0	ug/L	2	1	2.0
Toluene	U	2.0	ug/L	2	1	2.0
4-Methyl-2-Pentanone	U	10.	ug/L	2	5	10.
Tetrachloroethene	E	390	ug/L	2	1	2.0
trans-1,3-Dichloropropene	U	2.0	ug/L	2	1	2.0
1,1,2-Trichloroethane	U	2.0	ug/L	2	1	2.0
Dibromochloromethane	U	2.0	ug/L	2	1	2.0
Chlorobenzene	U	2.0	ug/L	2	1	2.0
Ethylbenzene	U	2.0	ug/L	2	1	2.0
m+p-Xylenes	U	4.0	ug/L	2	2	4.0
o-Xylene	U	2.0	ug/L	2	1	2.0
Bromoform	U	2.0	ug/L	2	1	2.0
1,1,2,2-Tetrachloroethane	U	2.0	ug/L	2	1	2.0
P-Bromofluorobenzene		95.7	%			
Toluene-d8		100.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-12DL2
Client ID: DUP-02-(20210915)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0285.D

Sample Date: 15-SEP-21
Received Date: 18-SEP-21
Extract Date: 28-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306817

Analysis Date: 28-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		112.	%			
Dibromofluoromethane		108.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-13DL
Client ID: WVA-MW-85R-3(20210915)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0152.D

Sample Date: 15-SEP-21
Received Date: 18-SEP-21
Extract Date: 22-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306464

Analysis Date: 22-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	400	ug/L	200	2	400
Vinyl Chloride		580	ug/L	200	2	400
Bromomethane	U	400	ug/L	200	2	400
Chloroethane	U	400	ug/L	200	2	400
Trichlorofluoromethane	U	400	ug/L	200	2	400
1,1-Dichloroethene	U	200	ug/L	200	1	200
Carbon Disulfide	U	200	ug/L	200	1	200
Methylene Chloride	U	1000	ug/L	200	5	1000
trans-1,2-Dichloroethene	U	200	ug/L	200	1	200
1,1-Dichloroethane	U	200	ug/L	200	1	200
cis-1,2-Dichloroethene		1500	ug/L	200	1	200
Chloroform	U	200	ug/L	200	1	200
Carbon Tetrachloride	U	200	ug/L	200	1	200
1,1,1-Trichloroethane	U	200	ug/L	200	1	200
2-Butanone	U	1000	ug/L	200	5	1000
Benzene	U	200	ug/L	200	1	200
1,2-Dichloroethane	U	200	ug/L	200	1	200
Trichloroethene		1600	ug/L	200	1	200
1,2-Dichloropropane	U	200	ug/L	200	1	200
Bromodichloromethane	U	200	ug/L	200	1	200
cis-1,3-Dichloropropene	U	200	ug/L	200	1	200
Toluene	U	200	ug/L	200	1	200
4-Methyl-2-Pentanone	U	1000	ug/L	200	5	1000
Tetrachloroethene		18000	ug/L	200	1	200
trans-1,3-Dichloropropene	U	200	ug/L	200	1	200
1,1,2-Trichloroethane	U	200	ug/L	200	1	200
Dibromochloromethane	U	200	ug/L	200	1	200
Chlorobenzene	U	200	ug/L	200	1	200
Ethylbenzene	U	200	ug/L	200	1	200
m+p-Xylenes	U	400	ug/L	200	2	400
o-Xylene	U	200	ug/L	200	1	200
Bromoform	U	200	ug/L	200	1	200
1,1,2,2-Tetrachloroethane	U	200	ug/L	200	1	200
P-Bromofluorobenzene		101.	%			
Toluene-d8		100.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-13DL
Client ID: WVA-MW-85R-3(20210915)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0152.D

Sample Date: 15-SEP-21
Received Date: 18-SEP-21
Extract Date: 22-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306464

Analysis Date: 22-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		118.	%			
Dibromofluoromethane		106.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-13DL2
Client ID: WVA-MW-85R-3(20210915)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0164.D

Sample Date: 15-SEP-21
Received Date: 18-SEP-21
Extract Date: 22-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306464

Analysis Date: 22-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	40.	ug/L	20	2	40.
Vinyl Chloride		570	ug/L	20	2	40.
Bromomethane	U	40.	ug/L	20	2	40.
Chloroethane	U	40.	ug/L	20	2	40.
Trichlorofluoromethane	U	40.	ug/L	20	2	40.
1,1-Dichloroethene	U	20.	ug/L	20	1	20.
Carbon Disulfide	U	20.	ug/L	20	1	20.
Methylene Chloride	U	100	ug/L	20	5	100
trans-1,2-Dichloroethene	U	20.	ug/L	20	1	20.
1,1-Dichloroethane	U	20.	ug/L	20	1	20.
cis-1,2-Dichloroethene		1500	ug/L	20	1	20.
Chloroform	U	20.	ug/L	20	1	20.
Carbon Tetrachloride	U	20.	ug/L	20	1	20.
1,1,1-Trichloroethane	U	20.	ug/L	20	1	20.
2-Butanone	U	100	ug/L	20	5	100
Benzene	U	20.	ug/L	20	1	20.
1,2-Dichloroethane	U	20.	ug/L	20	1	20.
Trichloroethene		1500	ug/L	20	1	20.
1,2-Dichloropropane	U	20.	ug/L	20	1	20.
Bromodichloromethane	U	20.	ug/L	20	1	20.
cis-1,3-Dichloropropene	U	20.	ug/L	20	1	20.
Toluene	U	20.	ug/L	20	1	20.
4-Methyl-2-Pentanone	U	100	ug/L	20	5	100
Tetrachloroethene	E	19000	ug/L	20	1	20.
trans-1,3-Dichloropropene	U	20.	ug/L	20	1	20.
1,1,2-Trichloroethane	U	20.	ug/L	20	1	20.
Dibromochloromethane	U	20.	ug/L	20	1	20.
Chlorobenzene	U	20.	ug/L	20	1	20.
Ethylbenzene	U	20.	ug/L	20	1	20.
m+p-Xylenes	U	40.	ug/L	20	2	40.
o-Xylene	U	20.	ug/L	20	1	20.
Bromoform	U	20.	ug/L	20	1	20.
1,1,2,2-Tetrachloroethane	U	20.	ug/L	20	1	20.
P-Bromofluorobenzene		98.2	%			
Toluene-d8		98.5	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-13DL2
Client ID: WVA-MW-85R-3(20210915)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0164.D

Sample Date: 15-SEP-21
Received Date: 18-SEP-21
Extract Date: 22-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306464

Analysis Date: 22-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		117.	%			
Dibromofluoromethane		106.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-14DL
Client ID: WVA-MW-84R-1(20210915)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0222.D

Sample Date: 15-SEP-21
Received Date: 18-SEP-21
Extract Date: 24-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306608

Analysis Date: 24-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	100	ug/L	50	2	100
Vinyl Chloride		280	ug/L	50	2	100
Bromomethane	U	100	ug/L	50	2	100
Chloroethane	U	100	ug/L	50	2	100
Trichlorofluoromethane	U	100	ug/L	50	2	100
1,1-Dichloroethene	U	50.	ug/L	50	1	50.
Carbon Disulfide	U	50.	ug/L	50	1	50.
Methylene Chloride	U	250	ug/L	50	5	250
trans-1,2-Dichloroethene	U	50.	ug/L	50	1	50.
1,1-Dichloroethane	U	50.	ug/L	50	1	50.
cis-1,2-Dichloroethene		3300	ug/L	50	1	50.
Chloroform	U	50.	ug/L	50	1	50.
Carbon Tetrachloride	U	50.	ug/L	50	1	50.
1,1,1-Trichloroethane	U	50.	ug/L	50	1	50.
2-Butanone	U	250	ug/L	50	5	250
Benzene	U	50.	ug/L	50	1	50.
1,2-Dichloroethane	U	50.	ug/L	50	1	50.
Trichloroethene		300	ug/L	50	1	50.
1,2-Dichloropropane	U	50.	ug/L	50	1	50.
Bromodichloromethane	U	50.	ug/L	50	1	50.
cis-1,3-Dichloropropene	U	50.	ug/L	50	1	50.
Toluene	U	50.	ug/L	50	1	50.
4-Methyl-2-Pentanone	U	250	ug/L	50	5	250
Tetrachloroethene		230	ug/L	50	1	50.
trans-1,3-Dichloropropene	U	50.	ug/L	50	1	50.
1,1,2-Trichloroethane	U	50.	ug/L	50	1	50.
Dibromochloromethane	U	50.	ug/L	50	1	50.
Chlorobenzene	U	50.	ug/L	50	1	50.
Ethylbenzene	U	50.	ug/L	50	1	50.
m+p-Xylenes	U	100	ug/L	50	2	100
o-Xylene	U	50.	ug/L	50	1	50.
Bromoform	U	50.	ug/L	50	1	50.
1,1,2,2-Tetrachloroethane	U	50.	ug/L	50	1	50.
P-Bromofluorobenzene		99.4	%			
Toluene-d8		102.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-14DL
Client ID: WVA-MW-84R-1(20210915)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0222.D

Sample Date: 15-SEP-21
Received Date: 18-SEP-21
Extract Date: 24-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306608

Analysis Date: 24-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		110.	%			
Dibromofluoromethane		103.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-14DL2
Client ID: WVA-MW-84R-1(20210915)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0226.D

Sample Date: 15-SEP-21
Received Date: 18-SEP-21
Extract Date: 24-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306608

Analysis Date: 24-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	10.	ug/L	5	2	10.
Vinyl Chloride		280	ug/L	5	2	10.
Bromomethane	U	10.	ug/L	5	2	10.
Chloroethane	U	10.	ug/L	5	2	10.
Trichlorofluoromethane	U	10.	ug/L	5	2	10.
1,1-Dichloroethene		5.5	ug/L	5	1	5.0
Carbon Disulfide	U	5.0	ug/L	5	1	5.0
Methylene Chloride		25.	ug/L	5	5	25.
trans-1,2-Dichloroethene		24.	ug/L	5	1	5.0
1,1-Dichloroethane	U	5.0	ug/L	5	1	5.0
cis-1,2-Dichloroethene	E	3600	ug/L	5	1	5.0
Chloroform	U	5.0	ug/L	5	1	5.0
Carbon Tetrachloride	U	5.0	ug/L	5	1	5.0
1,1,1-Trichloroethane	U	5.0	ug/L	5	1	5.0
2-Butanone	U	25.	ug/L	5	5	25.
Benzene	U	5.0	ug/L	5	1	5.0
1,2-Dichloroethane	U	5.0	ug/L	5	1	5.0
Trichloroethene		300	ug/L	5	1	5.0
1,2-Dichloropropane	U	5.0	ug/L	5	1	5.0
Bromodichloromethane	U	5.0	ug/L	5	1	5.0
cis-1,3-Dichloropropene	U	5.0	ug/L	5	1	5.0
Toluene	U	5.0	ug/L	5	1	5.0
4-Methyl-2-Pentanone	U	25.	ug/L	5	5	25.
Tetrachloroethene		240	ug/L	5	1	5.0
trans-1,3-Dichloropropene	U	5.0	ug/L	5	1	5.0
1,1,2-Trichloroethane	U	5.0	ug/L	5	1	5.0
Dibromochloromethane	U	5.0	ug/L	5	1	5.0
Chlorobenzene	U	5.0	ug/L	5	1	5.0
Ethylbenzene	U	5.0	ug/L	5	1	5.0
m+p-Xylenes	U	10.	ug/L	5	2	10.
o-Xylene	U	5.0	ug/L	5	1	5.0
Bromoform	U	5.0	ug/L	5	1	5.0
1,1,2,2-Tetrachloroethane	U	5.0	ug/L	5	1	5.0
P-Bromofluorobenzene		96.3	%			
Toluene-d8		101.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-14DL2
Client ID: WVA-MW-84R-1(20210915)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0226.D

Sample Date: 15-SEP-21
Received Date: 18-SEP-21
Extract Date: 24-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306608

Analysis Date: 24-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		114.	%			
Dibromofluoromethane		105.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-15DL
Client ID: WVA-MW-84R-2(20210915)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0151.D

Sample Date: 15-SEP-21
Received Date: 18-SEP-21
Extract Date: 22-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306464

Analysis Date: 22-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	400	ug/L	200	2	400
Vinyl Chloride		4100	ug/L	200	2	400
Bromomethane	U	400	ug/L	200	2	400
Chloroethane	U	400	ug/L	200	2	400
Trichlorofluoromethane	U	400	ug/L	200	2	400
1,1-Dichloroethene	U	200	ug/L	200	1	200
Carbon Disulfide	U	200	ug/L	200	1	200
Methylene Chloride	U	1000	ug/L	200	5	1000
trans-1,2-Dichloroethene	U	200	ug/L	200	1	200
1,1-Dichloroethane	U	200	ug/L	200	1	200
cis-1,2-Dichloroethene		23000	ug/L	200	1	200
Chloroform	U	200	ug/L	200	1	200
Carbon Tetrachloride	U	200	ug/L	200	1	200
1,1,1-Trichloroethane	U	200	ug/L	200	1	200
2-Butanone	U	1000	ug/L	200	5	1000
Benzene	U	200	ug/L	200	1	200
1,2-Dichloroethane	U	200	ug/L	200	1	200
Trichloroethene		3200	ug/L	200	1	200
1,2-Dichloropropane	U	200	ug/L	200	1	200
Bromodichloromethane	U	200	ug/L	200	1	200
cis-1,3-Dichloropropene	U	200	ug/L	200	1	200
Toluene	U	200	ug/L	200	1	200
4-Methyl-2-Pentanone	U	1000	ug/L	200	5	1000
Tetrachloroethene		6900	ug/L	200	1	200
trans-1,3-Dichloropropene	U	200	ug/L	200	1	200
1,1,2-Trichloroethane	U	200	ug/L	200	1	200
Dibromochloromethane	U	200	ug/L	200	1	200
Chlorobenzene	U	200	ug/L	200	1	200
Ethylbenzene	U	200	ug/L	200	1	200
m+p-Xylenes	U	400	ug/L	200	2	400
o-Xylene	U	200	ug/L	200	1	200
Bromoform	U	200	ug/L	200	1	200
1,1,2,2-Tetrachloroethane	U	200	ug/L	200	1	200
P-Bromofluorobenzene		101.	%			
Toluene-d8		102.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-15DL
Client ID: WVA-MW-84R-2(20210915)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0151.D

Sample Date: 15-SEP-21
Received Date: 18-SEP-21
Extract Date: 22-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306464

Analysis Date: 22-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		116.	%			
Dibromofluoromethane		106.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-15DL2
Client ID: WVA-MW-84R-2(20210915)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0163.D

Sample Date: 15-SEP-21
Received Date: 18-SEP-21
Extract Date: 22-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306464

Analysis Date: 22-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 13-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	40.	ug/L	20	2	40.
Vinyl Chloride	E	3800	ug/L	20	2	40.
Bromomethane	U	40.	ug/L	20	2	40.
Chloroethane	U	40.	ug/L	20	2	40.
Trichlorofluoromethane	U	40.	ug/L	20	2	40.
1,1-Dichloroethene		50.	ug/L	20	1	20.
Carbon Disulfide	U	20.	ug/L	20	1	20.
Methylene Chloride	U	100	ug/L	20	5	100
trans-1,2-Dichloroethene		110	ug/L	20	1	20.
1,1-Dichloroethane	U	20.	ug/L	20	1	20.
cis-1,2-Dichloroethene	E	22000	ug/L	20	1	20.
Chloroform	U	20.	ug/L	20	1	20.
Carbon Tetrachloride	U	20.	ug/L	20	1	20.
1,1,1-Trichloroethane	U	20.	ug/L	20	1	20.
2-Butanone	U	100	ug/L	20	5	100
Benzene	U	20.	ug/L	20	1	20.
1,2-Dichloroethane	U	20.	ug/L	20	1	20.
Trichloroethene	E	3200	ug/L	20	1	20.
1,2-Dichloropropane	U	20.	ug/L	20	1	20.
Bromodichloromethane	U	20.	ug/L	20	1	20.
cis-1,3-Dichloropropene	U	20.	ug/L	20	1	20.
Toluene	U	20.	ug/L	20	1	20.
4-Methyl-2-Pentanone	U	100	ug/L	20	5	100
Tetrachloroethene	E	7200	ug/L	20	1	20.
trans-1,3-Dichloropropene	U	20.	ug/L	20	1	20.
1,1,2-Trichloroethane		190	ug/L	20	1	20.
Dibromochloromethane	U	20.	ug/L	20	1	20.
Chlorobenzene	U	20.	ug/L	20	1	20.
Ethylbenzene	U	20.	ug/L	20	1	20.
m+p-Xylenes	U	40.	ug/L	20	2	40.
o-Xylene	U	20.	ug/L	20	1	20.
Bromoform	U	20.	ug/L	20	1	20.
1,1,2,2-Tetrachloroethane	U	20.	ug/L	20	1	20.
P-Bromofluorobenzene		97.9	%			
Toluene-d8		99.6	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-15DL2
Client ID: WVA-MW-84R-2(20210915)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0163.D

Sample Date: 15-SEP-21
Received Date: 18-SEP-21
Extract Date: 22-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306464

Analysis Date: 22-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 13-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		117.	%			
Dibromofluoromethane		107.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-16
Client ID: 86EM-SP-6(20210916)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0192.D

Sample Date: 16-SEP-21
Received Date: 18-SEP-21
Extract Date: 23-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306545

Analysis Date: 23-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	2.0	ug/L	1	2	2.0
Vinyl Chloride	U	2.0	ug/L	1	2	2.0
Bromomethane	U	2.0	ug/L	1	2	2.0
Chloroethane	U	2.0	ug/L	1	2	2.0
Trichlorofluoromethane	U	2.0	ug/L	1	2	2.0
1,1-Dichloroethene	U	1.0	ug/L	1	1	1.0
Carbon Disulfide	U	1.0	ug/L	1	1	1.0
Methylene Chloride	U	5.0	ug/L	1	5	5.0
trans-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
1,1-Dichloroethane	U	1.0	ug/L	1	1	1.0
cis-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
Chloroform	U	1.0	ug/L	1	1	1.0
Carbon Tetrachloride	U	1.0	ug/L	1	1	1.0
1,1,1-Trichloroethane	U	1.0	ug/L	1	1	1.0
2-Butanone	U	5.0	ug/L	1	5	5.0
Benzene	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethane	U	1.0	ug/L	1	1	1.0
Trichloroethene	U	1.0	ug/L	1	1	1.0
1,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Bromodichloromethane	U	1.0	ug/L	1	1	1.0
cis-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
Toluene	U	1.0	ug/L	1	1	1.0
4-Methyl-2-Pentanone	U	5.0	ug/L	1	5	5.0
Tetrachloroethene	U	1.0	ug/L	1	1	1.0
trans-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
1,1,2-Trichloroethane	U	1.0	ug/L	1	1	1.0
Dibromochloromethane	U	1.0	ug/L	1	1	1.0
Chlorobenzene	U	1.0	ug/L	1	1	1.0
Ethylbenzene	U	1.0	ug/L	1	1	1.0
m+p-Xylenes	U	2.0	ug/L	1	2	2.0
o-Xylene	U	1.0	ug/L	1	1	1.0
Bromoform	U	1.0	ug/L	1	1	1.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
P-Bromofluorobenzene		104.	%			
Toluene-d8		102.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-16
Client ID: 86EM-SP-6(20210916)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0192.D

Sample Date: 16-SEP-21
Received Date: 18-SEP-21
Extract Date: 23-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306545

Analysis Date: 23-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		121.	%			
Dibromofluoromethane		109.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-17
Client ID: 83DM-SP-3(20210916)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0282.D

Sample Date: 16-SEP-21
Received Date: 18-SEP-21
Extract Date: 28-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306817

Analysis Date: 28-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	2.0	ug/L	1	2	2.0
Vinyl Chloride	U	2.0	ug/L	1	2	2.0
Bromomethane	U	2.0	ug/L	1	2	2.0
Chloroethane	U	2.0	ug/L	1	2	2.0
Trichlorofluoromethane	U	2.0	ug/L	1	2	2.0
1,1-Dichloroethene	U	1.0	ug/L	1	1	1.0
Carbon Disulfide	U	1.0	ug/L	1	1	1.0
Methylene Chloride	U	5.0	ug/L	1	5	5.0
trans-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
1,1-Dichloroethane	U	1.0	ug/L	1	1	1.0
cis-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
Chloroform	U	1.0	ug/L	1	1	1.0
Carbon Tetrachloride	U	1.0	ug/L	1	1	1.0
1,1,1-Trichloroethane	U	1.0	ug/L	1	1	1.0
2-Butanone	U	5.0	ug/L	1	5	5.0
Benzene	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethane	U	1.0	ug/L	1	1	1.0
Trichloroethene	U	1.0	ug/L	1	1	1.0
1,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Bromodichloromethane	U	1.0	ug/L	1	1	1.0
cis-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
Toluene	U	1.0	ug/L	1	1	1.0
4-Methyl-2-Pentanone	U	5.0	ug/L	1	5	5.0
Tetrachloroethene	U	1.0	ug/L	1	1	1.0
trans-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
1,1,2-Trichloroethane	U	1.0	ug/L	1	1	1.0
Dibromochloromethane	U	1.0	ug/L	1	1	1.0
Chlorobenzene	U	1.0	ug/L	1	1	1.0
Ethylbenzene	U	1.0	ug/L	1	1	1.0
m+p-Xylenes	U	2.0	ug/L	1	2	2.0
o-Xylene	U	1.0	ug/L	1	1	1.0
Bromoform	U	1.0	ug/L	1	1	1.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
P-Bromofluorobenzene		98.2	%			
Toluene-d8		101.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-17
Client ID: 83DM-SP-3(20210916)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0282.D

Sample Date: 16-SEP-21
Received Date: 18-SEP-21
Extract Date: 28-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306817

Analysis Date: 28-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		114.	%			
Dibromofluoromethane		106.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-18
Client ID: 92EM-SP-8(20210916)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0138.D

Sample Date: 16-SEP-21
Received Date: 18-SEP-21
Extract Date: 21-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306383

Analysis Date: 21-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	2.0	ug/L	1	2	2.0
Vinyl Chloride	U	2.0	ug/L	1	2	2.0
Bromomethane	U	2.0	ug/L	1	2	2.0
Chloroethane	U	2.0	ug/L	1	2	2.0
Trichlorofluoromethane	U	2.0	ug/L	1	2	2.0
1,1-Dichloroethene	U	1.0	ug/L	1	1	1.0
Carbon Disulfide	U	1.0	ug/L	1	1	1.0
Methylene Chloride	U	5.0	ug/L	1	5	5.0
trans-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
1,1-Dichloroethane	U	1.0	ug/L	1	1	1.0
cis-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
Chloroform	U	1.0	ug/L	1	1	1.0
Carbon Tetrachloride	U	1.0	ug/L	1	1	1.0
1,1,1-Trichloroethane	U	1.0	ug/L	1	1	1.0
2-Butanone	U	5.0	ug/L	1	5	5.0
Benzene	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethane	U	1.0	ug/L	1	1	1.0
Trichloroethene	U	1.0	ug/L	1	1	1.0
1,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Bromodichloromethane	U	1.0	ug/L	1	1	1.0
cis-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
Toluene	U	1.0	ug/L	1	1	1.0
4-Methyl-2-Pentanone	U	5.0	ug/L	1	5	5.0
Tetrachloroethene	U	1.0	ug/L	1	1	1.0
trans-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
1,1,2-Trichloroethane	U	1.0	ug/L	1	1	1.0
Dibromochloromethane	U	1.0	ug/L	1	1	1.0
Chlorobenzene	U	1.0	ug/L	1	1	1.0
Ethylbenzene	U	1.0	ug/L	1	1	1.0
m+p-Xylenes	U	2.0	ug/L	1	2	2.0
o-Xylene	U	1.0	ug/L	1	1	1.0
Bromoform	U	1.0	ug/L	1	1	1.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
P-Bromofluorobenzene		100.	%			
Toluene-d8		101.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-18
Client ID: 92EM-SP-8(20210916)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0138.D

Sample Date: 16-SEP-21
Received Date: 18-SEP-21
Extract Date: 21-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306383

Analysis Date: 21-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		116.	%			
Dibromofluoromethane		108.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-20
Client ID: WVA-SA-STS-6(20210916)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0139.D

Sample Date: 16-SEP-21
Received Date: 18-SEP-21
Extract Date: 21-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306383

Analysis Date: 21-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	2.0	ug/L	1	2	2.0
Vinyl Chloride	U	2.0	ug/L	1	2	2.0
Bromomethane	U	2.0	ug/L	1	2	2.0
Chloroethane	U	2.0	ug/L	1	2	2.0
Trichlorofluoromethane	U	2.0	ug/L	1	2	2.0
1,1-Dichloroethene	U	1.0	ug/L	1	1	1.0
Carbon Disulfide	U	1.0	ug/L	1	1	1.0
Methylene Chloride	U	5.0	ug/L	1	5	5.0
trans-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
1,1-Dichloroethane	U	1.0	ug/L	1	1	1.0
cis-1,2-Dichloroethene		2.7	ug/L	1	1	1.0
Chloroform	U	1.0	ug/L	1	1	1.0
Carbon Tetrachloride	U	1.0	ug/L	1	1	1.0
1,1,1-Trichloroethane	U	1.0	ug/L	1	1	1.0
2-Butanone	U	5.0	ug/L	1	5	5.0
Benzene	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethane	U	1.0	ug/L	1	1	1.0
Trichloroethene	U	1.0	ug/L	1	1	1.0
1,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Bromodichloromethane	U	1.0	ug/L	1	1	1.0
cis-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
Toluene	U	1.0	ug/L	1	1	1.0
4-Methyl-2-Pentanone	U	5.0	ug/L	1	5	5.0
Tetrachloroethene		2.0	ug/L	1	1	1.0
trans-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
1,1,2-Trichloroethane	U	1.0	ug/L	1	1	1.0
Dibromochloromethane	U	1.0	ug/L	1	1	1.0
Chlorobenzene	U	1.0	ug/L	1	1	1.0
Ethylbenzene	U	1.0	ug/L	1	1	1.0
m+p-Xylenes	U	2.0	ug/L	1	2	2.0
o-Xylene	U	1.0	ug/L	1	1	1.0
Bromoform	U	1.0	ug/L	1	1	1.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
P-Bromofluorobenzene		101.	%			
Toluene-d8		101.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-20
Client ID: WVA-SA-STS-6(20210916)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0139.D

Sample Date: 16-SEP-21
Received Date: 18-SEP-21
Extract Date: 21-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306383

Analysis Date: 21-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		115.	%			
Dibromofluoromethane		108.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-21
Client ID: WVA-SA-SNS-6(20210916)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0140.D

Sample Date: 16-SEP-21
Received Date: 18-SEP-21
Extract Date: 21-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306383

Analysis Date: 21-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	2.0	ug/L	1	2	2.0
Vinyl Chloride	U	2.0	ug/L	1	2	2.0
Bromomethane	U	2.0	ug/L	1	2	2.0
Chloroethane	U	2.0	ug/L	1	2	2.0
Trichlorofluoromethane	U	2.0	ug/L	1	2	2.0
1,1-Dichloroethene	U	1.0	ug/L	1	1	1.0
Carbon Disulfide	U	1.0	ug/L	1	1	1.0
Methylene Chloride	U	5.0	ug/L	1	5	5.0
trans-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
1,1-Dichloroethane	U	1.0	ug/L	1	1	1.0
cis-1,2-Dichloroethene		3.6	ug/L	1	1	1.0
Chloroform	U	1.0	ug/L	1	1	1.0
Carbon Tetrachloride	U	1.0	ug/L	1	1	1.0
1,1,1-Trichloroethane	U	1.0	ug/L	1	1	1.0
2-Butanone	U	5.0	ug/L	1	5	5.0
Benzene	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethane	U	1.0	ug/L	1	1	1.0
Trichloroethene		2.6	ug/L	1	1	1.0
1,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Bromodichloromethane	U	1.0	ug/L	1	1	1.0
cis-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
Toluene	U	1.0	ug/L	1	1	1.0
4-Methyl-2-Pentanone	U	5.0	ug/L	1	5	5.0
Tetrachloroethene	U	1.0	ug/L	1	1	1.0
trans-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
1,1,2-Trichloroethane	U	1.0	ug/L	1	1	1.0
Dibromochloromethane	U	1.0	ug/L	1	1	1.0
Chlorobenzene	U	1.0	ug/L	1	1	1.0
Ethylbenzene	U	1.0	ug/L	1	1	1.0
m+p-Xylenes	U	2.0	ug/L	1	2	2.0
o-Xylene	U	1.0	ug/L	1	1	1.0
Bromoform	U	1.0	ug/L	1	1	1.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
P-Bromofluorobenzene		101.	%			
Toluene-d8		102.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-21
Client ID: WVA-SA-SNS-6(20210916)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0140.D

Sample Date: 16-SEP-21
Received Date: 18-SEP-21
Extract Date: 21-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306383

Analysis Date: 21-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		120.	%			
Dibromofluoromethane		107.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-22
Client ID: WVA-MW-82R-1(20210916)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0223.D

Sample Date: 16-SEP-21
Received Date: 18-SEP-21
Extract Date: 24-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306608

Analysis Date: 24-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	2.0	ug/L	1	2	2.0
Vinyl Chloride		56.	ug/L	1	2	2.0
Bromomethane	U	2.0	ug/L	1	2	2.0
Chloroethane	U	2.0	ug/L	1	2	2.0
Trichlorofluoromethane	U	2.0	ug/L	1	2	2.0
1,1-Dichloroethene	U	1.0	ug/L	1	1	1.0
Carbon Disulfide	U	1.0	ug/L	1	1	1.0
Methylene Chloride	U	5.0	ug/L	1	5	5.0
trans-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
1,1-Dichloroethane	U	1.0	ug/L	1	1	1.0
cis-1,2-Dichloroethene		67.	ug/L	1	1	1.0
Chloroform	U	1.0	ug/L	1	1	1.0
Carbon Tetrachloride	U	1.0	ug/L	1	1	1.0
1,1,1-Trichloroethane	U	1.0	ug/L	1	1	1.0
2-Butanone	U	5.0	ug/L	1	5	5.0
Benzene	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethane	U	1.0	ug/L	1	1	1.0
Trichloroethene		1.2	ug/L	1	1	1.0
1,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Bromodichloromethane	U	1.0	ug/L	1	1	1.0
cis-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
Toluene	U	1.0	ug/L	1	1	1.0
4-Methyl-2-Pentanone	U	5.0	ug/L	1	5	5.0
Tetrachloroethene	U	1.0	ug/L	1	1	1.0
trans-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
1,1,2-Trichloroethane	U	1.0	ug/L	1	1	1.0
Dibromochloromethane	U	1.0	ug/L	1	1	1.0
Chlorobenzene	U	1.0	ug/L	1	1	1.0
Ethylbenzene	U	1.0	ug/L	1	1	1.0
m+p-Xylenes	U	2.0	ug/L	1	2	2.0
o-Xylene	U	1.0	ug/L	1	1	1.0
Bromoform	U	1.0	ug/L	1	1	1.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
P-Bromofluorobenzene		97.4	%			
Toluene-d8		102.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-22
Client ID: WVA-MW-82R-1(20210916)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0223.D

Sample Date: 16-SEP-21
Received Date: 18-SEP-21
Extract Date: 24-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306608

Analysis Date: 24-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		112.	%			
Dibromofluoromethane		106.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-23
Client ID: WVA-MW-82R-2(20210916)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0193.D

Sample Date: 16-SEP-21
Received Date: 18-SEP-21
Extract Date: 23-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306545

Analysis Date: 23-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	2.0	ug/L	1	2	2.0
Vinyl Chloride		28.	ug/L	1	2	2.0
Bromomethane	U	2.0	ug/L	1	2	2.0
Chloroethane	U	2.0	ug/L	1	2	2.0
Trichlorofluoromethane	U	2.0	ug/L	1	2	2.0
1,1-Dichloroethene	U	1.0	ug/L	1	1	1.0
Carbon Disulfide	U	1.0	ug/L	1	1	1.0
Methylene Chloride	U	5.0	ug/L	1	5	5.0
trans-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
1,1-Dichloroethane	U	1.0	ug/L	1	1	1.0
cis-1,2-Dichloroethene		63.	ug/L	1	1	1.0
Chloroform	U	1.0	ug/L	1	1	1.0
Carbon Tetrachloride	U	1.0	ug/L	1	1	1.0
1,1,1-Trichloroethane	U	1.0	ug/L	1	1	1.0
2-Butanone	U	5.0	ug/L	1	5	5.0
Benzene	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethane	U	1.0	ug/L	1	1	1.0
Trichloroethene	U	1.0	ug/L	1	1	1.0
1,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Bromodichloromethane	U	1.0	ug/L	1	1	1.0
cis-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
Toluene	U	1.0	ug/L	1	1	1.0
4-Methyl-2-Pentanone	U	5.0	ug/L	1	5	5.0
Tetrachloroethene	U	1.0	ug/L	1	1	1.0
trans-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
1,1,2-Trichloroethane	U	1.0	ug/L	1	1	1.0
Dibromochloromethane	U	1.0	ug/L	1	1	1.0
Chlorobenzene	U	1.0	ug/L	1	1	1.0
Ethylbenzene	U	1.0	ug/L	1	1	1.0
m+p-Xylenes	U	2.0	ug/L	1	2	2.0
o-Xylene	U	1.0	ug/L	1	1	1.0
Bromoform	U	1.0	ug/L	1	1	1.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
P-Bromofluorobenzene		103.	%			
Toluene-d8		101.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-23
Client ID: WVA-MW-82R-2(20210916)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0193.D

Sample Date: 16-SEP-21
Received Date: 18-SEP-21
Extract Date: 23-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306545

Analysis Date: 23-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		121.	%			
Dibromofluoromethane		107.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-24
Client ID: WVA-MW-82R-3(20210916)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0194.D

Sample Date: 16-SEP-21
Received Date: 18-SEP-21
Extract Date: 23-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306545

Analysis Date: 23-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	2.0	ug/L	1	2	2.0
Vinyl Chloride		20.	ug/L	1	2	2.0
Bromomethane	U	2.0	ug/L	1	2	2.0
Chloroethane	U	2.0	ug/L	1	2	2.0
Trichlorofluoromethane	U	2.0	ug/L	1	2	2.0
1,1-Dichloroethene	U	1.0	ug/L	1	1	1.0
Carbon Disulfide	U	1.0	ug/L	1	1	1.0
Methylene Chloride	U	5.0	ug/L	1	5	5.0
trans-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
1,1-Dichloroethane	U	1.0	ug/L	1	1	1.0
cis-1,2-Dichloroethene		26.	ug/L	1	1	1.0
Chloroform	U	1.0	ug/L	1	1	1.0
Carbon Tetrachloride	U	1.0	ug/L	1	1	1.0
1,1,1-Trichloroethane	U	1.0	ug/L	1	1	1.0
2-Butanone	U	5.0	ug/L	1	5	5.0
Benzene	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethane	U	1.0	ug/L	1	1	1.0
Trichloroethene	U	1.0	ug/L	1	1	1.0
1,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Bromodichloromethane	U	1.0	ug/L	1	1	1.0
cis-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
Toluene	U	1.0	ug/L	1	1	1.0
4-Methyl-2-Pentanone	U	5.0	ug/L	1	5	5.0
Tetrachloroethene	U	1.0	ug/L	1	1	1.0
trans-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
1,1,2-Trichloroethane	U	1.0	ug/L	1	1	1.0
Dibromochloromethane	U	1.0	ug/L	1	1	1.0
Chlorobenzene	U	1.0	ug/L	1	1	1.0
Ethylbenzene	U	1.0	ug/L	1	1	1.0
m+p-Xylenes	U	2.0	ug/L	1	2	2.0
o-Xylene	U	1.0	ug/L	1	1	1.0
Bromoform	U	1.0	ug/L	1	1	1.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
P-Bromofluorobenzene		104.	%			
Toluene-d8		104.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-24
Client ID: WVA-MW-82R-3(20210916)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0194.D

Sample Date: 16-SEP-21
Received Date: 18-SEP-21
Extract Date: 23-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306545

Analysis Date: 23-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		120.	%			
Dibromofluoromethane		107.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-25DL
Client ID: WVA-MW-83-1(20210916)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0153.D

Sample Date: 16-SEP-21
Received Date: 18-SEP-21
Extract Date: 22-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306464

Analysis Date: 22-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	200	ug/L	100	2	200
Vinyl Chloride		260	ug/L	100	2	200
Bromomethane	U	200	ug/L	100	2	200
Chloroethane	U	200	ug/L	100	2	200
Trichlorofluoromethane	U	200	ug/L	100	2	200
1,1-Dichloroethene	U	100	ug/L	100	1	100
Carbon Disulfide	U	100	ug/L	100	1	100
Methylene Chloride	U	500	ug/L	100	5	500
trans-1,2-Dichloroethene	U	100	ug/L	100	1	100
1,1-Dichloroethane	U	100	ug/L	100	1	100
cis-1,2-Dichloroethene		3400	ug/L	100	1	100
Chloroform	U	100	ug/L	100	1	100
Carbon Tetrachloride	U	100	ug/L	100	1	100
1,1,1-Trichloroethane	U	100	ug/L	100	1	100
2-Butanone	U	500	ug/L	100	5	500
Benzene	U	100	ug/L	100	1	100
1,2-Dichloroethane	U	100	ug/L	100	1	100
Trichloroethene		3100	ug/L	100	1	100
1,2-Dichloropropane	U	100	ug/L	100	1	100
Bromodichloromethane	U	100	ug/L	100	1	100
cis-1,3-Dichloropropene	U	100	ug/L	100	1	100
Toluene	U	100	ug/L	100	1	100
4-Methyl-2-Pentanone	U	500	ug/L	100	5	500
Tetrachloroethene		7700	ug/L	100	1	100
trans-1,3-Dichloropropene	U	100	ug/L	100	1	100
1,1,2-Trichloroethane	U	100	ug/L	100	1	100
Dibromochloromethane	U	100	ug/L	100	1	100
Chlorobenzene	U	100	ug/L	100	1	100
Ethylbenzene	U	100	ug/L	100	1	100
m+p-Xylenes	U	200	ug/L	100	2	200
o-Xylene	U	100	ug/L	100	1	100
Bromoform	U	100	ug/L	100	1	100
1,1,2,2-Tetrachloroethane	U	100	ug/L	100	1	100
P-Bromofluorobenzene		102.	%			
Toluene-d8		101.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-25DL
Client ID: WVA-MW-83-1(20210916)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0153.D

Sample Date: 16-SEP-21
Received Date: 18-SEP-21
Extract Date: 22-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306464

Analysis Date: 22-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		119.	%			
Dibromofluoromethane		107.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-25DL2
Client ID: WVA-MW-83-1(20210916)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0165.D

Sample Date: 16-SEP-21
Received Date: 18-SEP-21
Extract Date: 22-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306464

Analysis Date: 22-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	20.	ug/L	10	2	20.
Vinyl Chloride		240	ug/L	10	2	20.
Bromomethane	U	20.	ug/L	10	2	20.
Chloroethane	U	20.	ug/L	10	2	20.
Trichlorofluoromethane	U	20.	ug/L	10	2	20.
1,1-Dichloroethene	U	10.	ug/L	10	1	10.
Carbon Disulfide	U	10.	ug/L	10	1	10.
Methylene Chloride	U	50.	ug/L	10	5	50.
trans-1,2-Dichloroethene		25.	ug/L	10	1	10.
1,1-Dichloroethane	U	10.	ug/L	10	1	10.
cis-1,2-Dichloroethene	E	3200	ug/L	10	1	10.
Chloroform	U	10.	ug/L	10	1	10.
Carbon Tetrachloride	U	10.	ug/L	10	1	10.
1,1,1-Trichloroethane	U	10.	ug/L	10	1	10.
2-Butanone	U	50.	ug/L	10	5	50.
Benzene	U	10.	ug/L	10	1	10.
1,2-Dichloroethane	U	10.	ug/L	10	1	10.
Trichloroethene	E	3000	ug/L	10	1	10.
1,2-Dichloropropane	U	10.	ug/L	10	1	10.
Bromodichloromethane	U	10.	ug/L	10	1	10.
cis-1,3-Dichloropropene	U	10.	ug/L	10	1	10.
Toluene	U	10.	ug/L	10	1	10.
4-Methyl-2-Pentanone	U	50.	ug/L	10	5	50.
Tetrachloroethene	E	7600	ug/L	10	1	10.
trans-1,3-Dichloropropene	U	10.	ug/L	10	1	10.
1,1,2-Trichloroethane	U	10.	ug/L	10	1	10.
Dibromochloromethane	U	10.	ug/L	10	1	10.
Chlorobenzene	U	10.	ug/L	10	1	10.
Ethylbenzene	U	10.	ug/L	10	1	10.
m+p-Xylenes	U	20.	ug/L	10	2	20.
o-Xylene	U	10.	ug/L	10	1	10.
Bromoform	U	10.	ug/L	10	1	10.
1,1,2,2-Tetrachloroethane	U	10.	ug/L	10	1	10.
P-Bromofluorobenzene		100.	%			
Toluene-d8		99.3	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-25DL2
Client ID: WVA-MW-83-1(20210916)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0165.D

Sample Date: 16-SEP-21
Received Date: 18-SEP-21
Extract Date: 22-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306464

Analysis Date: 22-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		119.	%			
Dibromofluoromethane		106.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-26DL
Client ID: WVA-MW-83-2(20210916)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0221.D

Sample Date: 16-SEP-21
Received Date: 18-SEP-21
Extract Date: 24-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306608

Analysis Date: 24-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	200	ug/L	100	2	200
Vinyl Chloride		260	ug/L	100	2	200
Bromomethane	U	200	ug/L	100	2	200
Chloroethane	U	200	ug/L	100	2	200
Trichlorofluoromethane	U	200	ug/L	100	2	200
1,1-Dichloroethene	U	100	ug/L	100	1	100
Carbon Disulfide	U	100	ug/L	100	1	100
Methylene Chloride	U	500	ug/L	100	5	500
trans-1,2-Dichloroethene	U	100	ug/L	100	1	100
1,1-Dichloroethane	U	100	ug/L	100	1	100
cis-1,2-Dichloroethene		2600	ug/L	100	1	100
Chloroform	U	100	ug/L	100	1	100
Carbon Tetrachloride	U	100	ug/L	100	1	100
1,1,1-Trichloroethane	U	100	ug/L	100	1	100
2-Butanone	U	500	ug/L	100	5	500
Benzene	U	100	ug/L	100	1	100
1,2-Dichloroethane	U	100	ug/L	100	1	100
Trichloroethene		1400	ug/L	100	1	100
1,2-Dichloropropane	U	100	ug/L	100	1	100
Bromodichloromethane	U	100	ug/L	100	1	100
cis-1,3-Dichloropropene	U	100	ug/L	100	1	100
Toluene	U	100	ug/L	100	1	100
4-Methyl-2-Pentanone	U	500	ug/L	100	5	500
Tetrachloroethene		6400	ug/L	100	1	100
trans-1,3-Dichloropropene	U	100	ug/L	100	1	100
1,1,2-Trichloroethane	U	100	ug/L	100	1	100
Dibromochloromethane	U	100	ug/L	100	1	100
Chlorobenzene	U	100	ug/L	100	1	100
Ethylbenzene	U	100	ug/L	100	1	100
m+p-Xylenes	U	200	ug/L	100	2	200
o-Xylene	U	100	ug/L	100	1	100
Bromoform	U	100	ug/L	100	1	100
1,1,2,2-Tetrachloroethane	U	100	ug/L	100	1	100
P-Bromofluorobenzene		97.7	%			
Toluene-d8		100.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-26DL
Client ID: WVA-MW-83-2(20210916)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0221.D

Sample Date: 16-SEP-21
Received Date: 18-SEP-21
Extract Date: 24-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306608

Analysis Date: 24-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		107.	%			
Dibromofluoromethane		104.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-26DL2
Client ID: WVA-MW-83-2(20210916)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0225.D

Sample Date: 16-SEP-21
Received Date: 18-SEP-21
Extract Date: 24-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306608

Analysis Date: 24-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	20.	ug/L	10	2	20.
Vinyl Chloride		250	ug/L	10	2	20.
Bromomethane	U	20.	ug/L	10	2	20.
Chloroethane	U	20.	ug/L	10	2	20.
Trichlorofluoromethane	U	20.	ug/L	10	2	20.
1,1-Dichloroethene	U	10.	ug/L	10	1	10.
Carbon Disulfide	U	10.	ug/L	10	1	10.
Methylene Chloride		52.	ug/L	10	5	50.
trans-1,2-Dichloroethene		18.	ug/L	10	1	10.
1,1-Dichloroethane	U	10.	ug/L	10	1	10.
cis-1,2-Dichloroethene	E	3000	ug/L	10	1	10.
Chloroform	U	10.	ug/L	10	1	10.
Carbon Tetrachloride	U	10.	ug/L	10	1	10.
1,1,1-Trichloroethane	U	10.	ug/L	10	1	10.
2-Butanone	U	50.	ug/L	10	5	50.
Benzene	U	10.	ug/L	10	1	10.
1,2-Dichloroethane	U	10.	ug/L	10	1	10.
Trichloroethene	E	1500	ug/L	10	1	10.
1,2-Dichloropropane	U	10.	ug/L	10	1	10.
Bromodichloromethane	U	10.	ug/L	10	1	10.
cis-1,3-Dichloropropene	U	10.	ug/L	10	1	10.
Toluene	U	10.	ug/L	10	1	10.
4-Methyl-2-Pentanone	U	50.	ug/L	10	5	50.
Tetrachloroethene	E	7400	ug/L	10	1	10.
trans-1,3-Dichloropropene	U	10.	ug/L	10	1	10.
1,1,2-Trichloroethane	U	10.	ug/L	10	1	10.
Dibromochloromethane	U	10.	ug/L	10	1	10.
Chlorobenzene	U	10.	ug/L	10	1	10.
Ethylbenzene	U	10.	ug/L	10	1	10.
m+p-Xylenes	U	20.	ug/L	10	2	20.
o-Xylene	U	10.	ug/L	10	1	10.
Bromoform	U	10.	ug/L	10	1	10.
1,1,2,2-Tetrachloroethane	U	10.	ug/L	10	1	10.
P-Bromofluorobenzene		95.1	%			
Toluene-d8		98.0	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-26DL2
Client ID: WVA-MW-83-2(20210916)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0225.D

Sample Date: 16-SEP-21
Received Date: 18-SEP-21
Extract Date: 24-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306608

Analysis Date: 24-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		112.	%			
Dibromofluoromethane		104.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-27
Client ID: WVA-MW-83-3(20210916)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0198.D

Sample Date: 16-SEP-21
Received Date: 18-SEP-21
Extract Date: 23-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306545

Analysis Date: 23-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	2.0	ug/L	1	2	2.0
Vinyl Chloride	E	470	ug/L	1	2	2.0
Bromomethane	U	2.0	ug/L	1	2	2.0
Chloroethane	U	2.0	ug/L	1	2	2.0
Trichlorofluoromethane	U	2.0	ug/L	1	2	2.0
1,1-Dichloroethene	U	1.0	ug/L	1	1	1.0
Carbon Disulfide	U	1.0	ug/L	1	1	1.0
Methylene Chloride	U	5.0	ug/L	1	5	5.0
trans-1,2-Dichloroethene		4.0	ug/L	1	1	1.0
1,1-Dichloroethane	U	1.0	ug/L	1	1	1.0
cis-1,2-Dichloroethene	E	390	ug/L	1	1	1.0
Chloroform	U	1.0	ug/L	1	1	1.0
Carbon Tetrachloride	U	1.0	ug/L	1	1	1.0
1,1,1-Trichloroethane	U	1.0	ug/L	1	1	1.0
2-Butanone	U	5.0	ug/L	1	5	5.0
Benzene	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethane	U	1.0	ug/L	1	1	1.0
Trichloroethene		13.	ug/L	1	1	1.0
1,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Bromodichloromethane	U	1.0	ug/L	1	1	1.0
cis-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
Toluene	U	1.0	ug/L	1	1	1.0
4-Methyl-2-Pentanone	U	5.0	ug/L	1	5	5.0
Tetrachloroethene		15.	ug/L	1	1	1.0
trans-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
1,1,2-Trichloroethane	U	1.0	ug/L	1	1	1.0
Dibromochloromethane	U	1.0	ug/L	1	1	1.0
Chlorobenzene	U	1.0	ug/L	1	1	1.0
Ethylbenzene	U	1.0	ug/L	1	1	1.0
m+p-Xylenes	U	2.0	ug/L	1	2	2.0
o-Xylene	U	1.0	ug/L	1	1	1.0
Bromoform	U	1.0	ug/L	1	1	1.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
P-Bromofluorobenzene		103.	%			
Toluene-d8		101.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-27
Client ID: WVA-MW-83-3(20210916)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0198.D

Sample Date: 16-SEP-21
Received Date: 18-SEP-21
Extract Date: 23-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306545

Analysis Date: 23-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		119.	%			
Dibromofluoromethane		107.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-27DL
Client ID: WVA-MW-83-3(20210916)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0190.D

Sample Date: 16-SEP-21
Received Date: 18-SEP-21
Extract Date: 23-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306545

Analysis Date: 23-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	8.0	ug/L	4	2	8.0
Vinyl Chloride		410	ug/L	4	2	8.0
Bromomethane	U	8.0	ug/L	4	2	8.0
Chloroethane	U	8.0	ug/L	4	2	8.0
Trichlorofluoromethane	U	8.0	ug/L	4	2	8.0
1,1-Dichloroethene	U	4.0	ug/L	4	1	4.0
Carbon Disulfide	U	4.0	ug/L	4	1	4.0
Methylene Chloride	U	20.	ug/L	4	5	20.
trans-1,2-Dichloroethene	U	4.0	ug/L	4	1	4.0
1,1-Dichloroethane	U	4.0	ug/L	4	1	4.0
cis-1,2-Dichloroethene		340	ug/L	4	1	4.0
Chloroform	U	4.0	ug/L	4	1	4.0
Carbon Tetrachloride	U	4.0	ug/L	4	1	4.0
1,1,1-Trichloroethane	U	4.0	ug/L	4	1	4.0
2-Butanone	U	20.	ug/L	4	5	20.
Benzene	U	4.0	ug/L	4	1	4.0
1,2-Dichloroethane	U	4.0	ug/L	4	1	4.0
Trichloroethene		11.	ug/L	4	1	4.0
1,2-Dichloropropane	U	4.0	ug/L	4	1	4.0
Bromodichloromethane	U	4.0	ug/L	4	1	4.0
cis-1,3-Dichloropropene	U	4.0	ug/L	4	1	4.0
Toluene	U	4.0	ug/L	4	1	4.0
4-Methyl-2-Pentanone	U	20.	ug/L	4	5	20.
Tetrachloroethene		12.	ug/L	4	1	4.0
trans-1,3-Dichloropropene	U	4.0	ug/L	4	1	4.0
1,1,2-Trichloroethane	U	4.0	ug/L	4	1	4.0
Dibromochloromethane	U	4.0	ug/L	4	1	4.0
Chlorobenzene	U	4.0	ug/L	4	1	4.0
Ethylbenzene	U	4.0	ug/L	4	1	4.0
m+p-Xylenes	U	8.0	ug/L	4	2	8.0
o-Xylene	U	4.0	ug/L	4	1	4.0
Bromoform	U	4.0	ug/L	4	1	4.0
1,1,2,2-Tetrachloroethane	U	4.0	ug/L	4	1	4.0
P-Bromofluorobenzene		102.	%			
Toluene-d8		101.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-27DL
Client ID: WVA-MW-83-3(20210916)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0190.D

Sample Date: 16-SEP-21
Received Date: 18-SEP-21
Extract Date: 23-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306545

Analysis Date: 23-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		118.	%			
Dibromofluoromethane		104.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-28DL
Client ID: WVA-MW-84R-3(20210916)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0220.D

Sample Date: 16-SEP-21
Received Date: 18-SEP-21
Extract Date: 24-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306608

Analysis Date: 24-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	200	ug/L	100	2	200
Vinyl Chloride		2600	ug/L	100	2	200
Bromomethane	U	200	ug/L	100	2	200
Chloroethane	U	200	ug/L	100	2	200
Trichlorofluoromethane	U	200	ug/L	100	2	200
1,1-Dichloroethene	U	100	ug/L	100	1	100
Carbon Disulfide	U	100	ug/L	100	1	100
Methylene Chloride	U	500	ug/L	100	5	500
trans-1,2-Dichloroethene	U	100	ug/L	100	1	100
1,1-Dichloroethane	U	100	ug/L	100	1	100
cis-1,2-Dichloroethene		4400	ug/L	100	1	100
Chloroform	U	100	ug/L	100	1	100
Carbon Tetrachloride	U	100	ug/L	100	1	100
1,1,1-Trichloroethane	U	100	ug/L	100	1	100
2-Butanone	U	500	ug/L	100	5	500
Benzene	U	100	ug/L	100	1	100
1,2-Dichloroethane	U	100	ug/L	100	1	100
Trichloroethene		240	ug/L	100	1	100
1,2-Dichloropropane	U	100	ug/L	100	1	100
Bromodichloromethane	U	100	ug/L	100	1	100
cis-1,3-Dichloropropene	U	100	ug/L	100	1	100
Toluene	U	100	ug/L	100	1	100
4-Methyl-2-Pentanone	U	500	ug/L	100	5	500
Tetrachloroethene		250	ug/L	100	1	100
trans-1,3-Dichloropropene	U	100	ug/L	100	1	100
1,1,2-Trichloroethane	U	100	ug/L	100	1	100
Dibromochloromethane	U	100	ug/L	100	1	100
Chlorobenzene	U	100	ug/L	100	1	100
Ethylbenzene	U	100	ug/L	100	1	100
m+p-Xylenes	U	200	ug/L	100	2	200
o-Xylene	U	100	ug/L	100	1	100
Bromoform	U	100	ug/L	100	1	100
1,1,2,2-Tetrachloroethane	U	100	ug/L	100	1	100
P-Bromofluorobenzene		97.1	%			
Toluene-d8		101.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-28DL
Client ID: WVA-MW-84R-3(20210916)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0220.D

Sample Date: 16-SEP-21
Received Date: 18-SEP-21
Extract Date: 24-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306608

Analysis Date: 24-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		107.	%			
Dibromofluoromethane		102.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-28DL2
Client ID: WVA-MW-84R-3(20210916)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0224.D

Sample Date: 16-SEP-21
Received Date: 18-SEP-21
Extract Date: 24-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306608

Analysis Date: 24-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	20.	ug/L	10	2	20.
Vinyl Chloride	E	2400	ug/L	10	2	20.
Bromomethane	U	20.	ug/L	10	2	20.
Chloroethane	U	20.	ug/L	10	2	20.
Trichlorofluoromethane	U	20.	ug/L	10	2	20.
1,1-Dichloroethene	U	10.	ug/L	10	1	10.
Carbon Disulfide	U	10.	ug/L	10	1	10.
Methylene Chloride		50.	ug/L	10	5	50.
trans-1,2-Dichloroethene		20.	ug/L	10	1	10.
1,1-Dichloroethane	U	10.	ug/L	10	1	10.
cis-1,2-Dichloroethene	E	4500	ug/L	10	1	10.
Chloroform	U	10.	ug/L	10	1	10.
Carbon Tetrachloride	U	10.	ug/L	10	1	10.
1,1,1-Trichloroethane	U	10.	ug/L	10	1	10.
2-Butanone	U	50.	ug/L	10	5	50.
Benzene	U	10.	ug/L	10	1	10.
1,2-Dichloroethane	U	10.	ug/L	10	1	10.
Trichloroethene		220	ug/L	10	1	10.
1,2-Dichloropropane	U	10.	ug/L	10	1	10.
Bromodichloromethane	U	10.	ug/L	10	1	10.
cis-1,3-Dichloropropene	U	10.	ug/L	10	1	10.
Toluene	U	10.	ug/L	10	1	10.
4-Methyl-2-Pentanone	U	50.	ug/L	10	5	50.
Tetrachloroethene		230	ug/L	10	1	10.
trans-1,3-Dichloropropene	U	10.	ug/L	10	1	10.
1,1,2-Trichloroethane	U	10.	ug/L	10	1	10.
Dibromochloromethane	U	10.	ug/L	10	1	10.
Chlorobenzene	U	10.	ug/L	10	1	10.
Ethylbenzene	U	10.	ug/L	10	1	10.
m+p-Xylenes	U	20.	ug/L	10	2	20.
o-Xylene	U	10.	ug/L	10	1	10.
Bromoform	U	10.	ug/L	10	1	10.
1,1,2,2-Tetrachloroethane	U	10.	ug/L	10	1	10.
P-Bromofluorobenzene		95.4	%			
Toluene-d8		99.8	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-28DL2
Client ID: WVA-MW-84R-3(20210916)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0224.D

Sample Date: 16-SEP-21
Received Date: 18-SEP-21
Extract Date: 24-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306608

Analysis Date: 24-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		110.	%			
Dibromofluoromethane		105.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-29
Client ID: TRIP BLANK
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0127.D

Sample Date: 16-SEP-21
Received Date: 18-SEP-21
Extract Date: 21-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306383

Analysis Date: 21-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	2.0	ug/L	1	2	2.0
Vinyl Chloride	U	2.0	ug/L	1	2	2.0
Bromomethane	U	2.0	ug/L	1	2	2.0
Chloroethane	U	2.0	ug/L	1	2	2.0
Trichlorofluoromethane	U	2.0	ug/L	1	2	2.0
1,1-Dichloroethene	U	1.0	ug/L	1	1	1.0
Carbon Disulfide	U	1.0	ug/L	1	1	1.0
Methylene Chloride	U	5.0	ug/L	1	5	5.0
trans-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
1,1-Dichloroethane	U	1.0	ug/L	1	1	1.0
cis-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
Chloroform	U	1.0	ug/L	1	1	1.0
Carbon Tetrachloride	U	1.0	ug/L	1	1	1.0
1,1,1-Trichloroethane	U	1.0	ug/L	1	1	1.0
2-Butanone	U	5.0	ug/L	1	5	5.0
Benzene	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethane	U	1.0	ug/L	1	1	1.0
Trichloroethene	U	1.0	ug/L	1	1	1.0
1,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Bromodichloromethane	U	1.0	ug/L	1	1	1.0
cis-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
Toluene	U	1.0	ug/L	1	1	1.0
4-Methyl-2-Pentanone	U	5.0	ug/L	1	5	5.0
Tetrachloroethene	U	1.0	ug/L	1	1	1.0
trans-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
1,1,2-Trichloroethane	U	1.0	ug/L	1	1	1.0
Dibromochloromethane	U	1.0	ug/L	1	1	1.0
Chlorobenzene	U	1.0	ug/L	1	1	1.0
Ethylbenzene	U	1.0	ug/L	1	1	1.0
m+p-Xylenes	U	2.0	ug/L	1	2	2.0
o-Xylene	U	1.0	ug/L	1	1	1.0
Bromoform	U	1.0	ug/L	1	1	1.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
P-Bromofluorobenzene		99.9	%			
Toluene-d8		101.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-29
Client ID: TRIP BLANK
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0127.D

Sample Date: 16-SEP-21
Received Date: 18-SEP-21
Extract Date: 21-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306383

Analysis Date: 21-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		108.	%			
Dibromofluoromethane		104.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** 94EM-MW-19(20210915)

Matrix: WATER **SDG Name:** SO6313

Percent Solids: 0.00 **Lab Sample ID:** SO6313-003

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	Adj. PQL	Adj. MDL
7440-38-2	ARSENIC, TOTAL	8.0	U		P	1	8.0	1.4
7440-39-3	BARIUM, TOTAL	186			P	1	5.0	0.23
7440-43-9	CADMIUM, TOTAL	5.0	U		P	1	5.0	0.049
7440-47-3	CHROMIUM, TOTAL	382			P	1	10	0.36
7439-92-1	LEAD, TOTAL	5.0	U		P	1	5.0	1.1
7439-97-6	MERCURY, TOTAL	0.20	U		CV	1	0.20	0.013
7782-49-2	SELENIUM, TOTAL	10	U		P	1	10	2.4
7440-22-4	SILVER, TOTAL	10	U		P	1	10	0.27

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** DUP-01(20210915)

Matrix: WATER **SDG Name:** SO6313

Percent Solids: 0.00 **Lab Sample ID:** SO6313-004

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	Adj. PQL	Adj. MDL
7440-38-2	ARSENIC, TOTAL	8.0	U		P	1	8.0	1.4
7440-39-3	BARIUM, TOTAL	184			P	1	5.0	0.23
7440-43-9	CADMIUM, TOTAL	5.0	U		P	1	5.0	0.049
7440-47-3	CHROMIUM, TOTAL	380			P	1	10	0.36
7439-92-1	LEAD, TOTAL	5.0	U		P	1	5.0	1.1
7439-97-6	MERCURY, TOTAL	0.20	U		CV	1	0.20	0.013
7782-49-2	SELENIUM, TOTAL	10	U		P	1	10	2.4
7440-22-4	SILVER, TOTAL	10	U		P	1	10	0.27

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** 94EM-MW-21(20210915)

Matrix: WATER **SDG Name:** SO6313

Percent Solids: 0.00 **Lab Sample ID:** SO6313-005

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	Adj. PQL	Adj. MDL
7440-38-2	ARSENIC, TOTAL	8.0	U		P	1	8.0	1.4
7440-39-3	BARIUM, TOTAL	121			P	1	5.0	0.23
7440-43-9	CADMIUM, TOTAL	5.0	U		P	1	5.0	0.049
7440-47-3	CHROMIUM, TOTAL	191			P	1	10	0.36
7439-92-1	LEAD, TOTAL	5.0	U		P	1	5.0	1.1
7439-97-6	MERCURY, TOTAL	0.20	U		CV	1	0.20	0.013
7782-49-2	SELENIUM, TOTAL	10	U		P	1	10	2.4
7440-22-4	SILVER, TOTAL	10	U		P	1	10	0.27

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** 94EM-MW-20(20210915)

Matrix: WATER **SDG Name:** SO6313

Percent Solids: 0.00 **Lab Sample ID:** SO6313-006

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	Adj. PQL	Adj. MDL
7440-38-2	ARSENIC, TOTAL	8.0	U		P	1	8.0	1.4
7440-39-3	BARIUM, TOTAL	27.0			P	1	5.0	0.23
7440-43-9	CADMIUM, TOTAL	5.0	U		P	1	5.0	0.049
7440-47-3	CHROMIUM, TOTAL	72.8			P	1	10	0.36
7439-92-1	LEAD, TOTAL	19.0			P	1	5.0	1.1
7439-97-6	MERCURY, TOTAL	0.20	U		CV	1	0.20	0.013
7782-49-2	SELENIUM, TOTAL	10	U		P	1	10	2.4
7440-22-4	SILVER, TOTAL	10	U		P	1	10	0.27

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** 86EM-SP-6(20210916)

Matrix: WATER **SDG Name:** SO6313

Percent Solids: 0.00 **Lab Sample ID:** SO6313-016

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	Adj. PQL	Adj. MDL
7440-38-2	ARSENIC, TOTAL	8.0	U		P	1	8.0	1.4
7440-39-3	BARIUM, TOTAL	106			P	1	5.0	0.23
7440-43-9	CADMIUM, TOTAL	5.0	U		P	1	5.0	0.049
7440-47-3	CHROMIUM, TOTAL	10	U		P	1	10	0.36
7439-92-1	LEAD, TOTAL	5.0	U		P	1	5.0	1.1
7439-97-6	MERCURY, TOTAL	0.20	U		CV	1	0.20	0.013
7782-49-2	SELENIUM, TOTAL	10	U		P	1	10	2.4
7440-22-4	SILVER, TOTAL	10	U		P	1	10	0.27

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** 83DM-SP-3(20210916)

Matrix: WATER **SDG Name:** SO6313

Percent Solids: 0.00 **Lab Sample ID:** SO6313-017

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	Adj. PQL	Adj. MDL
7440-47-3	CHROMIUM, TOTAL	10	U		P	1	10	0.36

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** 92EM-SP-8(20210916)

Matrix: WATER **SDG Name:** SO6313

Percent Solids: 0.00 **Lab Sample ID:** SO6313-018

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	Adj. PQL	Adj. MDL
7440-47-3	CHROMIUM, TOTAL	23.9			P	1	10	0.36

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** 94EM-MW-20(20210915)

Matrix: WATER **SDG Name:** SO6313

Percent Solids: 0.00 **Lab Sample ID:** SO6313-030

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	Adj. PQL	Adj. MDL
7440-38-2	ARSENIC, DISSOLVED	8.0	U		P	1	8.0	1.4
7440-39-3	BARIUM, DISSOLVED	46.8			P	1	5.0	0.23
7440-43-9	CADMIUM, DISSOLVED	5.0	U		P	1	5.0	0.049
7440-47-3	CHROMIUM, DISSOLVED	10	U		P	1	10	0.36
7439-92-1	LEAD, DISSOLVED	5.0	U		P	1	5.0	1.1
7439-97-6	MERCURY, DISSOLVED	0.20	U		CV	1	0.20	0.013
7782-49-2	SELENIUM, DISSOLVED	10	U		P	1	10	2.4
7440-22-4	SILVER, DISSOLVED	10	U		P	1	10	0.27

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** 92EM-SP-8(20210916)

Matrix: WATER **SDG Name:** SO6313

Percent Solids: 0.00 **Lab Sample ID:** SO6313-031

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	Adj. PQL	Adj. MDL
7440-47-3	CHROMIUM, DISSOLVED	12.1			P	1	10	0.36

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** FILTER BLANK

Matrix: WATER **SDG Name:** SO6313

Percent Solids: 0.00 **Lab Sample ID:** SO6313-032

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	Adj. PQL	Adj. MDL
7440-38-2	ARSENIC, DISSOLVED	8.0	U		P	1	8.0	1.4
7440-39-3	BARIUM, DISSOLVED	5.98			P	1	5.0	0.23
7440-43-9	CADMIUM, DISSOLVED	5.0	U		P	1	5.0	0.049
7440-47-3	CHROMIUM, DISSOLVED	10	U		P	1	10	0.36
7439-92-1	LEAD, DISSOLVED	5.0	U		P	1	5.0	1.1
7439-97-6	MERCURY, DISSOLVED	0.20	U		CV	1	0.20	0.013
7782-49-2	SELENIUM, DISSOLVED	10	U		P	1	10	2.4
7440-22-4	SILVER, DISSOLVED	10	U		P	1	10	0.27

Comments:

VOLATILES DATA

QC Summary Section

Form 2
System Monitoring Compound Recovery

Lab Name: Katahdin Analytical Services **Project:** Watervliet Arsenal LTM **Matrix:** AQ
Lab Code: KAS **SDG:** SO6313

Client Sample ID	Lab Sample ID	Col. ID	BFB #	DBF #	DCA #	TOL #
WVA-SA-STS-5(20210914	SO6313-1		99.6	107.	113.	101.
WVA-SA-STS-3(20210914	SO6313-2		102.	106.	114.	101.
94EM-MW-19(20210915)	SO6313-3		102.	106.	113.	103.
DUP-01(20210915)	SO6313-4		98.4	105.	111.	102.
94EM-MW-21(20210915)	SO6313-5		102.	107.	115.	101.
94EM-MW-20(20210915)	SO6313-6		98.9	106.	114.	100.
WVA-MW-86R-1(2021091	SO6313-7		101.	105.	115.	101.
WVA-MW-86R-2(2021091	SO6313-8DL2		102.	107.	117.	101.
WVA-MW-86R-2(2021091	SO6313-8DL3		101.	103.	112.	101.
WVA-MW-86R-3(2021091	SO6313-9DL		100.	106.	111.	99.0
WVA-MW-86R-3(2021091	SO6313-9DL2		99.2	108.	120.	99.0
WVA-MW-85R-1(2021091	SO6313-10		102.	107.	115.	100.
WVA-MW-85R-2(2021091	SO6313-11DL3		102.	107.	118.	101.
WVA-MW-85R-2(2021091	SO6313-11DL4		99.9	108.	121.	99.2
DUP-02-(20210915)	SO6313-12DL		97.8	102.	108.	99.5
DUP-02-(20210915)	SO6313-12DL2		95.7	108.	112.	100.
WVA-MW-85R-3(2021091	SO6313-13DL		101.	106.	118.	100.
WVA-MW-85R-3(2021091	SO6313-13DL2		98.2	106.	117.	98.5
WVA-MW-84R-1(2021091	SO6313-14DL		99.4	103.	110.	102.
WVA-MW-84R-1(2021091	SO6313-14DL2		96.3	105.	114.	101.
WVA-MW-84R-2(2021091	SO6313-15DL		101.	106.	116.	102.
WVA-MW-84R-2(2021091	SO6313-15DL2		97.9	107.	117.	99.6
86EM-SP-6(20210916)	SO6313-16		104.	109.	121.	102.
83DM-SP-3(20210916)	SO6313-17		98.2	106.	114.	101.
92EM-SP-8(20210916)	SO6313-18		100.	108.	116.	101.
WVA-SA-STS-6(20210916	SO6313-20		101.	108.	115.	101.
WVA-SA-SNS-6(20210916	SO6313-21		101.	107.	120.	102.
WVA-MW-82R-1(2021091	SO6313-22		97.4	106.	112.	102.
WVA-MW-82R-2(2021091	SO6313-23		103.	107.	121.	101.
WVA-MW-82R-3(2021091	SO6313-24		104.	107.	120.	104.
WVA-MW-83-1(20210916)	SO6313-25DL		102.	107.	119.	101.
WVA-MW-83-1(20210916)	SO6313-25DL2		100.	106.	119.	99.3
WVA-MW-83-2(20210916)	SO6313-26DL		97.7	104.	107.	100.
WVA-MW-83-2(20210916)	SO6313-26DL2		95.1	104.	112.	98.0
WVA-MW-83-3(20210916)	SO6313-27		103.	107.	119.	101.
WVA-MW-83-3(20210916)	SO6313-27DL		102.	104.	118.	101.

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://katahdinlab.com
sales@katahdinlab.com

Form 2
System Monitoring Compound Recovery

Lab Name: Katahdin Analytical Services **Project:** Watervliet Arsenal LTM **Matrix:** AQ
Lab Code: KAS **SDG:** SO6313

Client Sample ID	Lab Sample ID	Col. ID	BFB	#	DBF	#	DCA	#	TOL	#
WVA-MW-84R-3(2021091(	SO6313-28DL		97.1		102.		107.		101.	
WVA-MW-84R-3(2021091(	SO6313-28DL2		95.4		105.		110.		99.8	
TRIP BLANK	SO6313-29		99.9		104.		108.		101.	
Laboratory Control S	WG306383-1		101.		99.8		102.		99.2	
Method Blank	WG306383-2		99.6		103.		109.		101.	
Laboratory Control S	WG306464-1		102.		101.		102.		99.8	
Method Blank	WG306464-2		101.		102.		113.		99.7	
Laboratory Control S	WG306545-1		104.		101.		107.		99.5	
Method Blank	WG306545-2		101.		102.		114.		102.	
Laboratory Control S	WG306608-10		101.		100.		101.		99.7	
Method Blank	WG306608-11		97.9		102.		104.		102.	
Laboratory Control S	WG306817-10		97.2		97.8		95.8		98.5	
Method Blank	WG306817-11		97.1		102.		100.		101.	

		QC Limits
BFB	P-BROMOFLUOROBENZENE	56-133
DBF	DIBROMOFLUOROMETHANE	68-128
DCA	1,2-DICHLOROETHANE-D4	67-135
TOL	TOLUENE-D8	65-128

= Column to be used to flag recovery limits.
* = Values outside of contract required QC limits.
D= System Monitoring Compound diluted out.

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://katahdinlab.com
sales@katahdinlab.com

Form 4
Method Blank Summary - VOA

Lab Name : Katahdin Analytical Services
Project : Watervliet Arsenal LTM
Lab File ID : W0126.D
Instrument ID : GCMS-W
Heated Purge : No

SDG : SO6313
Lab Sample ID : WG306383-2
Date Analyzed : 21-SEP-21
Time Analyzed : 09:19

This Method Blank applies to the following samples, LCS, MS and MSD:

Client Sample ID	Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed
Laboratory Control S	WG306383-1	W0124.D	09/21/21	07:49
TRIP BLANK	SO6313-29	W0127.D	09/21/21	09:49
WVA-MW-86R-3(20210915)	SO6313-9DL	W0130.D	09/21/21	11:21
WVA-SA-STS-5(20210914)	SO6313-1	W0131.D	09/21/21	11:52
WVA-SA-STS-3(20210914)	SO6313-2	W0132.D	09/21/21	12:23
94EM-MW-19(20210915)	SO6313-3	W0133.D	09/21/21	12:53
94EM-MW-21(20210915)	SO6313-5	W0134.D	09/21/21	13:24
94EM-MW-20(20210915)	SO6313-6	W0135.D	09/21/21	13:54
WVA-MW-86R-1(20210915)	SO6313-7	W0136.D	09/21/21	14:25
WVA-MW-85R-1(20210915)	SO6313-10	W0137.D	09/21/21	14:55
92EM-SP-8(20210916)	SO6313-18	W0138.D	09/21/21	15:26
WVA-SA-STS-6(20210916)	SO6313-20	W0139.D	09/21/21	15:56
WVA-SA-SNS-6(20210916)	SO6313-21	W0140.D	09/21/21	16:27
WVA-MW-86R-2(20210915)	SO6313-8DL2	W0141.D	09/21/21	16:58
WVA-MW-86R-3(20210915)	SO6313-9DL2	W0142.D	09/21/21	17:28

Form 4
Method Blank Summary - VOA

Lab Name : Katahdin Analytical Services
Project : Watervliet Arsenal LTM
Lab File ID : W0149.D
Instrument ID : GCMS-W
Heated Purge : No

SDG : SO6313
Lab Sample ID : WG306464-2
Date Analyzed : 22-SEP-21
Time Analyzed : 09:24

This Method Blank applies to the following samples, LCS, MS and MSD:

Client Sample ID	Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed
Laboratory Control S	WG306464-1	W0146.D	09/22/21	07:29
WVA-MW-86R-2(20210915)	SO6313-8DL3	W0150.D	09/22/21	09:55
WVA-MW-84R-2(20210915)	SO6313-15DL	W0151.D	09/22/21	10:25
WVA-MW-85R-3(20210915)	SO6313-13DL	W0152.D	09/22/21	10:56
WVA-MW-83-1(20210916)	SO6313-25DL	W0153.D	09/22/21	11:27
WVA-MW-84R-2(20210915)	SO6313-15DL2	W0163.D	09/22/21	16:33
WVA-MW-85R-3(20210915)	SO6313-13DL2	W0164.D	09/22/21	17:04
WVA-MW-83-1(20210916)	SO6313-25DL2	W0165.D	09/22/21	17:35

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://katahdinlab.com
sales@katahdinlab.com

Form 4
Method Blank Summary - VOA

Lab Name : Katahdin Analytical Services
Project : Watervliet Arsenal LTM
Lab File ID : W0185.D
Instrument ID : GCMS-W
Heated Purge : No

SDG : SO6313
Lab Sample ID : WG306545-2
Date Analyzed : 23-SEP-21
Time Analyzed : 09:22

This Method Blank applies to the following samples, LCS, MS and MSD:

Client Sample ID	Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed
Laboratory Control S	WG306545-1	W0183.D	09/23/21	08:11
WVA-MW-85R-2(20210915)	SO6313-11DL3	W0189.D	09/23/21	11:24
WVA-MW-83-3(20210916)	SO6313-27DL	W0190.D	09/23/21	11:55
86EM-SP-6(20210916)	SO6313-16	W0192.D	09/23/21	12:56
WVA-MW-82R-2(20210916)	SO6313-23	W0193.D	09/23/21	13:27
WVA-MW-82R-3(20210916)	SO6313-24	W0194.D	09/23/21	13:57
WVA-MW-85R-2(20210915)	SO6313-11DL4	W0195.D	09/23/21	14:28
WVA-MW-83-3(20210916)	SO6313-27	W0198.D	09/23/21	16:00

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://katahdinlab.com
sales@katahdinlab.com

Form 4
Method Blank Summary - VOA

Lab Name : Katahdin Analytical Services
Project : Watervliet Arsenal LTM
Lab File ID : W0219.D
Instrument ID : GCMS-W
Heated Purge : No

SDG : SO6313
Lab Sample ID : WG306608-11
Date Analyzed : 24-SEP-21
Time Analyzed : 15:08

This Method Blank applies to the following samples, LCS, MS and MSD:

Client Sample ID	Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed
Laboratory Control S	WG306608-10	W0216.D	09/24/21	12:40
WVA-MW-84R-3(20210916)	SO6313-28DL	W0220.D	09/24/21	15:39
WVA-MW-83-2(20210916)	SO6313-26DL	W0221.D	09/24/21	16:09
WVA-MW-84R-1(20210915)	SO6313-14DL	W0222.D	09/24/21	16:40
WVA-MW-82R-1(20210916)	SO6313-22	W0223.D	09/24/21	17:11
WVA-MW-84R-3(20210916)	SO6313-28DL2	W0224.D	09/24/21	17:42
WVA-MW-83-2(20210916)	SO6313-26DL2	W0225.D	09/24/21	18:12
WVA-MW-84R-1(20210915)	SO6313-14DL2	W0226.D	09/24/21	18:43

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://katahdinlab.com
sales@katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Form 4
Method Blank Summary - VOA

Lab Name : Katahdin Analytical Services
Project : Watervliet Arsenal LTM
Lab File ID : W0275.D
Instrument ID : GCMS-W
Heated Purge : No

SDG : SO6313
Lab Sample ID : WG306817-11
Date Analyzed : 28-SEP-21
Time Analyzed : 16:10

This Method Blank applies to the following samples, LCS, MS and MSD:

Client Sample ID	Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed
Laboratory Control S	WG306817-10	W0272.D	09/28/21	14:39
DUP-02-(20210915)	SO6313-12DL	W0279.D	09/28/21	18:11
DUP-01(20210915)	SO6313-4	W0281.D	09/28/21	19:12
83DM-SP-3(20210916)	SO6313-17	W0282.D	09/28/21	19:42
DUP-02-(20210915)	SO6313-12DL2	W0285.D	09/28/21	21:13

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://katahdinlab.com
sales@katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Form 5
Volatile Organic Instrument Performance Check

Lab Name : Katahdin Analytical Services
Project : Watervliet Arsenal LTM
Lab File ID : WB637A.D
Instrument ID : GCMS-W

SDG : SO6313
Date Analyzed : 20-SEP-21
Time Analyzed : 07:29
Heated Purge : No

m/e	Ion Abundance Criteria	% Relative Abundance		
50	15.0 - 40.0% of mass 95	20.7		
75	30.0 - 60.0% of mass 95	48.6		
95	Base Peak, 100% relative abundance	100		
96	5.0 - 9.0% of mass 95	5.9		
173	Less than 2.0% of mass 174	0.4	0.51	1
174	Greater than 50.0% of mass 95	75.0		
175	5.0 - 9.0% of mass 174	5.4	7.13	1
176	95.0 - 101.0% of mass 174	75.3	100.30	1
177	5.0 - 9.0% of mass 176	5.5	7.26	2

1-Value is % mass 174 2-Value is % mass 176

This check applies to the following samples, LCS, MS, MSD and standards:

Client Sample ID	Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed
Initial Calibration	WG306317-6	W0098.D	09/20/21	07:56
Initial Calibration	WG306317-5	W0099.D	09/20/21	08:26
Initial Calibration	WG306317-7	W0100.D	09/20/21	08:57
Initial Calibration	WG306317-4	W0101.D	09/20/21	09:27
Initial Calibration	WG306317-3	W0102.D	09/20/21	09:58
Initial Calibration	WG306317-2	W0104.D	09/20/21	10:59
Initial Calibration	WG306317-1	W0105.D	09/20/21	11:30
Independent Source	WG306317-9	W0106A.D	09/20/21	12:15

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://katahdinlab.com
sales@katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Form 5
Volatile Organic Instrument Performance Check

Lab Name : Katahdin Analytical Services
Project : Watervliet Arsenal LTM
Lab File ID : WB638A.D
Instrument ID : GCMS-W

SDG : SO6313
Date Analyzed : 21-SEP-21
Time Analyzed : 06:45
Heated Purge : No

m/e	Ion Abundance Criteria	% Relative Abundance		
50	15.0 - 40.0% of mass 95	22.1		
75	30.0 - 60.0% of mass 95	54.2		
95	Base Peak, 100% relative abundance	100		
96	5.0 - 9.0% of mass 95	6.2		
173	Less than 2.0% of mass 174	0.0	0.0	1
174	Greater than 50.0% of mass 95	78.1		
175	5.0 - 9.0% of mass 174	6.3	8.06	1
176	95.0 - 101.0% of mass 174	76.8	98.24	1
177	5.0 - 9.0% of mass 176	5.3	6.97	2

1-Value is % mass 174 2-Value is % mass 176

This check applies to the following samples, LCS, MS, MSD and standards:

Client Sample ID	Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed
Continuing Calibrati	WG306383-4	W0123.D	09/21/21	07:08
Laboratory Control S	WG306383-1	W0124.D	09/21/21	07:49
Method Blank	WG306383-2	W0126.D	09/21/21	09:19
TRIP BLANK	SO6313-29	W0127.D	09/21/21	09:49
WVA-MW-86R-3(20210915)	SO6313-9DL	W0130.D	09/21/21	11:21
WVA-SA-STS-5(20210914)	SO6313-1	W0131.D	09/21/21	11:52
WVA-SA-STS-3(20210914)	SO6313-2	W0132.D	09/21/21	12:23
94EM-MW-19(20210915)	SO6313-3	W0133.D	09/21/21	12:53
94EM-MW-21(20210915)	SO6313-5	W0134.D	09/21/21	13:24
94EM-MW-20(20210915)	SO6313-6	W0135.D	09/21/21	13:54
WVA-MW-86R-1(20210915)	SO6313-7	W0136.D	09/21/21	14:25
WVA-MW-85R-1(20210915)	SO6313-10	W0137.D	09/21/21	14:55
92EM-SP-8(20210916)	SO6313-18	W0138.D	09/21/21	15:26
WVA-SA-STS-6(20210916)	SO6313-20	W0139.D	09/21/21	15:56
WVA-SA-SNS-6(20210916)	SO6313-21	W0140.D	09/21/21	16:27
WVA-MW-86R-2(20210915)	SO6313-8DL2	W0141.D	09/21/21	16:58
WVA-MW-86R-3(20210915)	SO6313-9DL2	W0142.D	09/21/21	17:28

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://katahdinlab.com
sales@katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Form 5
Volatile Organic Instrument Performance Check

Lab Name : Katahdin Analytical Services
Project : Watervliet Arsenal LTM
Lab File ID : WB639A.D
Instrument ID : GCMS-W

SDG : SO6313
Date Analyzed : 22-SEP-21
Time Analyzed : 06:19
Heated Purge : No

m/e	Ion Abundance Criteria	% Relative Abundance		
50	15.0 - 40.0% of mass 95	23.9		
75	30.0 - 60.0% of mass 95	54.4		
95	Base Peak, 100% relative abundance	100		
96	5.0 - 9.0% of mass 95	6.8		
173	Less than 2.0% of mass 174	0.5	0.72	1
174	Greater than 50.0% of mass 95	76.0		
175	5.0 - 9.0% of mass 174	5.5	7.21	1
176	95.0 - 101.0% of mass 174	75.7	99.57	1
177	5.0 - 9.0% of mass 176	4.7	6.18	2

1-Value is % mass 174 2-Value is % mass 176

This check applies to the following samples, LCS, MS, MSD and standards:

Client Sample ID	Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed
Continuing Calibrati	WG306464-4	W0145.D	09/22/21	06:46
Laboratory Control S	WG306464-1	W0146.D	09/22/21	07:29
Method Blank	WG306464-2	W0149.D	09/22/21	09:24
WVA-MW-86R-2(20210915)	SO6313-8DL3	W0150.D	09/22/21	09:55
WVA-MW-84R-2(20210915)	SO6313-15DL	W0151.D	09/22/21	10:25
WVA-MW-85R-3(20210915)	SO6313-13DL	W0152.D	09/22/21	10:56
WVA-MW-83-1(20210916)	SO6313-25DL	W0153.D	09/22/21	11:27
WVA-MW-85R-2(20210915)	SO6313-11DL2	W0162.D	09/22/21	16:02
WVA-MW-85R-3(20210915)	SO6313-13DL2	W0164.D	09/22/21	17:04
WVA-MW-83-1(20210916)	SO6313-25DL2	W0165.D	09/22/21	17:35

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://katahdinlab.com
sales@katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Form 5
Volatile Organic Instrument Performance Check

Lab Name : Katahdin Analytical Services
Project : Watervliet Arsenal LTM
Lab File ID : WB640A.D
Instrument ID : GCMS-W

SDG : SO6313
Date Analyzed : 23-SEP-21
Time Analyzed : 06:24
Heated Purge : No

m/e	Ion Abundance Criteria	% Relative Abundance		
50	15.0 - 40.0% of mass 95	23.4		
75	30.0 - 60.0% of mass 95	55.5		
95	Base Peak, 100% relative abundance	100		
96	5.0 - 9.0% of mass 95	5.7		
173	Less than 2.0% of mass 174	0.2	0.26	1
174	Greater than 50.0% of mass 95	72.9		
175	5.0 - 9.0% of mass 174	5.3	7.25	1
176	95.0 - 101.0% of mass 174	72.0	98.74	1
177	5.0 - 9.0% of mass 176	4.9	6.76	2

1-Value is % mass 174 2-Value is % mass 176

This check applies to the following samples, LCS, MS, MSD and standards:

Client Sample ID	Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed
Continuing Calibrati	WG306545-4	W0182.D	09/23/21	07:28
Laboratory Control S	WG306545-1	W0183.D	09/23/21	08:11
Method Blank	WG306545-2	W0185.D	09/23/21	09:22
WVA-MW-85R-2(20210915)	SO6313-11DL3	W0189.D	09/23/21	11:24
WVA-MW-83-3(20210916)	SO6313-27DL	W0190.D	09/23/21	11:55
86EM-SP-6(20210916)	SO6313-16	W0192.D	09/23/21	12:56
WVA-MW-82R-2(20210916)	SO6313-23	W0193.D	09/23/21	13:27
WVA-MW-82R-3(20210916)	SO6313-24	W0194.D	09/23/21	13:57
WVA-MW-85R-2(20210915)	SO6313-11DL4	W0195.D	09/23/21	14:28
WVA-MW-83-3(20210916)	SO6313-27	W0198.D	09/23/21	16:00

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://katahdinlab.com
sales@katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Form 5
Volatile Organic Instrument Performance Check

Lab Name : Katahdin Analytical Services
Project : Watervliet Arsenal LTM
Lab File ID : WB641A.D
Instrument ID : GCMS-W

SDG : SO6313
Date Analyzed : 24-SEP-21
Time Analyzed : 06:23
Heated Purge : No

m/e	Ion Abundance Criteria	% Relative Abundance		
50	15.0 - 40.0% of mass 95	25.1		
75	30.0 - 60.0% of mass 95	55.1		
95	Base Peak, 100% relative abundance	100		
96	5.0 - 9.0% of mass 95	8.4		
173	Less than 2.0% of mass 174	0.3	0.42	1
174	Greater than 50.0% of mass 95	74.1		
175	5.0 - 9.0% of mass 174	5.5	7.44	1
176	95.0 - 101.0% of mass 174	72.7	98.07	1
177	5.0 - 9.0% of mass 176	4.4	6.04	2

1-Value is % mass 174 2-Value is % mass 176

This check applies to the following samples, LCS, MS, MSD and standards:

Client Sample ID	Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed
Initial Calibration	WG306608-6	W0208.D	09/24/21	08:01
Initial Calibration	WG306608-5	W0209.D	09/24/21	08:31
Initial Calibration	WG306608-7	W0210.D	09/24/21	09:02
Initial Calibration	WG306608-4	W0211.D	09/24/21	09:33
Initial Calibration	WG306608-3	W0212.D	09/24/21	10:03
Initial Calibration	WG306608-8	W0213.D	09/24/21	10:34
Initial Calibration	WG306608-2	W0214.D	09/24/21	11:05
Initial Calibration	WG306608-1	W0215.D	09/24/21	11:36
Laboratory Control S	WG306608-10	W0216.D	09/24/21	12:40
Independent Source	WG306608-9	W0217A.D	09/24/21	13:34
Method Blank	WG306608-11	W0219.D	09/24/21	15:08
WVA-MW-84R-3(20210916)	SO6313-28DL	W0220.D	09/24/21	15:39
WVA-MW-83-2(20210916)	SO6313-26DL	W0221.D	09/24/21	16:09
WVA-MW-84R-1(20210915)	SO6313-14DL	W0222.D	09/24/21	16:40
WVA-MW-82R-1(20210916)	SO6313-22	W0223.D	09/24/21	17:11
WVA-MW-84R-3(20210916)	SO6313-28DL2	W0224.D	09/24/21	17:42
WVA-MW-83-2(20210916)	SO6313-26DL2	W0225.D	09/24/21	18:12
WVA-MW-84R-1(20210915)	SO6313-14DL2	W0226.D	09/24/21	18:43

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://katahdinlab.com
sales@katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Form 5
Volatile Organic Instrument Performance Check

Lab Name : Katahdin Analytical Services
Project : Watervliet Arsenal LTM
Lab File ID : WB644A.D
Instrument ID : GCMS-W

SDG : SO6313
Date Analyzed : 28-SEP-21
Time Analyzed : 10:06
Heated Purge : No

m/e	Ion Abundance Criteria	% Relative Abundance		
50	15.0 - 40.0% of mass 95	22.3		
75	30.0 - 60.0% of mass 95	53.6		
95	Base Peak, 100% relative abundance	100		
96	5.0 - 9.0% of mass 95	7.1		
173	Less than 2.0% of mass 174	0.0	0.0	1
174	Greater than 50.0% of mass 95	74.9		
175	5.0 - 9.0% of mass 174	4.6	6.12	1
176	95.0 - 101.0% of mass 174	73.9	98.67	1
177	5.0 - 9.0% of mass 176	5.0	6.78	2

1-Value is % mass 174 2-Value is % mass 176

This check applies to the following samples, LCS, MS, MSD and standards:

Client Sample ID	Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed
Initial Calibration	WG306817-4	W0264.D	09/28/21	10:29
Initial Calibration	WG306817-3	W0265.D	09/28/21	11:07
Initial Calibration	WG306817-8	W0266.D	09/28/21	11:37
Initial Calibration	WG306817-2	W0267.D	09/28/21	12:08
Initial Calibration	WG306817-1	W0268.D	09/28/21	12:38
Initial Calibration	WG306817-6	W0269.D	09/28/21	13:08
Initial Calibration	WG306817-5	W0270.D	09/28/21	13:38
Initial Calibration	WG306817-7	W0271.D	09/28/21	14:09
Laboratory Control S	WG306817-10	W0272.D	09/28/21	14:39
Independent Source	WG306817-9	W0273A.D	09/28/21	15:09
Method Blank	WG306817-11	W0275.D	09/28/21	16:10
DUP-02-(20210915)	SO6313-12DL	W0279.D	09/28/21	18:11
DUP-01(20210915)	SO6313-4	W0281.D	09/28/21	19:12
83DM-SP-3(20210916)	SO6313-17	W0282.D	09/28/21	19:42
DUP-02-(20210915)	SO6313-12DL2	W0285.D	09/28/21	21:13

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://katahdinlab.com
sales@katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Form 8
Internal Standard Area and RT Summary

Lab Name : Katahdin Analytical Services
Project : Watervliet Arsenal LTM
Lab ID : WG306383-4
Lab File ID : W0123.D

SDG: SO6313
Analytical Date: 09/21/21 07:08
Instrument ID: GCMS-W

		PENTAFLUOROBENZENE			1,4-DIFLUOROBENZENE			CHLOROBENZENE-D5		
		Area	#	RT	#	Area	#	RT	#	Area	#	RT	#
	Std .	640403		5.53		1065912		6.32		1031939		10.19	
	Upper Limit	1280806		5.70		2131824		6.48		2063878		10.35	
	Lower Limit	320201.5		5.36		532956		6.15		515969.5		10.02	
Client Sample ID	Lab Sample ID												
Laboratory Control S	WG306383-1	641343		5.53		1053691		6.31		1023793		10.18	
Method Blank	WG306383-2	588396		5.52		987187		6.32		959338		10.18	
TRIP BLANK	SO6313-29	569763		5.52		956773		6.31		935208		10.18	
WVA-MW-86R-3(2021	SO6313-9DL	555506		5.52		952224		6.31		923187		10.18	
WVA-SA-STS-5(2021(	SO6313-1	537411		5.52		925969		6.31		909350		10.18	
WVA-SA-STS-3(2021(	SO6313-2	535515		5.52		917874		6.31		895274		10.18	
94EM-MW-19(202109	SO6313-3	529389		5.52		896306		6.31		888027		10.18	
94EM-MW-21(202109	SO6313-5	523301		5.52		894094		6.31		885826		10.18	
94EM-MW-20(202109	SO6313-6	512708		5.52		892913		6.31		856447		10.18	
WVA-MW-86R-1(2021	SO6313-7	519801		5.52		887558		6.31		870289		10.18	
WVA-MW-85R-1(2021	SO6313-10	518972		5.52		886826		6.31		862891		10.18	
92EM-SP-8(20210916)	SO6313-18	508964		5.52		882674		6.31		860567		10.18	
WVA-SA-STS-6(2021(	SO6313-20	509586		5.53		878635		6.31		858291		10.18	
WVA-SA-SNS-6(2021(	SO6313-21	487820		5.52		844668		6.31		822598		10.18	
WVA-MW-86R-2(2021	SO6313-8DL2	511017		5.52		872553		6.31		852844		10.18	
WVA-MW-86R-3(2021	SO6313-9DL2	495627		5.53		881859		6.32		846332		10.18	

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area
RT Upper Limit = + 10 seconds of internal standard RT
RT Lower Limit = - 10 seconds of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://katahdinlab.com
sales@katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Form 8
Internal Standard Area and RT Summary

Lab Name : Katahdin Analytical Services
Project : Watervliet Arsenal LTM
Lab ID : WG306383-4
Lab File ID : W0123.D

SDG: SO6313
Analytical Date: 09/21/21 07:08
Instrument ID: GCMS-W

		1,4-DICHLOROBENZENE-D4			
		Area	#	RT	#
	Std .	582820		12.95	
	Upper Limit	1165640		13.11	
	Lower Limit	291410		12.78	
Client Sample ID	Lab Sample ID				
Laboratory Control S	WG306383-1	575651		12.95	
Method Blank	WG306383-2	487275		12.95	
TRIP BLANK	SO6313-29	460326		12.94	
WVA-MW-86R-3(2021	SO6313-9DL	464573		12.95	
WVA-SA-STS-5(2021(	SO6313-1	458612		12.95	
WVA-SA-STS-3(2021(	SO6313-2	452003		12.95	
94EM-MW-19(202109	SO6313-3	449504		12.95	
94EM-MW-21(202109	SO6313-5	442812		12.95	
94EM-MW-20(202109	SO6313-6	438404		12.94	
WVA-MW-86R-1(2021	SO6313-7	440852		12.95	
WVA-MW-85R-1(2021	SO6313-10	445020		12.95	
92EM-SP-8(20210916)	SO6313-18	436787		12.94	
WVA-SA-STS-6(2021(	SO6313-20	436464		12.95	
WVA-SA-SNS-6(2021(	SO6313-21	424297		12.95	
WVA-MW-86R-2(2021	SO6313-8DL2	437549		12.95	
WVA-MW-86R-3(2021	SO6313-9DL2	433404		12.95	

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area
RT Upper Limit = + 10 seconds of internal standard RT
RT Lower Limit = - 10 seconds of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://katahdinlab.com
sales@katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Form 8
Internal Standard Area and RT Summary

Lab Name : Katahdin Analytical Services
Project : Watervliet Arsenal LTM
Lab ID : WG306464-4
Lab File ID : W0145.D

SDG: SO6313
Analytical Date: 09/22/21 06:46
Instrument ID: GCMS-W

		PENTAFLUOROBENZENE		1,4-DIFLUOROBENZENE		CHLOROBENZENE-D5	
		Area #	RT #	Area #	RT #	Area #	RT #
	Std .	560662	5.53	936763	6.31	932863	10.18
	Upper Limit	1121324	5.69	1873526	6.48	1865726	10.35
	Lower Limit	280331	5.36	468381.5	6.15	466431.5	10.02
Client Sample ID	Lab Sample ID						
Laboratory Control S	WG306464-1	586181	5.52	963264	6.31	945045	10.18
Method Blank	WG306464-2	536878	5.53	909856	6.31	882175	10.18
WVA-MW-86R-2(2021	SO6313-8DL3	533454	5.53	892686	6.31	875331	10.18
WVA-MW-84R-2(2021	SO6313-15DL	507556	5.52	862100	6.31	846923	10.18
WVA-MW-85R-3(2021	SO6313-13DL	515246	5.52	887928	6.31	860419	10.18
WVA-MW-83-1(20210	SO6313-25DL	509993	5.52	889522	6.31	860865	10.18
WVA-MW-85R-3(2021	SO6313-13DL2	476031	5.53	849669	6.32	797107	10.18
WVA-MW-83-1(20210	SO6313-25DL2	477315	5.53	845109	6.32	807615	10.18

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area
RT Upper Limit = + 10 seconds of internal standard RT
RT Lower Limit = - 10 seconds of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://katahdinlab.com
sales@katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Form 8
Internal Standard Area and RT Summary

Lab Name : Katahdin Analytical Services
Project : Watervliet Arsenal LTM
Lab ID : WG306464-4
Lab File ID : W0145.D

SDG: SO6313
Analytical Date: 09/22/21 06:46
Instrument ID: GCMS-W

		1,4-DICHLOROBENZENE-D4			
		Area	#	RT	#
	Std .	532200		12.95	
	Upper Limit	1064400		13.11	
	Lower Limit	266100		12.78	
Client Sample ID	Lab Sample ID				
Laboratory Control S	WG306464-1	530505		12.95	
Method Blank	WG306464-2	451925		12.95	
WVA-MW-86R-2(2021	SO6313-8DL3	445651		12.95	
WVA-MW-84R-2(2021	SO6313-15DL	433281		12.94	
WVA-MW-85R-3(2021	SO6313-13DL	443104		12.94	
WVA-MW-83-1(20210	SO6313-25DL	437898		12.94	
WVA-MW-85R-3(2021	SO6313-13DL2	409046		12.95	
WVA-MW-83-1(20210	SO6313-25DL2	418673		12.95	

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area
RT Upper Limit = + 10 seconds of internal standard RT
RT Lower Limit = - 10 seconds of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://katahdinlab.com
sales@katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Form 8
Internal Standard Area and RT Summary

Lab Name : Katahdin Analytical Services
Project : Watervliet Arsenal LTM
Lab ID : WG306545-4
Lab File ID : W0182.D

SDG: SO6313
Analytical Date: 09/23/21 07:28
Instrument ID: GCMS-W

		PENTAFLUOROBENZENE		1,4-DIFLUOROBENZENE		CHLOROBENZENE-D5	
		Area #	RT #	Area #	RT #	Area #	RT #
	Std .	566077	5.53	925491	6.31	916859	10.18
	Upper Limit	1132154	5.69	1850982	6.48	1833718	10.35
	Lower Limit	283038.5	5.36	462745.5	6.14	458429.5	10.01
Client Sample ID	Lab Sample ID						
Laboratory Control S	WG306545-1	577137	5.52	954943	6.31	921168	10.18
Method Blank	WG306545-2	504526	5.52	846387	6.31	830491	10.18
WVA-MW-85R-2(2021	SO6313-11DL3	474043	5.52	817351	6.31	801632	10.18
WVA-MW-83-3(20210	SO6313-27DL	482626	5.52	832829	6.31	819325	10.18
86EM-SP-6(20210916)	SO6313-16	457028	5.52	793296	6.31	780595	10.18
WVA-MW-82R-2(2021	SO6313-23	462930	5.53	799888	6.31	782295	10.18
WVA-MW-82R-3(2021	SO6313-24	463366	5.52	793320	6.31	790120	10.18
WVA-MW-85R-2(2021	SO6313-11DL4	467921	5.52	828991	6.31	799302	10.18
WVA-MW-83-3(20210	SO6313-27	459014	5.52	794590	6.31	779074	10.18

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area
RT Upper Limit = + 10 seconds of internal standard RT
RT Lower Limit = - 10 seconds of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://katahdinlab.com
sales@katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Form 8
Internal Standard Area and RT Summary

Lab Name : Katahdin Analytical Services
Project : Watervliet Arsenal LTM
Lab ID : WG306545-4
Lab File ID : W0182.D

SDG: SO6313
Analytical Date: 09/23/21 07:28
Instrument ID: GCMS-W

		1,4-DICHLOROBENZENE-D4			
		Area	#	RT	#
	Std .	521784		12.95	
	Upper Limit	1043568		13.11	
	Lower Limit	260892		12.78	
Client Sample ID	Lab Sample ID				
Laboratory Control S	WG306545-1	521386		12.95	
Method Blank	WG306545-2	420958		12.94	
WVA-MW-85R-2(2021	SO6313-11DL3	398367		12.94	
WVA-MW-83-3(20210	SO6313-27DL	411930		12.95	
86EM-SP-6(20210916)	SO6313-16	400229		12.95	
WVA-MW-82R-2(2021	SO6313-23	397422		12.95	
WVA-MW-82R-3(2021	SO6313-24	400098		12.94	
WVA-MW-85R-2(2021	SO6313-11DL4	402576		12.95	
WVA-MW-83-3(20210	SO6313-27	387681		12.95	

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area
RT Upper Limit = + 10 seconds of internal standard RT
RT Lower Limit = - 10 seconds of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://katahdinlab.com
sales@katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Form 8
Internal Standard Area and RT Summary

Lab Name : Katahdin Analytical Services
Project : Watervliet Arsenal LTM
Lab ID : WG306608-4
Lab File ID : W0211.D

SDG: SO6313
Analytical Date: 09/24/21 09:33
Instrument ID: GCMS-W

		PENTAFLUOROBENZENE			1,4-DIFLUOROBENZENE			CHLOROBENZENE-D5		
		Area	#	RT	#	Area	#	RT	#	Area	#	RT	#
	Std .	575503		5.52		945716		6.31		935138		10.18	
	Upper Limit	1151006		5.69		1891432		6.48		1870276		10.35	
	Lower Limit	287751.5		5.35		472858		6.15		467569		10.02	
Client Sample ID	Lab Sample ID												
Laboratory Control S	WG306608-10	549673		5.53		914040		6.31		910040		10.18	
Method Blank	WG306608-11	503997		5.51		841520		6.31		833089		10.18	
WVA-MW-84R-3(2021	SO6313-28DL	483321		5.52		821726		6.31		806622		10.18	
WVA-MW-83-2(20210	SO6313-26DL	483296		5.52		830708		6.31		810110		10.18	
WVA-MW-84R-1(2021	SO6313-14DL	468142		5.52		802679		6.31		793804		10.18	
WVA-MW-82R-1(2021	SO6313-22	454292		5.53		785804		6.31		779938		10.18	
WVA-MW-84R-3(2021	SO6313-28DL2	447812		5.53		785754		6.32		761147		10.19	
WVA-MW-83-2(20210	SO6313-26DL2	450864		5.52		805390		6.31		767959		10.18	
WVA-MW-84R-1(2021	SO6313-14DL2	446998		5.53		789267		6.32		766078		10.18	

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area
RT Upper Limit = + 10 seconds of internal standard RT
RT Lower Limit = - 10 seconds of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://katahdinlab.com
sales@katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Form 8
Internal Standard Area and RT Summary

Lab Name : Katahdin Analytical Services
Project : Watervliet Arsenal LTM
Lab ID : WG306608-4
Lab File ID : W0211.D

SDG: SO6313
Analytical Date: 09/24/21 09:33
Instrument ID: GCMS-W

		1,4-DICHLOROBENZENE-D4			
		Area	#	RT	#
	Std .	523681		12.94	
	Upper Limit	1047362		13.11	
	Lower Limit	261840.5		12.77	
Client Sample ID	Lab Sample ID				
Laboratory Control S	WG306608-10	519107		12.95	
Method Blank	WG306608-11	427901		12.95	
WVA-MW-84R-3(2021	SO6313-28DL	408681		12.95	
WVA-MW-83-2(20210	SO6313-26DL	412305		12.95	
WVA-MW-84R-1(2021	SO6313-14DL	404059		12.95	
WVA-MW-82R-1(2021	SO6313-22	400793		12.95	
WVA-MW-84R-3(2021	SO6313-28DL2	394251		12.95	
WVA-MW-83-2(20210	SO6313-26DL2	394485		12.95	
WVA-MW-84R-1(2021	SO6313-14DL2	395957		12.95	

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area
RT Upper Limit = + 10 seconds of internal standard RT
RT Lower Limit = - 10 seconds of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://katahdinlab.com
sales@katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Form 8
Internal Standard Area and RT Summary

Lab Name : Katahdin Analytical Services
Project : Watervliet Arsenal LTM
Lab ID : WG306817-4
Lab File ID : W0264.D

SDG: SO6313
Analytical Date: 09/28/21 10:29
Instrument ID: GCMS-W

		PENTAFLUOROBENZENE			1,4-DIFLUOROBENZENE			CHLOROBENZENE-D5		
		Area	#	RT	#	Area	#	RT	#	Area	#	RT	#
	Std .	553792		5.53		909938		6.32		911995		10.18	
	Upper Limit	1107584		5.70		1819876		6.48		1823990		10.35	
	Lower Limit	276896		5.36		454969		6.15		455997.5		10.02	
Client Sample ID	Lab Sample ID												
Laboratory Control S	WG306817-10	591057		5.52		981544		6.31		982879		10.18	
Method Blank	WG306817-11	526454		5.52		884723		6.31		884288		10.18	
DUP-02-(20210915)	SO6313-12DL	465840		5.53		800777		6.32		798196		10.19	
DUP-01(20210915)	SO6313-4	454803		5.53		778557		6.32		793042		10.19	
83DM-SP-3(20210916)	SO6313-17	436958		5.54		760322		6.32		760996		10.19	
DUP-02-(20210915)	SO6313-12DL2	437144		5.54		769988		6.32		765972		10.19	

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area
RT Upper Limit = + 10 seconds of internal standard RT
RT Lower Limit = - 10 seconds of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://katahdinlab.com
sales@katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Form 8
Internal Standard Area and RT Summary

Lab Name : Katahdin Analytical Services
Project : Watervliet Arsenal LTM
Lab ID : WG306817-4
Lab File ID : W0264.D

SDG: SO6313
Analytical Date: 09/28/21 10:29
Instrument ID: GCMS-W

		1,4-DICHLOROBENZENE-D4			
		Area	#	RT	#
	Std .	528823		12.95	
	Upper Limit	1057646		13.11	
	Lower Limit	264411.5		12.78	
Client Sample ID	Lab Sample ID				
Laboratory Control S	WG306817-10	566079		12.94	
Method Blank	WG306817-11	471039		12.95	
DUP-02-(20210915)	SO6313-12DL	427460		12.95	
DUP-01(20210915)	SO6313-4	423791		12.95	
83DM-SP-3(20210916)	SO6313-17	407527		12.95	
DUP-02-(20210915)	SO6313-12DL2	407662		12.95	

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area
RT Upper Limit = + 10 seconds of internal standard RT
RT Lower Limit = - 10 seconds of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://katahdinlab.com
sales@katahdinlab.com

Sample Data Section

KATAHDIN ANALYTICAL SERVICES - ORGANIC DATA QUALIFIERS

The sampled date indicated on the attached Report(s) of Analysis (ROA) is the date for which a grab sample was collected or the date for which a composite sample was completed. Beginning and start times for composite samples can be found on the Chain-of-Custody.

U Indicates the compound was analyzed for but not detected above the specified level. This level may be the Limit of Quantitation (LOQ)(previously called Practical Quantitation Level (PQL)), the Limit of Detection (LOD) or Method Detection Limit (MDL) as required by the client.

Note: All results reported as "U" MDL have a 50% rate for false negatives compared to those results reported as "U" PQL/LOQ or "U" LOD, where the rate of false negatives is <1%.

* Compound recovery or percent RPD (relative percent difference) was outside of quality control limits.

D Indicates the result was obtained from analysis of a diluted sample. Surrogate recoveries may not be calculable.

E Estimated value. This flag identifies compounds whose concentrations exceed the upper level of the calibration range of the instrument for that specific analysis.

J Estimated value. The analyte was detected in the sample at a concentration less than the laboratory Limit of Quantitation (LOQ)(previously called Practical Quantitation Limit (PQL)), but above the Method Detection Limit (MDL).

or

J Used for Pesticides, PCBs, Herbicides, Formaldehyde, Explosives and Method 504.1 analytes when there is a greater than 40% difference for detected concentrations between the two GC columns.

B Indicates the analyte was detected in the laboratory method blank analyzed concurrently with the sample.

C Indicates that the flagged compound did not meet DoD criteria in the corresponding daily calibration verification (CV).

L Indicates that the flagged compound did not meet DoD criteria in the corresponding Laboratory Control Sample (LCS) and/or Laboratory Control Sample Duplicate (LCSD) prepared and/or analyzed concurrently with the sample.

M Indicates that the flagged compound did not meet DoD criteria in the Matrix Spike and/or Matrix Spike Duplicate prepared and/or analyzed concurrently with the native sample.

N Presumptive evidence of a compound based on a mass spectral library search.

A Indicates that a tentatively identified compound is a suspected aldol-condensation product.

P Used for Pesticide/Aroclor analyte when there is a greater than 25% difference for detected concentrations between the two GC columns. (for CLP methods only).

Katahdin Analytical Services, Inc.

Manual Integration Codes For GC/MS, GC, HPLC and/or IC

M1	Peak splitting.
M2	Well defined peaks on the shoulders of the other peaks.
M3	There is additional area due to a coeluting interferant.
M4	There are negative spikes in the baseline.
M5	There are rising or falling baselines.
M6	The software has failed to detect a peak or misidentified a peak.
M7	Excessive peak tailing.
M8	Analysis such as GRO, DRO and TPH require a baseline hold.
M9	Peak was not completely integrated as in GC/MS.
M10	Primary ion was correctly integrated, but secondary or tertiary ion needed manual integration as in GC/MS.
M11	For GC analysis, when a sample is diluted by 1:10 or more, the surrogate is set to undetected and then the area under the surrogate is manually integrated.
M12	Manual integration saved in method due to TurboChrom floating point error.

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-1
Client ID: WVA-SA-STS-5(20210914)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0131.D

Sample Date: 14-SEP-21
Received Date: 18-SEP-21
Extract Date: 21-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306383

Analysis Date: 21-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	2.0	ug/L	1	2	2.0
Vinyl Chloride		4.2	ug/L	1	2	2.0
Bromomethane	U	2.0	ug/L	1	2	2.0
Chloroethane	U	2.0	ug/L	1	2	2.0
Trichlorofluoromethane	U	2.0	ug/L	1	2	2.0
1,1-Dichloroethene	U	1.0	ug/L	1	1	1.0
Carbon Disulfide	U	1.0	ug/L	1	1	1.0
Methylene Chloride	U	5.0	ug/L	1	5	5.0
trans-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
1,1-Dichloroethane	U	1.0	ug/L	1	1	1.0
cis-1,2-Dichloroethene		2.0	ug/L	1	1	1.0
Chloroform	U	1.0	ug/L	1	1	1.0
Carbon Tetrachloride	U	1.0	ug/L	1	1	1.0
1,1,1-Trichloroethane	U	1.0	ug/L	1	1	1.0
2-Butanone	U	5.0	ug/L	1	5	5.0
Benzene	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethane	U	1.0	ug/L	1	1	1.0
Trichloroethene	U	1.0	ug/L	1	1	1.0
1,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Bromodichloromethane	U	1.0	ug/L	1	1	1.0
cis-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
Toluene	U	1.0	ug/L	1	1	1.0
4-Methyl-2-Pentanone	U	5.0	ug/L	1	5	5.0
Tetrachloroethene	U	1.0	ug/L	1	1	1.0
trans-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
1,1,2-Trichloroethane	U	1.0	ug/L	1	1	1.0
Dibromochloromethane	U	1.0	ug/L	1	1	1.0
Chlorobenzene	U	1.0	ug/L	1	1	1.0
Ethylbenzene	U	1.0	ug/L	1	1	1.0
m+p-Xylenes	U	2.0	ug/L	1	2	2.0
o-Xylene	U	1.0	ug/L	1	1	1.0
Bromoform	U	1.0	ug/L	1	1	1.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
P-Bromofluorobenzene		99.6	%			
Toluene-d8		101.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-1
Client ID: WVA-SA-STS-5(20210914)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0131.D

Sample Date: 14-SEP-21
Received Date: 18-SEP-21
Extract Date: 21-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306383

Analysis Date: 21-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		113.	%			
Dibromofluoromethane		107.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Data File: \\target_server\gg\chem\gcms-w.i\W092121.b\W0131.D
Report Date: 12-Oct-2021 08:53

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-w.i\W092121.b\W0131.D
Lab Smp Id: SO6313-1 Client Smp ID: VA-SA-STS-5(2021091
Inj Date : 21-SEP-2021 11:52
Operator : ES Inst ID: gcms-w.i
Smp Info : SO6313-1
Misc Info : WG306383,WG306383-4
Comment : SW846 5030
Method : \\target_server\gg\chem\gcms-w.i\W092121.b\W8A05(08).m
Meth Date : 11-Oct-2021 12:27 gcms-w.i Quant Type: ISTD
Cal Date : 20-SEP-2021 11:30 Cal File: W0105.D
Als bottle: 9
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.12

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

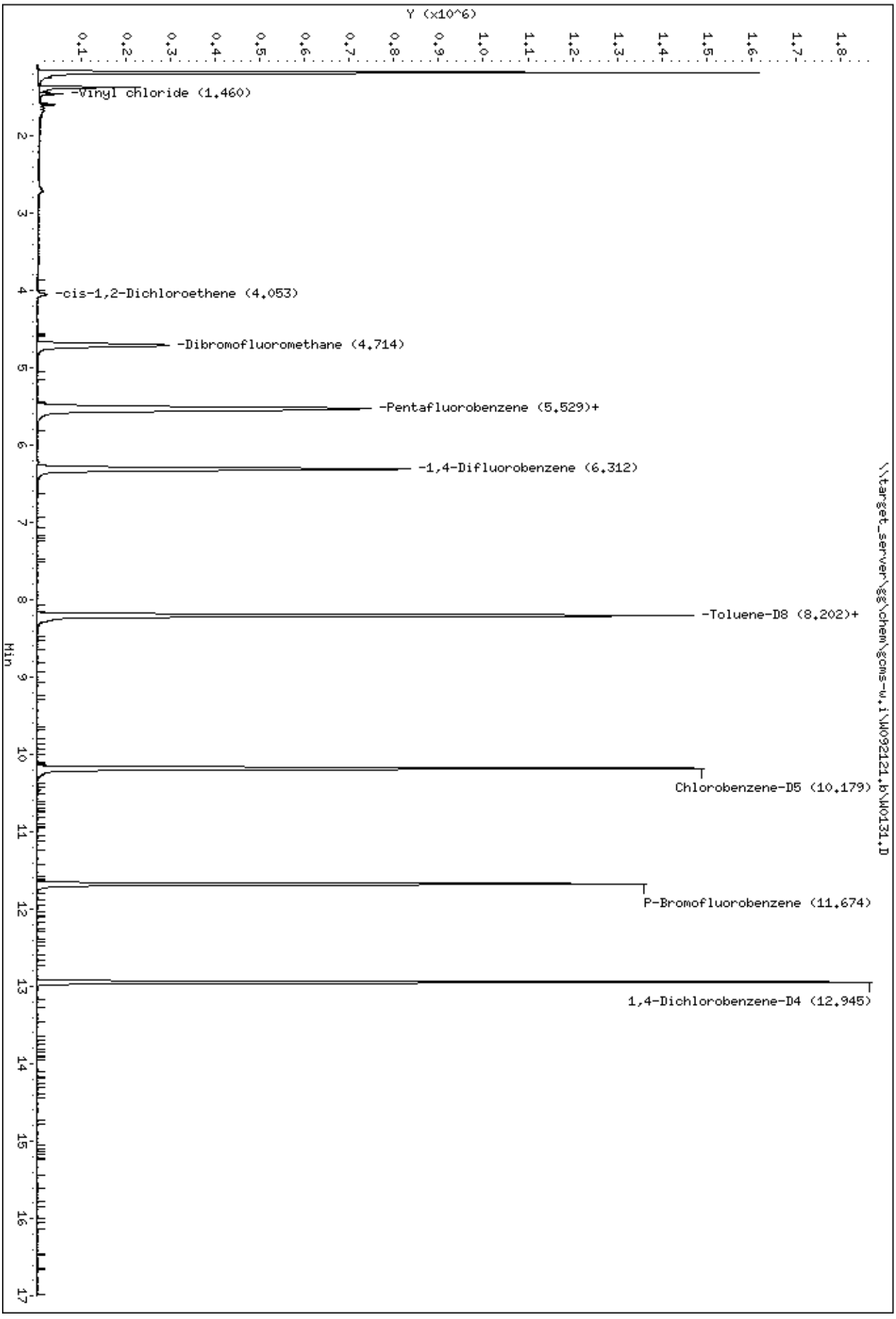
Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

10:00 am, Oct 12, 2021

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)	REVIEW CODE
	3 Vinyl chloride	62	1.460	1.460	(0.264)	25109	4.25184	4.2(M)	M10
	27 cis-1,2-Dichloroethene	96	4.053	4.056	(0.734)	12051	1.98820	2.0	
$	34 Dibromofluoromethane	113	4.711	4.714	(0.853)	287998	53.5064	53.5	
*	41 Pentafluorobenzene	168	5.522	5.526	(1.000)	537411	50.0000		
$	42 1,2-Dichloroethane-D4	65	5.548	5.549	(1.005)	396127	56.5016	56.5	
*	48 1,4-Difluorobenzene	114	6.312	6.315	(1.000)	925969	50.0000		
$	58 Toluene-D8	98	8.205	8.209	(1.300)	1118246	50.4962	50.5	
	59 Toluene	92	8.272	8.273	(1.311)	6135	0.41450	0.41(a)	
*	68 Chlorobenzene-D5	117	10.179	10.182	(1.000)	909350	50.0000		
$	77 P-Bromofluorobenzene	95	11.674	11.678	(1.849)	461484	49.8030	49.8	
*	93 1,4-Dichlorobenzene-D4	152	12.945	12.948	(1.000)	458612	50.0000		
M	97 1,2-Dichloroethylene (total)	96				12051	1.98820	2.0	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.


Y (x10^6)
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0
1.1
1.2
1.3
1.4
1.5
1.6
1.7
1.8
-Vinyl chloride (1.460)
-cis-1,2-Dichloroethene (4.053)
-Dibromofluoromethane (4.714)
-Pentafluorobenzene (5.529)+
-1,4-Difluorobenzene (6.312)
-Toluene-D8 (8.202)+
Chlorobenzene-D5 (10.179)
P-Bromofluorobenzene (11.674)
1,4-Dichlorobenzene-D4 (12.945)
Min
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
\\target_server\gg\chem\gcms-w.i\W092121.b\W0131.D
Data File: \\target_server\gg\chem\gcms-w.i\W092121.b\W0131.D
Date : 21-SEP-2021 11:52
Client ID: WA-SA-STS-5(2021091
Sample Info: S06313-1
Instrument: gcms-w.i

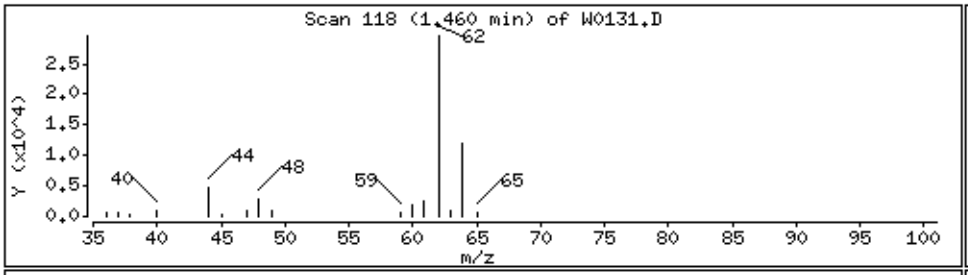
Data File: \\target_server\gg\chem\gcms-w.i\W092121.b\W0131.D

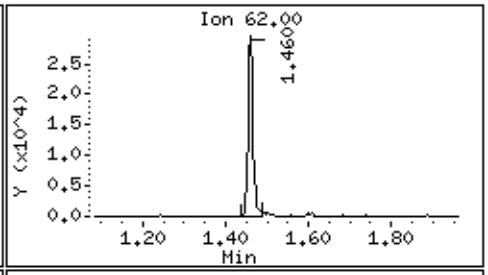
Date : 21-SEP-2021 11:52

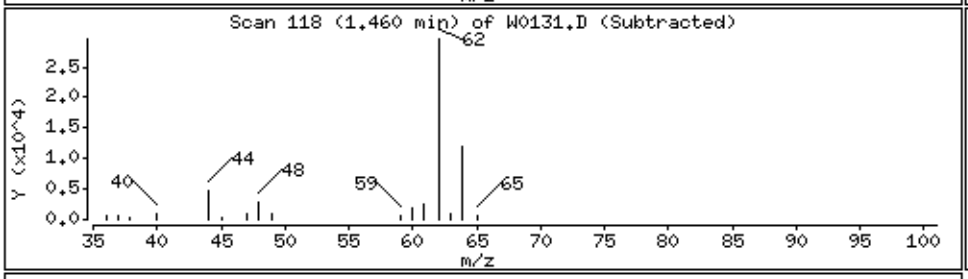
Client ID: VA-SA-STS-5(2021091 Instrument: gcms-w.i

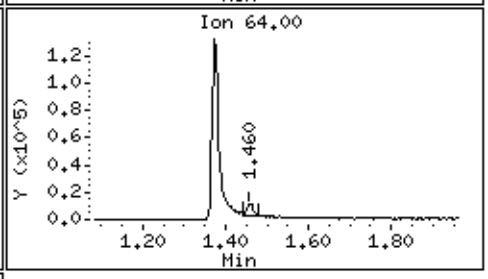
Sample Info: S06313-1

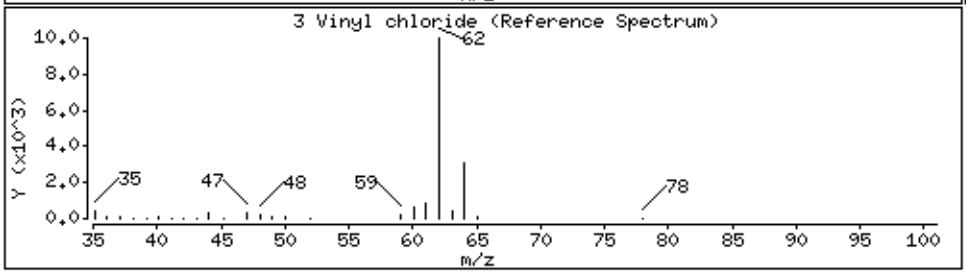
3 Vinyl chloride Concentration: 4.2 ug/l



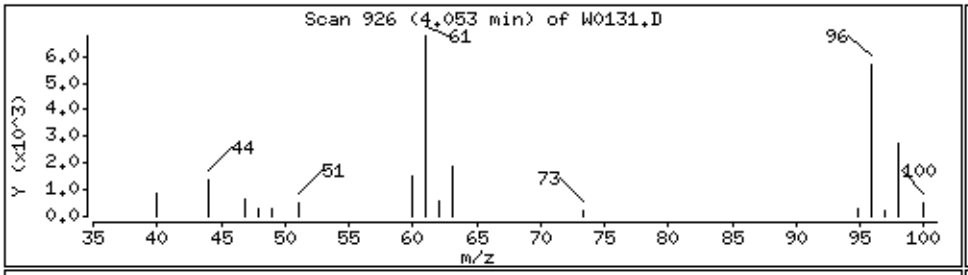


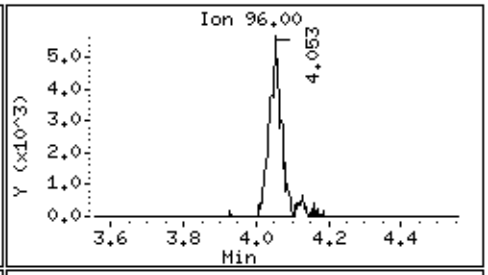


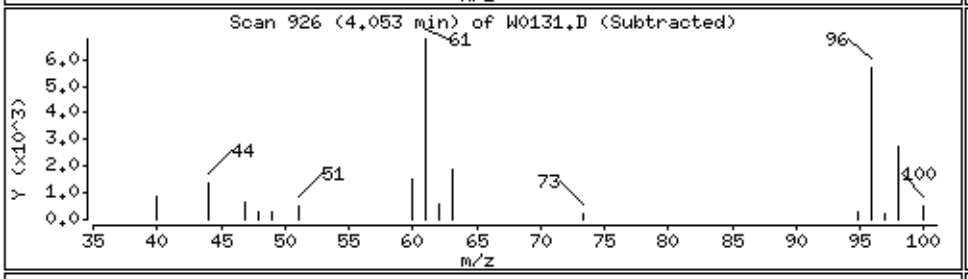


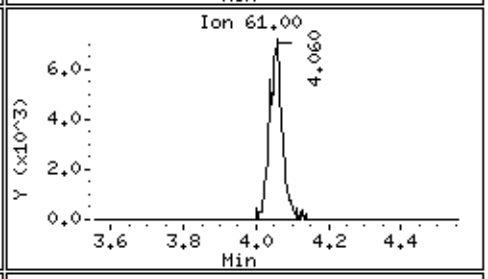


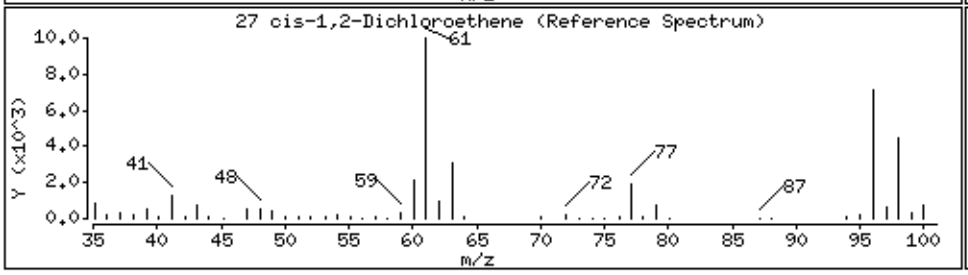
27 cis-1,2-Dichloroethene Concentration: 2.0 ug/l

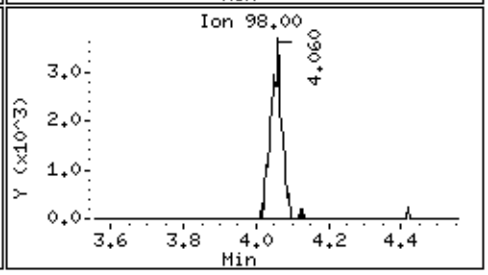












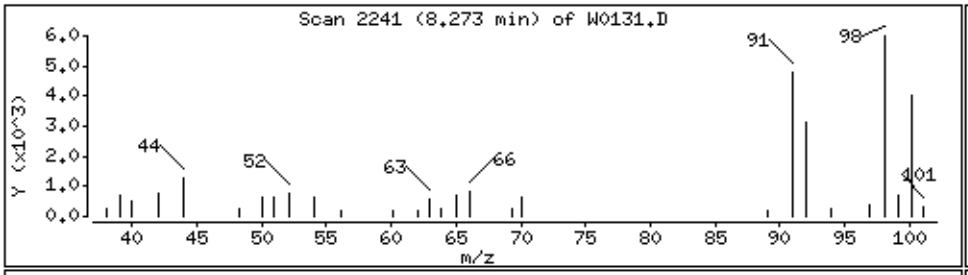
Data File: \\target_server\gg\chem\gcms-w.i\W092121.b\W0131.D

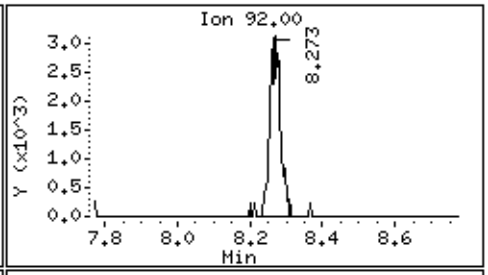
Date : 21-SEP-2021 11:52

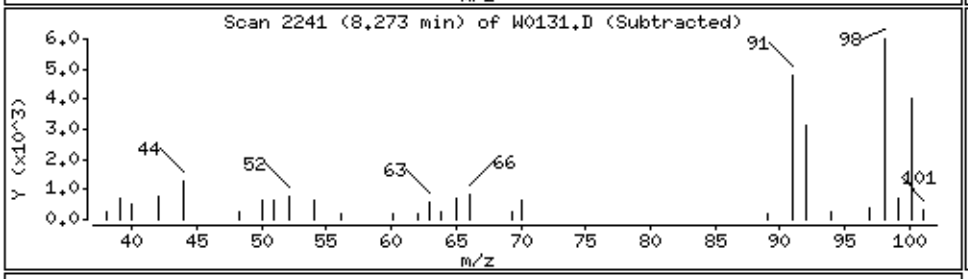
Client ID: VA-SA-STS-5(2021091 Instrument: gcms-w.i

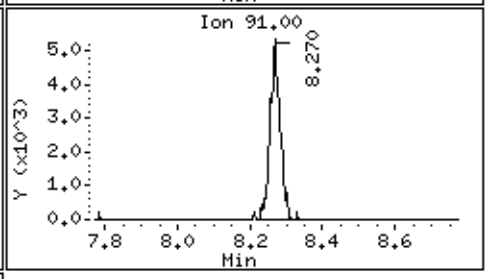
Sample Info: S06313-1

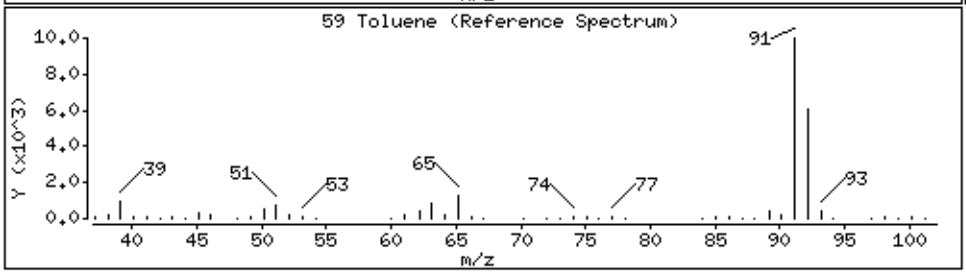
59 Toluene Concentration: 0.41 ug/l







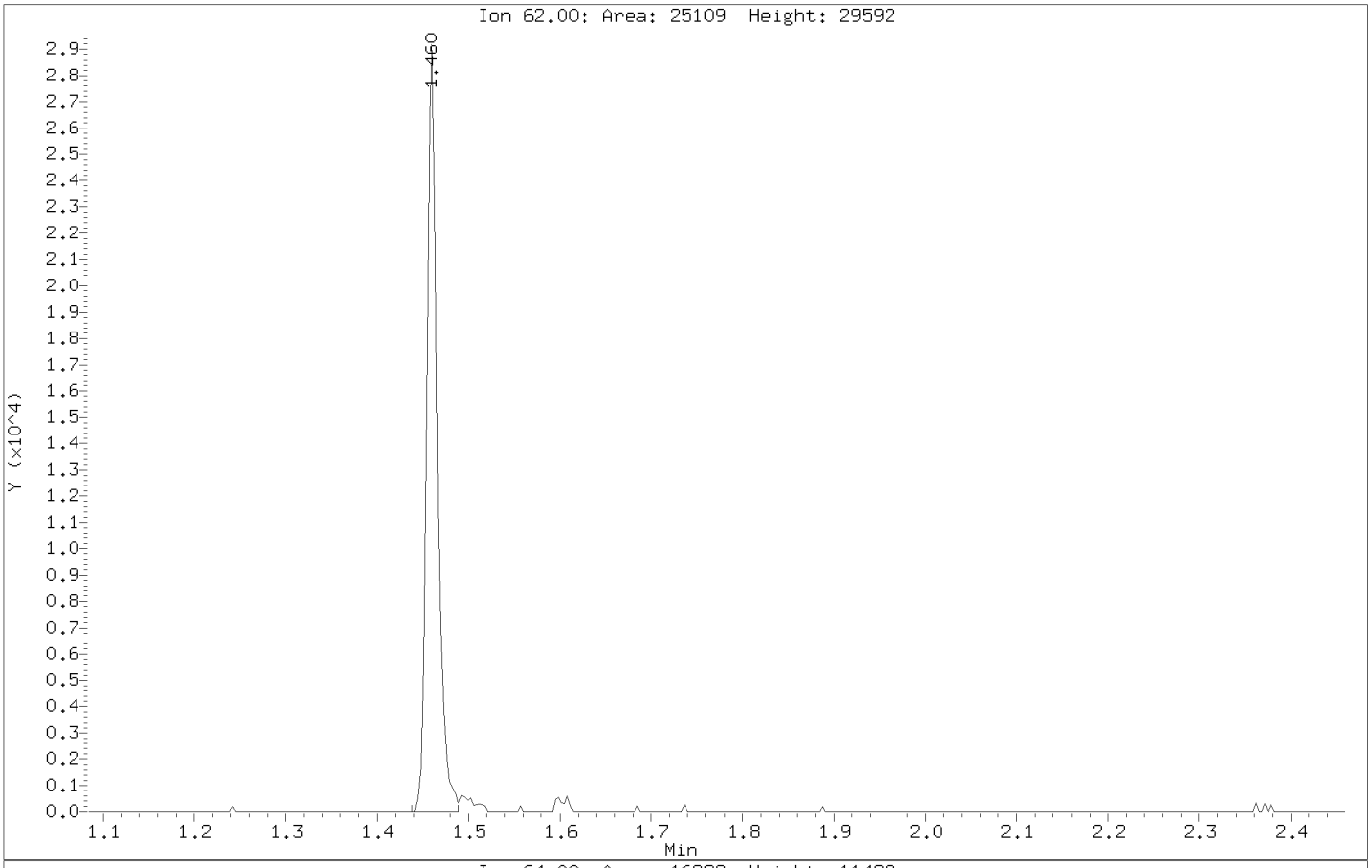


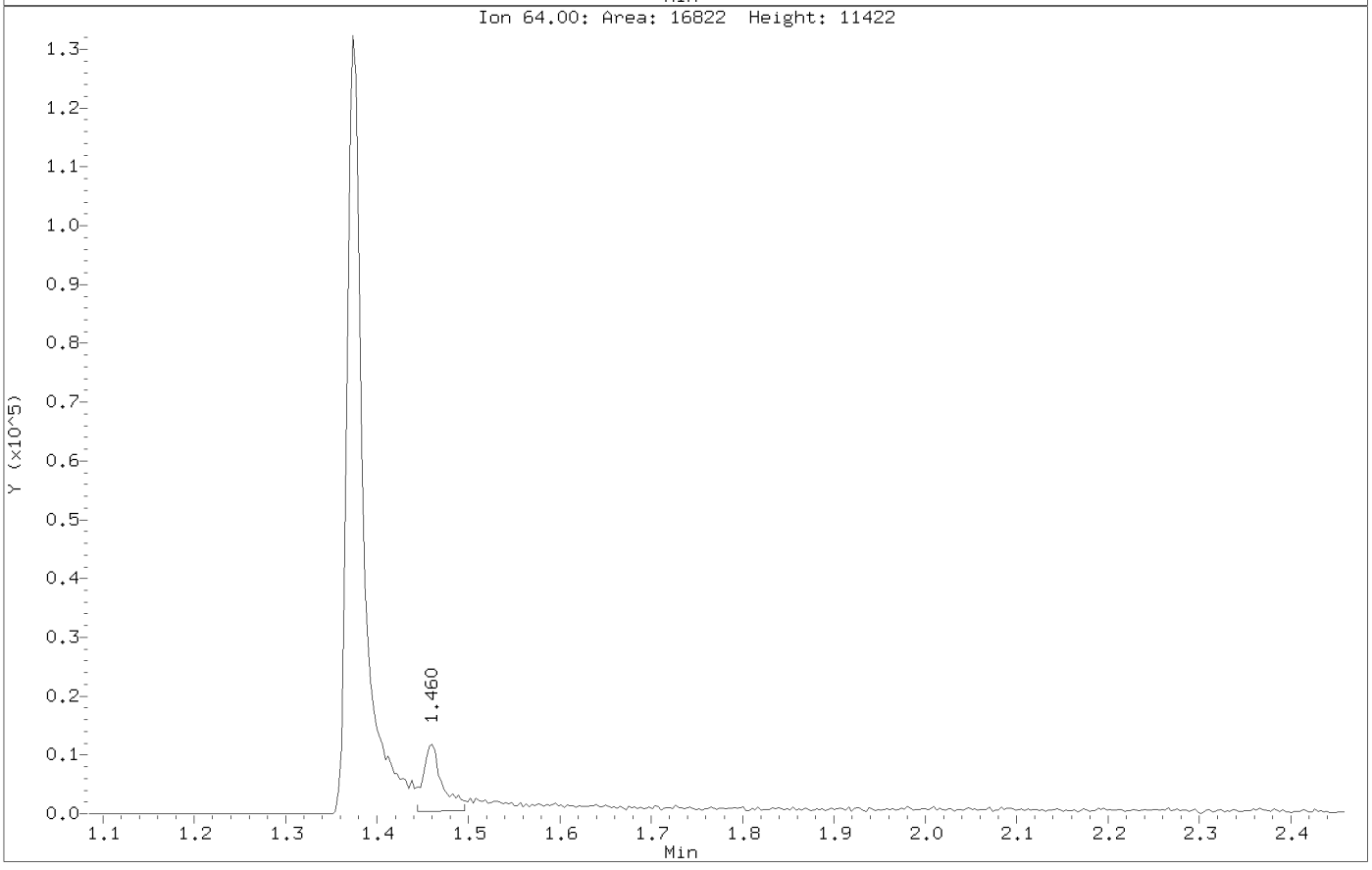


BEFORE MANUAL INTEGRATION

Data File: \\target_server\gg\chem\gcms-w.i\W092121.b\W0131.D
Injection Date: 21-SEP-2021 11:52
Instrument: gcms-w.i
Client Sample ID: VA-SA-STS-5(2021091

Compound: Vinyl chloride
CAS Number: 75-01-4

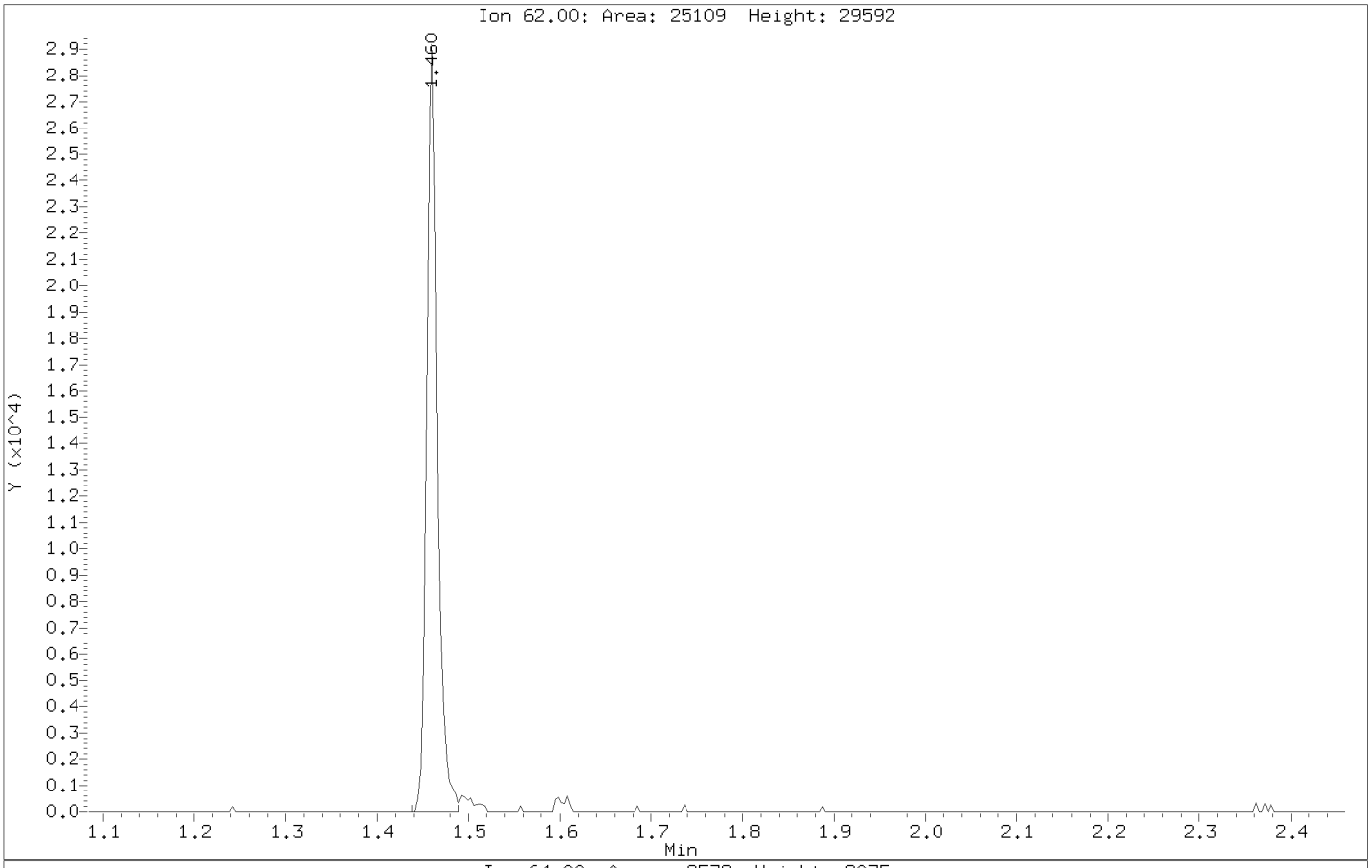


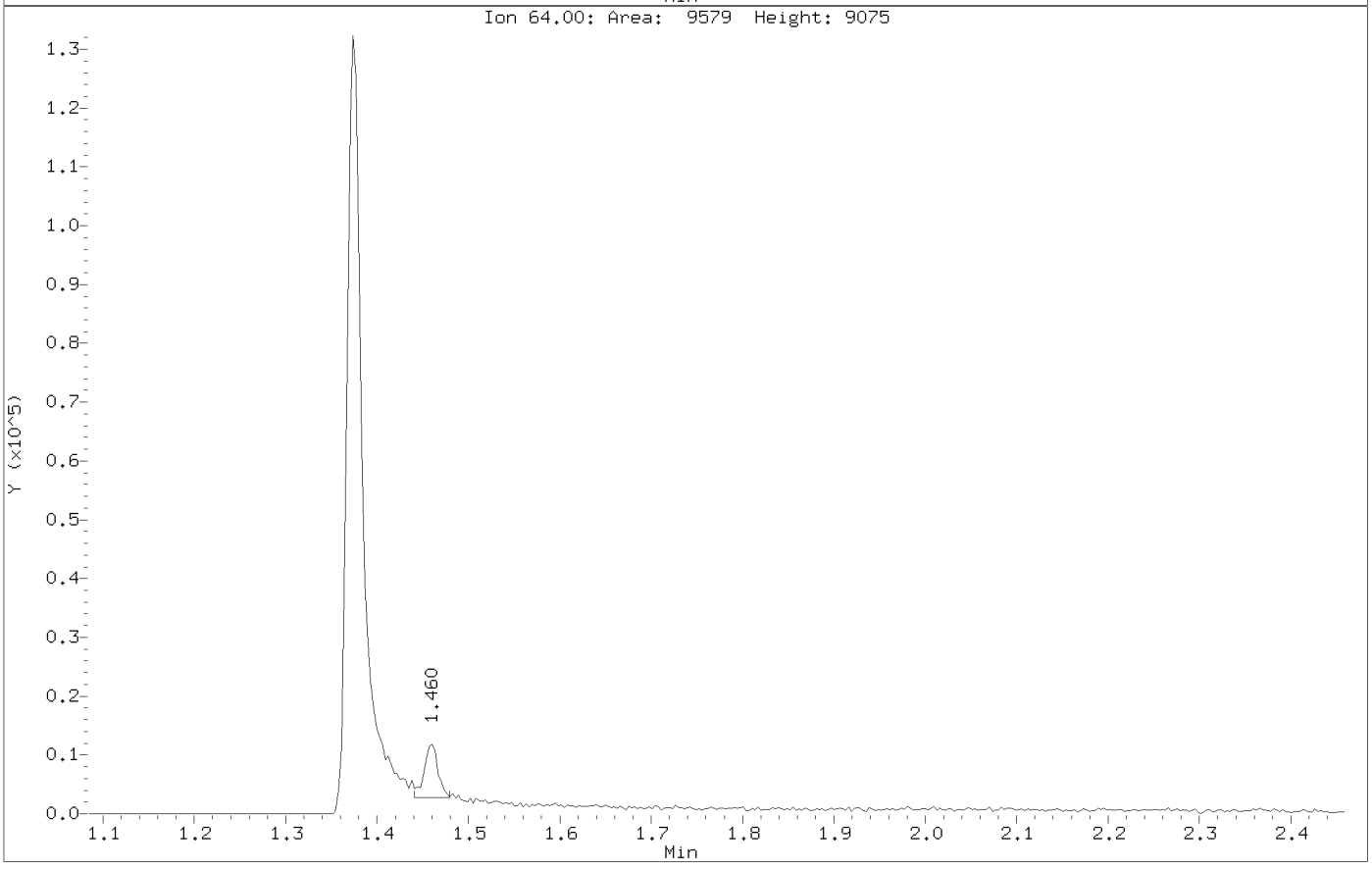


Data File: \\target_server\gg\chem\gcms-w.i\W092121.b\W0131.D
Injection Date: 21-SEP-2021 11:52
Instrument: gcms-w.i
Client Sample ID: VA-SA-STS-5(2021091

Compound: Vinyl chloride
CAS Number: 75-01-4

AFTER MANUAL INTEGRATION





Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-2
Client ID: WVA-SA-STS-3(20210914)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0132.D

Sample Date: 14-SEP-21
Received Date: 18-SEP-21
Extract Date: 21-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306383

Analysis Date: 21-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	2.0	ug/L	1	2	2.0
Vinyl Chloride	U	2.0	ug/L	1	2	2.0
Bromomethane	U	2.0	ug/L	1	2	2.0
Chloroethane	U	2.0	ug/L	1	2	2.0
Trichlorofluoromethane	U	2.0	ug/L	1	2	2.0
1,1-Dichloroethene	U	1.0	ug/L	1	1	1.0
Carbon Disulfide	U	1.0	ug/L	1	1	1.0
Methylene Chloride	U	5.0	ug/L	1	5	5.0
trans-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
1,1-Dichloroethane	U	1.0	ug/L	1	1	1.0
cis-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
Chloroform	U	1.0	ug/L	1	1	1.0
Carbon Tetrachloride	U	1.0	ug/L	1	1	1.0
1,1,1-Trichloroethane	U	1.0	ug/L	1	1	1.0
2-Butanone	U	5.0	ug/L	1	5	5.0
Benzene	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethane	U	1.0	ug/L	1	1	1.0
Trichloroethene	U	1.0	ug/L	1	1	1.0
1,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Bromodichloromethane	U	1.0	ug/L	1	1	1.0
cis-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
Toluene	U	1.0	ug/L	1	1	1.0
4-Methyl-2-Pentanone	U	5.0	ug/L	1	5	5.0
Tetrachloroethene	U	1.0	ug/L	1	1	1.0
trans-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
1,1,2-Trichloroethane	U	1.0	ug/L	1	1	1.0
Dibromochloromethane	U	1.0	ug/L	1	1	1.0
Chlorobenzene	U	1.0	ug/L	1	1	1.0
Ethylbenzene	U	1.0	ug/L	1	1	1.0
m+p-Xylenes	U	2.0	ug/L	1	2	2.0
o-Xylene	U	1.0	ug/L	1	1	1.0
Bromoform	U	1.0	ug/L	1	1	1.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
P-Bromofluorobenzene		102.	%			
Toluene-d8		101.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-2
Client ID: WVA-SA-STS-3(20210914)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0132.D

Sample Date: 14-SEP-21
Received Date: 18-SEP-21
Extract Date: 21-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306383

Analysis Date: 21-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		114.	%			
Dibromofluoromethane		106.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://www.katahdinlab.com

Data File: \\target_server\gg\chem\gcms-w.i\W092121.b\W0132.D
Report Date: 12-Oct-2021 08:53

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-w.i\W092121.b\W0132.D
Lab Smp Id: SO6313-2 Client Smp ID: VA-SA-STS-3(2021091
Inj Date : 21-SEP-2021 12:23
Operator : ES Inst ID: gcms-w.i
Smp Info : SO6313-2
Misc Info : WG306383,WG306383-4
Comment : SW846 5030
Method : \\target_server\gg\chem\gcms-w.i\W092121.b\W8A05(08).m
Meth Date : 11-Oct-2021 12:27 gcms-w.i Quant Type: ISTD
Cal Date : 20-SEP-2021 11:30 Cal File: W0105.D
Als bottle: 10
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.12

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

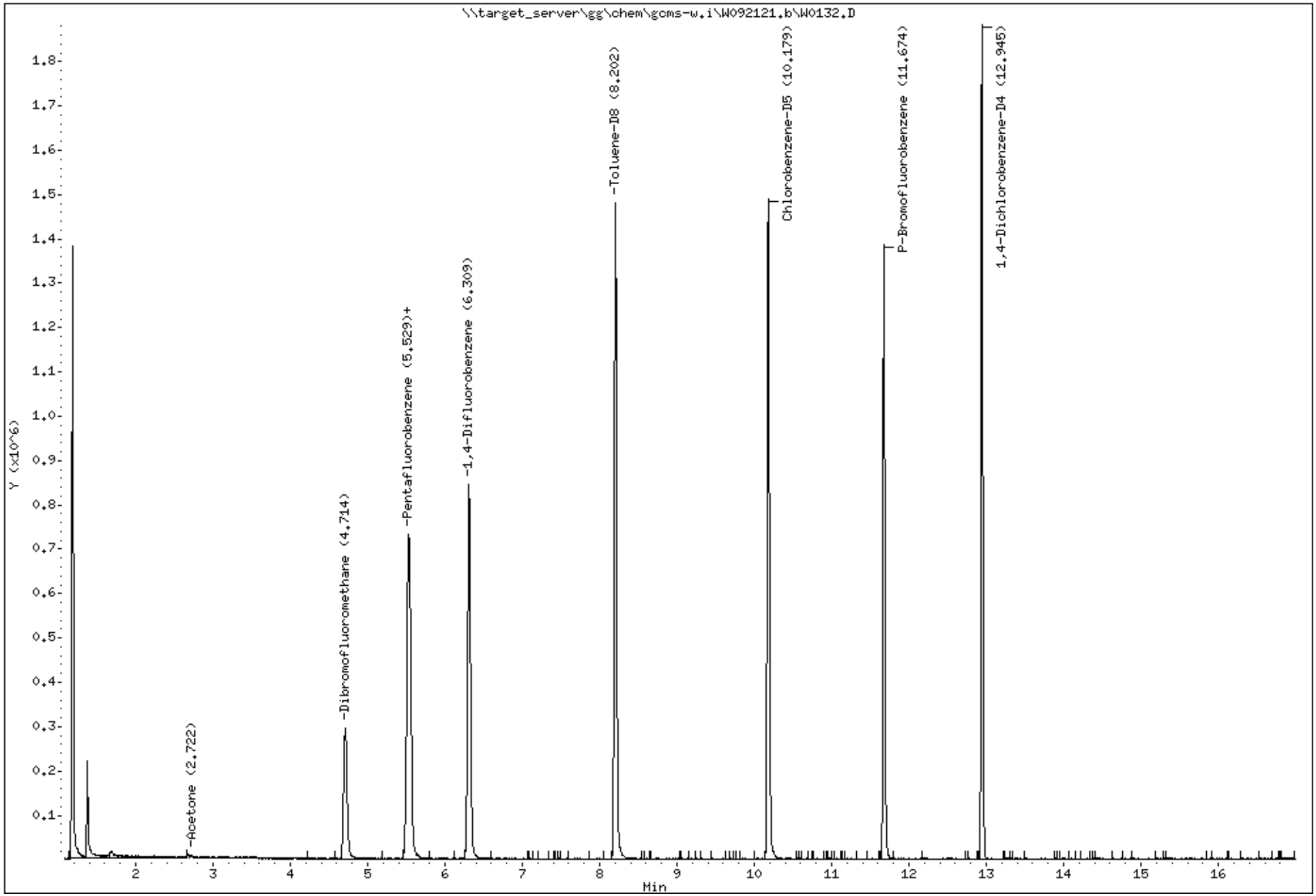
10:00 am, Oct 12, 2021

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)	REVIEW CODE
	15 Acetone	43	2.721	2.725	(0.493)	4741	3.24049	3.2(aM)	M9
$	34 Dibromofluoromethane	113	4.711	4.714	(0.853)	283333	52.8260	52.8	
*	41 Pentafluorobenzene	168	5.522	5.526	(1.000)	535515	50.0000		
$	42 1,2-Dichloroethane-D4	65	5.548	5.549	(1.005)	398992	57.1117	57.1	
*	48 1,4-Difluorobenzene	114	6.309	6.315	(1.000)	917874	50.0000		
$	58 Toluene-D8	98	8.202	8.209	(1.300)	1109961	50.5641	50.6	
*	68 Chlorobenzene-D5	117	10.182	10.182	(1.000)	895274	50.0000		
$	77 P-Bromofluorobenzene	95	11.674	11.678	(1.850)	466992	50.8419	50.8	
*	93 1,4-Dichlorobenzene-D4	152	12.945	12.948	(1.000)	452003	50.0000		

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Data File: \\target_server\gg\chem\gcms-w.i\W092121.b\W0132.D
Date : 21-SEP-2021 12:23
Client ID: VA-SA-STS-3(2021091
Instrument: gcms-w.i
Sample Info: SO6313-2



Katahdin Analytical Services 1000040

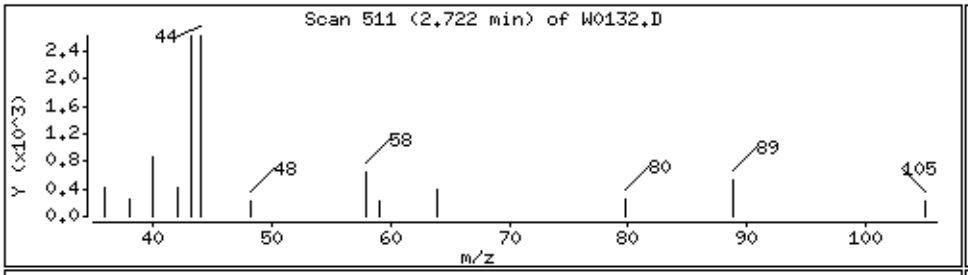
Data File: \\target_server\gg\chem\gcms-w.i\W092121.b\W0132.D

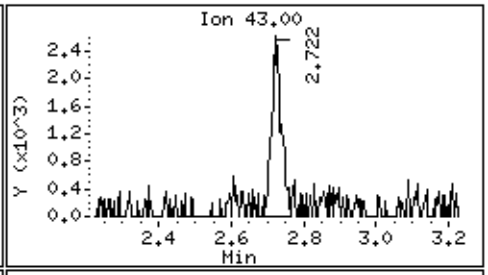
Date : 21-SEP-2021 12:23

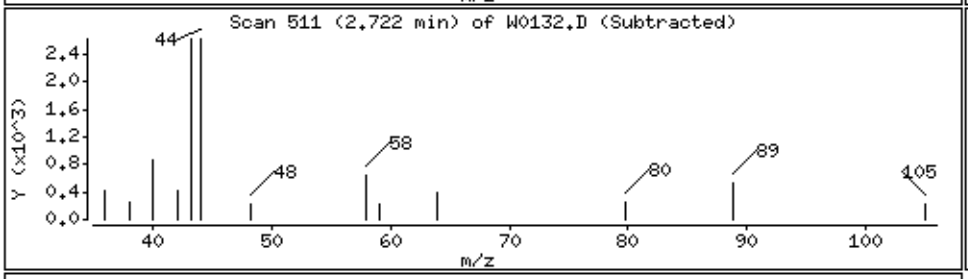
Client ID: VA-SA-STS-3(2021091 Instrument: gcms-w.i

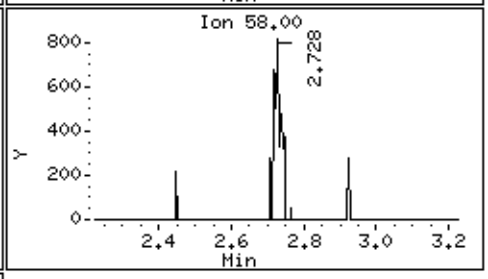
Sample Info: S06313-2

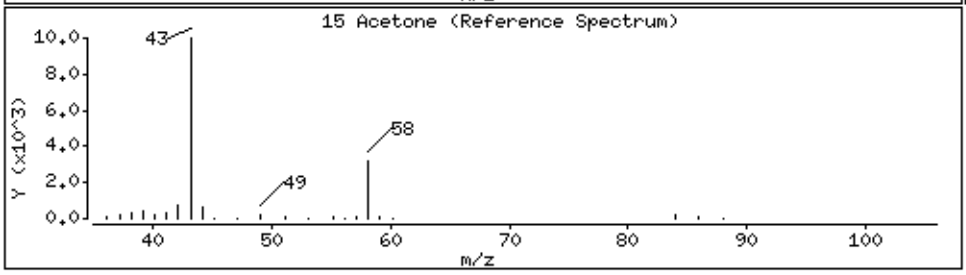
15 Acetone Concentration: 3.2 ug/l











Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-3
Client ID: 94EM-MW-19(20210915)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0133.D

Sample Date: 15-SEP-21
Received Date: 18-SEP-21
Extract Date: 21-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306383

Analysis Date: 21-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	2.0	ug/L	1	2	2.0
Vinyl Chloride	U	2.0	ug/L	1	2	2.0
Bromomethane	U	2.0	ug/L	1	2	2.0
Chloroethane	U	2.0	ug/L	1	2	2.0
Trichlorofluoromethane	U	2.0	ug/L	1	2	2.0
1,1-Dichloroethene	U	1.0	ug/L	1	1	1.0
Carbon Disulfide	U	1.0	ug/L	1	1	1.0
Methylene Chloride	U	5.0	ug/L	1	5	5.0
trans-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
1,1-Dichloroethane	U	1.0	ug/L	1	1	1.0
cis-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
Chloroform	U	1.0	ug/L	1	1	1.0
Carbon Tetrachloride	U	1.0	ug/L	1	1	1.0
1,1,1-Trichloroethane	U	1.0	ug/L	1	1	1.0
2-Butanone	U	5.0	ug/L	1	5	5.0
Benzene	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethane	U	1.0	ug/L	1	1	1.0
Trichloroethene	U	1.0	ug/L	1	1	1.0
1,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Bromodichloromethane	U	1.0	ug/L	1	1	1.0
cis-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
Toluene	U	1.0	ug/L	1	1	1.0
4-Methyl-2-Pentanone	U	5.0	ug/L	1	5	5.0
Tetrachloroethene	U	1.0	ug/L	1	1	1.0
trans-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
1,1,2-Trichloroethane	U	1.0	ug/L	1	1	1.0
Dibromochloromethane	U	1.0	ug/L	1	1	1.0
Chlorobenzene	U	1.0	ug/L	1	1	1.0
Ethylbenzene	U	1.0	ug/L	1	1	1.0
m+p-Xylenes	U	2.0	ug/L	1	2	2.0
o-Xylene	U	1.0	ug/L	1	1	1.0
Bromoform	U	1.0	ug/L	1	1	1.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
P-Bromofluorobenzene		102.	%			
Toluene-d8		103.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-3
Client ID: 94EM-MW-19(20210915)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0133.D

Sample Date: 15-SEP-21
Received Date: 18-SEP-21
Extract Date: 21-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306383

Analysis Date: 21-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		113.	%			
Dibromofluoromethane		106.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Data File: \\target_server\gg\chem\gcms-w.i\W092121.b\W0133.D
Report Date: 12-Oct-2021 08:53

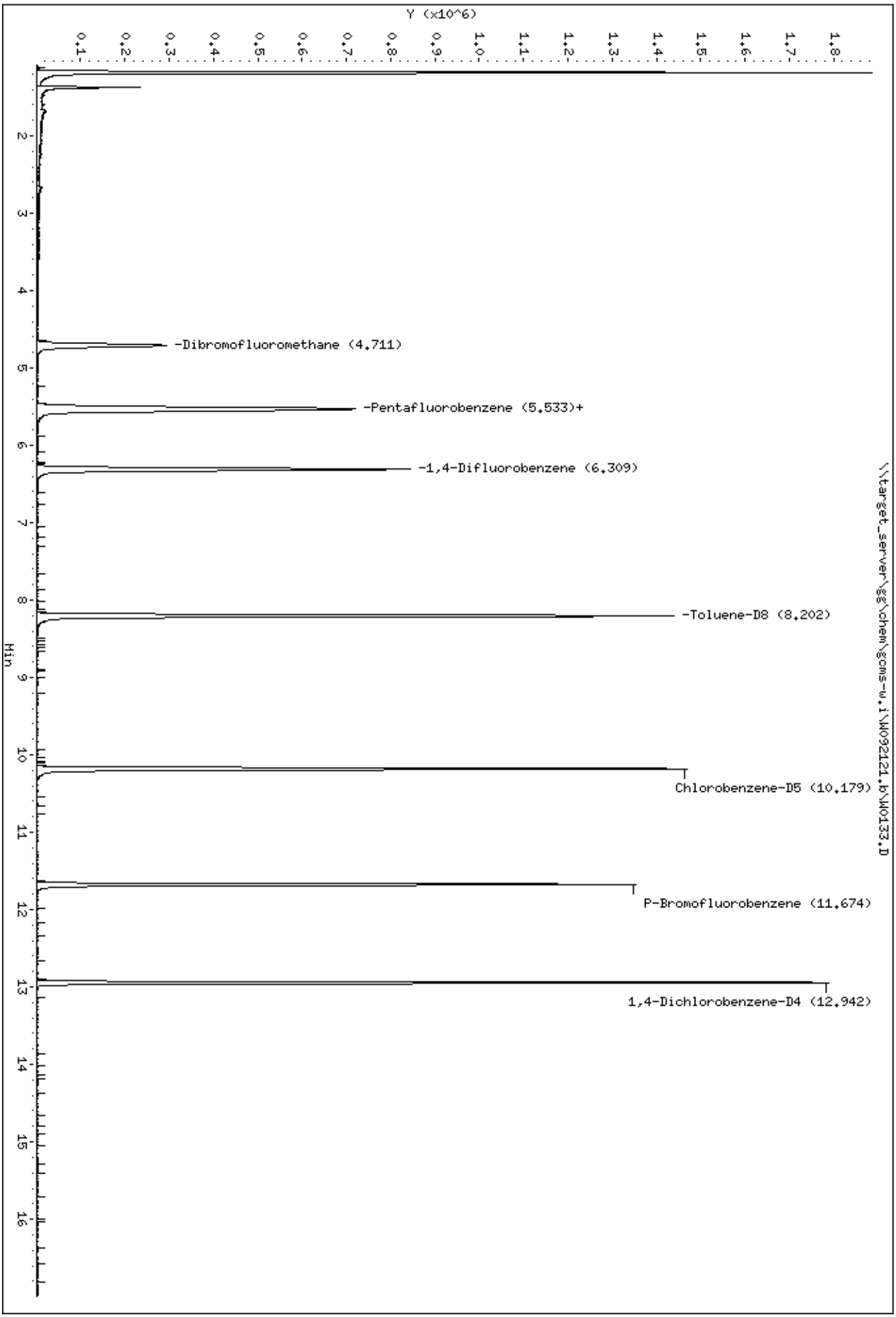
Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-w.i\W092121.b\W0133.D
Lab Smp Id: SO6313-3 Client Smp ID: 4EM-MW-19(20210915)
Inj Date : 21-SEP-2021 12:53
Operator : ES Inst ID: gcms-w.i
Smp Info : SO6313-3
Misc Info : WG306383,WG306383-4
Comment : SW846 5030
Method : \\target_server\gg\chem\gcms-w.i\W092121.b\W8A05(08).m
Meth Date : 11-Oct-2021 12:27 gcms-w.i Quant Type: ISTD
Cal Date : 20-SEP-2021 11:30 Cal File: W0105.D
Als bottle: 11
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.12

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)	REVIEW CODE
$	34 Dibromofluoromethane	113	4.707	4.714	(0.853)	280845	52.9681	53.0	
*	41 Pentafluorobenzene	168	5.519	5.526	(1.000)	529389	50.0000		
$	42 1,2-Dichloroethane-D4	65	5.545	5.549	(1.005)	391243	56.6506	56.6	
*	48 1,4-Difluorobenzene	114	6.309	6.315	(1.000)	896306	50.0000		
$	58 Toluene-D8	98	8.202	8.209	(1.300)	1100342	51.3321	51.3	
*	68 Chlorobenzene-D5	117	10.179	10.182	(1.000)	888027	50.0000		
$	77 P-Bromofluorobenzene	95	11.674	11.678	(1.850)	456764	50.9250	50.9	
*	93 1,4-Dichlorobenzene-D4	152	12.945	12.948	(1.000)	449504	50.0000		


Data File: \\target_server\gg\chem\gcms-w.i\W092121.b\W0133.D
Date : 21-SEP-2021 12:53
Client ID: 4EM-MW-19(20210915)
Sample Info: SD6313-3
Instrument: gcms-w.i
\\target_server\gg\chem\gcms-w.i\W092121.b\W0133.D
Y (x10^6)
Min
-Dibromofluoromethane (4.711)
-Pentafluorobenzene (5.533)+
-1,4-Difluorobenzene (6.309)
-Toluene-D8 (8.202)
Chlorobenzene-D5 (10.179)
P-Bromofluorobenzene (11.674)
1,4-Dichlorobenzene-D4 (12.942)

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-4
Client ID: DUP-01(20210915)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0281.D

Sample Date: 15-SEP-21
Received Date: 18-SEP-21
Extract Date: 28-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306817

Analysis Date: 28-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	2.0	ug/L	1	2	2.0
Vinyl Chloride	U	2.0	ug/L	1	2	2.0
Bromomethane	U	2.0	ug/L	1	2	2.0
Chloroethane	U	2.0	ug/L	1	2	2.0
Trichlorofluoromethane	U	2.0	ug/L	1	2	2.0
1,1-Dichloroethene	U	1.0	ug/L	1	1	1.0
Carbon Disulfide	U	1.0	ug/L	1	1	1.0
Methylene Chloride	U	5.0	ug/L	1	5	5.0
trans-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
1,1-Dichloroethane	U	1.0	ug/L	1	1	1.0
cis-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
Chloroform	U	1.0	ug/L	1	1	1.0
Carbon Tetrachloride	U	1.0	ug/L	1	1	1.0
1,1,1-Trichloroethane	U	1.0	ug/L	1	1	1.0
2-Butanone	U	5.0	ug/L	1	5	5.0
Benzene	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethane	U	1.0	ug/L	1	1	1.0
Trichloroethene	U	1.0	ug/L	1	1	1.0
1,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Bromodichloromethane	U	1.0	ug/L	1	1	1.0
cis-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
Toluene	U	1.0	ug/L	1	1	1.0
4-Methyl-2-Pentanone	U	5.0	ug/L	1	5	5.0
Tetrachloroethene	U	1.0	ug/L	1	1	1.0
trans-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
1,1,2-Trichloroethane	U	1.0	ug/L	1	1	1.0
Dibromochloromethane	U	1.0	ug/L	1	1	1.0
Chlorobenzene	U	1.0	ug/L	1	1	1.0
Ethylbenzene	U	1.0	ug/L	1	1	1.0
m+p-Xylenes	U	2.0	ug/L	1	2	2.0
o-Xylene	U	1.0	ug/L	1	1	1.0
Bromoform	U	1.0	ug/L	1	1	1.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
P-Bromofluorobenzene		98.4	%			
Toluene-d8		102.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-4
Client ID: DUP-01(20210915)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0281.D

Sample Date: 15-SEP-21
Received Date: 18-SEP-21
Extract Date: 28-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306817

Analysis Date: 28-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		111.	%			
Dibromofluoromethane		105.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://www.katahdinlab.com

Data File: \\target_server\gg\chem\gcms-w.i\W092821B.b\W0281.D
Report Date: 12-Oct-2021 09:02

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-w.i\W092821B.b\W0281.D
Lab Smp Id: SO6313-4 Client Smp ID: DUP-01(20210915)
Inj Date : 28-SEP-2021 19:12
Operator : ES Inst ID: gcms-w.i
Smp Info : SO6313-4
Misc Info : WG306817,WG306817-4
Comment : SW846 5030
Method : \\target_server\gg\chem\gcms-w.i\W092821B.b\W8A05(09).m
Meth Date : 01-Oct-2021 17:40 HGOULD Quant Type: ISTD
Cal Date : 28-SEP-2021 12:38 Cal File: W0268.D
Als bottle: 18
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.12
Processing Host: ORGANICS2

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

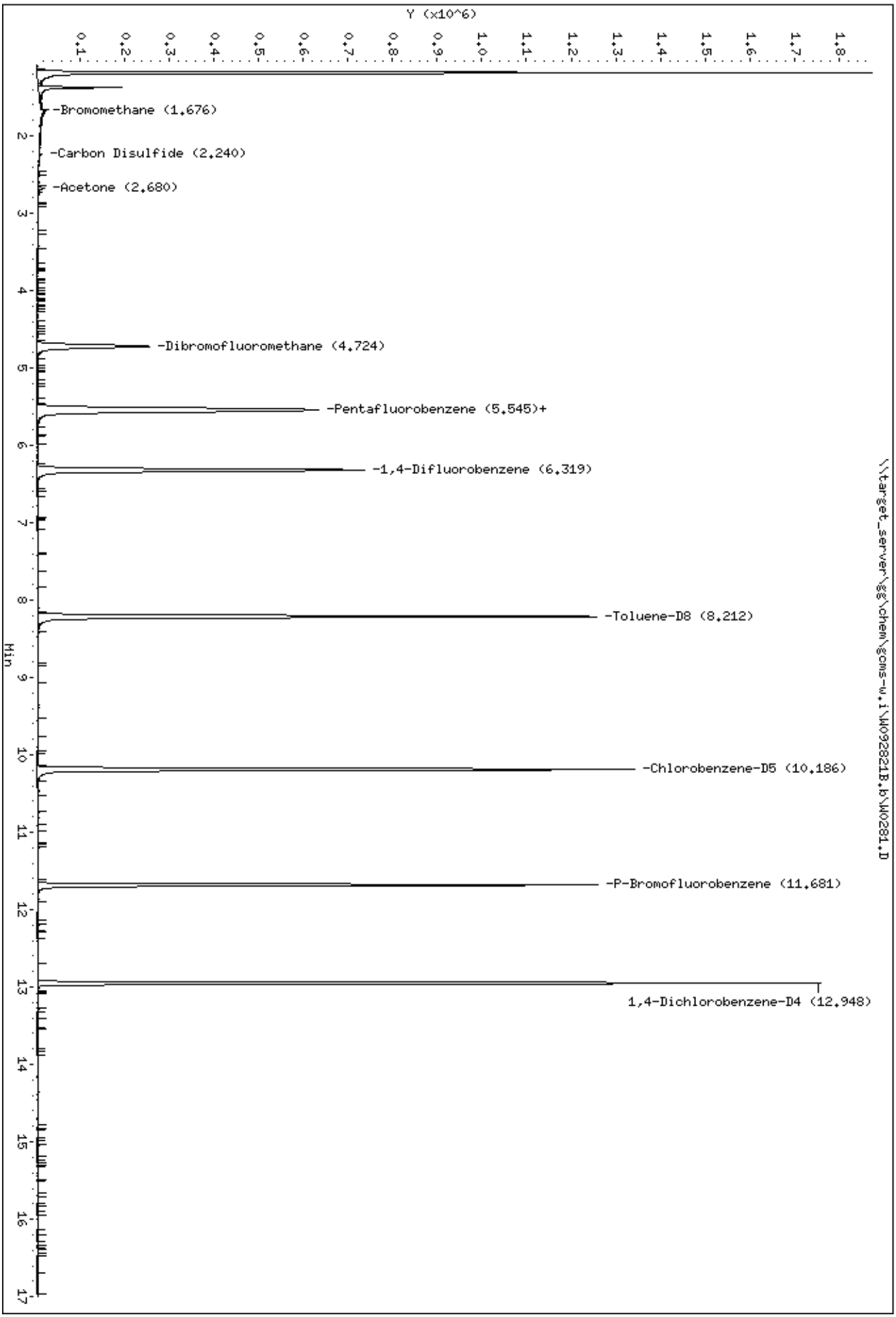
Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

10:01 am, Oct 12, 2021

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)	REVIEW CODE
	4 Bromomethane	94	1.675	1.672	(0.303)	895	0.58276	0.58(aM)	M10
	10 Carbon Disulfide	76	2.240	2.240	(0.405)	4034	0.31603	0.32(a)	
	15 Acetone	43	2.731	2.724	(0.494)	5787	2.65318	2.6(aM)	M10
$	34 Dibromofluoromethane	113	4.720	4.711	(0.854)	241882	52.5315	52.5	
*	41 Pentafluorobenzene	168	5.529	5.529	(1.000)	454803	50.0000		
$	42 1,2-Dichloroethane-D4	65	5.558	5.545	(1.005)	345985	55.7298	55.7	
*	48 1,4-Difluorobenzene	114	6.318	6.315	(1.000)	778557	50.0000		
$	58 Toluene-D8	98	8.212	8.205	(1.300)	951970	50.9126	50.9	
*	68 Chlorobenzene-D5	117	10.188	10.182	(1.000)	793042	50.0000		
$	77 P-Bromofluorobenzene	95	11.680	11.677	(1.849)	413479	49.2045	49.2	
*	93 1,4-Dichlorobenzene-D4	152	12.948	12.942	(1.000)	423791	50.0000		

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.


Y (x10^6)
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0
1.1
1.2
1.3
1.4
1.5
1.6
1.7
1.8
-Bromomethane (1.676)
-Carbon Disulfide (2.240)
-Acetone (2.680)
-Dibromofluoromethane (4.724)
-Pentafluorobenzene (5.545)+
-1,4-Difluorobenzene (6.319)
-Toluene-D8 (8.212)
-Chlorobenzene-D5 (10.186)
-P-Bromofluorobenzene (11.681)
1,4-Dichlorobenzene-D4 (12.948)
Min
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
Data File: \\target_server\gg\chem\gcms-w.i\W092821B.b\W0281.D
Date : 28-SEP-2021 19:12
Client ID: DUP-01(20210915)
Sample Info: SD6313-4
\\target_server\gg\chem\gcms-w.i\W092821B.b\W0281.D
Instrument: gcms-w.i

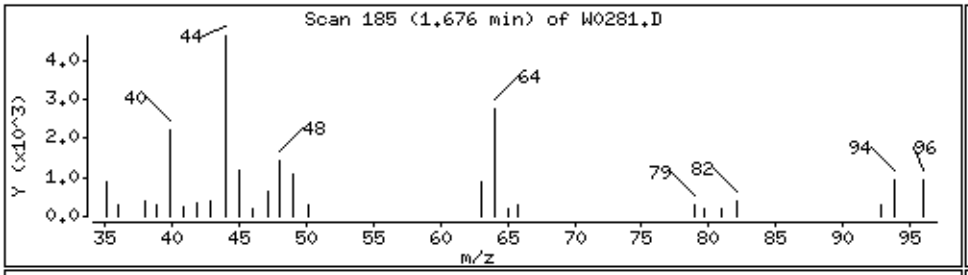
Data File: \\target_server\gg\chem\gcms-w.i\W092821B.b\W0281.D

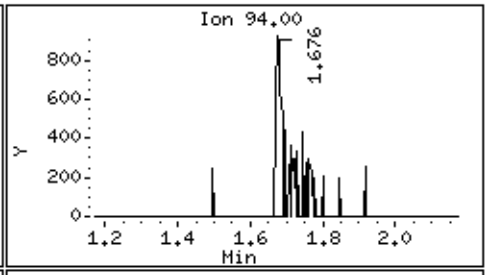
Date : 28-SEP-2021 19:12

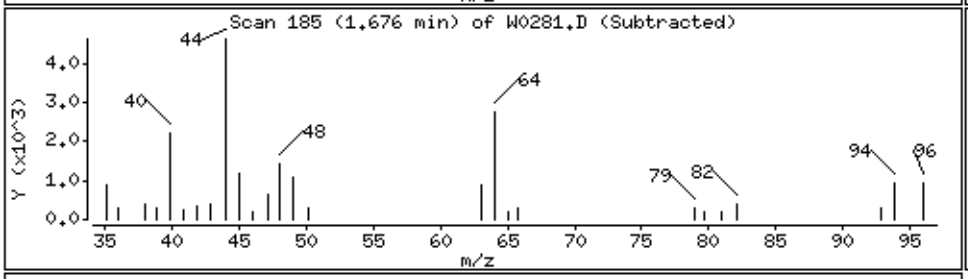
Client ID: DUP-01(20210915) Instrument: gcms-w.i

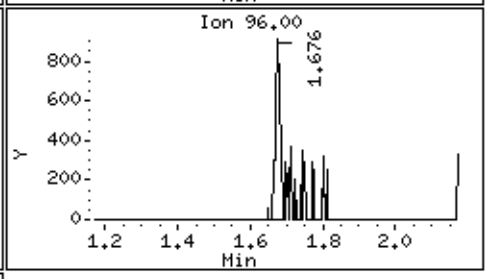
Sample Info: S06313-4

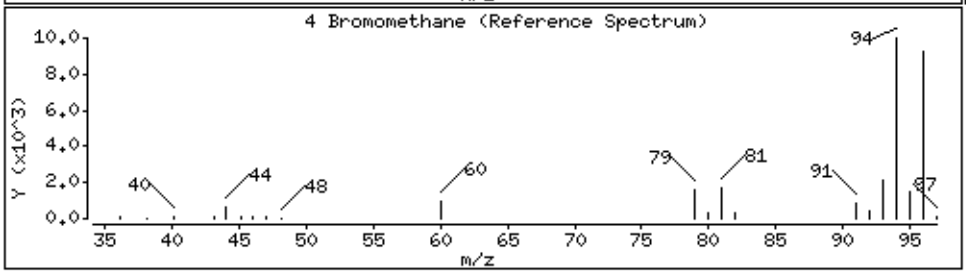
4 Bromomethane Concentration: 0.58 ug/l



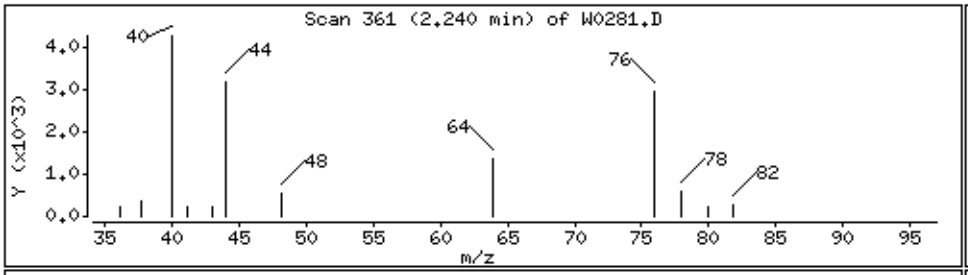


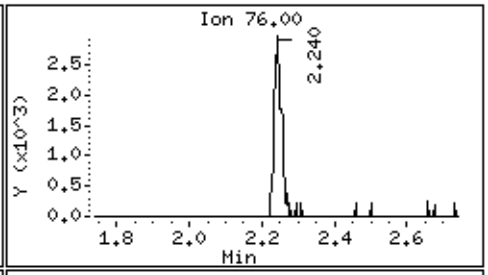


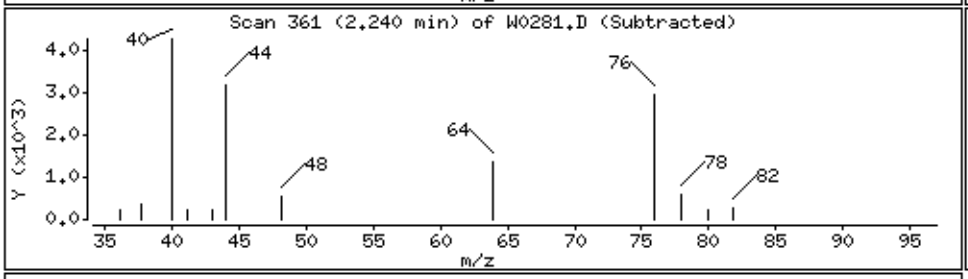


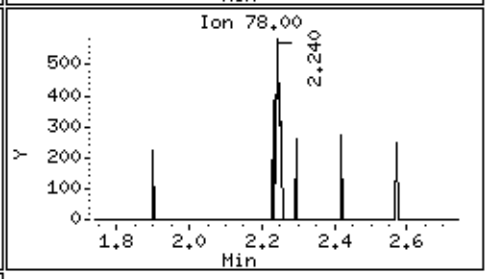


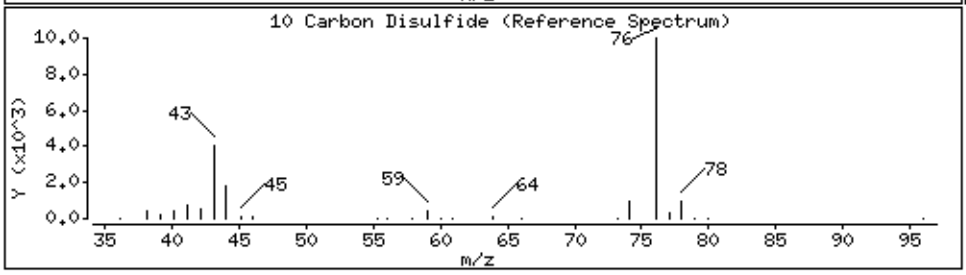
10 Carbon Disulfide Concentration: 0.32 ug/l











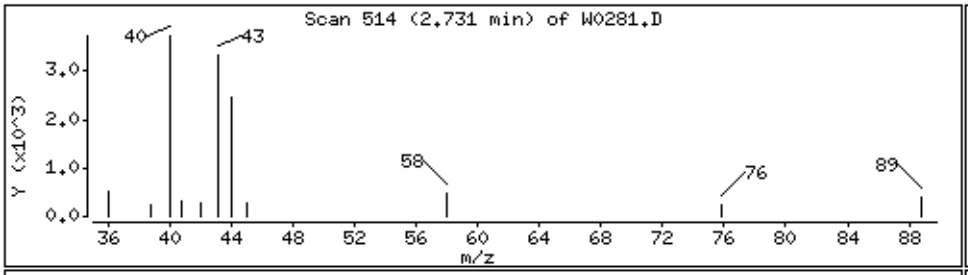
Data File: \\target_server\gg\chem\gcms-w.i\W092821B.b\W0281.D

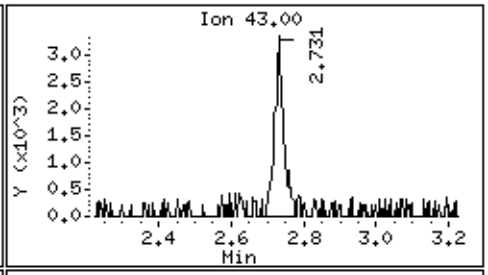
Date : 28-SEP-2021 19:12

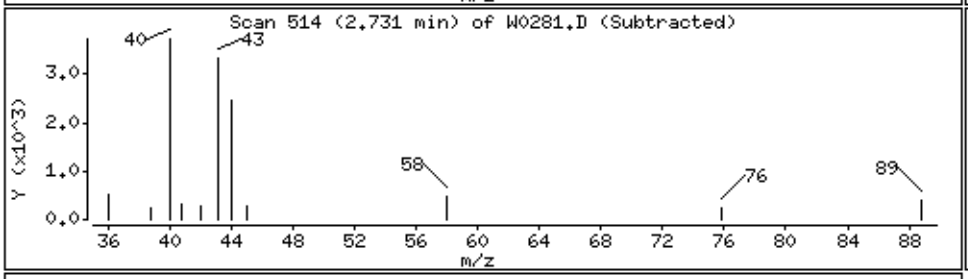
Client ID: DUP-01(20210915) Instrument: gcms-w.i

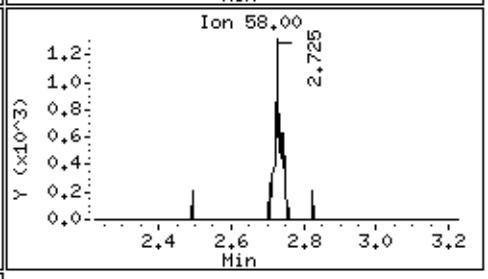
Sample Info: S06313-4

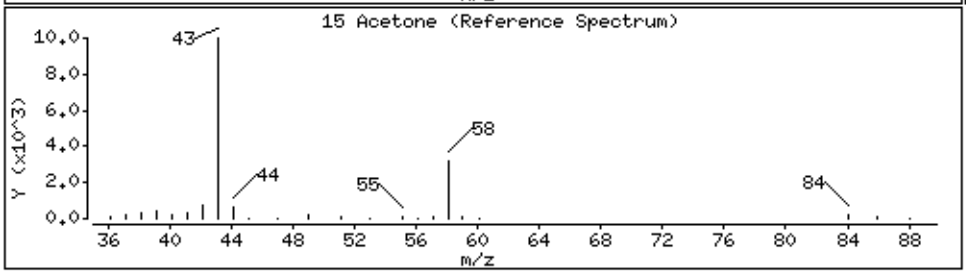
15 Acetone Concentration: 2.6 ug/l







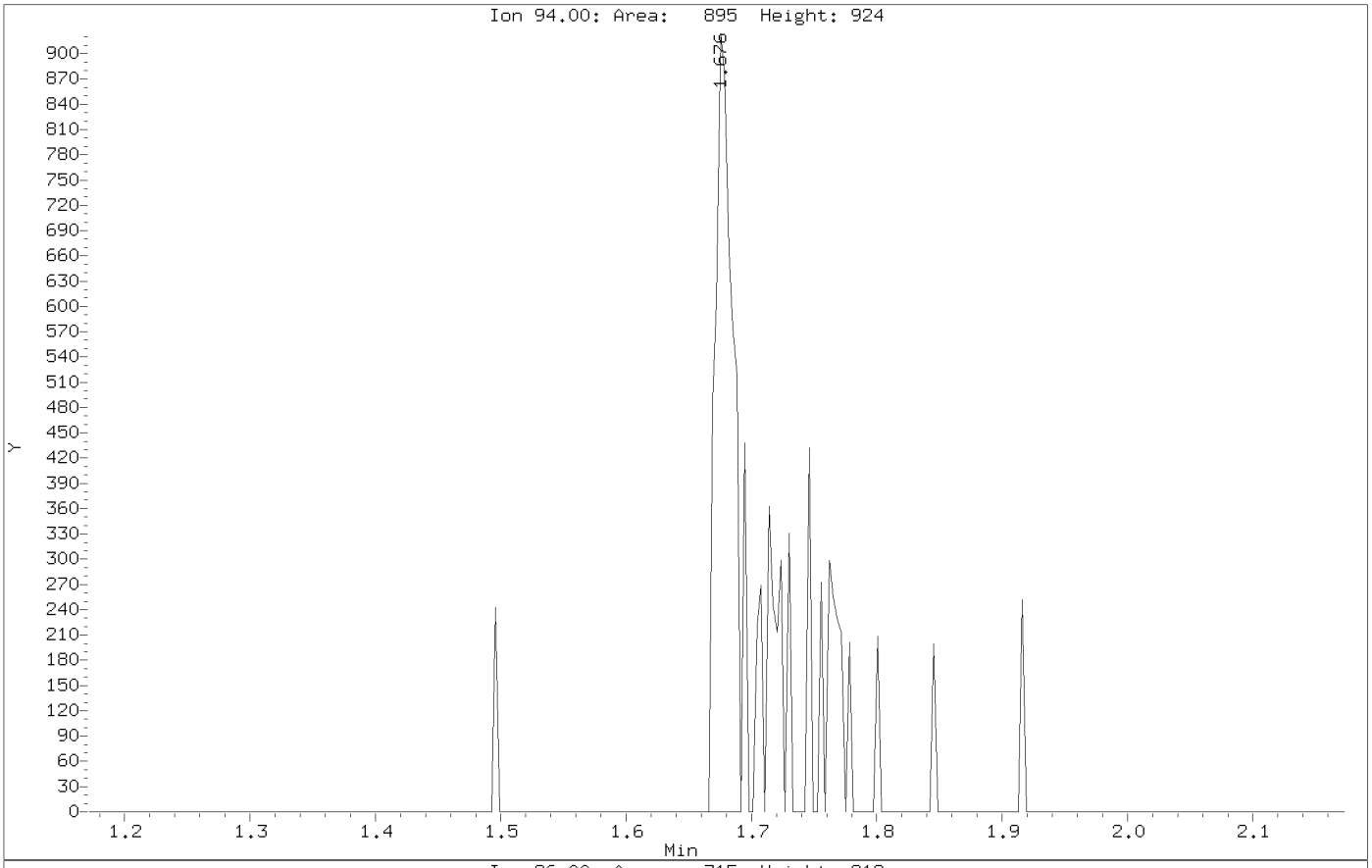


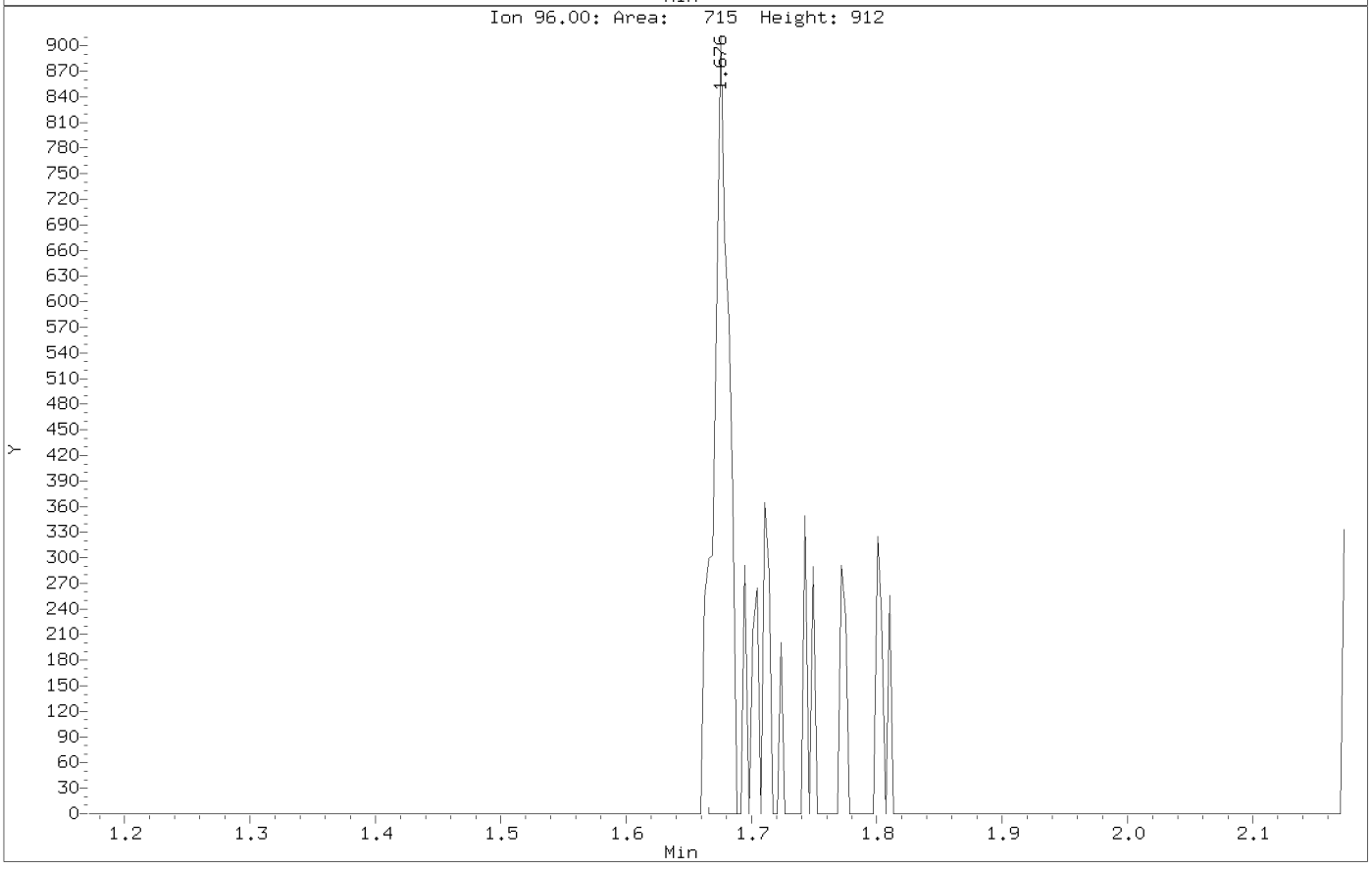


Data File: \\target_server\gg\chem\gcms-w.i\W092821B.b\W0281.D
Injection Date: 28-SEP-2021 19:12
Instrument: gcms-w.i
Client Sample ID: DUP-01(20210915)

Compound: Bromomethane
CAS Number: 74-83-9

BEFORE MANUAL INTEGRATION

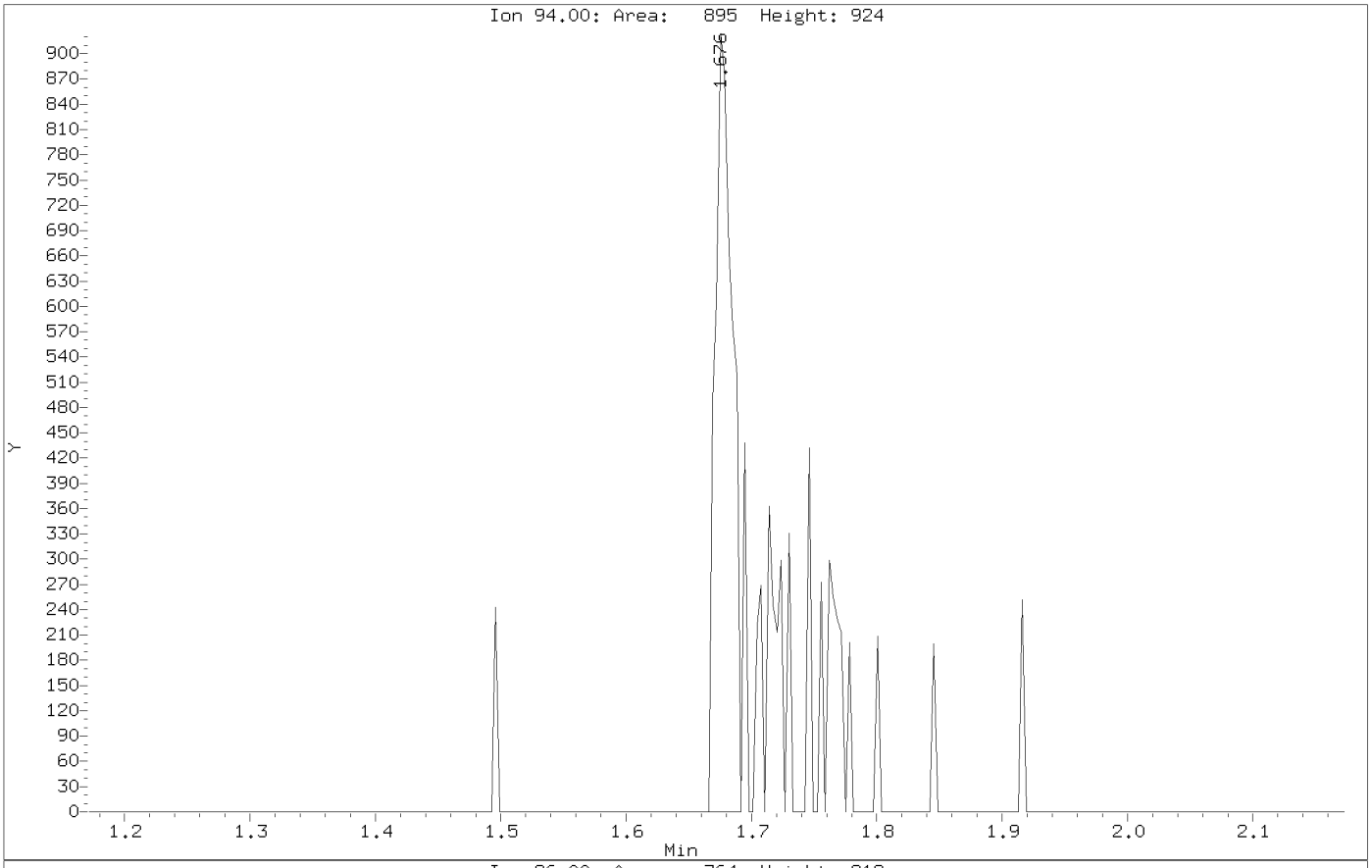


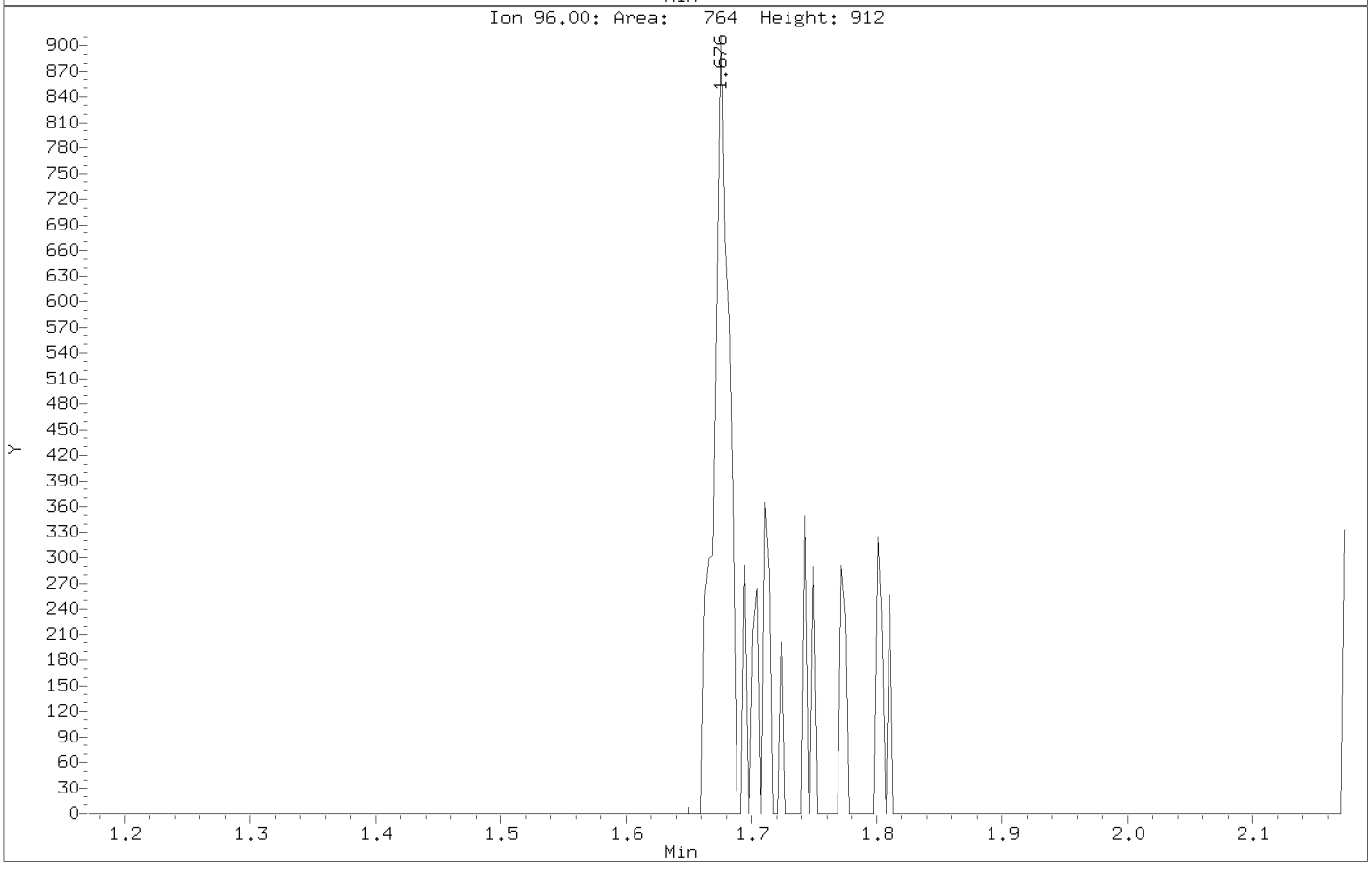


Data File: \\target_server\gg\chem\gcms-w.i\W092821B.b\W0281.D
Injection Date: 28-SEP-2021 19:12
Instrument: gcms-w.i
Client Sample ID: DUP-01(20210915)

Compound: Bromomethane
CAS Number: 74-83-9

AFTER MANUAL INTEGRATION





Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-5
Client ID: 94EM-MW-21(20210915)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0134.D

Sample Date: 15-SEP-21
Received Date: 18-SEP-21
Extract Date: 21-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306383

Analysis Date: 21-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	2.0	ug/L	1	2	2.0
Vinyl Chloride	U	2.0	ug/L	1	2	2.0
Bromomethane	U	2.0	ug/L	1	2	2.0
Chloroethane	U	2.0	ug/L	1	2	2.0
Trichlorofluoromethane	U	2.0	ug/L	1	2	2.0
1,1-Dichloroethene	U	1.0	ug/L	1	1	1.0
Carbon Disulfide	U	1.0	ug/L	1	1	1.0
Methylene Chloride	U	5.0	ug/L	1	5	5.0
trans-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
1,1-Dichloroethane	U	1.0	ug/L	1	1	1.0
cis-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
Chloroform	U	1.0	ug/L	1	1	1.0
Carbon Tetrachloride	U	1.0	ug/L	1	1	1.0
1,1,1-Trichloroethane	U	1.0	ug/L	1	1	1.0
2-Butanone	U	5.0	ug/L	1	5	5.0
Benzene	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethane	U	1.0	ug/L	1	1	1.0
Trichloroethene	U	1.0	ug/L	1	1	1.0
1,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Bromodichloromethane	U	1.0	ug/L	1	1	1.0
cis-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
Toluene	U	1.0	ug/L	1	1	1.0
4-Methyl-2-Pentanone	U	5.0	ug/L	1	5	5.0
Tetrachloroethene	U	1.0	ug/L	1	1	1.0
trans-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
1,1,2-Trichloroethane	U	1.0	ug/L	1	1	1.0
Dibromochloromethane	U	1.0	ug/L	1	1	1.0
Chlorobenzene	U	1.0	ug/L	1	1	1.0
Ethylbenzene	U	1.0	ug/L	1	1	1.0
m+p-Xylenes	U	2.0	ug/L	1	2	2.0
o-Xylene	U	1.0	ug/L	1	1	1.0
Bromoform	U	1.0	ug/L	1	1	1.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
P-Bromofluorobenzene		102.	%			
Toluene-d8		101.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-5
Client ID: 94EM-MW-21(20210915)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0134.D

Sample Date: 15-SEP-21
Received Date: 18-SEP-21
Extract Date: 21-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306383

Analysis Date: 21-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		115.	%			
Dibromofluoromethane		107.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Data File: \\target_server\gg\chem\gcms-w.i\W092121.b\W0134.D
Report Date: 12-Oct-2021 08:53

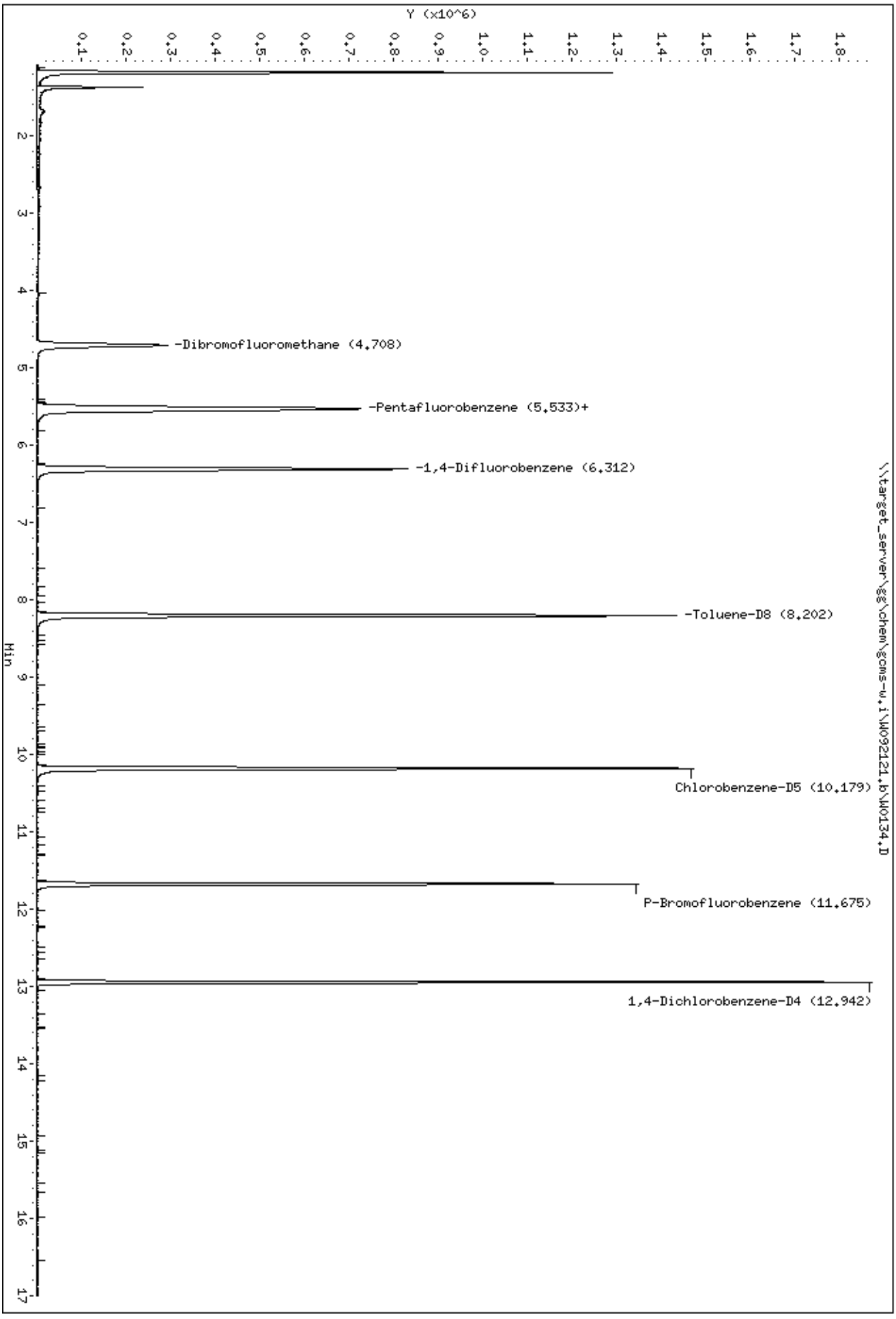
Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-w.i\W092121.b\W0134.D
Lab Smp Id: SO6313-5 Client Smp ID: 4EM-MW-21(20210915)
Inj Date : 21-SEP-2021 13:24
Operator : ES Inst ID: gcms-w.i
Smp Info : SO6313-5
Misc Info : WG306383,WG306383-4
Comment : SW846 5030
Method : \\target_server\gg\chem\gcms-w.i\W092121.b\W8A05(08).m
Meth Date : 11-Oct-2021 12:27 gcms-w.i Quant Type: ISTD
Cal Date : 20-SEP-2021 11:30 Cal File: W0105.D
Als bottle: 12
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SW8260-S.sub
Target Version: 4.12

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)	REVIEW CODE
$ 34 Dibromofluoromethane	113	4.707	4.714	(0.853)	280921	53.5988	53.6	
* 41 Pentafluorobenzene	168	5.519	5.526	(1.000)	523301	50.0000		
$ 42 1,2-Dichloroethane-D4	65	5.548	5.549	(1.005)	394233	57.7476	57.7	
* 48 1,4-Difluorobenzene	114	6.312	6.315	(1.000)	894094	50.0000		
$ 58 Toluene-D8	98	8.205	8.209	(1.300)	1079178	50.4693	50.5	
* 68 Chlorobenzene-D5	117	10.179	10.182	(1.000)	885826	50.0000		
$ 77 P-Bromofluorobenzene	95	11.674	11.678	(1.849)	455724	50.9348	50.9	
* 93 1,4-Dichlorobenzene-D4	152	12.945	12.948	(1.000)	442812	50.0000		


Data File: \\target_server\gg\chem\gcms-w.i\W092121.b\W0134.D
Date : 21-SEP-2021 13:24
Client ID: 4EM-MW-21(20210915)
Sample Info: SD6313-5
Instrument: gcms-w.i
\\target_server\gg\chem\gcms-w.i\W092121.b\W0134.D
Y (x10^6)
Min
-Dibromofluoromethane (4.708)
-Pentafluorobenzene (5.533)+
-1,4-Difluorobenzene (6.312)
-Toluene-D8 (8.202)
Chlorobenzene-D5 (10.179)
P-Bromofluorobenzene (11.675)
1,4-Dichlorobenzene-D4 (12.942)

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-6
Client ID: 94EM-MW-20(20210915)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0135.D

Sample Date: 15-SEP-21
Received Date: 18-SEP-21
Extract Date: 21-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306383

Analysis Date: 21-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	2.0	ug/L	1	2	2.0
Vinyl Chloride	U	2.0	ug/L	1	2	2.0
Bromomethane	U	2.0	ug/L	1	2	2.0
Chloroethane	U	2.0	ug/L	1	2	2.0
Trichlorofluoromethane	U	2.0	ug/L	1	2	2.0
1,1-Dichloroethene	U	1.0	ug/L	1	1	1.0
Carbon Disulfide	U	1.0	ug/L	1	1	1.0
Methylene Chloride	U	5.0	ug/L	1	5	5.0
trans-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
1,1-Dichloroethane	U	1.0	ug/L	1	1	1.0
cis-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
Chloroform	U	1.0	ug/L	1	1	1.0
Carbon Tetrachloride	U	1.0	ug/L	1	1	1.0
1,1,1-Trichloroethane	U	1.0	ug/L	1	1	1.0
2-Butanone	U	5.0	ug/L	1	5	5.0
Benzene	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethane	U	1.0	ug/L	1	1	1.0
Trichloroethene	U	1.0	ug/L	1	1	1.0
1,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Bromodichloromethane	U	1.0	ug/L	1	1	1.0
cis-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
Toluene	U	1.0	ug/L	1	1	1.0
4-Methyl-2-Pentanone	U	5.0	ug/L	1	5	5.0
Tetrachloroethene	U	1.0	ug/L	1	1	1.0
trans-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
1,1,2-Trichloroethane	U	1.0	ug/L	1	1	1.0
Dibromochloromethane	U	1.0	ug/L	1	1	1.0
Chlorobenzene	U	1.0	ug/L	1	1	1.0
Ethylbenzene	U	1.0	ug/L	1	1	1.0
m+p-Xylenes	U	2.0	ug/L	1	2	2.0
o-Xylene	U	1.0	ug/L	1	1	1.0
Bromoform	U	1.0	ug/L	1	1	1.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
P-Bromofluorobenzene		98.9	%			
Toluene-d8		100.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-6
Client ID: 94EM-MW-20(20210915)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0135.D

Sample Date: 15-SEP-21
Received Date: 18-SEP-21
Extract Date: 21-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306383

Analysis Date: 21-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		114.	%			
Dibromofluoromethane		106.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Data File: \\target_server\gg\chem\gcms-w.i\W092121.b\W0135.D
Report Date: 12-Oct-2021 08:54

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-w.i\W092121.b\W0135.D
Lab Smp Id: SO6313-6 Client Smp ID: 4EM-MW-20(20210915)
Inj Date : 21-SEP-2021 13:54
Operator : ES Inst ID: gcms-w.i
Smp Info : SO6313-6
Misc Info : WG306383,WG306383-4
Comment : SW846 5030
Method : \\target_server\gg\chem\gcms-w.i\W092121.b\W8A05(08).m
Meth Date : 11-Oct-2021 12:27 gcms-w.i Quant Type: ISTD
Cal Date : 20-SEP-2021 11:30 Cal File: W0105.D
Als bottle: 13
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SW8260-S.sub
Target Version: 4.12

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

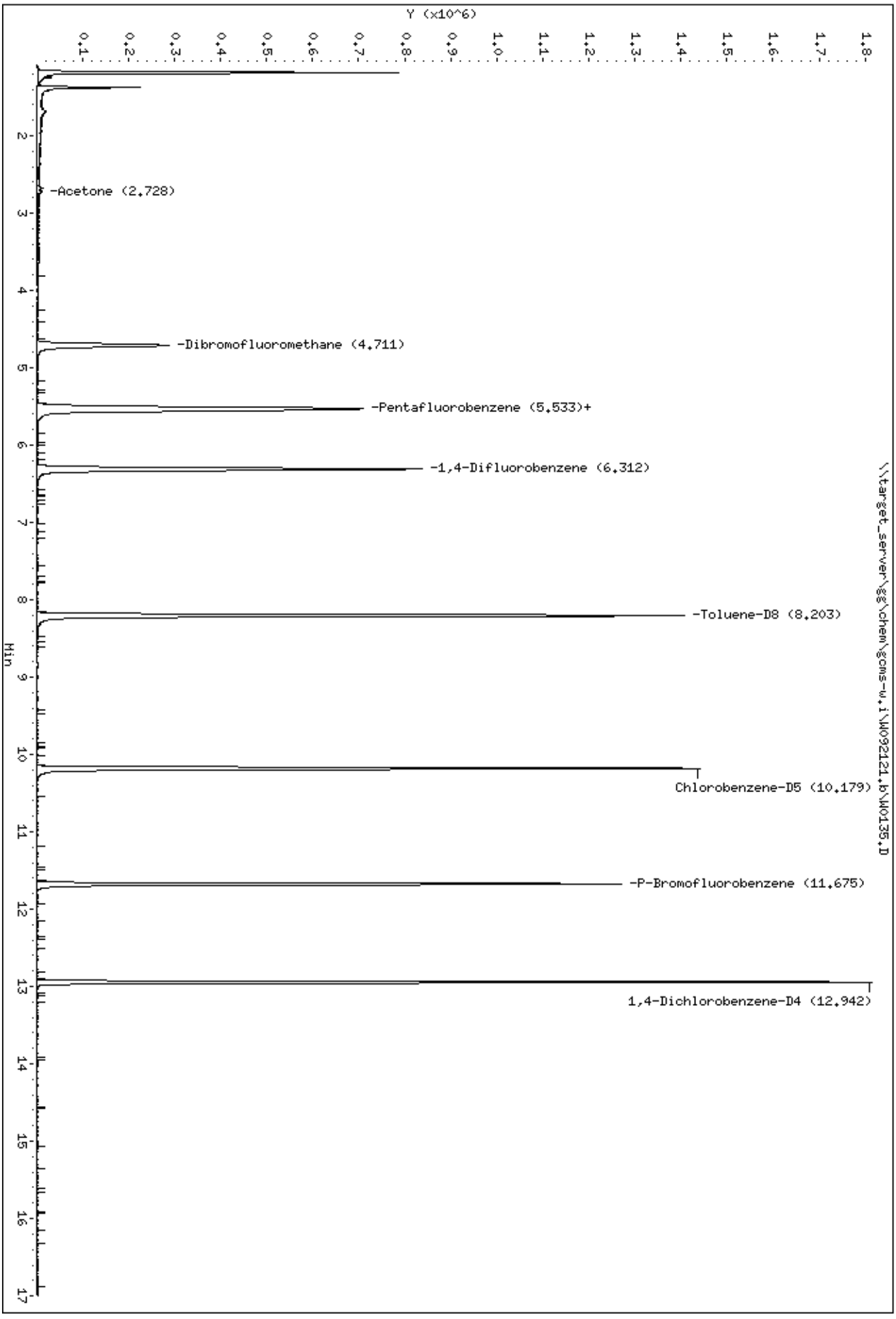
Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

10:02 am, Oct 12, 2021

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)	REVIEW CODE
15 Acetone	43	2.728	2.725	(0.494)	6369	4.54535	4.5(aM)	M10
$ 34 Dibromofluoromethane	113	4.714	4.714	(0.854)	272550	53.0761	53.1	
* 41 Pentafluorobenzene	168	5.523	5.526	(1.000)	512708	50.0000		
$ 42 1,2-Dichloroethane-D4	65	5.548	5.549	(1.005)	381580	57.0490	57.0	
* 48 1,4-Difluorobenzene	114	6.312	6.315	(1.000)	892913	50.0000		
$ 58 Toluene-D8	98	8.202	8.209	(1.299)	1071266	50.1656	50.2	
* 68 Chlorobenzene-D5	117	10.179	10.182	(1.000)	856447	50.0000		
$ 77 P-Bromofluorobenzene	95	11.674	11.678	(1.849)	441979	49.4639	49.5	
* 93 1,4-Dichlorobenzene-D4	152	12.942	12.948	(1.000)	438404	50.0000		

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.


Data File: \\target_server\gg\chem\gcms-w.i\W092121.b\W0135.D
Date : 21-SEP-2021 13:54
Client ID: 4EM-MW-20(20210915)
Sample Info: SD6313-6
Instrument: gcms-w.i
\\target_server\gg\chem\gcms-w.i\W092121.b\W0135.D
Y (x10^6)
Min
-Acetone (2.728)
-Dibromofluoromethane (4.711)
-Pentafluorobenzene (5.533)+
-1,4-Difluorobenzene (6.312)
-Toluene-D8 (8.203)
Chlorobenzene-D5 (10.179)
-P-Bromofluorobenzene (11.675)
1,4-Dichlorobenzene-D4 (12.942)

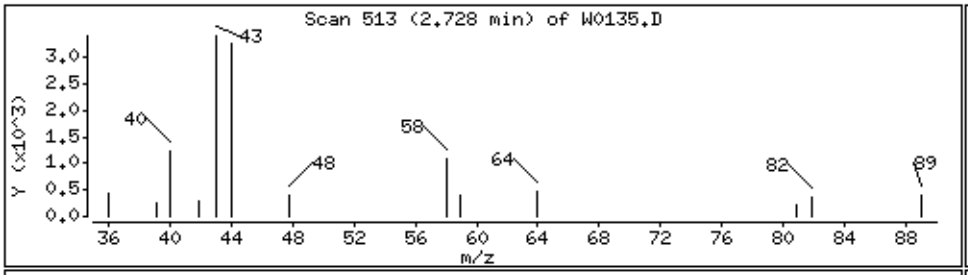
Data File: \\target_server\gg\chem\gcms-w.i\W092121.b\W0135.D

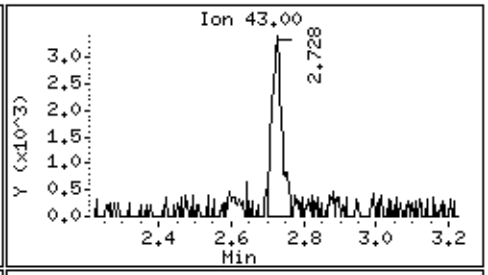
Date : 21-SEP-2021 13:54

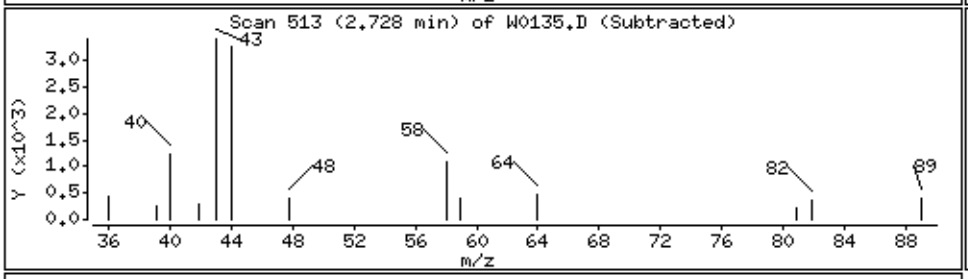
Client ID: 4EM-MW-20(20210915) Instrument: gcms-w.i

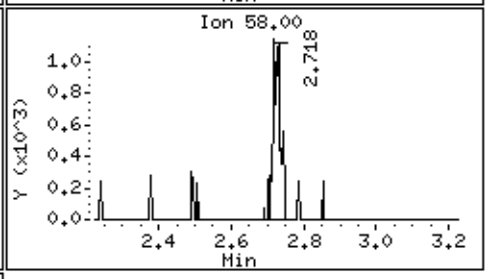
Sample Info: S06313-6

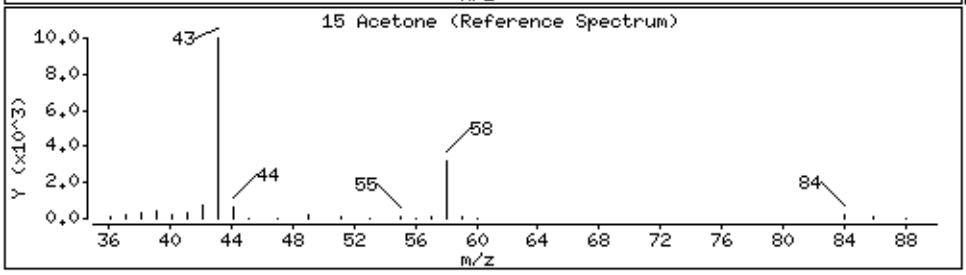
15 Acetone Concentration: 4.5 ug/l











Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-7
Client ID: WVA-MW-86R-1(20210915)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0136.D

Sample Date: 15-SEP-21
Received Date: 18-SEP-21
Extract Date: 21-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306383

Analysis Date: 21-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	2.0	ug/L	1	2	2.0
Vinyl Chloride	U	2.0	ug/L	1	2	2.0
Bromomethane	U	2.0	ug/L	1	2	2.0
Chloroethane	U	2.0	ug/L	1	2	2.0
Trichlorofluoromethane	U	2.0	ug/L	1	2	2.0
1,1-Dichloroethene	U	1.0	ug/L	1	1	1.0
Carbon Disulfide	U	1.0	ug/L	1	1	1.0
Methylene Chloride	U	5.0	ug/L	1	5	5.0
trans-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
1,1-Dichloroethane	U	1.0	ug/L	1	1	1.0
cis-1,2-Dichloroethene		1.8	ug/L	1	1	1.0
Chloroform	U	1.0	ug/L	1	1	1.0
Carbon Tetrachloride	U	1.0	ug/L	1	1	1.0
1,1,1-Trichloroethane	U	1.0	ug/L	1	1	1.0
2-Butanone	U	5.0	ug/L	1	5	5.0
Benzene	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethane	U	1.0	ug/L	1	1	1.0
Trichloroethene	U	1.0	ug/L	1	1	1.0
1,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Bromodichloromethane	U	1.0	ug/L	1	1	1.0
cis-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
Toluene	U	1.0	ug/L	1	1	1.0
4-Methyl-2-Pentanone	U	5.0	ug/L	1	5	5.0
Tetrachloroethene	U	1.0	ug/L	1	1	1.0
trans-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
1,1,2-Trichloroethane	U	1.0	ug/L	1	1	1.0
Dibromochloromethane	U	1.0	ug/L	1	1	1.0
Chlorobenzene	U	1.0	ug/L	1	1	1.0
Ethylbenzene	U	1.0	ug/L	1	1	1.0
m+p-Xylenes	U	2.0	ug/L	1	2	2.0
o-Xylene	U	1.0	ug/L	1	1	1.0
Bromoform	U	1.0	ug/L	1	1	1.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
P-Bromofluorobenzene		101.	%			
Toluene-d8		101.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-7
Client ID: WVA-MW-86R-1(20210915)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0136.D

Sample Date: 15-SEP-21
Received Date: 18-SEP-21
Extract Date: 21-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306383

Analysis Date: 21-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		115.	%			
Dibromofluoromethane		105.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Data File: \\target_server\gg\chem\gcms-w.i\W092121.b\W0136.D
Report Date: 12-Oct-2021 08:54

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-w.i\W092121.b\W0136.D
Lab Smp Id: SO6313-7 Client Smp ID: VA-MW-86R-1(2021091
Inj Date : 21-SEP-2021 14:25
Operator : ES Inst ID: gcms-w.i
Smp Info : SO6313-7
Misc Info : WG306383,WG306383-4
Comment : SW846 5030
Method : \\target_server\gg\chem\gcms-w.i\W092121.b\W8A05(08).m
Meth Date : 11-Oct-2021 12:27 gcms-w.i Quant Type: ISTD
Cal Date : 20-SEP-2021 11:30 Cal File: W0105.D
Als bottle: 14
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.12

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

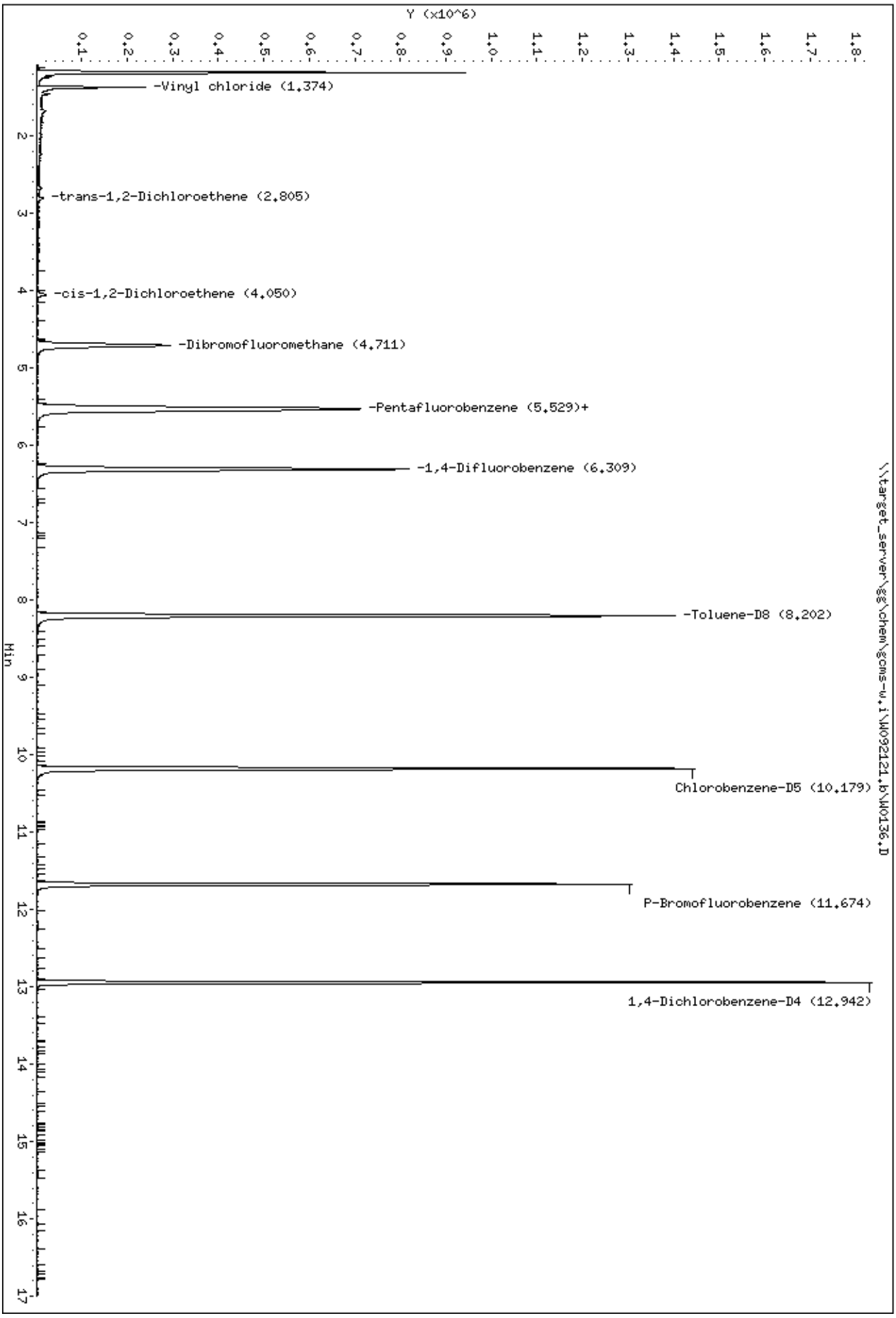
Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

10:02 am, Oct 12, 2021

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)	REVIEW CODE
	3 Vinyl chloride	62	1.457	1.460	(0.264)	9284	1.62537	1.6(M)	M10
	16 trans-1,2-Dichloroethene	96	2.805	2.815	(0.508)	3366	0.61149	0.61(a)	
	27 cis-1,2-Dichloroethene	96	4.059	4.056	(0.735)	10776	1.83808	1.8	
$	34 Dibromofluoromethane	113	4.711	4.714	(0.853)	274129	52.6551	52.6	
*	41 Pentafluorobenzene	168	5.519	5.526	(1.000)	519801	50.0000		
$	42 1,2-Dichloroethane-D4	65	5.542	5.549	(1.004)	391600	57.7482	57.7	
*	48 1,4-Difluorobenzene	114	6.309	6.315	(1.000)	887558	50.0000		
$	58 Toluene-D8	98	8.202	8.209	(1.300)	1069522	50.3861	50.4	
*	68 Chlorobenzene-D5	117	10.182	10.182	(1.000)	870289	50.0000		
$	77 P-Bromofluorobenzene	95	11.674	11.678	(1.850)	450015	50.6671	50.7	
*	93 1,4-Dichlorobenzene-D4	152	12.945	12.948	(1.000)	440852	50.0000		
M	97 1,2-Dichloroethylene (total)	96				14142	2.44957	2.4	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.


Data File: \\target_server\gg\chem\gcms-w.i\W092121.b\W0136.D
Date : 21-SEP-2021 14:25
Client ID: VA-MW-86R-1(2021091
Sample Info: SD6313-7
Instrument: gcms-w.i
\\target_server\gg\chem\gcms-w.i\W092121.b\W0136.D
Y (x10^6)
Min
-Vinyl chloride (1.374)
-trans-1,2-Dichloroethene (2.805)
-cis-1,2-Dichloroethene (4.050)
-Dibromofluoromethane (4.711)
-Pentafluorobenzene (5.529)+
-1,4-Difluorobenzene (6.309)
-Toluene-D8 (8.202)
Chlorobenzene-D5 (10.179)
P-Bromofluorobenzene (11.674)
1,4-Dichlorobenzene-D4 (12.942)

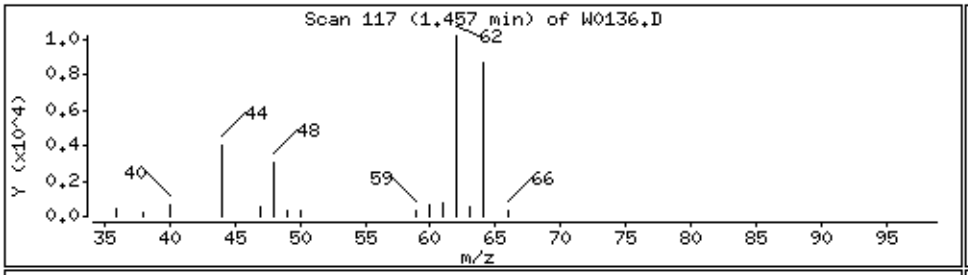
Data File: \\target_server\gg\chem\gcms-w.i\W092121.b\W0136.D

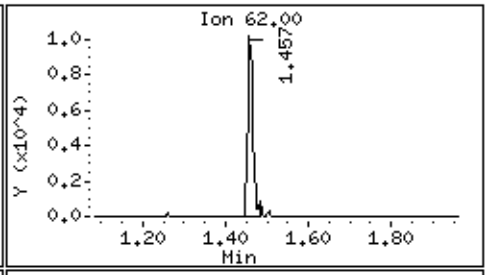
Date : 21-SEP-2021 14:25

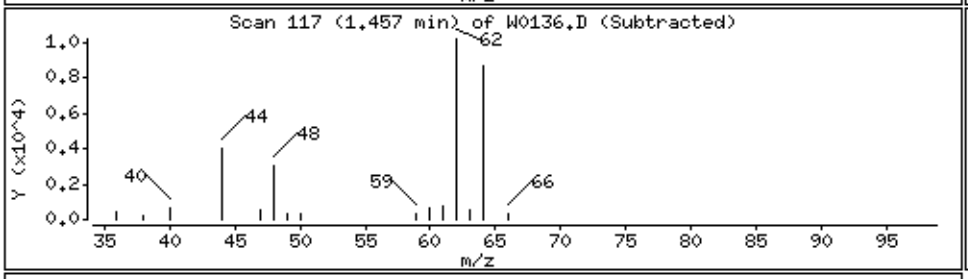
Client ID: VA-MW-86R-1(2021091 Instrument: gcms-w.i

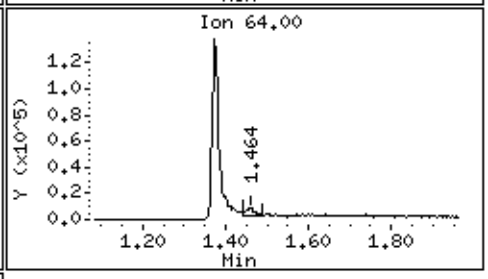
Sample Info: S06313-7

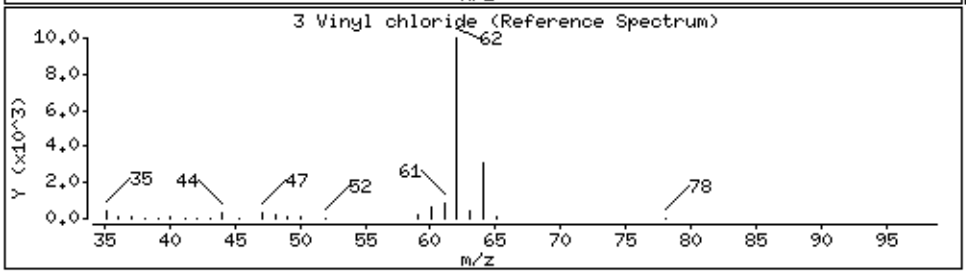
3 Vinyl chloride Concentration: 1.6 ug/l



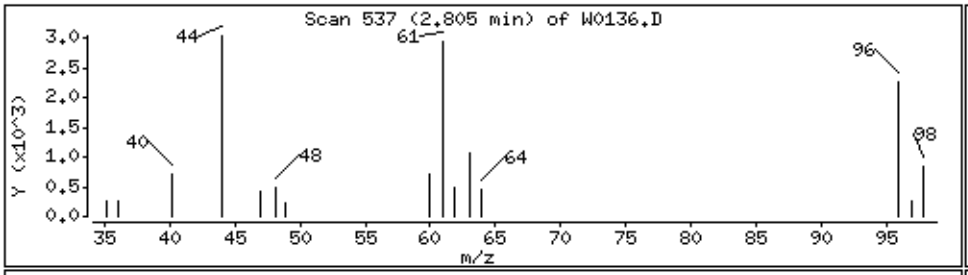


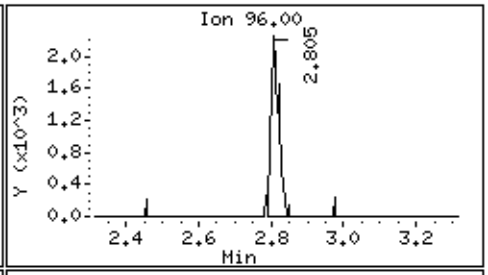


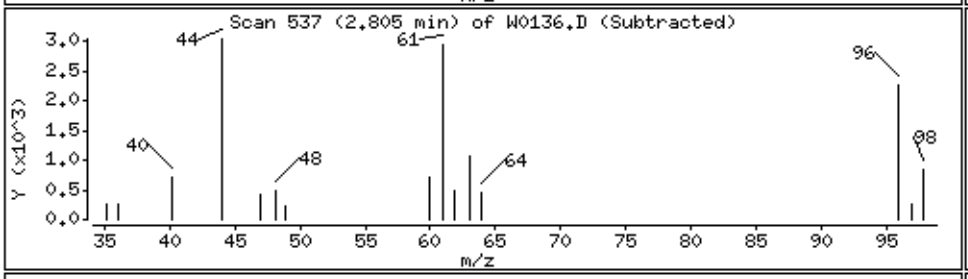


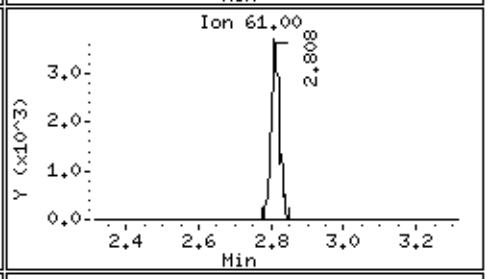


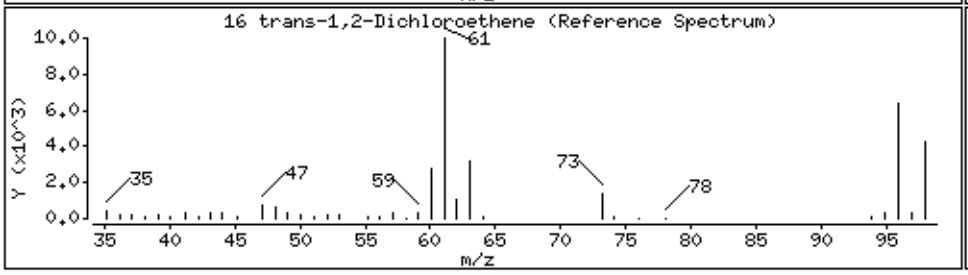
16 trans-1,2-Dichloroethene Concentration: 0.61 ug/l

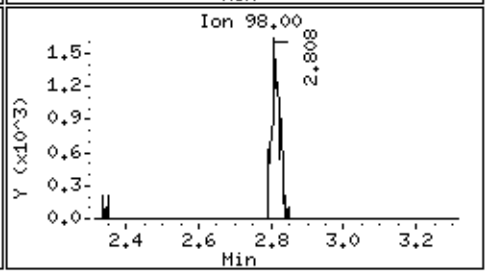












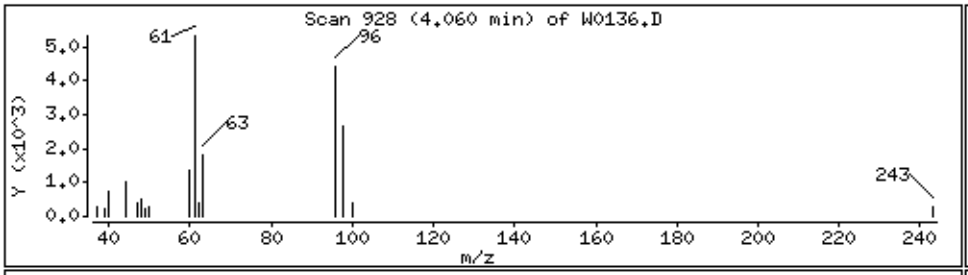
Data File: \\target_server\gg\chem\gcms-w.i\W092121.b\W0136.D

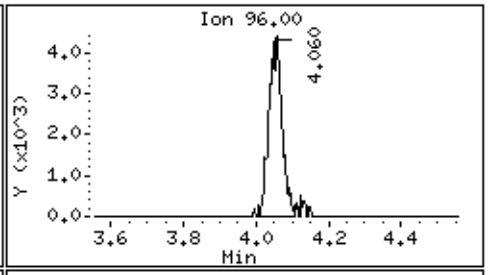
Date : 21-SEP-2021 14:25

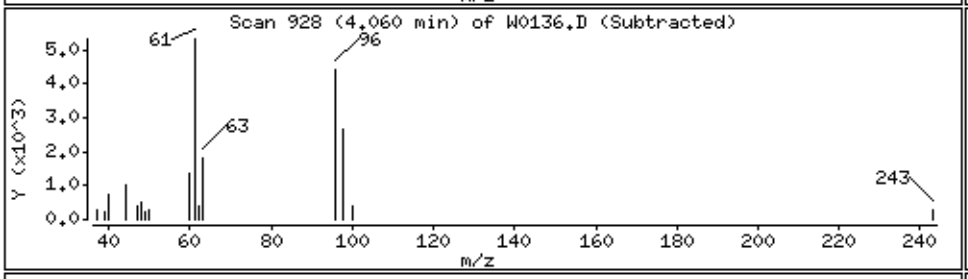
Client ID: VA-MW-86R-1(2021091 Instrument: gcms-w.i

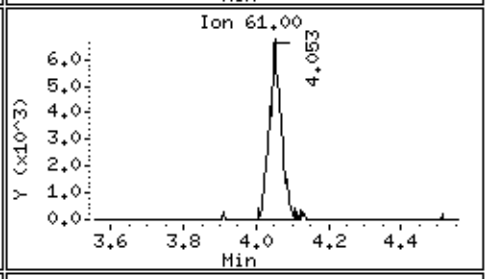
Sample Info: S06313-7

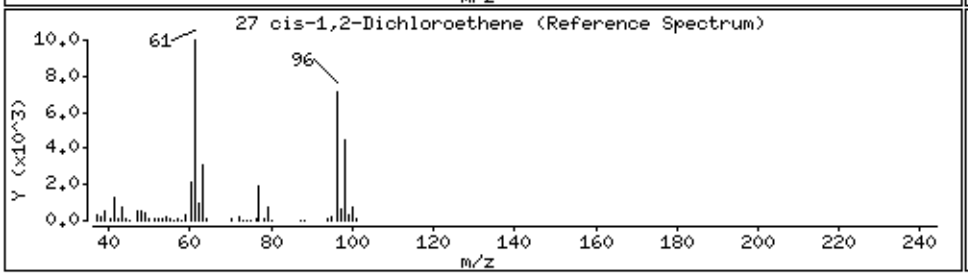
27 cis-1,2-Dichloroethene Concentration: 1.8 ug/l

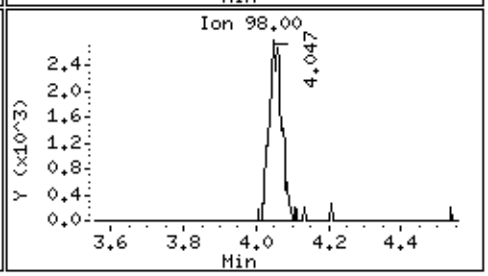








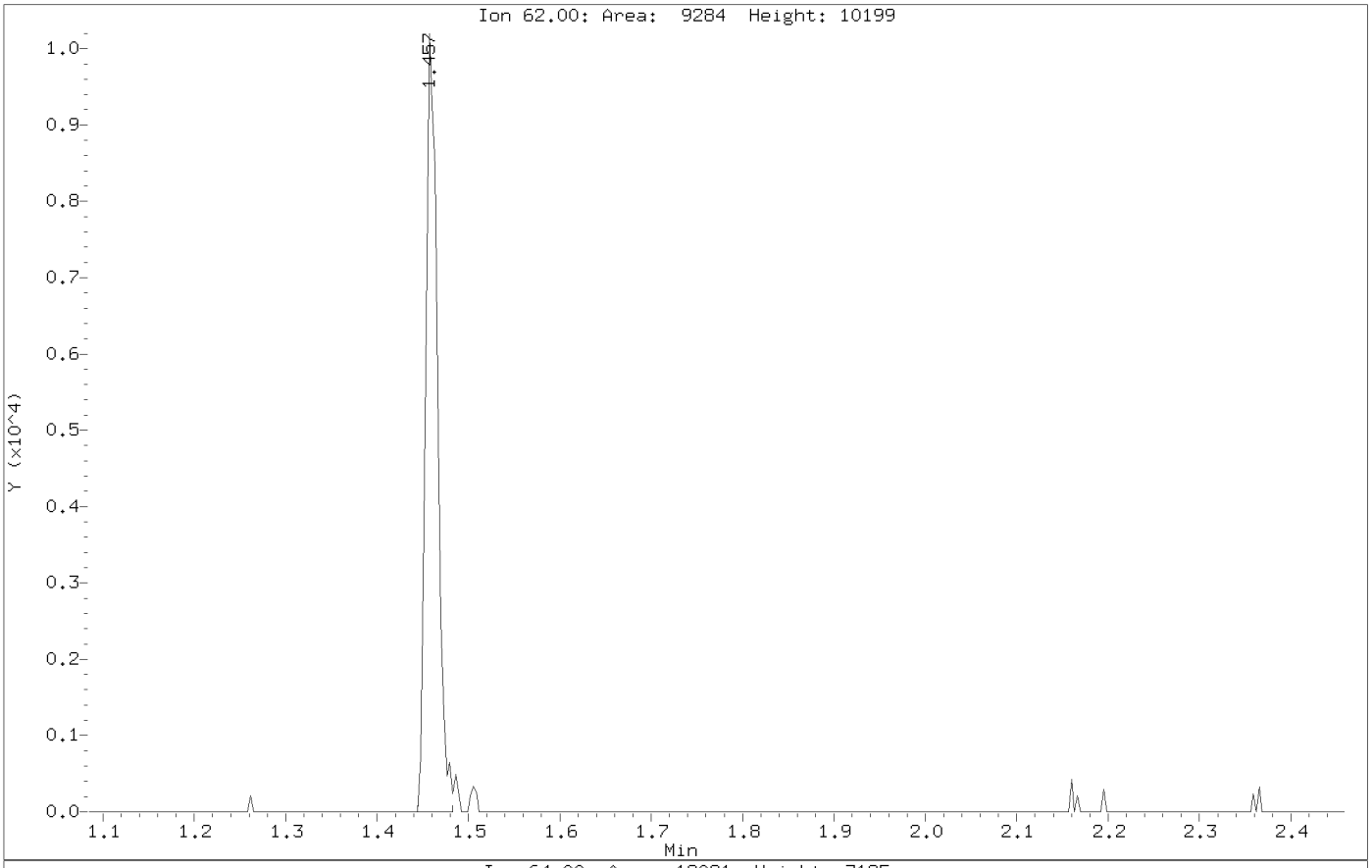


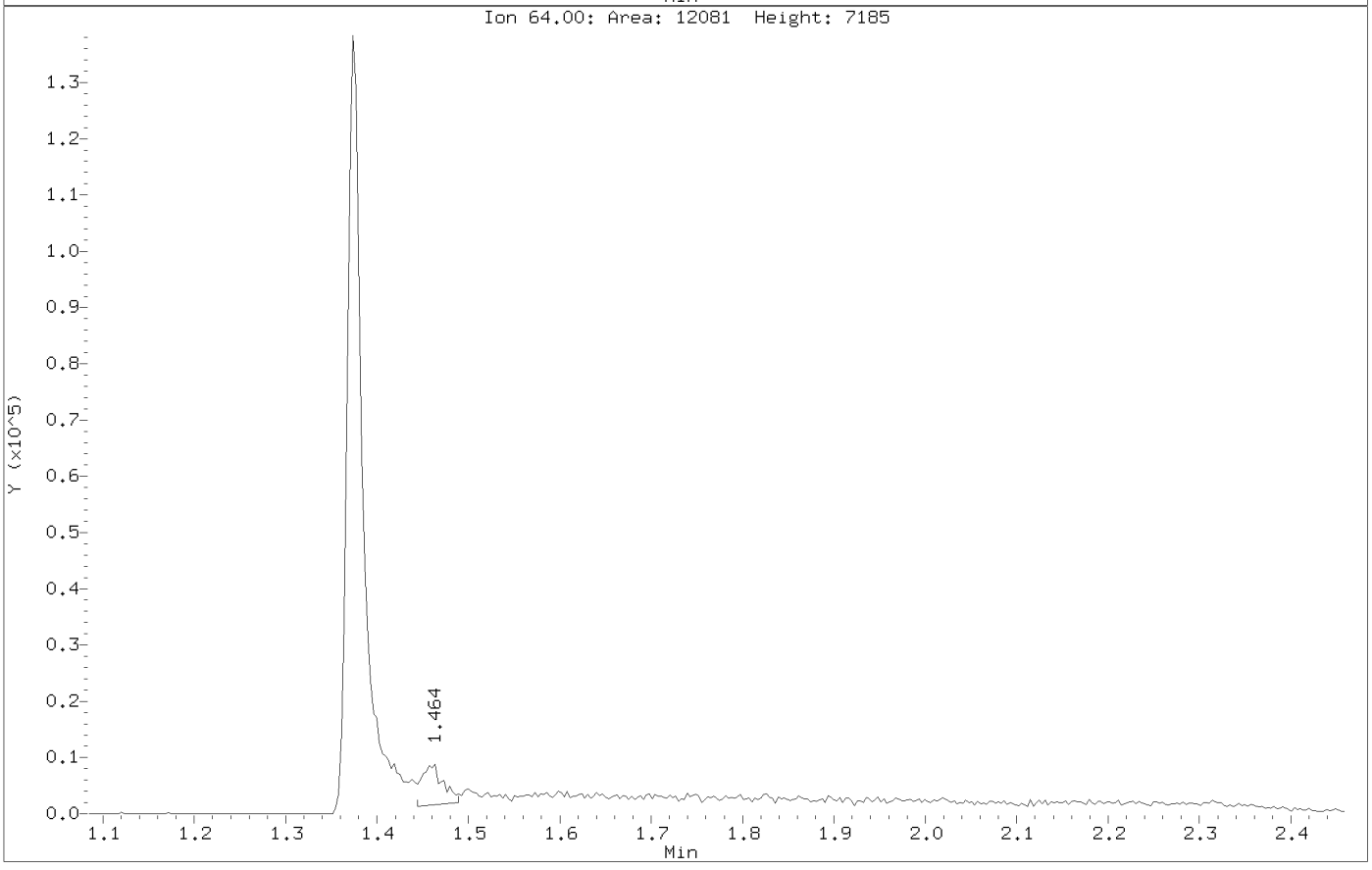


Data File: \\target_server\gg\chem\gcms-w.i\W092121.b\W0136.D
Injection Date: 21-SEP-2021 14:25
Instrument: gcms-w.i
Client Sample ID: VA-MW-86R-1(2021091

Compound: Vinyl chloride
CAS Number: 75-01-4

BEFORE MANUAL INTEGRATION

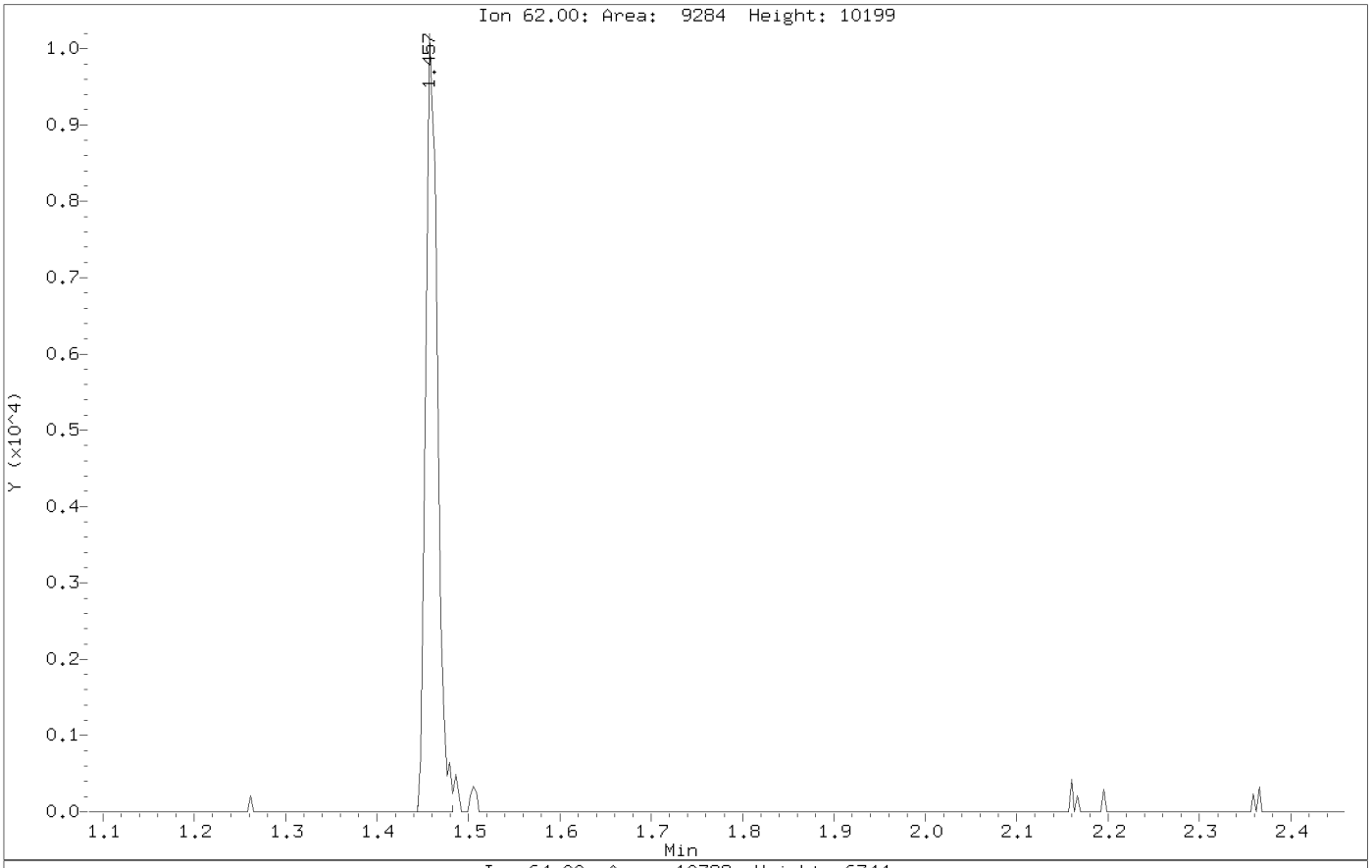


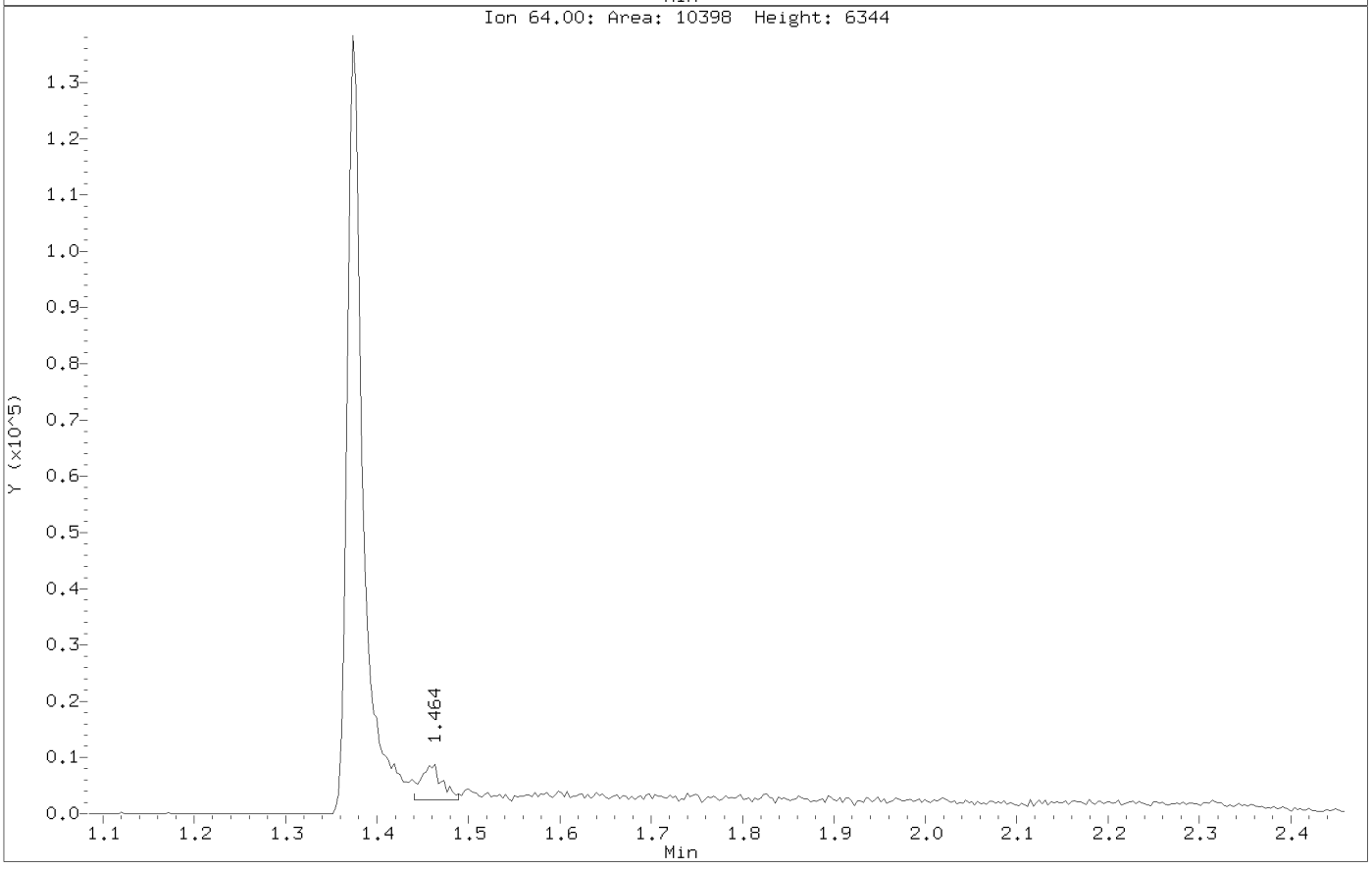


Data File: \\target_server\gg\chem\gcms-w.i\W092121.b\W0136.D
Injection Date: 21-SEP-2021 14:25
Instrument: gcms-w.i
Client Sample ID: VA-MW-86R-1(2021091

Compound: Vinyl chloride
CAS Number: 75-01-4

AFTER MANUAL INTEGRATION





Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-8DL2
Client ID: WVA-MW-86R-2(20210915)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0141.D

Sample Date: 15-SEP-21
Received Date: 18-SEP-21
Extract Date: 21-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306383

Analysis Date: 21-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	4.0	ug/L	2	2	4.0
Vinyl Chloride	E	1300	ug/L	2	2	4.0
Bromomethane	U	4.0	ug/L	2	2	4.0
Chloroethane	U	4.0	ug/L	2	2	4.0
Trichlorofluoromethane	U	4.0	ug/L	2	2	4.0
1,1-Dichloroethene		5.8	ug/L	2	1	2.0
Carbon Disulfide	U	2.0	ug/L	2	1	2.0
Methylene Chloride	U	10.	ug/L	2	5	10.
trans-1,2-Dichloroethene		29.	ug/L	2	1	2.0
1,1-Dichloroethane	U	2.0	ug/L	2	1	2.0
cis-1,2-Dichloroethene	E	3400	ug/L	2	1	2.0
Chloroform	U	2.0	ug/L	2	1	2.0
Carbon Tetrachloride	U	2.0	ug/L	2	1	2.0
1,1,1-Trichloroethane	U	2.0	ug/L	2	1	2.0
2-Butanone	U	10.	ug/L	2	5	10.
Benzene	U	2.0	ug/L	2	1	2.0
1,2-Dichloroethane	U	2.0	ug/L	2	1	2.0
Trichloroethene		10.	ug/L	2	1	2.0
1,2-Dichloropropane	U	2.0	ug/L	2	1	2.0
Bromodichloromethane	U	2.0	ug/L	2	1	2.0
cis-1,3-Dichloropropene	U	2.0	ug/L	2	1	2.0
Toluene	U	2.0	ug/L	2	1	2.0
4-Methyl-2-Pentanone	U	10.	ug/L	2	5	10.
Tetrachloroethene		6.4	ug/L	2	1	2.0
trans-1,3-Dichloropropene	U	2.0	ug/L	2	1	2.0
1,1,2-Trichloroethane	U	2.0	ug/L	2	1	2.0
Dibromochloromethane	U	2.0	ug/L	2	1	2.0
Chlorobenzene	U	2.0	ug/L	2	1	2.0
Ethylbenzene	U	2.0	ug/L	2	1	2.0
m+p-Xylenes	U	4.0	ug/L	2	2	4.0
o-Xylene	U	2.0	ug/L	2	1	2.0
Bromoform	U	2.0	ug/L	2	1	2.0
1,1,2,2-Tetrachloroethane	U	2.0	ug/L	2	1	2.0
P-Bromofluorobenzene		102.	%			
Toluene-d8		101.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-8DL2
Client ID: WVA-MW-86R-2(20210915)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0141.D

Sample Date: 15-SEP-21
Received Date: 18-SEP-21
Extract Date: 21-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306383

Analysis Date: 21-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		117.	%			
Dibromofluoromethane		107.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Data File: \\target_server\gg\chem\gcms-w.i\W092121.b\W0141.D
Report Date: 12-Oct-2021 08:54

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-w.i\W092121.b\W0141.D
Lab Smp Id: SO6313-8DL2 Client Smp ID: VA-MW-86R-2(2021091
Inj Date : 21-SEP-2021 16:58
Operator : ES Inst ID: gcms-w.i
Smp Info : SO6313-8DL2
Misc Info : WG306383,WG306383-4
Comment : SW846 5030
Method : \\target_server\gg\chem\gcms-w.i\W092121.b\W8A05(08).m
Meth Date : 11-Oct-2021 12:27 gcms-w.i Quant Type: ISTD
Cal Date : 20-SEP-2021 11:30 Cal File: W0105.D
Als bottle: 19
Dil Factor: 2.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.12

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	2.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

10:03 am, Oct 12, 2021

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)	REVIEW CODE
	3 Vinyl chloride	62	1.460	1.460	(0.264)	3602318	641.505	1280(A)	
	8 1,1-Dichloroethene	96	2.211	2.211	(0.400)	14656	2.87591	5.8	
	10 Carbon Disulfide	76	2.246	2.240	(0.407)	4377	0.34455	0.69(a)	
	15 Acetone	43	2.724	2.725	(0.493)	3824	2.73938	5.5(aM)	M9
	16 trans-1,2-Dichloroethene	96	2.811	2.815	(0.509)	79622	14.7132	29.4	
	27 cis-1,2-Dichloroethene	96	4.053	4.056	(0.734)	9807104	1701.57	3400(A)	
$	34 Dibromofluoromethane	113	4.711	4.714	(0.853)	273909	53.5172	53.5	
*	41 Pentafluorobenzene	168	5.523	5.526	(1.000)	511017	50.0000		
$	42 1,2-Dichloroethane-D4	65	5.548	5.549	(1.005)	390457	58.5694	58.6	
	47 Trichloroethene	95	6.222	6.226	(0.986)	29140	5.26307	10.5	
*	48 1,4-Difluorobenzene	114	6.309	6.315	(1.000)	872553	50.0000		
$	58 Toluene-D8	98	8.202	8.209	(1.300)	1056690	50.6376	50.6	
	60 Tetrachloroethene	164	8.754	8.754	(0.860)	15731	3.20971	6.4	
*	68 Chlorobenzene-D5	117	10.182	10.182	(1.000)	852844	50.0000		
$	77 P-Bromofluorobenzene	95	11.677	11.678	(1.851)	444373	50.8922	50.9	
*	93 1,4-Dichlorobenzene-D4	152	12.948	12.948	(1.000)	437549	50.0000		
M	97 1,2-Dichloroethylene (total)	96				9886726	1716.28	3430	

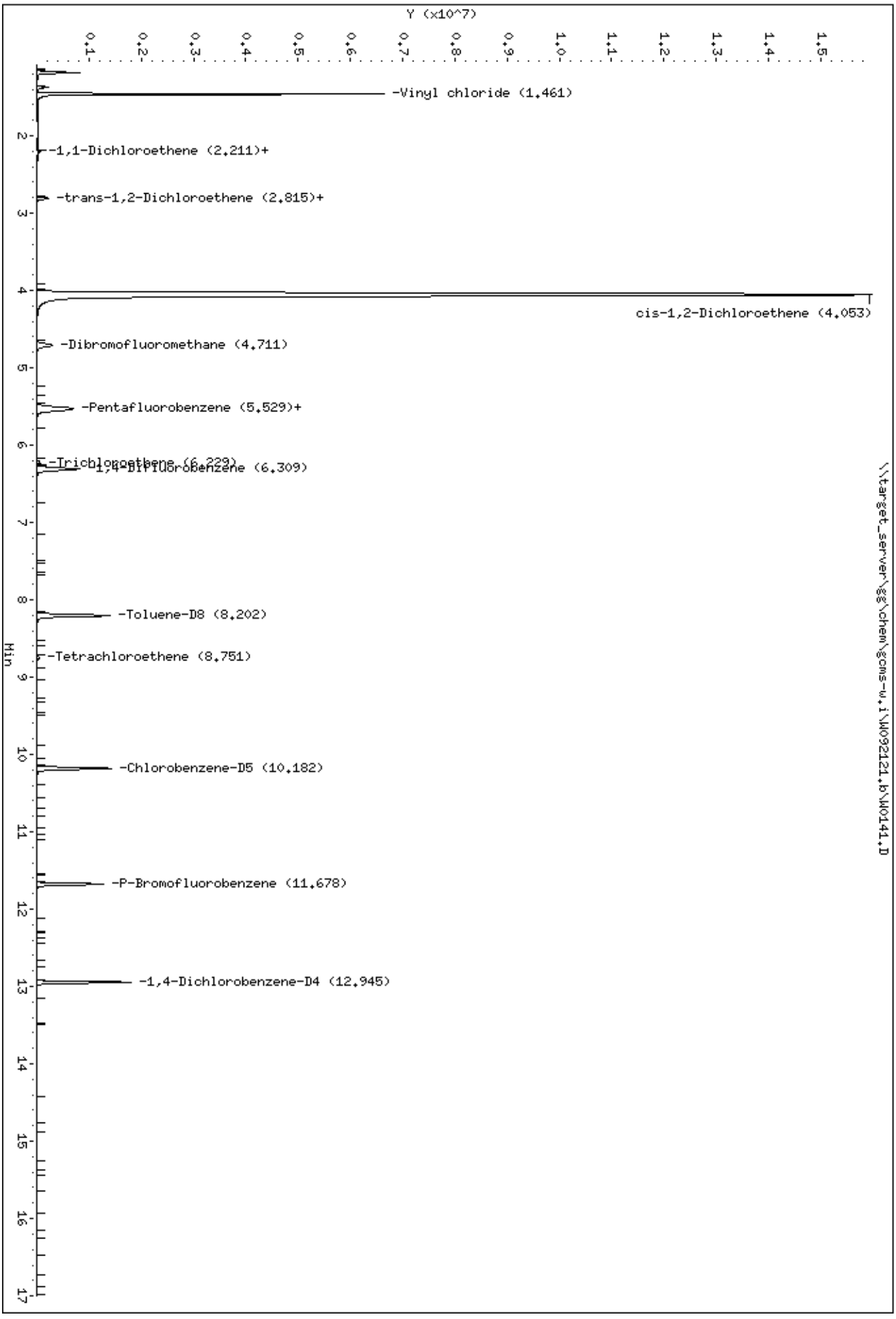
QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount
exceeded maximum amount.

Data File: \\target_server\gg\chem\gcms-w.i\W092121.b\W0141.D
Report Date: 12-Oct-2021 08:54

QC Flag Legend

M - Compound response manually integrated.



Data File: \\target_server\gg\chem\gcms-w.i\W092121.b\W0141.D
Date : 21-SEP-2021 16:58
Client ID: VA-MW-86R-2(2021091
Sample Info: SD6313-8DL2

Instrument: gcms-w.i

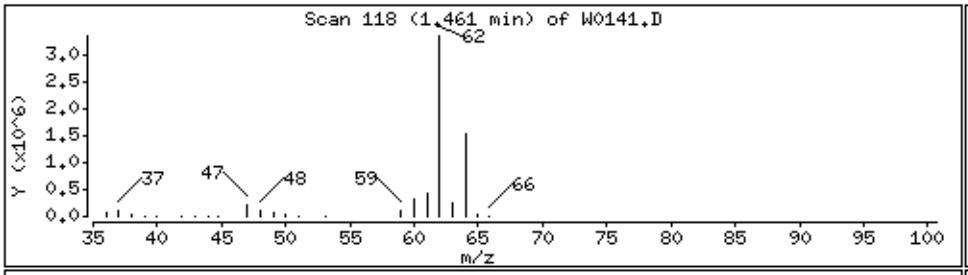
Data File: \\target_server\gg\chem\gcms-w.i\W092121.b\W0141.D

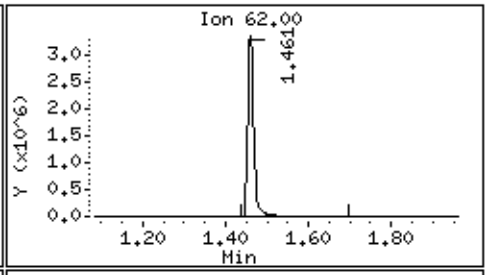
Date : 21-SEP-2021 16:58

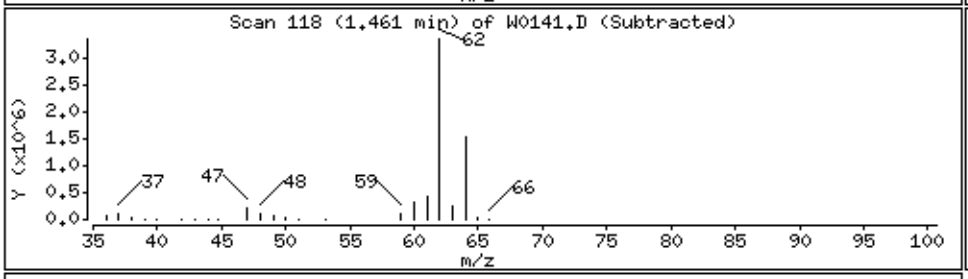
Client ID: VA-MW-86R-2(2021091 Instrument: gcms-w.i

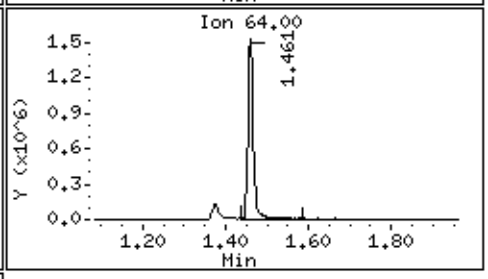
Sample Info: S06313-8DL2

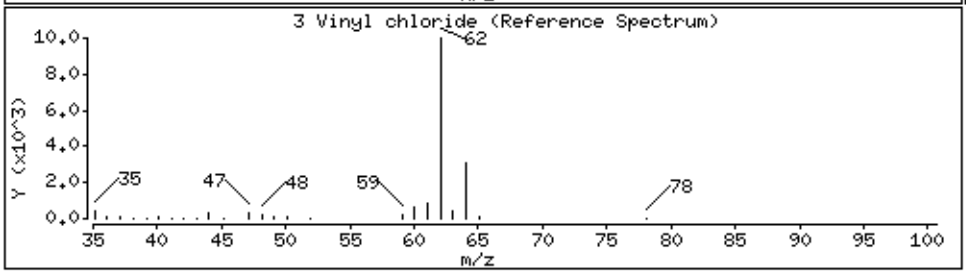
3 Vinyl chloride Concentration: 1280 ug/l



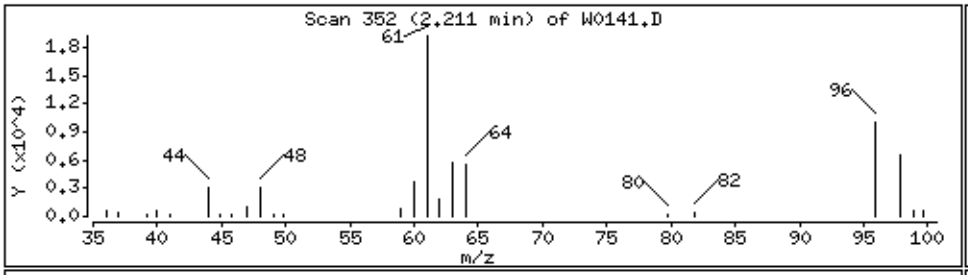


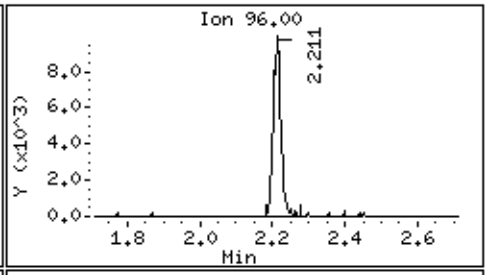


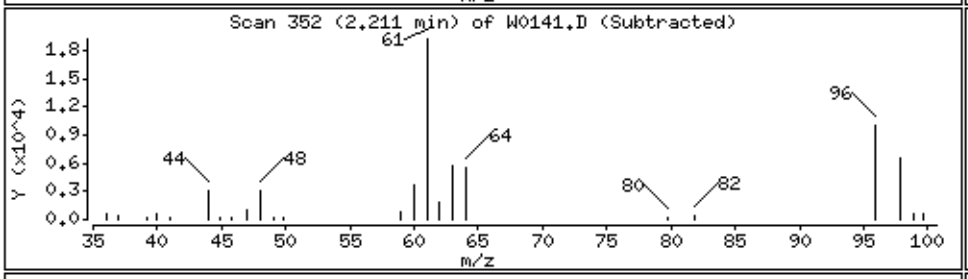


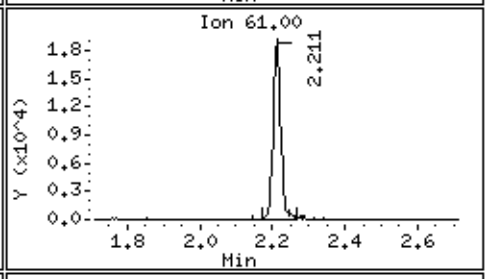


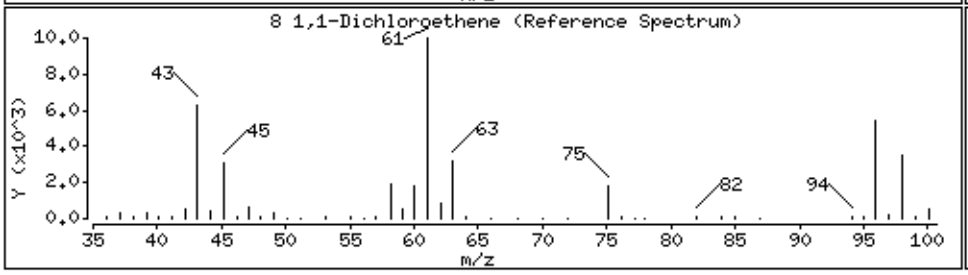
8 1,1-Dichloroethene Concentration: 5.8 ug/l

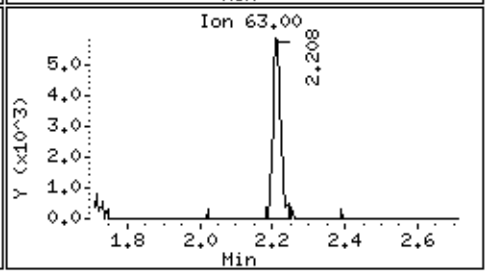












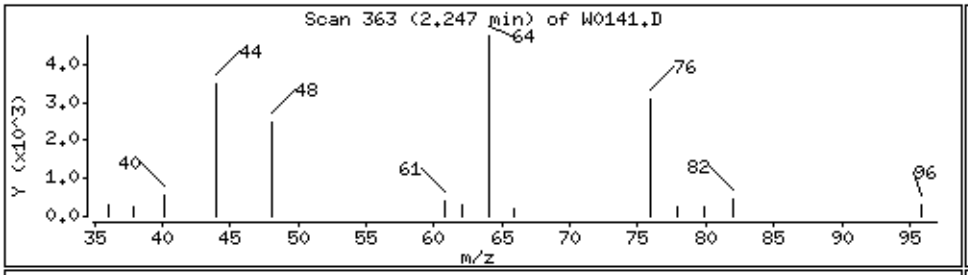
Data File: \\target_server\gg\chem\gcms-w.i\W092121.b\W0141.D

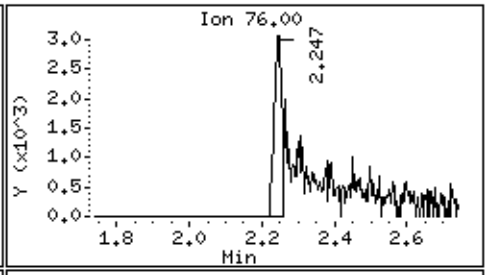
Date : 21-SEP-2021 16:58

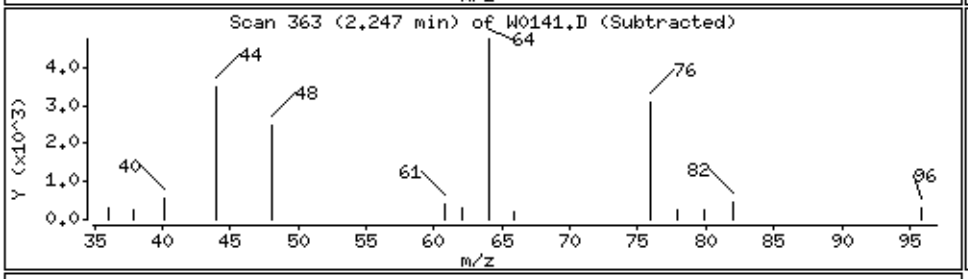
Client ID: VA-MW-86R-2(2021091 Instrument: gcms-w.i

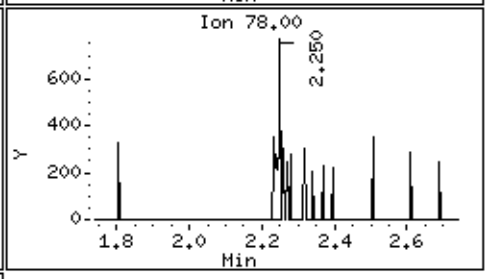
Sample Info: S06313-8DL2

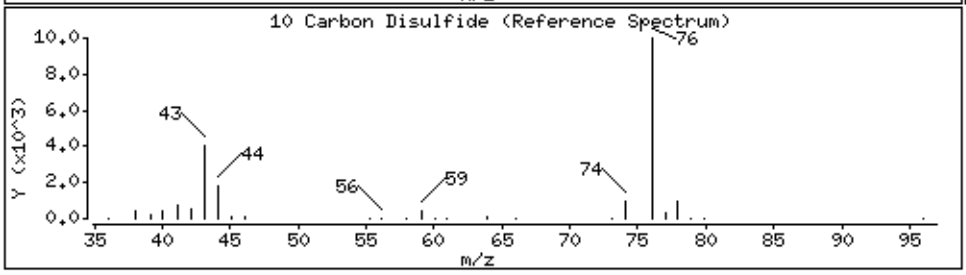
10 Carbon Disulfide Concentration: 0.69 ug/l



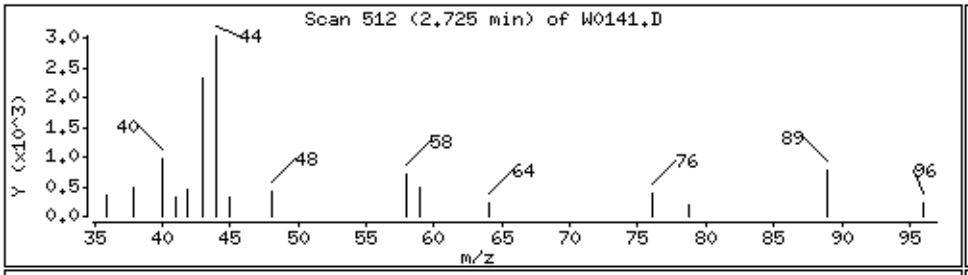


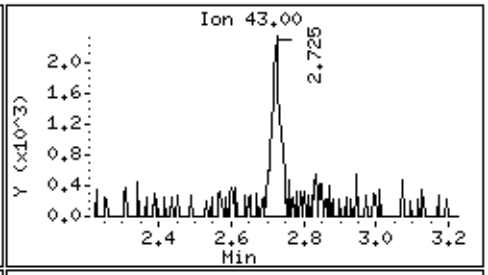


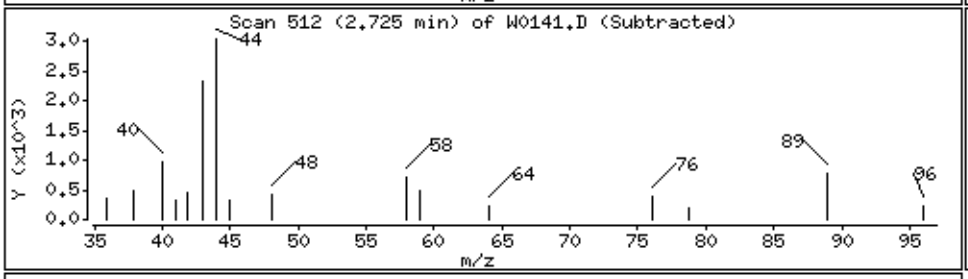


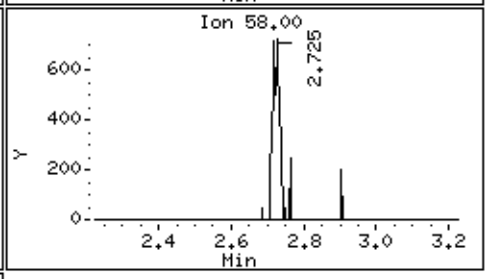


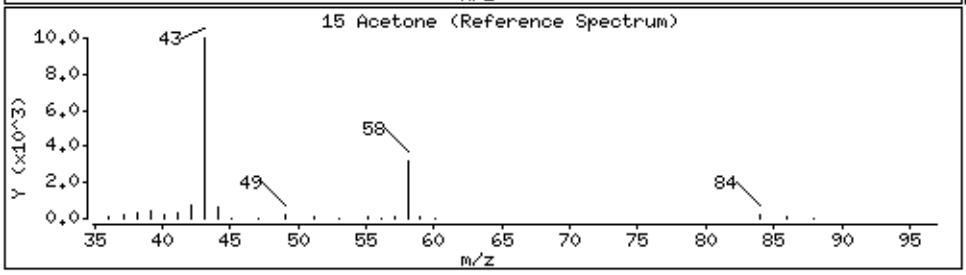
15 Acetone Concentration: 5.5 ug/l











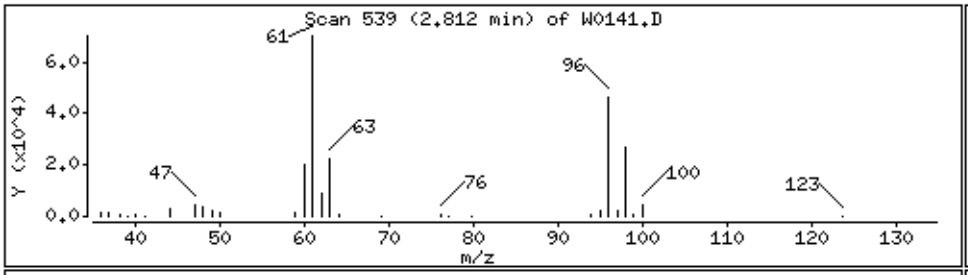
Data File: \\target_server\gg\chem\gcms-w.i\W092121.b\W0141.D

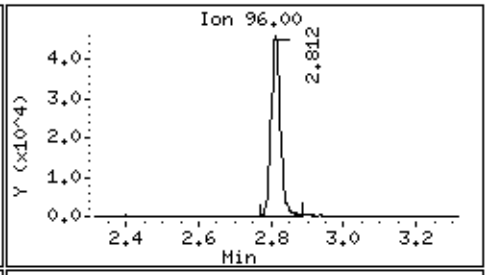
Date : 21-SEP-2021 16:58

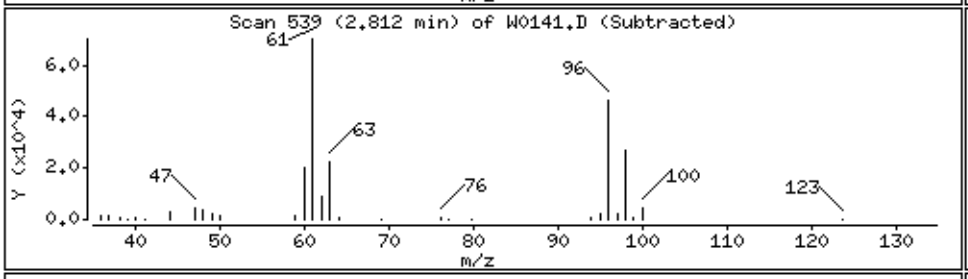
Client ID: VA-MW-86R-2(2021091 Instrument: gcms-w.i

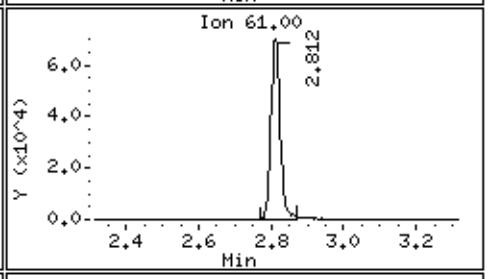
Sample Info: S06313-8DL2

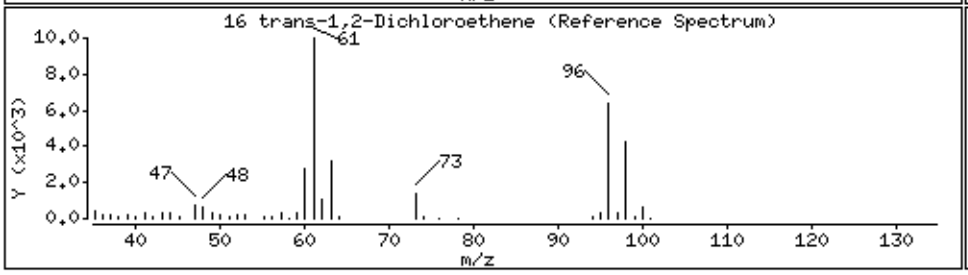
16 trans-1,2-Dichloroethene Concentration: 29.4 ug/l

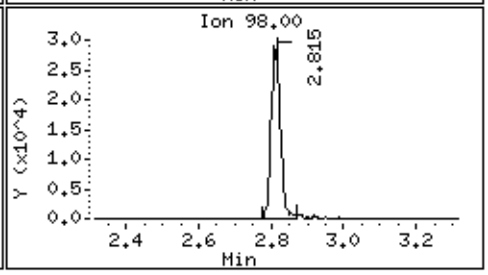




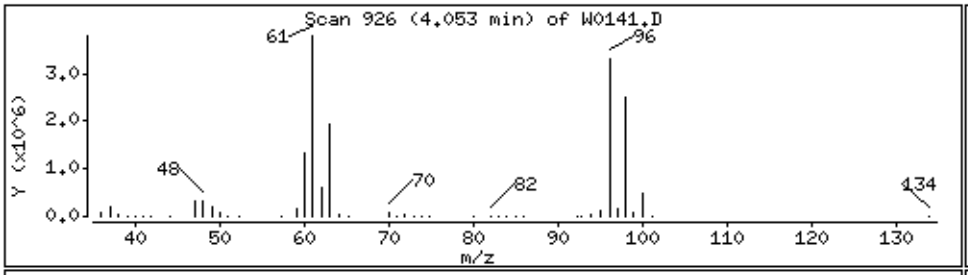


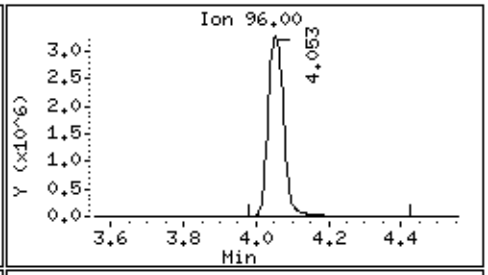


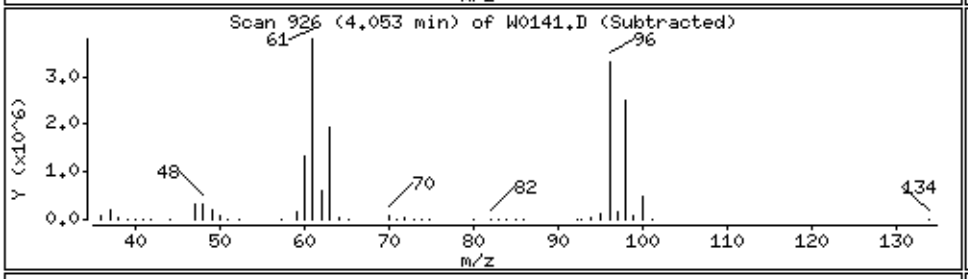


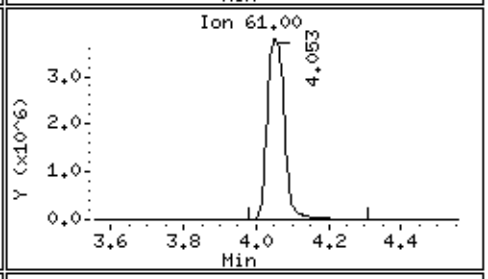


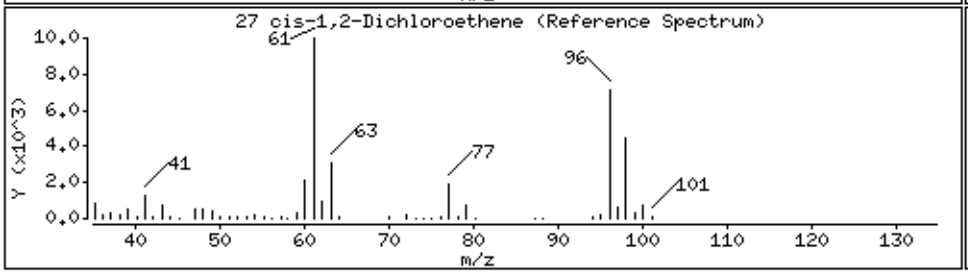
27 cis-1,2-Dichloroethene Concentration: 3400 ug/l

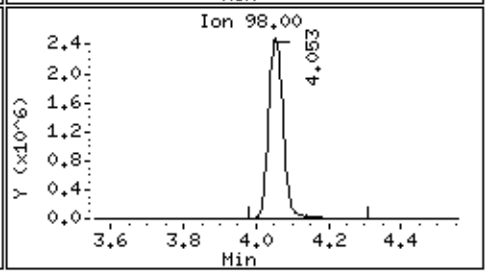












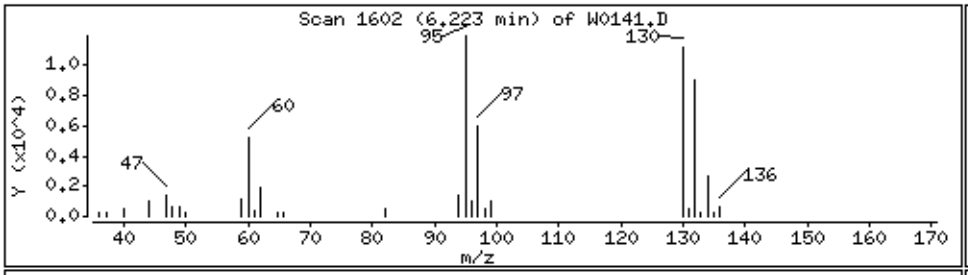
Data File: \\target_server\gg\chem\gcms-w.i\W092121.b\W0141.D

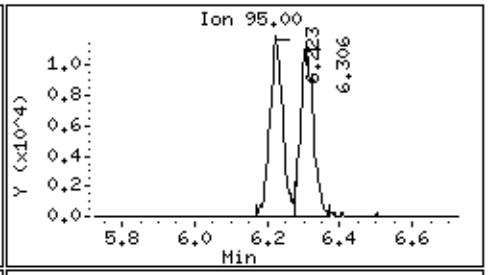
Date : 21-SEP-2021 16:58

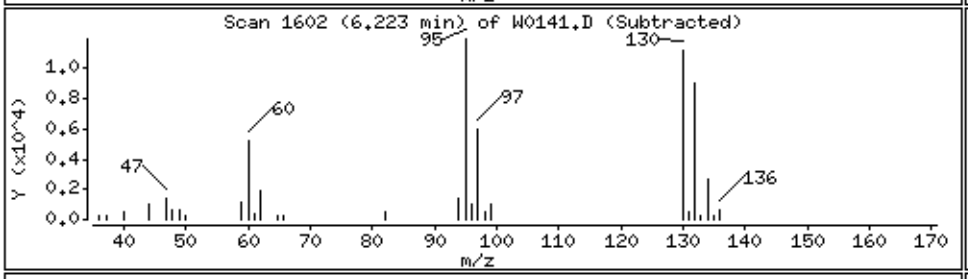
Client ID: VA-MW-86R-2(2021091 Instrument: gcms-w.i

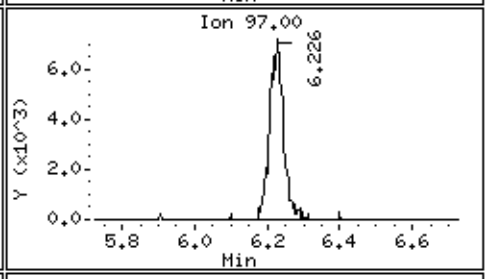
Sample Info: S06313-8DL2

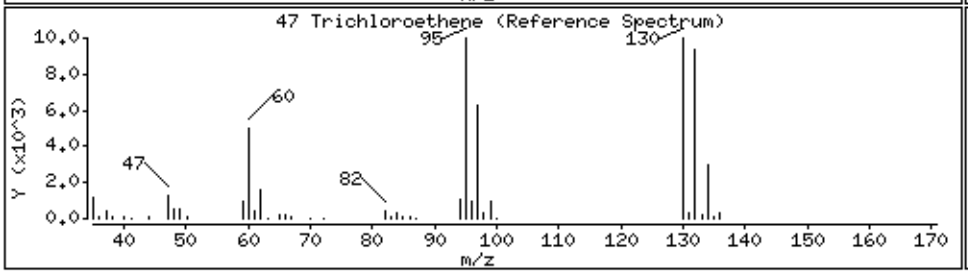
47 Trichloroethene Concentration: 10.5 ug/l

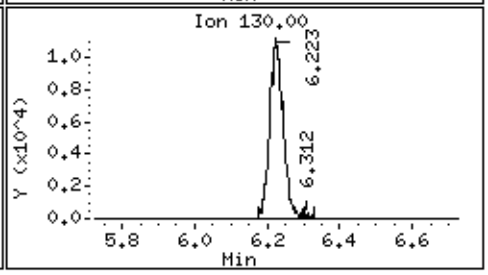




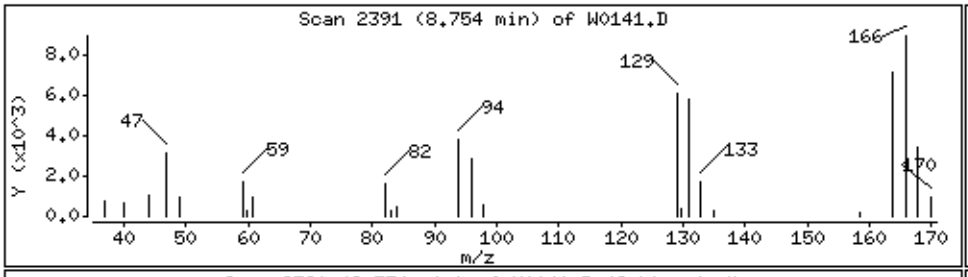


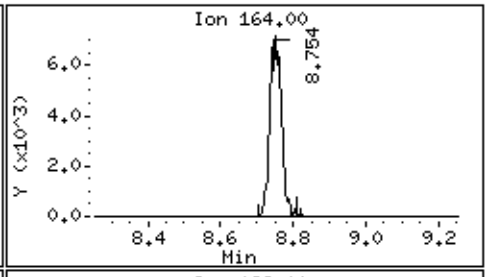


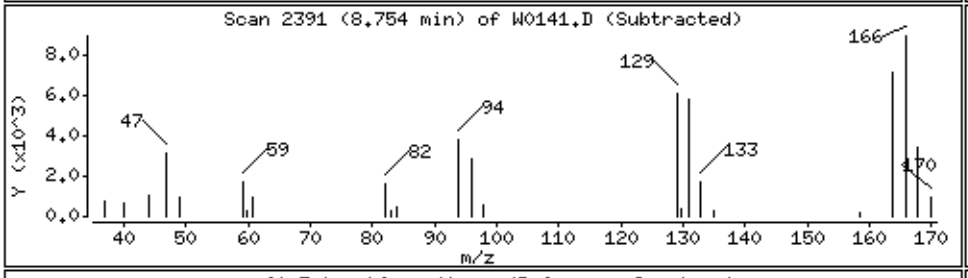


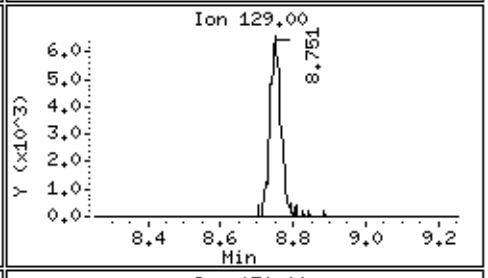


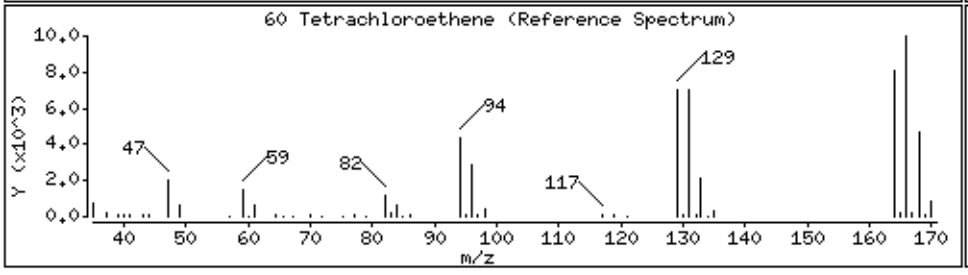
60 Tetrachloroethene Concentration: 6.4 ug/l

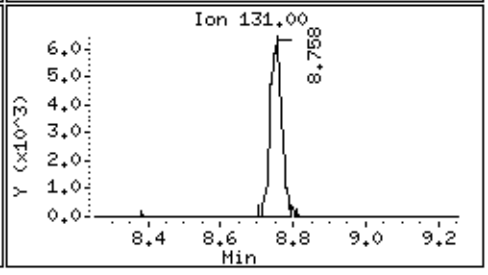












Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-8DL3
Client ID: WVA-MW-86R-2(20210915)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0150.D

Sample Date: 15-SEP-21
Received Date: 18-SEP-21
Extract Date: 22-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306464

Analysis Date: 22-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	100	ug/L	50	2	100
Vinyl Chloride		1700	ug/L	50	2	100
Bromomethane	U	100	ug/L	50	2	100
Chloroethane	U	100	ug/L	50	2	100
Trichlorofluoromethane	U	100	ug/L	50	2	100
1,1-Dichloroethene	U	50.	ug/L	50	1	50.
Carbon Disulfide	U	50.	ug/L	50	1	50.
Methylene Chloride	U	250	ug/L	50	5	250
trans-1,2-Dichloroethene	U	50.	ug/L	50	1	50.
1,1-Dichloroethane	U	50.	ug/L	50	1	50.
cis-1,2-Dichloroethene		3700	ug/L	50	1	50.
Chloroform	U	50.	ug/L	50	1	50.
Carbon Tetrachloride	U	50.	ug/L	50	1	50.
1,1,1-Trichloroethane	U	50.	ug/L	50	1	50.
2-Butanone	U	250	ug/L	50	5	250
Benzene	U	50.	ug/L	50	1	50.
1,2-Dichloroethane	U	50.	ug/L	50	1	50.
Trichloroethene	U	50.	ug/L	50	1	50.
1,2-Dichloropropane	U	50.	ug/L	50	1	50.
Bromodichloromethane	U	50.	ug/L	50	1	50.
cis-1,3-Dichloropropene	U	50.	ug/L	50	1	50.
Toluene	U	50.	ug/L	50	1	50.
4-Methyl-2-Pentanone	U	250	ug/L	50	5	250
Tetrachloroethene	U	50.	ug/L	50	1	50.
trans-1,3-Dichloropropene	U	50.	ug/L	50	1	50.
1,1,2-Trichloroethane	U	50.	ug/L	50	1	50.
Dibromochloromethane	U	50.	ug/L	50	1	50.
Chlorobenzene	U	50.	ug/L	50	1	50.
Ethylbenzene	U	50.	ug/L	50	1	50.
m+p-Xylenes	U	100	ug/L	50	2	100
o-Xylene	U	50.	ug/L	50	1	50.
Bromoform	U	50.	ug/L	50	1	50.
1,1,2,2-Tetrachloroethane	U	50.	ug/L	50	1	50.
P-Bromofluorobenzene		101.	%			
Toluene-d8		101.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-8DL3
Client ID: WVA-MW-86R-2(20210915)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0150.D

Sample Date: 15-SEP-21
Received Date: 18-SEP-21
Extract Date: 22-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306464

Analysis Date: 22-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		112.	%			
Dibromofluoromethane		103.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Data File: \\target_server\gg\chem\gcms-w.i\W092221.b\W0150.D
Report Date: 12-Oct-2021 08:54

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-w.i\W092221.b\W0150.D
Lab Smp Id: SO6313-8DL3
Inj Date : 22-SEP-2021 09:55
Operator : ES Inst ID: gcms-w.i
Smp Info : SO6313-8DL3
Misc Info : WG306464,WG306464-4
Comment : SW846 5030
Method : \\target_server\gg\chem\gcms-w.i\W092221.b\W8A05(08).m
Meth Date : 11-Oct-2021 13:03 hgould Quant Type: ISTD
Cal Date : 20-SEP-2021 11:30 Cal File: W0105.D
Als bottle: 6
Dil Factor: 50.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.12

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	50.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

10:03 am, Oct 12, 2021

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)	REVIEW CODE
	3 Vinyl chloride	62	1.460	1.460	(0.264)	195472	33.3458	1670(M)	M10
	14 Methylene Chloride	84	2.673	2.677	(0.484)	16550	3.14773	157(a)	
	15 Acetone	43	2.728	2.725	(0.494)	4080	2.79979	140(aM)	M10
	16 trans-1,2-Dichloroethene	96	2.808	2.815	(0.508)	3581	0.63390	31.7(a)	
	27 cis-1,2-Dichloroethene	96	4.053	4.056	(0.733)	449272	74.6718	3730	
$	34 Dibromofluoromethane	113	4.707	4.714	(0.852)	275310	51.5285	51.5	
*	41 Pentafluorobenzene	168	5.526	5.526	(1.000)	533454	50.0000		
$	42 1,2-Dichloroethane-D4	65	5.548	5.549	(1.004)	389268	55.9351	55.9	
*	48 1,4-Difluorobenzene	114	6.309	6.315	(1.000)	892686	50.0000		
$	58 Toluene-D8	98	8.202	8.209	(1.300)	1078712	50.5271	50.5	
*	68 Chlorobenzene-D5	117	10.179	10.182	(1.000)	875331	50.0000		
$	77 P-Bromofluorobenzene	95	11.674	11.678	(1.850)	451645	50.5585	50.6	
*	93 1,4-Dichlorobenzene-D4	152	12.945	12.948	(1.000)	445651	50.0000		
M	97 1,2-Dichloroethylene (total)	96				452853	75.3057	3760	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Data File: \\target_server\gg\chem\gcms-w.i\W092221.b\W0150.D

Date : 22-SEP-2021 09:55

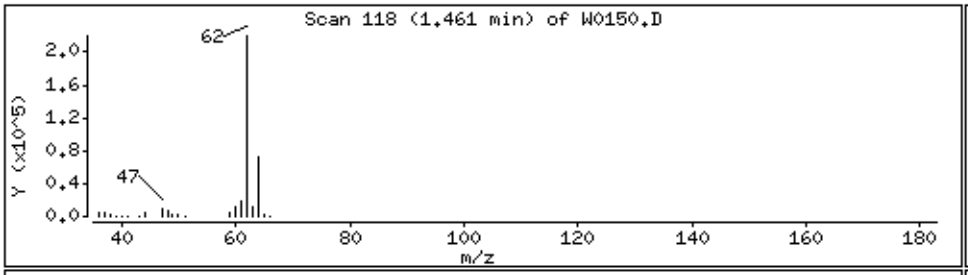
Client ID:

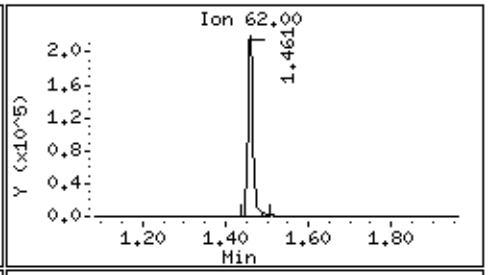
Instrument: gcms-w.i

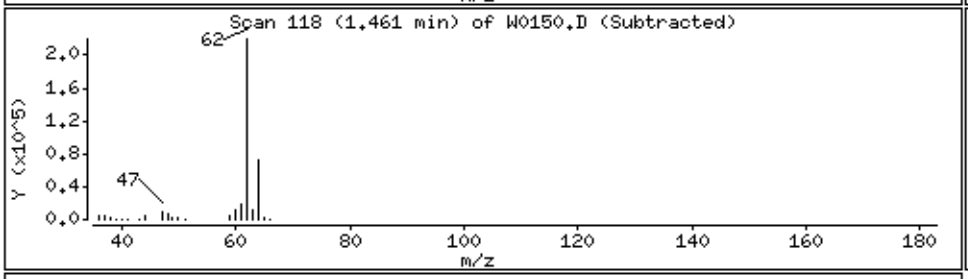
Sample Info: SO6313-8DL3

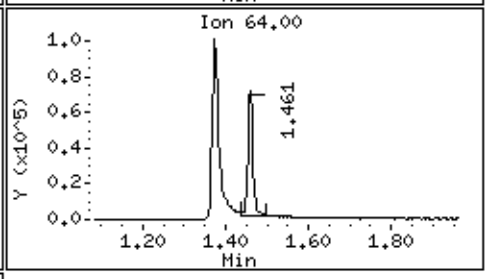
3 Vinyl chloride

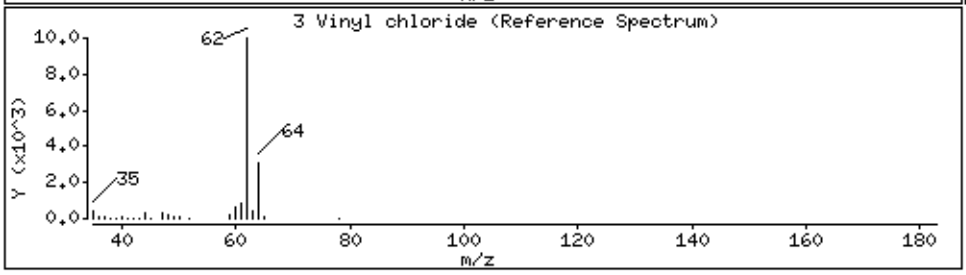
Concentration: 1670 ug/l





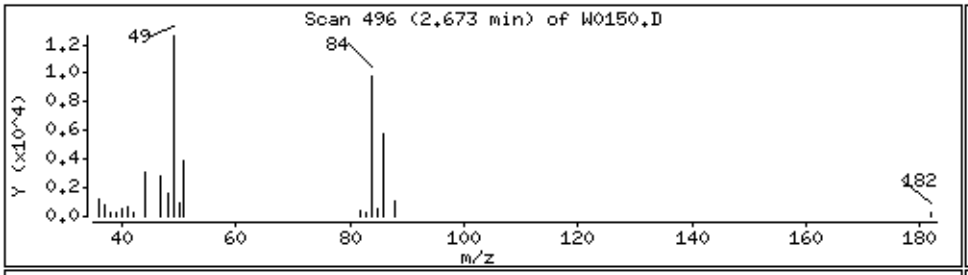


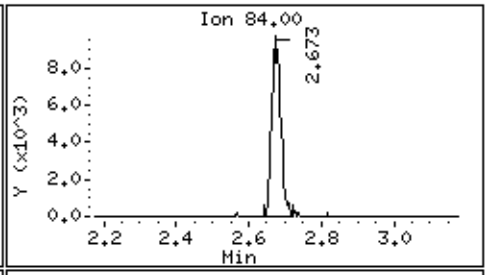


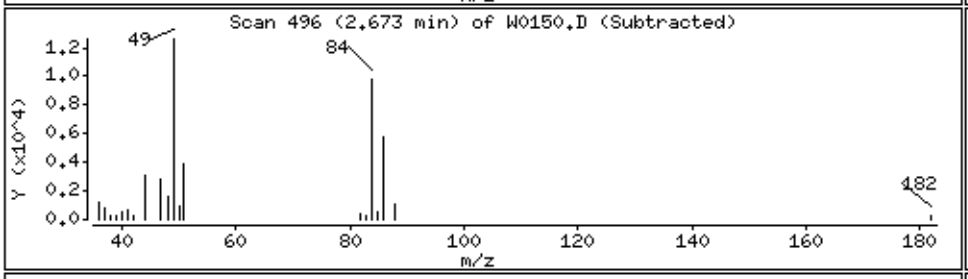


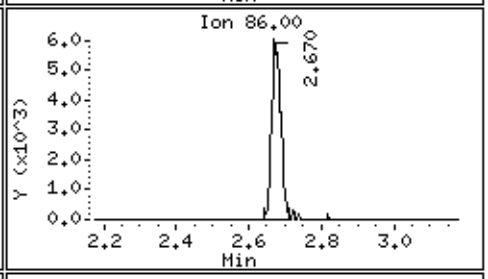
14 Methylene Chloride

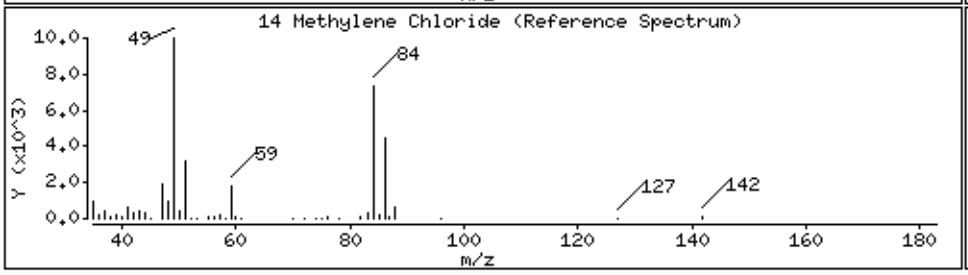
Concentration: 157 ug/l

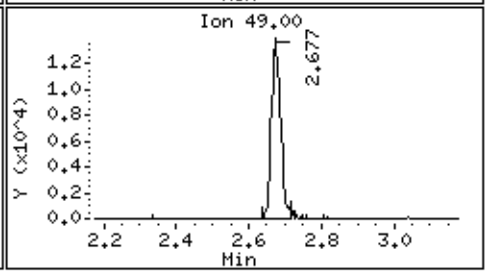












Data File: \\target_server\gg\chem\gcms-w.i\W092221.b\W0150.D

Date : 22-SEP-2021 09:55

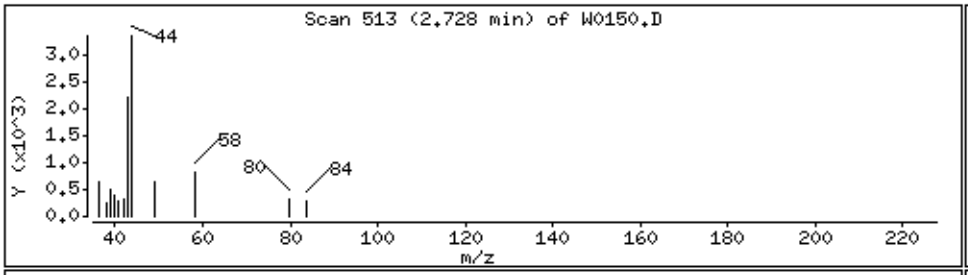
Client ID:

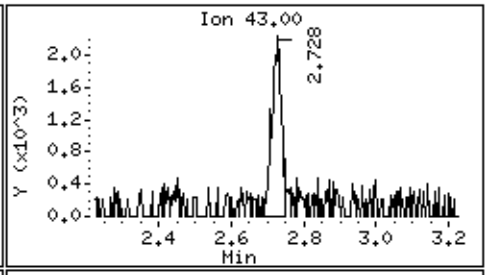
Instrument: gcms-w.i

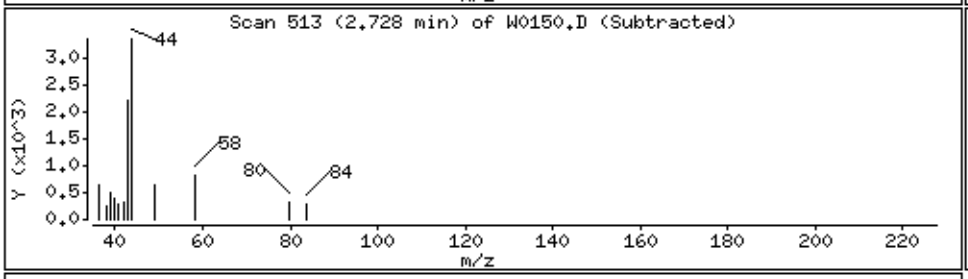
Sample Info: S06313-8DL3

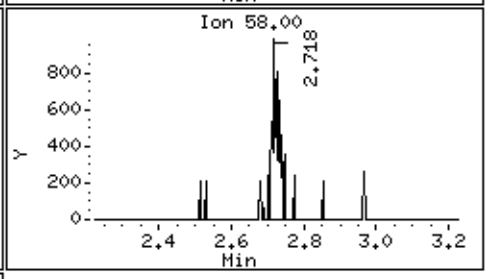
15 Acetone

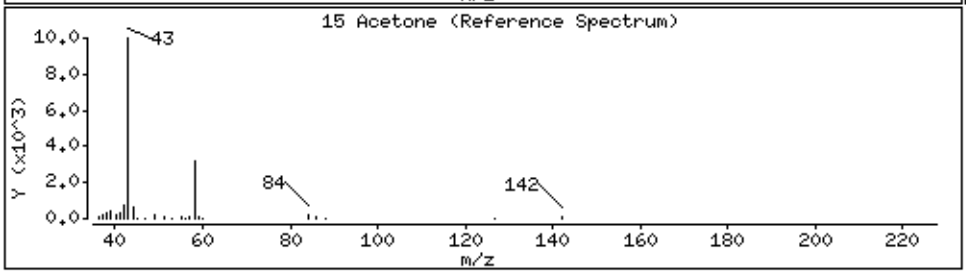
Concentration: 140 ug/l





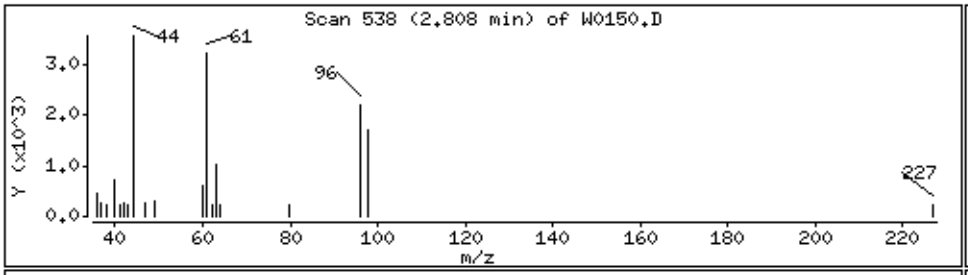


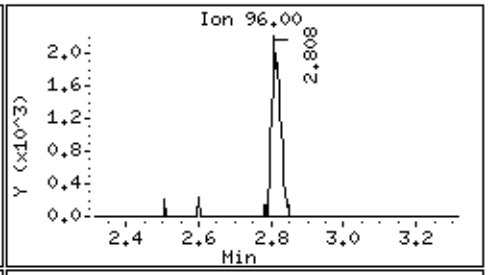


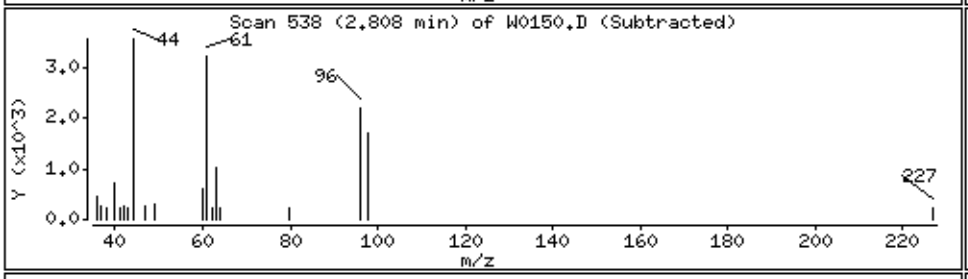


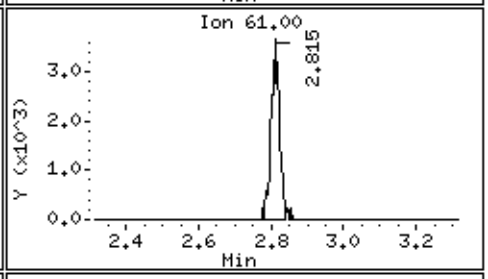
16 trans-1,2-Dichloroethene

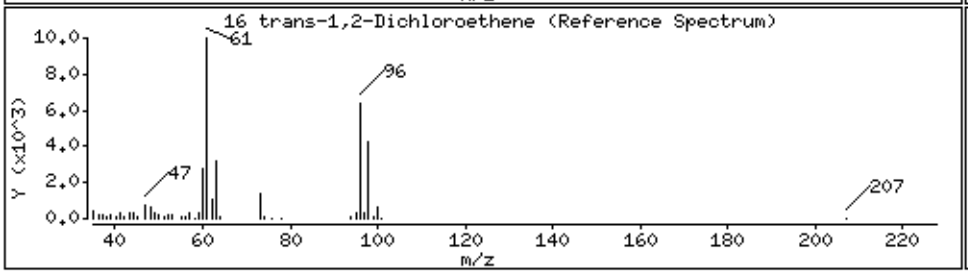
Concentration: 31.7 ug/l

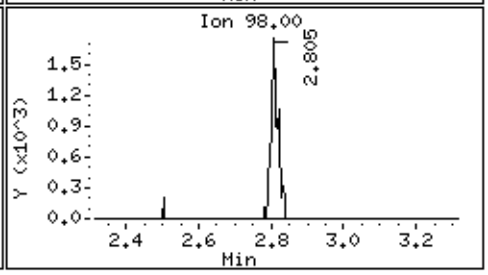












Data File: \\target_server\gg\chem\gcms-w.i\W092221.b\W0150.D

Date : 22-SEP-2021 09:55

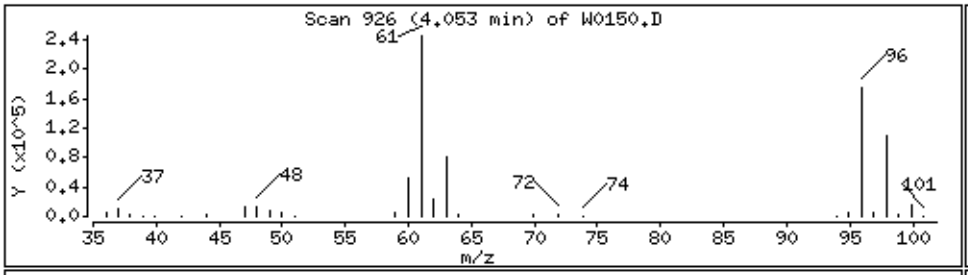
Client ID:

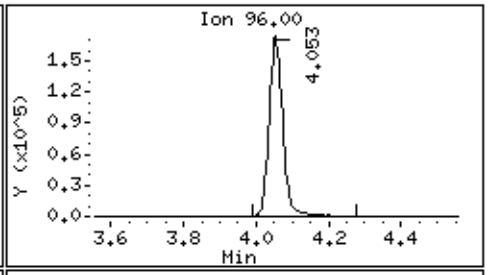
Instrument: gcms-w.i

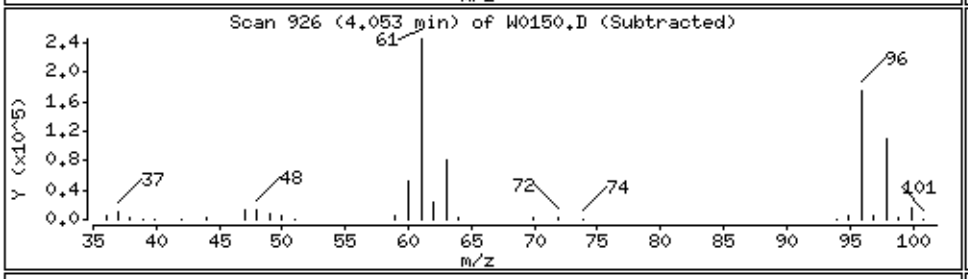
Sample Info: S06313-8DL3

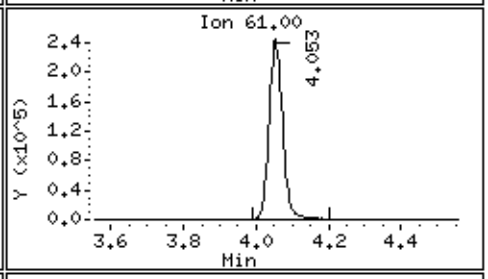
27 cis-1,2-Dichloroethene

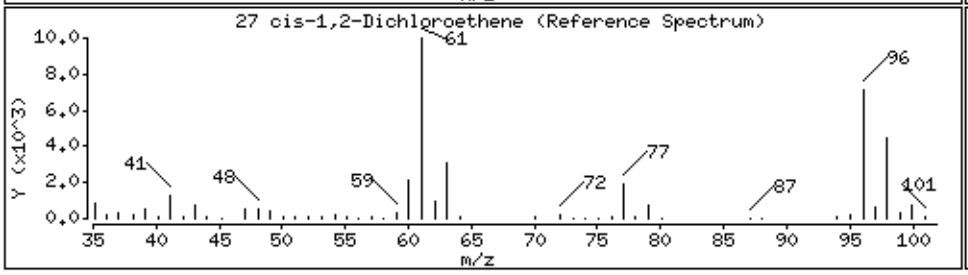
Concentration: 3730 ug/l

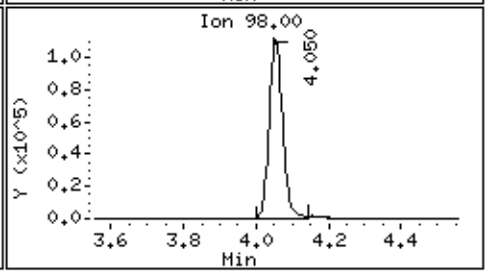








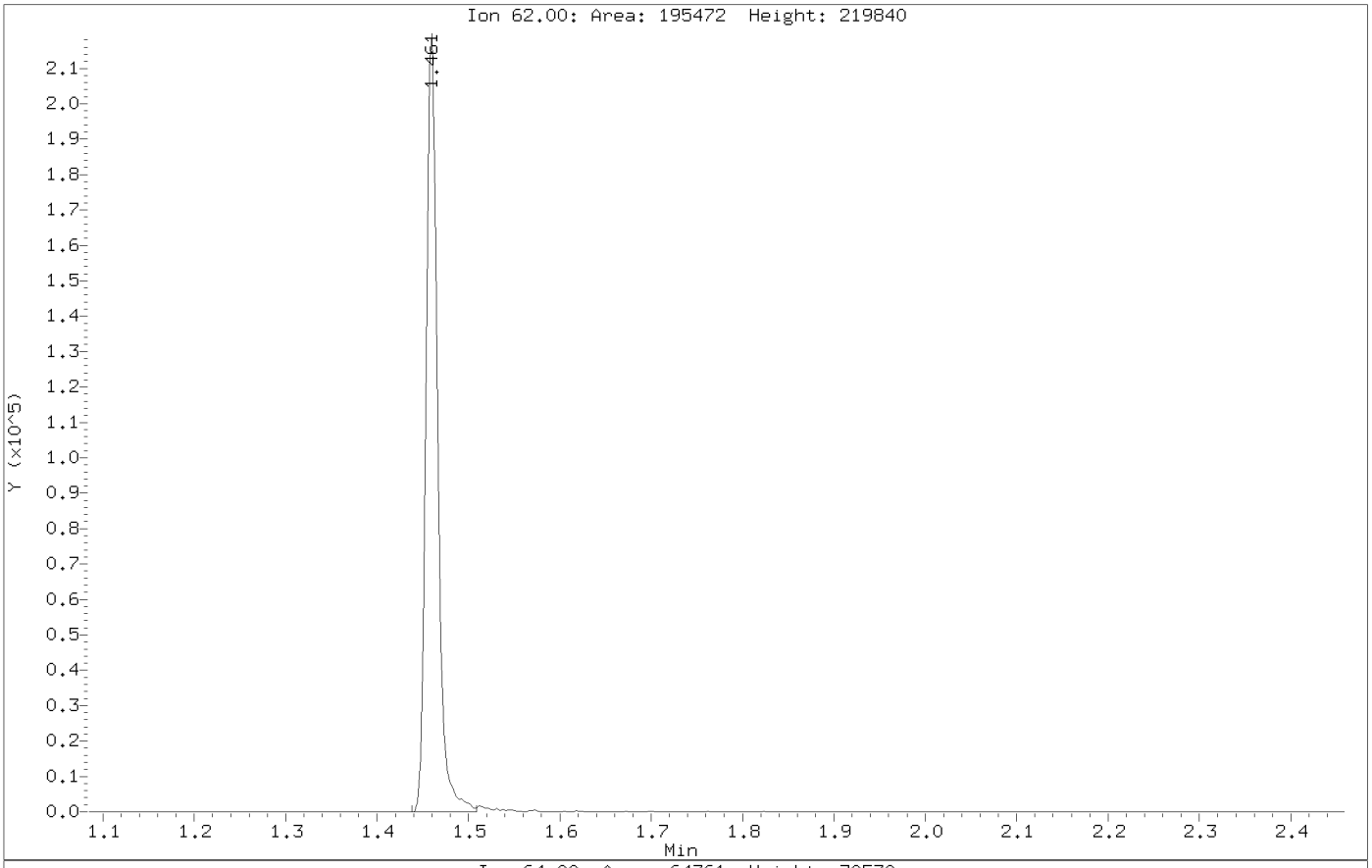


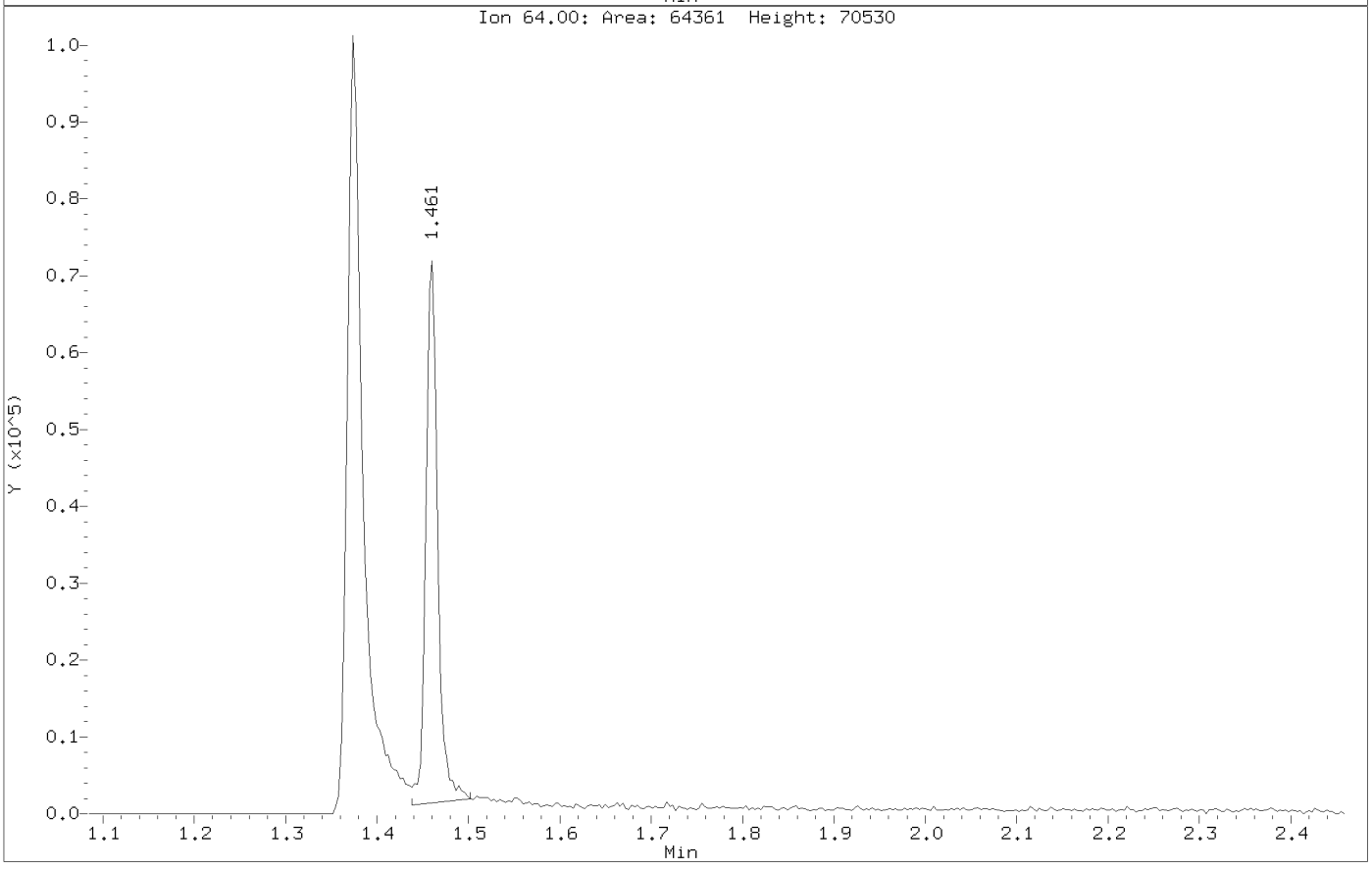


Data File: \\target_server\gg\chem\gcms-w.i\W092221.b\W0150.D
Injection Date: 22-SEP-2021 09:55
Instrument: gcms-w.i
Client Sample ID:

Compound: Vinyl chloride
CAS Number: 75-01-4

BEFORE MANUAL INTEGRATION

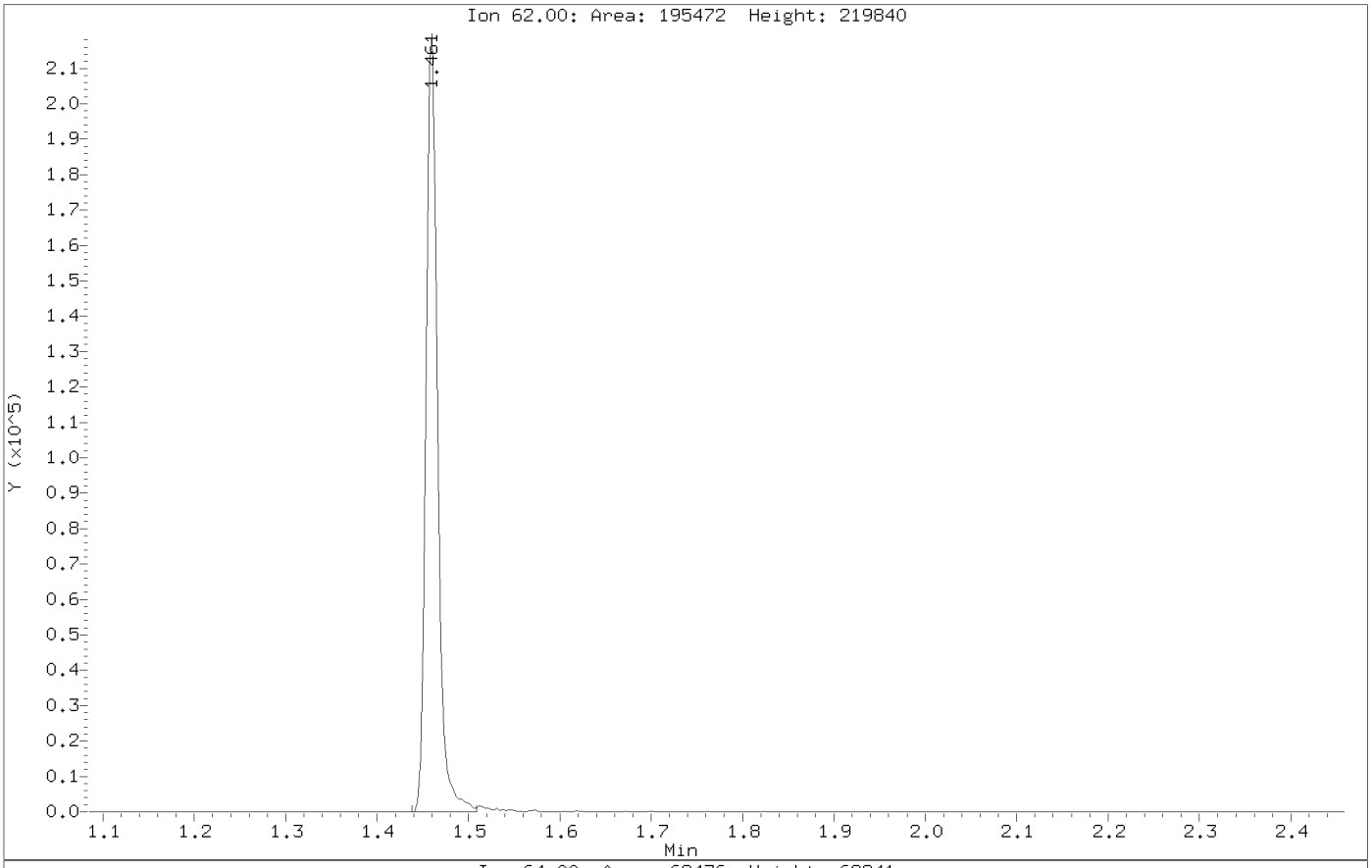


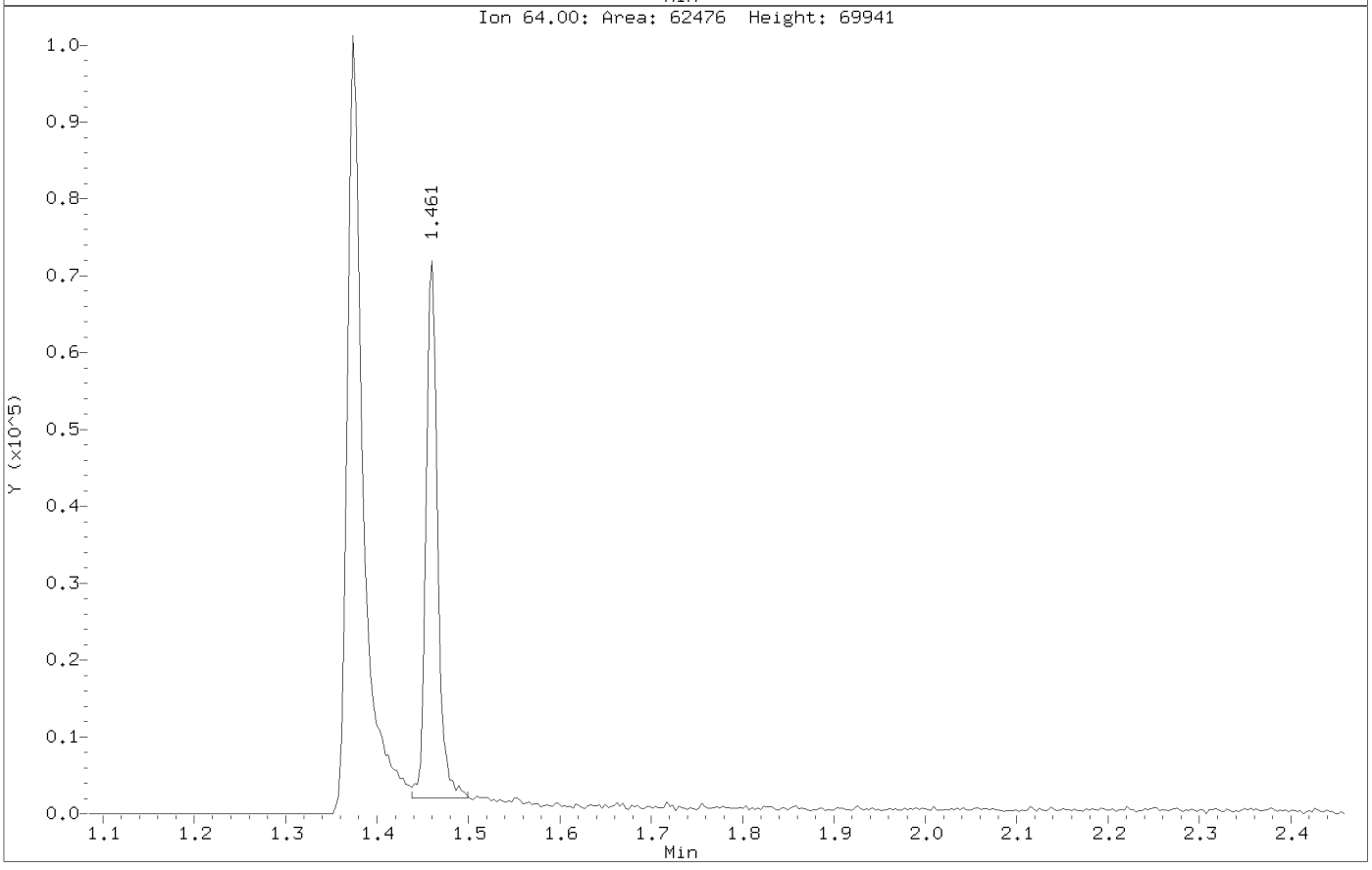


Data File: \\target_server\gg\chem\gcms-w.i\W092221.b\W0150.D
Injection Date: 22-SEP-2021 09:55
Instrument: gcms-w.i
Client Sample ID:

Compound: Vinyl chloride
CAS Number: 75-01-4

AFTER MANUAL INTEGRATION





Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-9DL
Client ID: WVA-MW-86R-3(20210915)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0130.D

Sample Date: 15-SEP-21
Received Date: 18-SEP-21
Extract Date: 21-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306383

Analysis Date: 21-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	40.	ug/L	20	2	40.
Vinyl Chloride		570	ug/L	20	2	40.
Bromomethane	U	40.	ug/L	20	2	40.
Chloroethane	U	40.	ug/L	20	2	40.
Trichlorofluoromethane	U	40.	ug/L	20	2	40.
1,1-Dichloroethene	U	20.	ug/L	20	1	20.
Carbon Disulfide	U	20.	ug/L	20	1	20.
Methylene Chloride	U	100	ug/L	20	5	100
trans-1,2-Dichloroethene		21.	ug/L	20	1	20.
1,1-Dichloroethane	U	20.	ug/L	20	1	20.
cis-1,2-Dichloroethene		1200	ug/L	20	1	20.
Chloroform	U	20.	ug/L	20	1	20.
Carbon Tetrachloride	U	20.	ug/L	20	1	20.
1,1,1-Trichloroethane	U	20.	ug/L	20	1	20.
2-Butanone	U	100	ug/L	20	5	100
Benzene	U	20.	ug/L	20	1	20.
1,2-Dichloroethane	U	20.	ug/L	20	1	20.
Trichloroethene		110	ug/L	20	1	20.
1,2-Dichloropropane	U	20.	ug/L	20	1	20.
Bromodichloromethane	U	20.	ug/L	20	1	20.
cis-1,3-Dichloropropene	U	20.	ug/L	20	1	20.
Toluene	U	20.	ug/L	20	1	20.
4-Methyl-2-Pentanone	U	100	ug/L	20	5	100
Tetrachloroethene		250	ug/L	20	1	20.
trans-1,3-Dichloropropene	U	20.	ug/L	20	1	20.
1,1,2-Trichloroethane	U	20.	ug/L	20	1	20.
Dibromochloromethane	U	20.	ug/L	20	1	20.
Chlorobenzene	U	20.	ug/L	20	1	20.
Ethylbenzene	U	20.	ug/L	20	1	20.
m+p-Xylenes	U	40.	ug/L	20	2	40.
o-Xylene	U	20.	ug/L	20	1	20.
Bromoform	U	20.	ug/L	20	1	20.
1,1,2,2-Tetrachloroethane	U	20.	ug/L	20	1	20.
P-Bromofluorobenzene		100.	%			
Toluene-d8		99.0	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-9DL
Client ID: WVA-MW-86R-3(20210915)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0130.D

Sample Date: 15-SEP-21
Received Date: 18-SEP-21
Extract Date: 21-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306383

Analysis Date: 21-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		111.	%			
Dibromofluoromethane		106.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Data File: \\target_server\gg\chem\gcms-w.i\W092121.b\W0130.D
Report Date: 12-Oct-2021 08:53

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-w.i\W092121.b\W0130.D
Lab Smp Id: SO6313-9DL Client Smp ID: VA-MW-86R-3(2021091
Inj Date : 21-SEP-2021 11:21
Operator : ES Inst ID: gcms-w.i
Smp Info : SO6313-9DL
Misc Info : WG306383,WG306383-4
Comment : SW846 5030
Method : \\target_server\gg\chem\gcms-w.i\W092121.b\W8A05(08).m
Meth Date : 11-Oct-2021 12:27 gcms-w.i Quant Type: ISTD
Cal Date : 20-SEP-2021 11:30 Cal File: W0105.D
Als bottle: 8
Dil Factor: 20.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.12

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

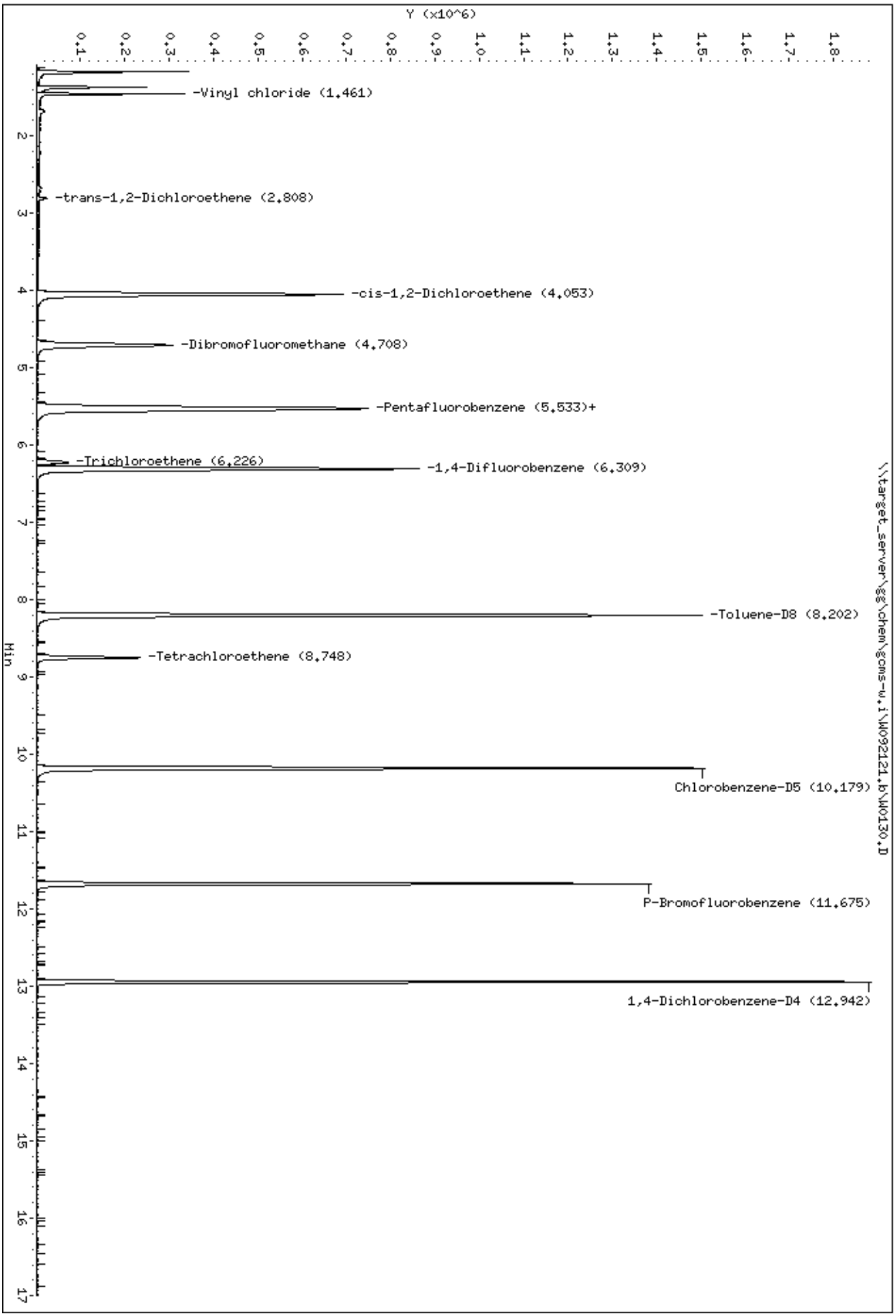
Name	Value	Description
DF	20.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

10:17 am, Oct 12, 2021

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)	REVIEW CODE
3 Vinyl chloride	62	1.460	1.460	(0.265)	174964	28.6625	573(M)	M10
16 trans-1,2-Dichloroethene	96	2.808	2.815	(0.509)	6071	1.03200	20.6	
27 cis-1,2-Dichloroethene	96	4.053	4.056	(0.734)	391502	62.4870	1250	
$ 34 Dibromofluoromethane	113	4.711	4.714	(0.854)	294135	52.8665	52.9	
* 41 Pentafluorobenzene	168	5.519	5.526	(1.000)	555506	50.0000		
$ 42 1,2-Dichloroethane-D4	65	5.542	5.549	(1.004)	400937	55.3248	55.3	
47 Trichloroethene	95	6.222	6.226	(0.986)	32989	5.45974	109	
* 48 1,4-Difluorobenzene	114	6.309	6.315	(1.000)	952224	50.0000		
$ 58 Toluene-D8	98	8.202	8.209	(1.300)	1127526	49.5114	49.5	
60 Tetrachloroethene	164	8.754	8.754	(0.860)	66658	12.5644	251	
* 68 Chlorobenzene-D5	117	10.179	10.182	(1.000)	923187	50.0000		
$ 77 P-Bromofluorobenzene	95	11.674	11.678	(1.850)	478167	50.1806	50.2	
* 93 1,4-Dichlorobenzene-D4	152	12.945	12.948	(1.000)	464573	50.0000		
M 97 1,2-Dichloroethylene (total)	96				397573	63.5190	1270	

QC Flag Legend

M - Compound response manually integrated.



Data File: \\target_server\gg\chem\gcms-w.i\W092121.b\W0130.D
Date : 21-SEP-2021 11:21
Client ID: VA-MW-86R-3(2021091
Sample Info: SD6313-9DL

Instrument: gcms-w.i

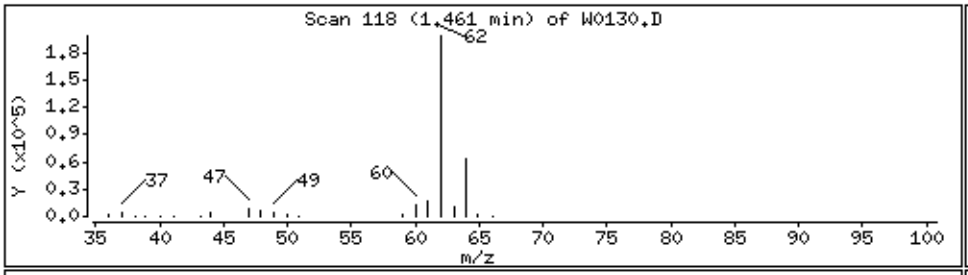
Data File: \\target_server\gg\chem\gcms-w.i\W092121.b\W0130.D

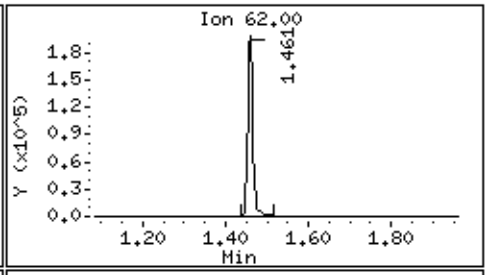
Date : 21-SEP-2021 11:21

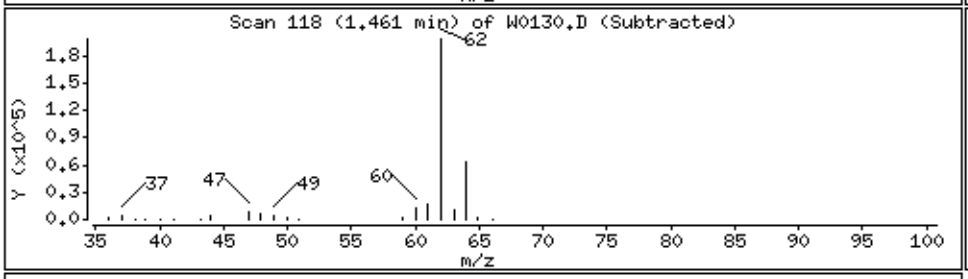
Client ID: VA-MW-86R-3(2021091 Instrument: gcms-w.i

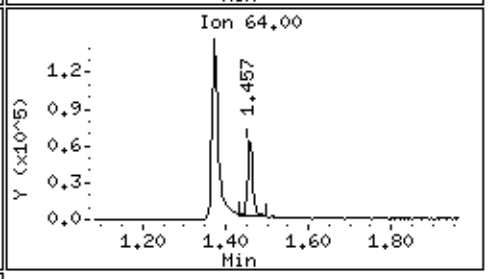
Sample Info: S06313-9DL

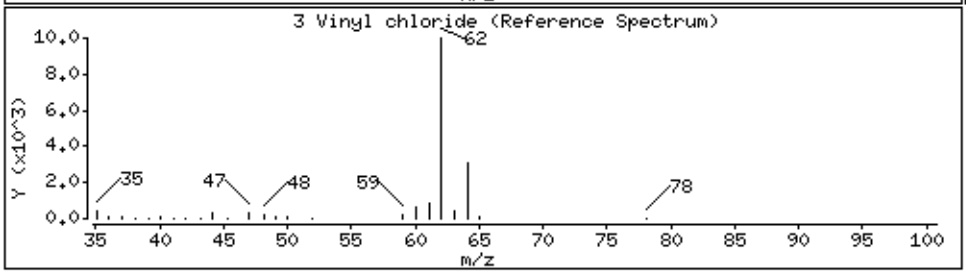
3 Vinyl chloride Concentration: 573 ug/l



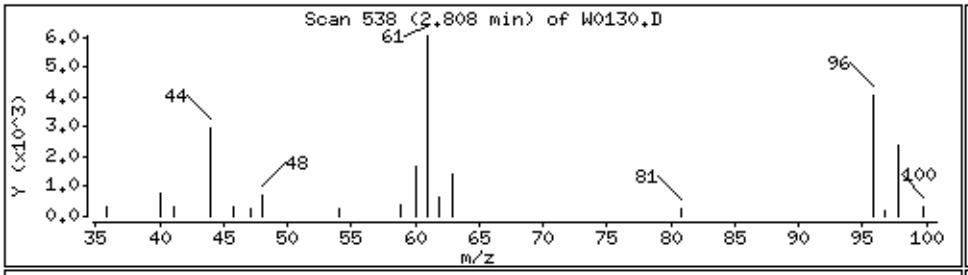


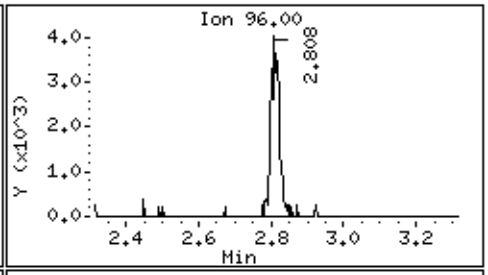


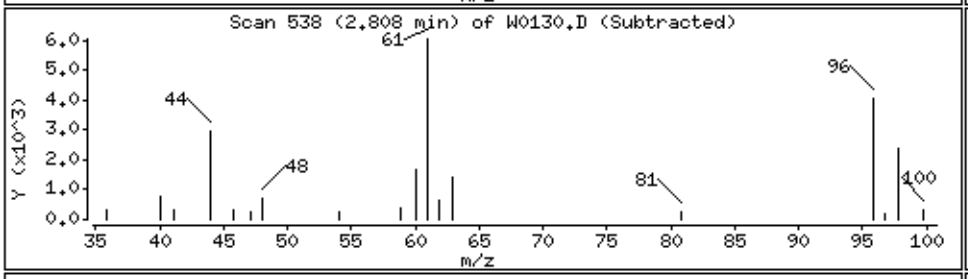


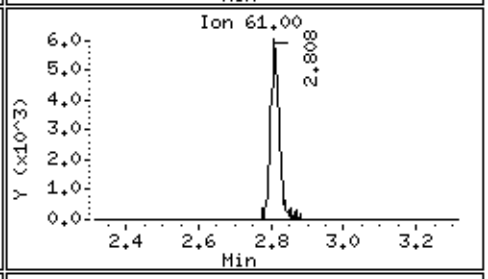


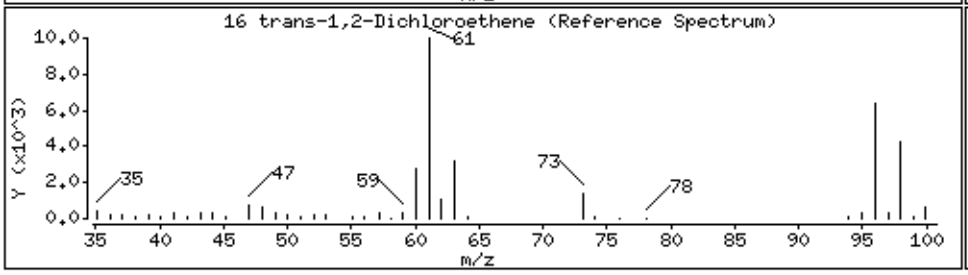
16 trans-1,2-Dichloroethene Concentration: 20.6 ug/l

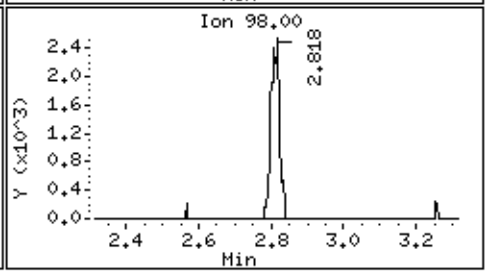












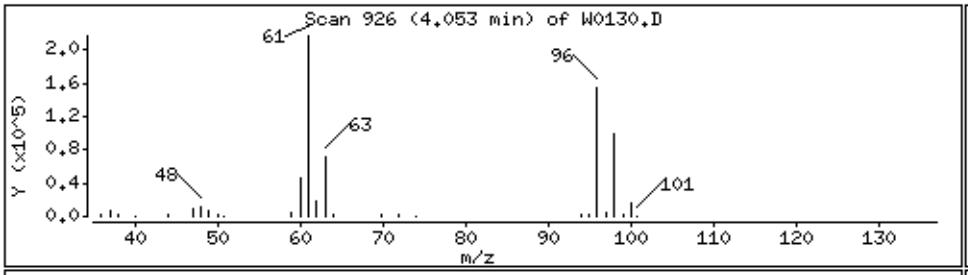
Data File: \\target_server\gg\chem\gcms-w.i\W092121.b\W0130.D

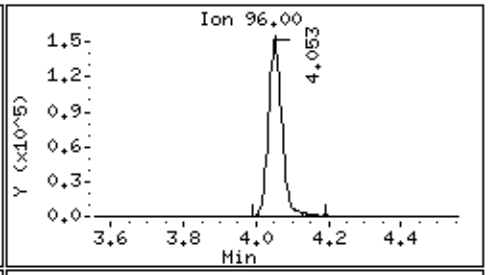
Date : 21-SEP-2021 11:21

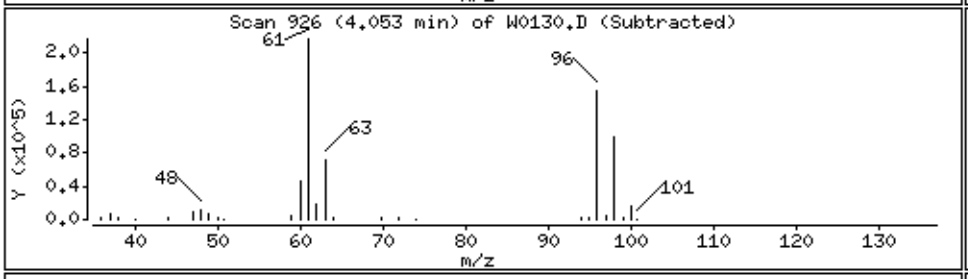
Client ID: VA-MW-86R-3(2021091 Instrument: gcms-w.i

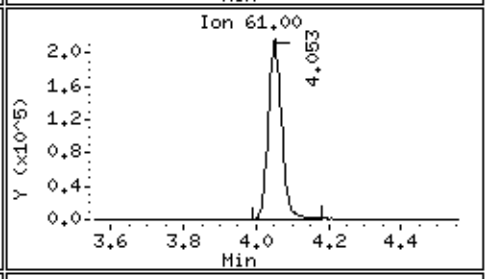
Sample Info: S06313-9DL

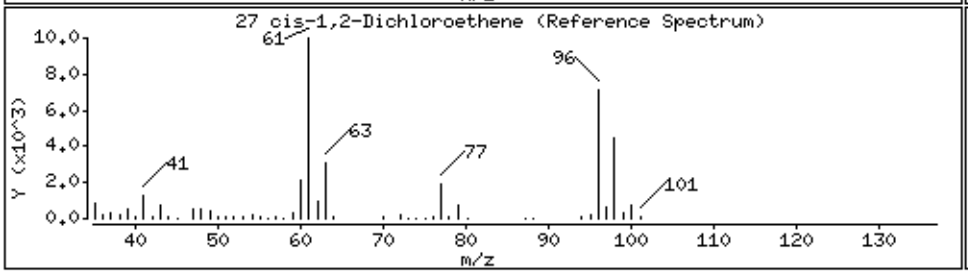
27 cis-1,2-Dichloroethene Concentration: 1250 ug/l

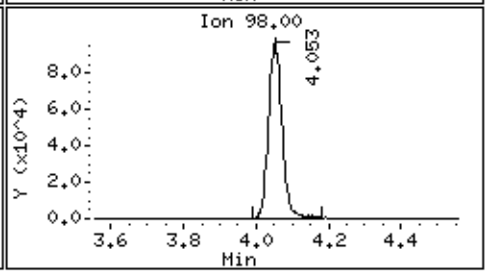




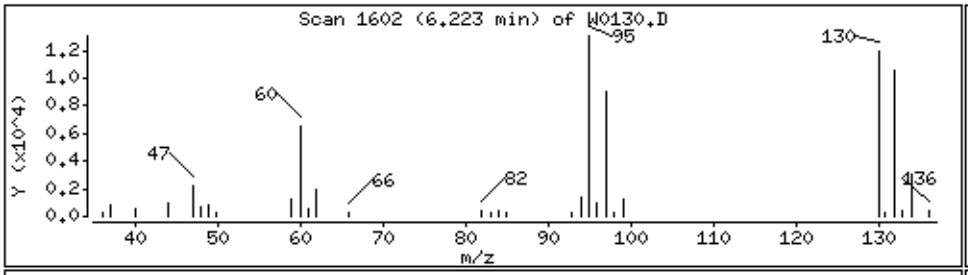


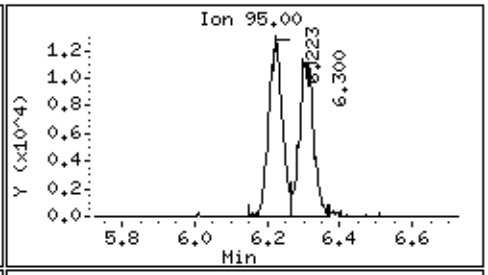


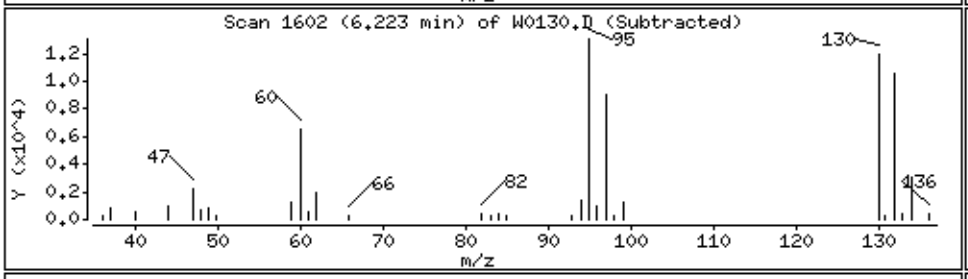


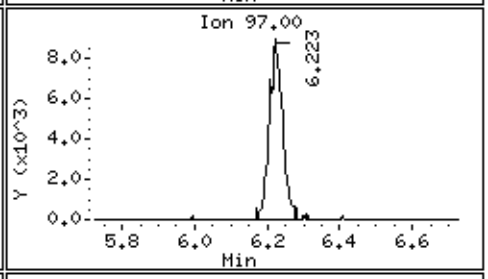


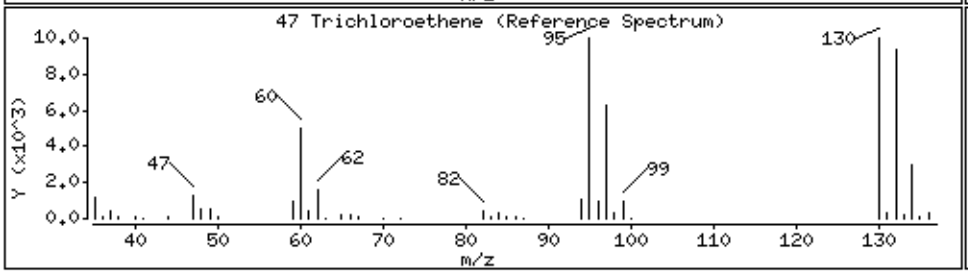
47 Trichloroethene Concentration: 109 ug/l

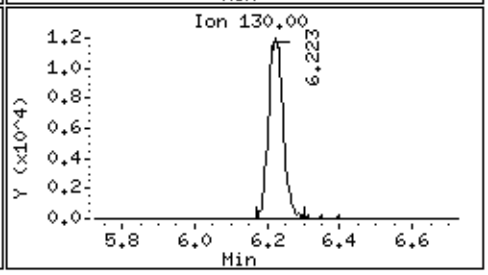












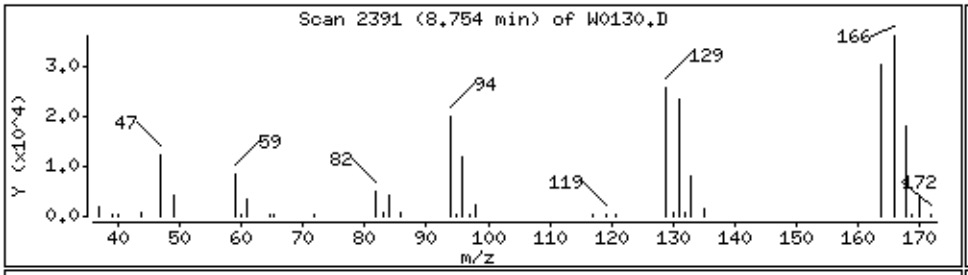
Data File: \\target_server\gg\chem\gcms-w.i\W092121.b\W0130.D

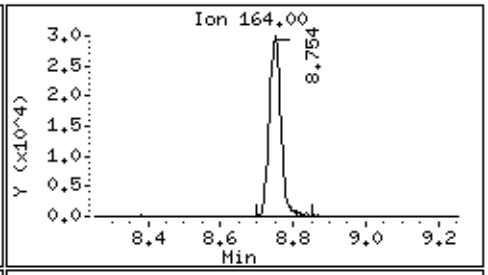
Date : 21-SEP-2021 11:21

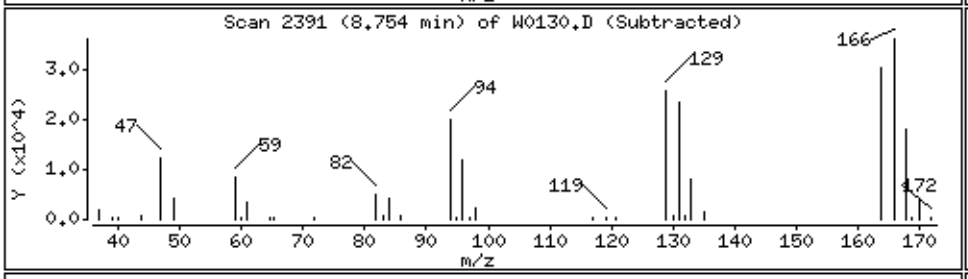
Client ID: VA-MW-86R-3(2021091 Instrument: gcms-w.i

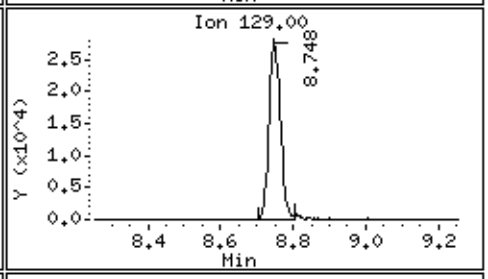
Sample Info: S06313-9DL

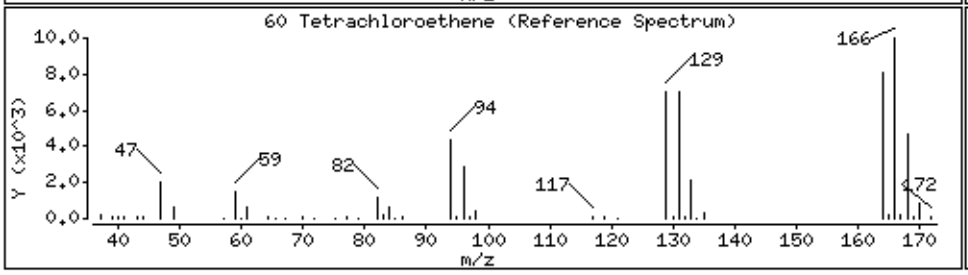
60 Tetrachloroethene Concentration: 251 ug/l

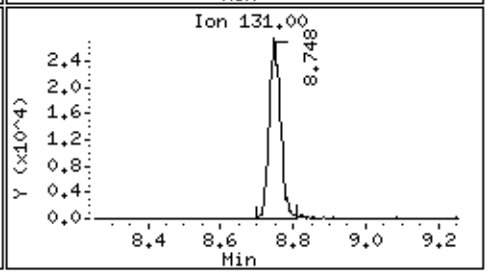








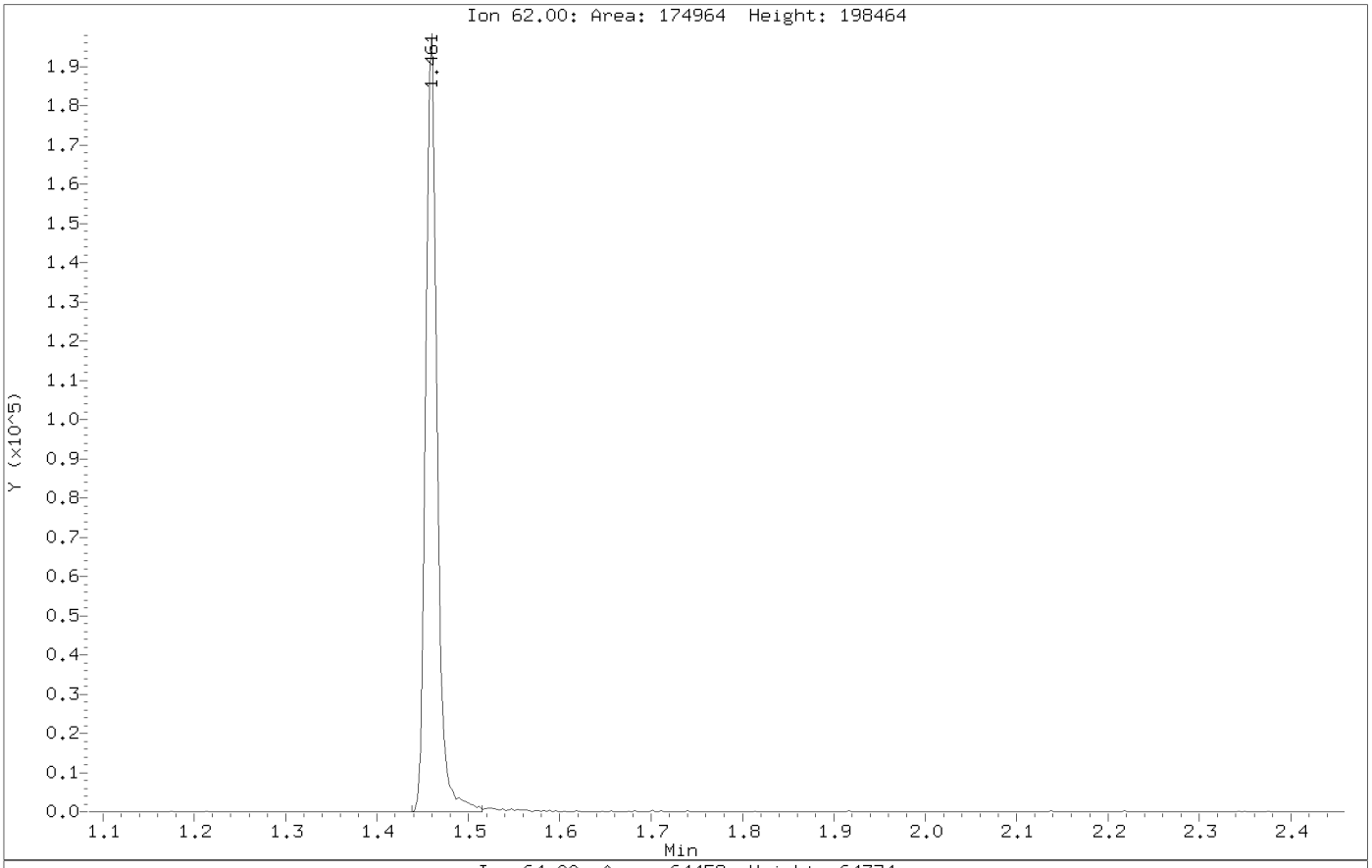


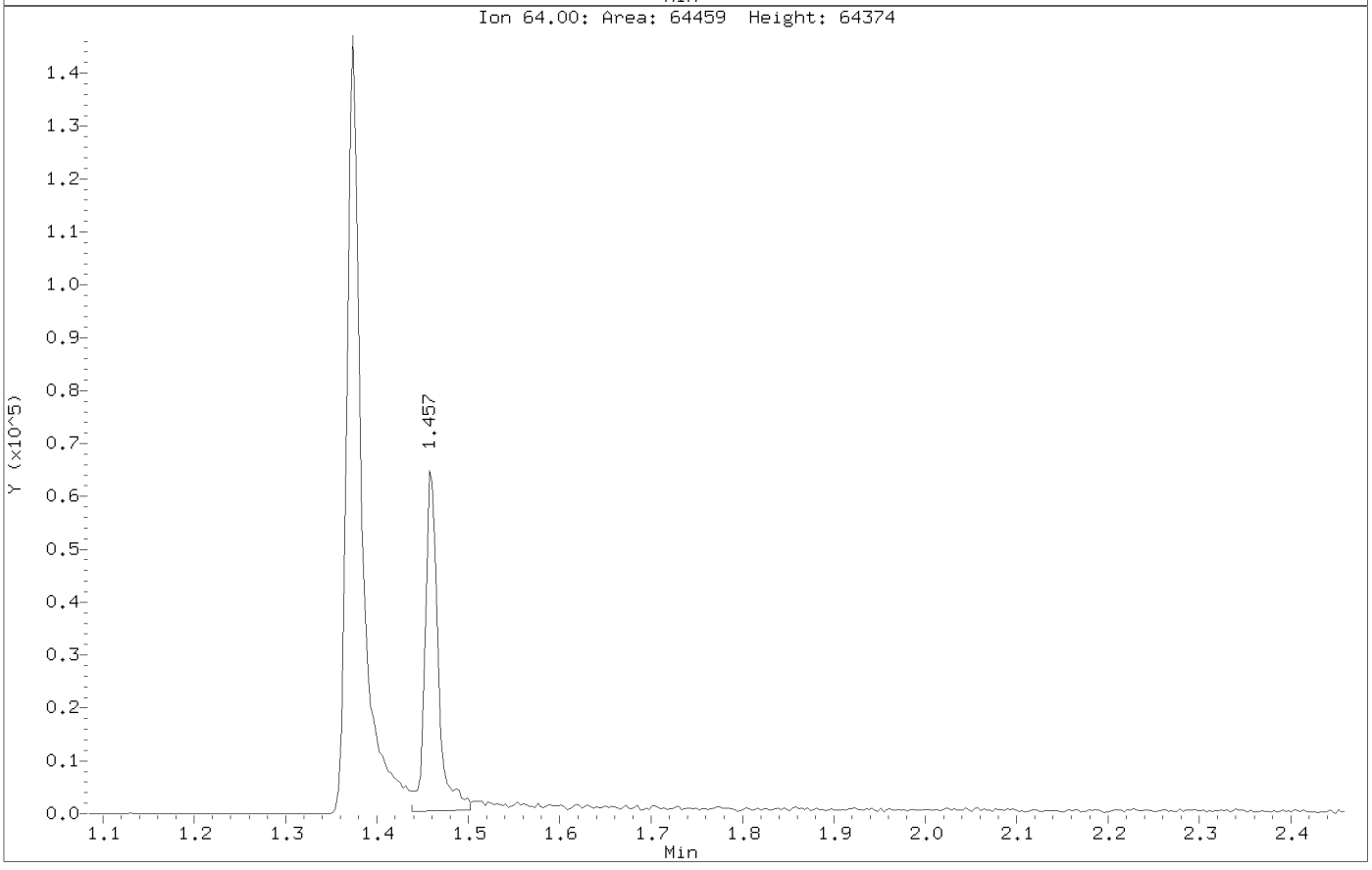


Data File: \\target_server\gg\chem\gcms-w.i\W092121.b\W0130.D
Injection Date: 21-SEP-2021 11:21
Instrument: gcms-w.i
Client Sample ID: VA-MW-86R-3(2021091

Compound: Vinyl chloride
CAS Number: 75-01-4

BEFORE MANUAL INTEGRATION

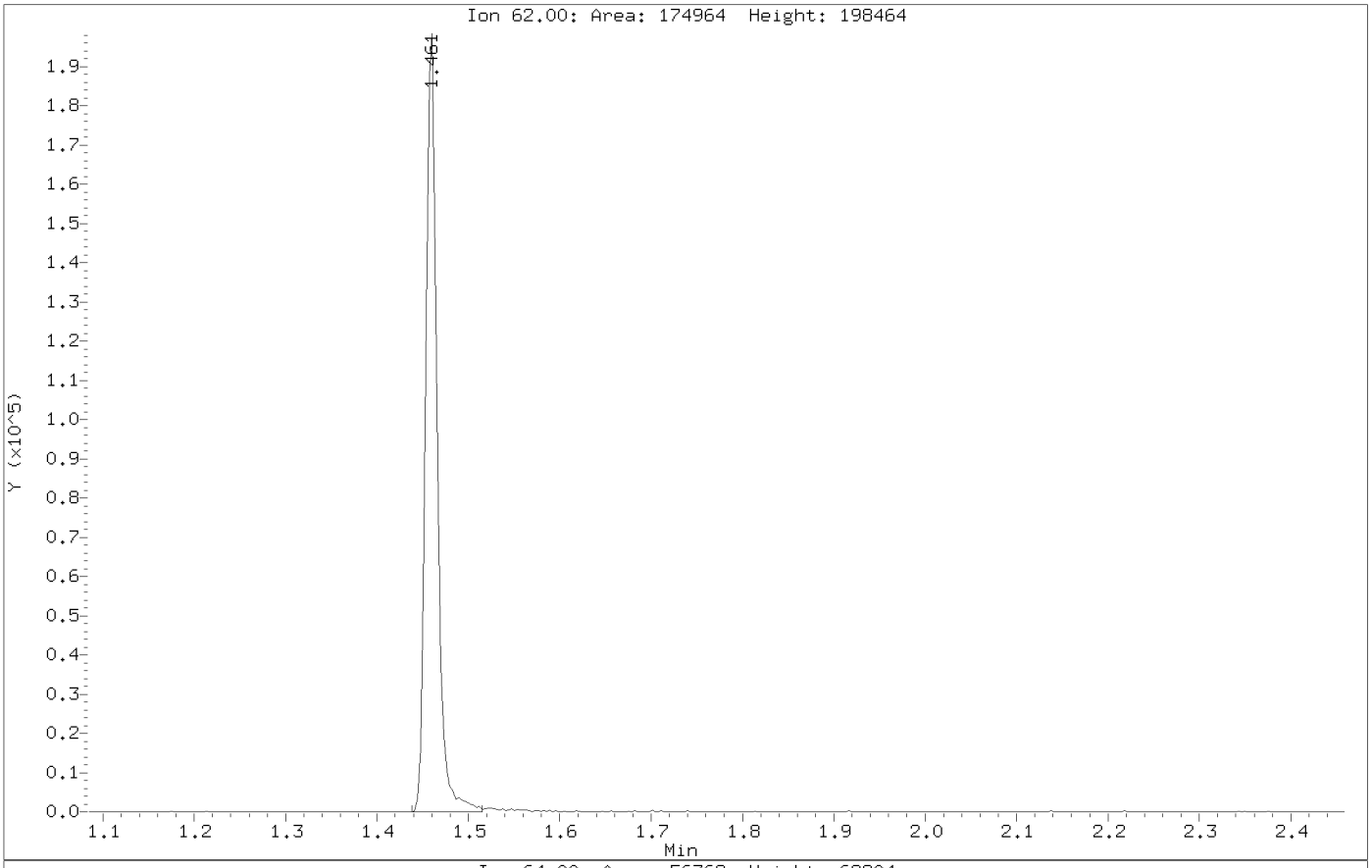


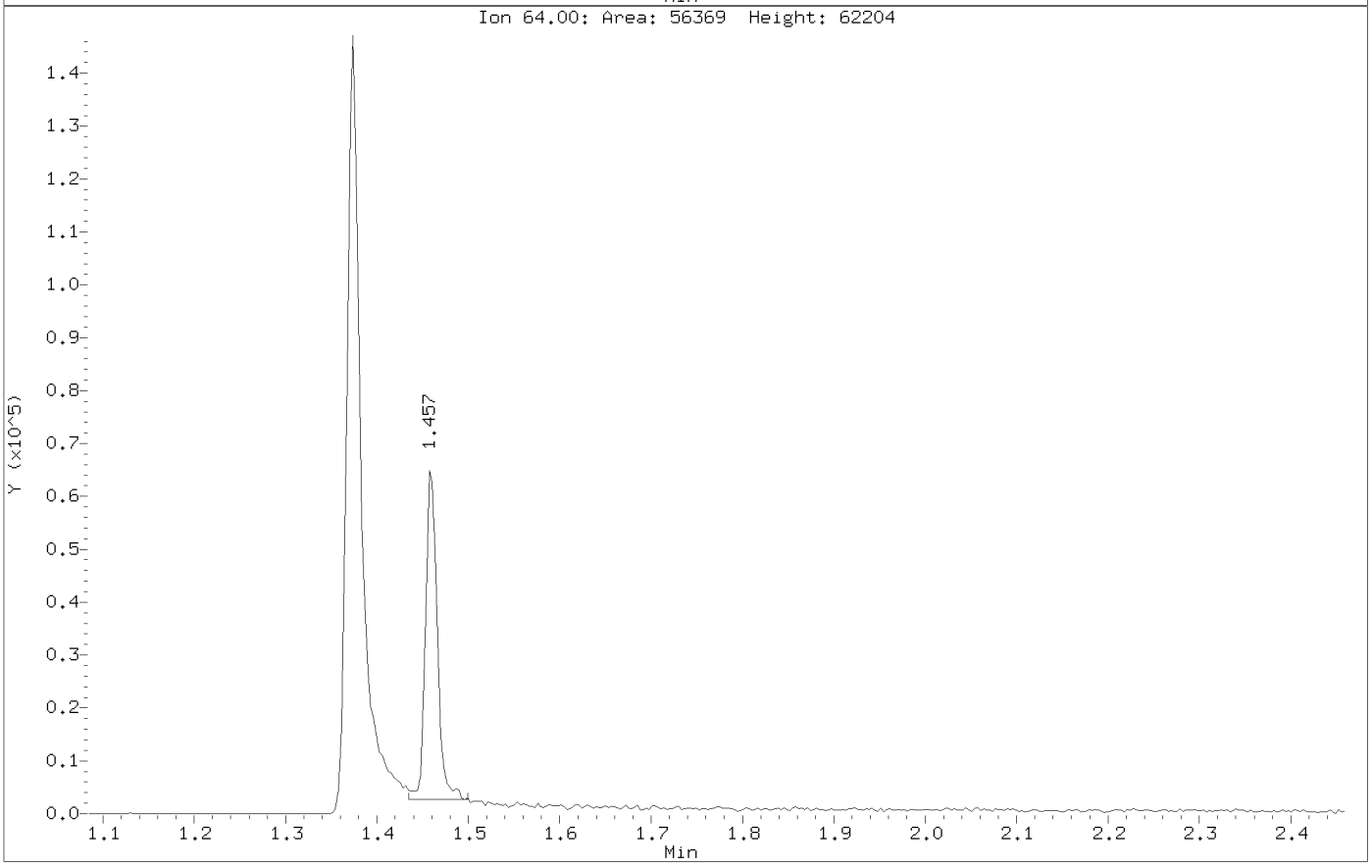


AFTER MANUAL INTEGRATION

Data File: \\target_server\gg\chem\gcms-w.i\W092121.b\W0130.D
Injection Date: 21-SEP-2021 11:21
Instrument: gcms-w.i
Client Sample ID: VA-MW-86R-3(2021091

Compound: Vinyl chloride
CAS Number: 75-01-4





Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-9DL2
Client ID: WVA-MW-86R-3(20210915)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0142.D

Sample Date: 15-SEP-21
Received Date: 18-SEP-21
Extract Date: 21-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306383

Analysis Date: 21-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	4.0	ug/L	2	2	4.0
Vinyl Chloride	E	640	ug/L	2	2	4.0
Bromomethane	U	4.0	ug/L	2	2	4.0
Chloroethane	U	4.0	ug/L	2	2	4.0
Trichlorofluoromethane	U	4.0	ug/L	2	2	4.0
1,1-Dichloroethene		2.7	ug/L	2	1	2.0
Carbon Disulfide	U	2.0	ug/L	2	1	2.0
Methylene Chloride	U	10.	ug/L	2	5	10.
trans-1,2-Dichloroethene		25.	ug/L	2	1	2.0
1,1-Dichloroethane	U	2.0	ug/L	2	1	2.0
cis-1,2-Dichloroethene	E	1500	ug/L	2	1	2.0
Chloroform	U	2.0	ug/L	2	1	2.0
Carbon Tetrachloride	U	2.0	ug/L	2	1	2.0
1,1,1-Trichloroethane	U	2.0	ug/L	2	1	2.0
2-Butanone	U	10.	ug/L	2	5	10.
Benzene	U	2.0	ug/L	2	1	2.0
1,2-Dichloroethane	U	2.0	ug/L	2	1	2.0
Trichloroethene		130	ug/L	2	1	2.0
1,2-Dichloropropane	U	2.0	ug/L	2	1	2.0
Bromodichloromethane	U	2.0	ug/L	2	1	2.0
cis-1,3-Dichloropropene	U	2.0	ug/L	2	1	2.0
Toluene	U	2.0	ug/L	2	1	2.0
4-Methyl-2-Pentanone	U	10.	ug/L	2	5	10.
Tetrachloroethene		290	ug/L	2	1	2.0
trans-1,3-Dichloropropene	U	2.0	ug/L	2	1	2.0
1,1,2-Trichloroethane	U	2.0	ug/L	2	1	2.0
Dibromochloromethane	U	2.0	ug/L	2	1	2.0
Chlorobenzene	U	2.0	ug/L	2	1	2.0
Ethylbenzene	U	2.0	ug/L	2	1	2.0
m+p-Xylenes	U	4.0	ug/L	2	2	4.0
o-Xylene	U	2.0	ug/L	2	1	2.0
Bromoform	U	2.0	ug/L	2	1	2.0
1,1,2,2-Tetrachloroethane	U	2.0	ug/L	2	1	2.0
P-Bromofluorobenzene		99.2	%			
Toluene-d8		99.0	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-9DL2
Client ID: WVA-MW-86R-3(20210915)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0142.D

Sample Date: 15-SEP-21
Received Date: 18-SEP-21
Extract Date: 21-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306383

Analysis Date: 21-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		120.	%			
Dibromofluoromethane		108.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Data File: \\target_server\gg\chem\gcms-w.i\W092121.b\W0142.D
Report Date: 12-Oct-2021 08:54

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-w.i\W092121.b\W0142.D
Lab Smp Id: SO6313-9DL2 Client Smp ID: VA-MW-86R-3(2021091
Inj Date : 21-SEP-2021 17:28
Operator : ES Inst ID: gcms-w.i
Smp Info : SO6313-9DL2
Misc Info : WG306383,WG306383-4
Comment : SW846 5030
Method : \\target_server\gg\chem\gcms-w.i\W092121.b\W8A05(08).m
Meth Date : 11-Oct-2021 12:27 gcms-w.i Quant Type: ISTD
Cal Date : 20-SEP-2021 11:30 Cal File: W0105.D
Als bottle: 20
Dil Factor: 2.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.12

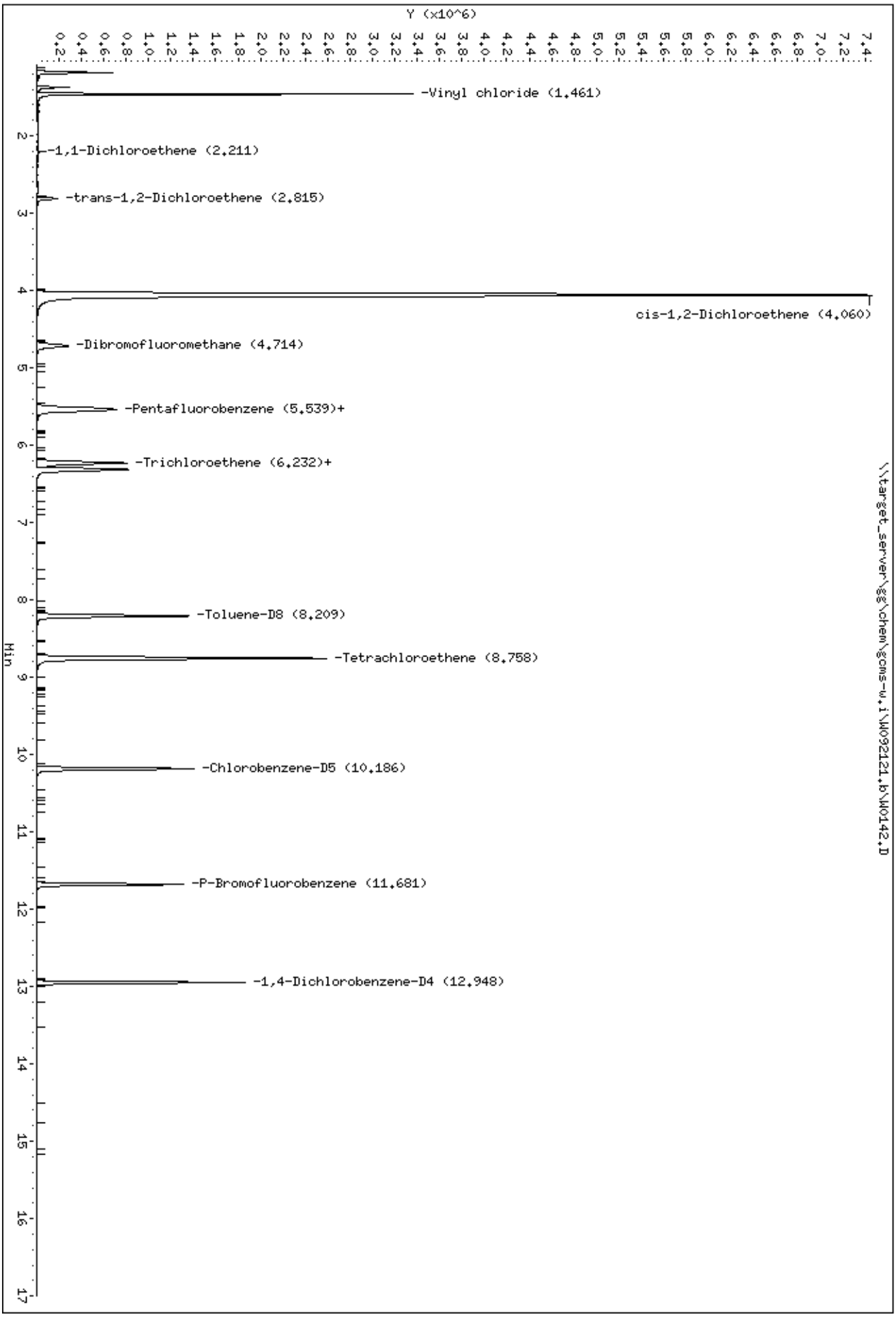
Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	2.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)	REVIEW CODE
3	Vinyl chloride	62	1.460	1.460	(0.264)	1757116	322.626	645(A)	
8	1,1-Dichloroethene	96	2.211	2.211	(0.400)	6595	1.33430	2.7	
16	trans-1,2-Dichloroethene	96	2.814	2.815	(0.509)	66092	12.5923	25.2	
27	cis-1,2-Dichloroethene	96	4.059	4.056	(0.735)	4262836	762.584	1520(A)	
$ 34	Dibromofluoromethane	113	4.714	4.714	(0.853)	267709	53.9300	53.9	
* 41	Pentafluorobenzene	168	5.526	5.526	(1.000)	495627	50.0000		
$ 42	1,2-Dichloroethane-D4	65	5.551	5.549	(1.005)	387283	59.8972	59.9	
47	Trichloroethene	95	6.232	6.226	(0.987)	360140	64.3597	129	
* 48	1,4-Difluorobenzene	114	6.315	6.315	(1.000)	881859	50.0000		
$ 58	Toluene-D8	98	8.208	8.209	(1.300)	1043479	49.4769	49.5	
60	Tetrachloroethene	164	8.757	8.754	(0.860)	703117	144.566	289	
* 68	Chlorobenzene-D5	117	10.182	10.182	(1.000)	846332	50.0000		
$ 77	P-Bromofluorobenzene	95	11.680	11.678	(1.850)	437862	49.6174	49.6	
* 93	1,4-Dichlorobenzene-D4	152	12.948	12.948	(1.000)	433404	50.0000		
M 97	1,2-Dichloroethylene (total)	96				4328928	775.177	1550	

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.


Y (x10^6)
Min
-Vinyl chloride (1.461)
-1,1-Dichloroethene (2.211)
-trans-1,2-Dichloroethene (2.815)
cis-1,2-Dichloroethene (4.060)
-Dibromofluoromethane (4.714)
-Pentafluorobenzene (5.539)+
-Trichloroethene (6.232)+
-Toluene-D8 (8.209)
-Tetrachloroethene (8.758)
-Chlorobenzene-D5 (10.186)
-P-Bromofluorobenzene (11.681)
-1,4-Dichlorobenzene-D4 (12.948)
\\target_server\gg\chem\gcms-w.i\W092121.b\W0142.D
Data File: \\target_server\gg\chem\gcms-w.i\W092121.b\W0142.D
Date : 21-SEP-2021 17:28
Client ID: VA-MW-86R-3(2021091
Sample Info: SD6313-9DL2
Instrument: gcms-w.i

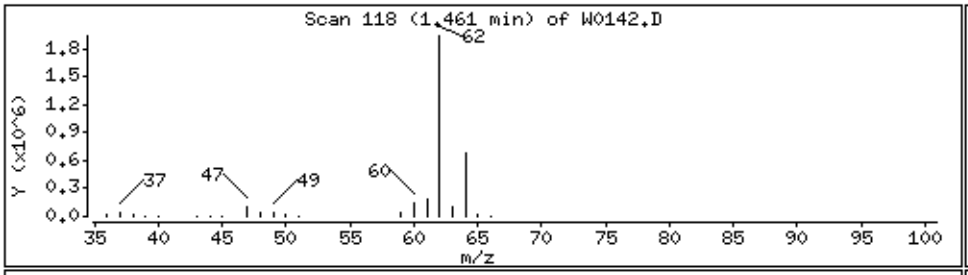
Data File: \\target_server\gg\chem\gcms-w.i\W092121.b\W0142.D

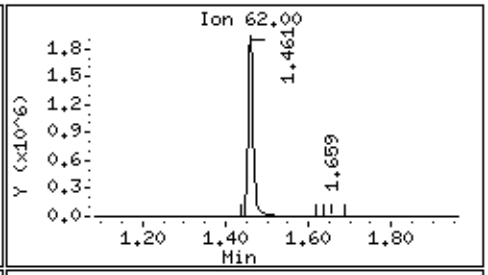
Date : 21-SEP-2021 17:28

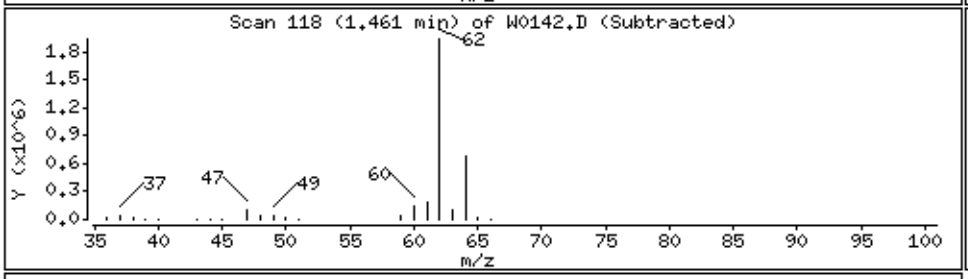
Client ID: VA-MW-86R-3(2021091 Instrument: gcms-w.i

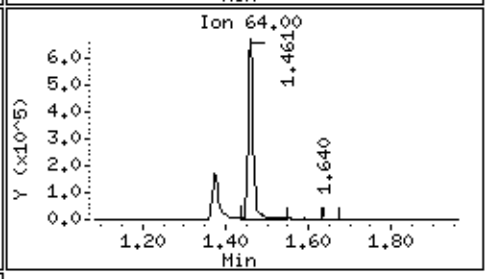
Sample Info: S06313-9DL2

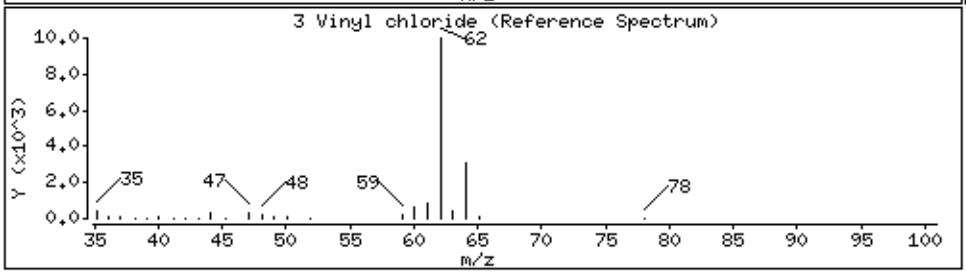
3 Vinyl chloride Concentration: 645 ug/l



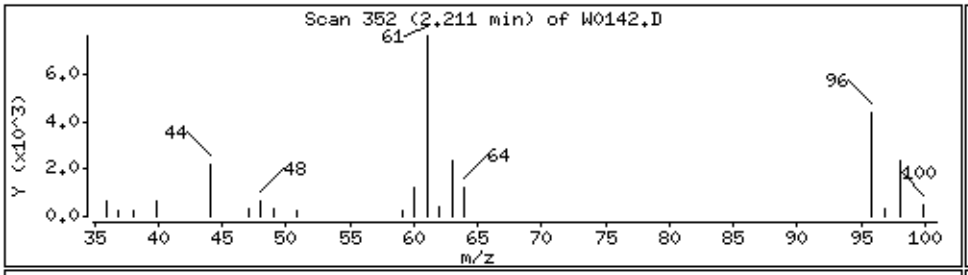


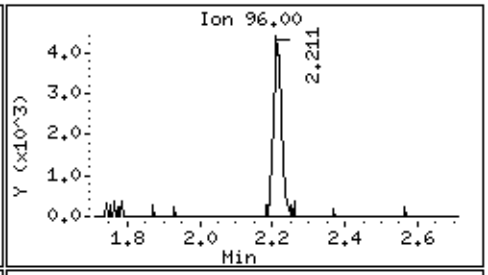


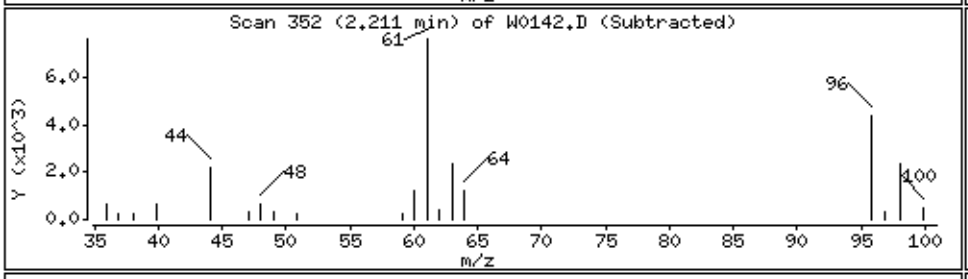


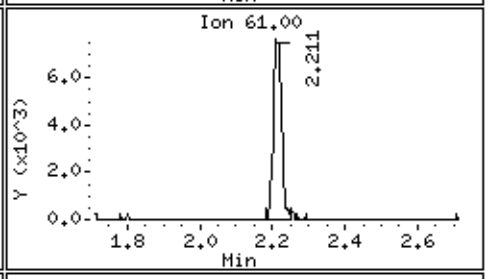


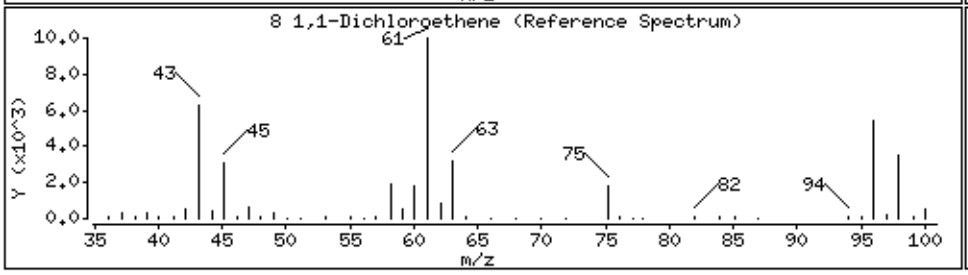
8 1,1-Dichloroethene Concentration: 2.7 ug/l

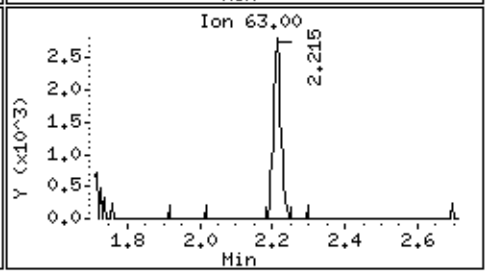












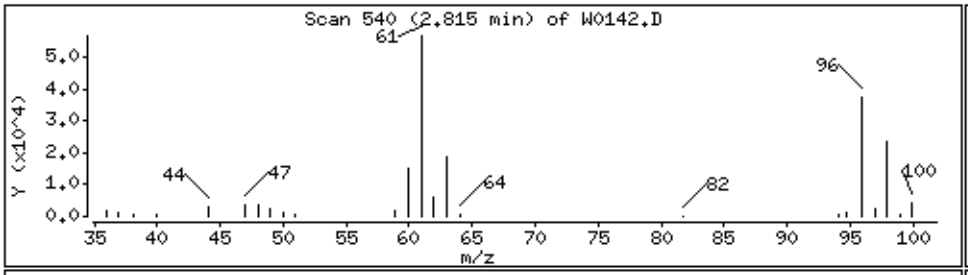
Data File: \\target_server\gg\chem\gcms-w.i\W092121.b\W0142.D

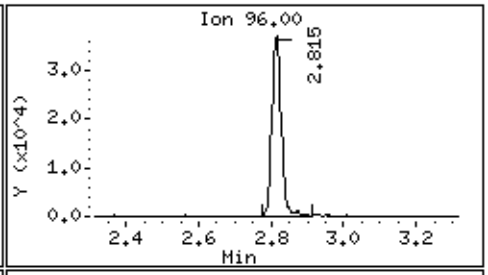
Date : 21-SEP-2021 17:28

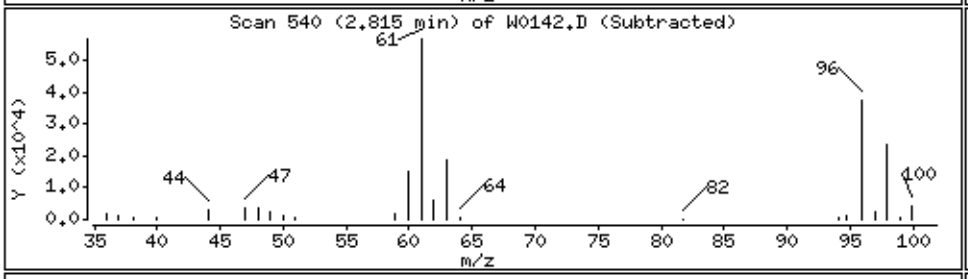
Client ID: VA-MW-86R-3(2021091 Instrument: gcms-w.i

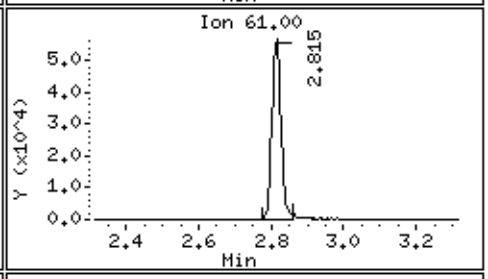
Sample Info: S06313-9DL2

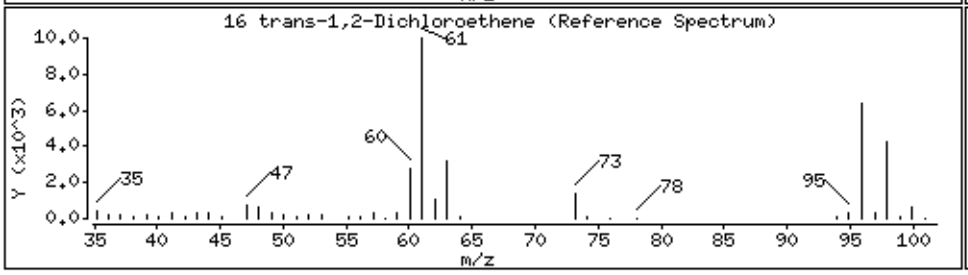
16 trans-1,2-Dichloroethene Concentration: 25.2 ug/l

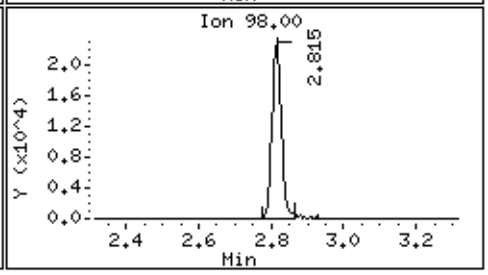




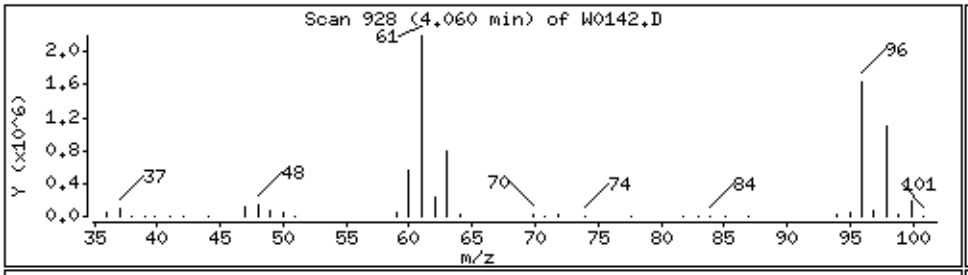


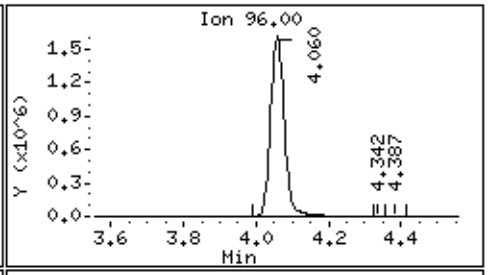


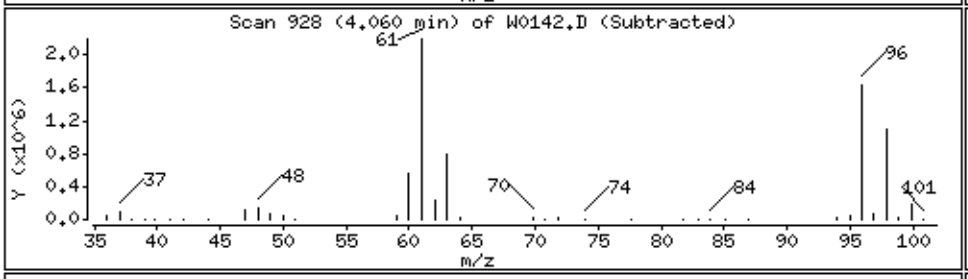


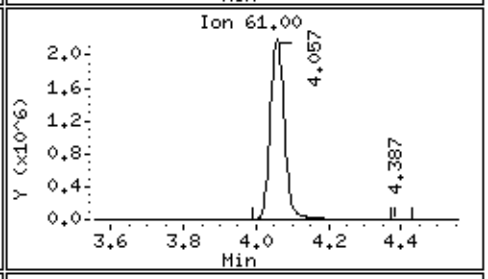


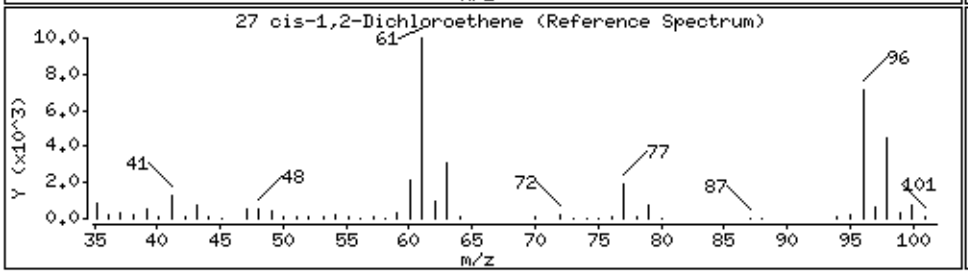
27 cis-1,2-Dichloroethene Concentration: 1520 ug/l

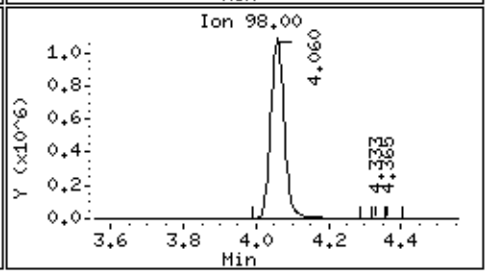












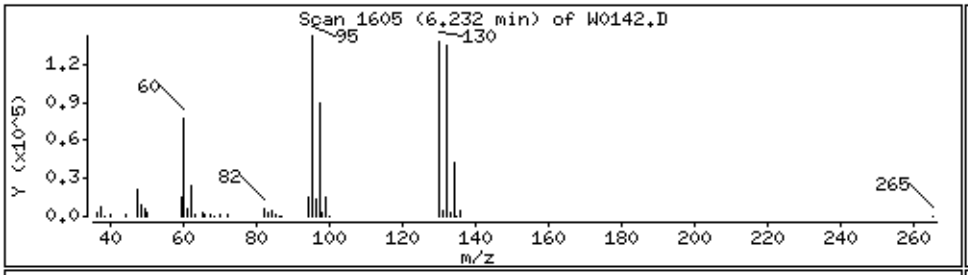
Data File: \\target_server\gg\chem\gcms-w.i\W092121.b\W0142.D

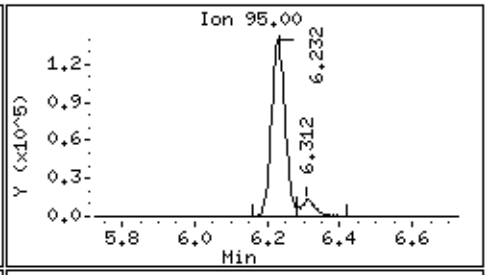
Date : 21-SEP-2021 17:28

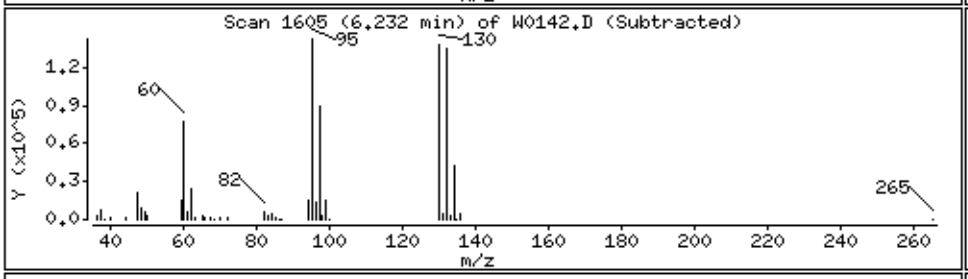
Client ID: VA-MW-86R-3(2021091 Instrument: gcms-w.i

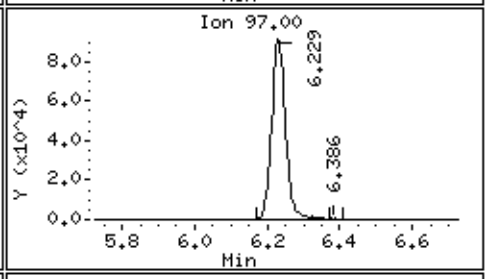
Sample Info: S06313-9DL2

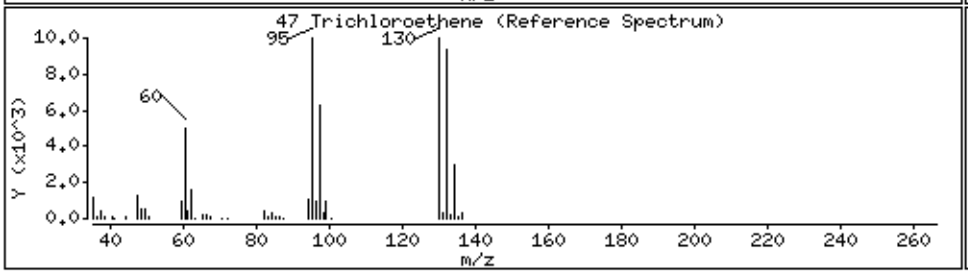
47 Trichloroethene Concentration: 129 ug/l

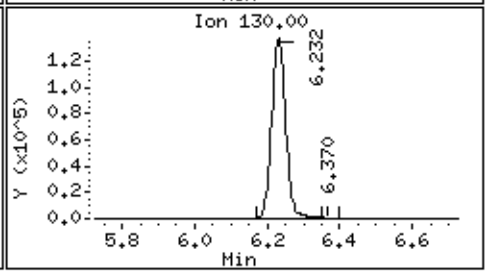




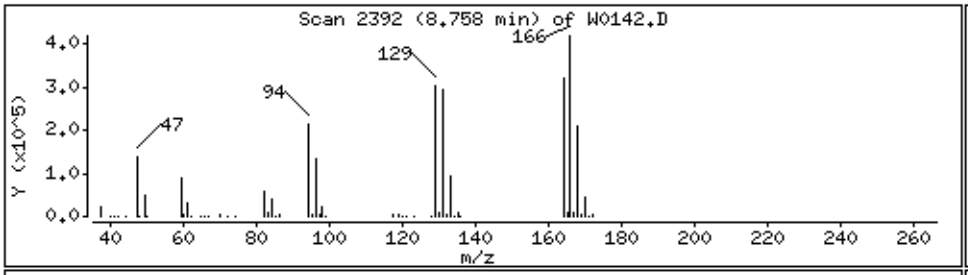


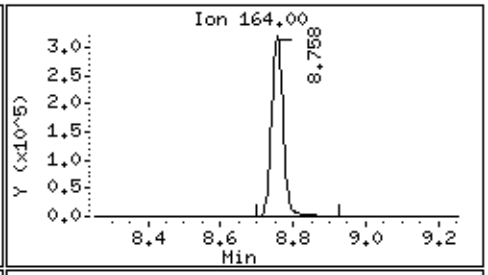


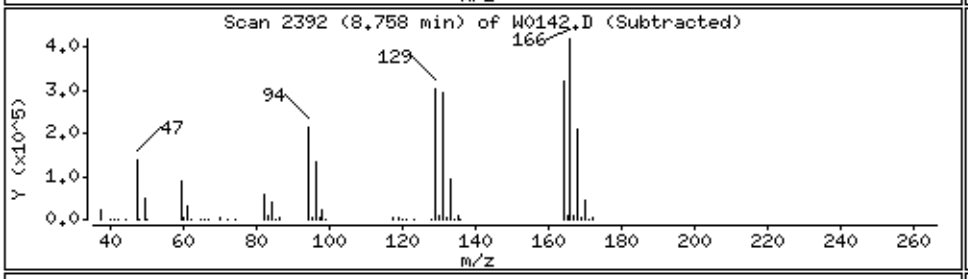


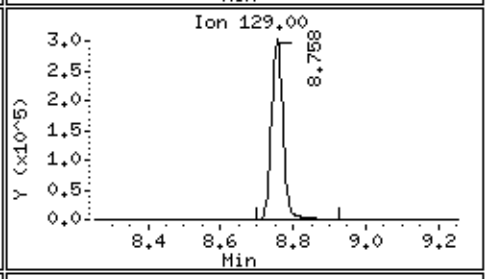


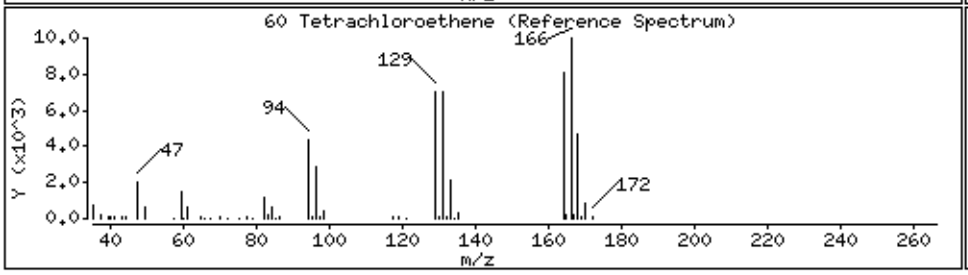
60 Tetrachloroethene Concentration: 289 ug/l

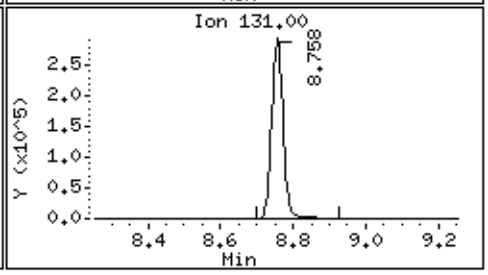












Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-10
Client ID: WVA-MW-85R-1(20210915)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0137.D

Sample Date: 15-SEP-21
Received Date: 18-SEP-21
Extract Date: 21-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306383

Analysis Date: 21-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	2.0	ug/L	1	2	2.0
Vinyl Chloride	U	2.0	ug/L	1	2	2.0
Bromomethane	U	2.0	ug/L	1	2	2.0
Chloroethane	U	2.0	ug/L	1	2	2.0
Trichlorofluoromethane	U	2.0	ug/L	1	2	2.0
1,1-Dichloroethene	U	1.0	ug/L	1	1	1.0
Carbon Disulfide	U	1.0	ug/L	1	1	1.0
Methylene Chloride	U	5.0	ug/L	1	5	5.0
trans-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
1,1-Dichloroethane	U	1.0	ug/L	1	1	1.0
cis-1,2-Dichloroethene		1.3	ug/L	1	1	1.0
Chloroform	U	1.0	ug/L	1	1	1.0
Carbon Tetrachloride	U	1.0	ug/L	1	1	1.0
1,1,1-Trichloroethane	U	1.0	ug/L	1	1	1.0
2-Butanone	U	5.0	ug/L	1	5	5.0
Benzene	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethane	U	1.0	ug/L	1	1	1.0
Trichloroethene	U	1.0	ug/L	1	1	1.0
1,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Bromodichloromethane	U	1.0	ug/L	1	1	1.0
cis-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
Toluene	U	1.0	ug/L	1	1	1.0
4-Methyl-2-Pentanone	U	5.0	ug/L	1	5	5.0
Tetrachloroethene		1.3	ug/L	1	1	1.0
trans-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
1,1,2-Trichloroethane	U	1.0	ug/L	1	1	1.0
Dibromochloromethane	U	1.0	ug/L	1	1	1.0
Chlorobenzene	U	1.0	ug/L	1	1	1.0
Ethylbenzene	U	1.0	ug/L	1	1	1.0
m+p-Xylenes	U	2.0	ug/L	1	2	2.0
o-Xylene	U	1.0	ug/L	1	1	1.0
Bromoform	U	1.0	ug/L	1	1	1.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
P-Bromofluorobenzene		102.	%			
Toluene-d8		100.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-10
Client ID: WVA-MW-85R-1(20210915)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0137.D

Sample Date: 15-SEP-21
Received Date: 18-SEP-21
Extract Date: 21-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306383

Analysis Date: 21-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		115.	%			
Dibromofluoromethane		107.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Data File: \\target_server\gg\chem\gcms-w.i\W092121.b\W0137.D
Report Date: 12-Oct-2021 08:57

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-w.i\W092121.b\W0137.D
Lab Smp Id: SO6313-10 Client Smp ID: VA-MW-85R-1(2021091
Inj Date : 21-SEP-2021 14:55
Operator : ES Inst ID: gcms-w.i
Smp Info : SO6313-10
Misc Info : WG306383,WG306383-4
Comment : SW846 5030
Method : \\target_server\gg\chem\gcms-w.i\W092121.b\W8A05(08).m
Meth Date : 11-Oct-2021 12:27 gcms-w.i Quant Type: ISTD
Cal Date : 20-SEP-2021 11:30 Cal File: W0105.D
Als bottle: 15
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.12

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

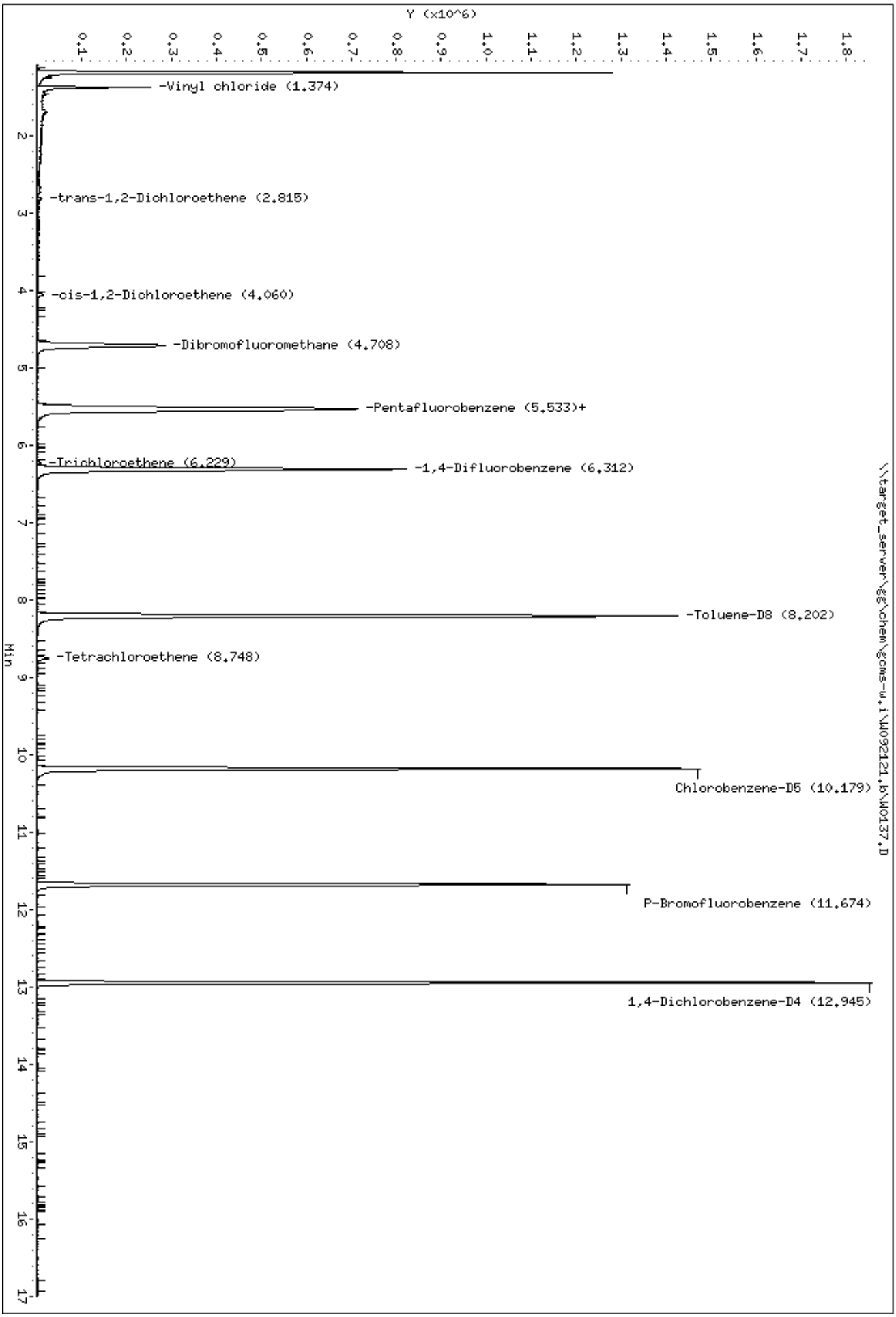
Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

10:17 am, Oct 12, 2021

		Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)	REVIEW CODE
	3	Vinyl chloride	62	1.460	1.460	(0.265)	6131	1.07508	1.1(M)	M10
	16	trans-1,2-Dichloroethene	96	2.814	2.815	(0.510)	2301	0.41868	0.42(a)	
	27	cis-1,2-Dichloroethene	96	4.053	4.056	(0.734)	7551	1.29004	1.3	
$	34	Dibromofluoromethane	113	4.707	4.714	(0.853)	277282	53.3458	53.3	
*	41	Pentafluorobenzene	168	5.519	5.526	(1.000)	518972	50.0000		
$	42	1,2-Dichloroethane-D4	65	5.545	5.549	(1.005)	389706	57.5607	57.6	
	47	Trichloroethene	95	6.232	6.226	(0.987)	2751	0.48887	0.49(a)	
*	48	1,4-Difluorobenzene	114	6.312	6.315	(1.000)	886826	50.0000		
$	58	Toluene-D8	98	8.202	8.209	(1.299)	1065007	50.2148	50.2	
	60	Tetrachloroethene	164	8.747	8.754	(0.859)	6537	1.31826	1.3	
*	68	Chlorobenzene-D5	117	10.179	10.182	(1.000)	862891	50.0000		
$	77	P-Bromofluorobenzene	95	11.674	11.678	(1.849)	453215	51.0695	51.1	
*	93	1,4-Dichlorobenzene-D4	152	12.945	12.948	(1.000)	445020	50.0000		
M	97	1,2-Dichloroethylene (total)	96				9852	1.70873	1.7(a)	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.



Data File: \\target_server\gg\chem\gcms-w.i\W092121.b\W0137.D
Date : 21-SEP-2021 14:55
Client ID: VA-MW-85R-1(2021091
Sample Info: SD6313-10

Instrument: gcms-w.i

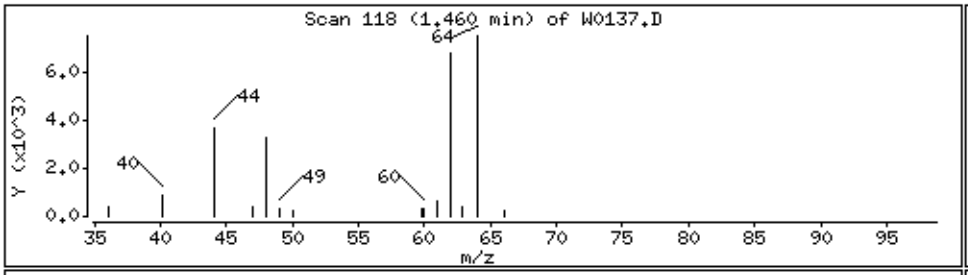
Data File: \\target_server\gg\chem\gcms-w.i\W092121.b\W0137.D

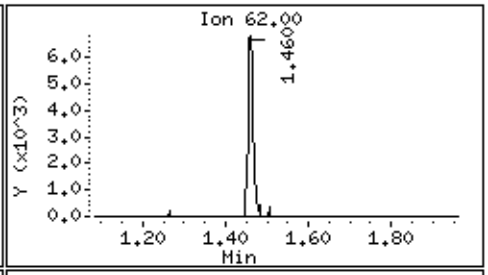
Date : 21-SEP-2021 14:55

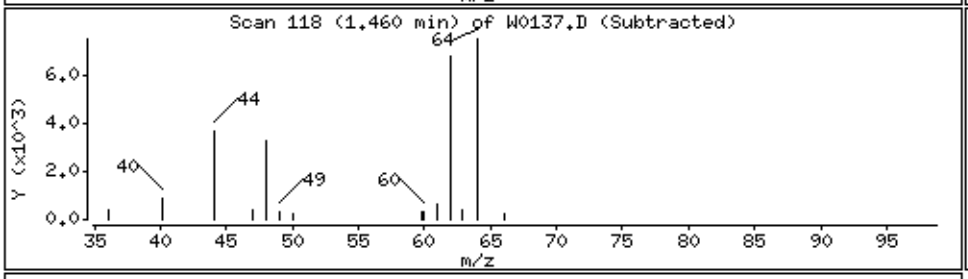
Client ID: VA-MW-85R-1(2021091 Instrument: gcms-w.i

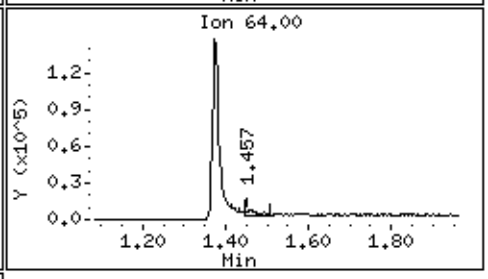
Sample Info: S06313-10

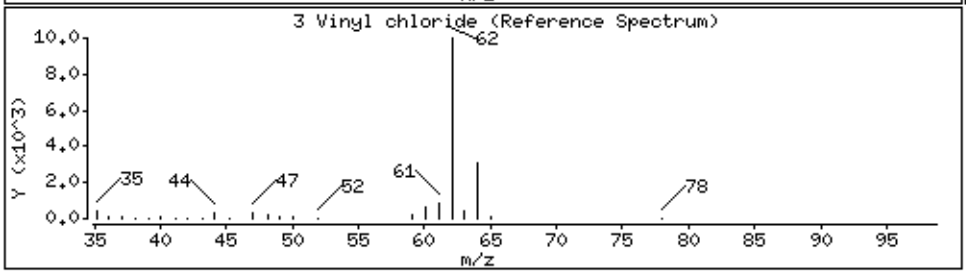
3 Vinyl chloride Concentration: 1.1 ug/l



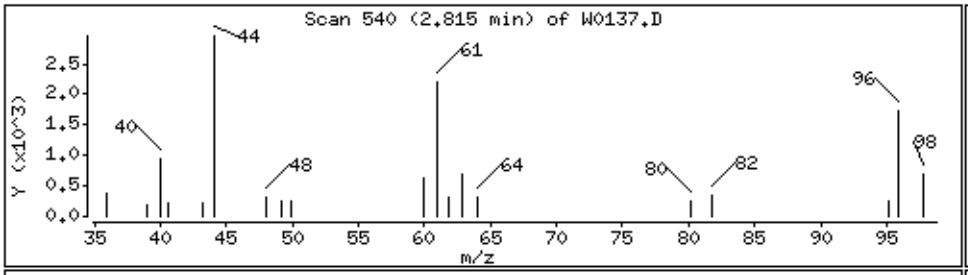


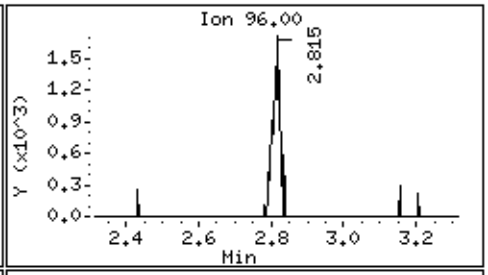


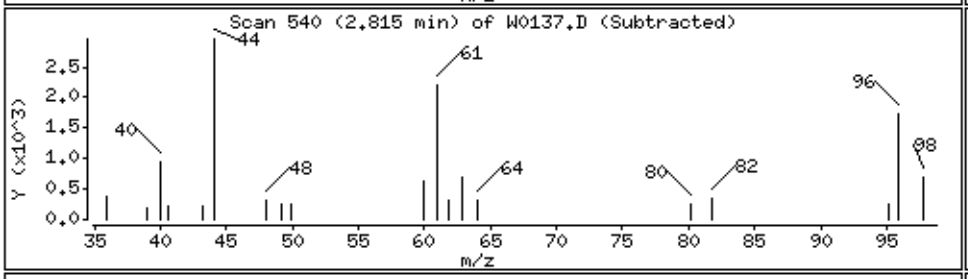


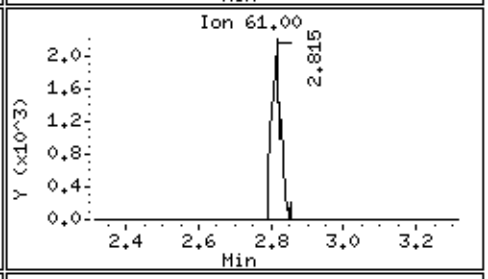


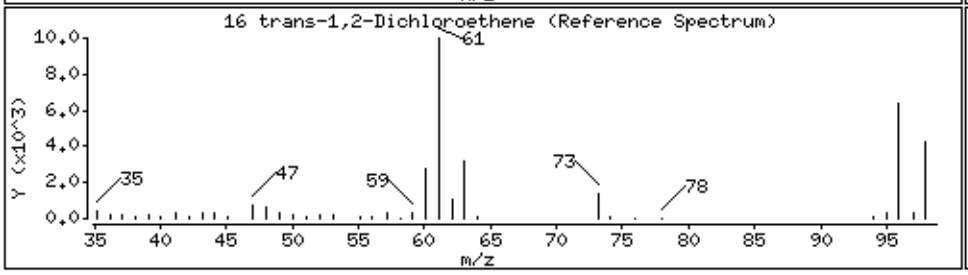
16 trans-1,2-Dichloroethene Concentration: 0.42 ug/l

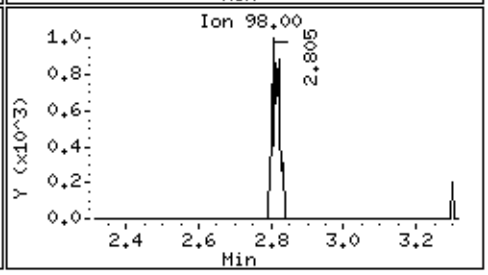












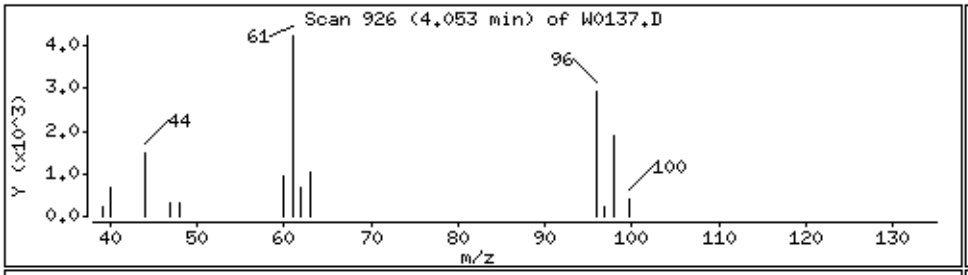
Data File: \\target_server\gg\chem\gcms-w.i\W092121.b\W0137.D

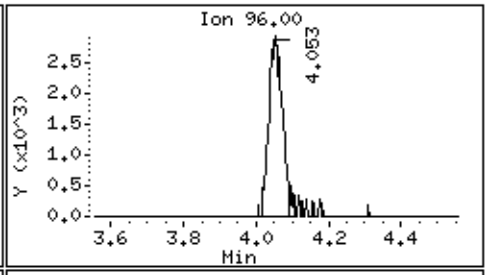
Date : 21-SEP-2021 14:55

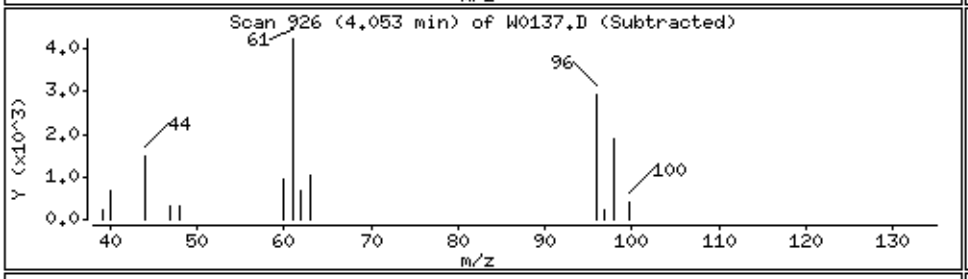
Client ID: VA-MW-85R-1(2021091 Instrument: gcms-w.i

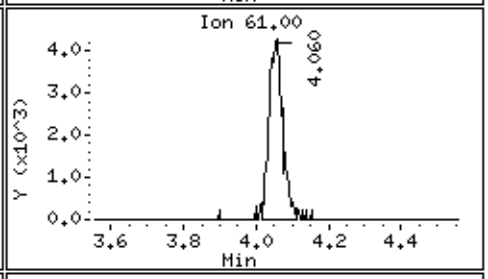
Sample Info: S06313-10

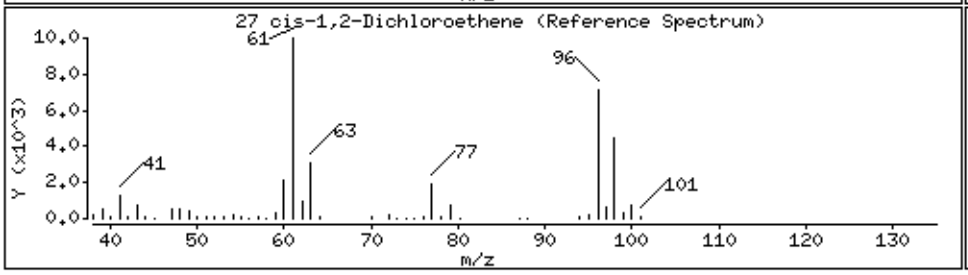
27 cis-1,2-Dichloroethene Concentration: 1.3 ug/l

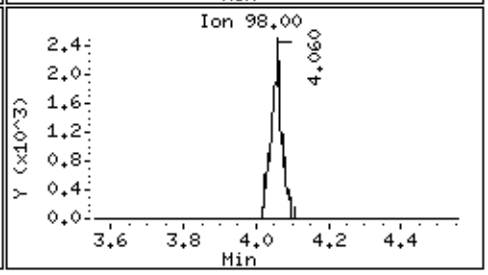




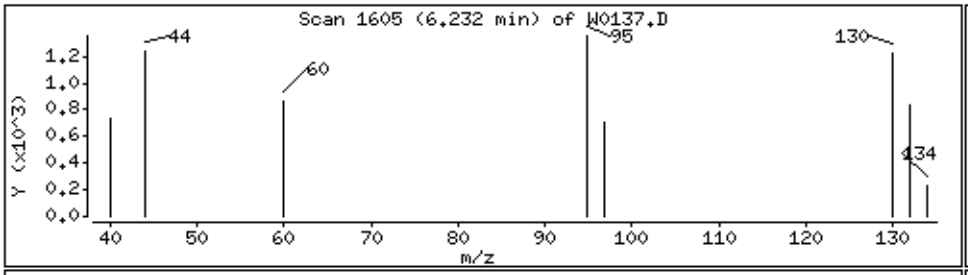


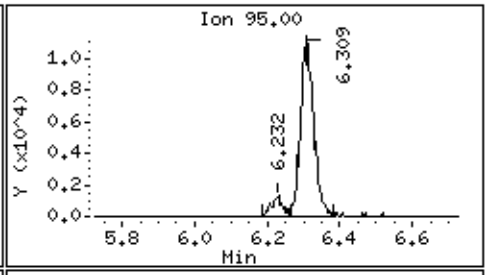


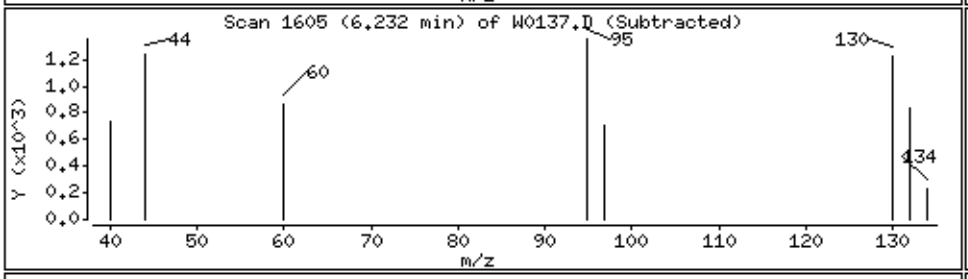


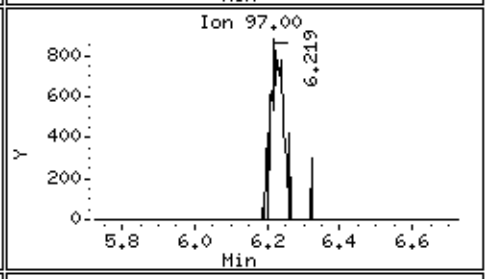


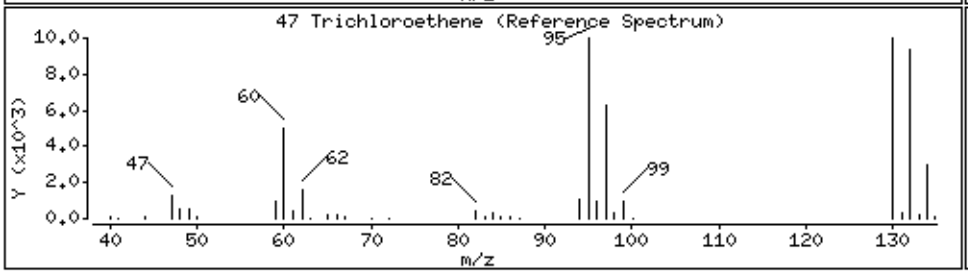
47 Trichloroethene Concentration: 0.49 ug/l

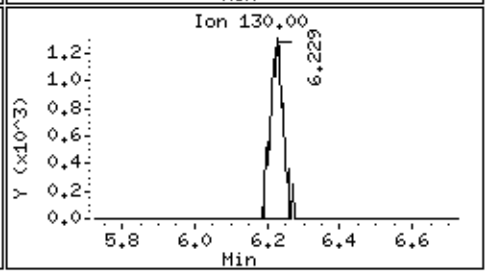












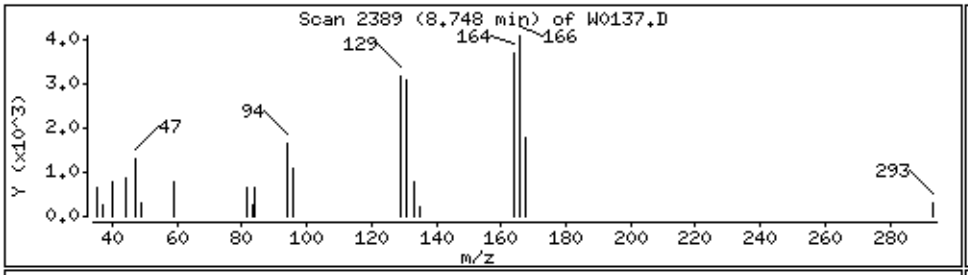
Data File: \\target_server\gg\chem\gcms-w.i\W092121.b\W0137.D

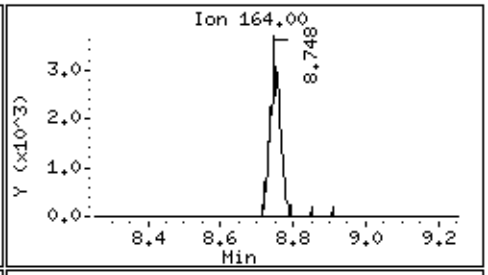
Date : 21-SEP-2021 14:55

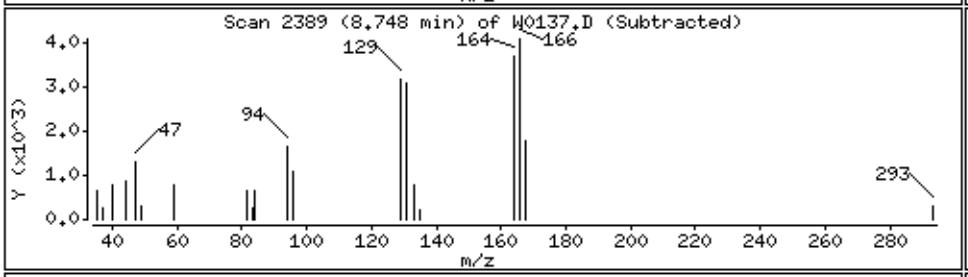
Client ID: VA-MW-85R-1(2021091 Instrument: gcms-w.i

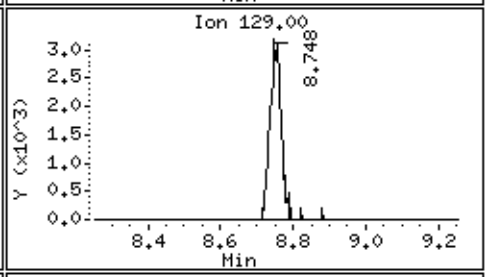
Sample Info: S06313-10

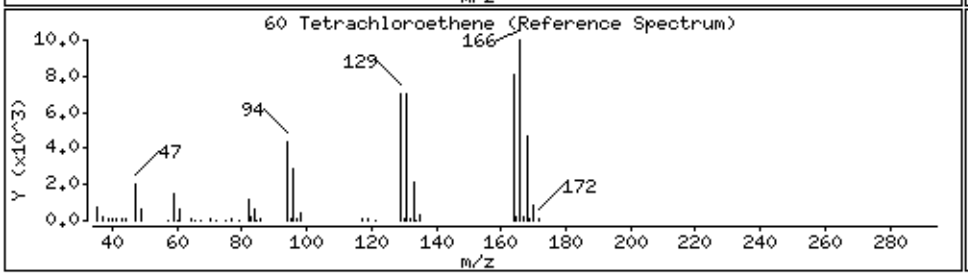
60 Tetrachloroethene Concentration: 1.3 ug/l

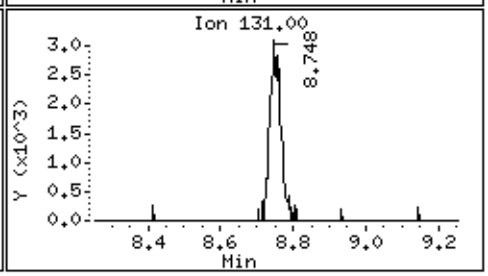








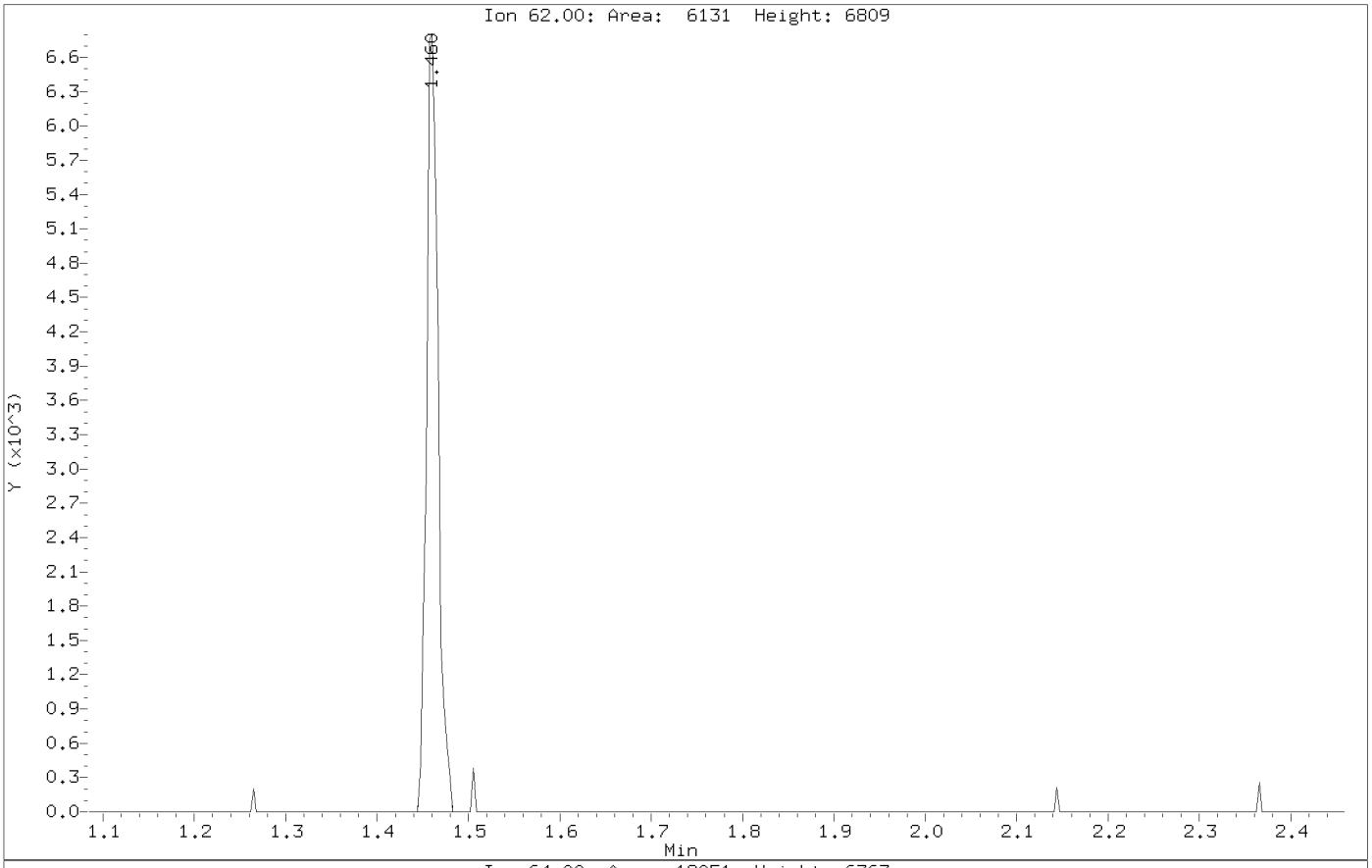


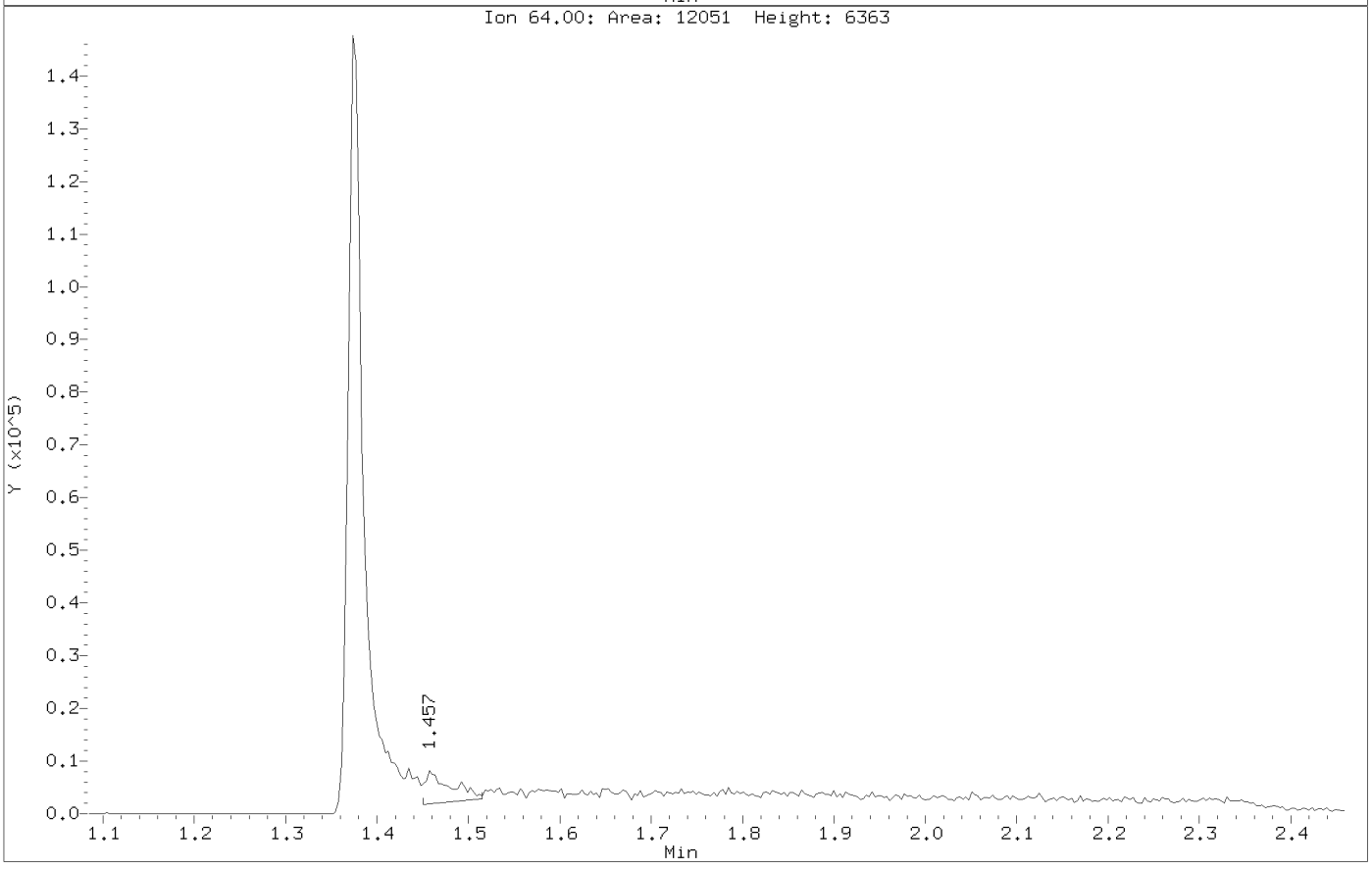


BEFORE MANUAL INTEGRATION

Data File: \\target_server\gg\chem\gcms-w.i\W092121.b\W0137.D
Injection Date: 21-SEP-2021 14:55
Instrument: gcms-w.i
Client Sample ID: VA-MW-85R-1(2021091

Compound: Vinyl chloride
CAS Number: 75-01-4

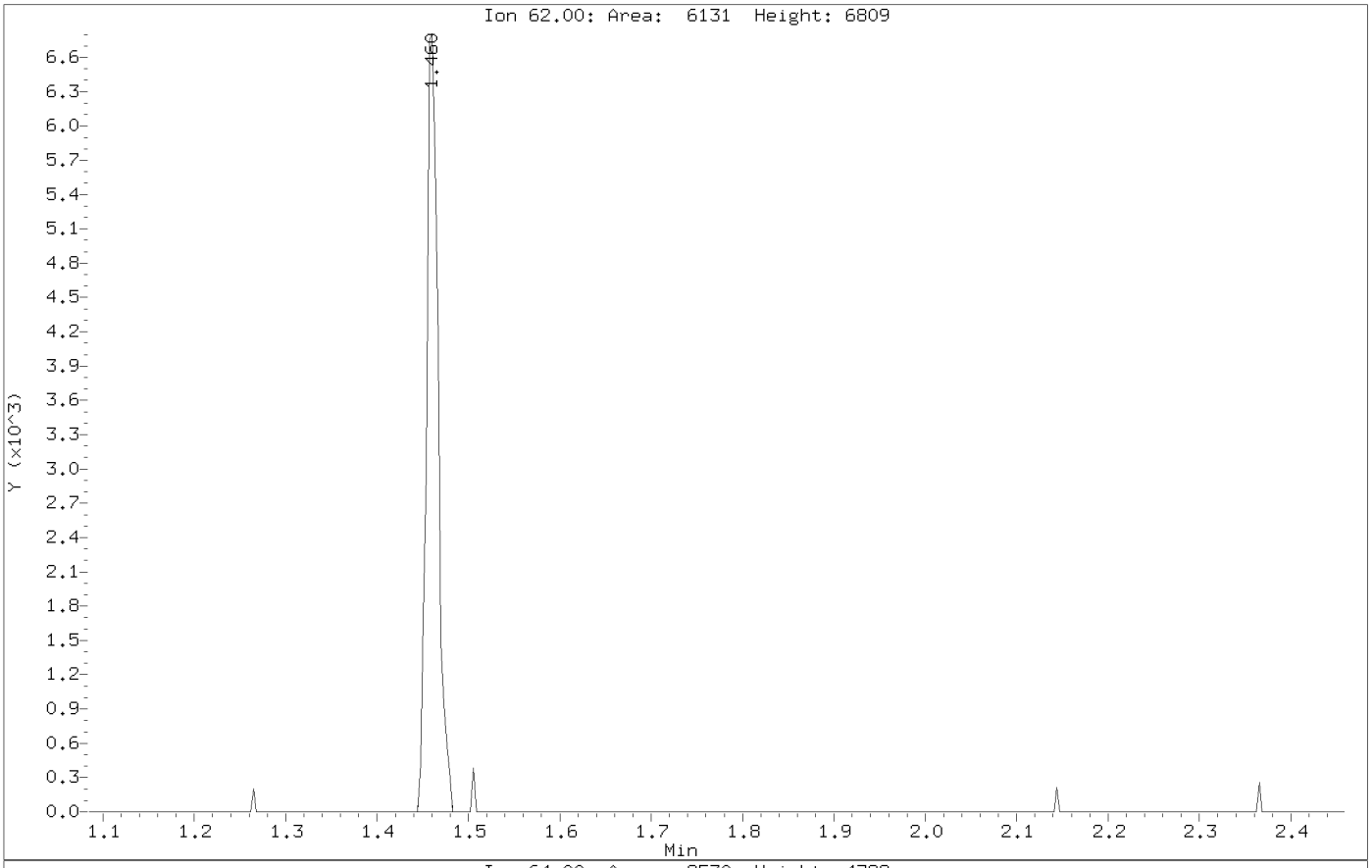


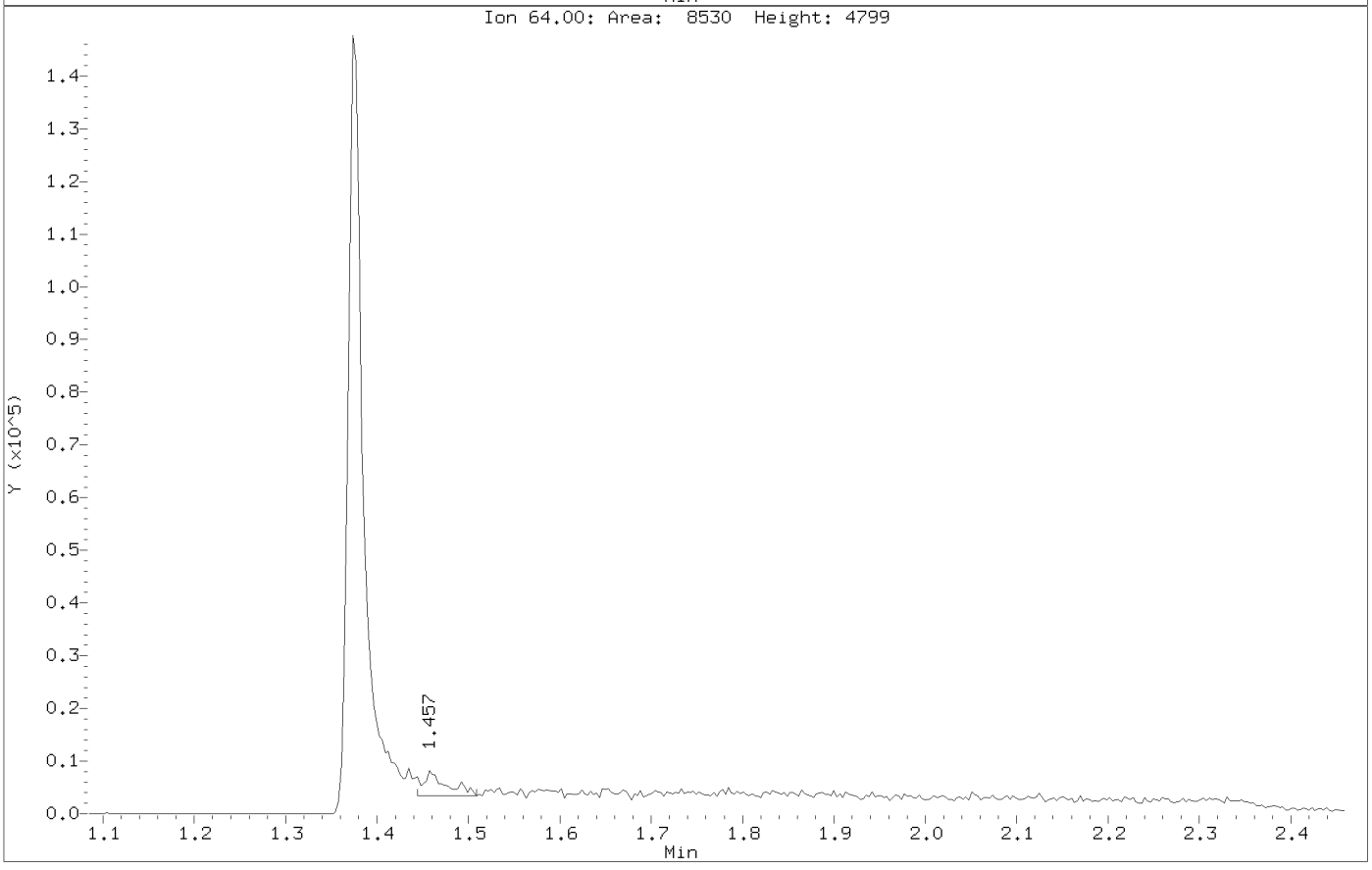


AFTER MANUAL INTEGRATION

Data File: \\target_server\gg\chem\gcms-w.i\W092121.b\W0137.D
Injection Date: 21-SEP-2021 14:55
Instrument: gcms-w.i
Client Sample ID: VA-MW-85R-1(2021091

Compound: Vinyl chloride
CAS Number: 75-01-4





Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-11DL2
Client ID: WVA-MW-85R-2(20210915)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0162.D

Sample Date: 15-SEP-21
Received Date: 18-SEP-21
Extract Date: 22-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306464

Analysis Date: 22-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	8.0	ug/L	4	2	8.0
Vinyl Chloride		540	ug/L	4	2	8.0
Bromomethane	U	8.0	ug/L	4	2	8.0
Chloroethane	U	8.0	ug/L	4	2	8.0
Trichlorofluoromethane	U	8.0	ug/L	4	2	8.0
1,1-Dichloroethene	U	4.0	ug/L	4	1	4.0
Carbon Disulfide	U	4.0	ug/L	4	1	4.0
Methylene Chloride	U	20.	ug/L	4	5	20.
trans-1,2-Dichloroethene		17.	ug/L	4	1	4.0
1,1-Dichloroethane	U	4.0	ug/L	4	1	4.0
cis-1,2-Dichloroethene	E	1800	ug/L	4	1	4.0
Chloroform	U	4.0	ug/L	4	1	4.0
Carbon Tetrachloride	U	4.0	ug/L	4	1	4.0
1,1,1-Trichloroethane	U	4.0	ug/L	4	1	4.0
2-Butanone	U	20.	ug/L	4	5	20.
Benzene	U	4.0	ug/L	4	1	4.0
1,2-Dichloroethane	U	4.0	ug/L	4	1	4.0
Trichloroethene		260	ug/L	4	1	4.0
1,2-Dichloropropane	U	4.0	ug/L	4	1	4.0
Bromodichloromethane	U	4.0	ug/L	4	1	4.0
cis-1,3-Dichloropropene	U	4.0	ug/L	4	1	4.0
Toluene	U	4.0	ug/L	4	1	4.0
4-Methyl-2-Pentanone	U	20.	ug/L	4	5	20.
Tetrachloroethene		400	ug/L	4	1	4.0
trans-1,3-Dichloropropene	U	4.0	ug/L	4	1	4.0
1,1,2-Trichloroethane	U	4.0	ug/L	4	1	4.0
Dibromochloromethane	U	4.0	ug/L	4	1	4.0
Chlorobenzene	U	4.0	ug/L	4	1	4.0
Ethylbenzene	U	4.0	ug/L	4	1	4.0
m+p-Xylenes	U	8.0	ug/L	4	2	8.0
o-Xylene	U	4.0	ug/L	4	1	4.0
Bromoform	U	4.0	ug/L	4	1	4.0
1,1,2,2-Tetrachloroethane	U	4.0	ug/L	4	1	4.0
P-Bromofluorobenzene		100.	%			
Toluene-d8		99.7	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-11DL2
Client ID: WVA-MW-85R-2(20210915)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0162.D

Sample Date: 15-SEP-21
Received Date: 18-SEP-21
Extract Date: 22-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306464

Analysis Date: 22-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		121.	%			
Dibromofluoromethane		108.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Data File: \\target_server\gg\chem\gcms-w.i\W092221.b\W0162.D
Report Date: 12-Oct-2021 08:54

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-w.i\W092221.b\W0162.D
Lab Smp Id: SO6313-11DL2 Client Smp ID: VA-MW-85R-2(2021091
Inj Date : 22-SEP-2021 16:02
Operator : ES Inst ID: gcms-w.i
Smp Info : SO6313-11DL2
Misc Info : WG306464,WG306464-4
Comment : SW846 5030
Method : \\target_server\gg\chem\gcms-w.i\W092221.b\W8A05(08).m
Meth Date : 11-Oct-2021 13:03 hgould Quant Type: ISTD
Cal Date : 20-SEP-2021 11:30 Cal File: W0105.D
Als bottle: 18
Dil Factor: 4.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.12

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	4.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

10:18 am, Oct 12, 2021

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)	REVIEW CODE
	3 Vinyl chloride	62	1.460	1.460	(0.264)	687947	134.584	538	
	8 1,1-Dichloroethene	96	2.205	2.211	(0.399)	3970	0.85580	3.4(a)	
	14 Methylene Chloride	84	2.676	2.677	(0.484)	17025	3.71337	14.8(a)	
	15 Acetone	43	2.724	2.725	(0.493)	5427	4.26916	17.1(aM)	M10
	16 trans-1,2-Dichloroethene	96	2.811	2.815	(0.509)	20976	4.25812	17.0	
	27 cis-1,2-Dichloroethene	96	4.053	4.056	(0.733)	2373432	452.383	1810(A)	
$	34 Dibromofluoromethane	113	4.714	4.714	(0.853)	250516	53.7704	53.8	
*	41 Pentafluorobenzene	168	5.526	5.526	(1.000)	465173	50.0000		
$	42 1,2-Dichloroethane-D4	65	5.548	5.549	(1.004)	367937	60.6306	60.6	
	47 Trichloroethene	95	6.222	6.226	(0.986)	348485	65.8029	263	
*	48 1,4-Difluorobenzene	114	6.309	6.315	(1.000)	834605	50.0000		
$	58 Toluene-D8	98	8.202	8.209	(1.300)	995224	49.8606	49.9	
	60 Tetrachloroethene	164	8.751	8.754	(0.860)	464764	101.270	405	
*	68 Chlorobenzene-D5	117	10.179	10.182	(1.000)	798600	50.0000		
$	77 P-Bromofluorobenzene	95	11.674	11.678	(1.850)	418199	50.0723	50.1	
*	93 1,4-Dichlorobenzene-D4	152	12.945	12.948	(1.000)	408091	50.0000		
M	97 1,2-Dichloroethylene (total)	96				2394408	456.641	1830	

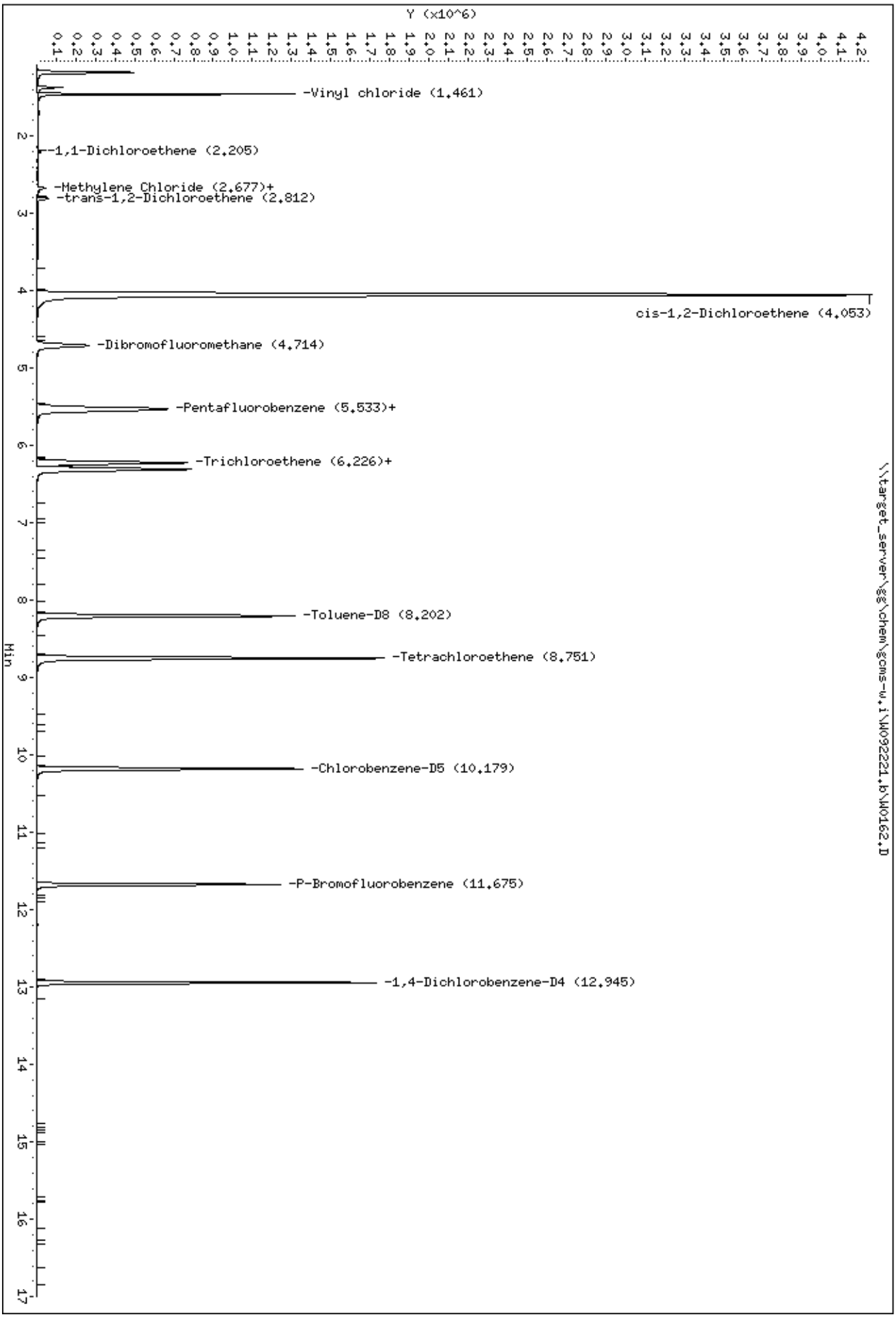
QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount
exceeded maximum amount.

Data File: \\target_server\gg\chem\gcms-w.i\W092221.b\W0162.D
Report Date: 12-Oct-2021 08:54

QC Flag Legend

M - Compound response manually integrated.


Y (x10^6)
Min
-Vinyl chloride (1.461)
-1,1-Dichloroethene (2.205)
-Methylene Chloride (2.677)+
-trans-1,2-Dichloroethene (2.812)
cis-1,2-Dichloroethene (4.053)
-Dibromofluoromethane (4.714)
-Pentafluorobenzene (5.533)+
-Trichloroethene (6.226)+
-Toluene-D8 (8.202)
-Tetrachloroethene (8.751)
-Chlorobenzene-D5 (10.179)
-P-Bromofluorobenzene (11.675)
-1,4-Dichlorobenzene-D4 (12.945)
\\target_server\gg\chem\gcms-w.i\W092221.b\W0162.D
Data File: \\target_server\gg\chem\gcms-w.i\W092221.b\W0162.D
Date : 22-SEP-2021 16:02
Client ID: VA-MW-85R-2(2021091
Sample Info: SD6313-11DL2
Instrument: gcms-w.i

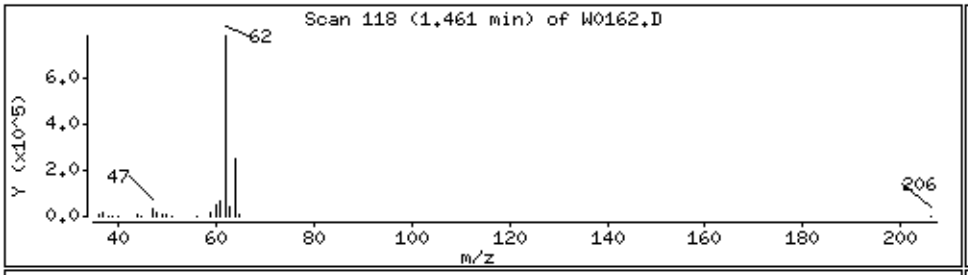
Data File: \\target_server\gg\chem\gcms-w.i\W092221.b\W0162.D

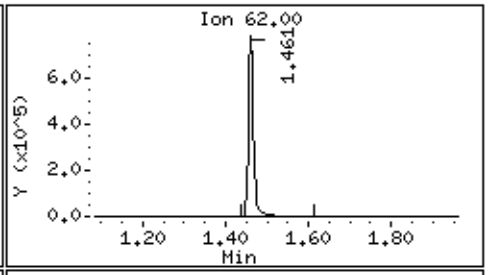
Date : 22-SEP-2021 16:02

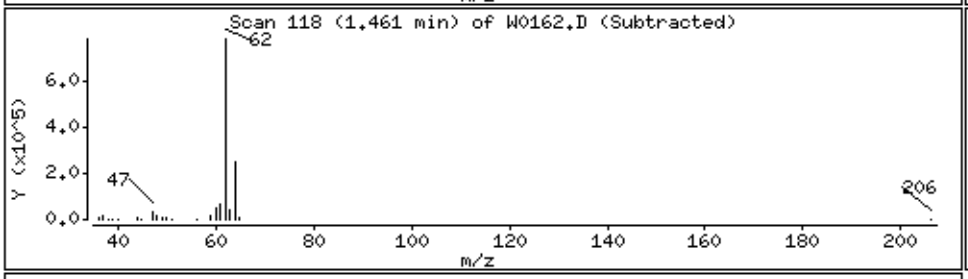
Client ID: VA-MW-85R-2(2021091 Instrument: gcms-w.i

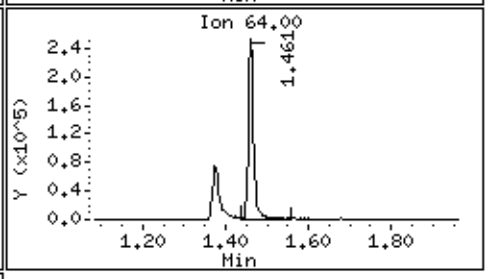
Sample Info: S06313-11DL2

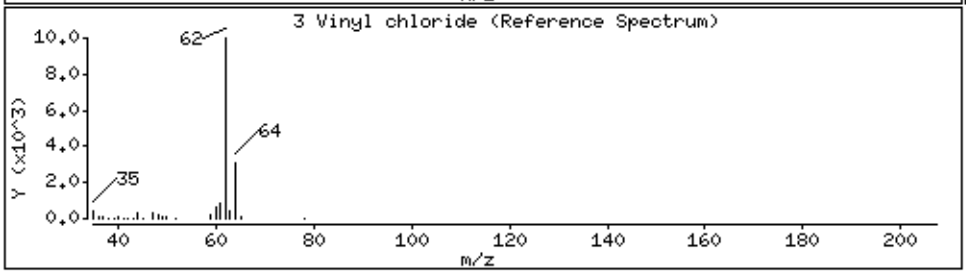
3 Vinyl chloride Concentration: 538 ug/l



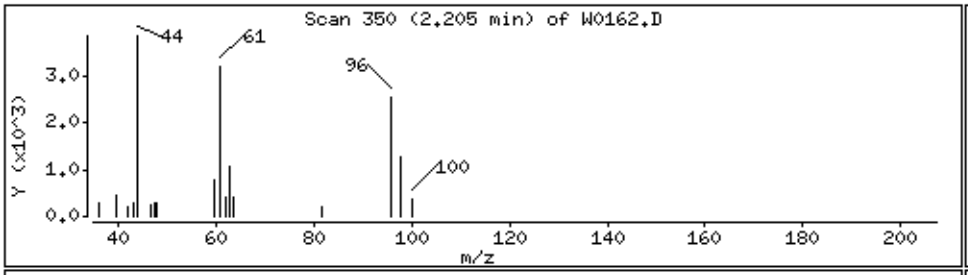


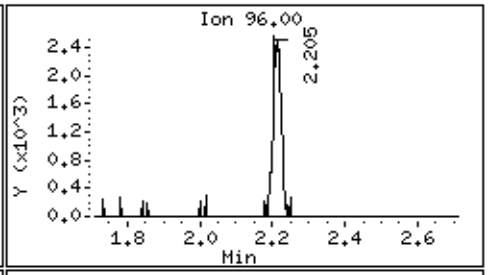


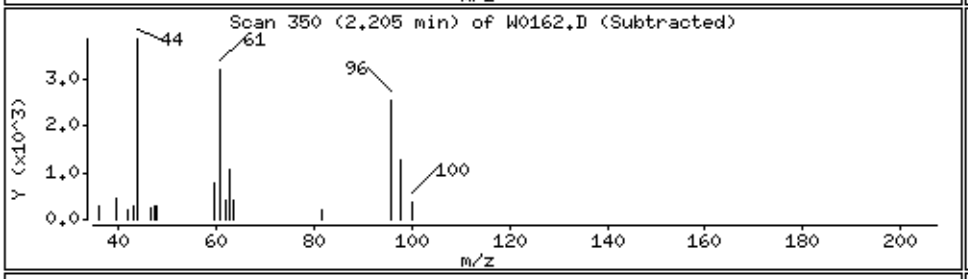


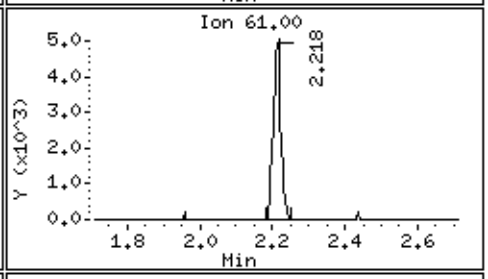


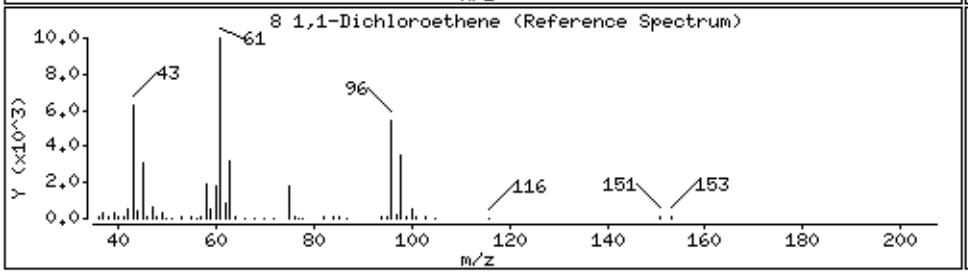
8 1,1-Dichloroethene Concentration: 3.4 ug/l

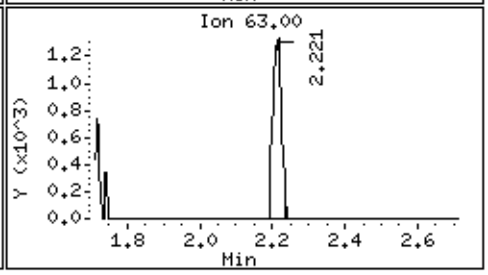












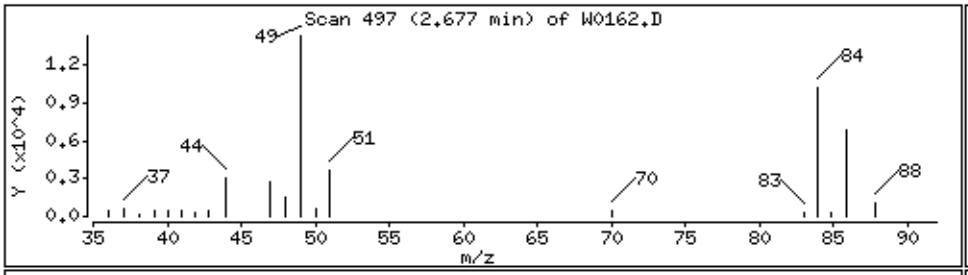
Data File: \\target_server\gg\chem\gcms-w.i\W092221.b\W0162.D

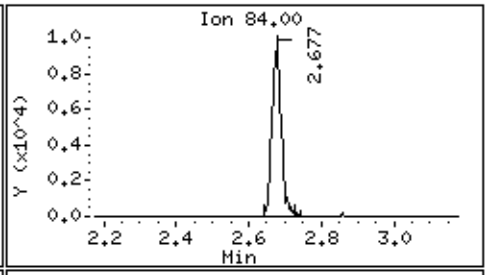
Date : 22-SEP-2021 16:02

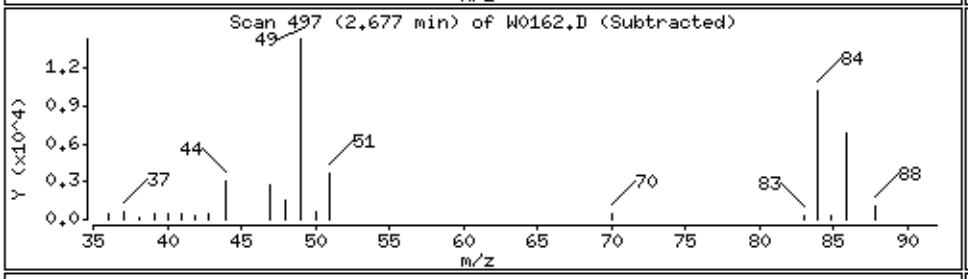
Client ID: VA-MW-85R-2(2021091 Instrument: gcms-w.i

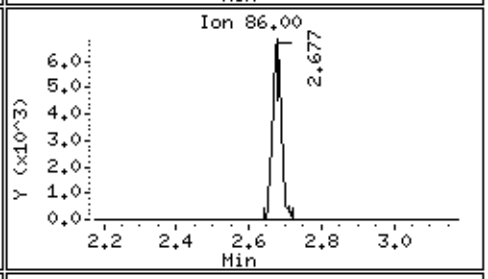
Sample Info: S06313-11DL2

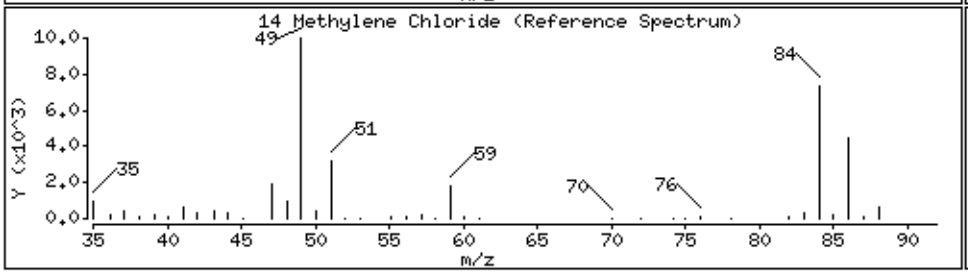
14 Methylene Chloride Concentration: 14.8 ug/l

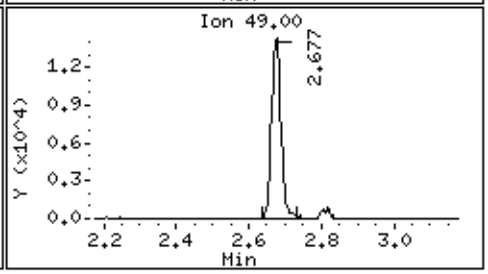




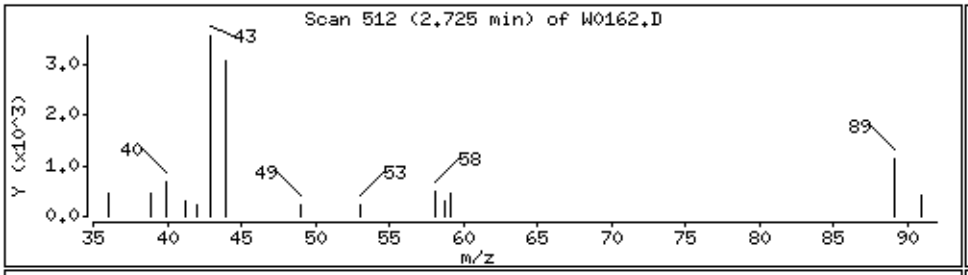


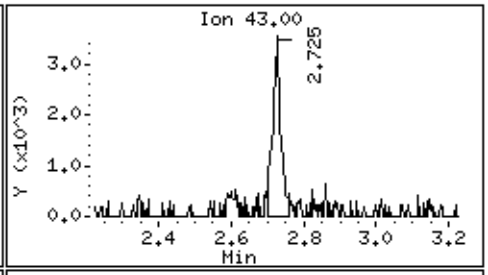


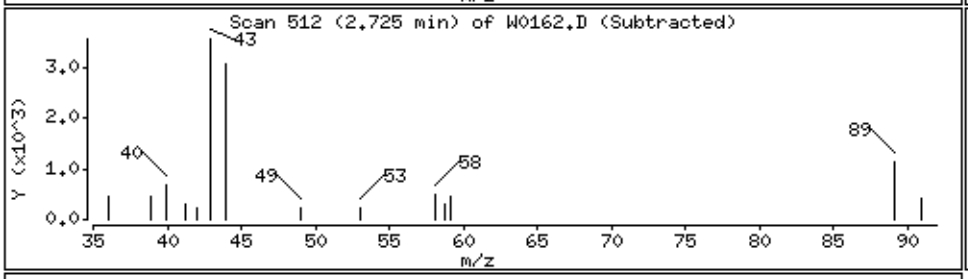


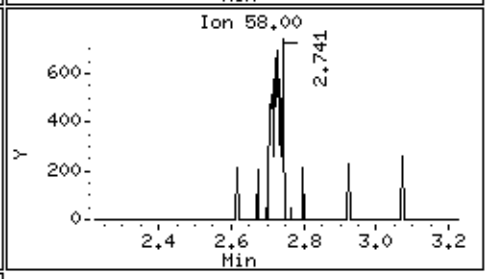


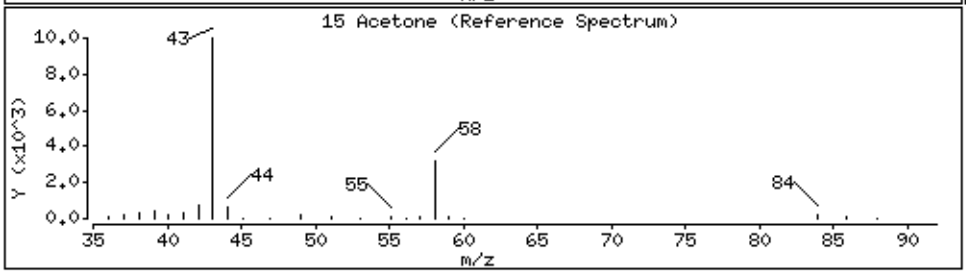
15 Acetone Concentration: 17.1 ug/l











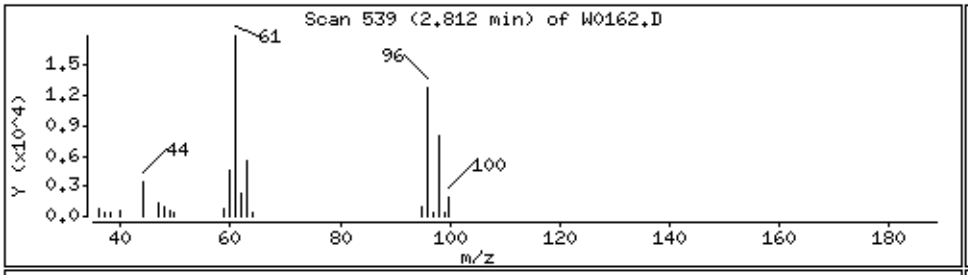
Data File: \\target_server\gg\chem\gcms-w.i\W092221.b\W0162.D

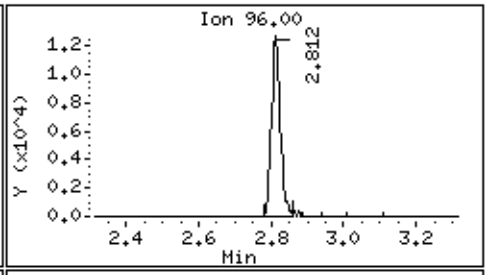
Date : 22-SEP-2021 16:02

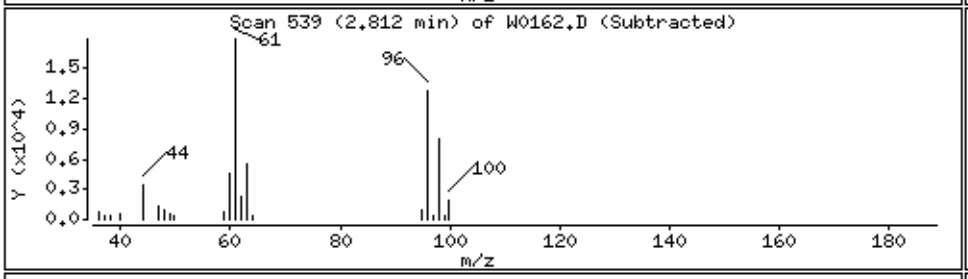
Client ID: VA-MW-85R-2(2021091 Instrument: gcms-w.i

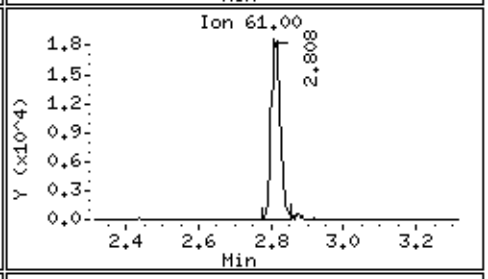
Sample Info: S06313-11DL2

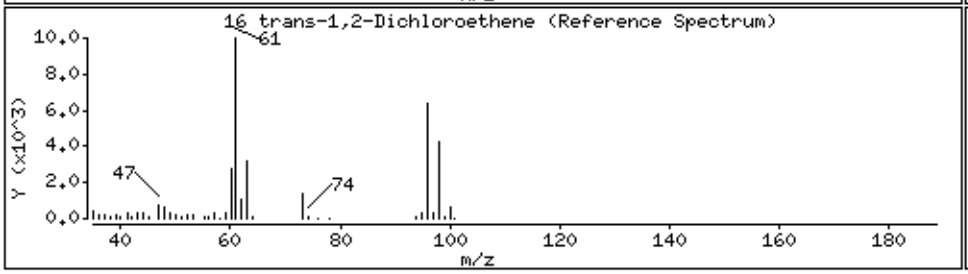
16 trans-1,2-Dichloroethene Concentration: 17.0 ug/l

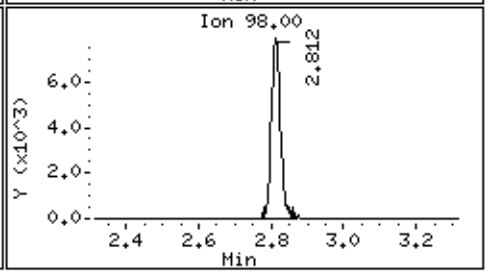




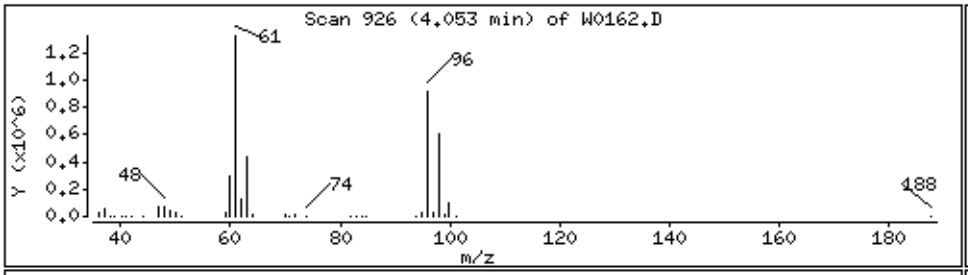


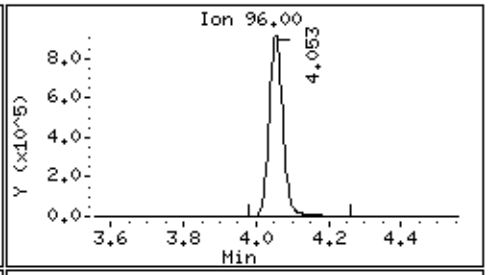


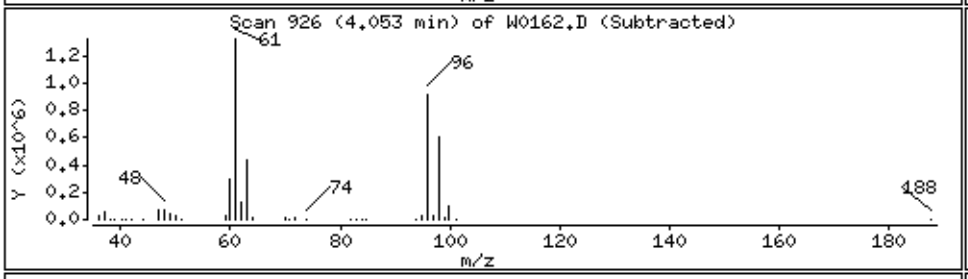


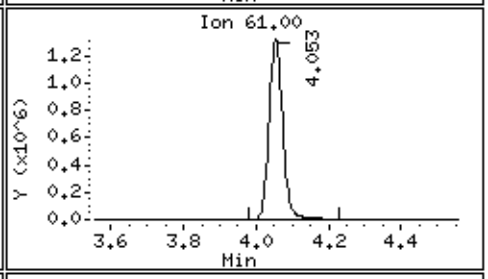


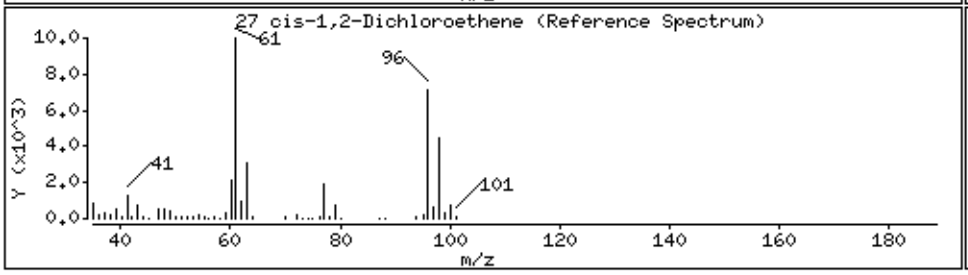
27 cis-1,2-Dichloroethene Concentration: 1810 ug/l

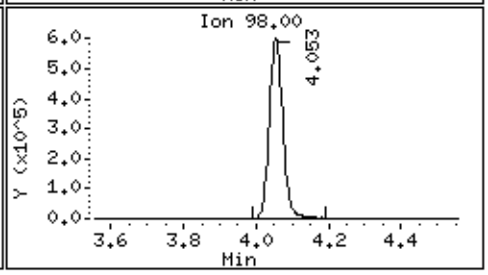












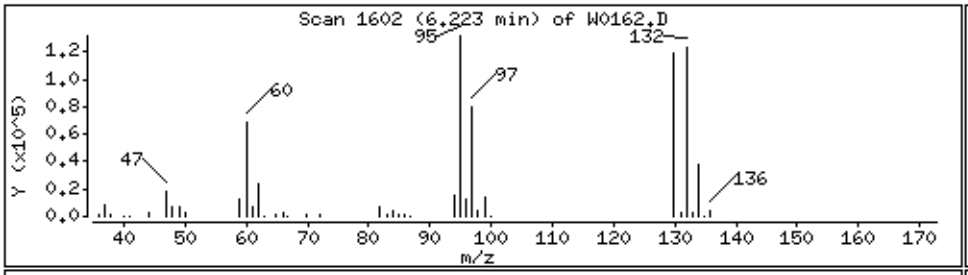
Data File: \\target_server\gg\chem\gcms-w.i\W092221.b\W0162.D

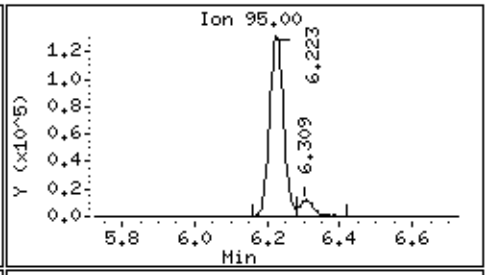
Date : 22-SEP-2021 16:02

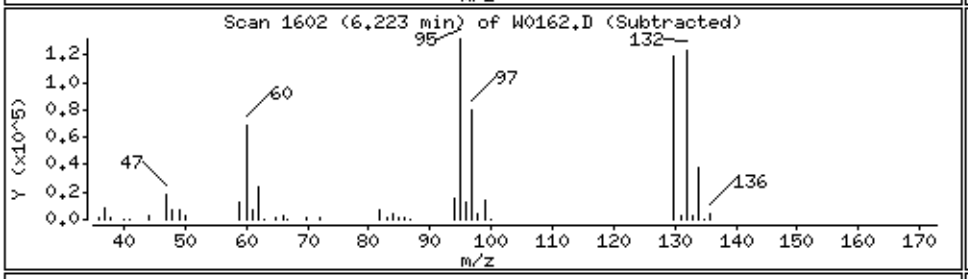
Client ID: VA-MW-85R-2(2021091 Instrument: gcms-w.i

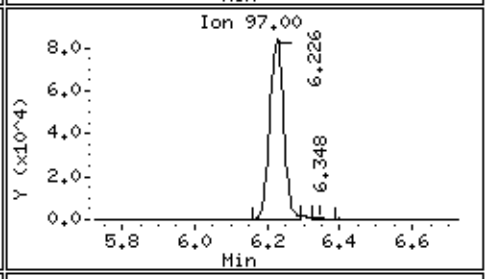
Sample Info: S06313-11DL2

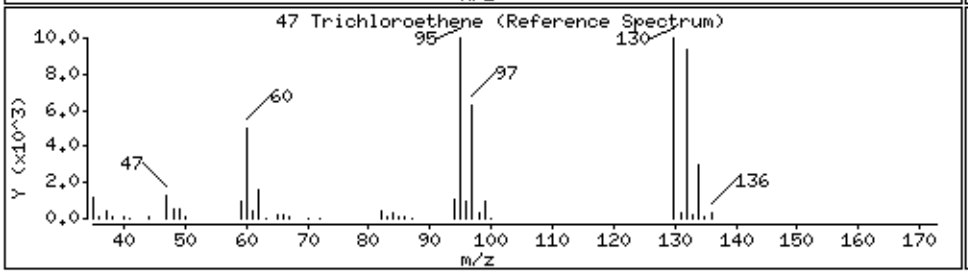
47 Trichloroethene Concentration: 263 ug/l

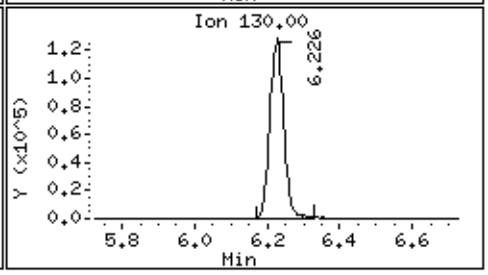




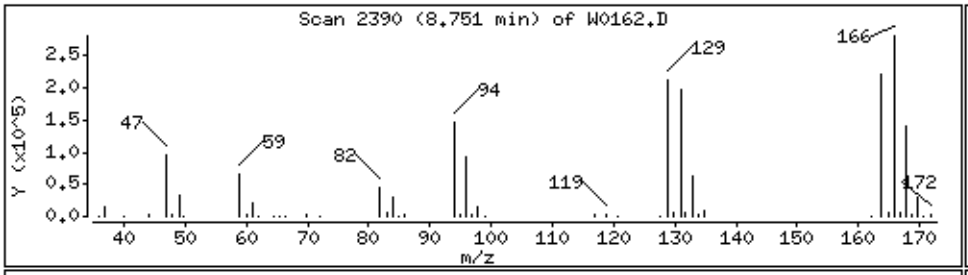


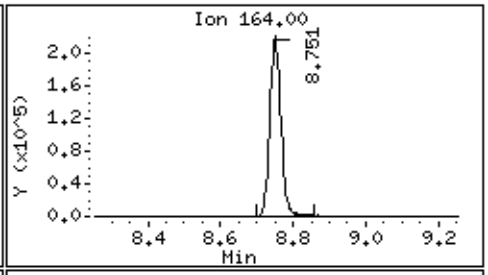


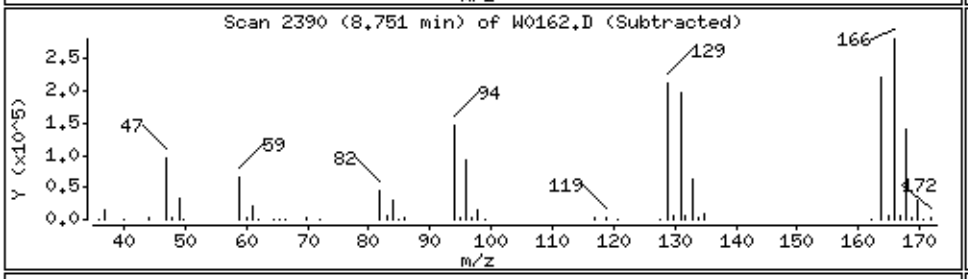


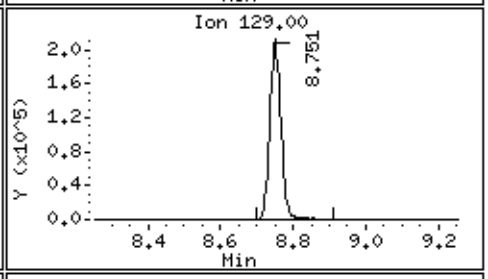


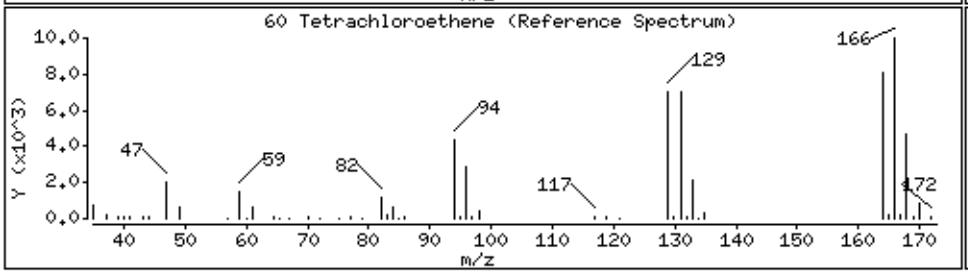
60 Tetrachloroethene Concentration: 405 ug/l

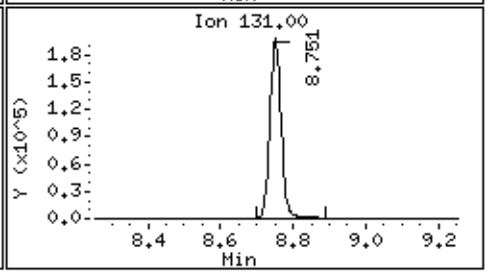












Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-11DL3
Client ID: WVA-MW-85R-2(20210915)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0189.D

Sample Date: 15-SEP-21
Received Date: 18-SEP-21
Extract Date: 23-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306545

Analysis Date: 23-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	40.	ug/L	20	2	40.
Vinyl Chloride		490	ug/L	20	2	40.
Bromomethane	U	40.	ug/L	20	2	40.
Chloroethane	U	40.	ug/L	20	2	40.
Trichlorofluoromethane	U	40.	ug/L	20	2	40.
1,1-Dichloroethene	U	20.	ug/L	20	1	20.
Carbon Disulfide	U	20.	ug/L	20	1	20.
Methylene Chloride	U	100	ug/L	20	5	100
trans-1,2-Dichloroethene	U	20.	ug/L	20	1	20.
1,1-Dichloroethane	U	20.	ug/L	20	1	20.
cis-1,2-Dichloroethene		1600	ug/L	20	1	20.
Chloroform	U	20.	ug/L	20	1	20.
Carbon Tetrachloride	U	20.	ug/L	20	1	20.
1,1,1-Trichloroethane	U	20.	ug/L	20	1	20.
2-Butanone	U	100	ug/L	20	5	100
Benzene	U	20.	ug/L	20	1	20.
1,2-Dichloroethane	U	20.	ug/L	20	1	20.
Trichloroethene		230	ug/L	20	1	20.
1,2-Dichloropropane	U	20.	ug/L	20	1	20.
Bromodichloromethane	U	20.	ug/L	20	1	20.
cis-1,3-Dichloropropene	U	20.	ug/L	20	1	20.
Toluene	U	20.	ug/L	20	1	20.
4-Methyl-2-Pentanone	U	100	ug/L	20	5	100
Tetrachloroethene		350	ug/L	20	1	20.
trans-1,3-Dichloropropene	U	20.	ug/L	20	1	20.
1,1,2-Trichloroethane	U	20.	ug/L	20	1	20.
Dibromochloromethane	U	20.	ug/L	20	1	20.
Chlorobenzene	U	20.	ug/L	20	1	20.
Ethylbenzene	U	20.	ug/L	20	1	20.
m+p-Xylenes	U	40.	ug/L	20	2	40.
o-Xylene	U	20.	ug/L	20	1	20.
Bromoform	U	20.	ug/L	20	1	20.
1,1,2,2-Tetrachloroethane	U	20.	ug/L	20	1	20.
P-Bromofluorobenzene		102.	%			
Toluene-d8		101.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-11DL3
Client ID: WVA-MW-85R-2(20210915)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0189.D

Sample Date: 15-SEP-21
Received Date: 18-SEP-21
Extract Date: 23-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306545

Analysis Date: 23-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		118.	%			
Dibromofluoromethane		107.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Data File: \\target_server\gg\chem\gcms-w.i\W092321.b\W0189.D
Report Date: 12-Oct-2021 08:54

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-w.i\W092321.b\W0189.D
Lab Smp Id: SO6313-11DL3
Inj Date : 23-SEP-2021 11:24
Operator : ES   Inst ID: gcms-w.i
Smp Info : SO6313-11DL3
Misc Info : WG306545,WG306545-4
Comment   : SW846 5030
Method   : \\target_server\gg\chem\gcms-w.i\W092321.b\W8A05(08).m
Meth Date : 11-Oct-2021 13:19 gcms-w.i   Quant Type: ISTD
Cal Date : 20-SEP-2021 11:30   Cal File: W0105.D
Als bottle: 9
Dil Factor: 20.00000
Integrator: HP RTE   Compound Sublist: all.sub
Target Version: 4.12

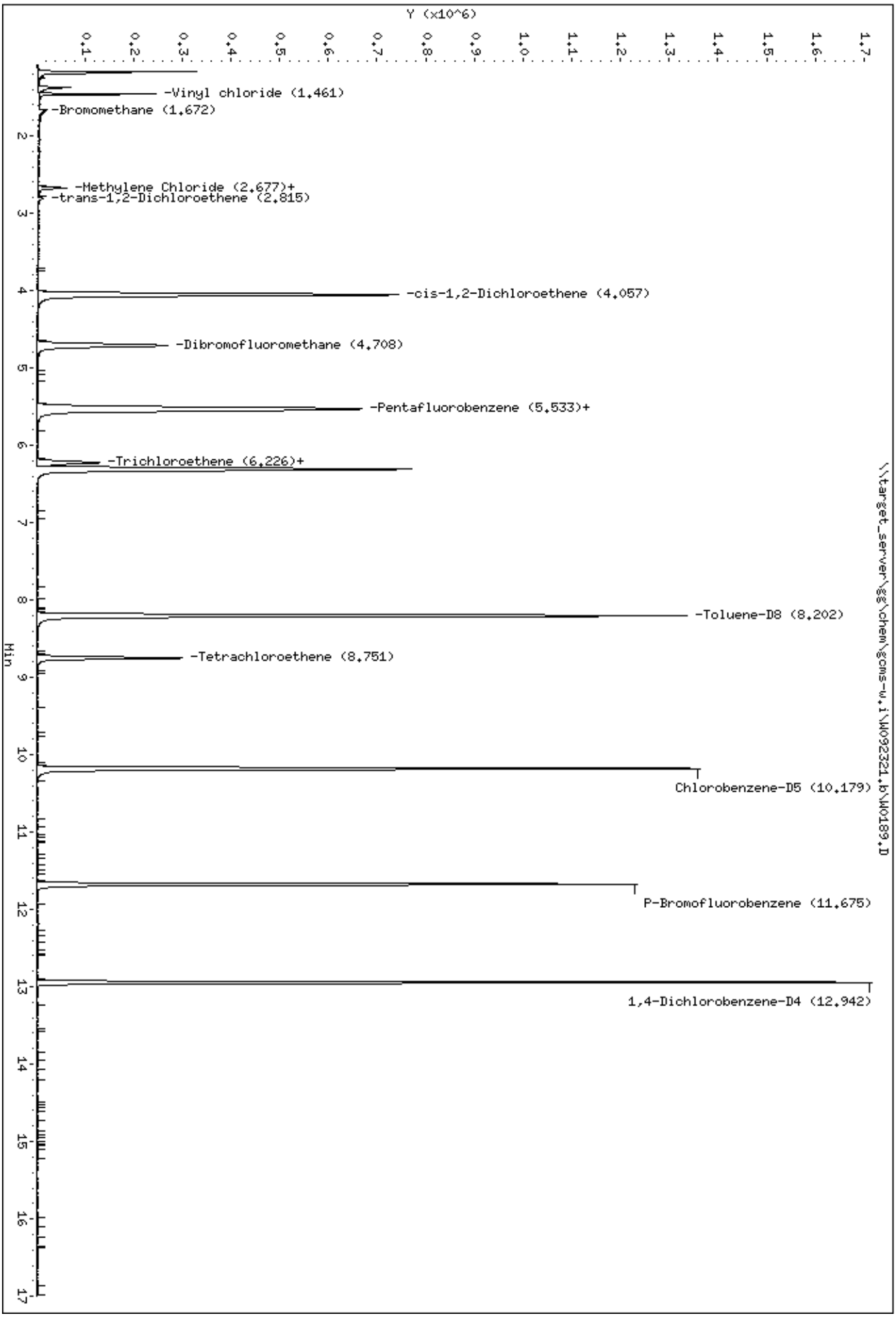
Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	20.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)	REVIEW CODE
	3 Vinyl chloride	62	1.460	1.460	(0.264)	126773	24.3368	487	
	4 Bromomethane	94	1.672	1.672	(0.303)	1424	0.53552	10.7(a)	
	14 Methylene Chloride	84	2.676	2.677	(0.485)	21936	4.69500	93.9(a)	
	15 Acetone	43	2.721	2.725	(0.493)	3963	3.06013	61.2(a)	
	16 trans-1,2-Dichloroethene	96	2.814	2.815	(0.510)	3763	0.74959	15.0(a)	
	27 cis-1,2-Dichloroethene	96	4.056	4.056	(0.734)	419732	78.5052	1570	
$	34 Dibromofluoromethane	113	4.707	4.714	(0.852)	254274	53.5558	53.6	
*	41 Pentafluorobenzene	168	5.523	5.526	(1.000)	474043	50.0000		
$	42 1,2-Dichloroethane-D4	65	5.542	5.549	(1.003)	363657	58.8040	58.8	
	47 Trichloroethene	95	6.228	6.226	(0.987)	60059	11.5801	232	
*	48 1,4-Difluorobenzene	114	6.312	6.315	(1.000)	817351	50.0000		
$	58 Toluene-D8	98	8.202	8.209	(1.299)	984563	50.3677	50.4	
	60 Tetrachloroethene	164	8.751	8.754	(0.860)	80820	17.5438	351	
*	68 Chlorobenzene-D5	117	10.179	10.182	(1.000)	801632	50.0000		
$	77 P-Bromofluorobenzene	95	11.674	11.678	(1.849)	415336	50.7793	50.8	
*	93 1,4-Dichlorobenzene-D4	152	12.942	12.948	(1.000)	398367	50.0000		
M	97 1,2-Dichloroethylene (total)	96				423495	79.2548	1580	

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).


Y (x10^6)
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0
1.1
1.2
1.3
1.4
1.5
1.6
1.7
-Vinyl chloride (1.461)
-Bromomethane (1.672)
-Methylene Chloride (2.677)+
-trans-1,2-Dichloroethene (2.815)
-cis-1,2-Dichloroethene (4.057)
-Dibromofluoromethane (4.708)
-Pentafluorobenzene (5.533)+
-Trichloroethene (6.226)+
-Toluene-D8 (8.202)
-Tetrachloroethene (8.751)
Chlorobenzene-D5 (10.179)
P-Bromofluorobenzene (11.675)
1,4-Dichlorobenzene-D4 (12.942)
Min
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
\\target_server\gg\chem\gcms-w.i\W092321.b\W0189.D
Data File: \\target_server\gg\chem\gcms-w.i\W092321.b\W0189.D
Date : 23-SEP-2021 11:24
Client ID:
Sample Info: S06313-11DL3
Instrument: gcms-w.i

Data File: \\target_server\gg\chem\gcms-w.i\W092321.b\W0189.D

Date : 23-SEP-2021 11:24

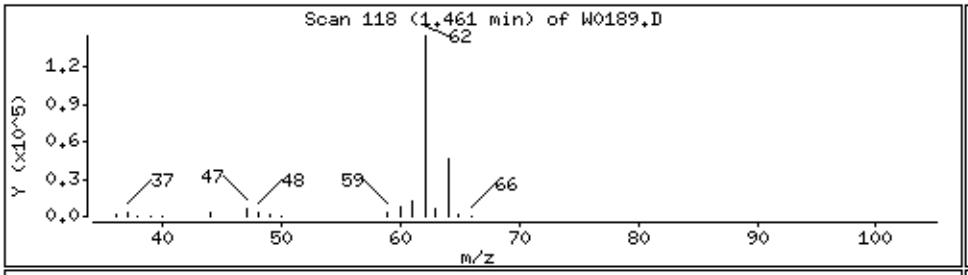
Client ID:

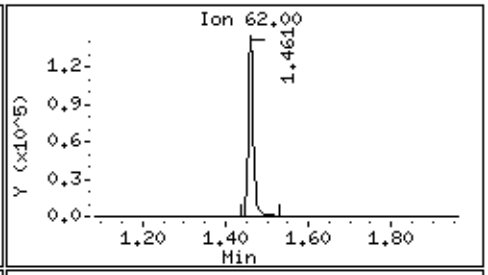
Instrument: gcms-w.i

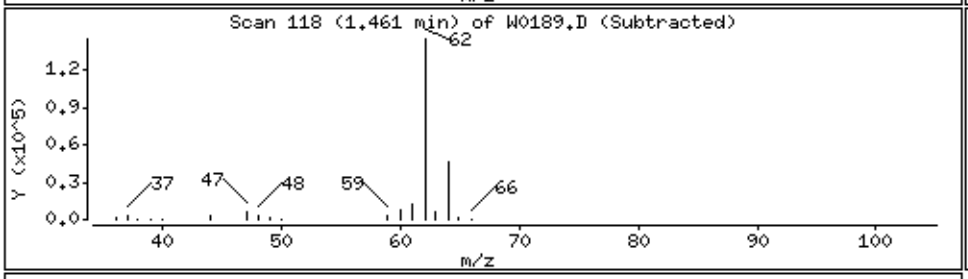
Sample Info: S06313-11DL3

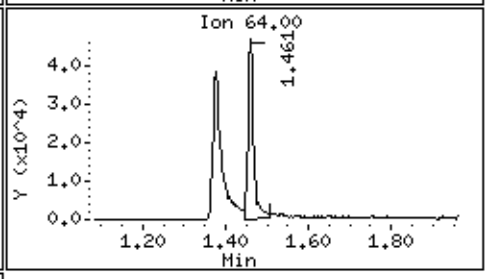
3 Vinyl chloride

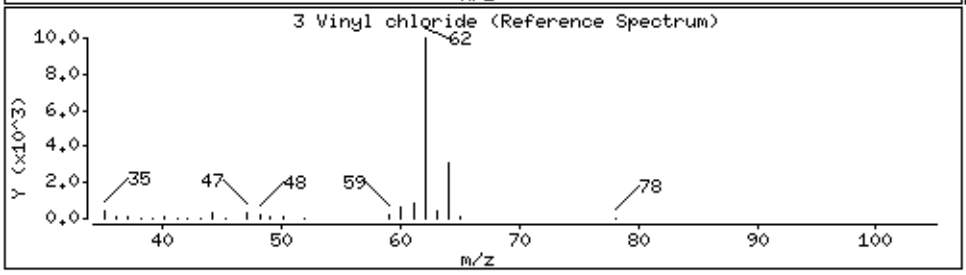
Concentration: 487 ug/l





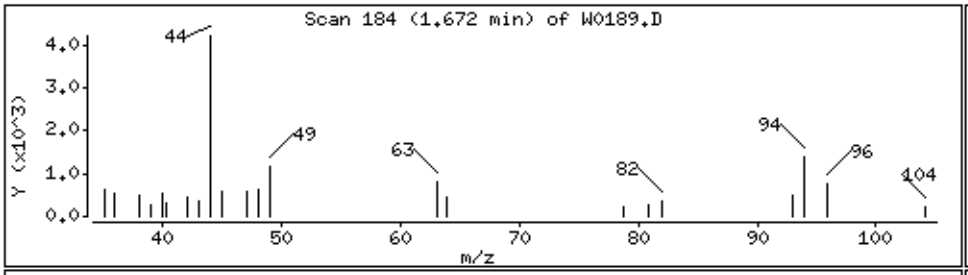


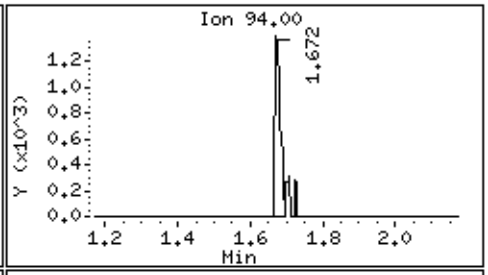


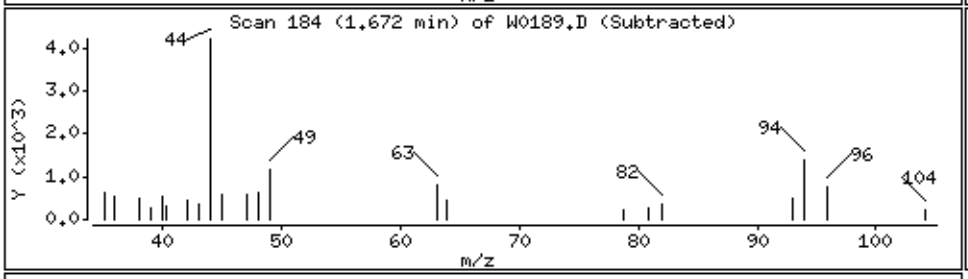


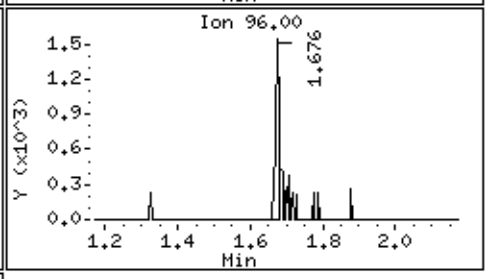
4 Bromomethane

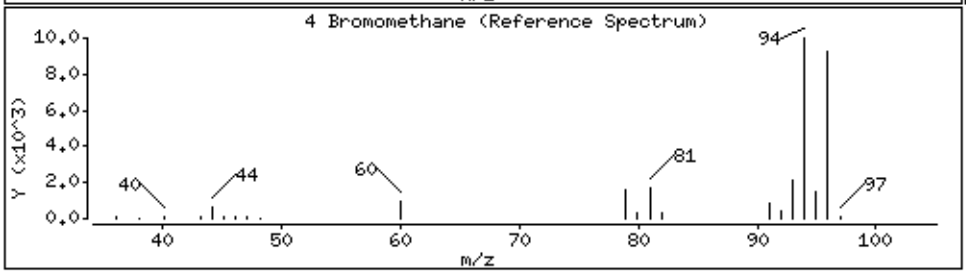
Concentration: 10.7 ug/l











Data File: \\target_server\gg\chem\gcms-w.i\W092321.b\W0189.D

Date : 23-SEP-2021 11:24

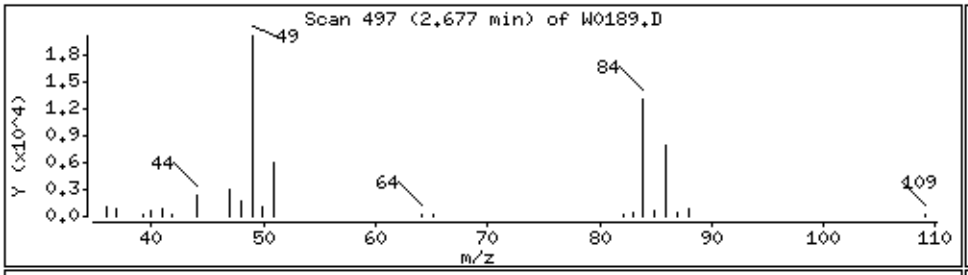
Client ID:

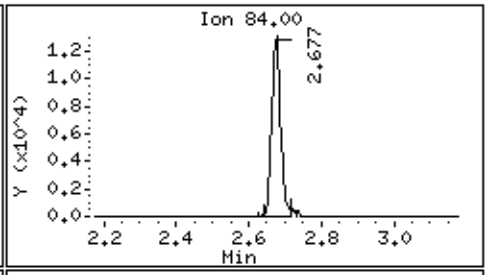
Instrument: gcms-w.i

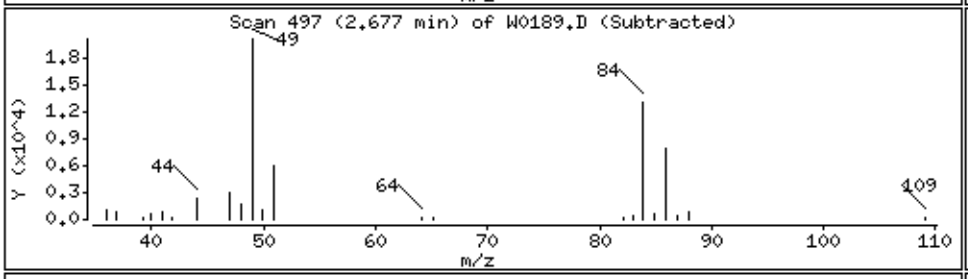
Sample Info: S06313-11DL3

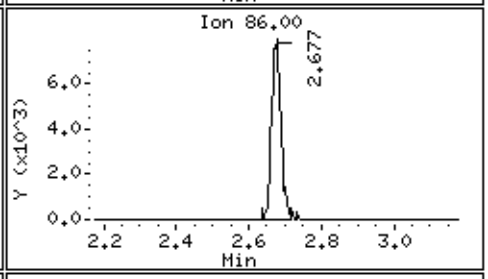
14 Methylene Chloride

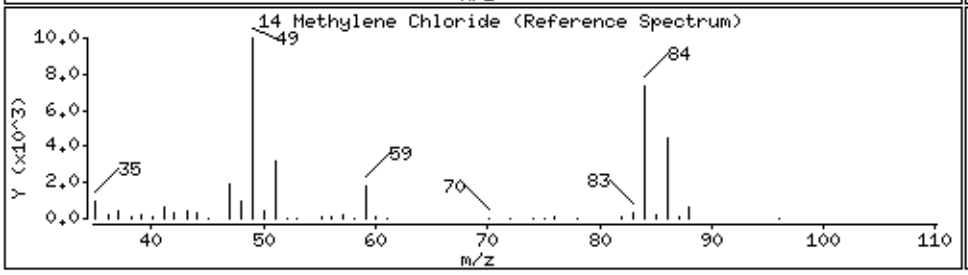
Concentration: 93.9 ug/l

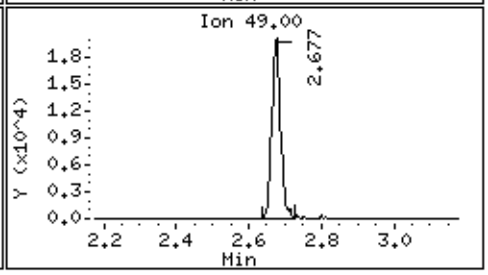






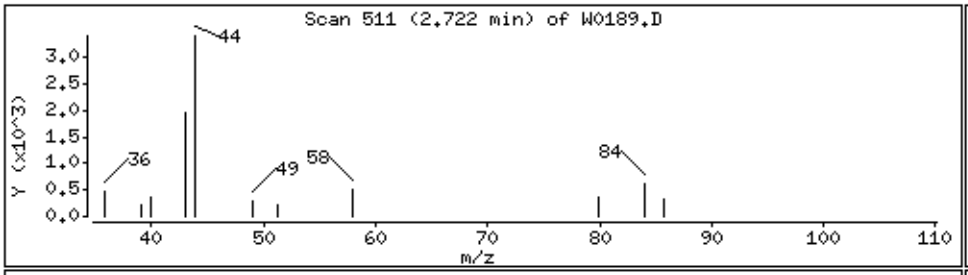


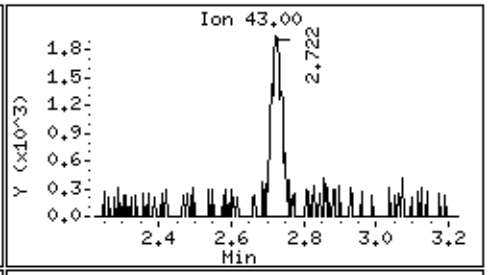


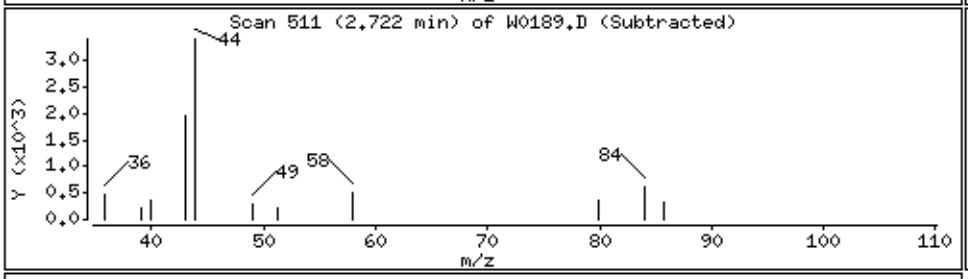


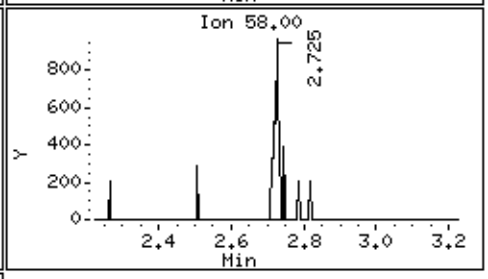
15 Acetone

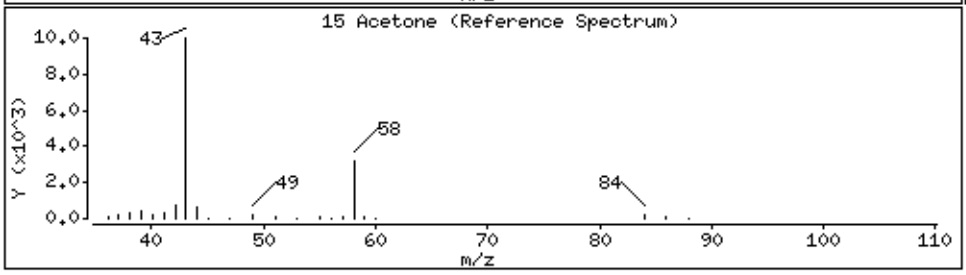
Concentration: 61.2 ug/l











Data File: \\target_server\gg\chem\gcms-w.i\W092321.b\W0189.D

Date : 23-SEP-2021 11:24

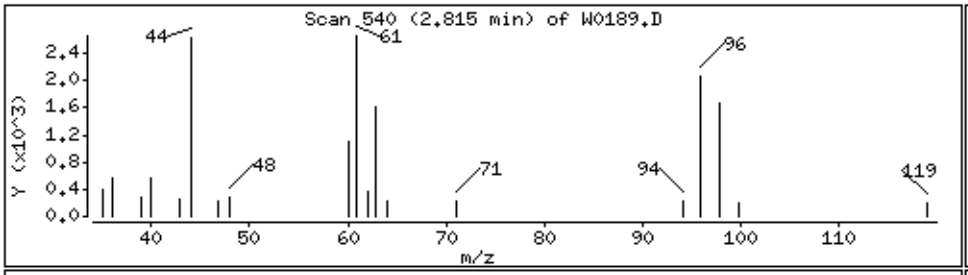
Client ID:

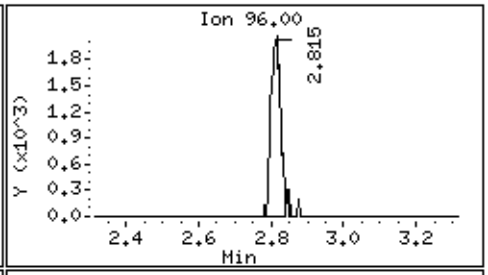
Instrument: gcms-w.i

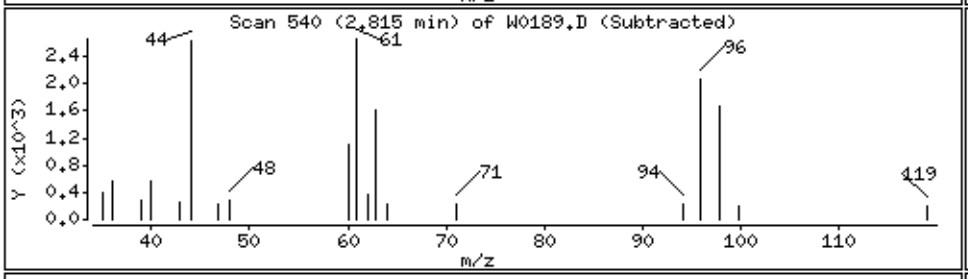
Sample Info: S06313-11DL3

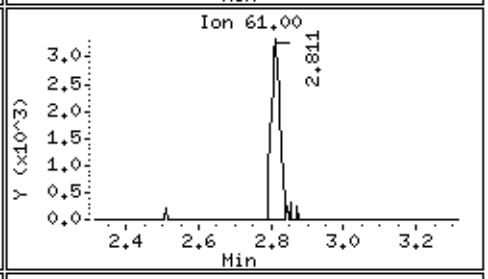
16 trans-1,2-Dichloroethene

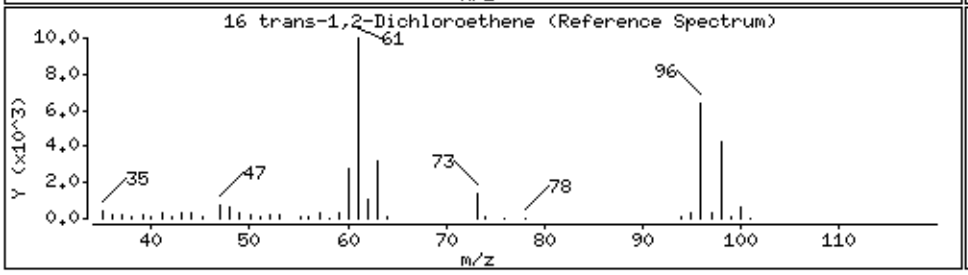
Concentration: 15.0 ug/l

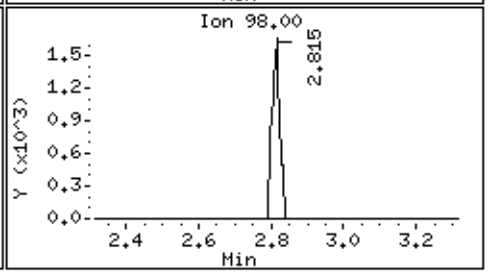






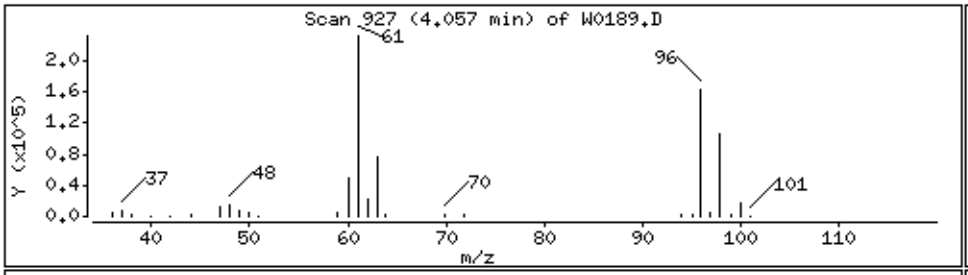


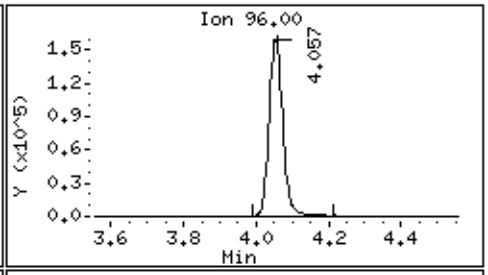


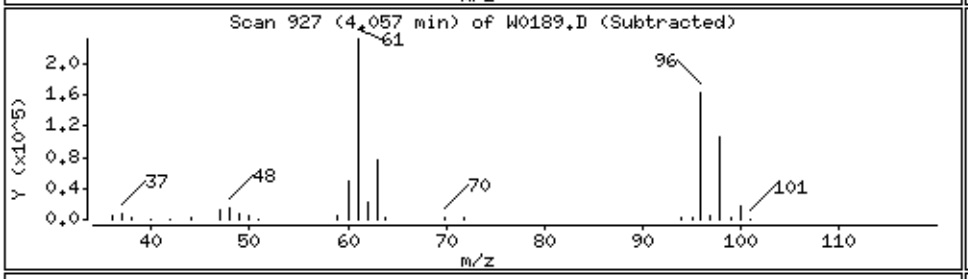


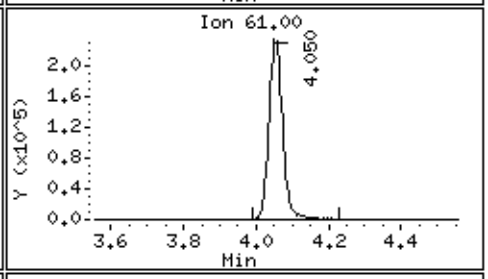
27 cis-1,2-Dichloroethene

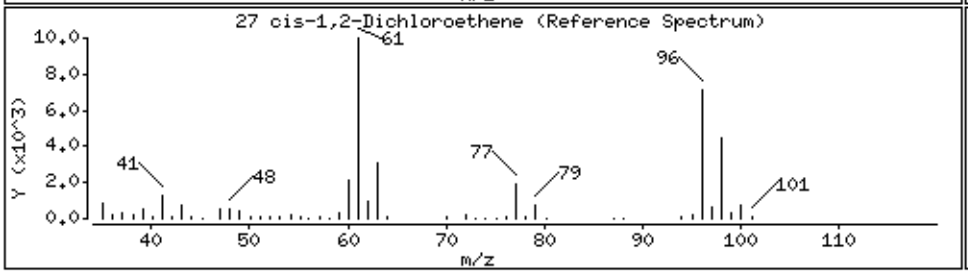
Concentration: 1570 ug/l

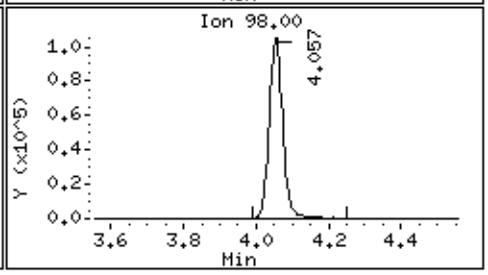












Data File: \\target_server\gg\chem\gcms-w.i\W092321.b\W0189.D

Date : 23-SEP-2021 11:24

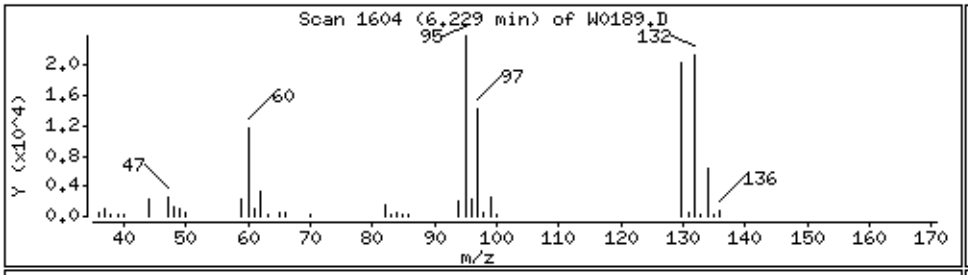
Client ID:

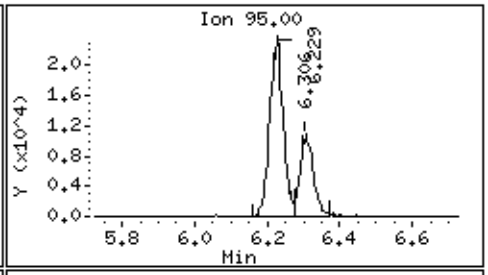
Instrument: gcms-w.i

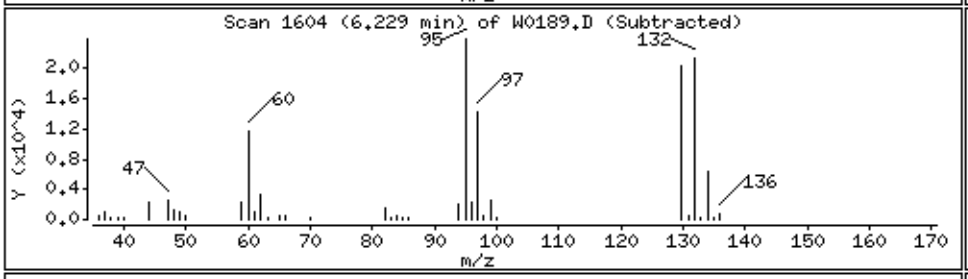
Sample Info: S06313-11DL3

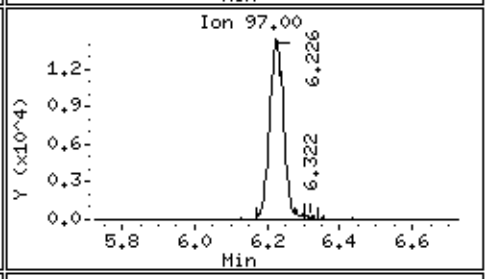
47 Trichloroethene

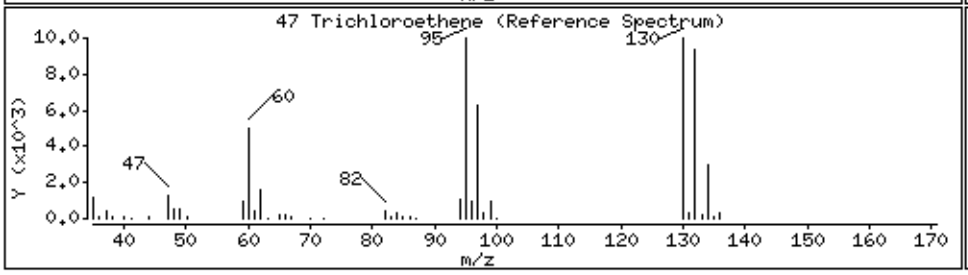
Concentration: 232 ug/l

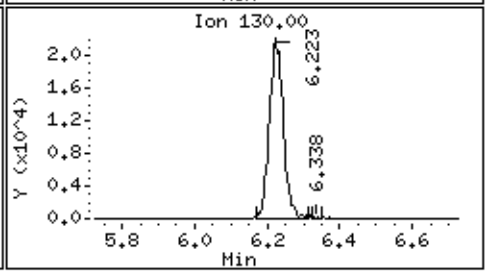






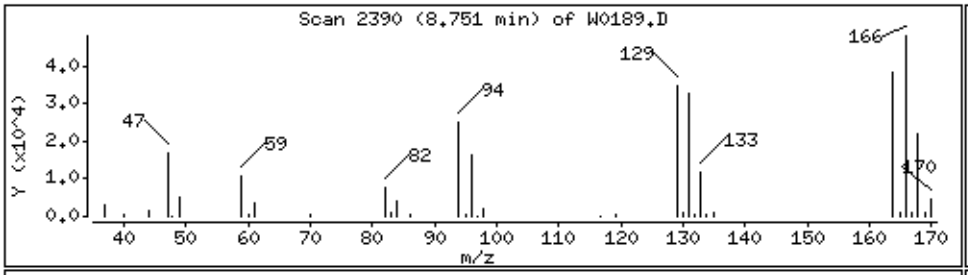


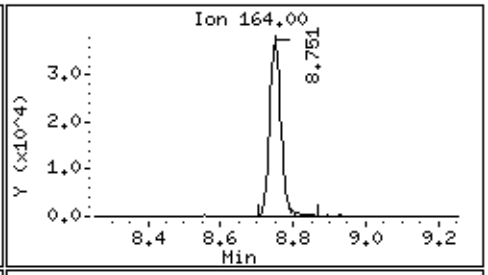


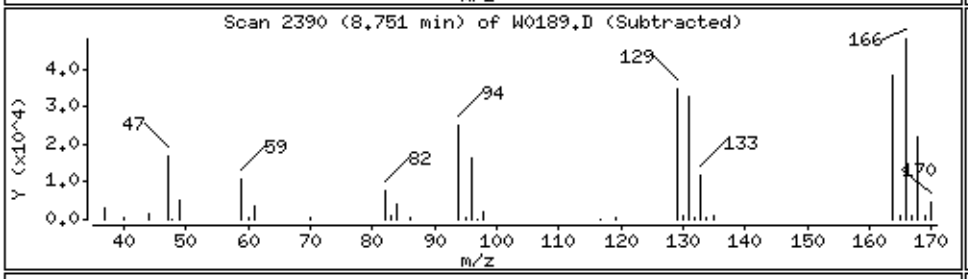


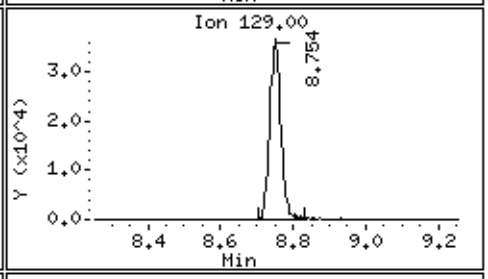
60 Tetrachloroethene

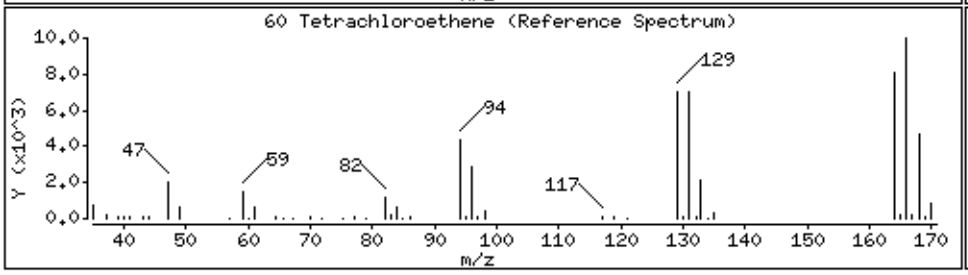
Concentration: 351 ug/l

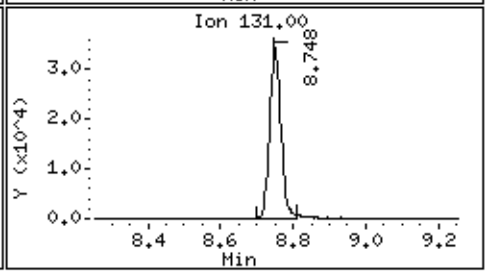












Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-11DL4
Client ID: WVA-MW-85R-2(20210915)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0195.D

Sample Date: 15-SEP-21
Received Date: 18-SEP-21
Extract Date: 23-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306545

Analysis Date: 23-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	4.0	ug/L	2	2	4.0
Vinyl Chloride	E	530	ug/L	2	2	4.0
Bromomethane	U	4.0	ug/L	2	2	4.0
Chloroethane	U	4.0	ug/L	2	2	4.0
Trichlorofluoromethane	U	4.0	ug/L	2	2	4.0
1,1-Dichloroethene		3.0	ug/L	2	1	2.0
Carbon Disulfide	U	2.0	ug/L	2	1	2.0
Methylene Chloride	U	10.	ug/L	2	5	10.
trans-1,2-Dichloroethene		16.	ug/L	2	1	2.0
1,1-Dichloroethane	U	2.0	ug/L	2	1	2.0
cis-1,2-Dichloroethene	E	1800	ug/L	2	1	2.0
Chloroform	U	2.0	ug/L	2	1	2.0
Carbon Tetrachloride	U	2.0	ug/L	2	1	2.0
1,1,1-Trichloroethane	U	2.0	ug/L	2	1	2.0
2-Butanone	U	10.	ug/L	2	5	10.
Benzene	U	2.0	ug/L	2	1	2.0
1,2-Dichloroethane	U	2.0	ug/L	2	1	2.0
Trichloroethene		270	ug/L	2	1	2.0
1,2-Dichloropropane	U	2.0	ug/L	2	1	2.0
Bromodichloromethane	U	2.0	ug/L	2	1	2.0
cis-1,3-Dichloropropene	U	2.0	ug/L	2	1	2.0
Toluene	U	2.0	ug/L	2	1	2.0
4-Methyl-2-Pentanone	U	10.	ug/L	2	5	10.
Tetrachloroethene	E	420	ug/L	2	1	2.0
trans-1,3-Dichloropropene	U	2.0	ug/L	2	1	2.0
1,1,2-Trichloroethane	U	2.0	ug/L	2	1	2.0
Dibromochloromethane	U	2.0	ug/L	2	1	2.0
Chlorobenzene	U	2.0	ug/L	2	1	2.0
Ethylbenzene	U	2.0	ug/L	2	1	2.0
m+p-Xylenes	U	4.0	ug/L	2	2	4.0
o-Xylene	U	2.0	ug/L	2	1	2.0
Bromoform	U	2.0	ug/L	2	1	2.0
1,1,2,2-Tetrachloroethane	U	2.0	ug/L	2	1	2.0
P-Bromofluorobenzene		99.9	%			
Toluene-d8		99.2	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-11DL4
Client ID: WVA-MW-85R-2(20210915)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0195.D

Sample Date: 15-SEP-21
Received Date: 18-SEP-21
Extract Date: 23-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306545

Analysis Date: 23-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		121.	%			
Dibromofluoromethane		108.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Data File: \\target_server\gg\chem\gcms-w.i\W092321.b\W0195.D
Report Date: 12-Oct-2021 08:55

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-w.i\W092321.b\W0195.D
Lab Smp Id: SO6313-11DL4
Inj Date : 23-SEP-2021 14:28
Operator : ES   Inst ID: gcms-w.i
Smp Info : SO6313-11DL4
Misc Info : WG306545,WG306545-4
Comment   : SW846 5030
Method   : \\target_server\gg\chem\gcms-w.i\W092321.b\W8A05(08).m
Meth Date : 11-Oct-2021 13:19 gcms-w.i   Quant Type: ISTD
Cal Date : 20-SEP-2021 11:30   Cal File: W0105.D
Als bottle: 15
Dil Factor: 2.00000
Integrator: HP RTE   Compound Sublist: all.sub
Target Version: 4.12

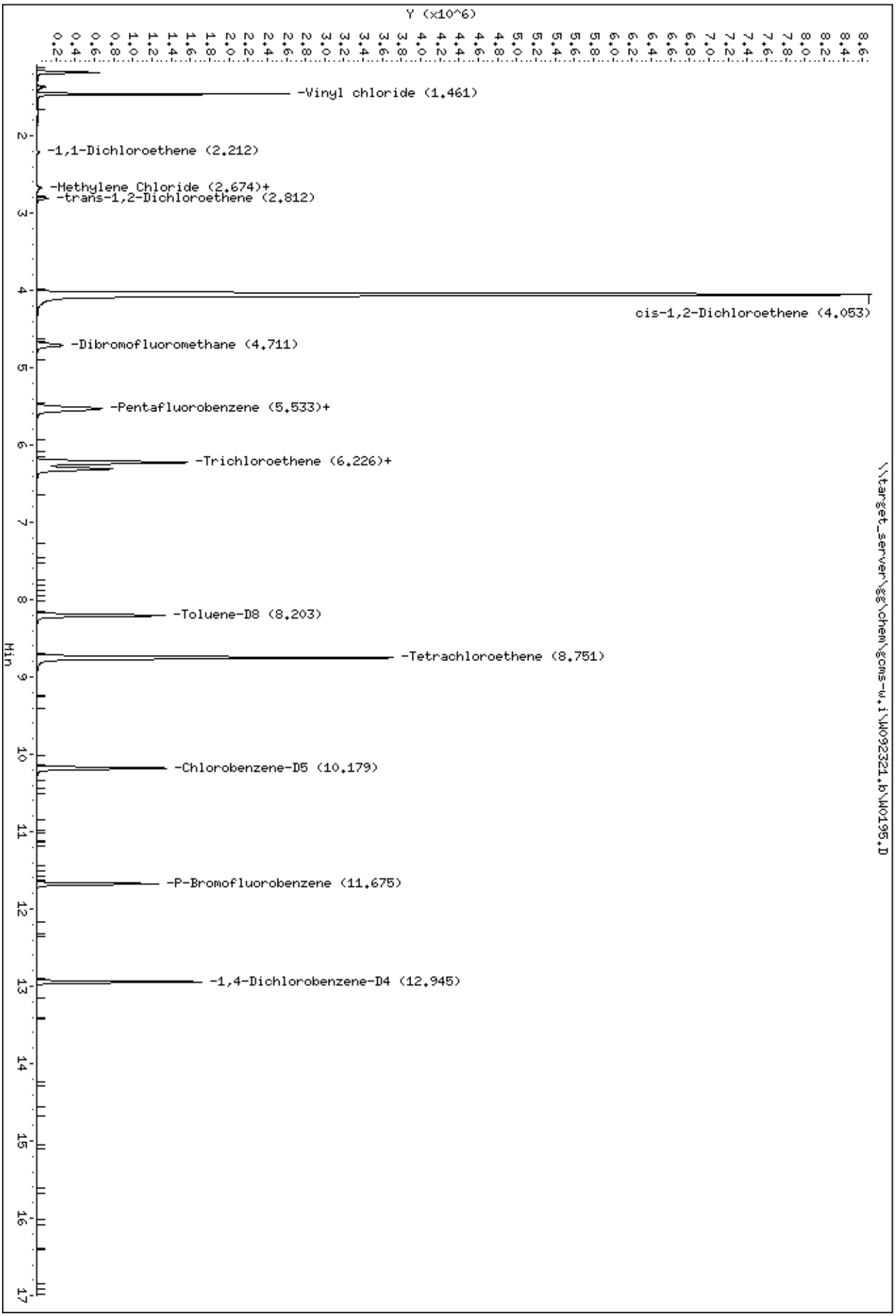
Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	2.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

		Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)	REVIEW CODE
	3	Vinyl chloride	62	1.460	1.460	(0.264)	1368082	266.068	532(A)	
	8	1,1-Dichloroethene	96	2.211	2.211	(0.400)	7087	1.51874	3.0	
	14	Methylene Chloride	84	2.673	2.677	(0.484)	18527	4.01725	8.0(a)	
	15	Acetone	43	2.728	2.725	(0.494)	4586	3.58703	7.2(a)	
	16	trans-1,2-Dichloroethene	96	2.814	2.815	(0.510)	40223	8.11731	16.2	
	27	cis-1,2-Dichloroethene	96	4.053	4.056	(0.734)	4884387	925.512	1850(A)	
$	34	Dibromofluoromethane	113	4.711	4.714	(0.853)	254155	54.2311	54.2	
*	41	Pentafluorobenzene	168	5.523	5.526	(1.000)	467921	50.0000		
$	42	1,2-Dichloroethane-D4	65	5.548	5.549	(1.005)	370409	60.6795	60.7	
	47	Trichloroethene	95	6.225	6.226	(0.987)	716867	136.279	272	
*	48	1,4-Difluorobenzene	114	6.309	6.315	(1.000)	828991	50.0000		
$	58	Toluene-D8	98	8.202	8.209	(1.300)	983886	49.6264	49.6	
	60	Tetrachloroethene	164	8.751	8.754	(0.860)	975637	212.401	425(A)	
*	68	Chlorobenzene-D5	117	10.179	10.182	(1.000)	799302	50.0000		
$	77	P-Bromofluorobenzene	95	11.674	11.678	(1.850)	414398	49.9532	50.0	
*	93	1,4-Dichlorobenzene-D4	152	12.945	12.948	(1.000)	402576	50.0000		
M	97	1,2-Dichloroethylene (total)	96				4924610	933.629	1870	

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount
    exceeded maximum amount.


Y (x10^6)
Min
-Vinyl chloride (1.461)
-1,1-Dichloroethene (2.212)
-Methylene Chloride (2.674)+
-trans-1,2-Dichloroethene (2.812)
cis-1,2-Dichloroethene (4.053)
-Dibromofluoromethane (4.711)
-Pentafluorobenzene (5.533)+
-Trichloroethene (6.226)+
-Toluene-D8 (8.203)
-Tetrachloroethene (8.751)
-Chlorobenzene-D5 (10.179)
-P-Bromofluorobenzene (11.675)
-1,4-Dichlorobenzene-D4 (12.945)
\\target_server\gg\chem\gcms-w.i\W092321.b\W0195.D
Data File: \\target_server\gg\chem\gcms-w.i\W092321.b\W0195.D
Date : 23-SEP-2021 14:28
Client ID:
Sample Info: S06313-11DL4
Instrument: gcms-w.i

Data File: \\target_server\gg\chem\gcms-w.i\W092321.b\W0195.D

Date : 23-SEP-2021 14:28

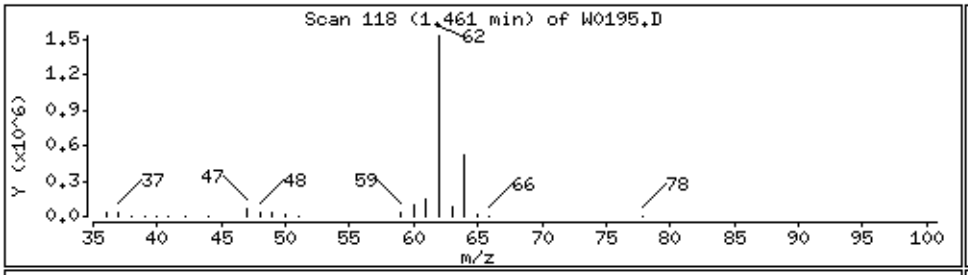
Client ID:

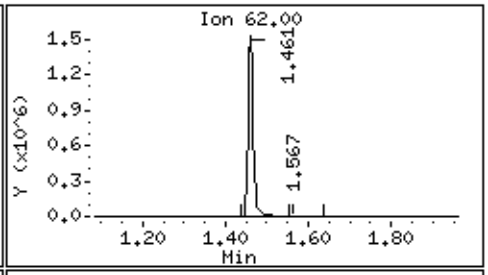
Instrument: gcms-w.i

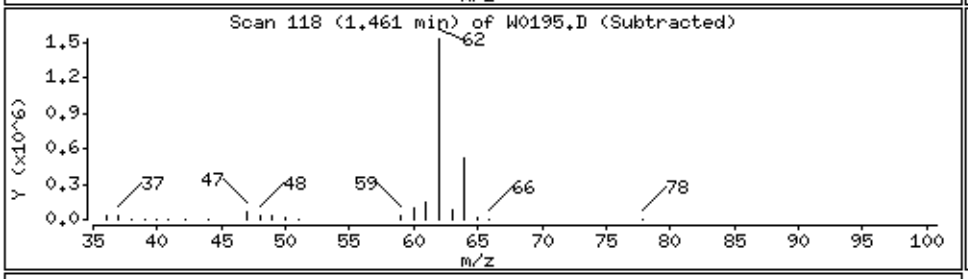
Sample Info: S06313-11DL4

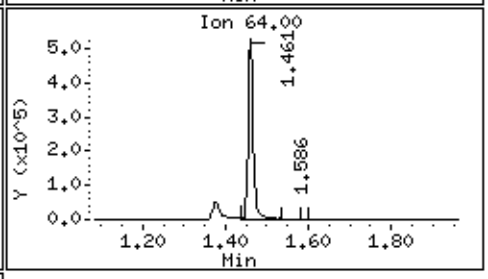
3 Vinyl chloride

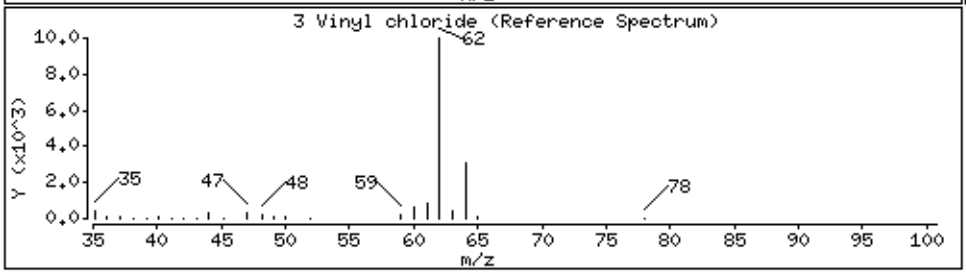
Concentration: 532 ug/l





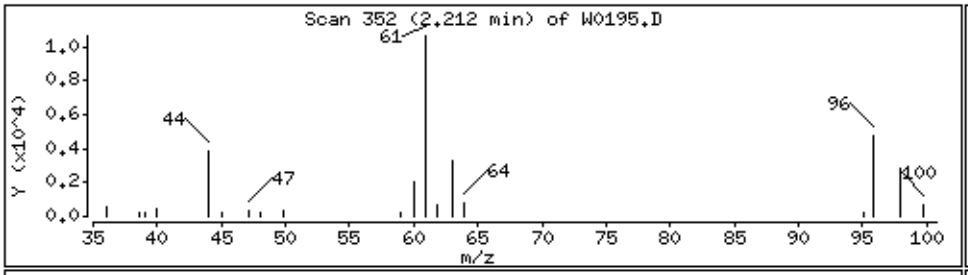


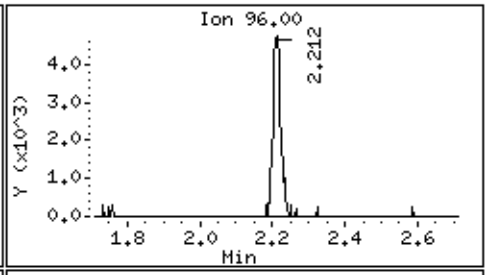


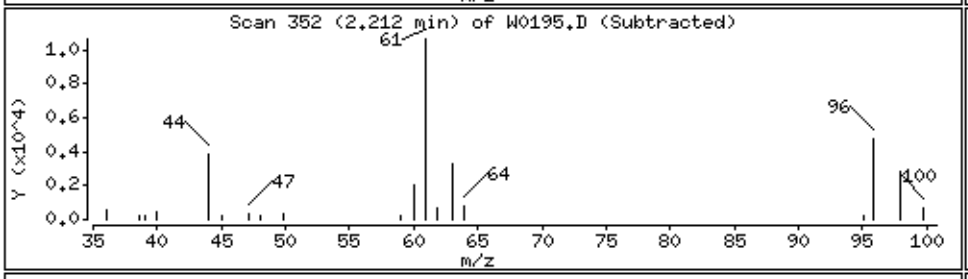


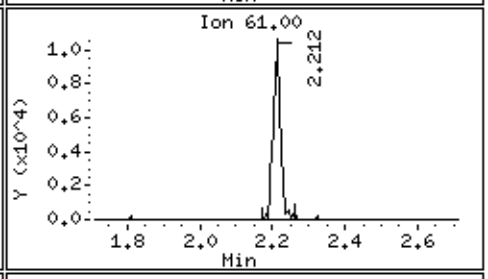
8 1,1-Dichloroethene

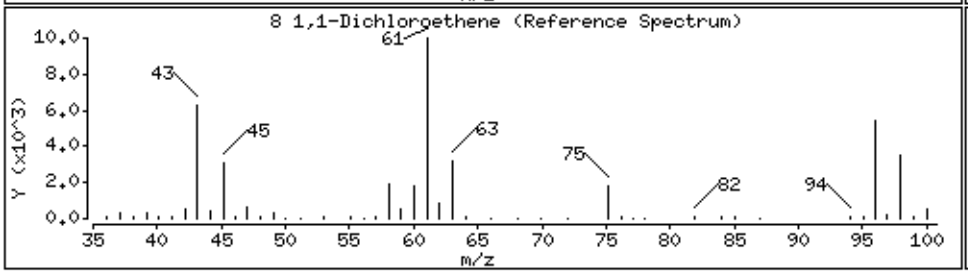
Concentration: 3.0 ug/l

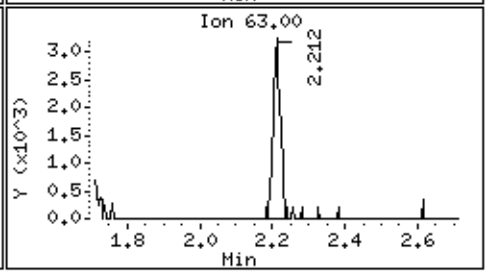












Data File: \\target_server\gg\chem\gcms-w.i\W092321.b\W0195.D

Date : 23-SEP-2021 14:28

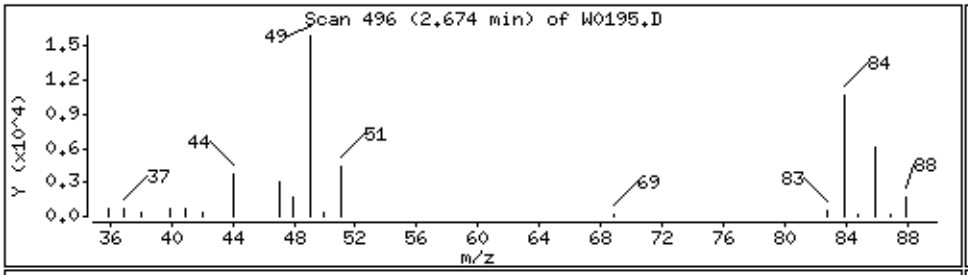
Client ID:

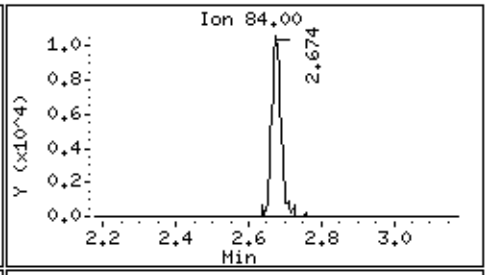
Instrument: gcms-w.i

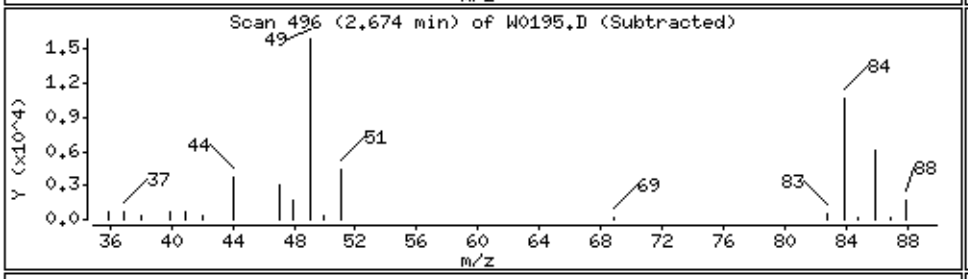
Sample Info: SO6313-11DL4

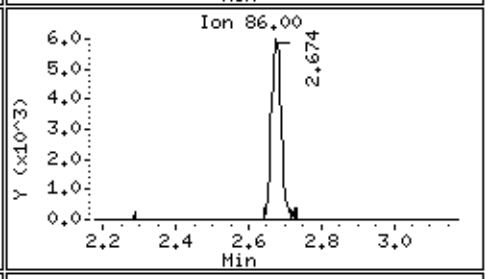
14 Methylene Chloride

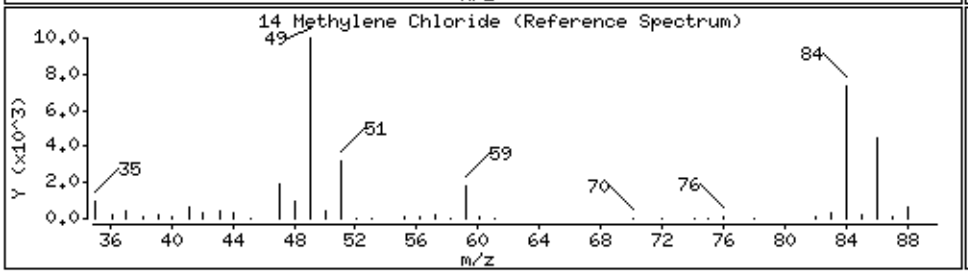
Concentration: 8.0 ug/l

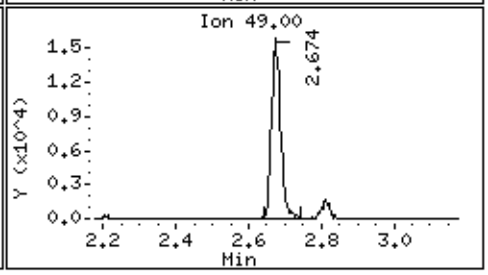






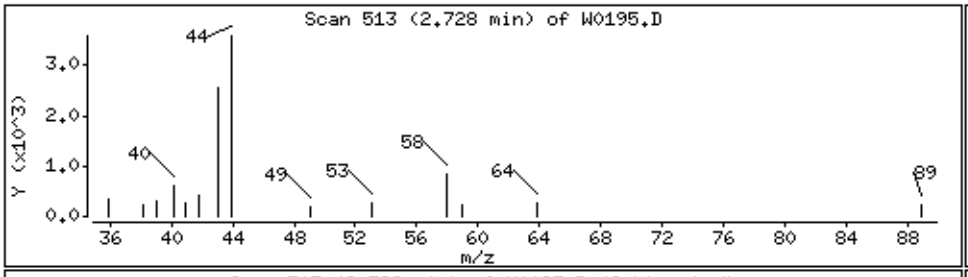


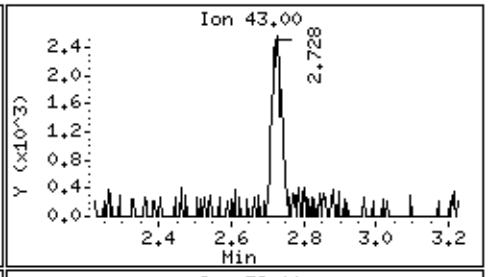


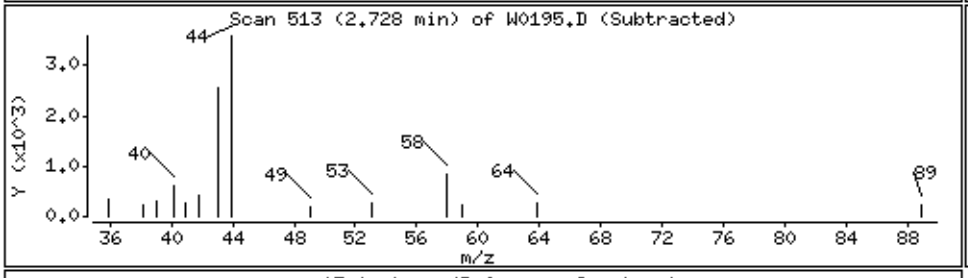


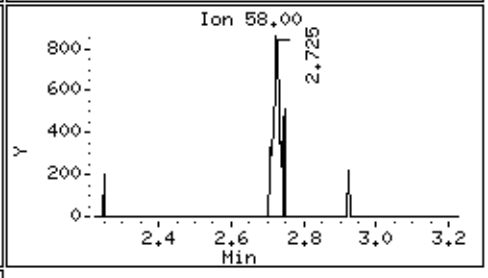
15 Acetone

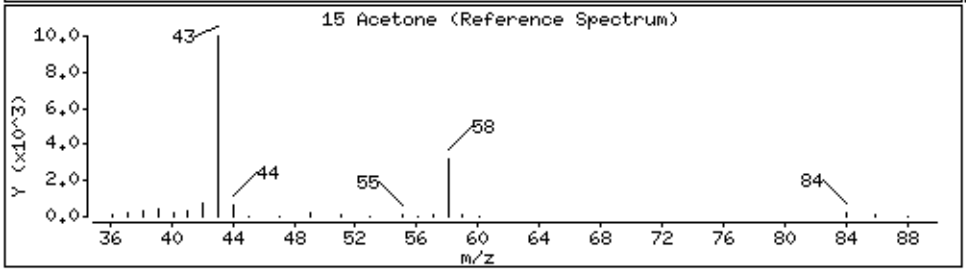
Concentration: 7.2 ug/l











Data File: \\target_server\gg\chem\gcms-w.i\W092321.b\W0195.D

Date : 23-SEP-2021 14:28

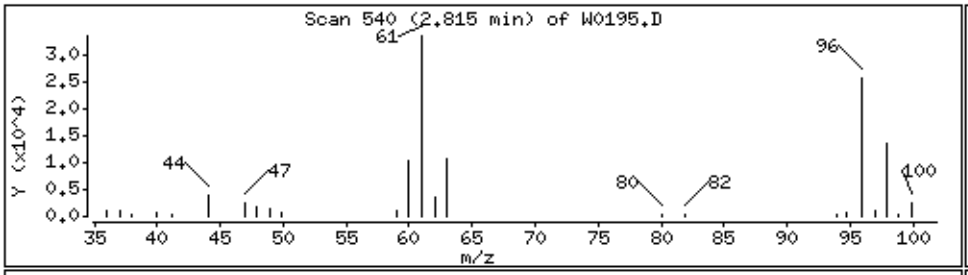
Client ID:

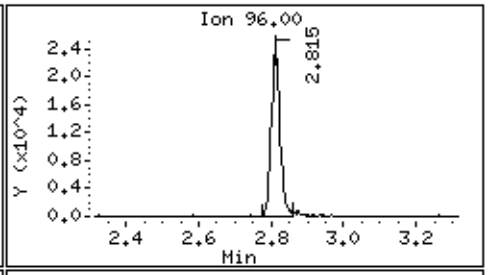
Instrument: gcms-w.i

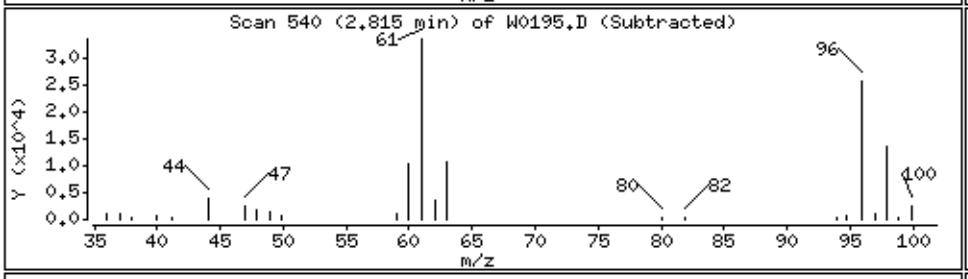
Sample Info: S06313-11DL4

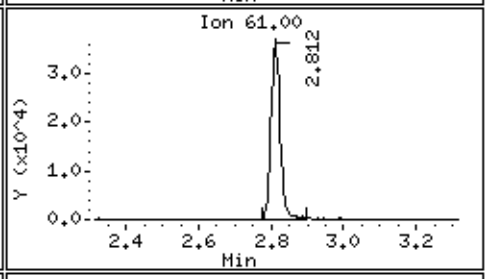
16 trans-1,2-Dichloroethene

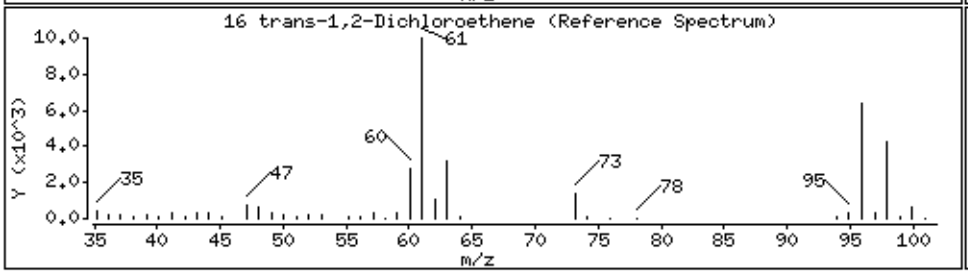
Concentration: 16.2 ug/l

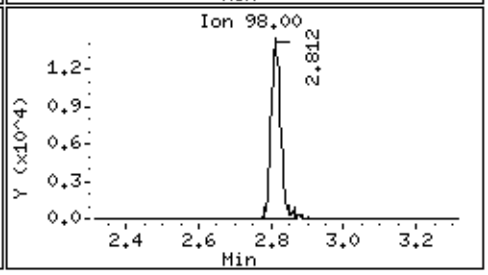






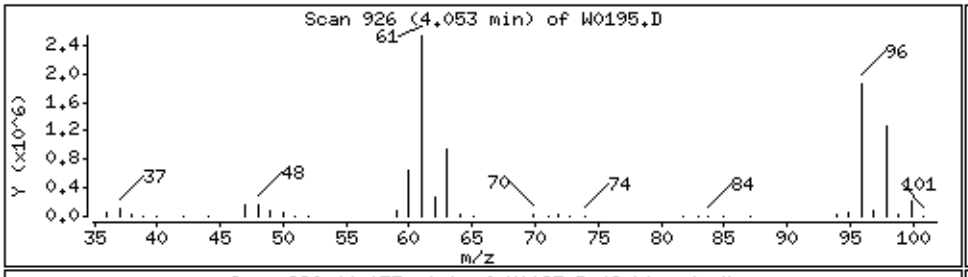


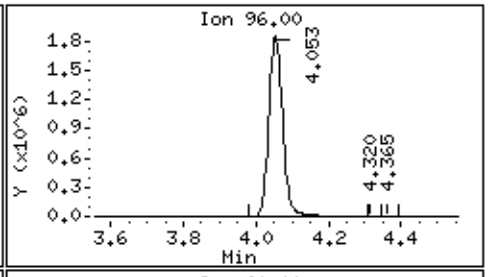


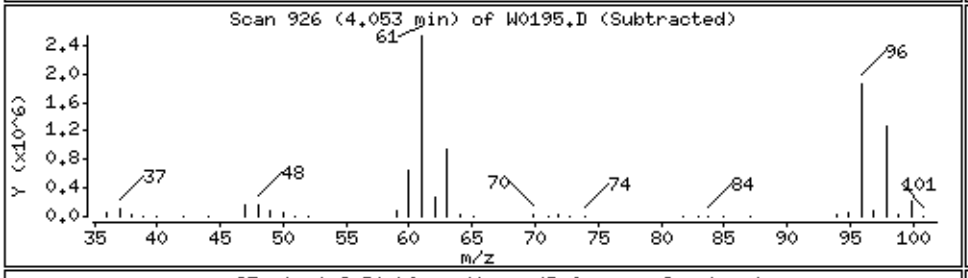


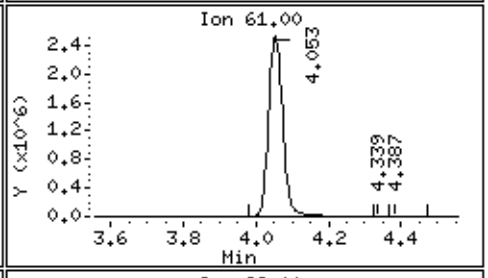
27 cis-1,2-Dichloroethene

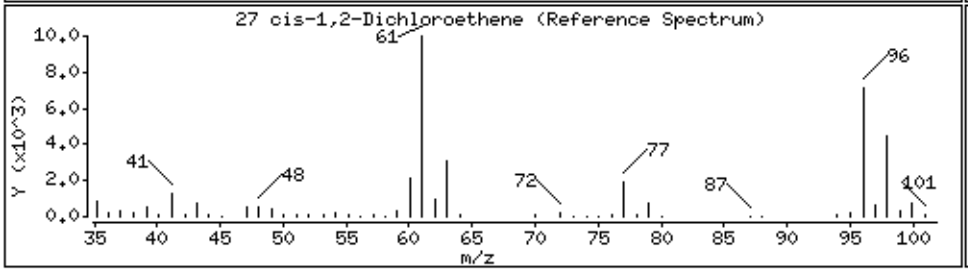
Concentration: 1850 ug/l

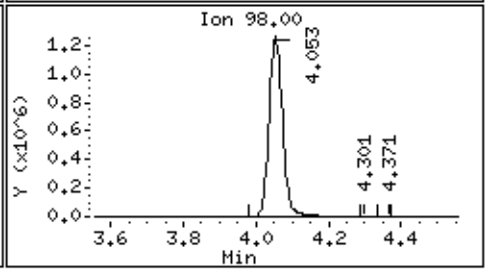












Data File: \\target_server\gg\chem\gcms-w.i\W092321.b\W0195.D

Date : 23-SEP-2021 14:28

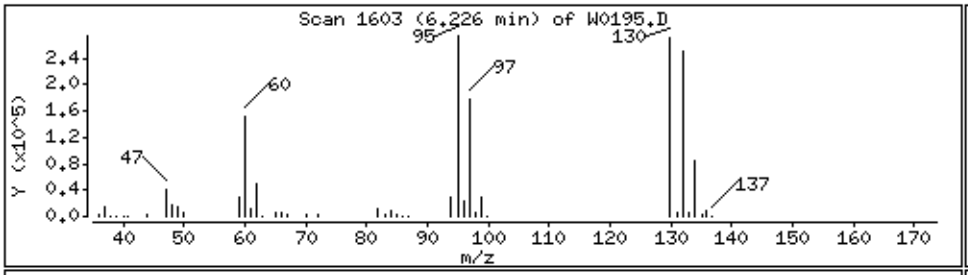
Client ID:

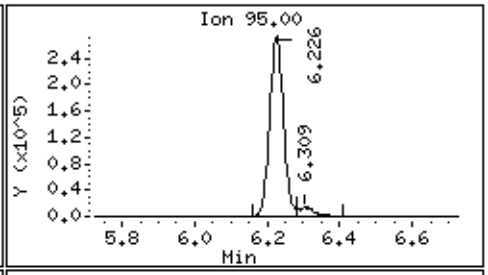
Instrument: gcms-w.i

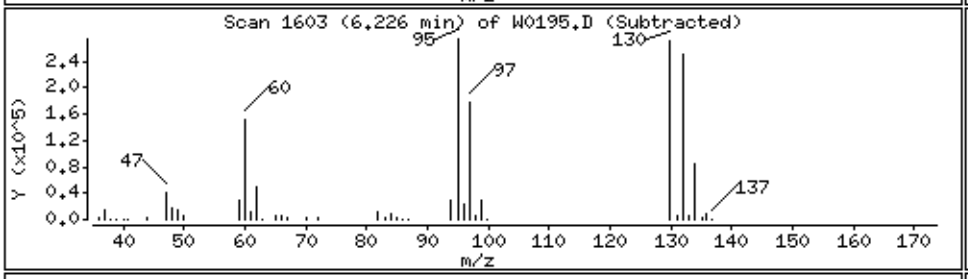
Sample Info: S06313-11DL4

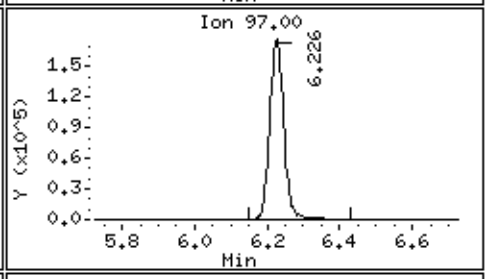
47 Trichloroethene

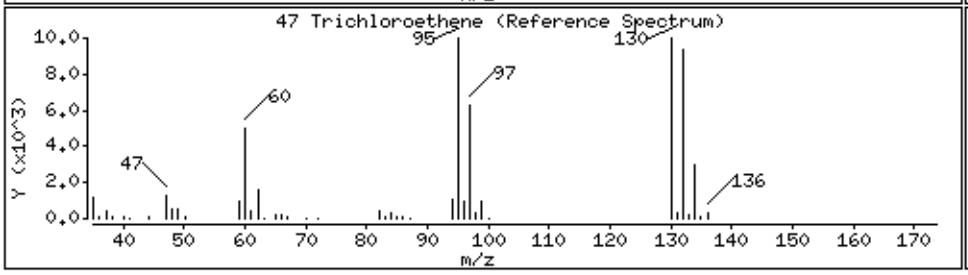
Concentration: 272 ug/l

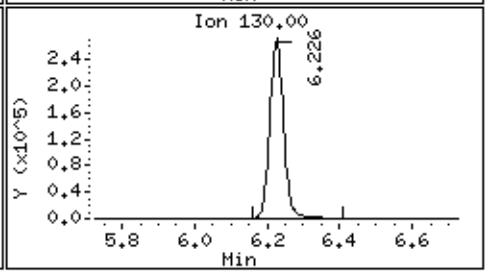






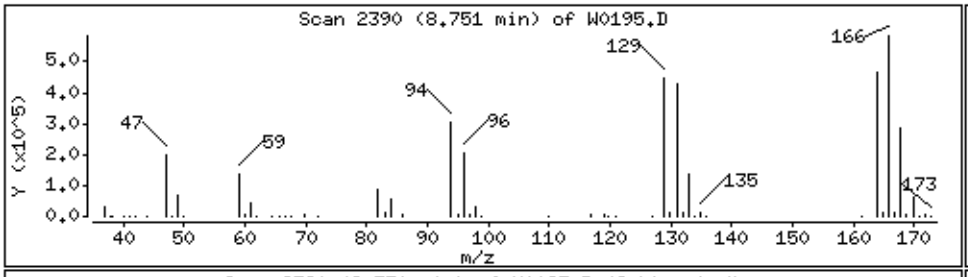


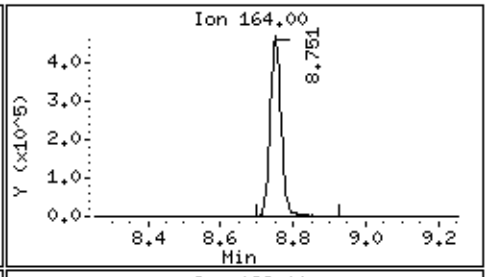


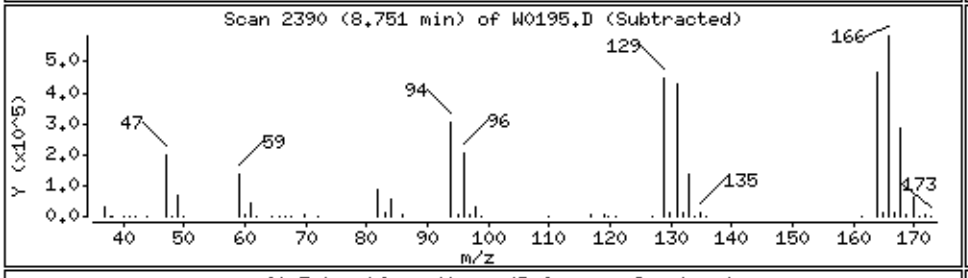


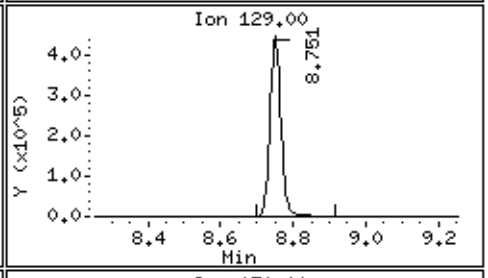
60 Tetrachloroethene

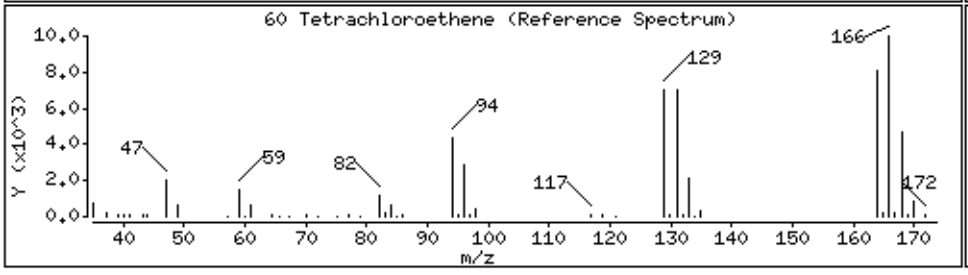
Concentration: 425 ug/l

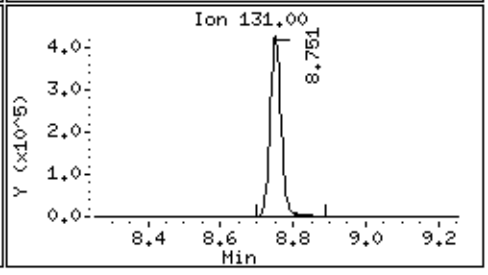












Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-12DL
Client ID: DUP-02-(20210915)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0279.D

Sample Date: 15-SEP-21
Received Date: 18-SEP-21
Extract Date: 28-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306817

Analysis Date: 28-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	40.	ug/L	20	2	40.
Vinyl Chloride		330	ug/L	20	2	40.
Bromomethane	U	40.	ug/L	20	2	40.
Chloroethane	U	40.	ug/L	20	2	40.
Trichlorofluoromethane	U	40.	ug/L	20	2	40.
1,1-Dichloroethene	U	20.	ug/L	20	1	20.
Carbon Disulfide	U	20.	ug/L	20	1	20.
Methylene Chloride	U	100	ug/L	20	5	100
trans-1,2-Dichloroethene	U	20.	ug/L	20	1	20.
1,1-Dichloroethane	U	20.	ug/L	20	1	20.
cis-1,2-Dichloroethene		1400	ug/L	20	1	20.
Chloroform	U	20.	ug/L	20	1	20.
Carbon Tetrachloride	U	20.	ug/L	20	1	20.
1,1,1-Trichloroethane	U	20.	ug/L	20	1	20.
2-Butanone	U	100	ug/L	20	5	100
Benzene	U	20.	ug/L	20	1	20.
1,2-Dichloroethane	U	20.	ug/L	20	1	20.
Trichloroethene		210	ug/L	20	1	20.
1,2-Dichloropropane	U	20.	ug/L	20	1	20.
Bromodichloromethane	U	20.	ug/L	20	1	20.
cis-1,3-Dichloropropene	U	20.	ug/L	20	1	20.
Toluene	U	20.	ug/L	20	1	20.
4-Methyl-2-Pentanone	U	100	ug/L	20	5	100
Tetrachloroethene		330	ug/L	20	1	20.
trans-1,3-Dichloropropene	U	20.	ug/L	20	1	20.
1,1,2-Trichloroethane	U	20.	ug/L	20	1	20.
Dibromochloromethane	U	20.	ug/L	20	1	20.
Chlorobenzene	U	20.	ug/L	20	1	20.
Ethylbenzene	U	20.	ug/L	20	1	20.
m+p-Xylenes	U	40.	ug/L	20	2	40.
o-Xylene	U	20.	ug/L	20	1	20.
Bromoform	U	20.	ug/L	20	1	20.
1,1,2,2-Tetrachloroethane	U	20.	ug/L	20	1	20.
P-Bromofluorobenzene		97.8	%			
Toluene-d8		99.5	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-12DL
Client ID: DUP-02-(20210915)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0279.D

Sample Date: 15-SEP-21
Received Date: 18-SEP-21
Extract Date: 28-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306817

Analysis Date: 28-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		108.	%			
Dibromofluoromethane		102.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Data File: \\target_server\gg\chem\gcms-w.i\W092821B.b\W0279.D
Report Date: 12-Oct-2021 09:02

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-w.i\W092821B.b\W0279.D
Lab Smp Id: SO6313-12DL Client Smp ID: DUP-02-(20210915)
Inj Date : 28-SEP-2021 18:11
Operator : ES Inst ID: gcms-w.i
Smp Info : SO6313-12DL
Misc Info : WG306817,WG306817-4
Comment : SW846 5030
Method : \\target_server\gg\chem\gcms-w.i\W092821B.b\W8A05(09).m
Meth Date : 01-Oct-2021 17:40 HGOULD Quant Type: ISTD
Cal Date : 28-SEP-2021 12:38 Cal File: W0268.D
Als bottle: 16
Dil Factor: 20.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.12
Processing Host: ORGANICS2

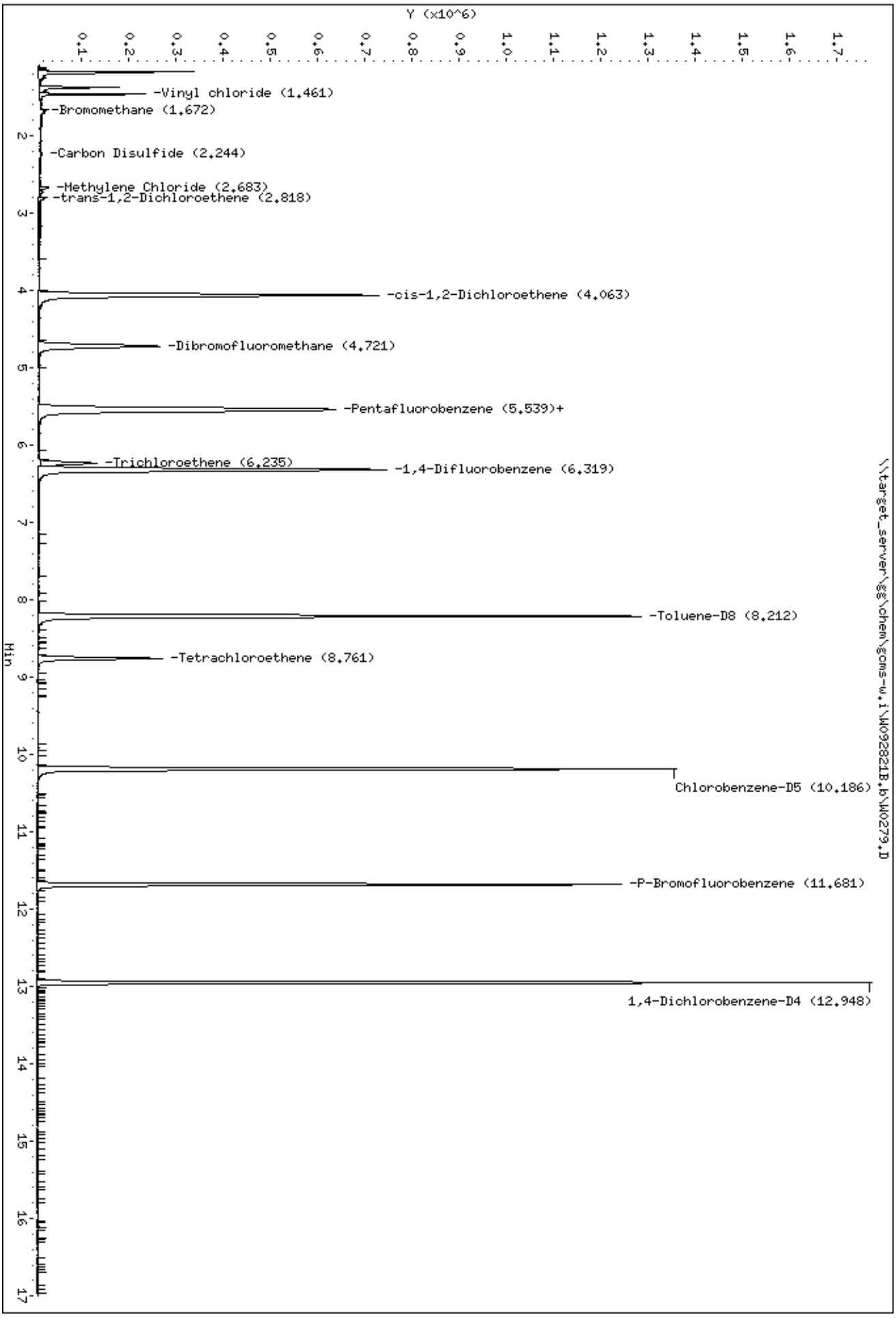
Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	20.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

		Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)	REVIEW CODE
	3	Vinyl chloride	62	1.460	1.460	(0.264)	115439	16.3578	327(M)	M10
	4	Bromomethane	94	1.672	1.672	(0.302)	1074	0.68267	13.6(a)	
	10	Carbon Disulfide	76	2.243	2.240	(0.406)	4179	0.31963	6.4(a)	
	14	Methylene Chloride	84	2.683	2.677	(0.485)	7529	1.38435	27.7(a)	
	16	trans-1,2-Dichloroethene	96	2.814	2.811	(0.509)	3765	0.69529	13.9(a)	
	27	cis-1,2-Dichloroethene	96	4.062	4.053	(0.734)	398369	70.3808	1410	
$	34	Dibromofluoromethane	113	4.720	4.711	(0.853)	240397	50.9720	51.0	
*	41	Pentafluorobenzene	168	5.532	5.529	(1.000)	465840	50.0000		
$	42	1,2-Dichloroethane-D4	65	5.555	5.545	(1.004)	345163	54.2802	54.3	
	47	Trichloroethene	95	6.238	6.232	(0.987)	56585	10.4087	208	
*	48	1,4-Difluorobenzene	114	6.318	6.315	(1.000)	800777	50.0000		
$	58	Toluene-D8	98	8.212	8.205	(1.300)	956411	49.7307	49.7	
	60	Tetrachloroethene	164	8.764	8.747	(0.860)	71713	16.4688	329	
*	68	Chlorobenzene-D5	117	10.185	10.182	(1.000)	798196	50.0000		
$	77	P-Bromofluorobenzene	95	11.680	11.677	(1.849)	422722	48.9086	48.9	
*	93	1,4-Dichlorobenzene-D4	152	12.948	12.942	(1.000)	427460	50.0000		
M	97	1,2-Dichloroethylene (total)	96				402134	71.0761	1420	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.


Y (x10^6)
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0
1.1
1.2
1.3
1.4
1.5
1.6
1.7
-Vinyl chloride (1.461)
-Bromomethane (1.672)
-Carbon Disulfide (2.244)
-Methylene Chloride (2.683)
-trans-1,2-Dichloroethene (2.818)
-cis-1,2-Dichloroethene (4.063)
-Dibromofluoromethane (4.721)
-Pentafluorobenzene (5.539)+
-Trichloroethene (6.235)
-1,4-Difluorobenzene (6.319)
-Toluene-D8 (8.212)
-Tetrachloroethene (8.761)
Chlorobenzene-D5 (10.186)
-P-Bromofluorobenzene (11.681)
1,4-Dichlorobenzene-D4 (12.948)
Min
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
\\target_server\gg\chem\gcms-w.i\W092821B.b\W0279.D
Data File: \\target_server\gg\chem\gcms-w.i\W092821B.b\W0279.D
Date : 28-SEP-2021 18:11
Client ID: DUP-02-(20210915)
Sample Info: SD6313-12DL
Instrument: gcms-w.i

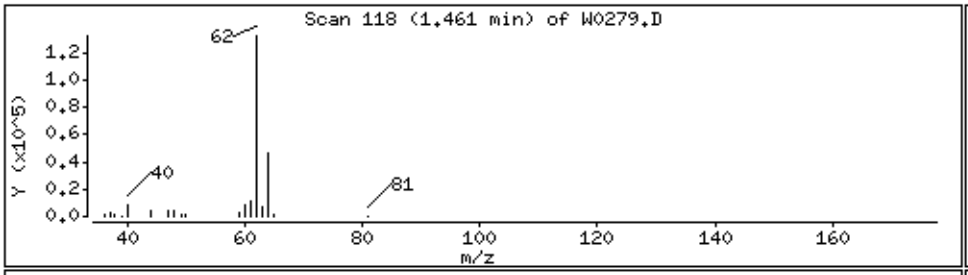
Data File: \\target_server\gg\chem\gcms-w.i\W092821B.b\W0279.D

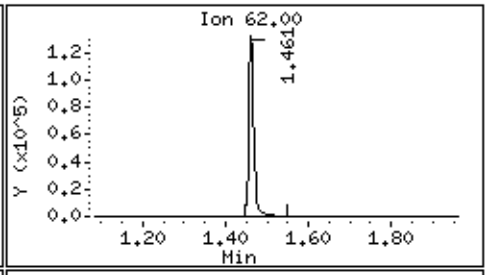
Date : 28-SEP-2021 18:11

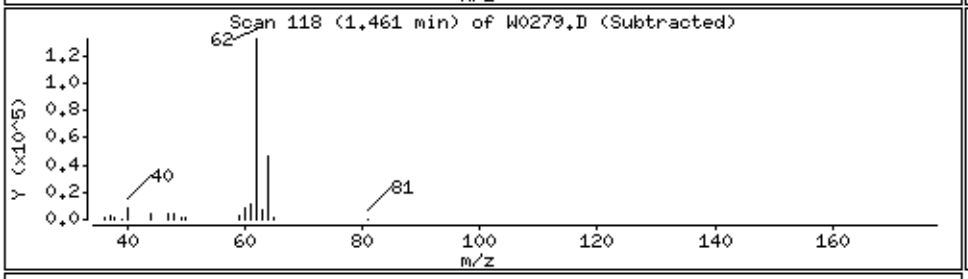
Client ID: DUP-02-(20210915) Instrument: gcms-w.i

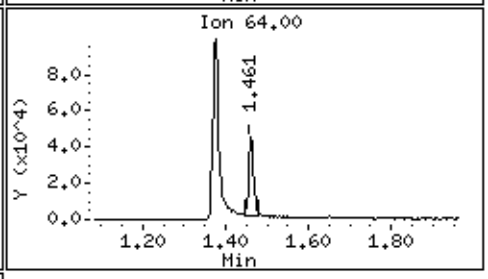
Sample Info: S06313-12DL

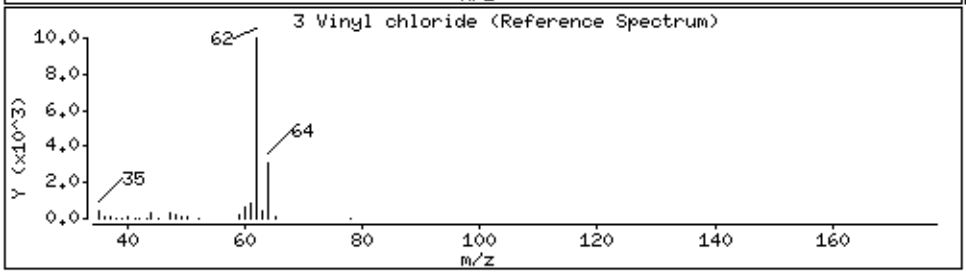
3 Vinyl chloride Concentration: 327 ug/l



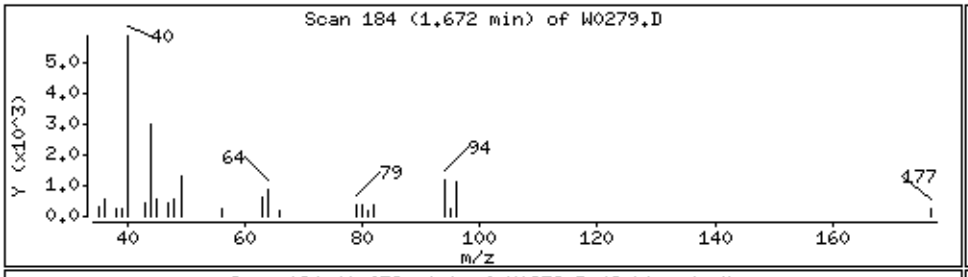


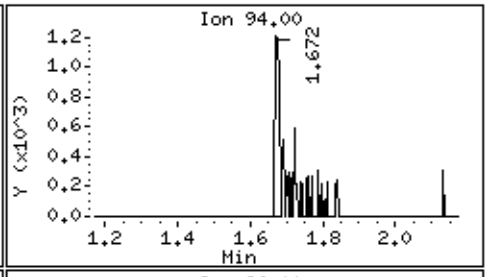


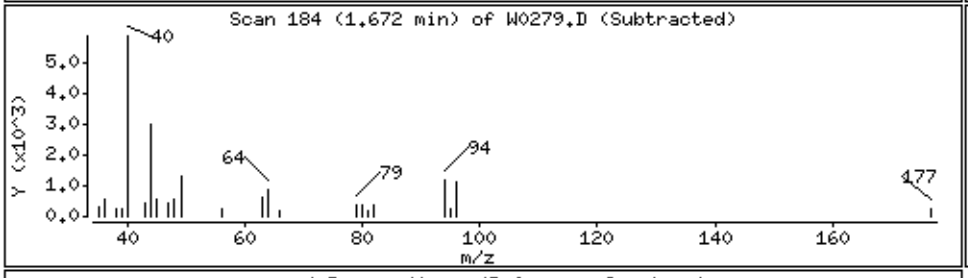


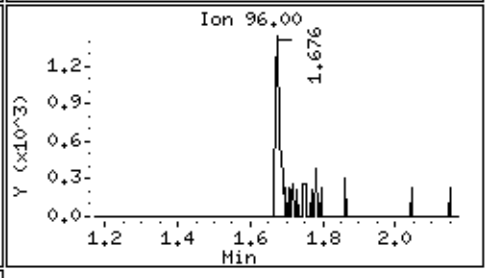


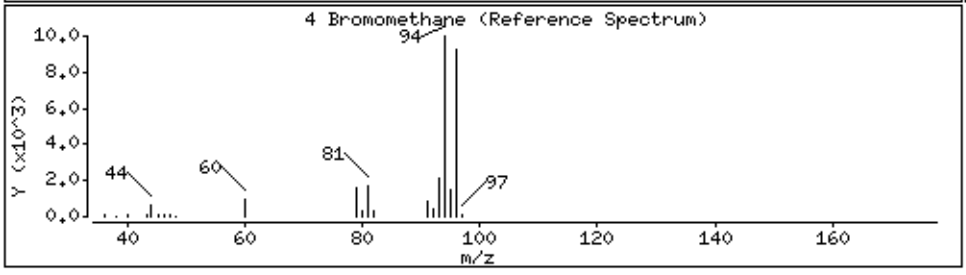
4 Bromomethane Concentration: 13.6 ug/l











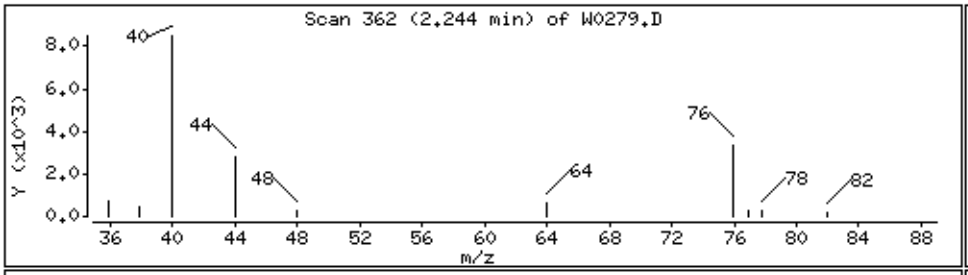
Data File: \\target_server\gg\chem\gcms-w.i\W092821B.b\W0279.D

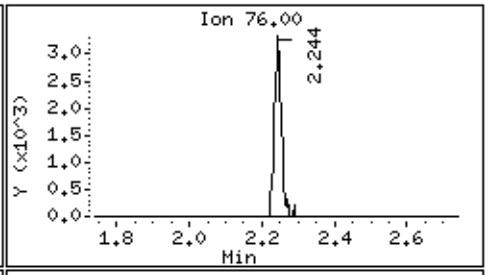
Date : 28-SEP-2021 18:11

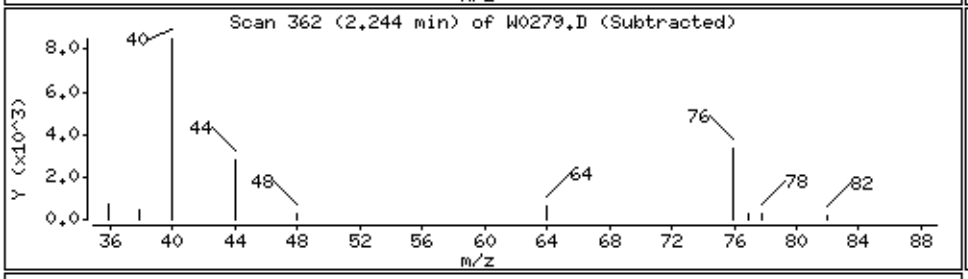
Client ID: DUP-02-(20210915) Instrument: gcms-w.i

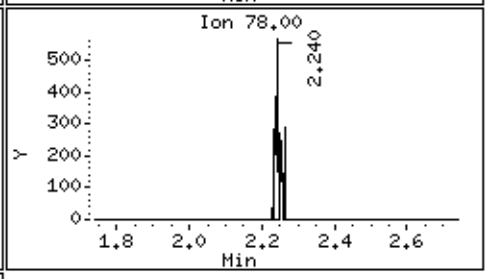
Sample Info: SO6313-12DL

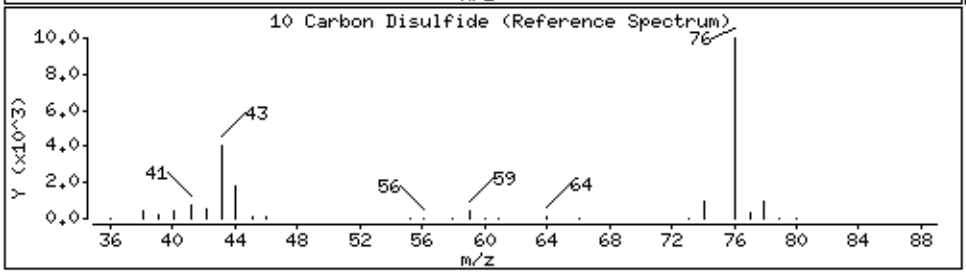
10 Carbon Disulfide Concentration: 6.4 ug/l



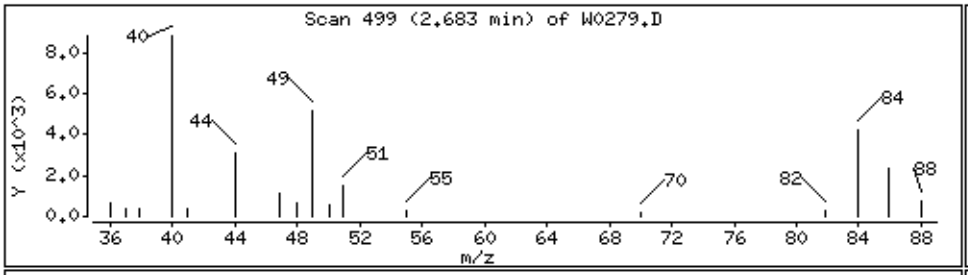


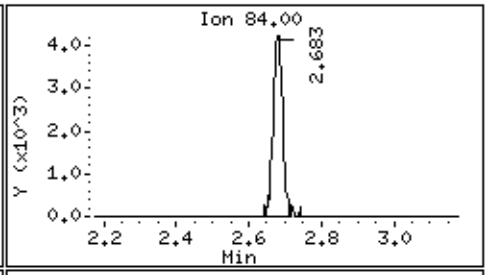


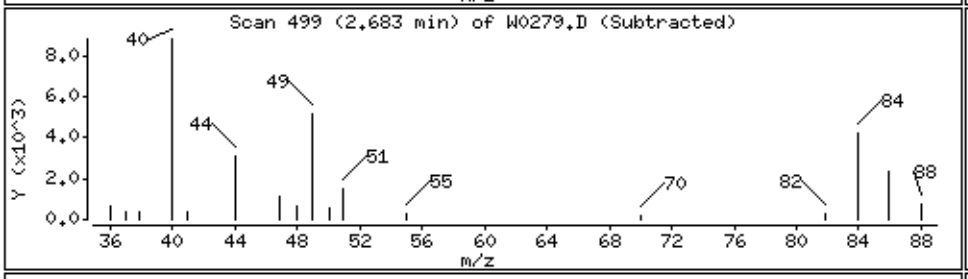


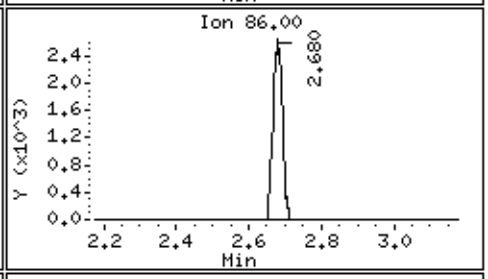


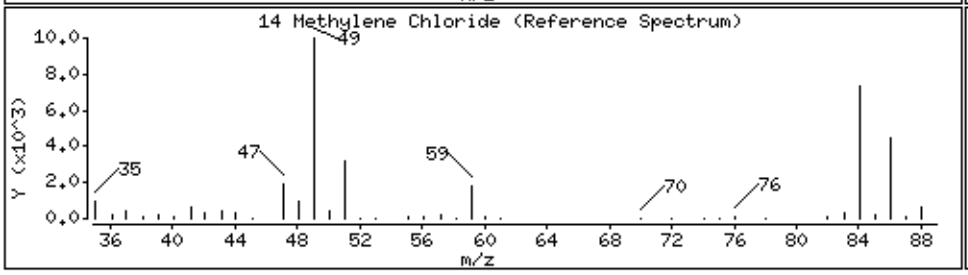
14 Methylene Chloride Concentration: 27.7 ug/l

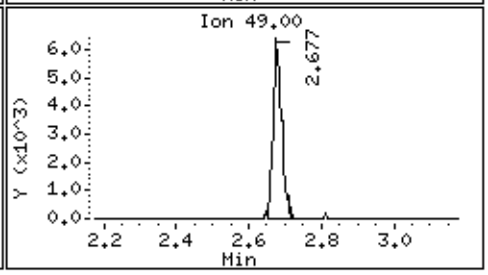












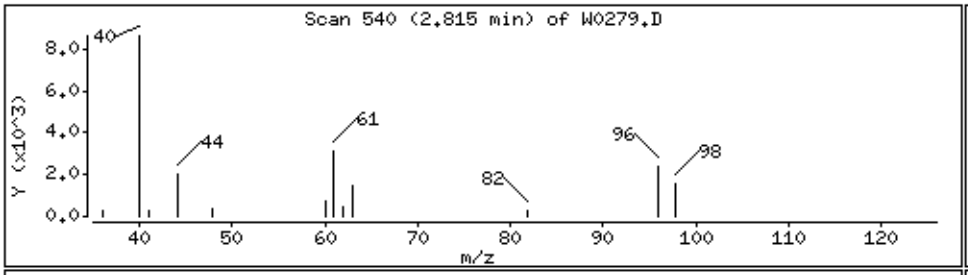
Data File: \\target_server\gg\chem\gcms-w.i\W092821B.b\W0279.D

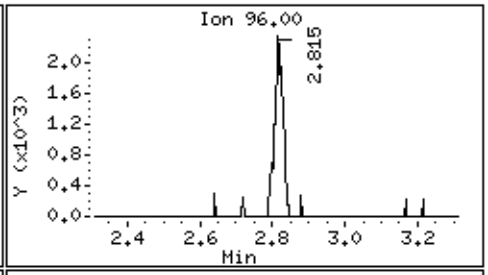
Date : 28-SEP-2021 18:11

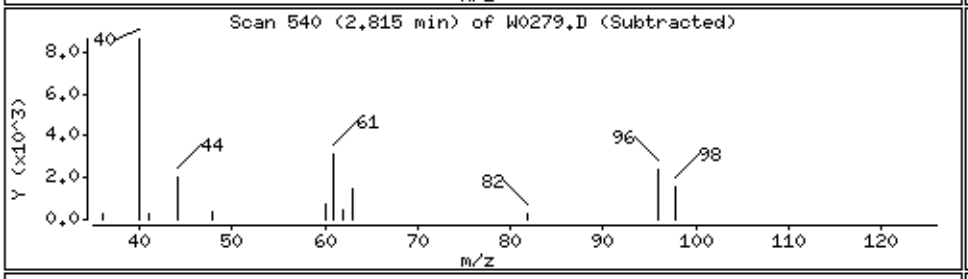
Client ID: DUP-02-(20210915) Instrument: gcms-w.i

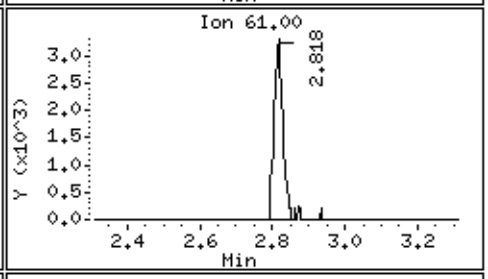
Sample Info: S06313-12DL

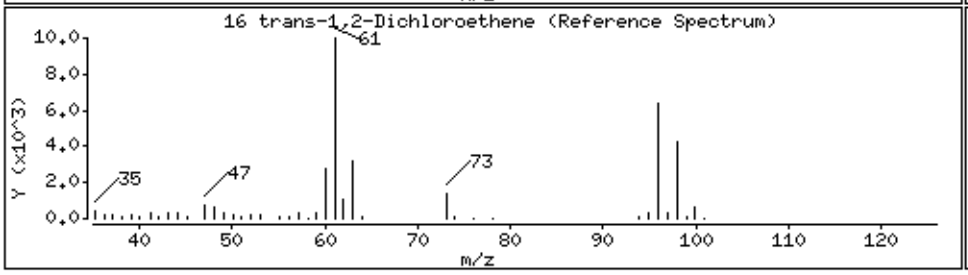
16 trans-1,2-Dichloroethene Concentration: 13.9 ug/l

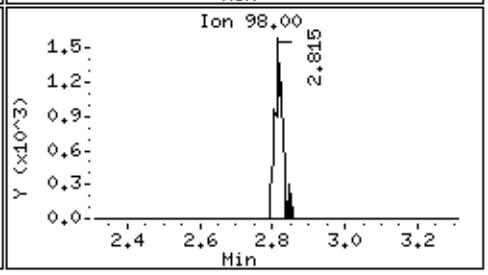




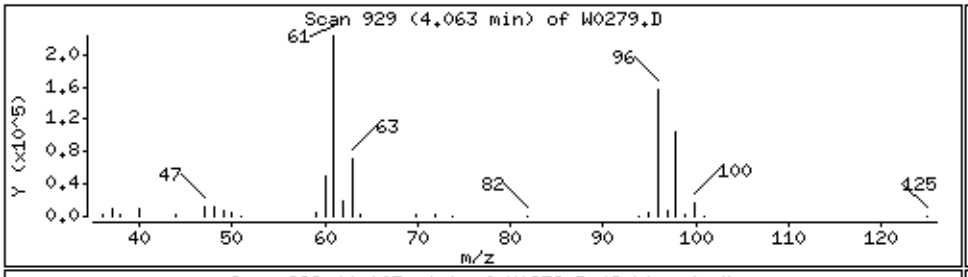


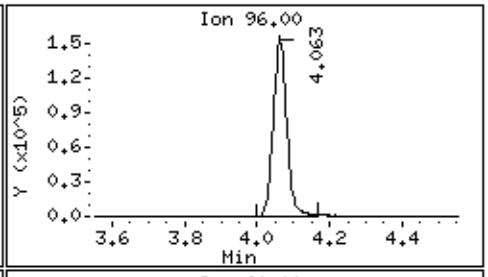


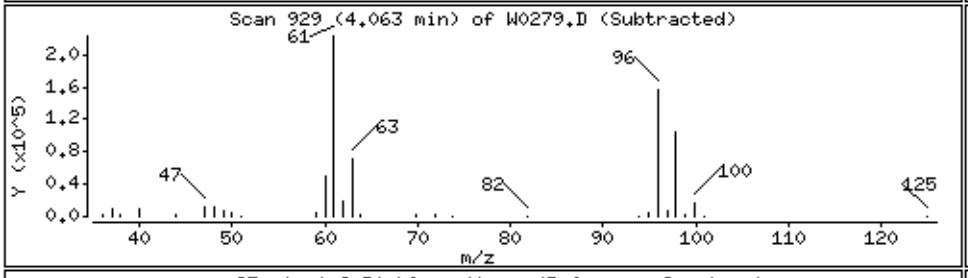


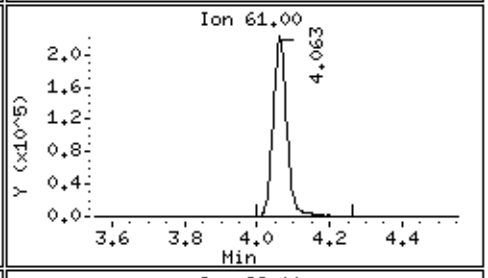


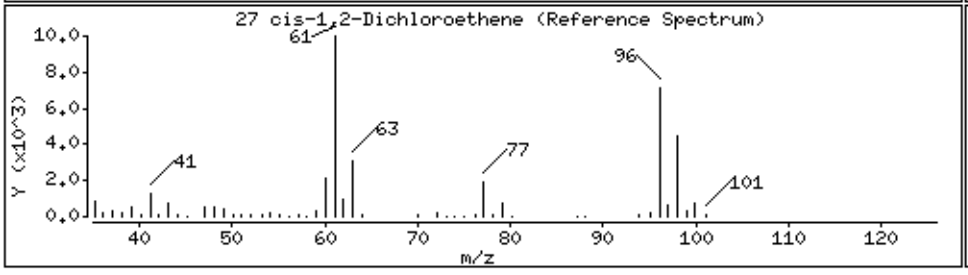
27 cis-1,2-Dichloroethene Concentration: 1410 ug/l

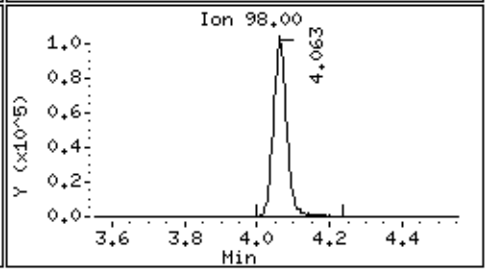












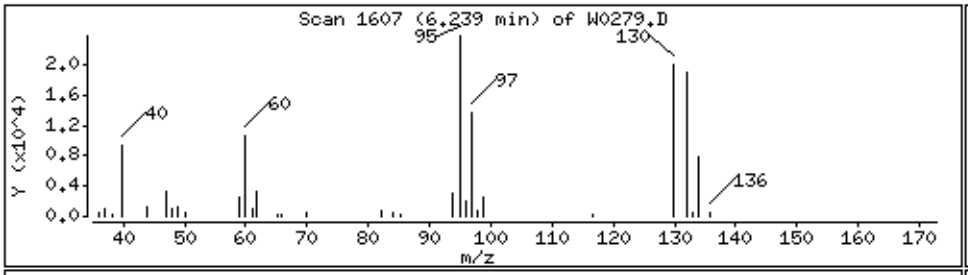
Data File: \\target_server\gg\chem\gcms-w.i\W092821B.b\W0279.D

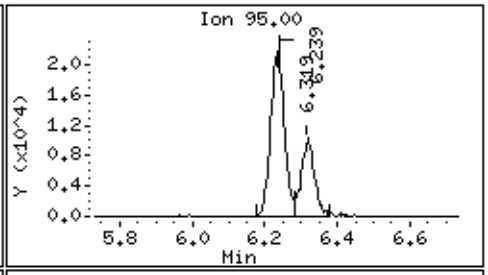
Date : 28-SEP-2021 18:11

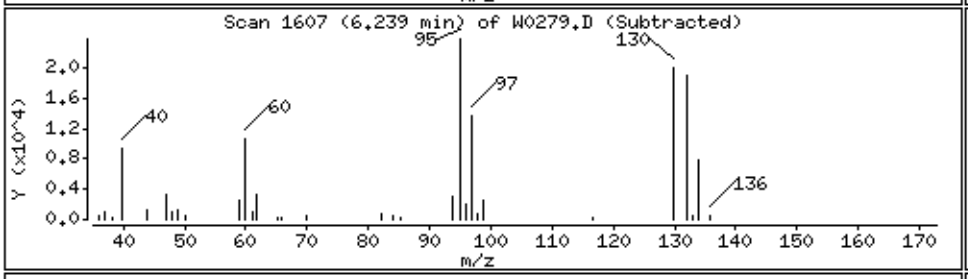
Client ID: DUP-02-(20210915) Instrument: gcms-w.i

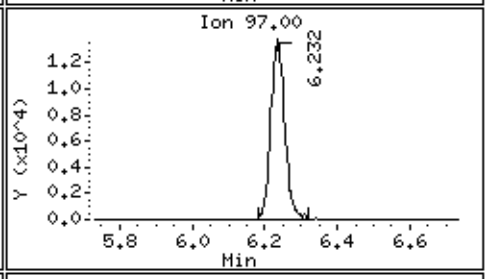
Sample Info: S06313-12DL

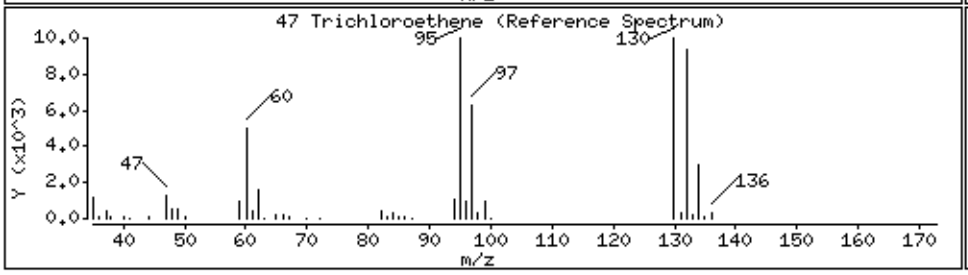
47 Trichloroethene Concentration: 208 ug/l

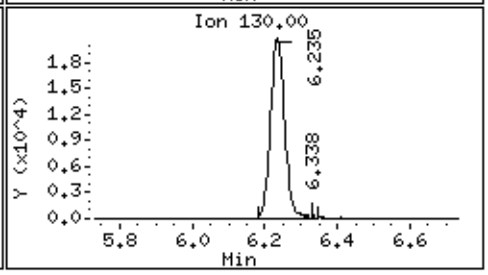




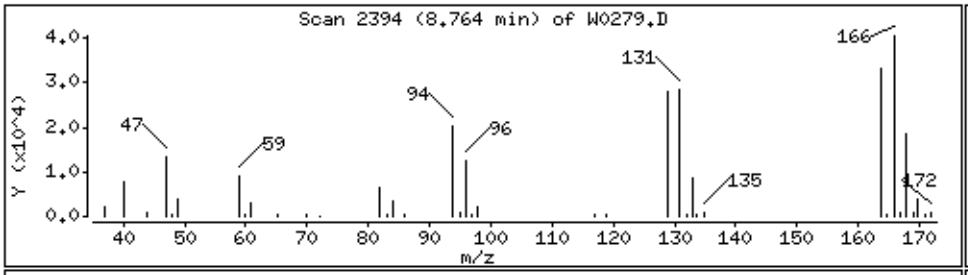


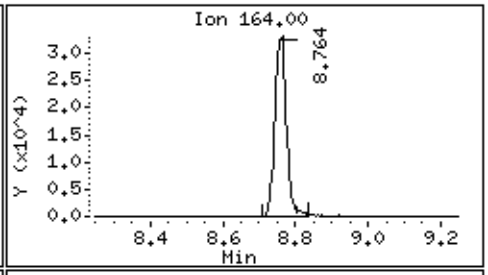


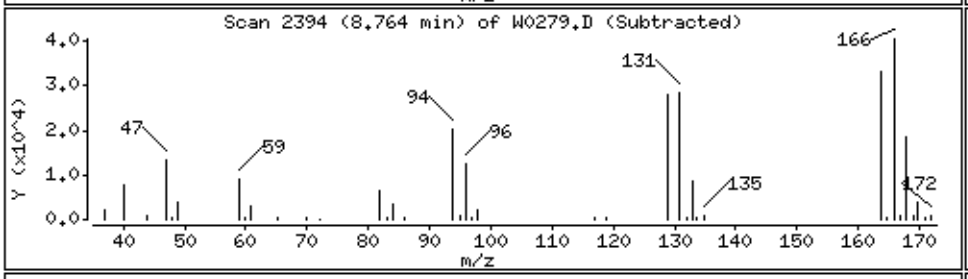


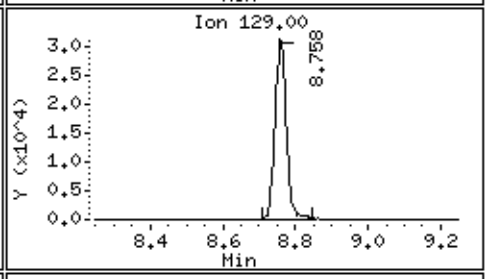


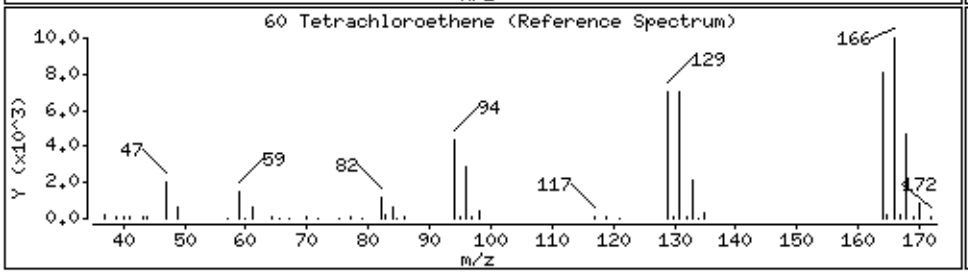
60 Tetrachloroethene Concentration: 329 ug/l

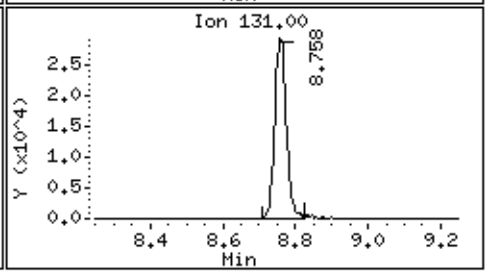








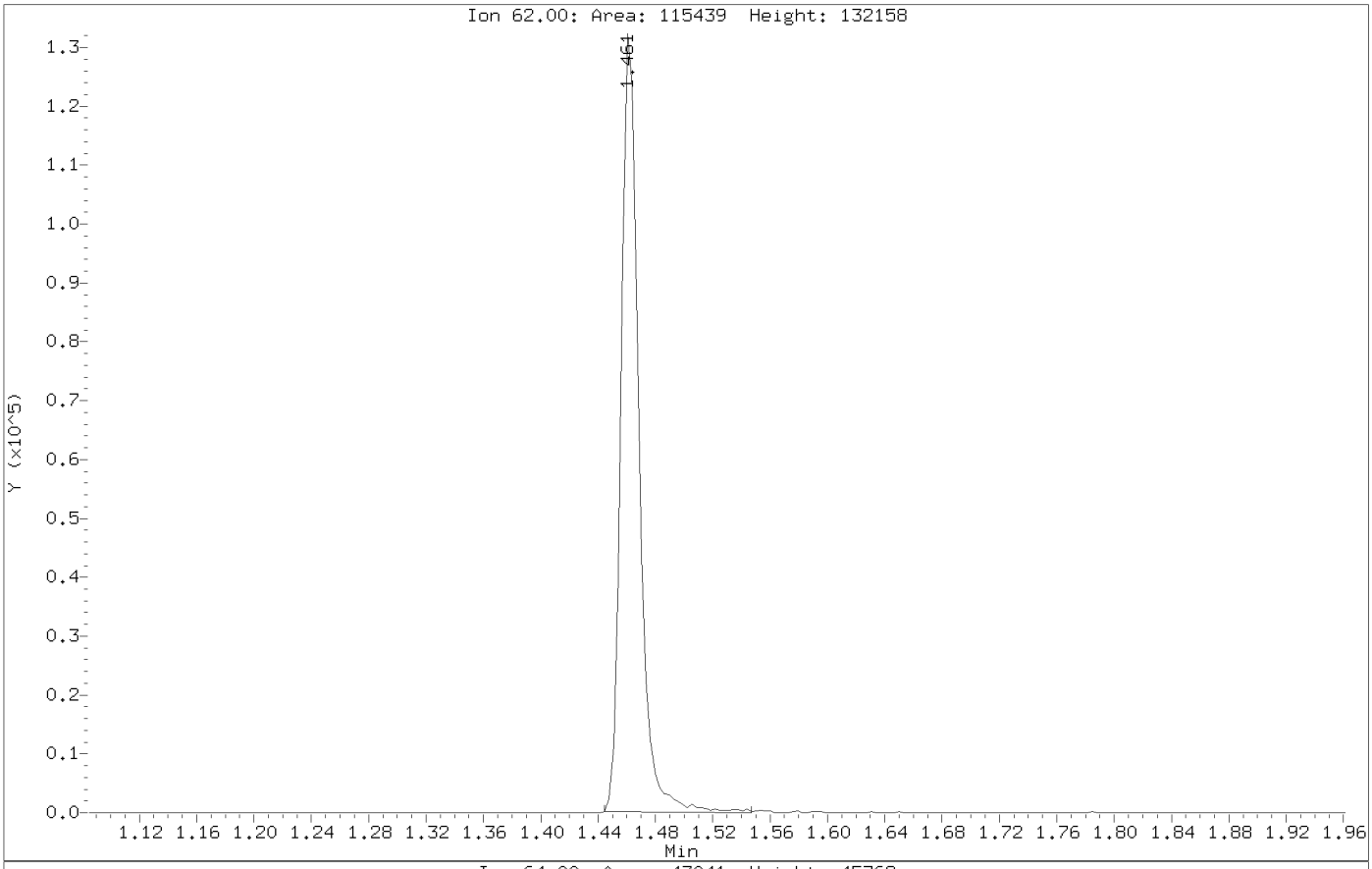


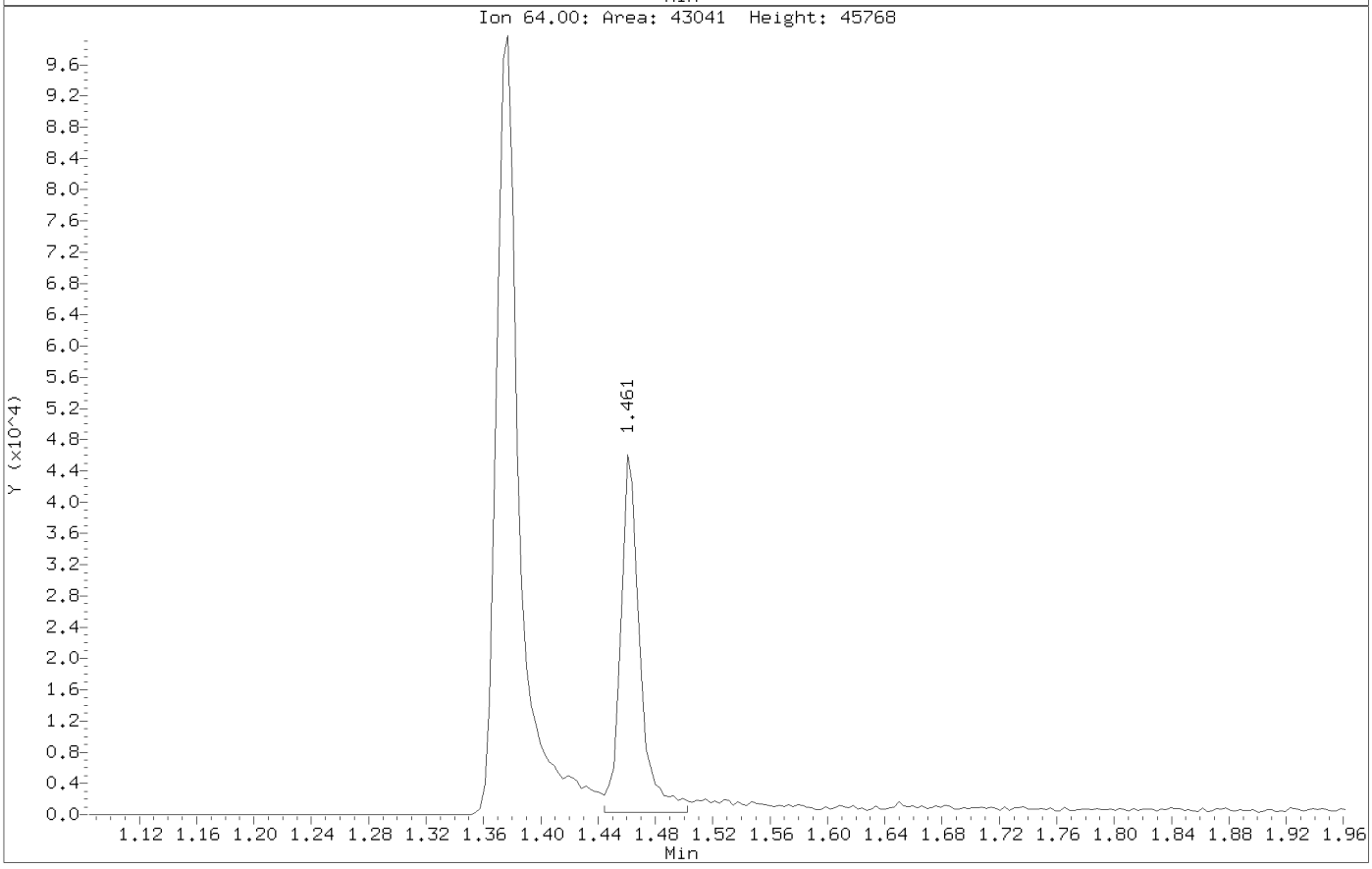


BEFORE MANUAL INTEGRATION

Data File: \\target_server\gg\chem\gcms-w.i\W092821B.b\W0279.D
Injection Date: 28-SEP-2021 18:11
Instrument: gcms-w.i
Client Sample ID: DUP-02-(20210915)

Compound: Vinyl chloride
CAS Number: 75-01-4

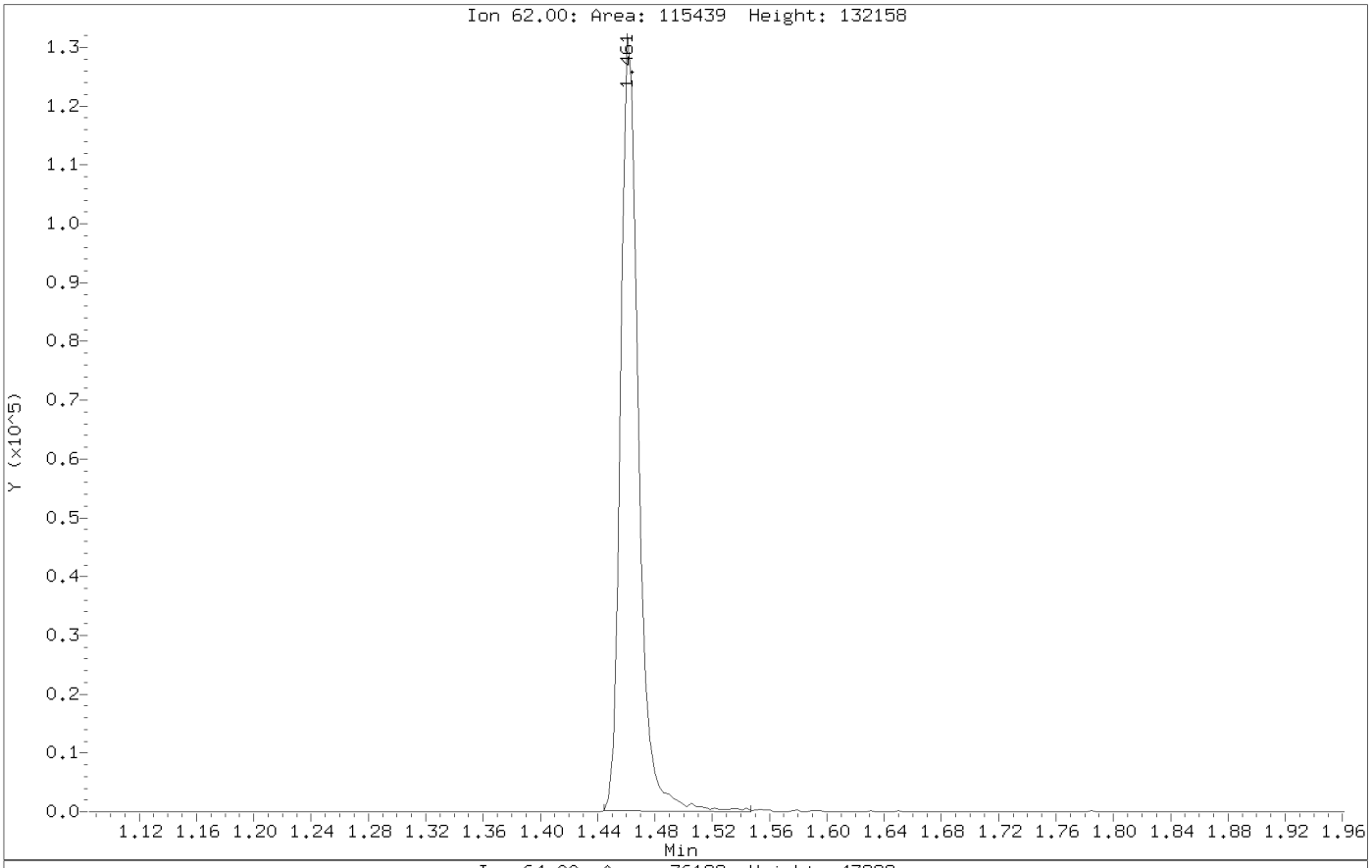


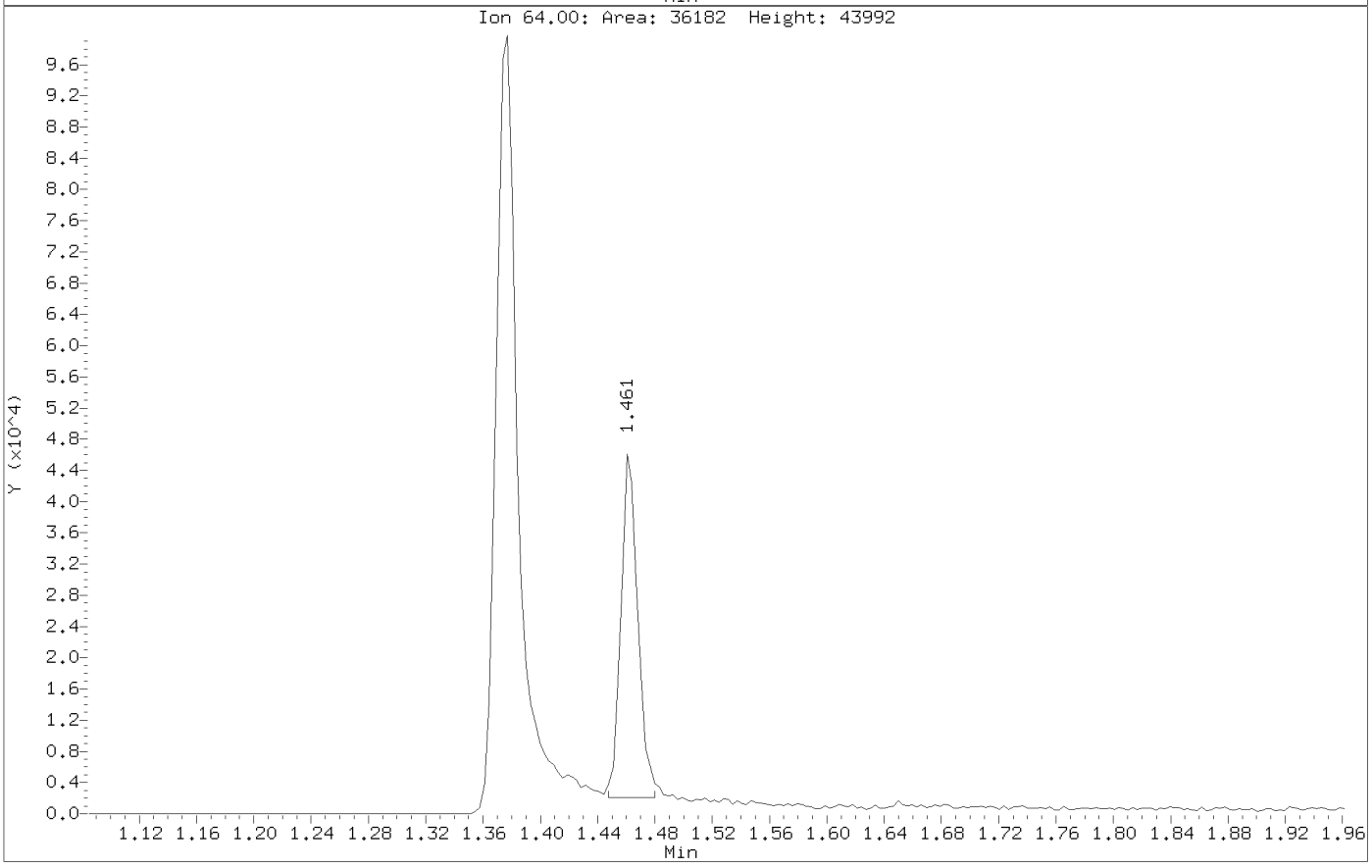


Data File: \\target_server\gg\chem\gcms-w.i\W092821B.b\W0279.D
Injection Date: 28-SEP-2021 18:11
Instrument: gcms-w.i
Client Sample ID: DUP-02-(20210915)

Compound: Vinyl chloride
CAS Number: 75-01-4

AFTER MANUAL INTEGRATION





Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-12DL2
Client ID: DUP-02-(20210915)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0285.D

Sample Date: 15-SEP-21
Received Date: 18-SEP-21
Extract Date: 28-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306817

Analysis Date: 28-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	4.0	ug/L	2	2	4.0
Vinyl Chloride	E	360	ug/L	2	2	4.0
Bromomethane	U	4.0	ug/L	2	2	4.0
Chloroethane	U	4.0	ug/L	2	2	4.0
Trichlorofluoromethane	U	4.0	ug/L	2	2	4.0
1,1-Dichloroethene		2.9	ug/L	2	1	2.0
Carbon Disulfide	U	2.0	ug/L	2	1	2.0
Methylene Chloride	U	10.	ug/L	2	5	10.
trans-1,2-Dichloroethene		15.	ug/L	2	1	2.0
1,1-Dichloroethane	U	2.0	ug/L	2	1	2.0
cis-1,2-Dichloroethene	E	1700	ug/L	2	1	2.0
Chloroform	U	2.0	ug/L	2	1	2.0
Carbon Tetrachloride	U	2.0	ug/L	2	1	2.0
1,1,1-Trichloroethane	U	2.0	ug/L	2	1	2.0
2-Butanone	U	10.	ug/L	2	5	10.
Benzene	U	2.0	ug/L	2	1	2.0
1,2-Dichloroethane	U	2.0	ug/L	2	1	2.0
Trichloroethene		240	ug/L	2	1	2.0
1,2-Dichloropropane	U	2.0	ug/L	2	1	2.0
Bromodichloromethane	U	2.0	ug/L	2	1	2.0
cis-1,3-Dichloropropene	U	2.0	ug/L	2	1	2.0
Toluene	U	2.0	ug/L	2	1	2.0
4-Methyl-2-Pentanone	U	10.	ug/L	2	5	10.
Tetrachloroethene	E	390	ug/L	2	1	2.0
trans-1,3-Dichloropropene	U	2.0	ug/L	2	1	2.0
1,1,2-Trichloroethane	U	2.0	ug/L	2	1	2.0
Dibromochloromethane	U	2.0	ug/L	2	1	2.0
Chlorobenzene	U	2.0	ug/L	2	1	2.0
Ethylbenzene	U	2.0	ug/L	2	1	2.0
m+p-Xylenes	U	4.0	ug/L	2	2	4.0
o-Xylene	U	2.0	ug/L	2	1	2.0
Bromoform	U	2.0	ug/L	2	1	2.0
1,1,2,2-Tetrachloroethane	U	2.0	ug/L	2	1	2.0
P-Bromofluorobenzene		95.7	%			
Toluene-d8		100.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-12DL2
Client ID: DUP-02-(20210915)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0285.D

Sample Date: 15-SEP-21
Received Date: 18-SEP-21
Extract Date: 28-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306817

Analysis Date: 28-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		112.	%			
Dibromofluoromethane		108.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Data File: \\target_server\gg\chem\gcms-w.i\W092821B.b\W0285.D
Report Date: 12-Oct-2021 09:02

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-w.i\W092821B.b\W0285.D
Lab Smp Id: SO6313-12DL2 Client Smp ID: DUP-02-(20210915)
Inj Date : 28-SEP-2021 21:13
Operator : ES Inst ID: gcms-w.i
Smp Info : SO6313-12DL2
Misc Info : WG306817,WG306817-4
Comment : SW846 5030
Method : \\target_server\gg\chem\gcms-w.i\W092821B.b\W8A05(09).m
Meth Date : 01-Oct-2021 17:40 HGOULD Quant Type: ISTD
Cal Date : 28-SEP-2021 12:38 Cal File: W0268.D
Als bottle: 22
Dil Factor: 2.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.12
Processing Host: ORGANICS2

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	2.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

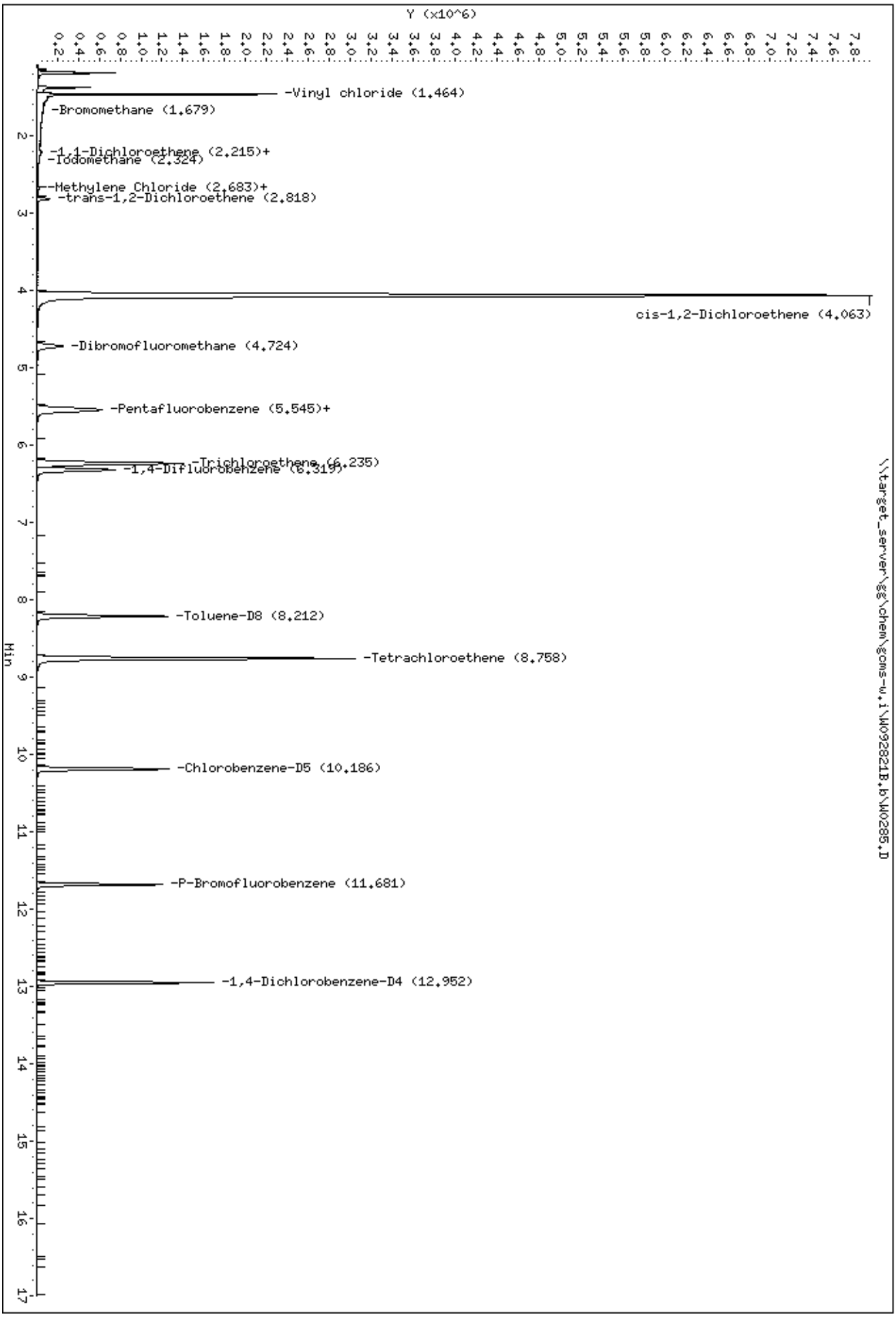
10:19 am, Oct 12, 2021

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)	REVIEW CODE
	3 Vinyl chloride	62	1.463	1.460	(0.264)	1174418	177.340	355(A)	
	4 Bromomethane	94	1.678	1.672	(0.303)	1110	0.75181	1.5(a)	
	8 1,1-Dichloroethene	96	2.214	2.211	(0.400)	7027	1.46216	2.9	
	10 Carbon Disulfide	76	2.246	2.240	(0.406)	4830	0.39367	0.79(a)	
	11 Iodomethane	142	2.323	2.327	(0.420)	1581	0.90708	1.8(a)	
	14 Methylene Chloride	84	2.683	2.677	(0.485)	7318	1.43389	2.9(a)	
	15 Acetone	43	2.731	2.724	(0.493)	9257	4.41552	8.8(aM)	M10
	16 trans-1,2-Dichloroethene	96	2.817	2.811	(0.509)	39108	7.69623	15.4	
	27 cis-1,2-Dichloroethene	96	4.062	4.053	(0.734)	4533273	853.479	1710(A)	
$	34 Dibromofluoromethane	113	4.723	4.711	(0.853)	238046	53.7868	53.8	
*	41 Pentafluorobenzene	168	5.535	5.529	(1.000)	437144	50.0000		
$	42 1,2-Dichloroethane-D4	65	5.561	5.545	(1.005)	333753	55.9312	55.9	
	47 Trichloroethene	95	6.235	6.232	(0.987)	634540	121.390	243	
*	48 1,4-Difluorobenzene	114	6.318	6.315	(1.000)	769988	50.0000		
$	58 Toluene-D8	98	8.212	8.205	(1.300)	924447	49.9908	50.0	
	60 Tetrachloroethene	164	8.757	8.747	(0.860)	809244	193.660	387(A)	
*	68 Chlorobenzene-D5	117	10.185	10.182	(1.000)	765972	50.0000		
$	77 P-Bromofluorobenzene	95	11.680	11.677	(1.849)	397596	47.8410	47.8	
*	93 1,4-Dichlorobenzene-D4	152	12.951	12.942	(1.000)	407662	50.0000		
M	97 1,2-Dichloroethylene (total)	96				4572381	861.175	1720	

Data File: \\target_server\gg\chem\gcms-w.i\W092821B.b\W0285.D
Report Date: 12-Oct-2021 09:02

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount
    exceeded maximum amount.
M - Compound response manually integrated.


Y (x10^6)
Min
-Vinyl chloride (1.464)
-Bromomethane (1.679)
-1,1-Dichloroethene (2.215)+
-Iodomethane (2.324)
-Methylene Chloride (2.683)+
-trans-1,2-Dichloroethene (2.818)
cis-1,2-Dichloroethene (4.063)
-Dibromofluoromethane (4.724)
-Pentafluorobenzene (5.545)+
-Trichloroethene (6.235)
-1,4-Difluorobenzene (6.319)
-Toluene-D8 (8.212)
-Tetrachloroethene (8.758)
-Chlorobenzene-D5 (10.186)
-P-Bromofluorobenzene (11.681)
-1,4-Dichlorobenzene-D4 (12.952)
Data File: \\target_server\gg\chem\gcms-w.i\W092821B.b\W0285.D
Date : 28-SEP-2021 21:13
Client ID: DUP-02-(20210915)
Sample Info: SD6313-12DL2
Instrument: gcms-w.i
\\target_server\gg\chem\gcms-w.i\W092821B.b\W0285.D

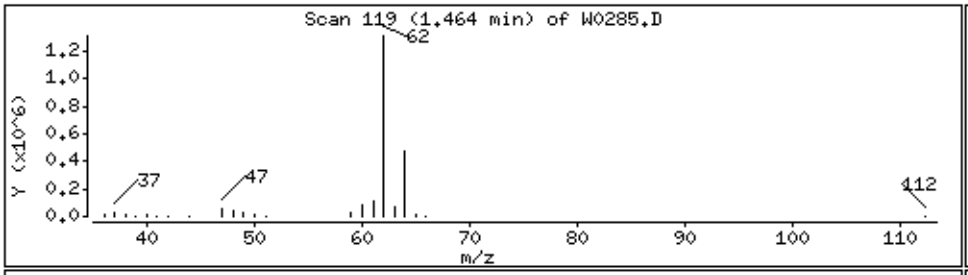
Data File: \\target_server\gg\chem\gcms-w.i\W092821B.b\W0285.D

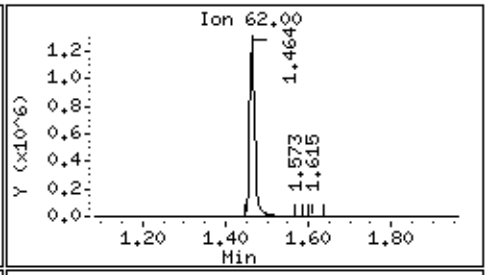
Date : 28-SEP-2021 21:13

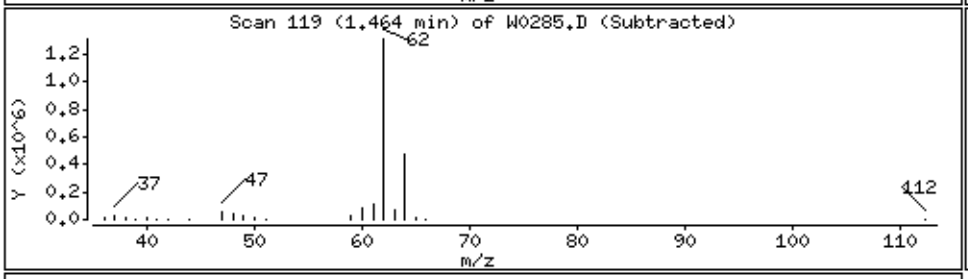
Client ID: DUP-02-(20210915) Instrument: gcms-w.i

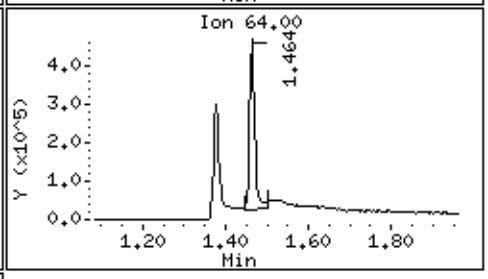
Sample Info: S06313-12DL2

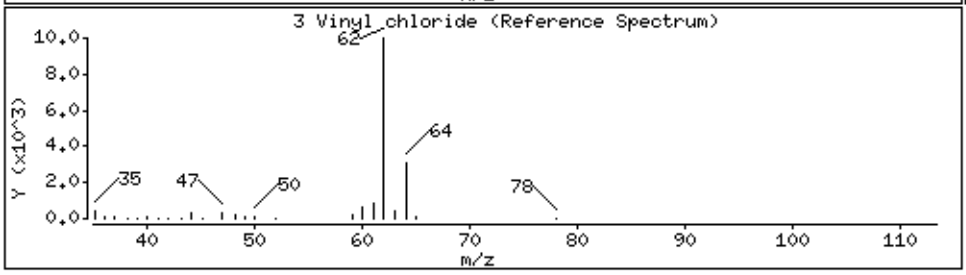
3 Vinyl chloride Concentration: 355 ug/l



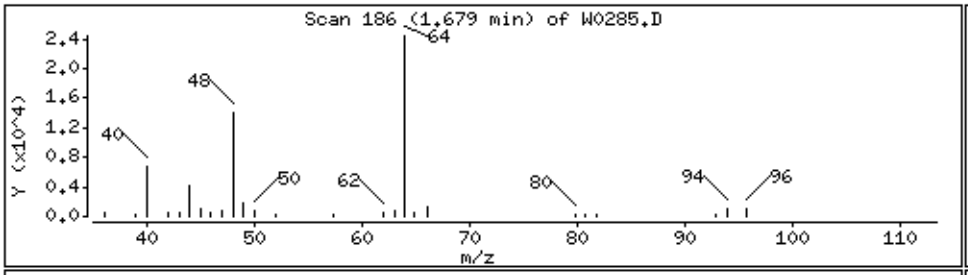


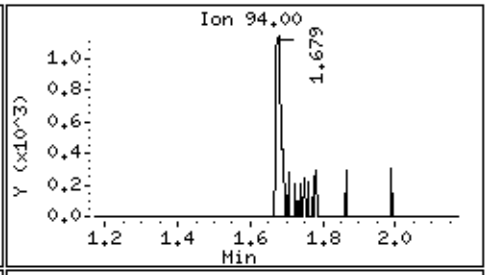


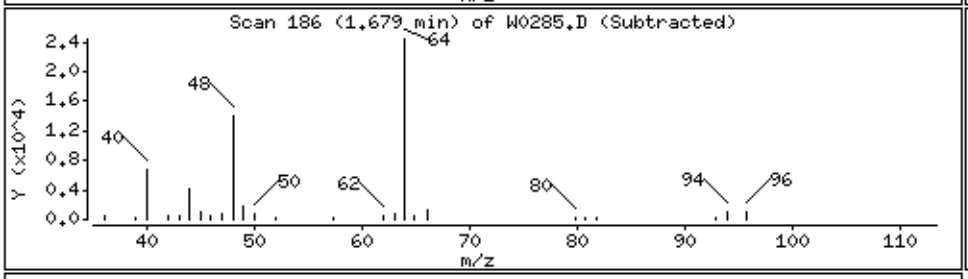


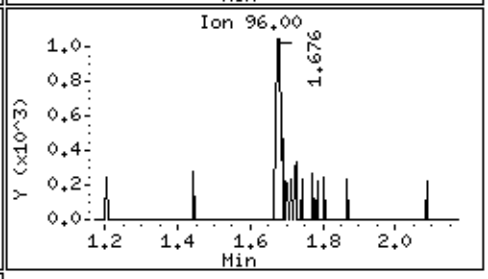


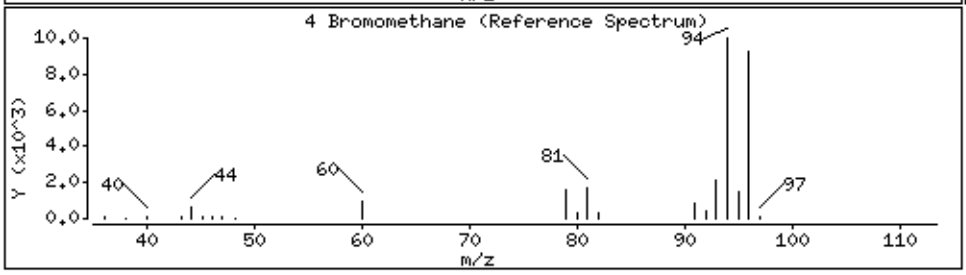
4 Bromomethane Concentration: 1.5 ug/l











Data File: \\target_server\gg\chem\gcms-w.i\W092821B.b\W0285.D

Date : 28-SEP-2021 21:13

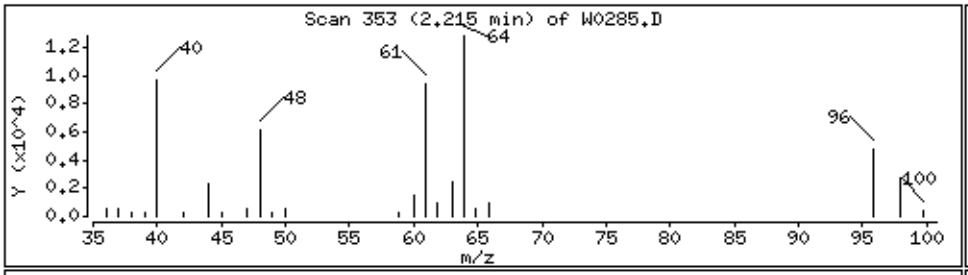
Client ID: DUP-02-(20210915)

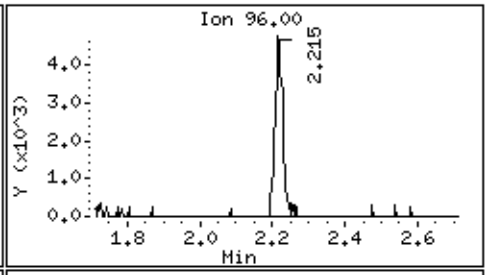
Instrument: gcms-w.i

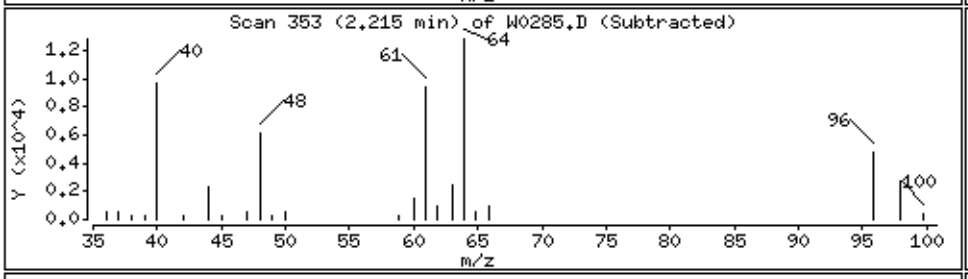
Sample Info: S06313-12DL2

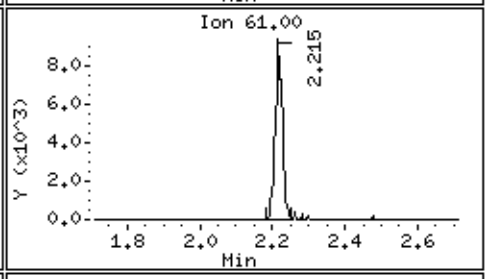
8 1,1-Dichloroethene

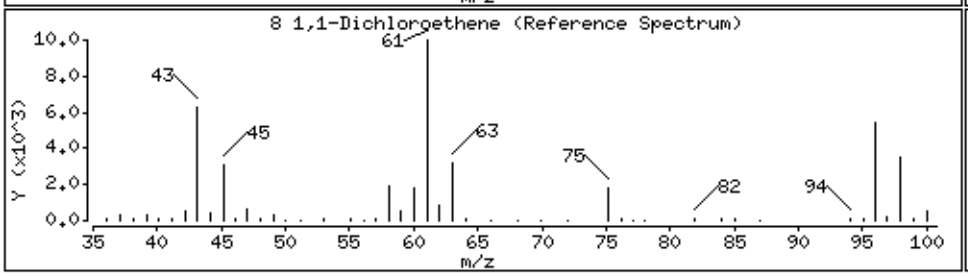
Concentration: 2.9 ug/l

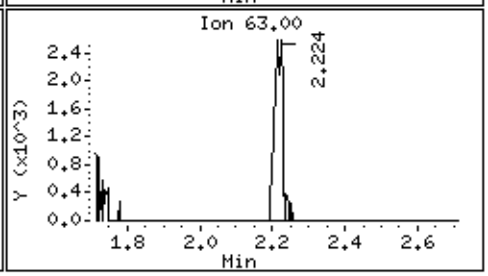






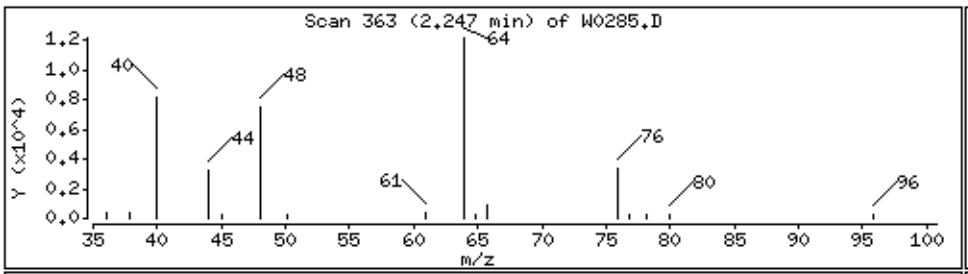


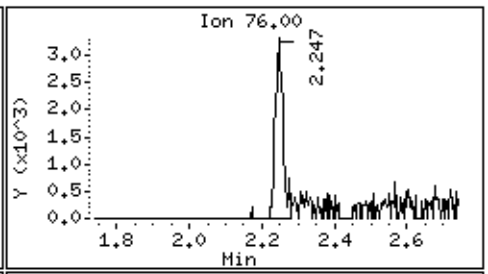


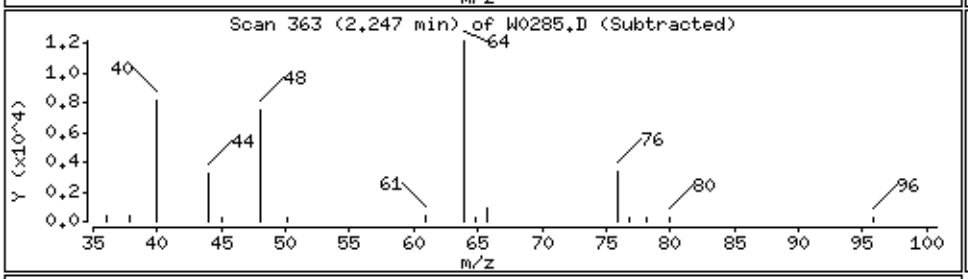


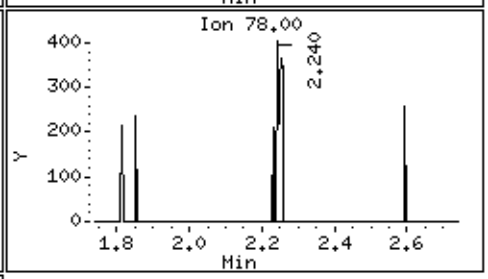
10 Carbon Disulfide

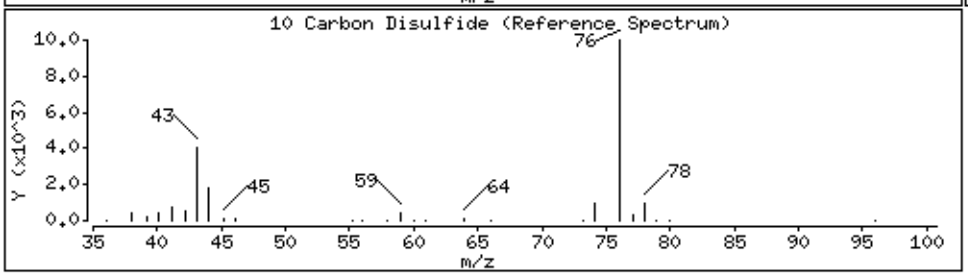
Concentration: 0.79 ug/l











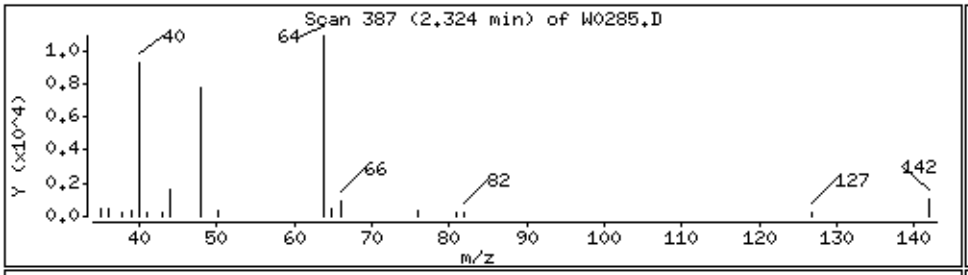
Data File: \\target_server\gg\chem\gcms-w.i\W092821B.b\W0285.D

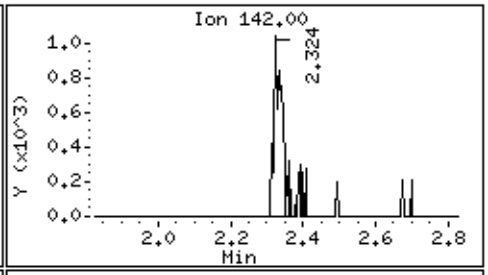
Date : 28-SEP-2021 21:13

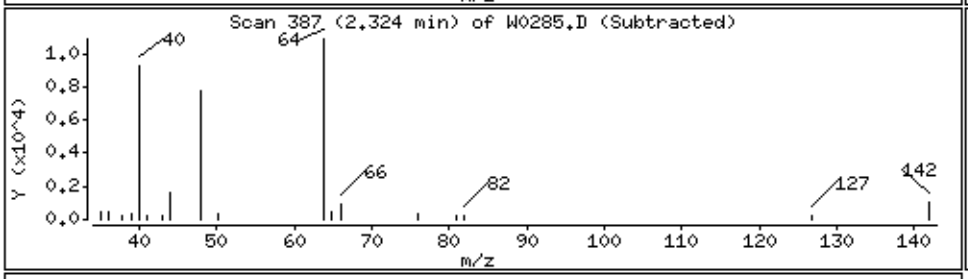
Client ID: DUP-02-(20210915) Instrument: gcms-w.i

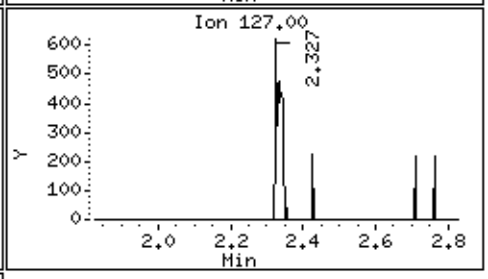
Sample Info: S06313-12DL2

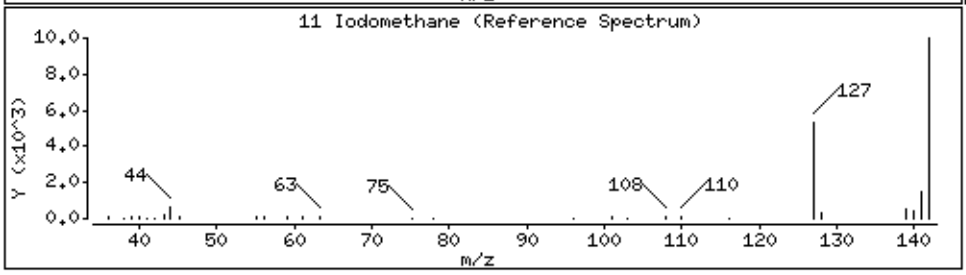
11 Iodomethane Concentration: 1.8 ug/l



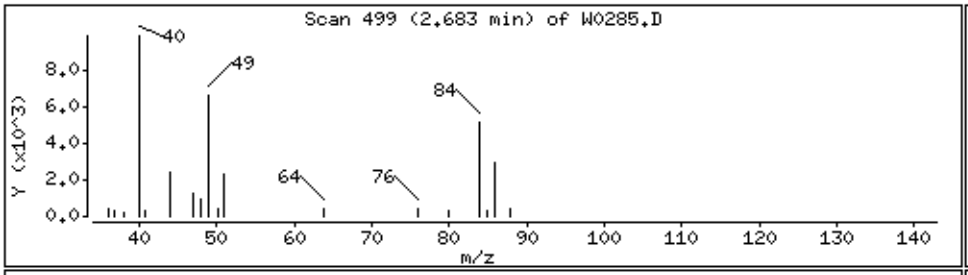


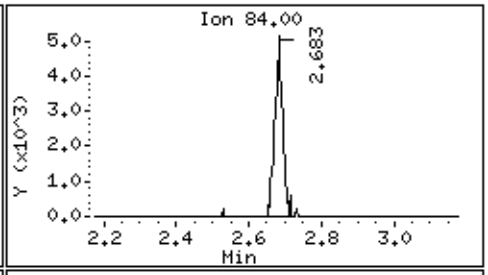


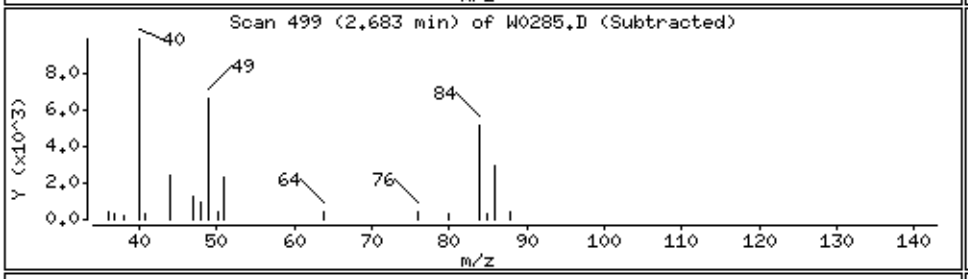


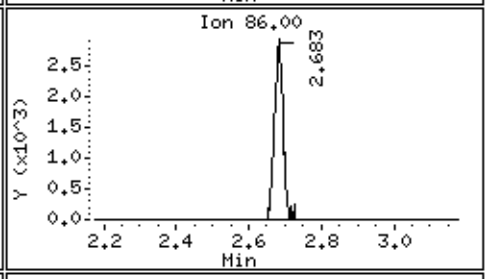


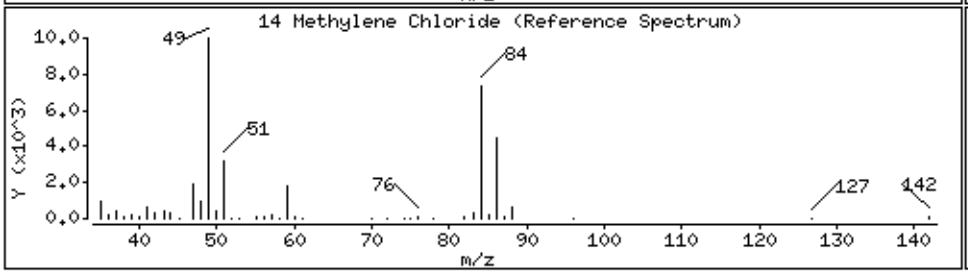
14 Methylene Chloride Concentration: 2.9 ug/l

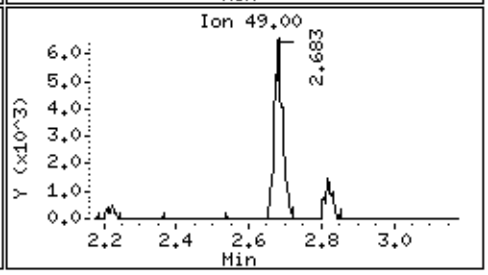












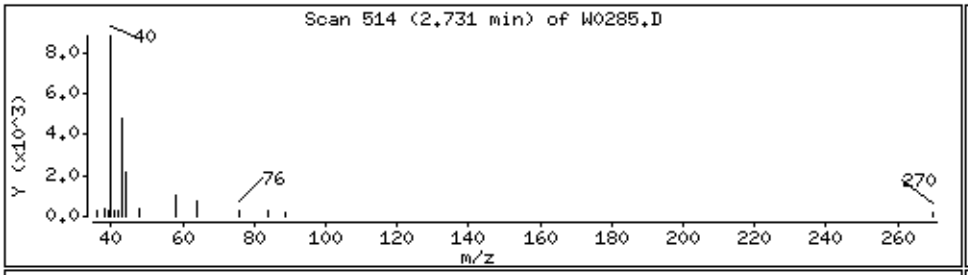
Data File: \\target_server\gg\chem\gcms-w.i\W092821B.b\W0285.D

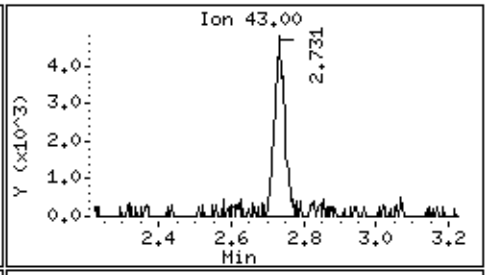
Date : 28-SEP-2021 21:13

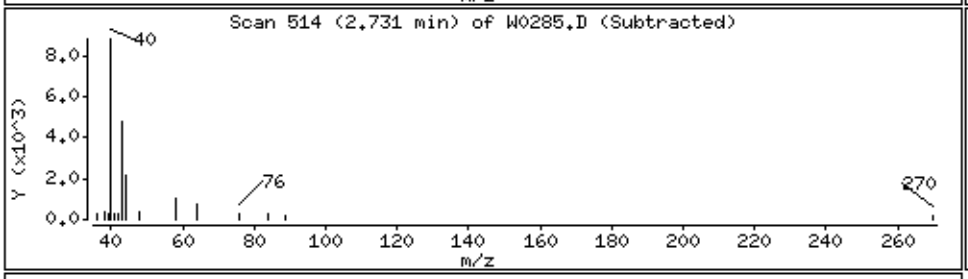
Client ID: DUP-02-(20210915) Instrument: gcms-w.i

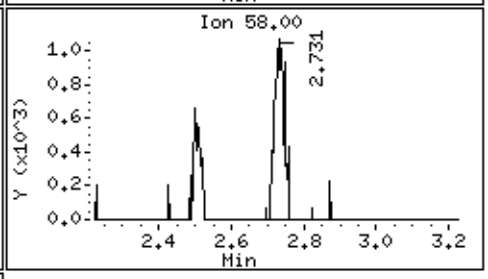
Sample Info: S06313-12DL2

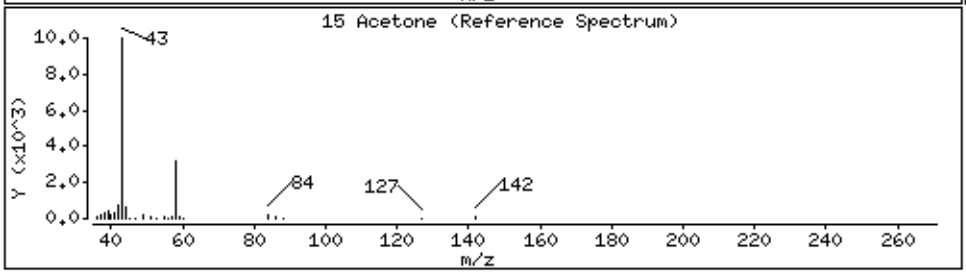
15 Acetone Concentration: 8.8 ug/l



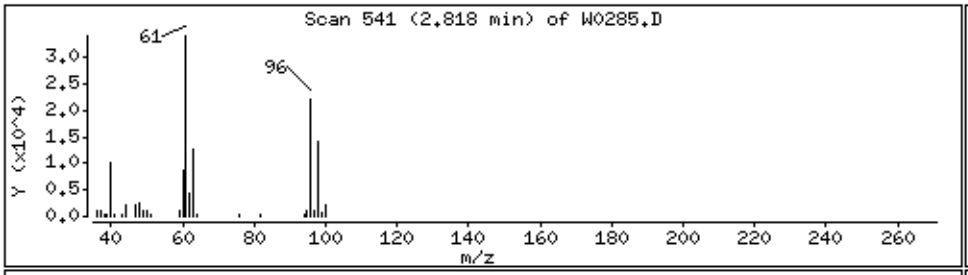


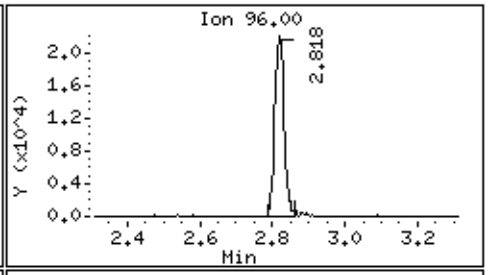


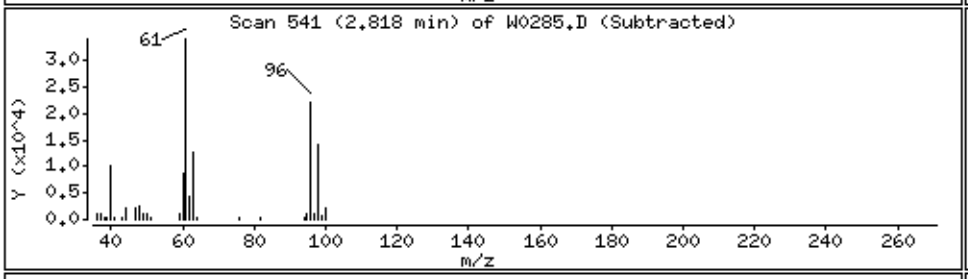


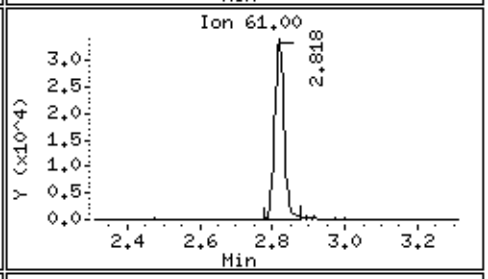


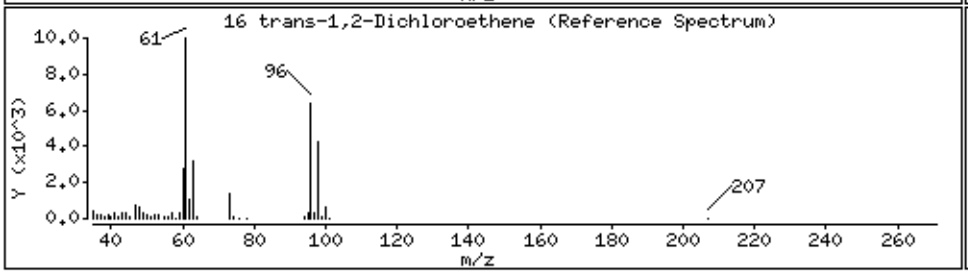
16 trans-1,2-Dichloroethene Concentration: 15.4 ug/l

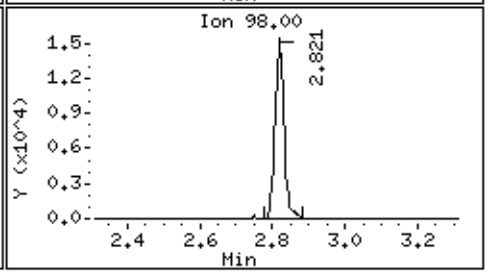












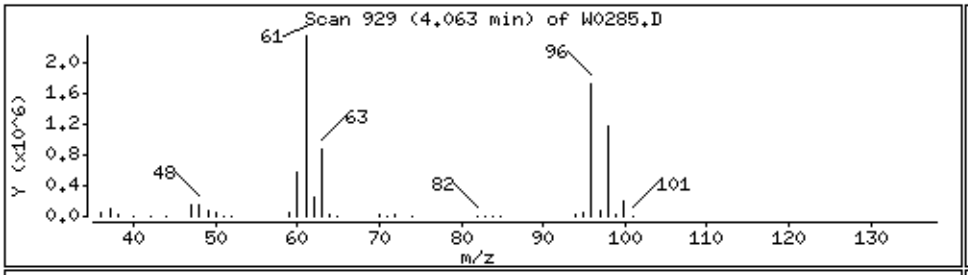
Data File: \\target_server\gg\chem\gcms-w.i\W092821B.b\W0285.D

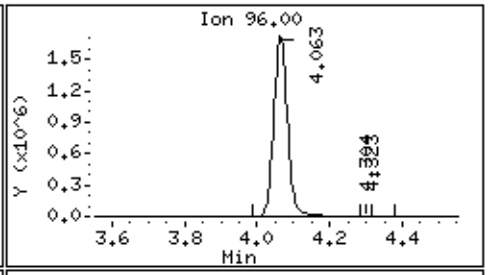
Date : 28-SEP-2021 21:13

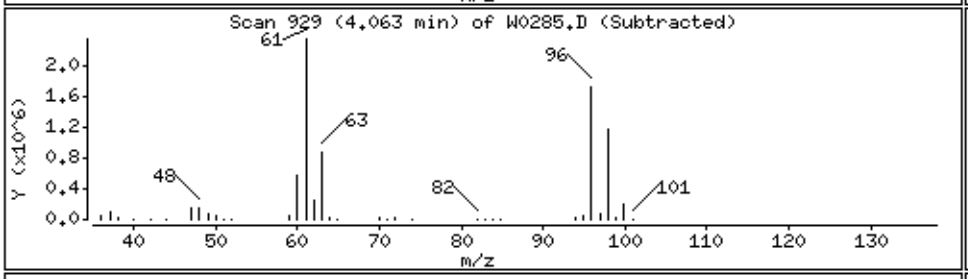
Client ID: DUP-02-(20210915) Instrument: gcms-w.i

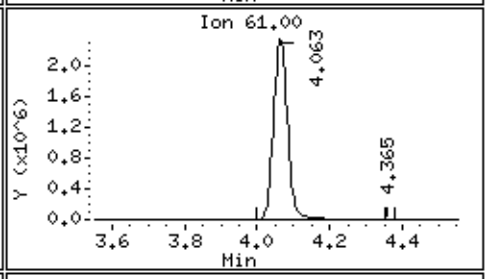
Sample Info: S06313-12DL2

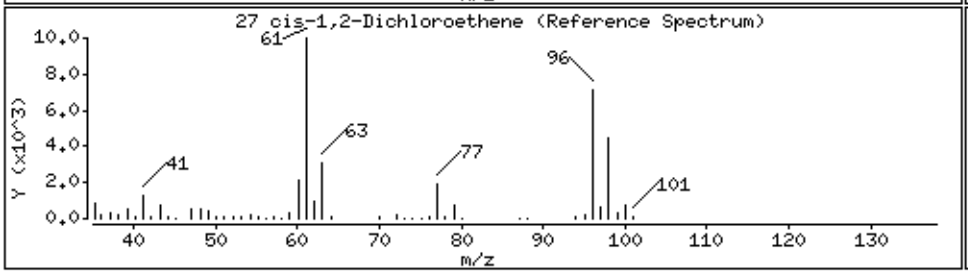
27 cis-1,2-Dichloroethene Concentration: 1710 ug/l

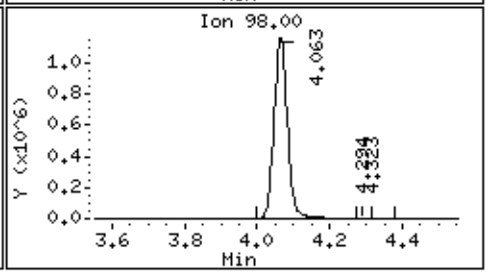




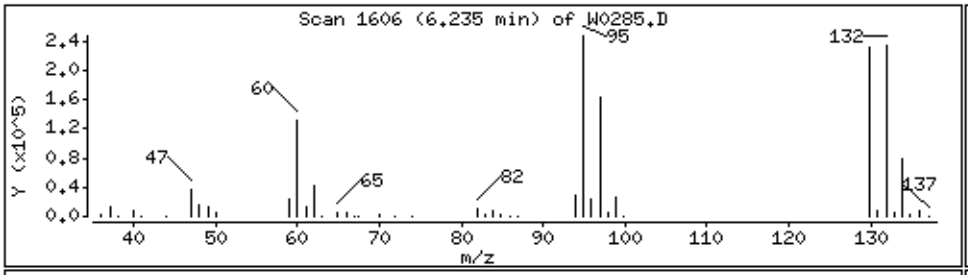


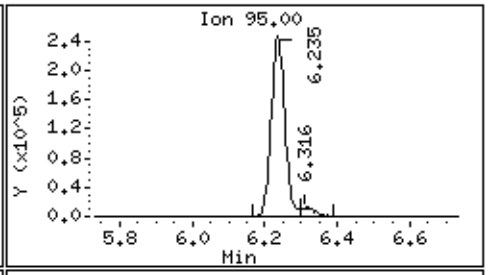


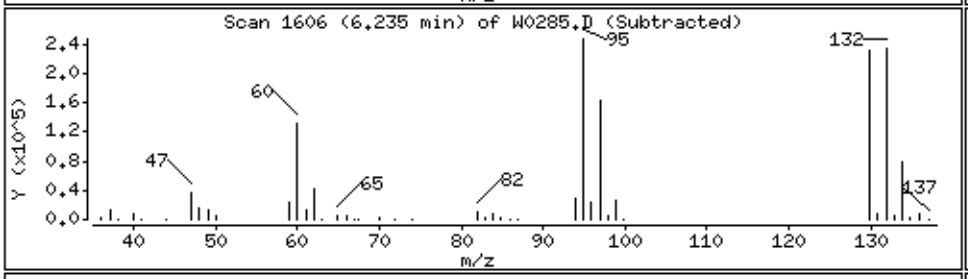


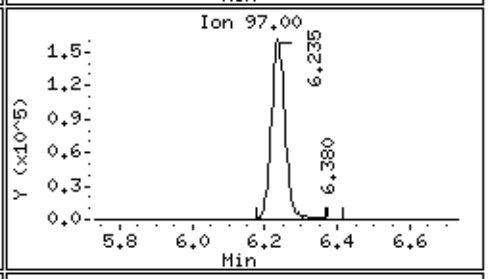


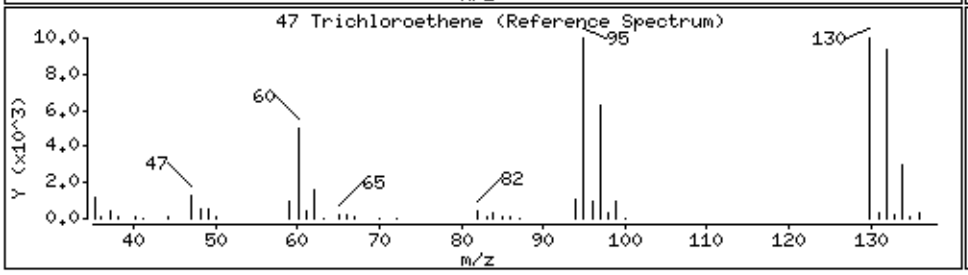
47 Trichloroethene Concentration: 243 ug/l

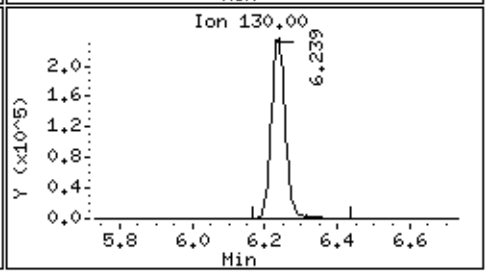












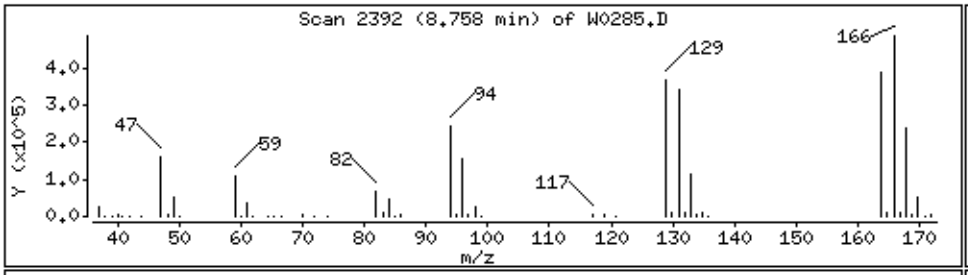
Data File: \\target_server\gg\chem\gcms-w.i\W092821B.b\W0285.D

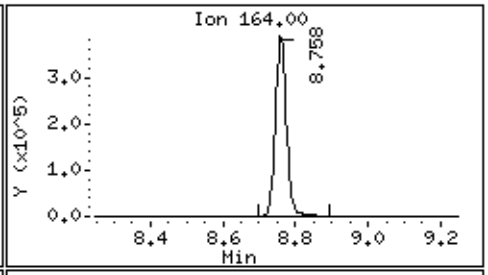
Date : 28-SEP-2021 21:13

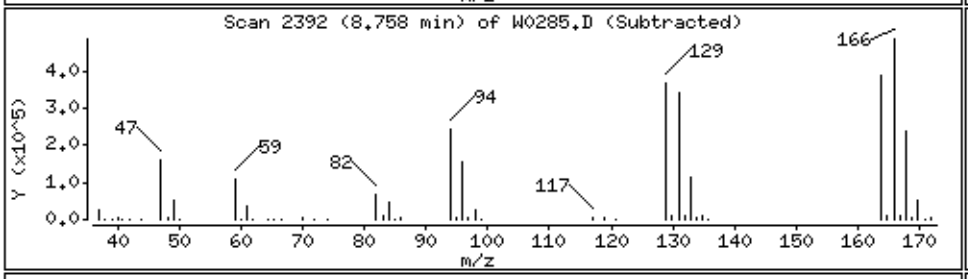
Client ID: DUP-02-(20210915) Instrument: gcms-w.i

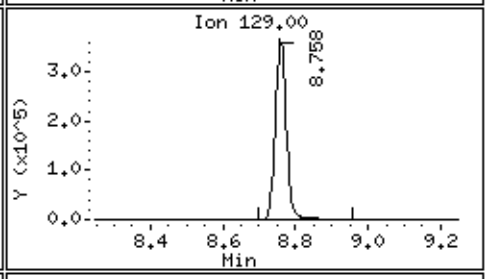
Sample Info: SO6313-12DL2

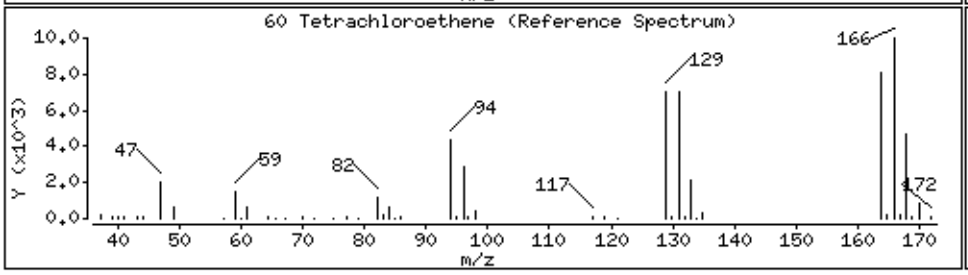
60 Tetrachloroethene Concentration: 387 ug/l

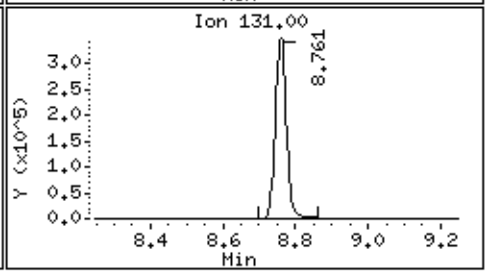












Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-13DL
Client ID: WVA-MW-85R-3(20210915)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0152.D

Sample Date: 15-SEP-21
Received Date: 18-SEP-21
Extract Date: 22-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306464

Analysis Date: 22-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	400	ug/L	200	2	400
Vinyl Chloride		580	ug/L	200	2	400
Bromomethane	U	400	ug/L	200	2	400
Chloroethane	U	400	ug/L	200	2	400
Trichlorofluoromethane	U	400	ug/L	200	2	400
1,1-Dichloroethene	U	200	ug/L	200	1	200
Carbon Disulfide	U	200	ug/L	200	1	200
Methylene Chloride	U	1000	ug/L	200	5	1000
trans-1,2-Dichloroethene	U	200	ug/L	200	1	200
1,1-Dichloroethane	U	200	ug/L	200	1	200
cis-1,2-Dichloroethene		1500	ug/L	200	1	200
Chloroform	U	200	ug/L	200	1	200
Carbon Tetrachloride	U	200	ug/L	200	1	200
1,1,1-Trichloroethane	U	200	ug/L	200	1	200
2-Butanone	U	1000	ug/L	200	5	1000
Benzene	U	200	ug/L	200	1	200
1,2-Dichloroethane	U	200	ug/L	200	1	200
Trichloroethene		1600	ug/L	200	1	200
1,2-Dichloropropane	U	200	ug/L	200	1	200
Bromodichloromethane	U	200	ug/L	200	1	200
cis-1,3-Dichloropropene	U	200	ug/L	200	1	200
Toluene	U	200	ug/L	200	1	200
4-Methyl-2-Pentanone	U	1000	ug/L	200	5	1000
Tetrachloroethene		18000	ug/L	200	1	200
trans-1,3-Dichloropropene	U	200	ug/L	200	1	200
1,1,2-Trichloroethane	U	200	ug/L	200	1	200
Dibromochloromethane	U	200	ug/L	200	1	200
Chlorobenzene	U	200	ug/L	200	1	200
Ethylbenzene	U	200	ug/L	200	1	200
m+p-Xylenes	U	400	ug/L	200	2	400
o-Xylene	U	200	ug/L	200	1	200
Bromoform	U	200	ug/L	200	1	200
1,1,2,2-Tetrachloroethane	U	200	ug/L	200	1	200
P-Bromofluorobenzene		101.	%			
Toluene-d8		100.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-13DL
Client ID: WVA-MW-85R-3(20210915)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0152.D

Sample Date: 15-SEP-21
Received Date: 18-SEP-21
Extract Date: 22-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306464

Analysis Date: 22-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		118.	%			
Dibromofluoromethane		106.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Data File: \\target_server\gg\chem\gcms-w.i\W092221.b\W0152.D
Report Date: 12-Oct-2021 08:54

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-w.i\W092221.b\W0152.D
Lab Smp Id: SO6313-13DL Client Smp ID: VA-MW-85R-3(2021091
Inj Date : 22-SEP-2021 10:56
Operator : ES Inst ID: gcms-w.i
Smp Info : SO6313-13DL
Misc Info : WG306464,WG306464-4
Comment : SW846 5030
Method : \\target_server\gg\chem\gcms-w.i\W092221.b\W8A05(08).m
Meth Date : 11-Oct-2021 13:03 hgould Quant Type: ISTD
Cal Date : 20-SEP-2021 11:30 Cal File: W0105.D
Als bottle: 8
Dil Factor: 200.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.12

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

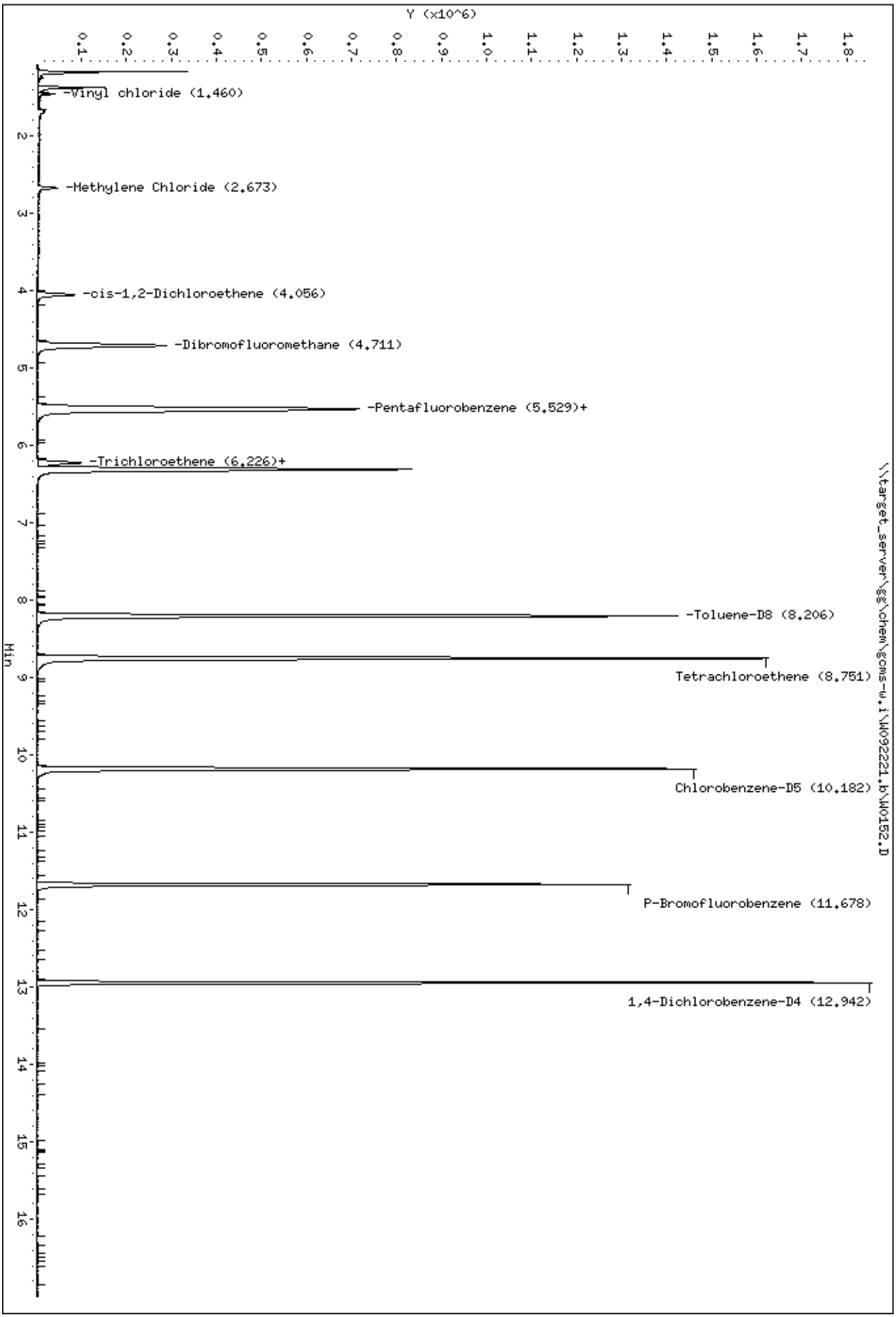
Name	Value	Description
DF	200.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

10:20 am, Oct 12, 2021

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)	REVIEW CODE
	3 Vinyl chloride	62	1.460	1.460	(0.265)	16406	2.89762	580(M)	M10
	14 Methylene Chloride	84	2.673	2.677	(0.484)	16930	3.33379	667(a)	
	27 cis-1,2-Dichloroethene	96	4.053	4.056	(0.734)	44788	7.70711	1540	
$	34 Dibromofluoromethane	113	4.714	4.714	(0.854)	273526	53.0037	53.0	
*	41 Pentafluorobenzene	168	5.519	5.526	(1.000)	515246	50.0000		
$	42 1,2-Dichloroethane-D4	65	5.545	5.549	(1.005)	396108	58.9294	58.9	
	47 Trichloroethene	95	6.222	6.226	(0.986)	44621	7.91960	1580	
*	48 1,4-Difluorobenzene	114	6.312	6.315	(1.000)	887928	50.0000		
$	58 Toluene-D8	98	8.205	8.209	(1.300)	1063085	50.0620	50.1	
	60 Tetrachloroethene	164	8.754	8.754	(0.860)	441875	89.3653	17900	
*	68 Chlorobenzene-D5	117	10.182	10.182	(1.000)	860419	50.0000		
$	77 P-Bromofluorobenzene	95	11.674	11.678	(1.849)	448320	50.4552	50.4	
*	93 1,4-Dichlorobenzene-D4	152	12.941	12.948	(1.000)	443104	50.0000		
M	97 1,2-Dichloroethylene (total)	96				44788	7.70711	1540	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.


Y (x10^6)
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0
1.1
1.2
1.3
1.4
1.5
1.6
1.7
1.8
-Vinyl chloride (1.460)
-Methylene Chloride (2.673)
-cis-1,2-Dichloroethene (4.056)
-Dibromofluoromethane (4.711)
-Pentafluorobenzene (5.529)+
-Trichloroethene (6.226)+
-Toluene-D8 (8.206)
Tetrachloroethene (8.751)
Chlorobenzene-D5 (10.182)
P-Bromofluorobenzene (11.678)
1,4-Dichlorobenzene-D4 (12.942)
Min
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
\\target_server\gg\chem\gcms-w.i\W092221.b\W0152.D
Data File: \\target_server\gg\chem\gcms-w.i\W092221.b\W0152.D
Date : 22-SEP-2021 10:56
Client ID: VA-MW-85R-3(2021091
Sample Info: SD6313-13DL
Instrument: gcms-w.i

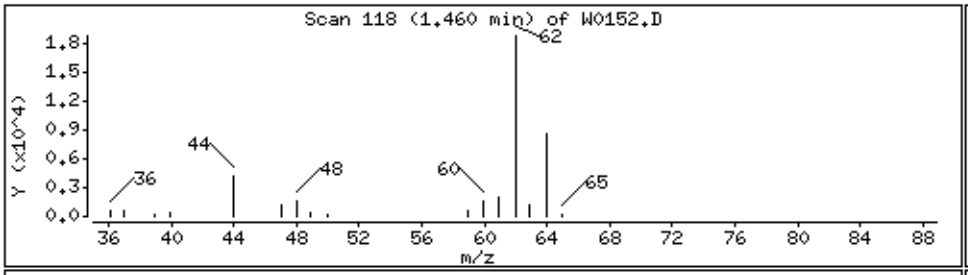
Data File: \\target_server\gg\chem\gcms-w.i\W092221.b\W0152.D

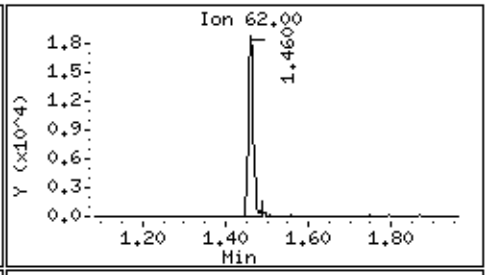
Date : 22-SEP-2021 10:56

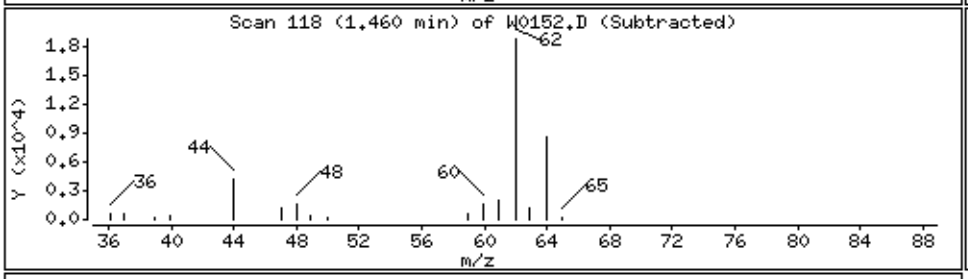
Client ID: VA-MW-85R-3(2021091 Instrument: gcms-w.i

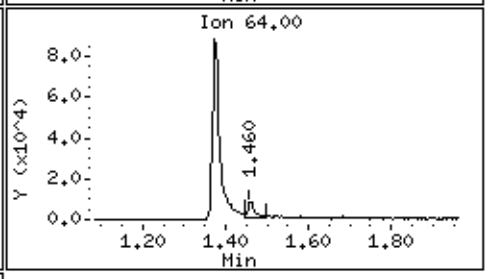
Sample Info: S06313-13DL

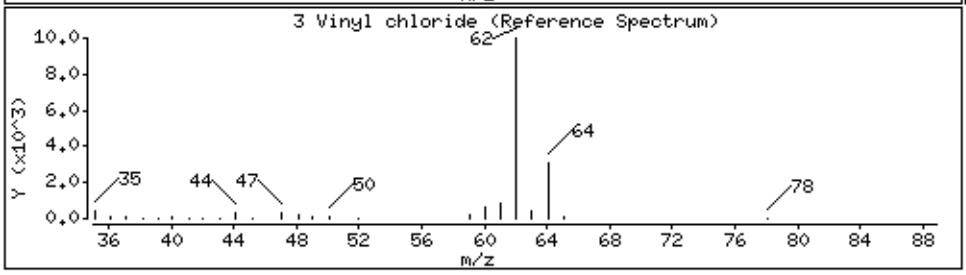
3 Vinyl chloride Concentration: 580 ug/l



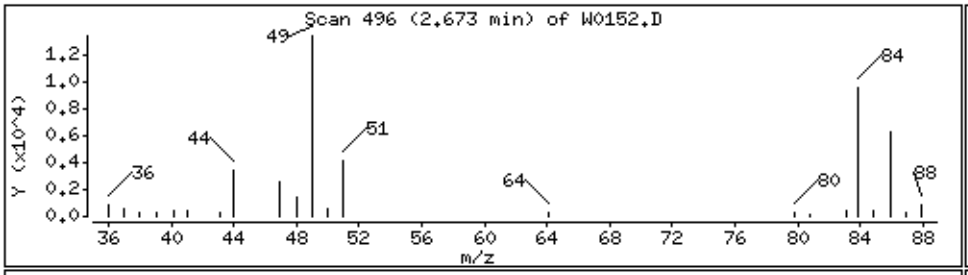


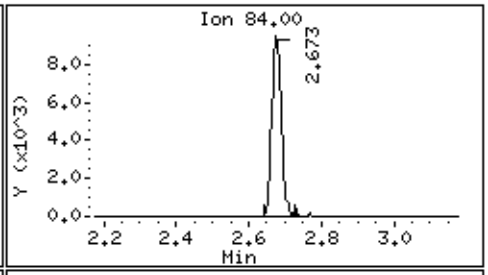


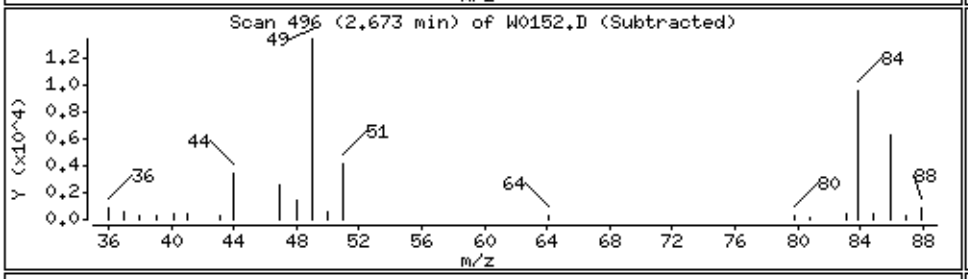


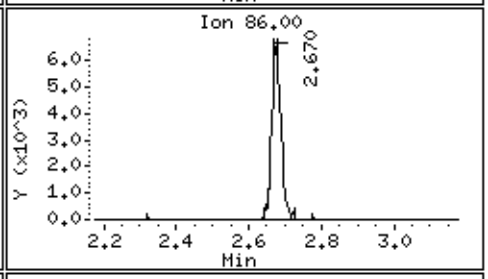


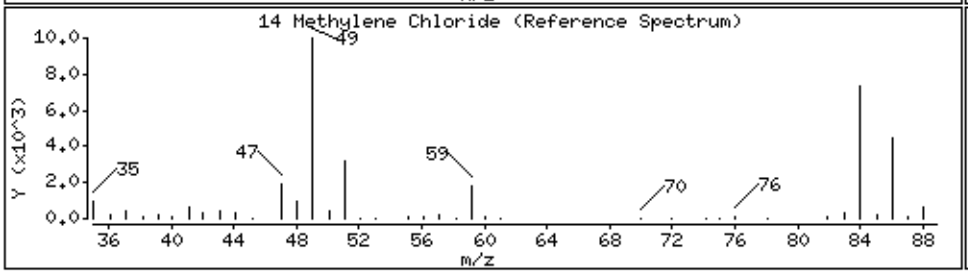
14 Methylene Chloride Concentration: 667 ug/l

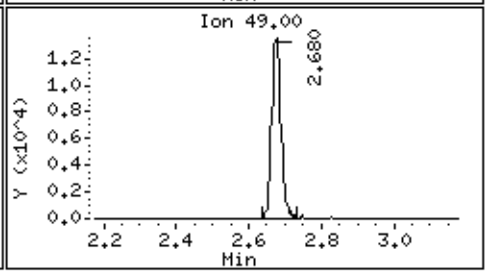












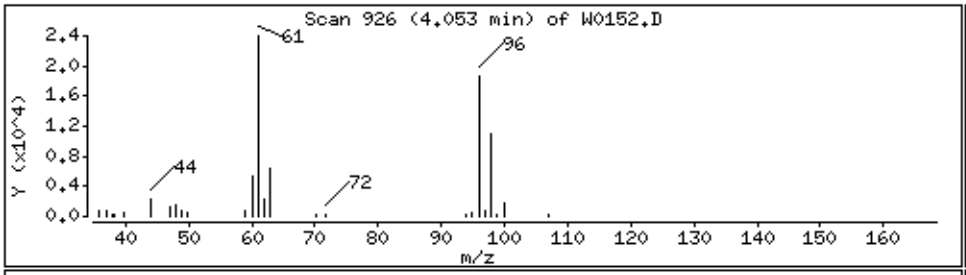
Data File: \\target_server\gg\chem\gcms-w.i\W092221.b\W0152.D

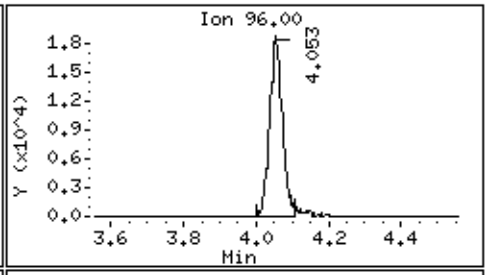
Date : 22-SEP-2021 10:56

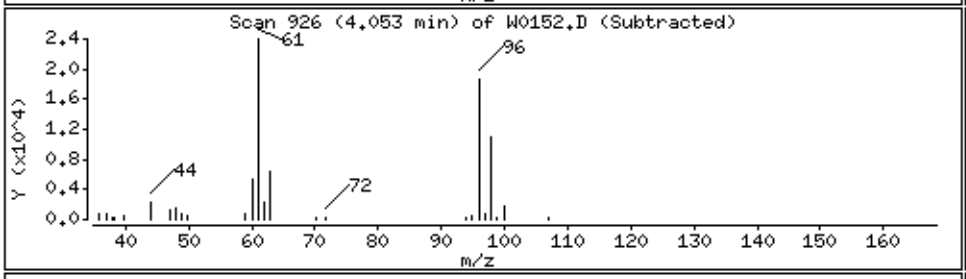
Client ID: VA-MW-85R-3(2021091 Instrument: gcms-w.i

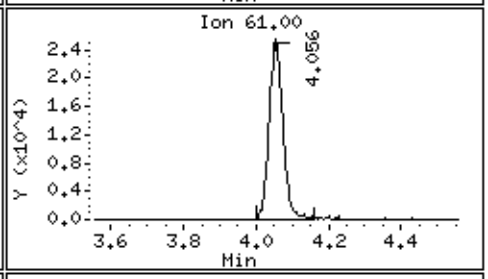
Sample Info: S06313-13DL

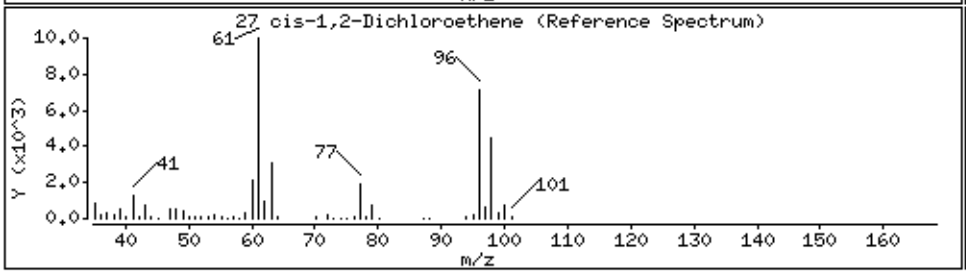
27 cis-1,2-Dichloroethene Concentration: 1540 ug/l

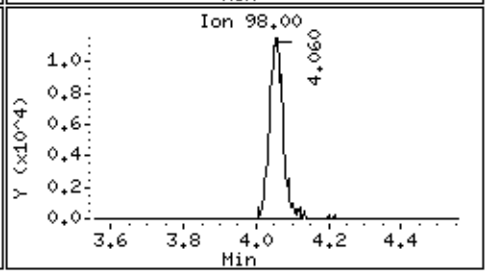




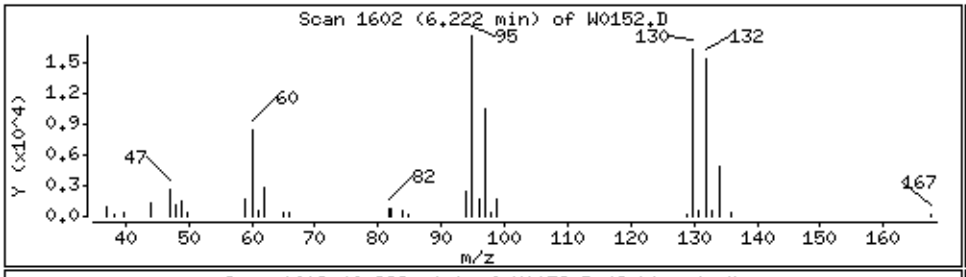


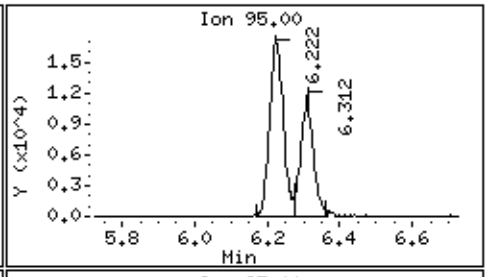


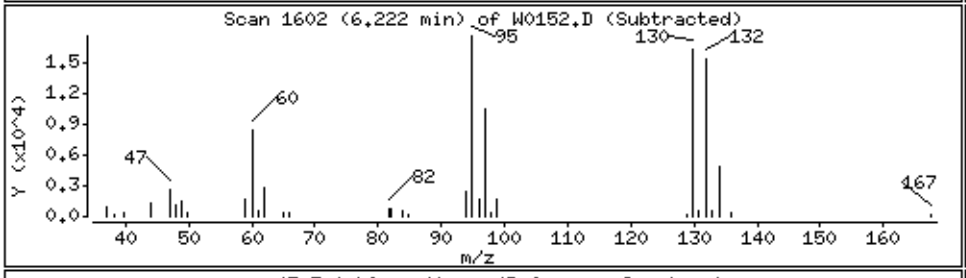


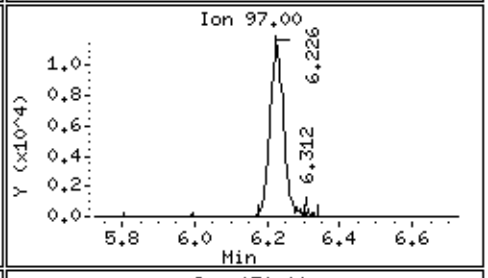


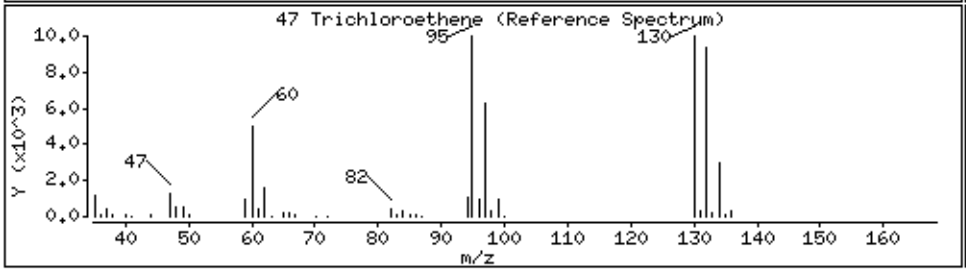
47 Trichloroethene Concentration: 1580 ug/l

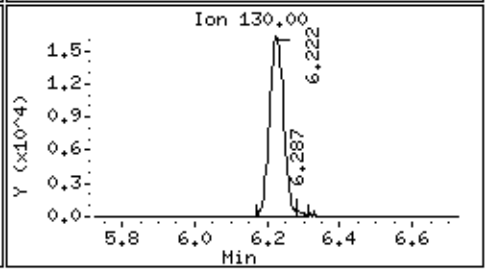












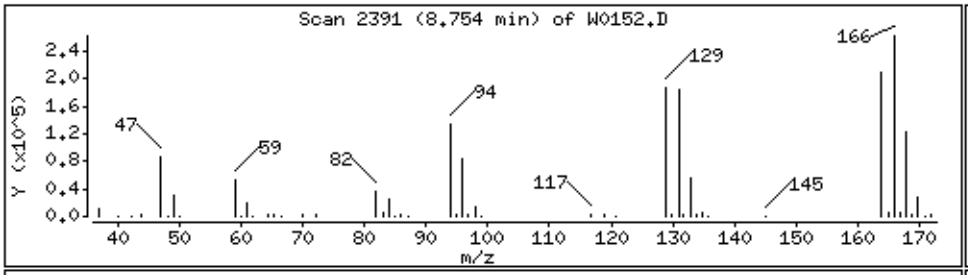
Data File: \\target_server\gg\chem\gcms-w.i\W092221.b\W0152.D

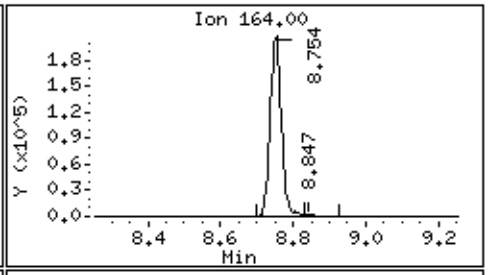
Date : 22-SEP-2021 10:56

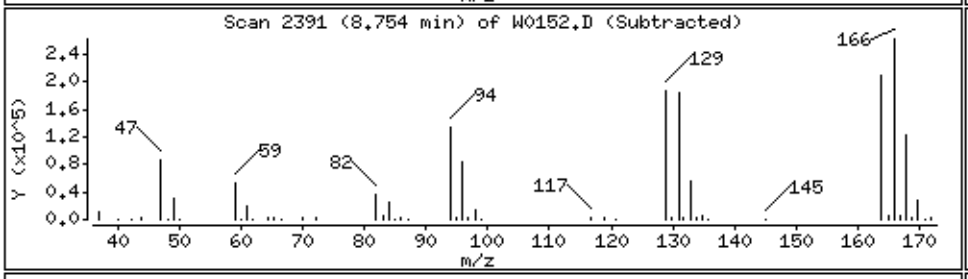
Client ID: VA-MW-85R-3(2021091 Instrument: gcms-w.i

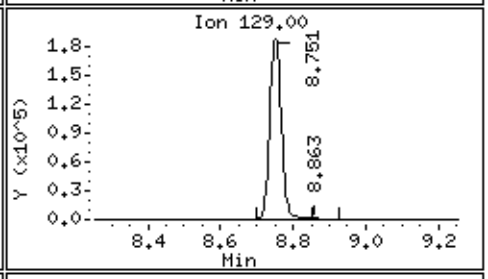
Sample Info: S06313-13DL

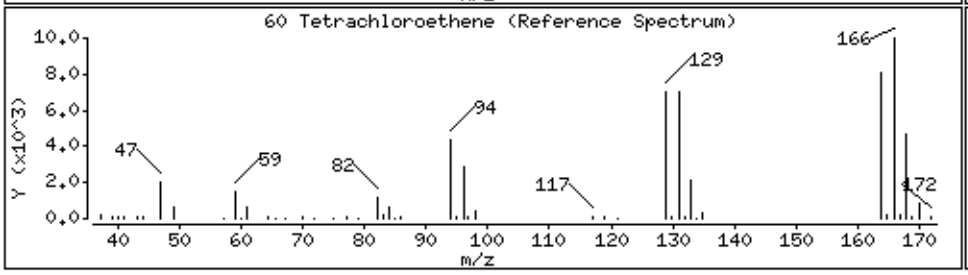
60 Tetrachloroethene Concentration: 17900 ug/l

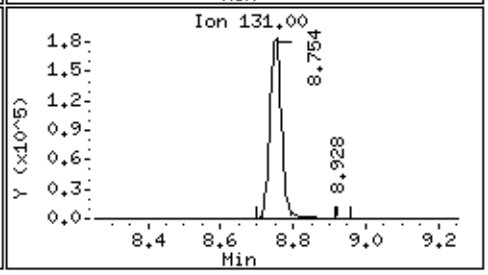








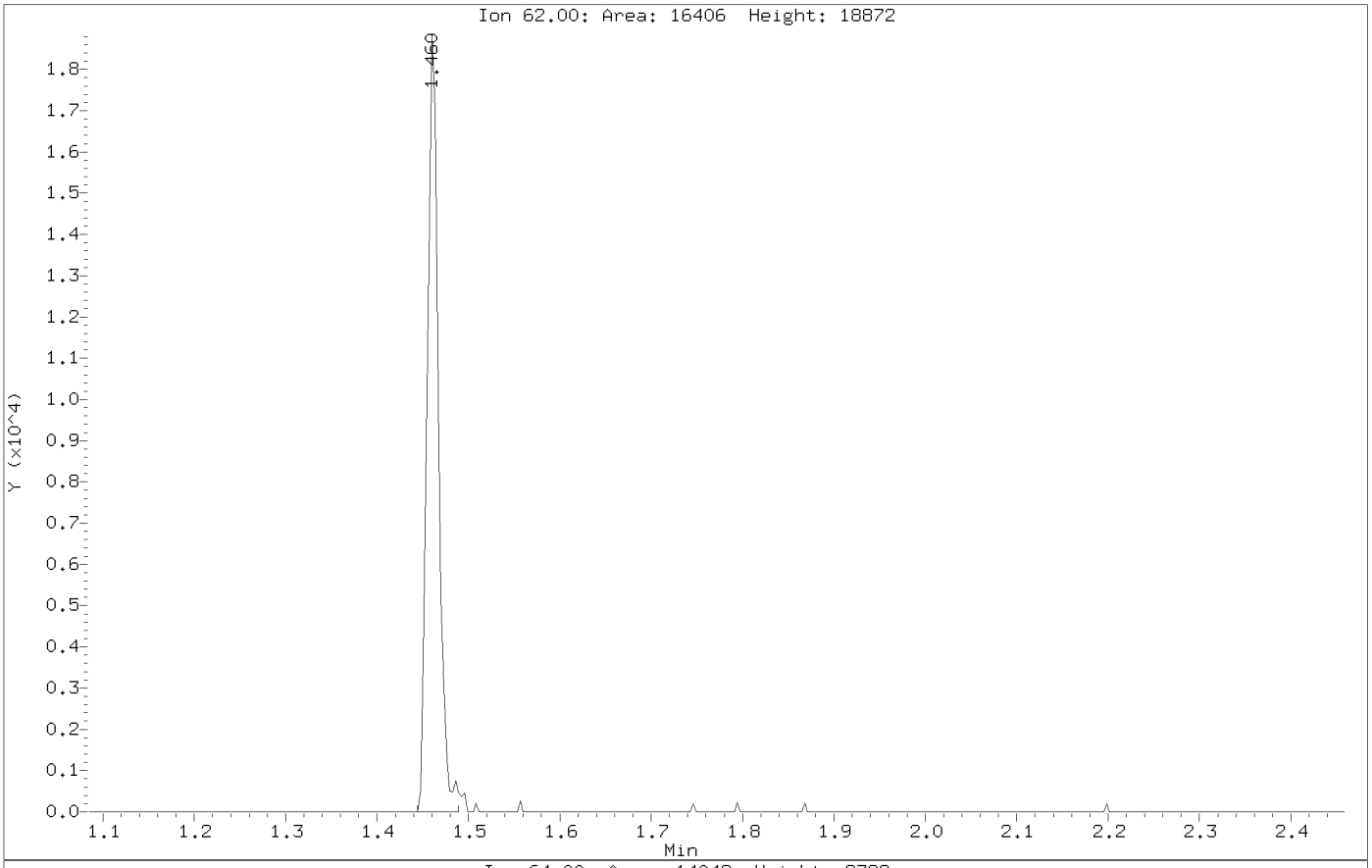


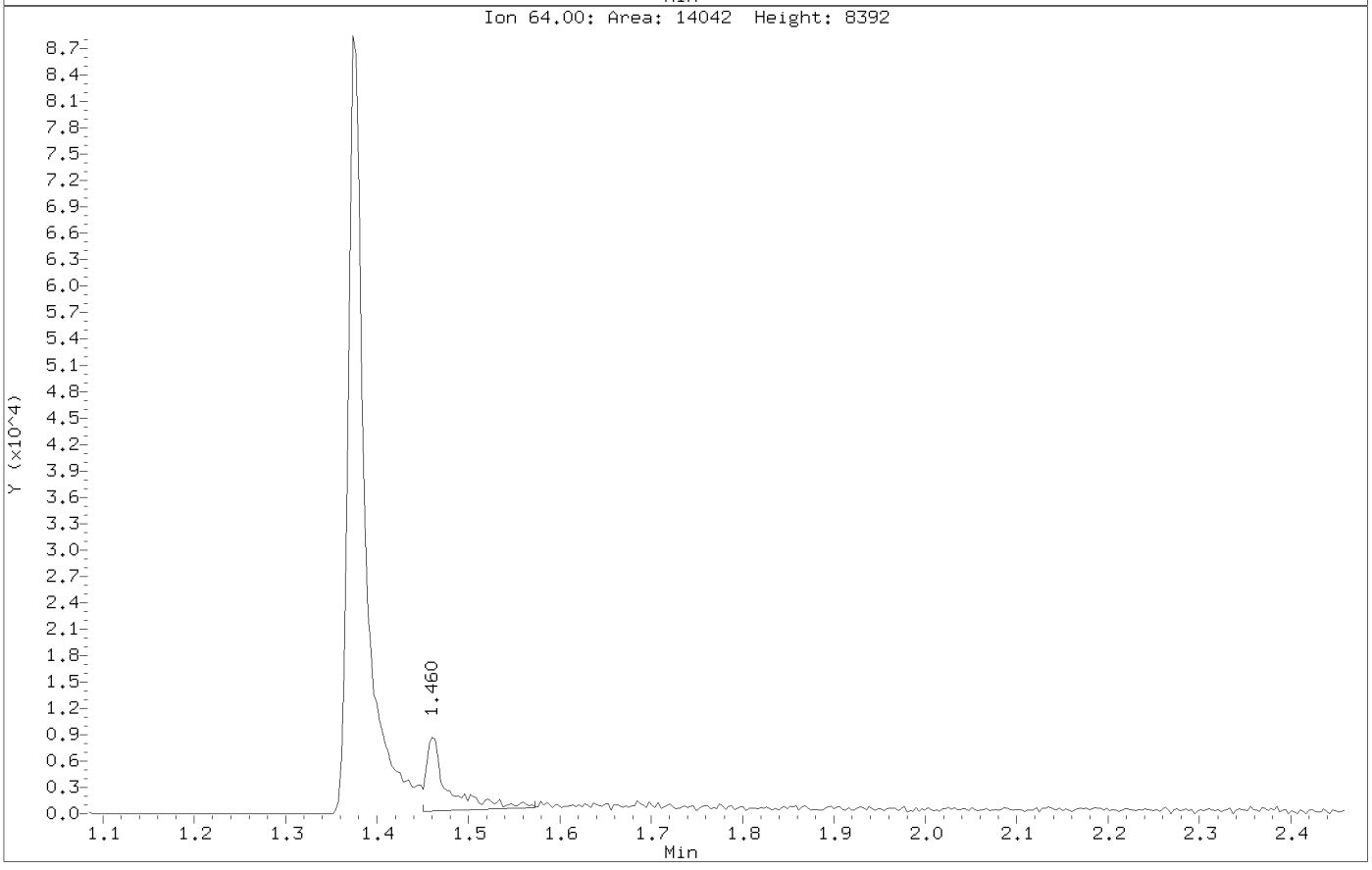


BEFORE MANUAL INTEGRATION

Data File: \\target_server\gg\chem\gcms-w.i\W092221.b\W0152.D
Injection Date: 22-SEP-2021 10:56
Instrument: gcms-w.i
Client Sample ID: VA-MW-85R-3(2021091

Compound: Vinyl chloride
CAS Number: 75-01-4

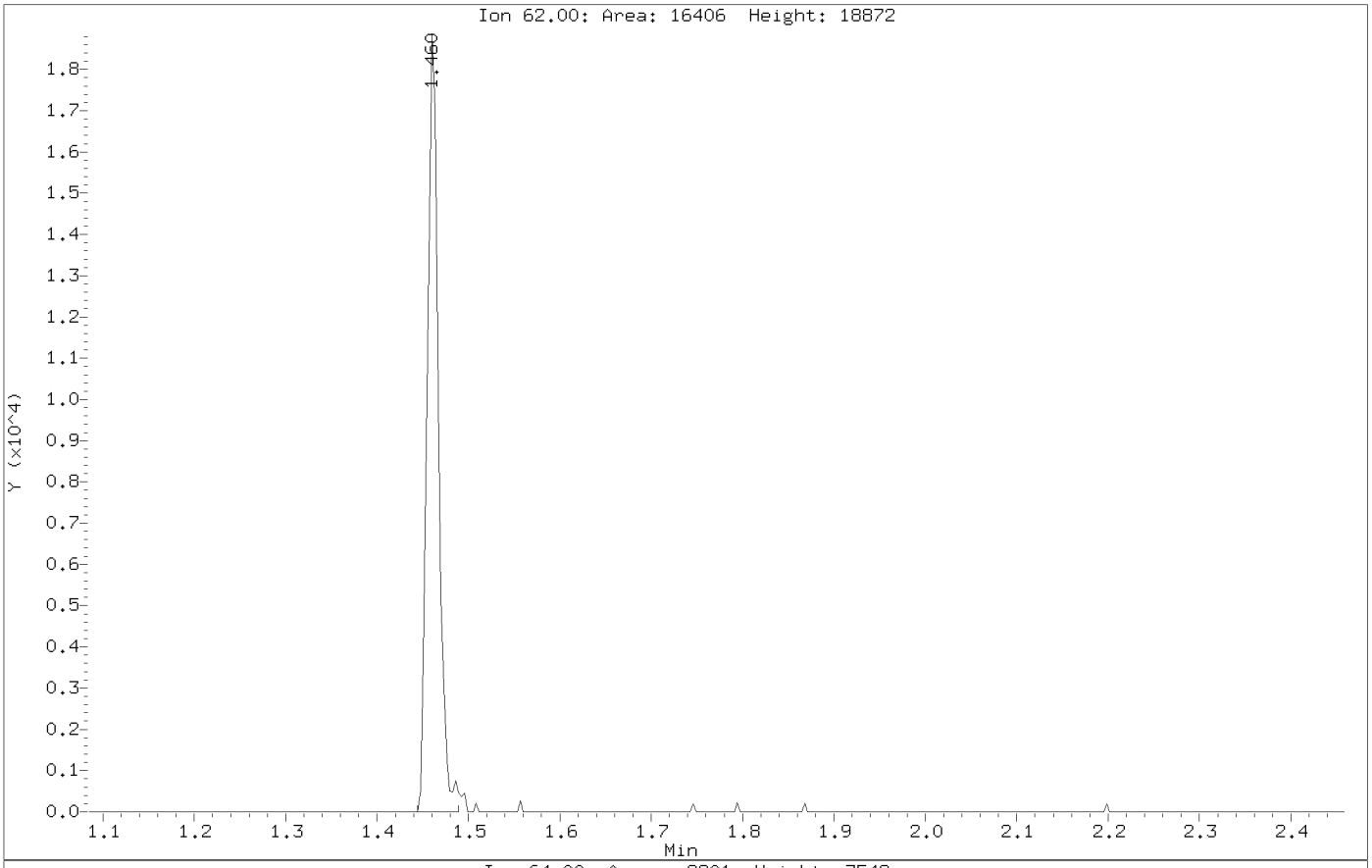


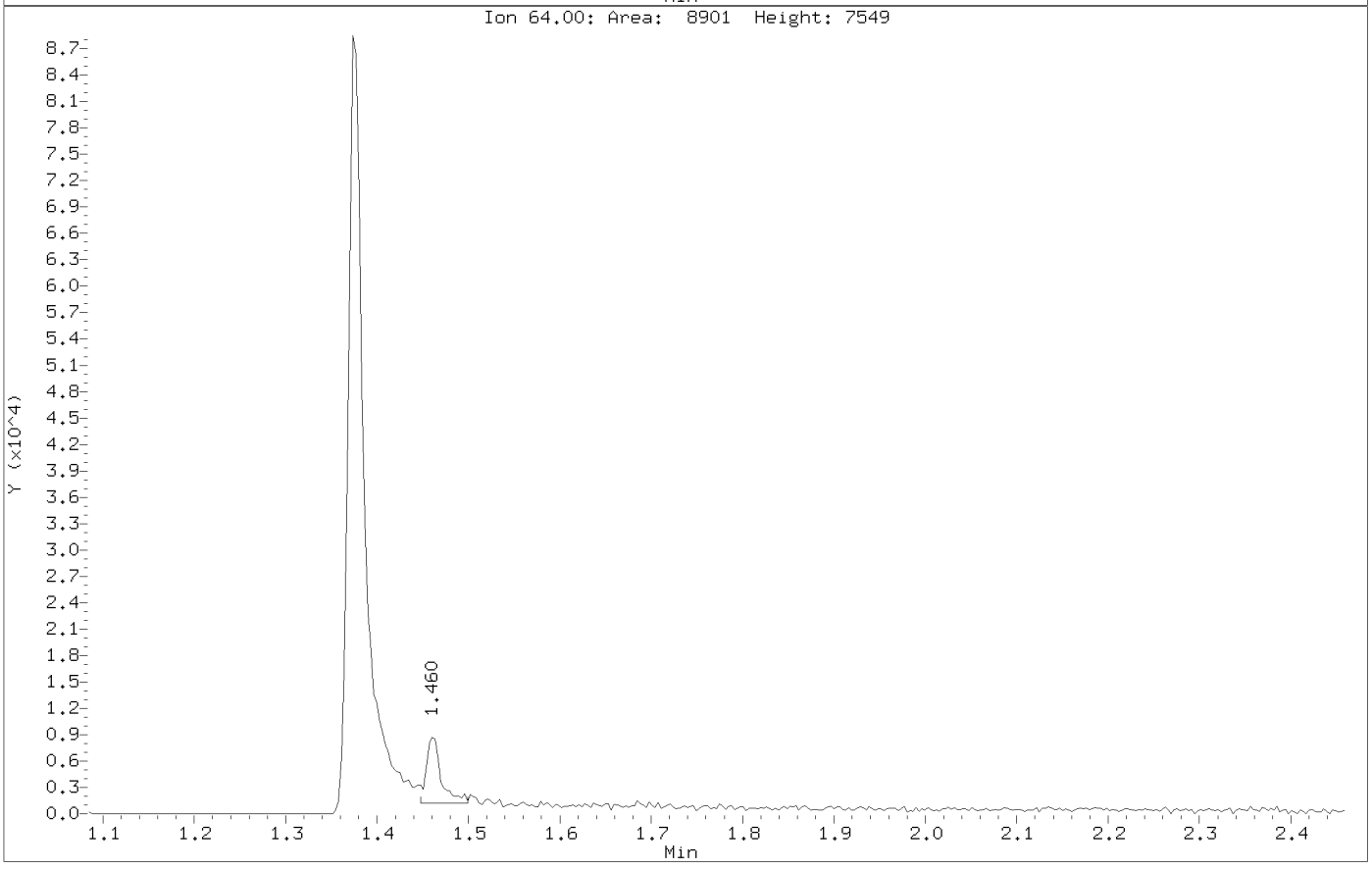


Data File: \\target_server\gg\chem\gcms-w.i\W092221.b\W0152.D
Injection Date: 22-SEP-2021 10:56
Instrument: gcms-w.i
Client Sample ID: VA-MW-85R-3(2021091

Compound: Vinyl chloride
CAS Number: 75-01-4

AFTER MANUAL INTEGRATION





Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-13DL2
Client ID: WVA-MW-85R-3(20210915)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0164.D

Sample Date: 15-SEP-21
Received Date: 18-SEP-21
Extract Date: 22-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306464

Analysis Date: 22-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	40.	ug/L	20	2	40.
Vinyl Chloride		570	ug/L	20	2	40.
Bromomethane	U	40.	ug/L	20	2	40.
Chloroethane	U	40.	ug/L	20	2	40.
Trichlorofluoromethane	U	40.	ug/L	20	2	40.
1,1-Dichloroethene	U	20.	ug/L	20	1	20.
Carbon Disulfide	U	20.	ug/L	20	1	20.
Methylene Chloride	U	100	ug/L	20	5	100
trans-1,2-Dichloroethene	U	20.	ug/L	20	1	20.
1,1-Dichloroethane	U	20.	ug/L	20	1	20.
cis-1,2-Dichloroethene		1500	ug/L	20	1	20.
Chloroform	U	20.	ug/L	20	1	20.
Carbon Tetrachloride	U	20.	ug/L	20	1	20.
1,1,1-Trichloroethane	U	20.	ug/L	20	1	20.
2-Butanone	U	100	ug/L	20	5	100
Benzene	U	20.	ug/L	20	1	20.
1,2-Dichloroethane	U	20.	ug/L	20	1	20.
Trichloroethene		1500	ug/L	20	1	20.
1,2-Dichloropropane	U	20.	ug/L	20	1	20.
Bromodichloromethane	U	20.	ug/L	20	1	20.
cis-1,3-Dichloropropene	U	20.	ug/L	20	1	20.
Toluene	U	20.	ug/L	20	1	20.
4-Methyl-2-Pentanone	U	100	ug/L	20	5	100
Tetrachloroethene	E	19000	ug/L	20	1	20.
trans-1,3-Dichloropropene	U	20.	ug/L	20	1	20.
1,1,2-Trichloroethane	U	20.	ug/L	20	1	20.
Dibromochloromethane	U	20.	ug/L	20	1	20.
Chlorobenzene	U	20.	ug/L	20	1	20.
Ethylbenzene	U	20.	ug/L	20	1	20.
m+p-Xylenes	U	40.	ug/L	20	2	40.
o-Xylene	U	20.	ug/L	20	1	20.
Bromoform	U	20.	ug/L	20	1	20.
1,1,2,2-Tetrachloroethane	U	20.	ug/L	20	1	20.
P-Bromofluorobenzene		98.2	%			
Toluene-d8		98.5	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-13DL2
Client ID: WVA-MW-85R-3(20210915)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0164.D

Sample Date: 15-SEP-21
Received Date: 18-SEP-21
Extract Date: 22-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306464

Analysis Date: 22-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		117.	%			
Dibromofluoromethane		106.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Data File: \\target_server\gg\chem\gcms-w.i\W092221.b\W0164.D
Report Date: 12-Oct-2021 08:54

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-w.i\W092221.b\W0164.D
Lab Smp Id: SO6313-13DL2 Client Smp ID: VA-MW-85R-3(2021091
Inj Date : 22-SEP-2021 17:04
Operator : ES Inst ID: gcms-w.i
Smp Info : SO6313-13DL2
Misc Info : WG306464,WG306464-4
Comment : SW846 5030
Method : \\target_server\gg\chem\gcms-w.i\W092221.b\W8A05(08).m
Meth Date : 11-Oct-2021 13:03 hgould Quant Type: ISTD
Cal Date : 20-SEP-2021 11:30 Cal File: W0105.D
Als bottle: 20
Dil Factor: 20.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.12

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

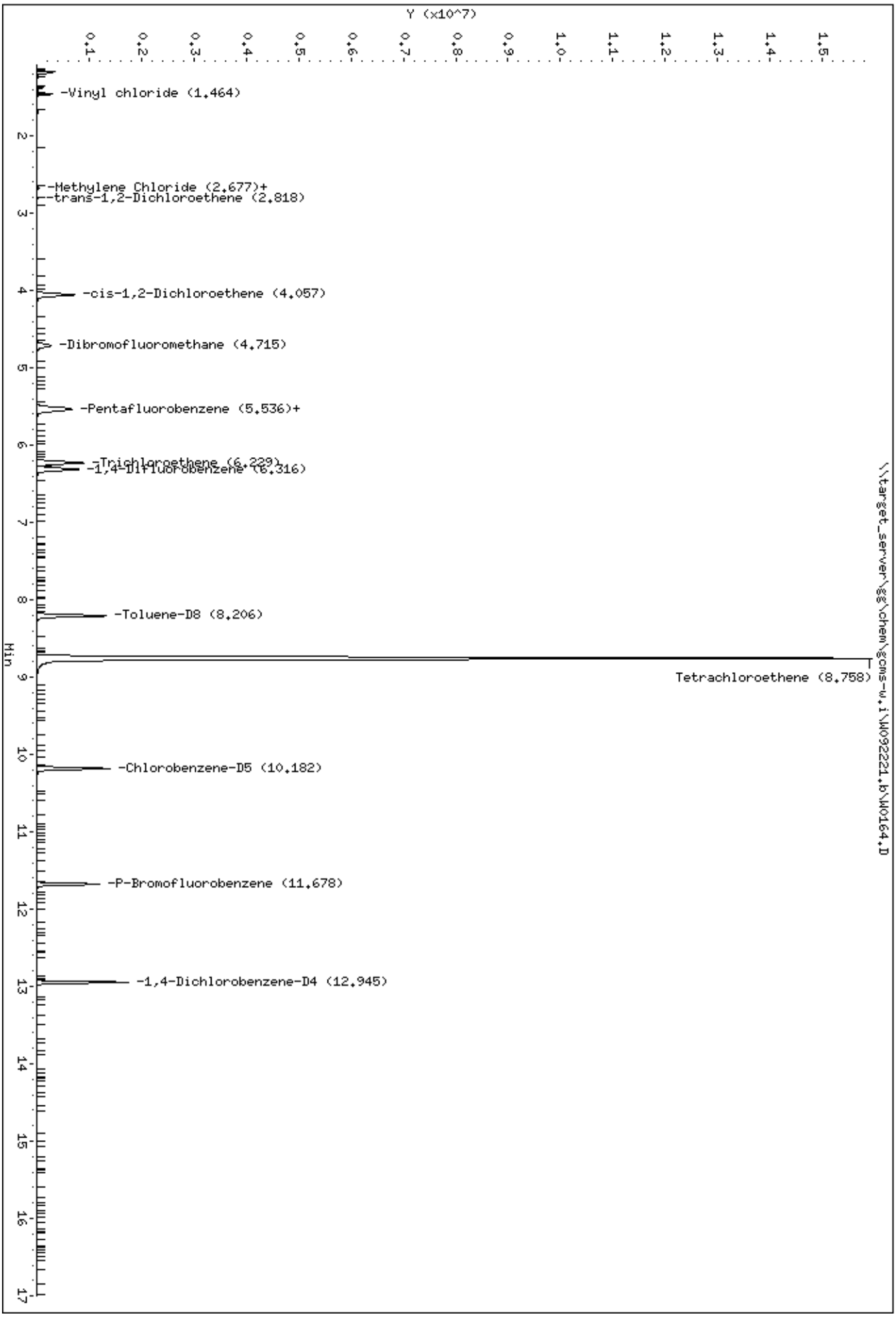
Name	Value	Description
DF	20.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

10:20 am, Oct 12, 2021

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)	REVIEW CODE
	3 Vinyl chloride	62	1.463	1.460	(0.265)	149000	28.4842	570(M)	M10
	14 Methylene Chloride	84	2.676	2.677	(0.484)	16823	3.58562	71.7(a)	
	15 Acetone	43	2.721	2.725	(0.493)	4683	3.60049	72.0(aM)	M9
	16 trans-1,2-Dichloroethene	96	2.818	2.815	(0.510)	3956	0.78475	15.7(a)	
	27 cis-1,2-Dichloroethene	96	4.059	4.056	(0.735)	405005	75.4344	1510	
$	34 Dibromofluoromethane	113	4.714	4.714	(0.853)	252988	53.0624	53.1	
*	41 Pentafluorobenzene	168	5.526	5.526	(1.000)	476031	50.0000		
$	42 1,2-Dichloroethane-D4	65	5.548	5.549	(1.004)	363955	58.6064	58.6	
	47 Trichloroethene	95	6.229	6.226	(0.986)	404296	74.9879	1500	
*	48 1,4-Difluorobenzene	114	6.315	6.315	(1.000)	849669	50.0000		
$	58 Toluene-D8	98	8.209	8.209	(1.300)	1000470	49.2348	49.2	
	60 Tetrachloroethene	164	8.757	8.754	(0.860)	4277530	933.804	18700(A)	
*	68 Chlorobenzene-D5	117	10.182	10.182	(1.000)	797107	50.0000		
$	77 P-Bromofluorobenzene	95	11.677	11.678	(1.849)	417466	49.0983	49.1	
*	93 1,4-Dichlorobenzene-D4	152	12.945	12.948	(1.000)	409046	50.0000		
M	97 1,2-Dichloroethylene (total)	96				408961	76.2192	1520	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount
exceeded maximum amount.
M - Compound response manually integrated.


Y (x10^7)
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0
1.1
1.2
1.3
1.4
1.5
Min
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
-Vinyl chloride (1.464)
-Methylene Chloride (2.677)+
-trans-1,2-Dichloroethene (2.818)
-cis-1,2-Dichloroethene (4.057)
-Dibromofluoromethane (4.715)
-Pentafluorobenzene (5.536)+
-Trichloroethene (6.229)
-1,4-Difluorobenzene (6.316)
-Toluene-D8 (8.206)
Tetrachloroethene (8.758)
-Chlorobenzene-D5 (10.182)
-P-Bromofluorobenzene (11.678)
-1,4-Dichlorobenzene-D4 (12.945)
\\target_server\gg\chem\gcms-w.i\W092221.b\W0164.D
Data File: \\target_server\gg\chem\gcms-w.i\W092221.b\W0164.D
Date : 22-SEP-2021 17:04
Client ID: VA-MW-85R-3(2021091
Sample Info: SD6313-13DL2
Instrument: gcms-w.i

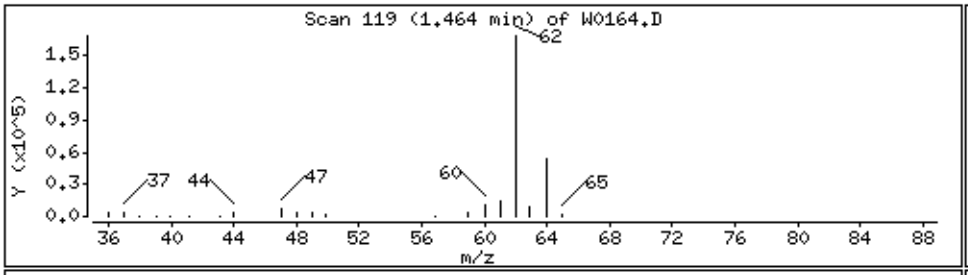
Data File: \\target_server\gg\chem\gcms-w.i\W092221.b\W0164.D

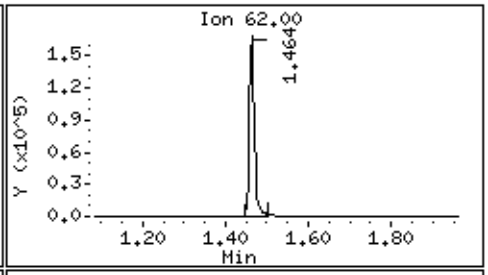
Date : 22-SEP-2021 17:04

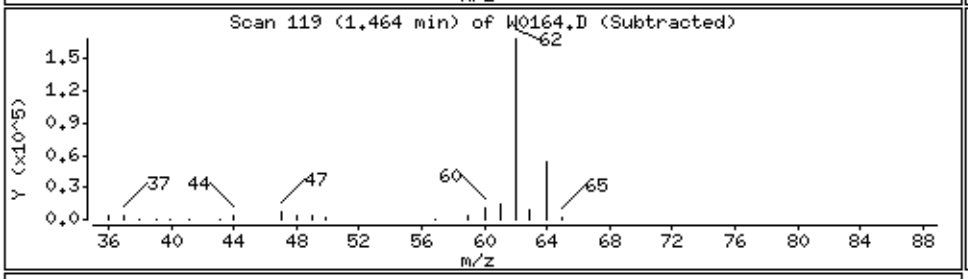
Client ID: VA-MW-85R-3(2021091 Instrument: gcms-w.i

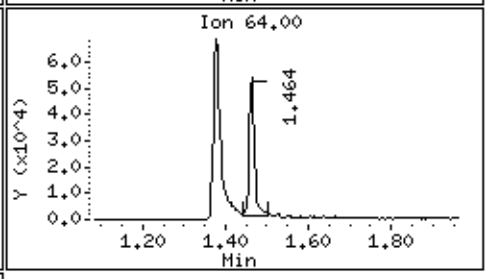
Sample Info: S06313-13DL2

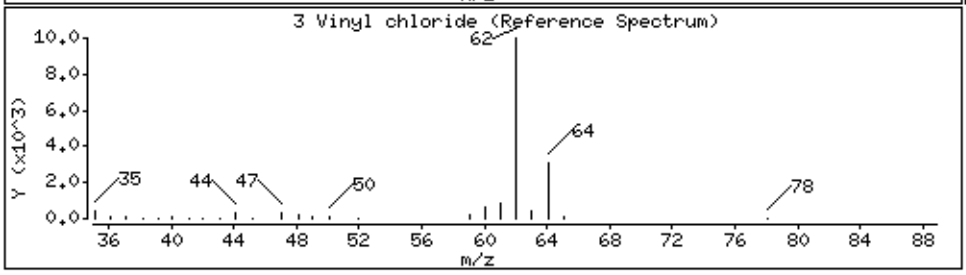
3 Vinyl chloride Concentration: 570 ug/l



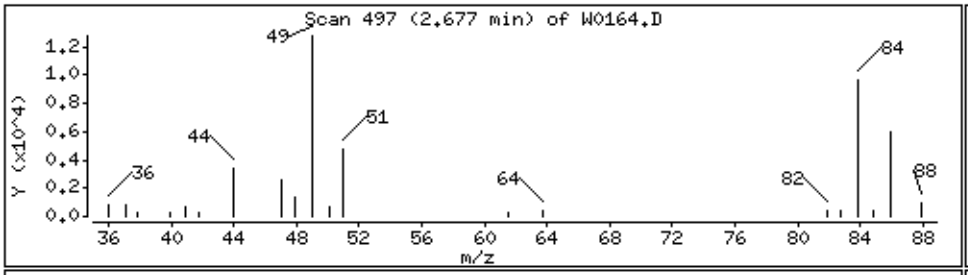


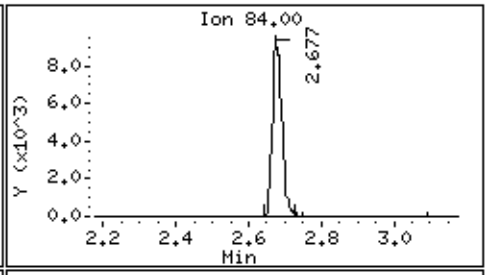


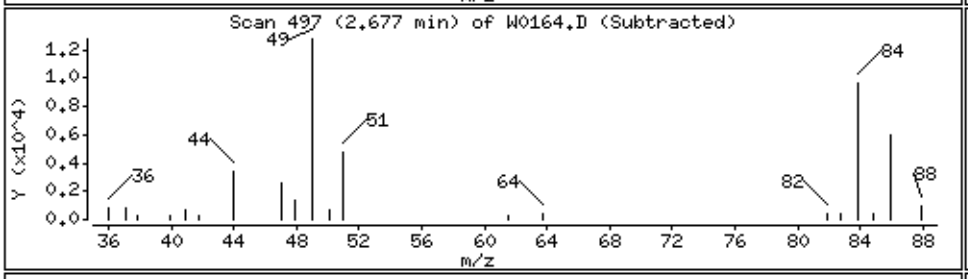


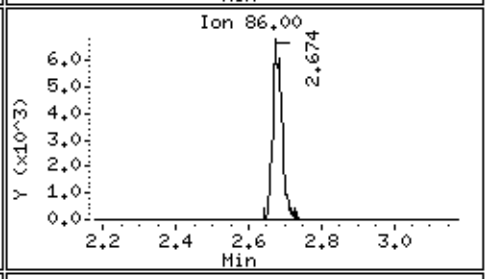


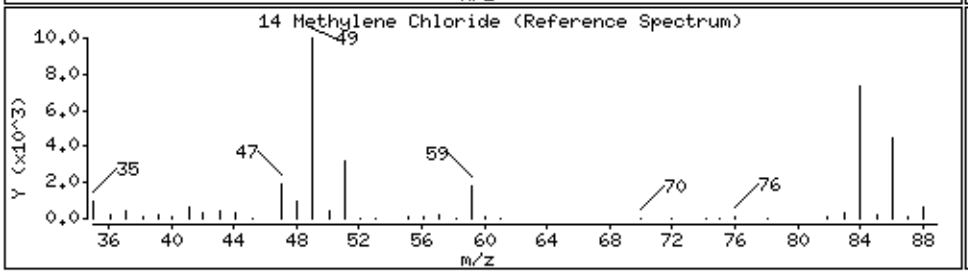
14 Methylene Chloride Concentration: 71.7 ug/l

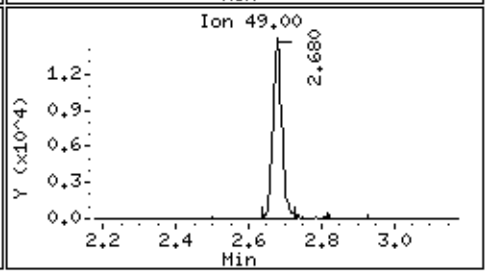












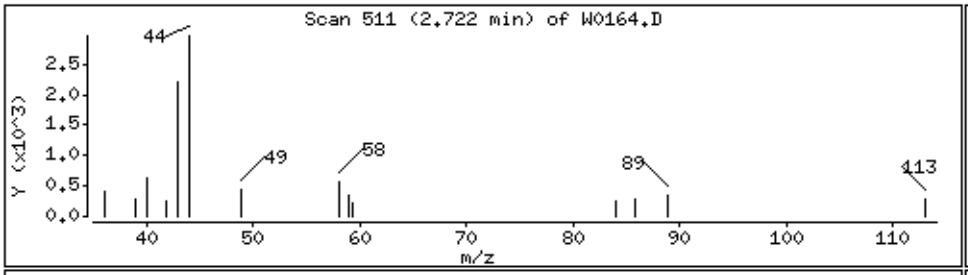
Data File: \\target_server\gg\chem\gcms-w.i\W092221.b\W0164.D

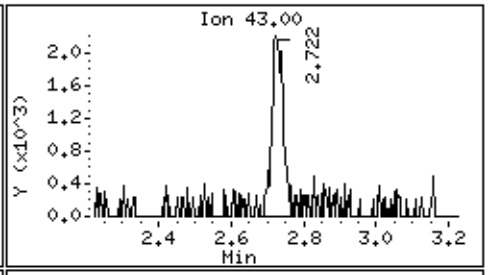
Date : 22-SEP-2021 17:04

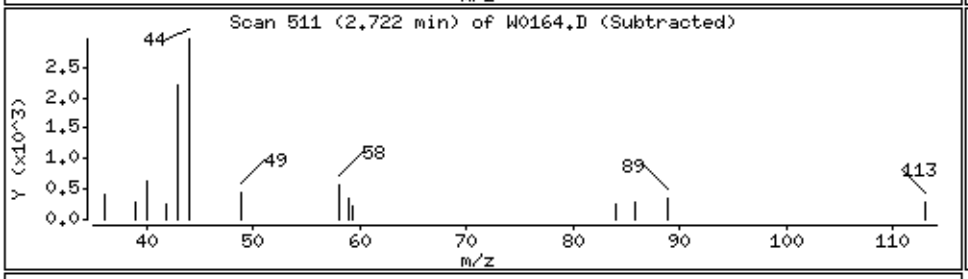
Client ID: VA-MW-85R-3(2021091 Instrument: gcms-w.i

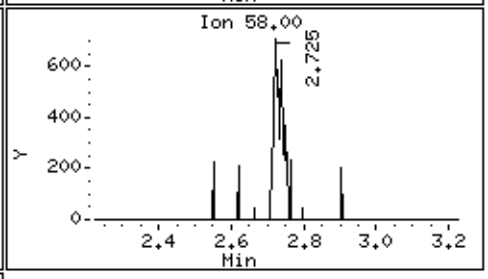
Sample Info: S06313-13DL2

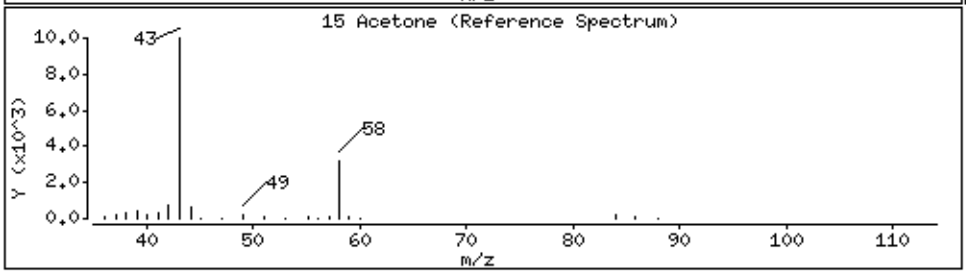
15 Acetone Concentration: 72.0 ug/l



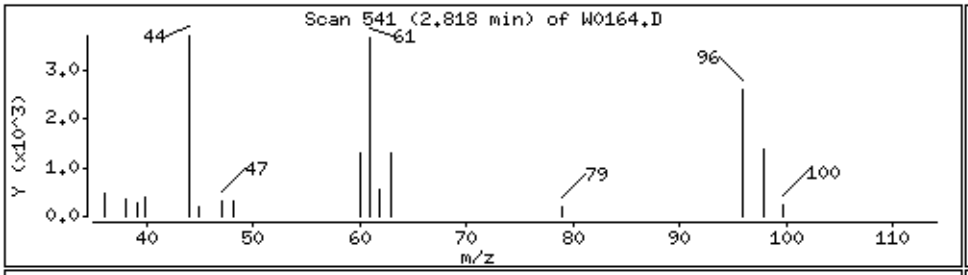


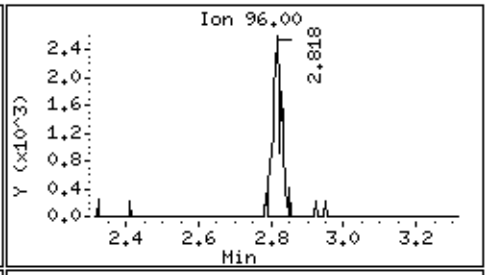


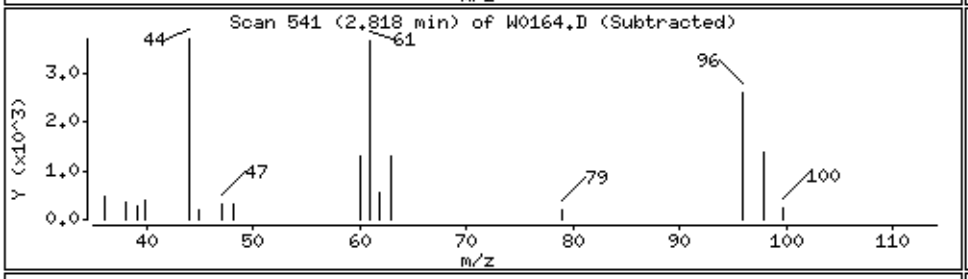


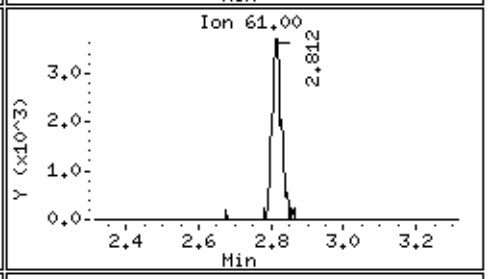


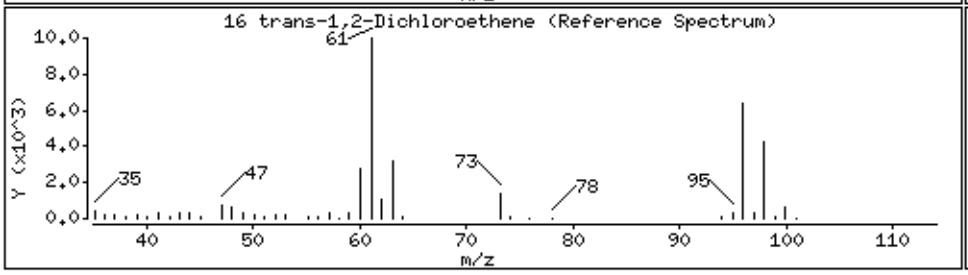
16 trans-1,2-Dichloroethene Concentration: 15.7 ug/l

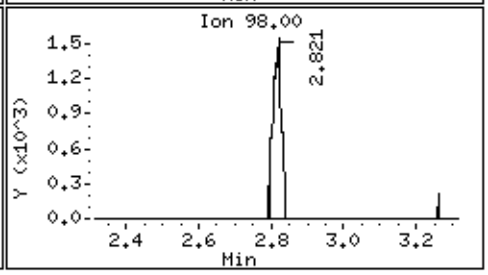












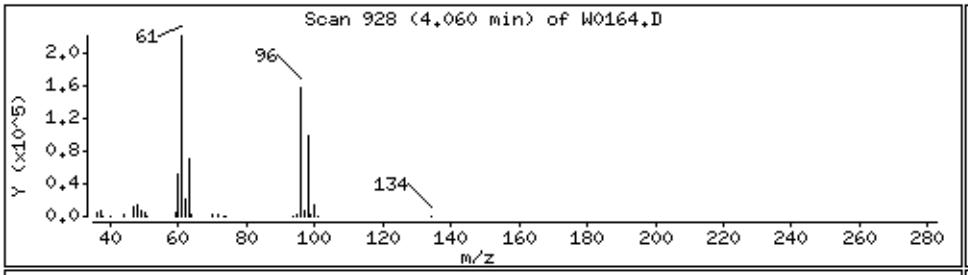
Data File: \\target_server\gg\chem\gcms-w.i\W092221.b\W0164.D

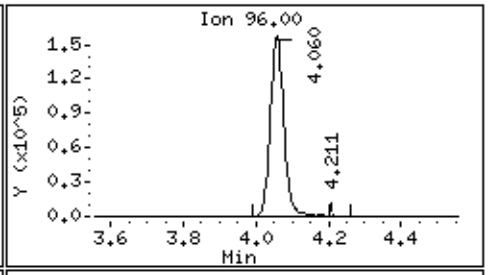
Date : 22-SEP-2021 17:04

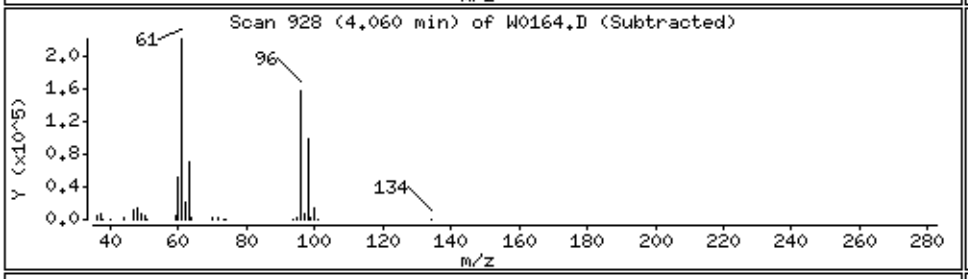
Client ID: VA-MW-85R-3(2021091 Instrument: gcms-w.i

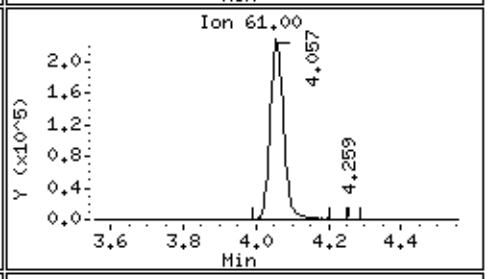
Sample Info: S06313-13DL2

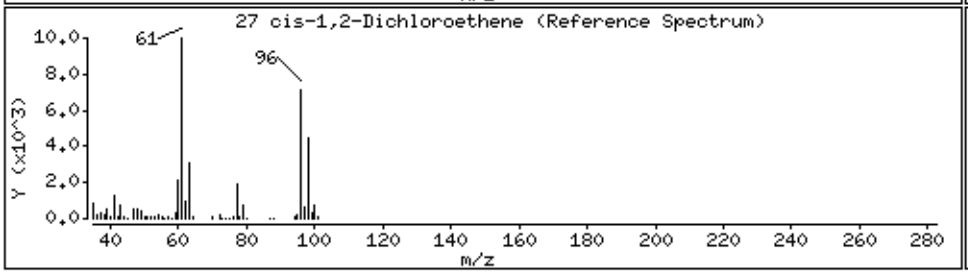
27 cis-1,2-Dichloroethene Concentration: 1510 ug/l

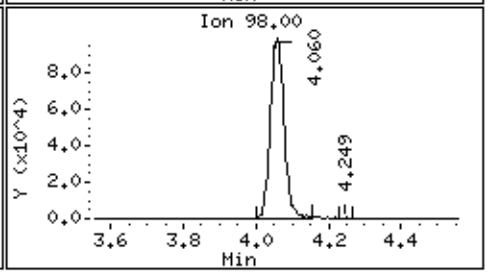




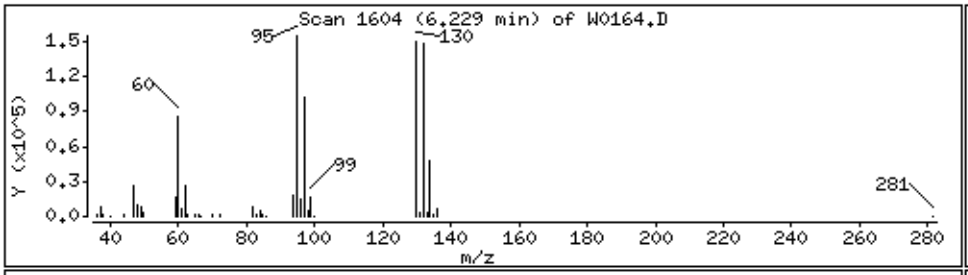


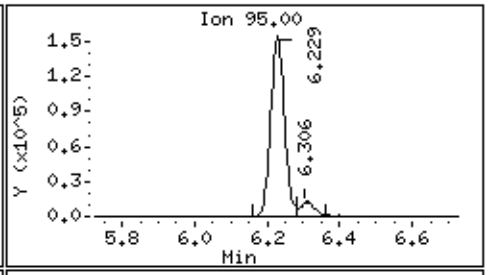


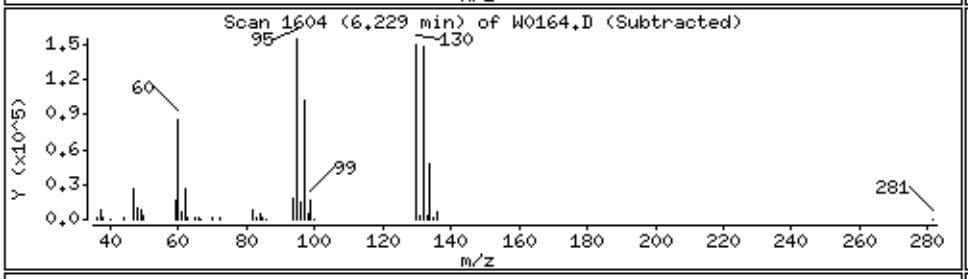


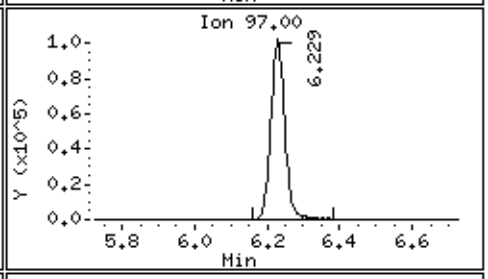


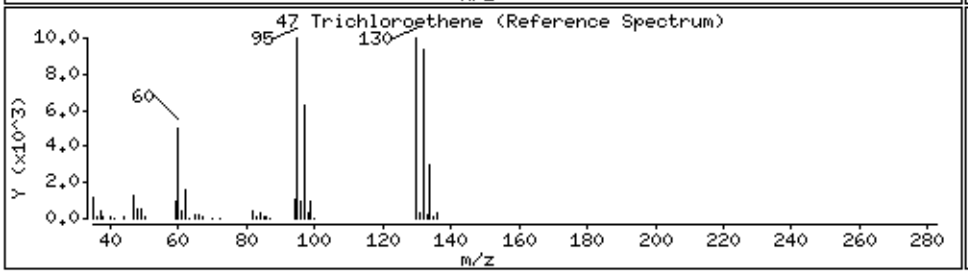
47 Trichloroethene Concentration: 1500 ug/l

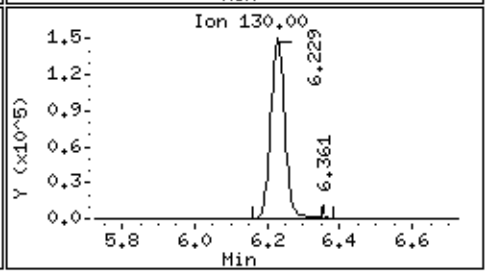












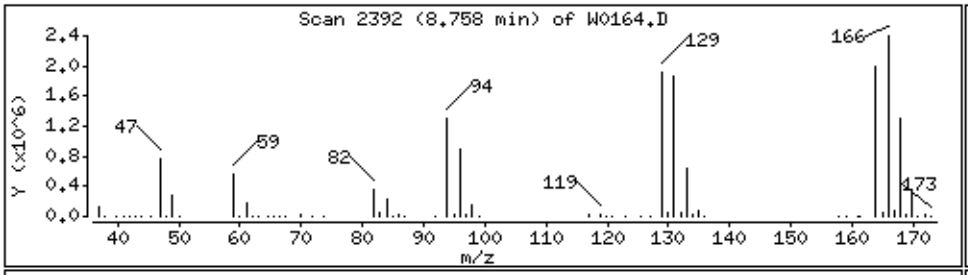
Data File: \\target_server\gg\chem\gcms-w.i\W092221.b\W0164.D

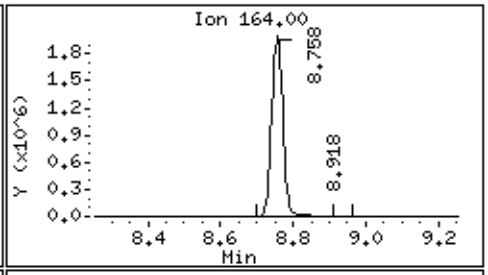
Date : 22-SEP-2021 17:04

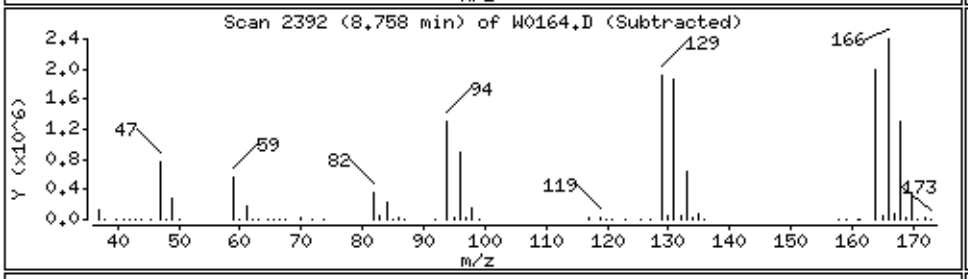
Client ID: VA-MW-85R-3(2021091 Instrument: gcms-w.i

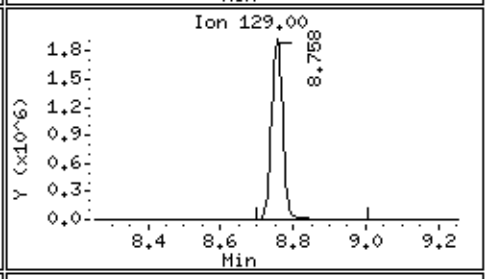
Sample Info: SO6313-13DL2

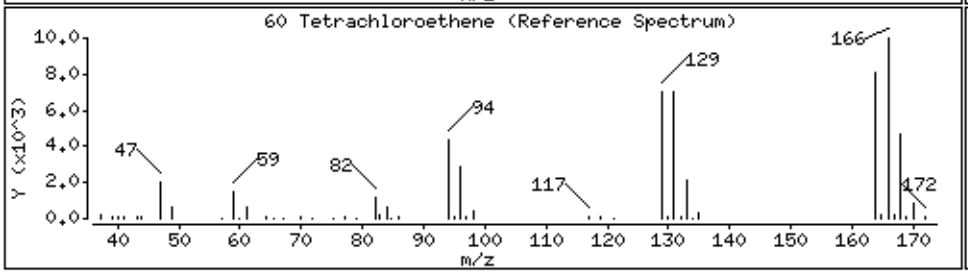
60 Tetrachloroethene Concentration: 18700 ug/l

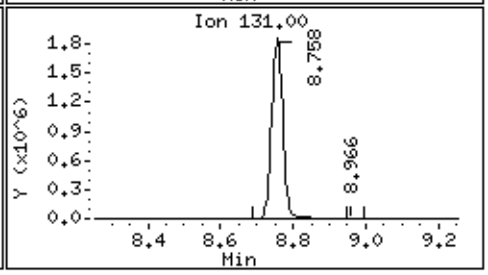








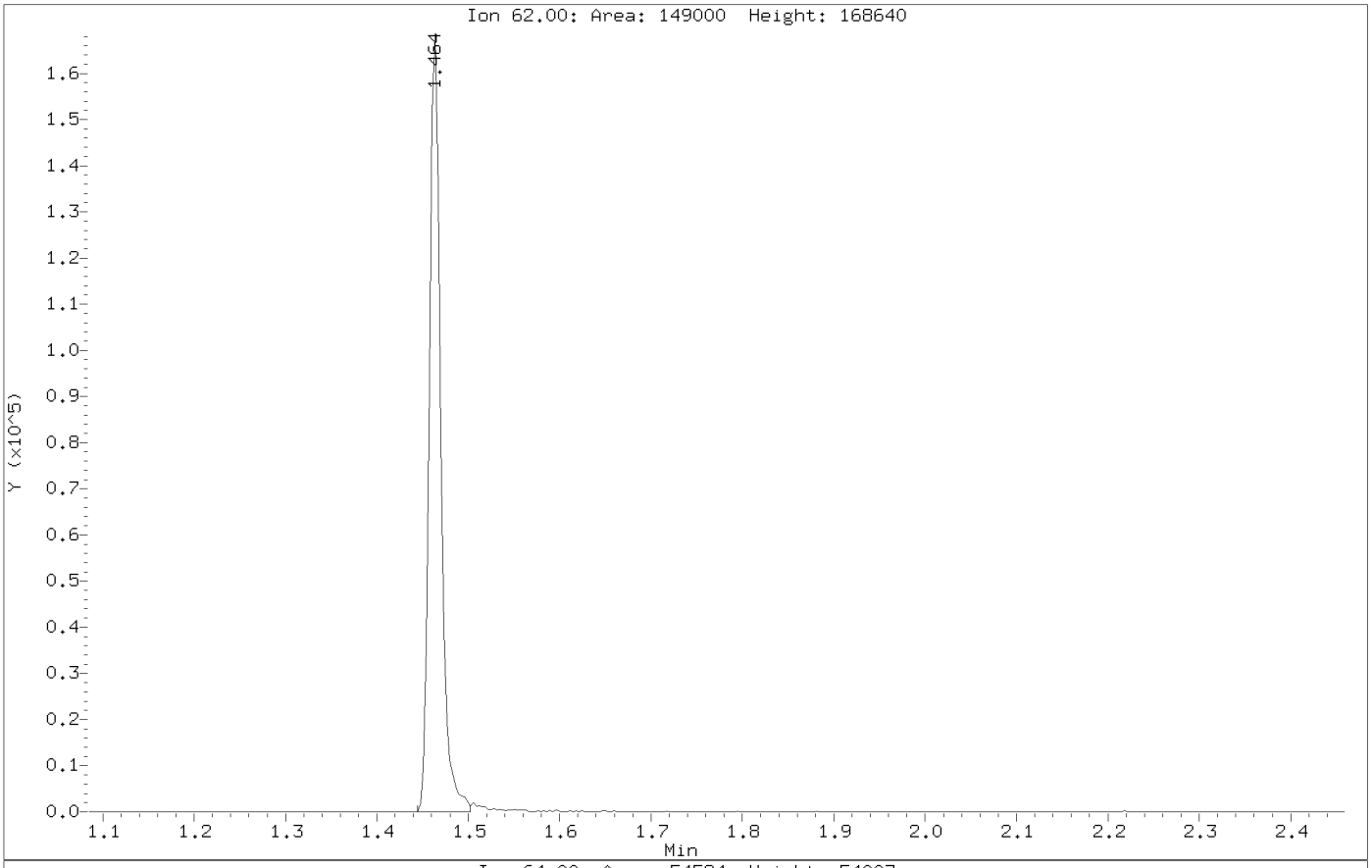


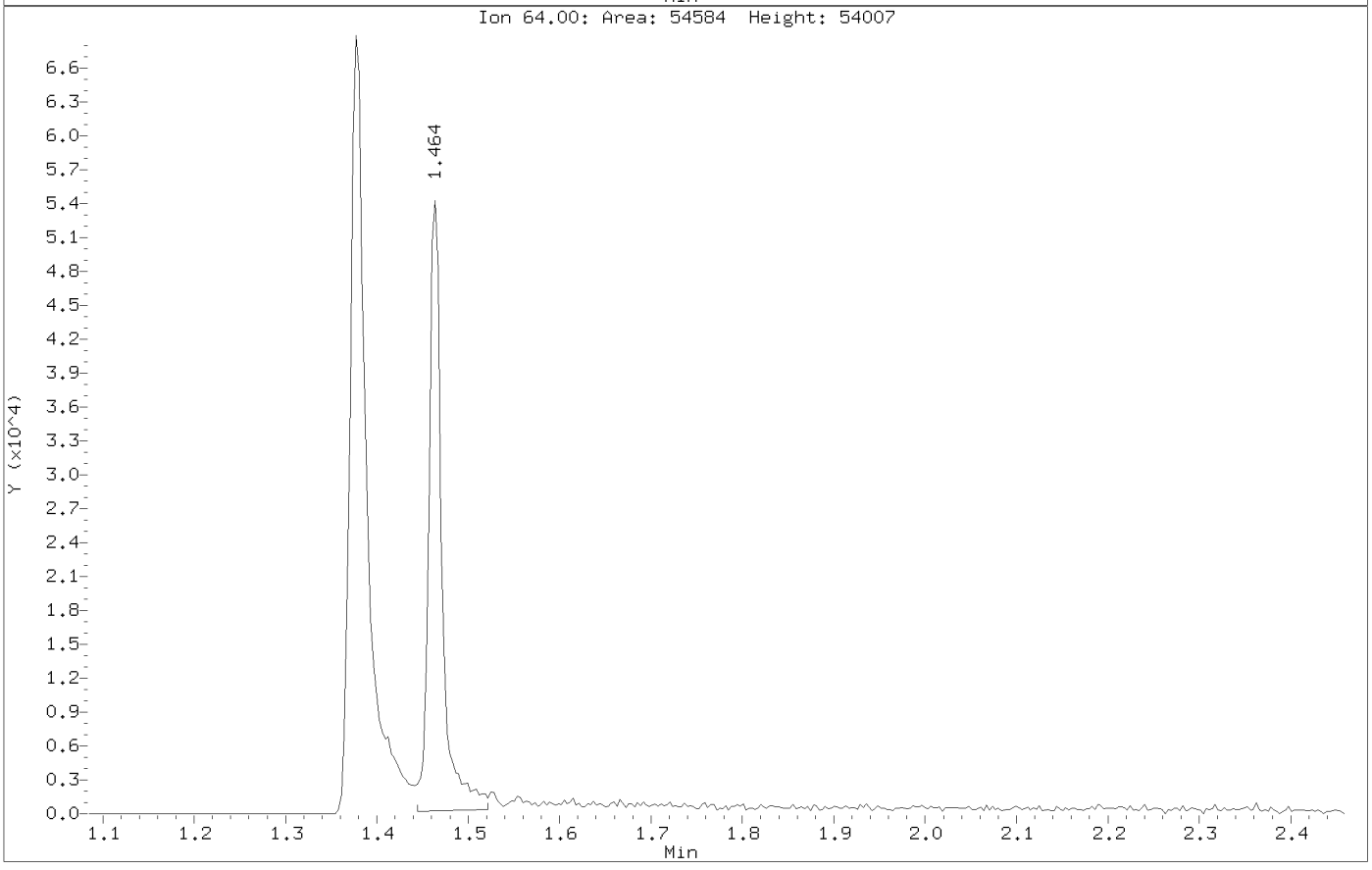


BEFORE MANUAL INTEGRATION

Data File: \\target_server\gg\chem\gcms-w.i\W092221.b\W0164.D
Injection Date: 22-SEP-2021 17:04
Instrument: gcms-w.i
Client Sample ID: VA-MW-85R-3(2021091

Compound: Vinyl chloride
CAS Number: 75-01-4

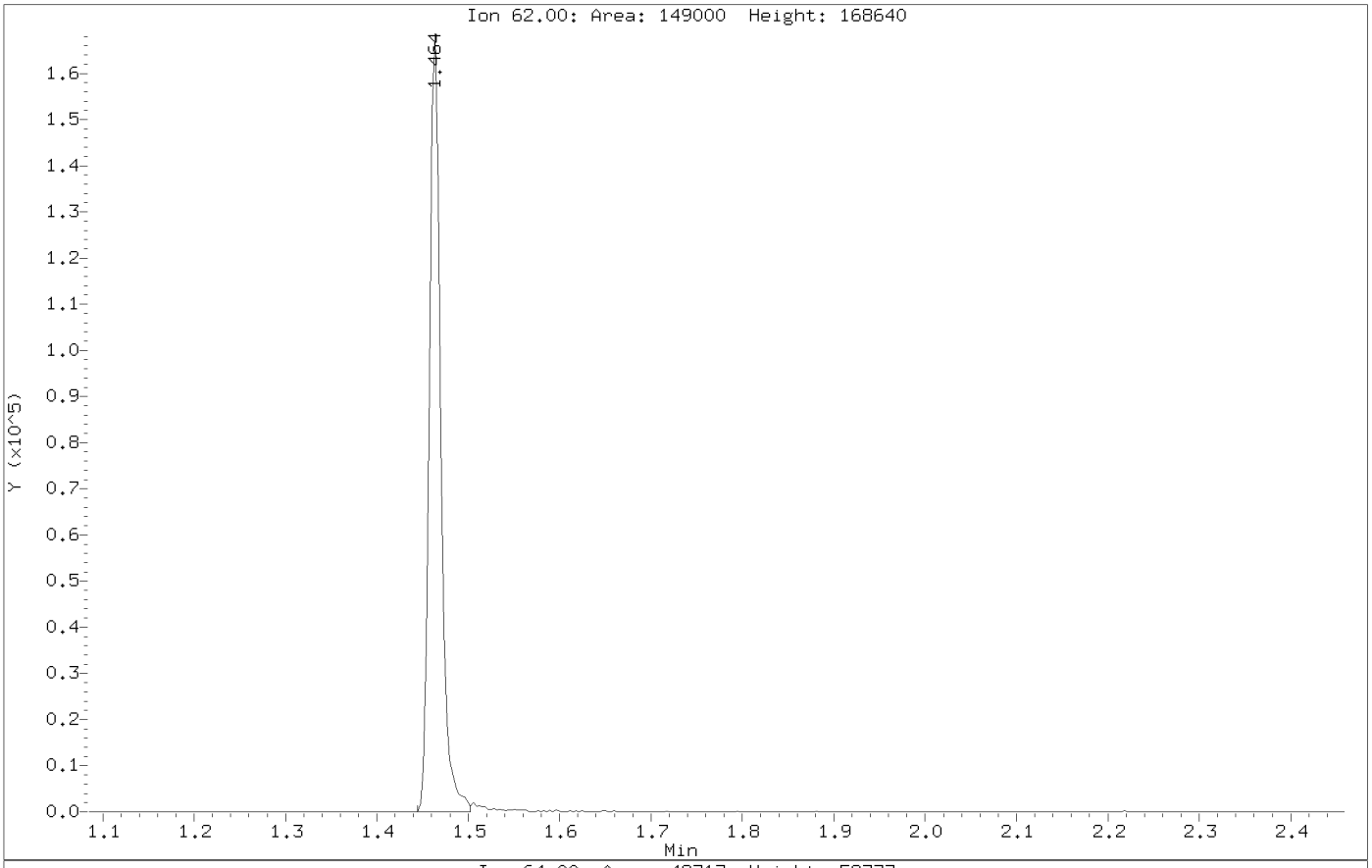


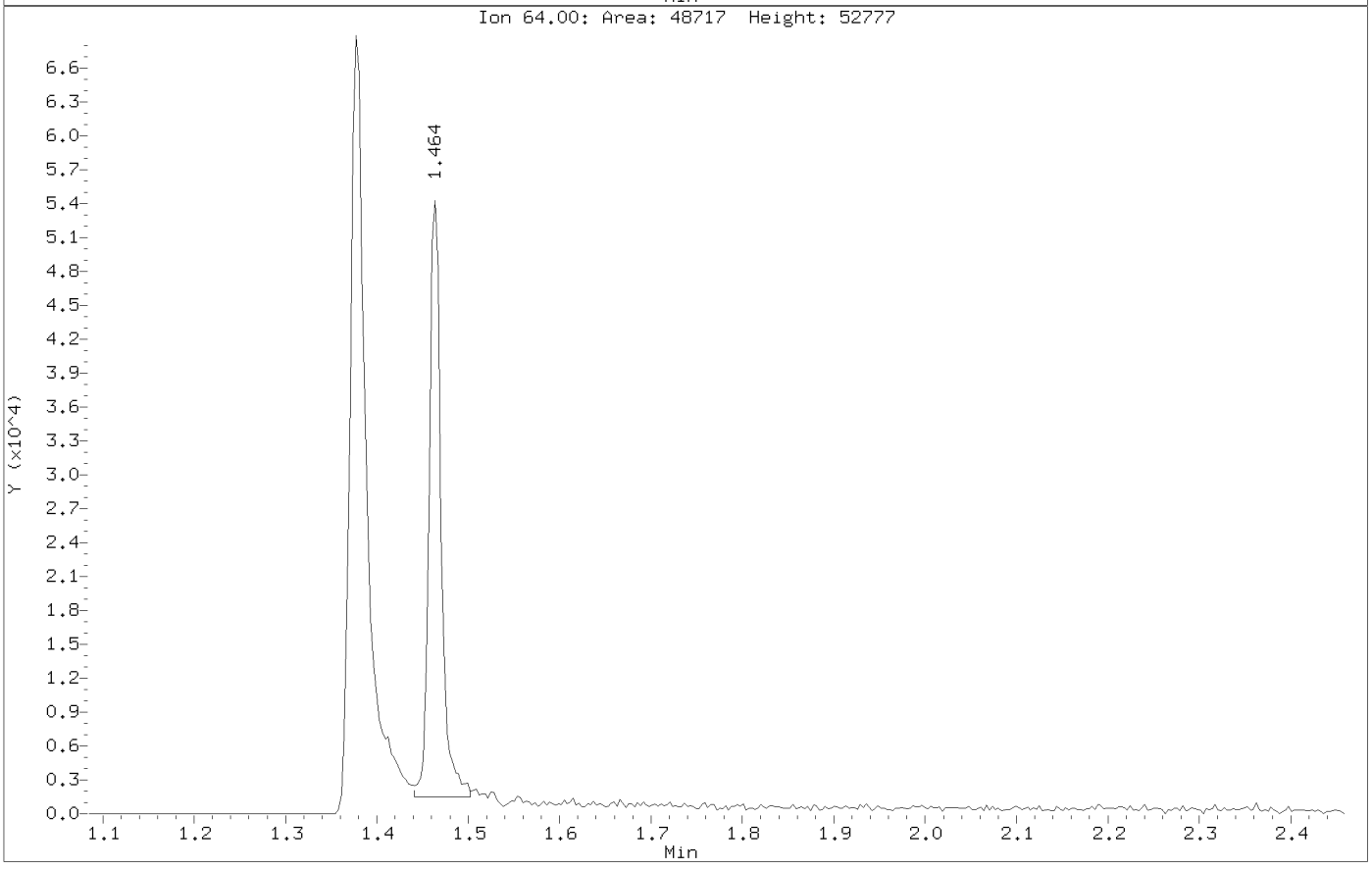


Data File: \\target_server\gg\chem\gcms-w.i\W092221.b\W0164.D
Injection Date: 22-SEP-2021 17:04
Instrument: gcms-w.i
Client Sample ID: VA-MW-85R-3(2021091

Compound: Vinyl chloride
CAS Number: 75-01-4

AFTER MANUAL INTEGRATION





Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-14DL
Client ID: WVA-MW-84R-1(20210915)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0222.D

Sample Date: 15-SEP-21
Received Date: 18-SEP-21
Extract Date: 24-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306608

Analysis Date: 24-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	100	ug/L	50	2	100
Vinyl Chloride		280	ug/L	50	2	100
Bromomethane	U	100	ug/L	50	2	100
Chloroethane	U	100	ug/L	50	2	100
Trichlorofluoromethane	U	100	ug/L	50	2	100
1,1-Dichloroethene	U	50.	ug/L	50	1	50.
Carbon Disulfide	U	50.	ug/L	50	1	50.
Methylene Chloride	U	250	ug/L	50	5	250
trans-1,2-Dichloroethene	U	50.	ug/L	50	1	50.
1,1-Dichloroethane	U	50.	ug/L	50	1	50.
cis-1,2-Dichloroethene		3300	ug/L	50	1	50.
Chloroform	U	50.	ug/L	50	1	50.
Carbon Tetrachloride	U	50.	ug/L	50	1	50.
1,1,1-Trichloroethane	U	50.	ug/L	50	1	50.
2-Butanone	U	250	ug/L	50	5	250
Benzene	U	50.	ug/L	50	1	50.
1,2-Dichloroethane	U	50.	ug/L	50	1	50.
Trichloroethene		300	ug/L	50	1	50.
1,2-Dichloropropane	U	50.	ug/L	50	1	50.
Bromodichloromethane	U	50.	ug/L	50	1	50.
cis-1,3-Dichloropropene	U	50.	ug/L	50	1	50.
Toluene	U	50.	ug/L	50	1	50.
4-Methyl-2-Pentanone	U	250	ug/L	50	5	250
Tetrachloroethene		230	ug/L	50	1	50.
trans-1,3-Dichloropropene	U	50.	ug/L	50	1	50.
1,1,2-Trichloroethane	U	50.	ug/L	50	1	50.
Dibromochloromethane	U	50.	ug/L	50	1	50.
Chlorobenzene	U	50.	ug/L	50	1	50.
Ethylbenzene	U	50.	ug/L	50	1	50.
m+p-Xylenes	U	100	ug/L	50	2	100
o-Xylene	U	50.	ug/L	50	1	50.
Bromoform	U	50.	ug/L	50	1	50.
1,1,2,2-Tetrachloroethane	U	50.	ug/L	50	1	50.
P-Bromofluorobenzene		99.4	%			
Toluene-d8		102.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-14DL
Client ID: WVA-MW-84R-1(20210915)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0222.D

Sample Date: 15-SEP-21
Received Date: 18-SEP-21
Extract Date: 24-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306608

Analysis Date: 24-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		110.	%			
Dibromofluoromethane		103.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Data File: \\target_server\gg\chem\gcms-w.i\W092421.b\W0222.D
Report Date: 12-Oct-2021 08:55

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-w.i\W092421.b\W0222.D
Lab Smp Id: SO6313-14DL Client Smp ID: VA-MW-84R-1(2021091
Inj Date : 24-SEP-2021 16:40
Operator : ES Inst ID: gcms-w.i
Smp Info : SO6313-14DL
Misc Info : WG306608,WG306608-4
Comment   : SW846 5030
Method   : \\target_server\gg\chem\gcms-w.i\W092421.b\W8A05(08A).m
Meth Date : 08-Oct-2021 09:51 gcms-w.i Quant Type: ISTD
Cal Date : 24-SEP-2021 11:36 Cal File: W0215.D
Als bottle: 17
Dil Factor: 50.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.12

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

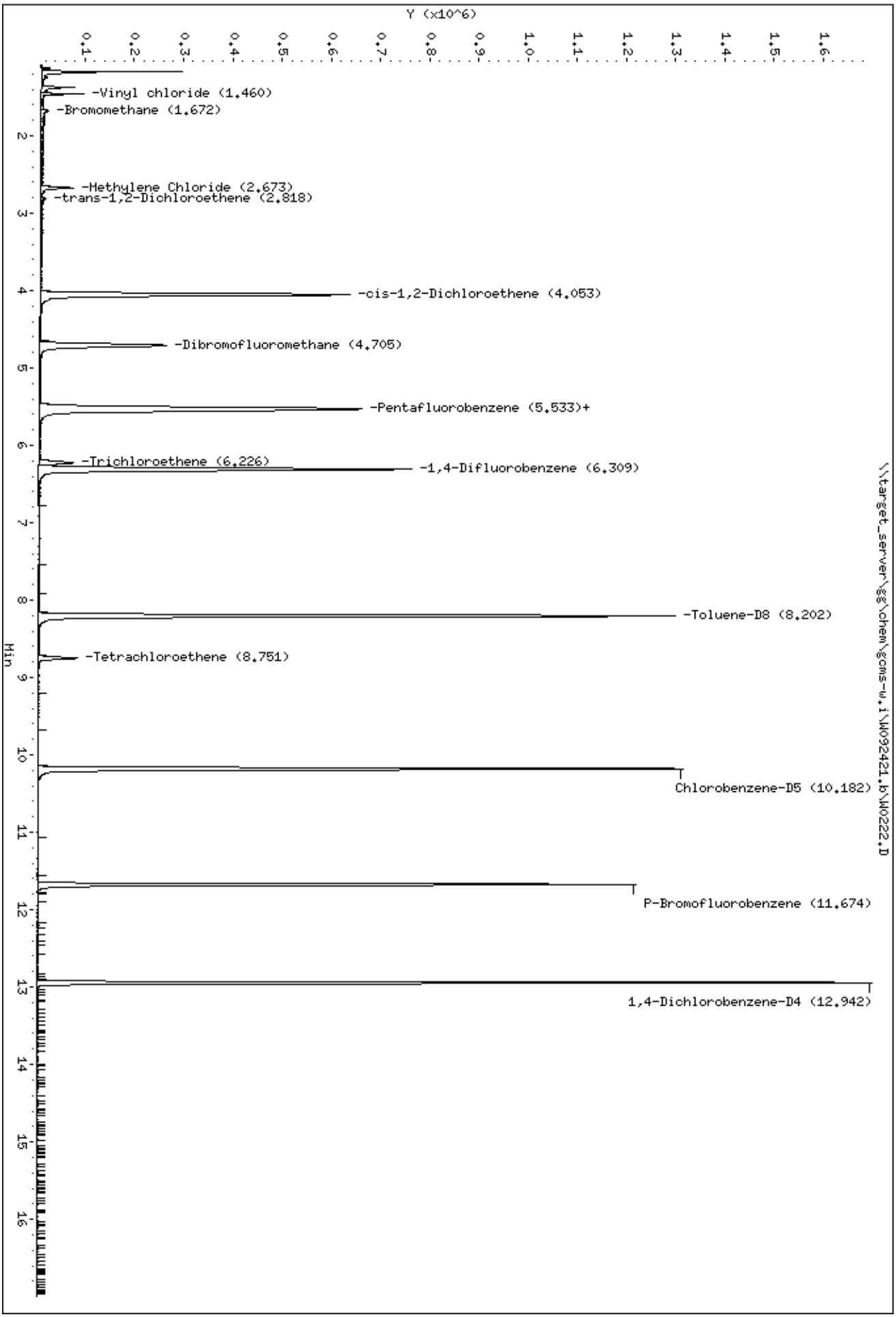
Name	Value	Description
DF	50.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

10:21 am, Oct 12, 2021

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)	REVIEW CODE
	3 Vinyl chloride	62	1.460	1.460	(0.264)	40420	5.70622	285(M)	M10
	4 Bromomethane	94	1.672	1.672	(0.303)	1601	0.68268	34.1(a)	
	14 Methylene Chloride	84	2.676	2.673	(0.485)	25974	4.80827	240(a)	
	16 trans-1,2-Dichloroethene	96	2.817	2.811	(0.510)	2749	0.51341	25.7(aM)	M10
	27 cis-1,2-Dichloroethene	96	4.050	4.050	(0.733)	353837	65.3529	3270	
$	34 Dibromofluoromethane	113	4.704	4.714	(0.852)	243079	51.4155	51.4	
*	41 Pentafluorobenzene	168	5.522	5.520	(1.000)	468142	50.0000		
$	42 1,2-Dichloroethane-D4	65	5.545	5.549	(1.004)	356376	54.7785	54.8	
	47 Trichloroethene	95	6.225	6.226	(0.987)	31645	5.91863	296	
*	48 1,4-Difluorobenzene	114	6.309	6.312	(1.000)	802679	50.0000		
$	58 Toluene-D8	98	8.202	8.202	(1.300)	981090	50.9411	50.9	
	60 Tetrachloroethene	164	8.747	8.751	(0.859)	20324	4.68755	234	
*	68 Chlorobenzene-D5	117	10.182	10.182	(1.000)	793804	50.0000		
$	77 P-Bromofluorobenzene	95	11.677	11.674	(1.851)	417324	49.6898	49.7	
*	93 1,4-Dichlorobenzene-D4	152	12.945	12.942	(1.000)	404059	50.0000		
M	97 1,2-Dichloroethylene (total)	96				356586	65.8664	3290	

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.



Data File: \\target_server\gg\chem\gcms-w.i\W092421.b\W0222.D
Date : 24-SEP-2021 16:40
Client ID: VA-MW-84R-1(2021091
Sample Info: SD6313-14DL

Instrument: gcms-w.i

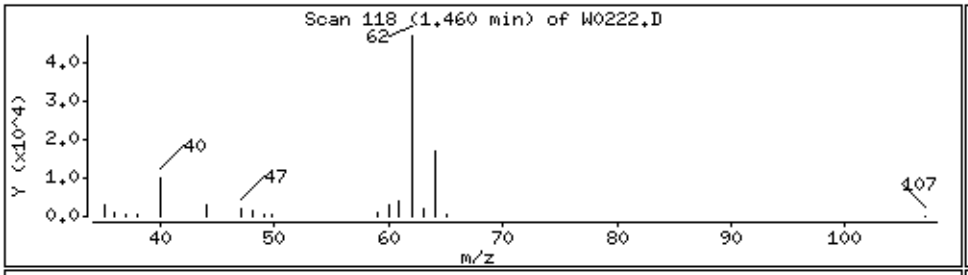
Data File: \\target_server\gg\chem\gcms-w.i\W092421.b\W0222.D

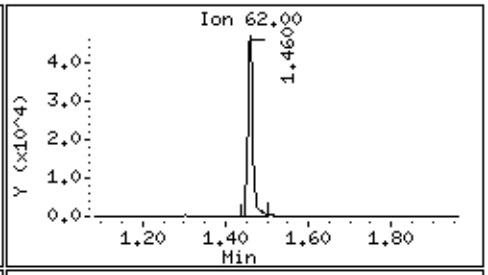
Date : 24-SEP-2021 16:40

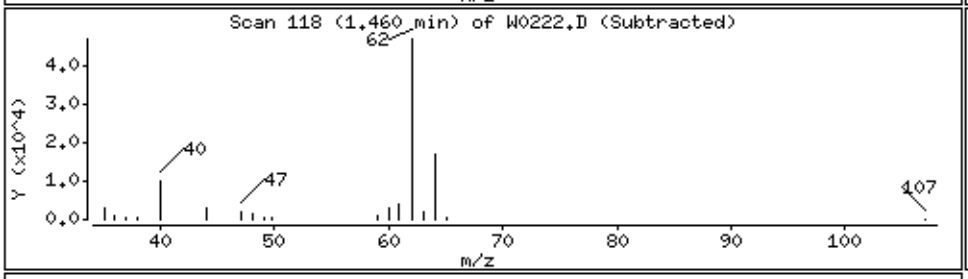
Client ID: VA-MW-84R-1(2021091 Instrument: gcms-w.i

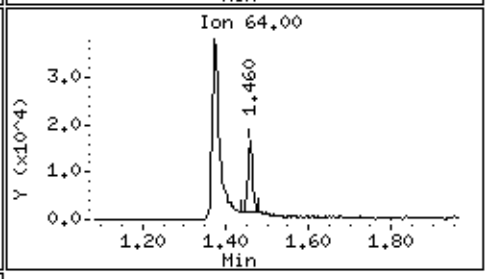
Sample Info: S06313-14DL

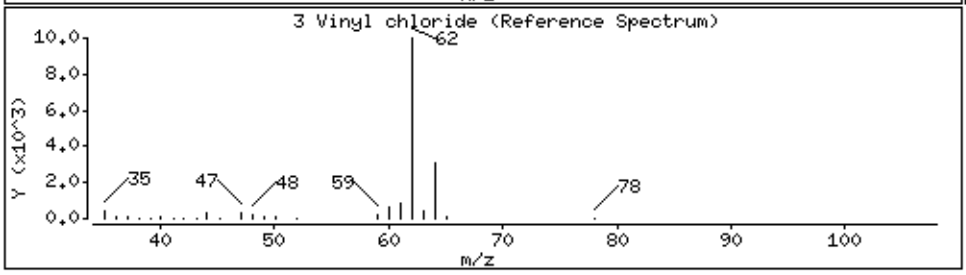
3 Vinyl chloride Concentration: 285 ug/l



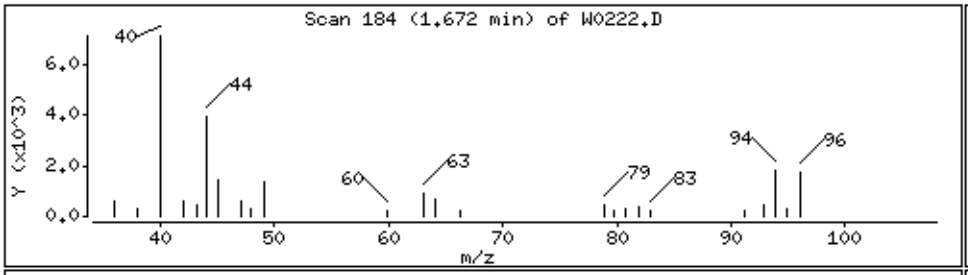


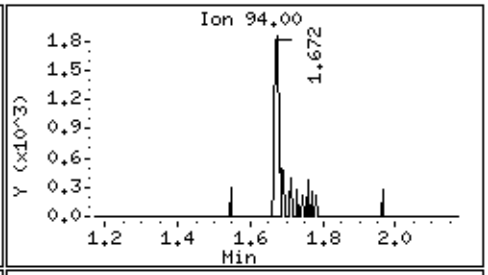


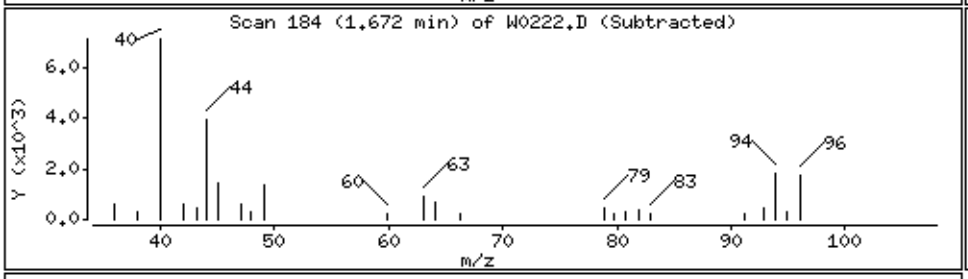


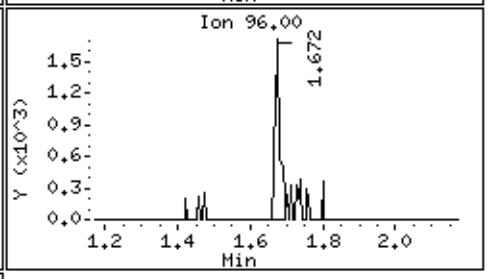


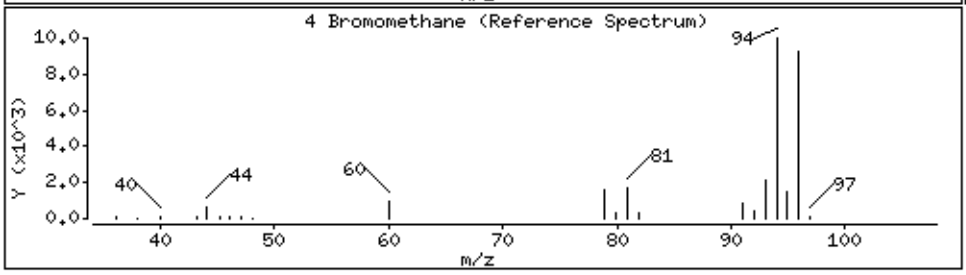
4 Bromomethane Concentration: 34.1 ug/l











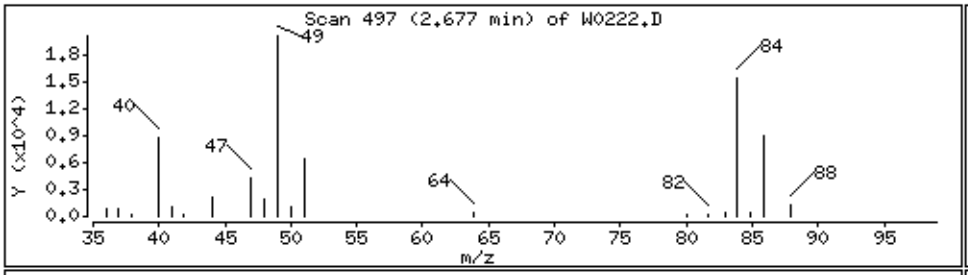
Data File: \\target_server\gg\chem\gcms-w.i\W092421.b\W0222.D

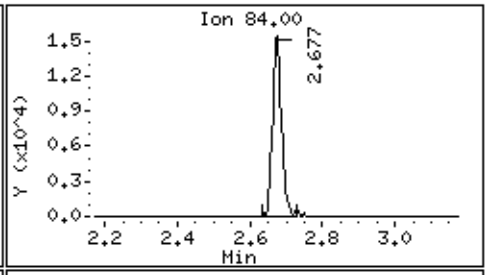
Date : 24-SEP-2021 16:40

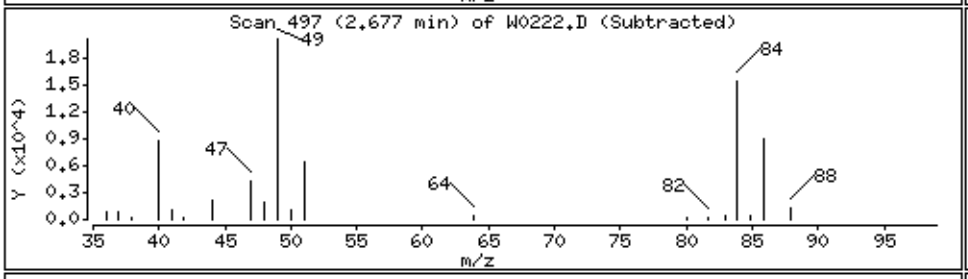
Client ID: VA-MW-84R-1(2021091 Instrument: gcms-w.i

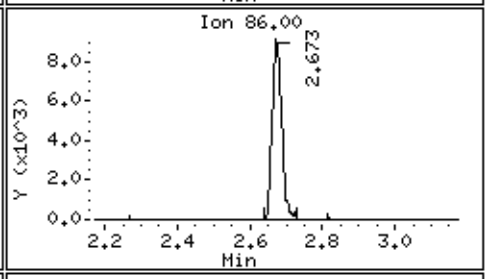
Sample Info: S06313-14DL

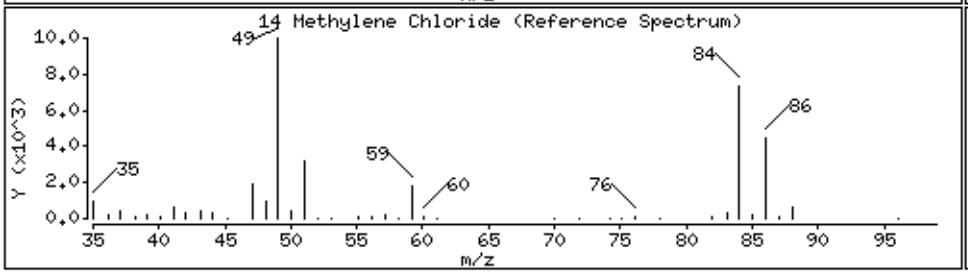
14 Methylene Chloride Concentration: 240 ug/l

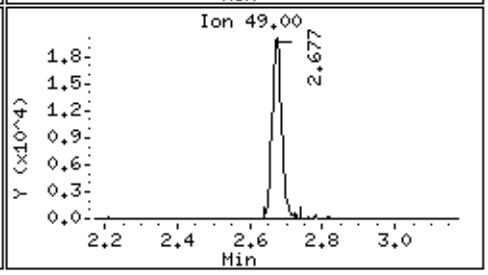




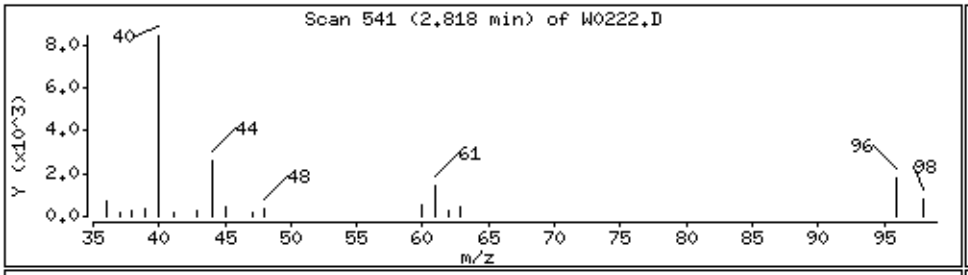


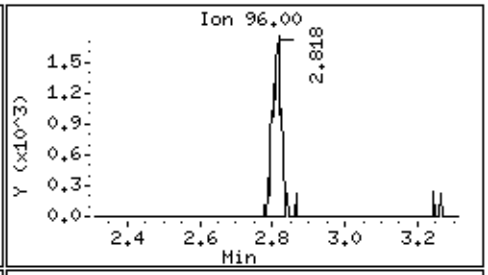


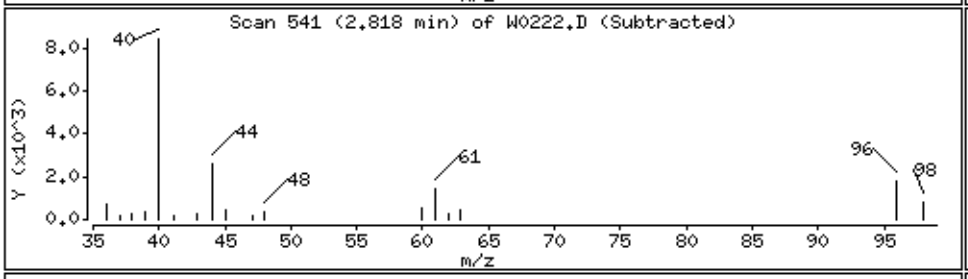


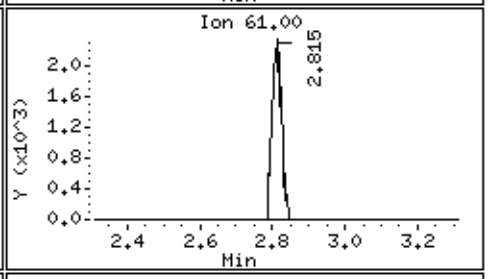


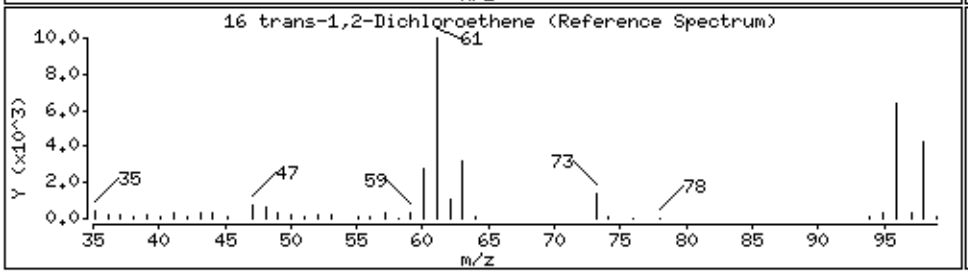
16 trans-1,2-Dichloroethene Concentration: 25.7 ug/l

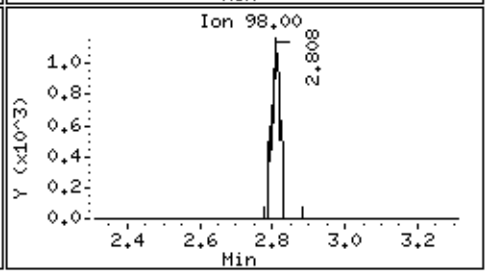












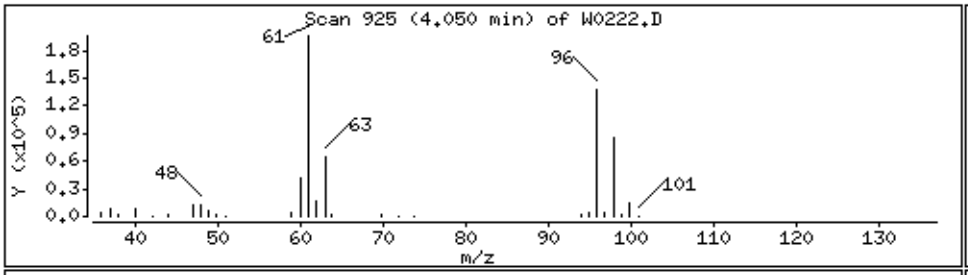
Data File: \\target_server\gg\chem\gcms-w.i\W092421.b\W0222.D

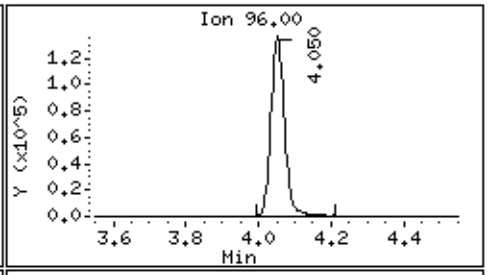
Date : 24-SEP-2021 16:40

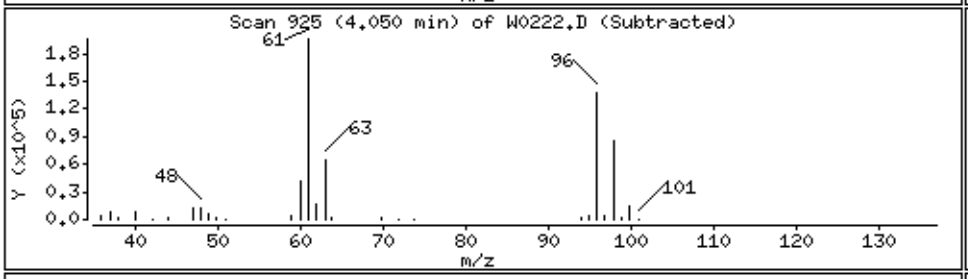
Client ID: VA-MW-84R-1(2021091 Instrument: gcms-w.i

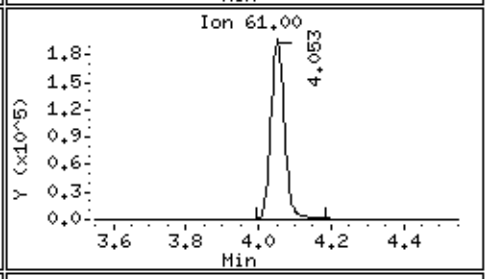
Sample Info: S06313-14DL

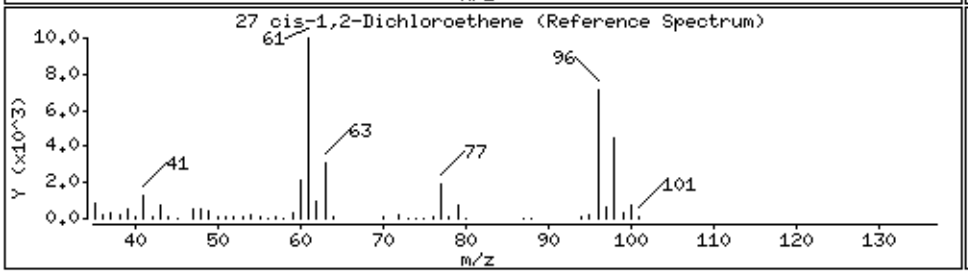
27 cis-1,2-Dichloroethene Concentration: 3270 ug/l

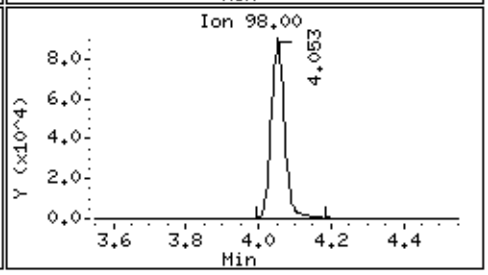




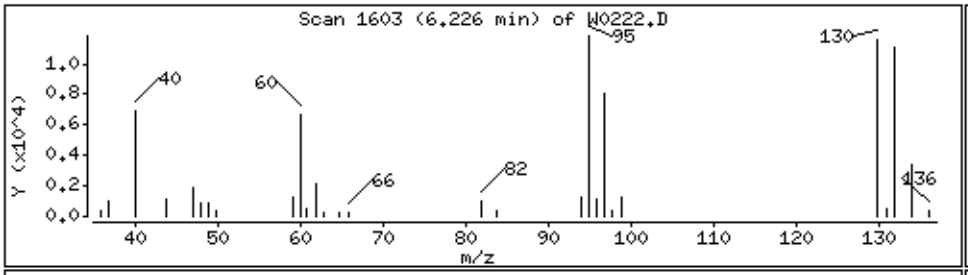


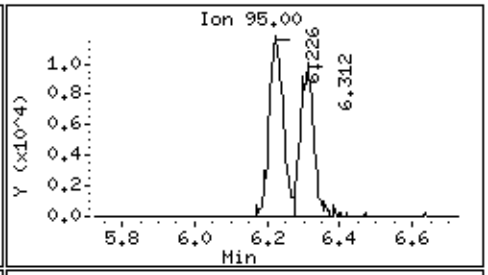


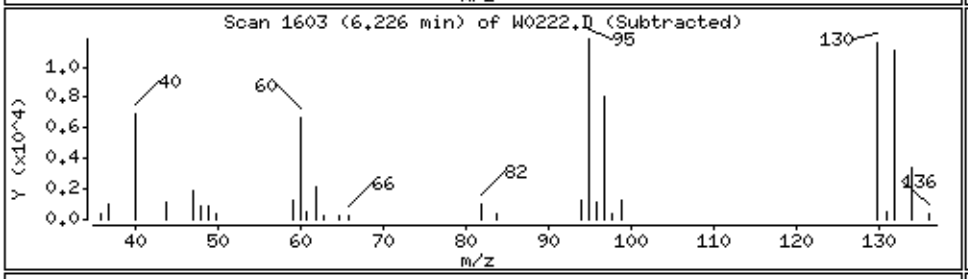


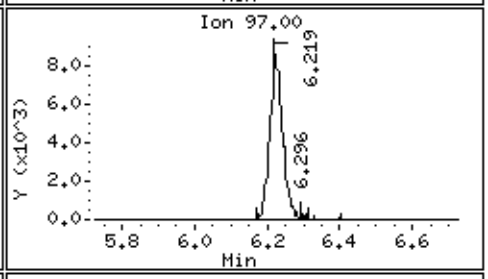


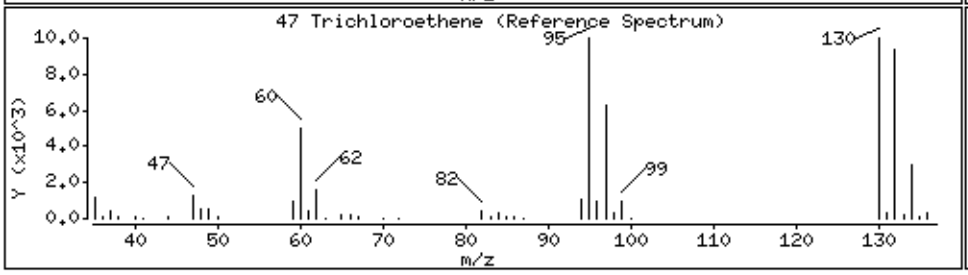
47 Trichloroethene Concentration: 296 ug/l

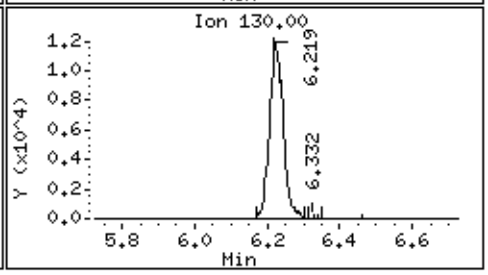












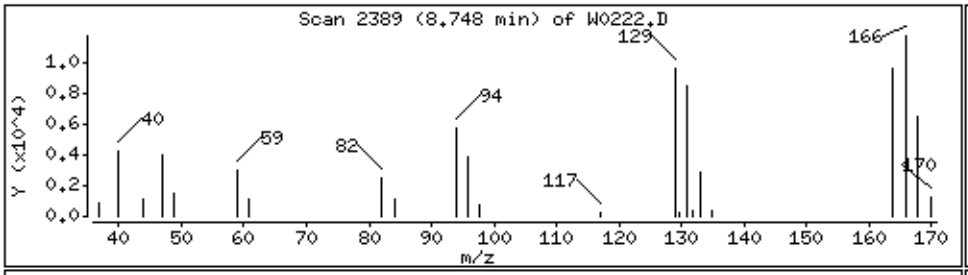
Data File: \\target_server\gg\chem\gcms-w.i\W092421.b\W0222.D

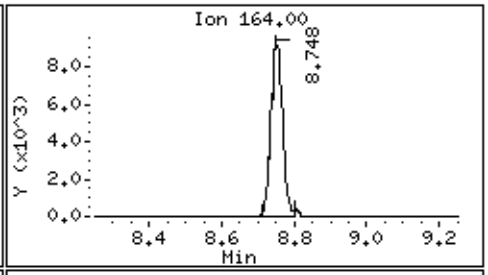
Date : 24-SEP-2021 16:40

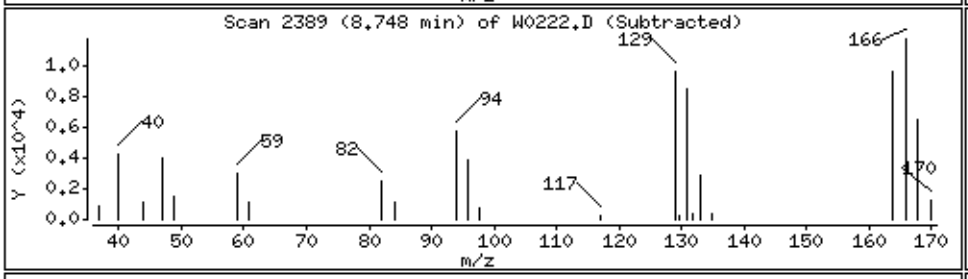
Client ID: VA-MW-84R-1(2021091 Instrument: gcms-w.i

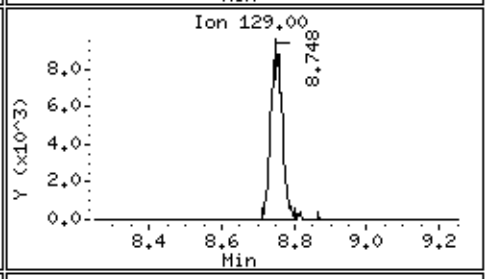
Sample Info: S06313-14DL

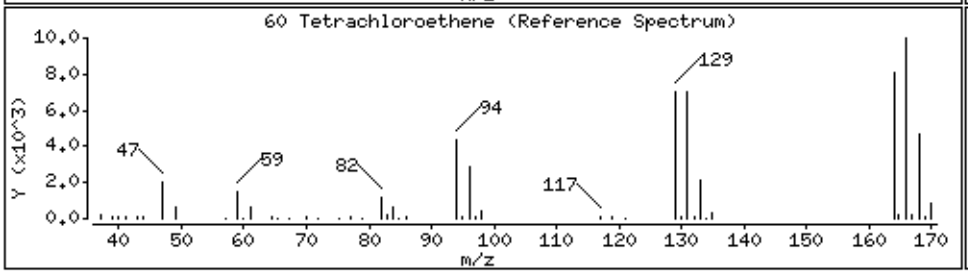
60 Tetrachloroethene Concentration: 234 ug/l

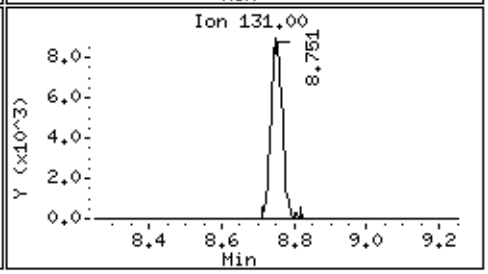








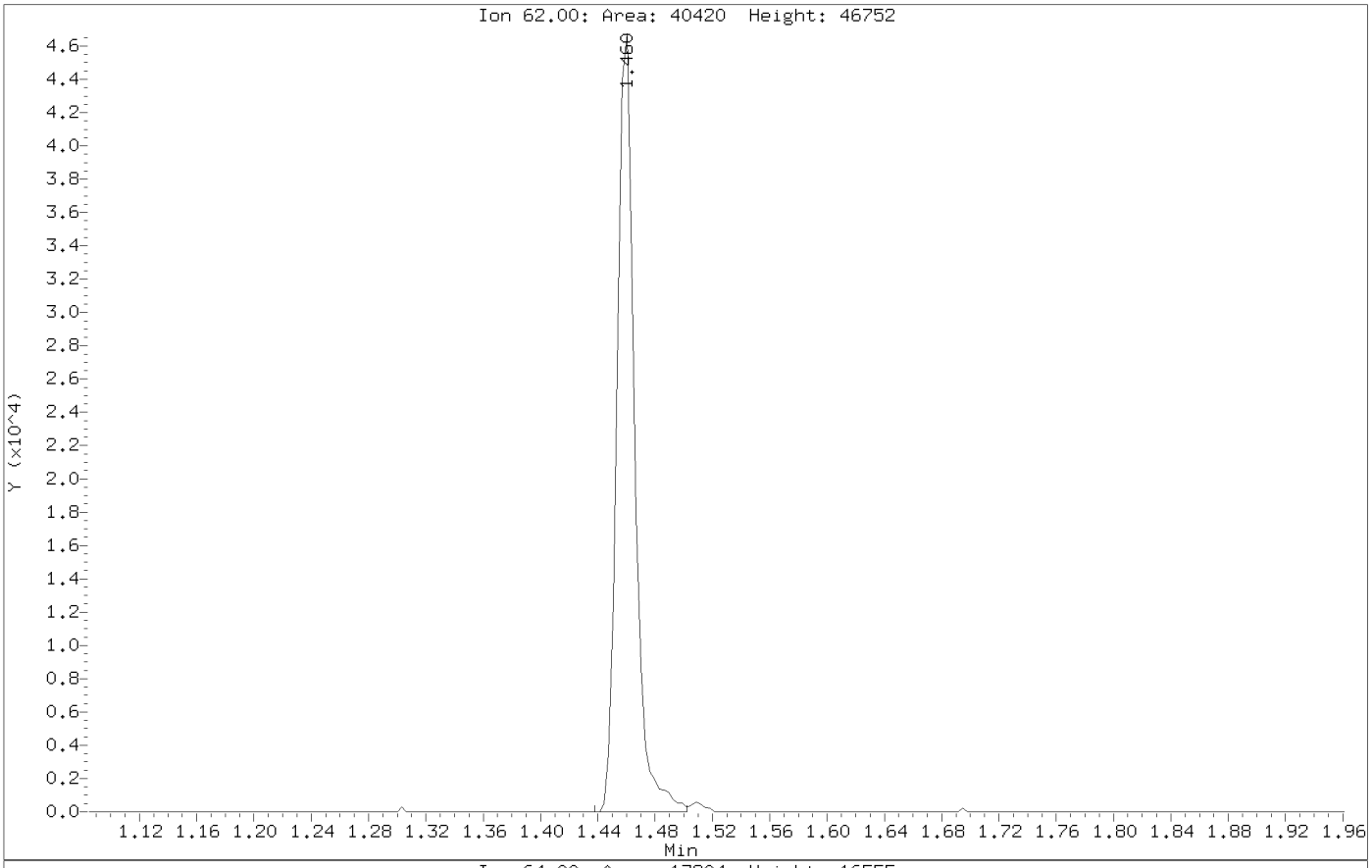


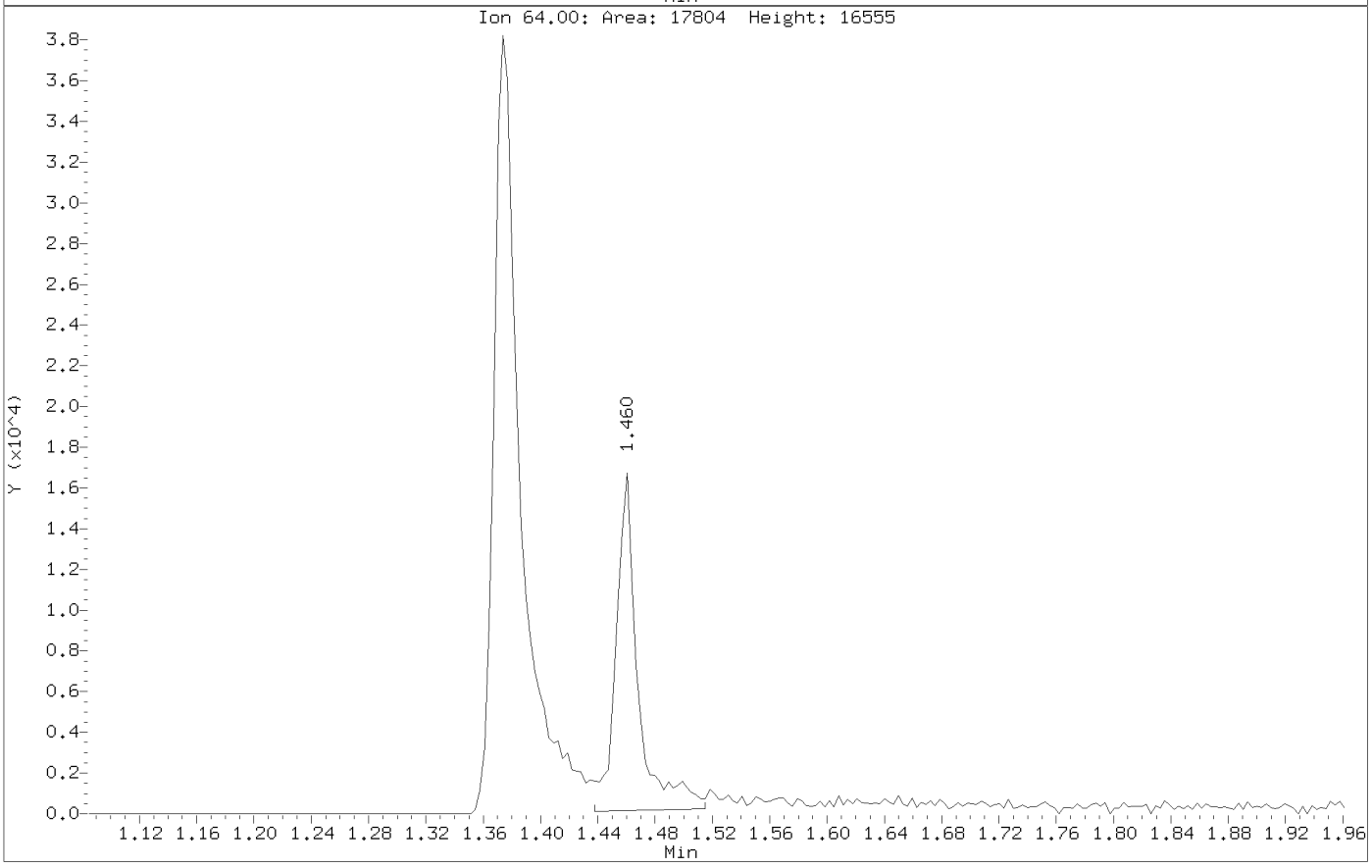


Data File: \\target_server\gg\chem\gcms-w.i\W092421.b\W0222.D
Injection Date: 24-SEP-2021 16:40
Instrument: gcms-w.i
Client Sample ID: VA-MW-84R-1(2021091

Compound: Vinyl chloride
CAS Number: 75-01-4

BEFORE MANUAL INTEGRATION

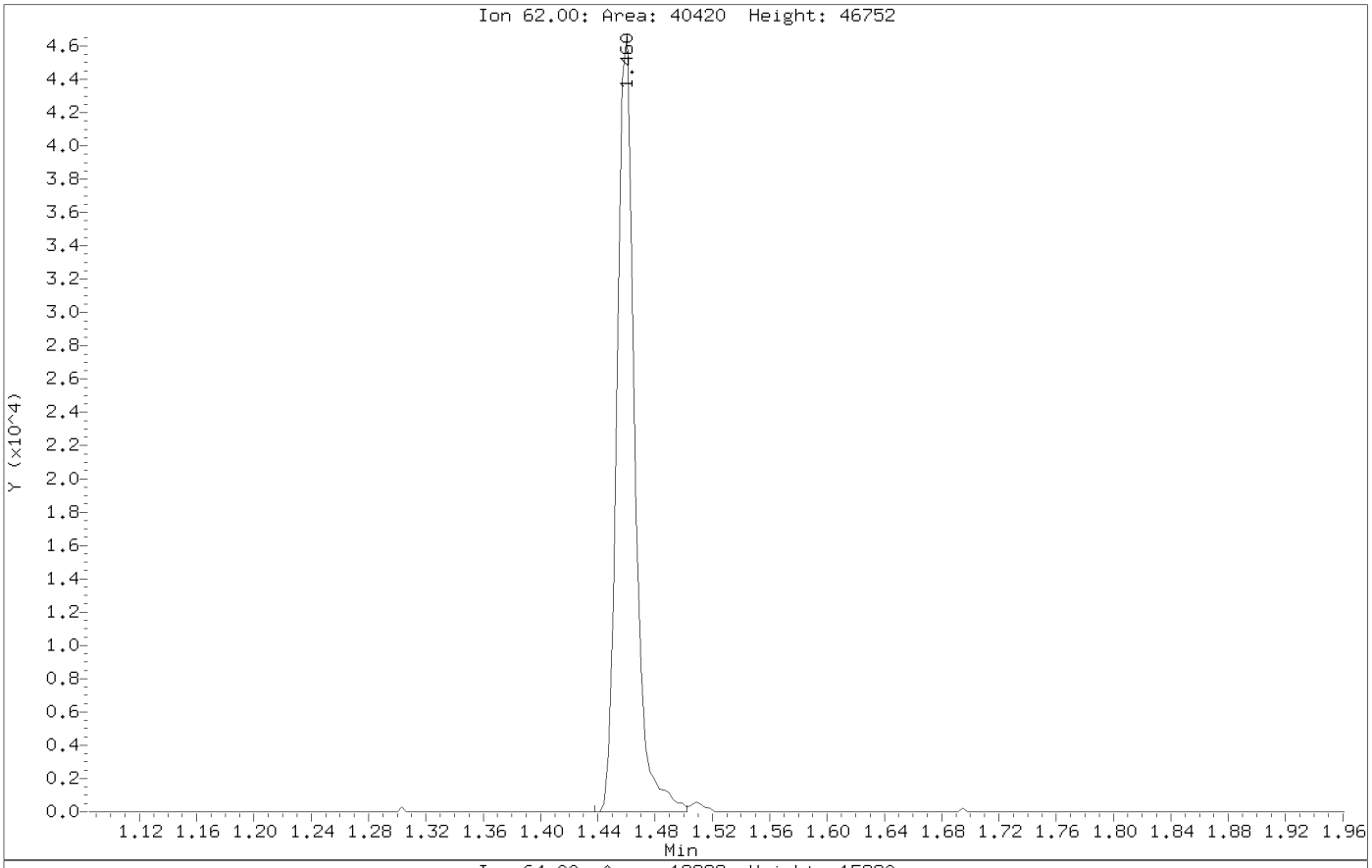


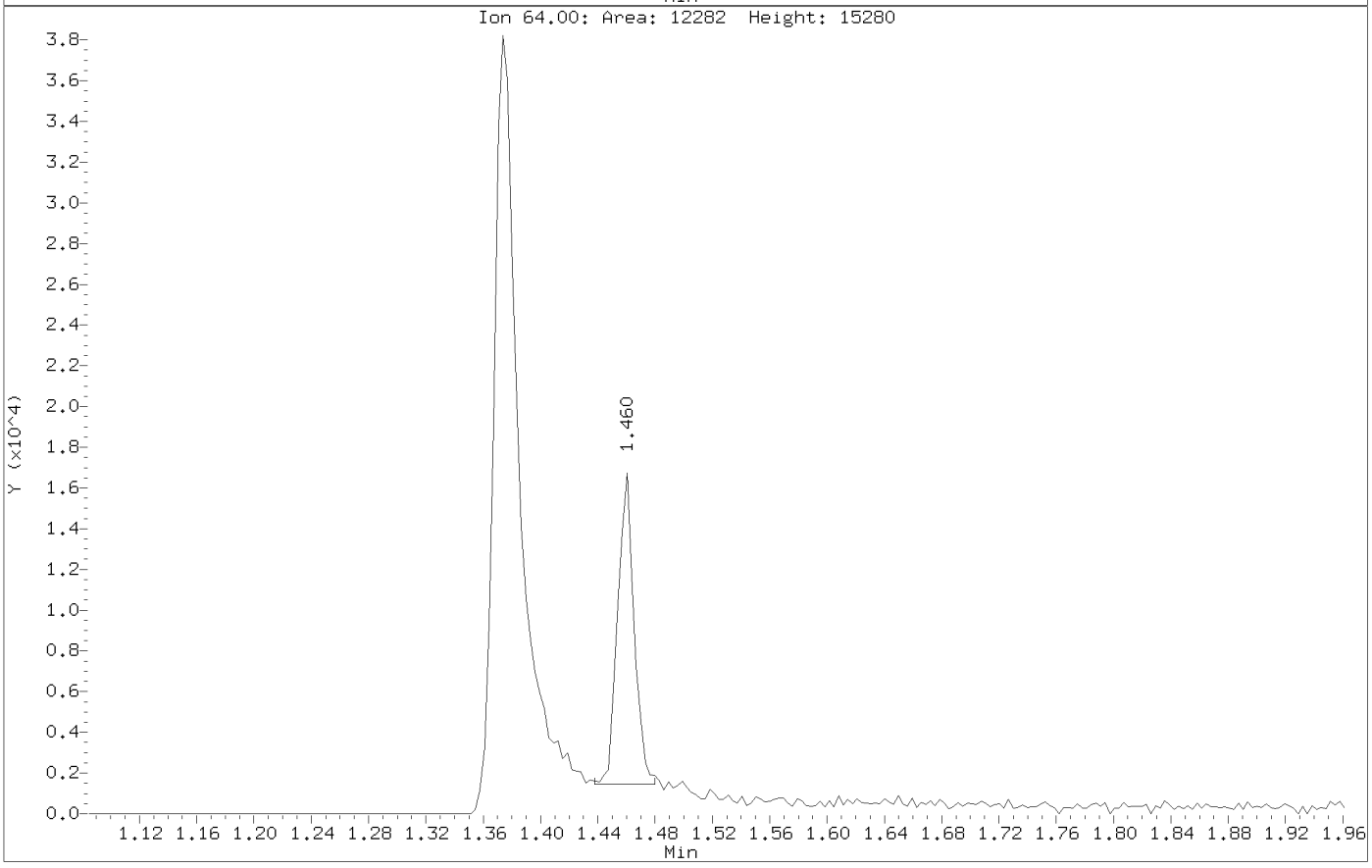


Data File: \\target_server\gg\chem\gcms-w.i\W092421.b\W0222.D
Injection Date: 24-SEP-2021 16:40
Instrument: gcms-w.i
Client Sample ID: VA-MW-84R-1(2021091

Compound: Vinyl chloride
CAS Number: 75-01-4

AFTER MANUAL INTEGRATION

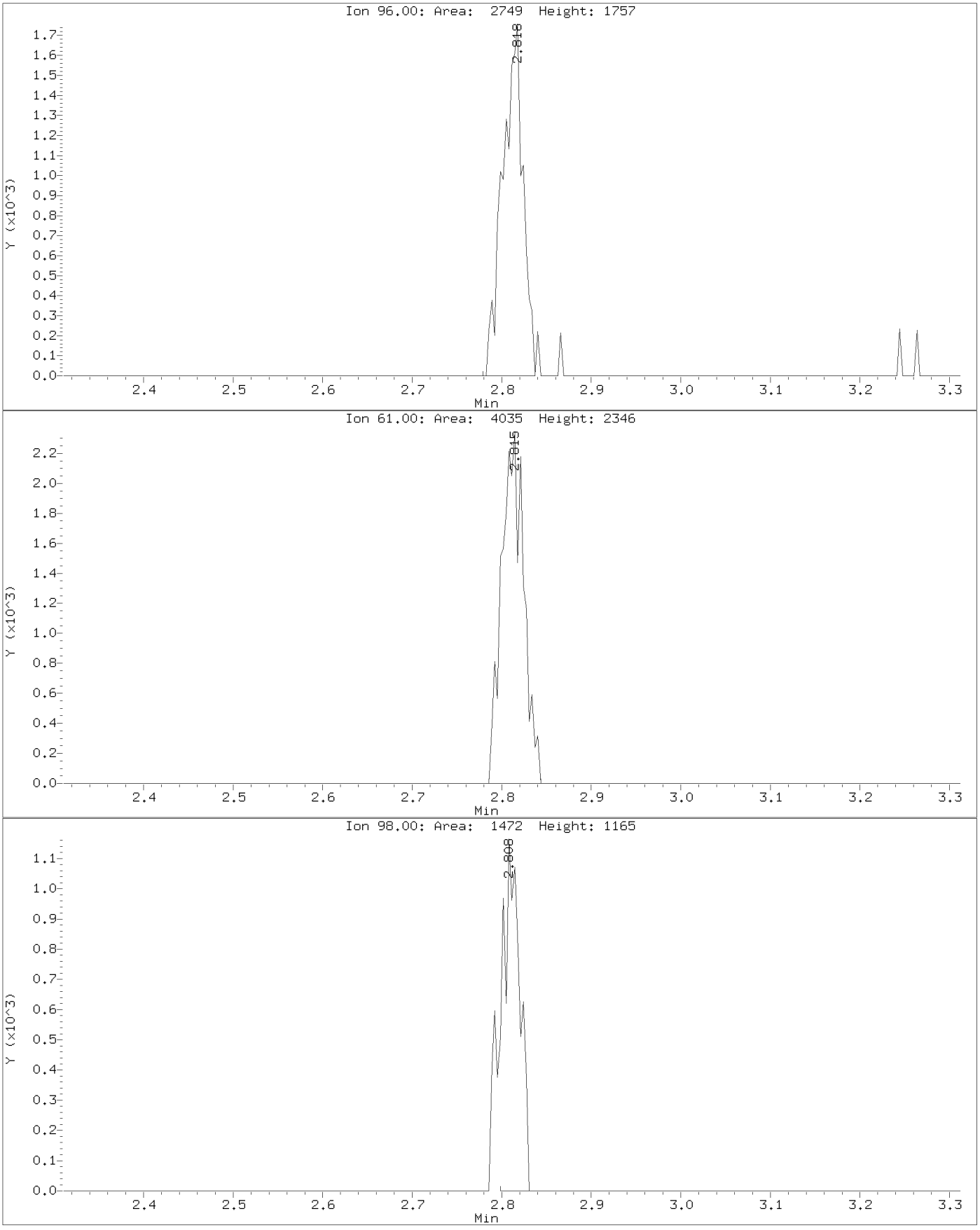




Data File: \\target_server\gg\chem\gcms-w.i\W092421.b\W0222.D
Injection Date: 24-SEP-2021 16:40
Instrument: gcms-w.i
Client Sample ID: VA-MW-84R-1(2021091

Compound: trans-1,2-Dichloroethene
CAS Number: 156-60-5

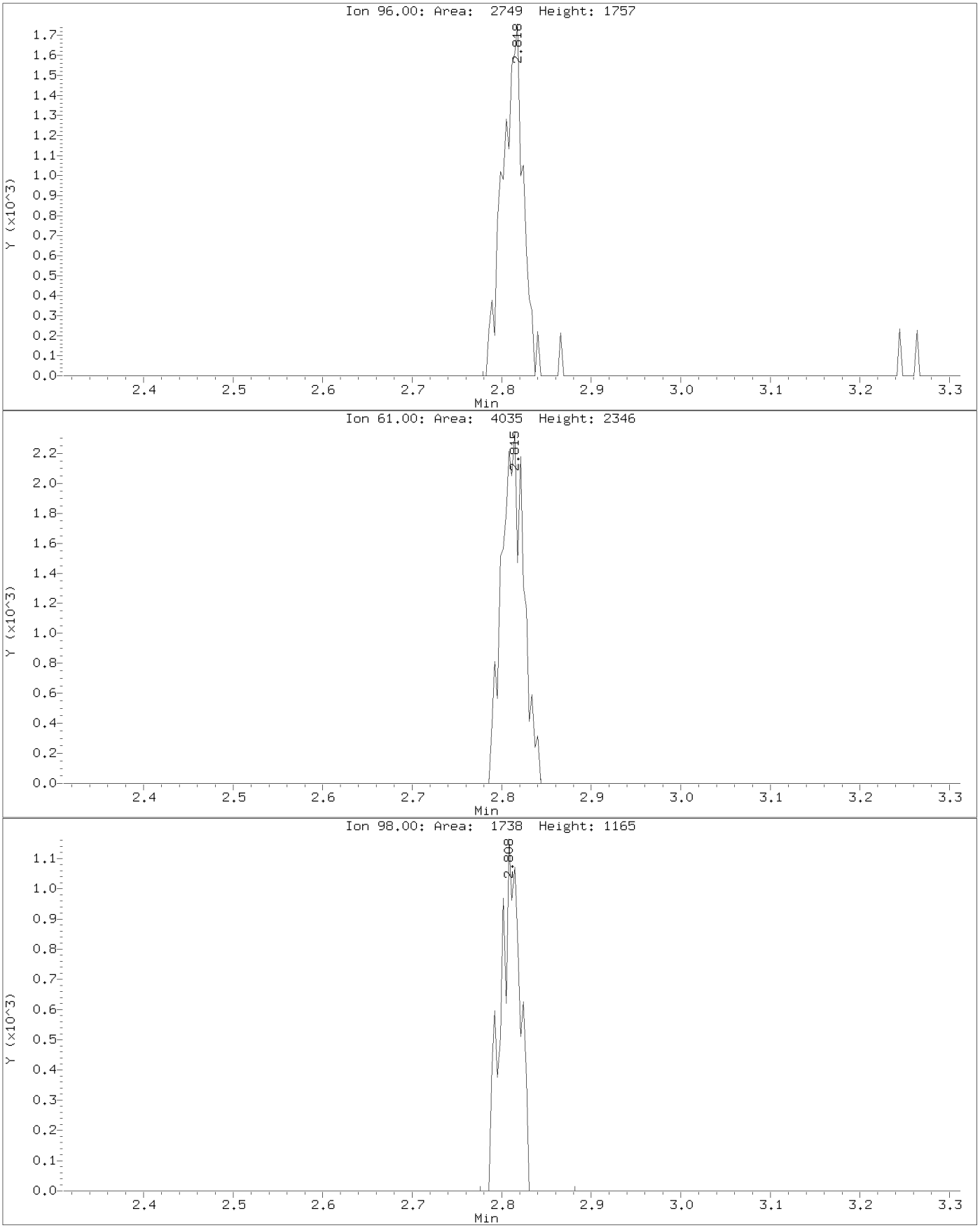
BEFORE MANUAL INTEGRATION



AFTER MANUAL INTEGRATION

Data File: \\target_server\gg\chem\gcms-w.i\W092421.b\W0222.D
Injection Date: 24-SEP-2021 16:40
Instrument: gcms-w.i
Client Sample ID: VA-MW-84R-1(2021091

Compound: trans-1,2-Dichloroethene
CAS Number: 156-60-5



Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-14DL2
Client ID: WVA-MW-84R-1(20210915)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0226.D

Sample Date: 15-SEP-21
Received Date: 18-SEP-21
Extract Date: 24-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306608

Analysis Date: 24-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	10.	ug/L	5	2	10.
Vinyl Chloride		280	ug/L	5	2	10.
Bromomethane	U	10.	ug/L	5	2	10.
Chloroethane	U	10.	ug/L	5	2	10.
Trichlorofluoromethane	U	10.	ug/L	5	2	10.
1,1-Dichloroethene		5.5	ug/L	5	1	5.0
Carbon Disulfide	U	5.0	ug/L	5	1	5.0
Methylene Chloride		25.	ug/L	5	5	25.
trans-1,2-Dichloroethene		24.	ug/L	5	1	5.0
1,1-Dichloroethane	U	5.0	ug/L	5	1	5.0
cis-1,2-Dichloroethene	E	3600	ug/L	5	1	5.0
Chloroform	U	5.0	ug/L	5	1	5.0
Carbon Tetrachloride	U	5.0	ug/L	5	1	5.0
1,1,1-Trichloroethane	U	5.0	ug/L	5	1	5.0
2-Butanone	U	25.	ug/L	5	5	25.
Benzene	U	5.0	ug/L	5	1	5.0
1,2-Dichloroethane	U	5.0	ug/L	5	1	5.0
Trichloroethene		300	ug/L	5	1	5.0
1,2-Dichloropropane	U	5.0	ug/L	5	1	5.0
Bromodichloromethane	U	5.0	ug/L	5	1	5.0
cis-1,3-Dichloropropene	U	5.0	ug/L	5	1	5.0
Toluene	U	5.0	ug/L	5	1	5.0
4-Methyl-2-Pentanone	U	25.	ug/L	5	5	25.
Tetrachloroethene		240	ug/L	5	1	5.0
trans-1,3-Dichloropropene	U	5.0	ug/L	5	1	5.0
1,1,2-Trichloroethane	U	5.0	ug/L	5	1	5.0
Dibromochloromethane	U	5.0	ug/L	5	1	5.0
Chlorobenzene	U	5.0	ug/L	5	1	5.0
Ethylbenzene	U	5.0	ug/L	5	1	5.0
m+p-Xylenes	U	10.	ug/L	5	2	10.
o-Xylene	U	5.0	ug/L	5	1	5.0
Bromoform	U	5.0	ug/L	5	1	5.0
1,1,2,2-Tetrachloroethane	U	5.0	ug/L	5	1	5.0
P-Bromofluorobenzene		96.3	%			
Toluene-d8		101.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-14DL2
Client ID: WVA-MW-84R-1(20210915)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0226.D

Sample Date: 15-SEP-21
Received Date: 18-SEP-21
Extract Date: 24-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306608

Analysis Date: 24-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		114.	%			
Dibromofluoromethane		105.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Data File: \\target_server\gg\chem\gcms-w.i\W092421.b\W0226.D
Report Date: 12-Oct-2021 08:56

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-w.i\W092421.b\W0226.D
Lab Smp Id: SO6313-14DL2 Client Smp ID: VA-MW-84R-1(2021091
Inj Date : 24-SEP-2021 18:43
Operator : ES Inst ID: gcms-w.i
Smp Info : SO6313-14DL2
Misc Info : WG306608,WG306608-4
Comment : SW846 5030
Method : \\target_server\gg\chem\gcms-w.i\W092421.b\W8A05(08A).m
Meth Date : 08-Oct-2021 09:51 gcms-w.i Quant Type: ISTD
Cal Date : 24-SEP-2021 11:36 Cal File: W0215.D
Als bottle: 21
Dil Factor: 5.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.12

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	5.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

10:21 am, Oct 12, 2021

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)	REVIEW CODE
	3 Vinyl chloride	62	1.460	1.460	(0.264)	381532	56.4099	282(M)	M10
	4 Bromomethane	94	1.675	1.672	(0.303)	1111	0.49615	2.5(a)	
	8 1,1-Dichloroethene	96	2.217	2.211	(0.401)	5363	1.10108	5.5	
	14 Methylene Chloride	84	2.676	2.673	(0.484)	25562	4.95584	24.8(a)	
	15 Acetone	43	2.731	2.722	(0.494)	6454	4.13117	20.6(aM)	M9
	16 trans-1,2-Dichloroethene	96	2.814	2.811	(0.509)	24107	4.71524	23.6	
	27 cis-1,2-Dichloroethene	96	4.059	4.050	(0.734)	3677412	711.338	3560(A)	
$	34 Dibromofluoromethane	113	4.714	4.714	(0.853)	236577	52.4072	52.4	
*	41 Pentafluorobenzene	168	5.529	5.520	(1.000)	446998	50.0000		
$	42 1,2-Dichloroethane-D4	65	5.555	5.549	(1.005)	354928	57.1365	57.1	
	47 Trichloroethene	95	6.228	6.226	(0.986)	314702	59.8595	299	
*	48 1,4-Difluorobenzene	114	6.315	6.312	(1.000)	789267	50.0000		
$	58 Toluene-D8	98	8.211	8.202	(1.300)	958758	50.6275	50.6	
	60 Tetrachloroethene	164	8.757	8.751	(0.860)	204222	48.8067	244	
*	68 Chlorobenzene-D5	117	10.182	10.182	(1.000)	766078	50.0000		
$	77 P-Bromofluorobenzene	95	11.677	11.674	(1.849)	397770	48.1663	48.2	
*	93 1,4-Dichlorobenzene-D4	152	12.945	12.942	(1.000)	395957	50.0000		
M	97 1,2-Dichloroethylene (total)	96				3701519	716.054	3580	

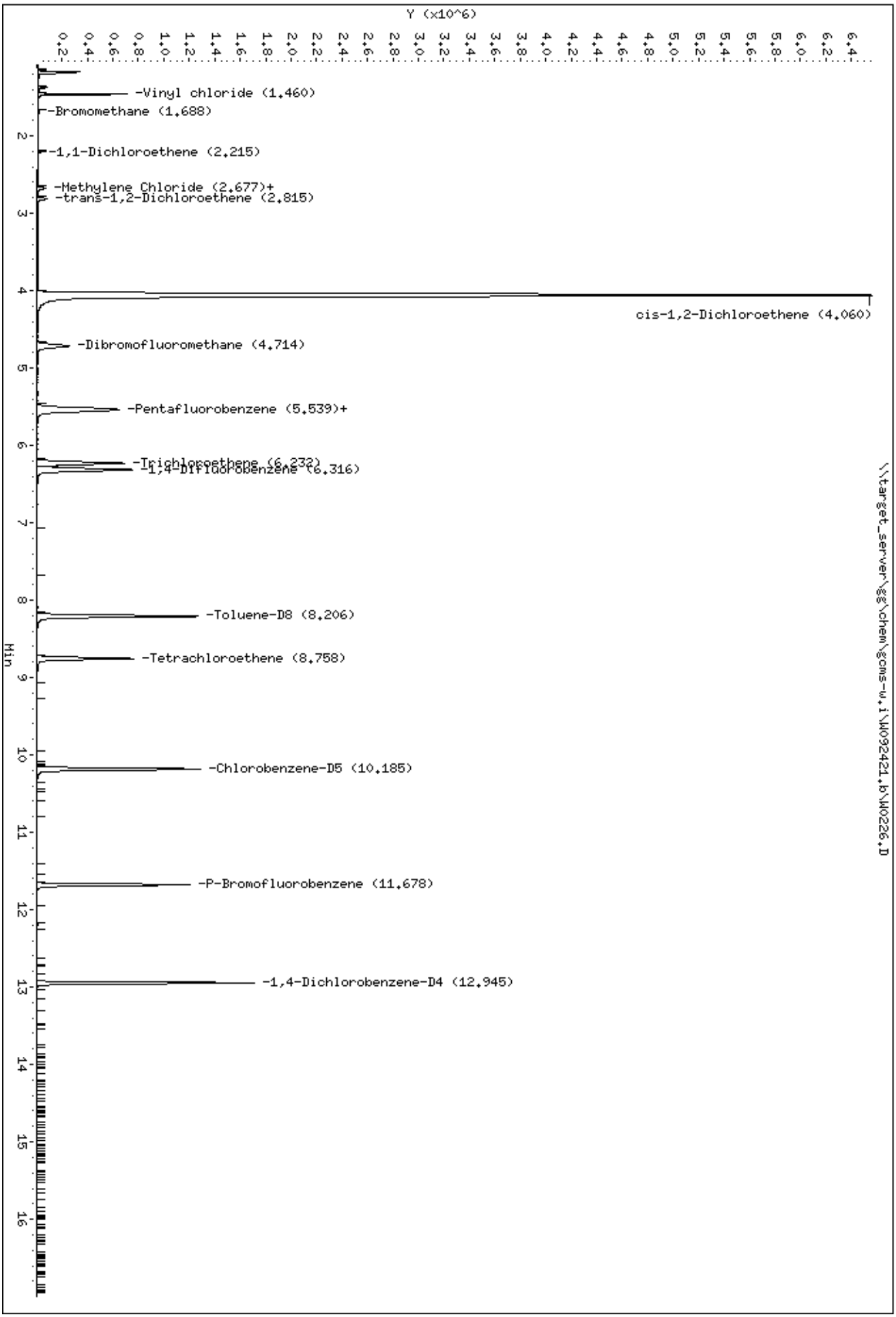
QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount
exceeded maximum amount.

Data File: \\target_server\gg\chem\gcms-w.i\W092421.b\W0226.D
Report Date: 12-Oct-2021 08:56

QC Flag Legend

M - Compound response manually integrated.



Data File: \\target_server\gg\chem\gcms-w.i\W092421.b\W0226.D
Date : 24-SEP-2021 18:43
Client ID: VA-MW-84R-1(2021091
Sample Info: SD6313-14DL2

Instrument: gcms-w.i

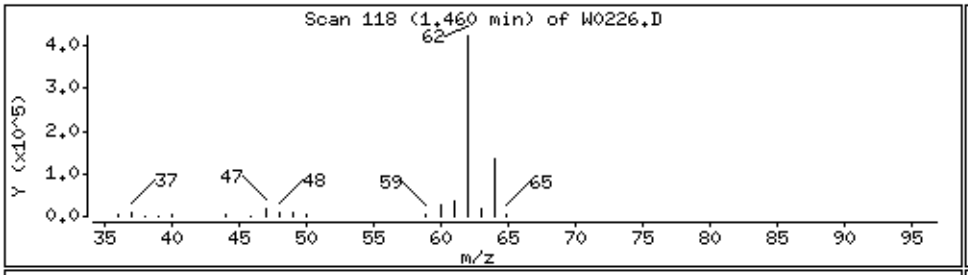
Data File: \\target_server\gg\chem\gcms-w.i\W092421.b\W0226.D

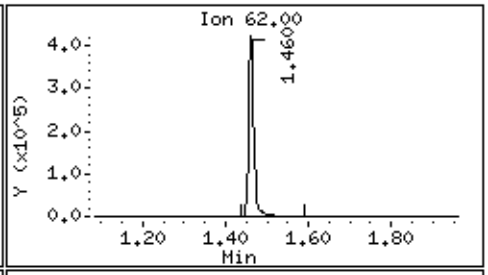
Date : 24-SEP-2021 18:43

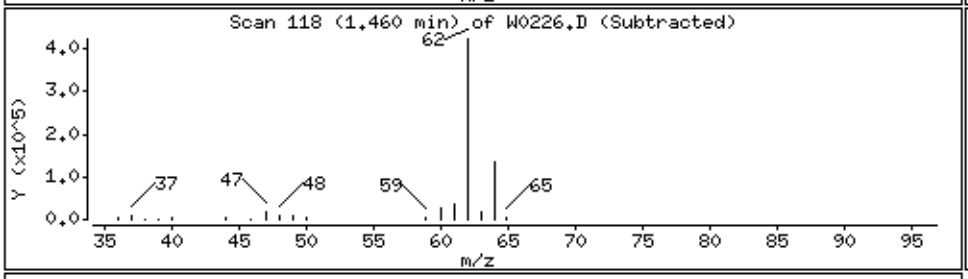
Client ID: VA-MW-84R-1(2021091 Instrument: gcms-w.i

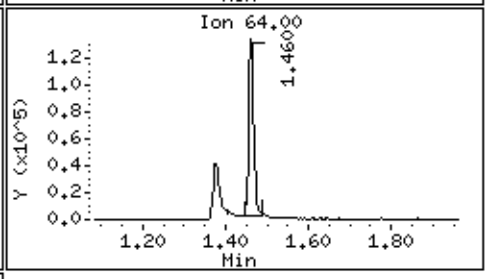
Sample Info: S06313-14DL2

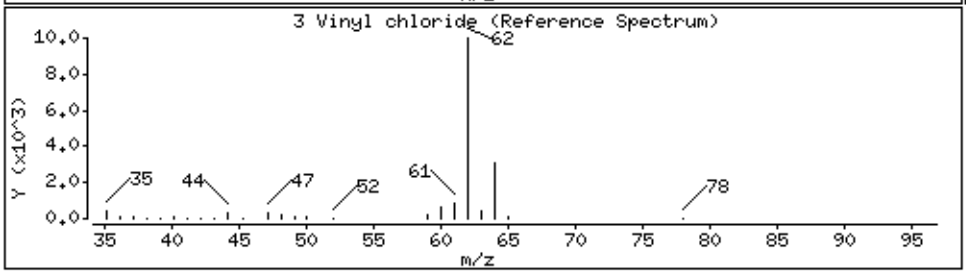
3 Vinyl chloride Concentration: 282 ug/l



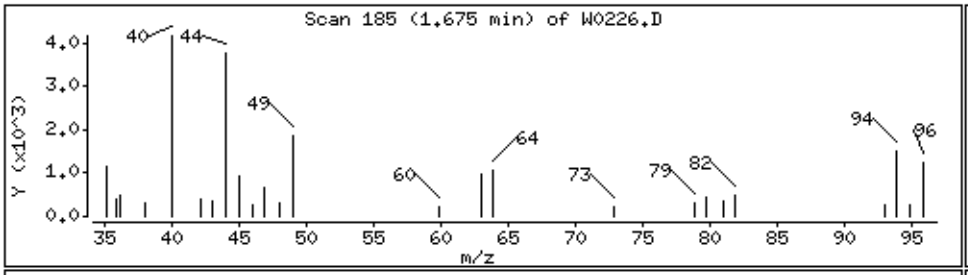


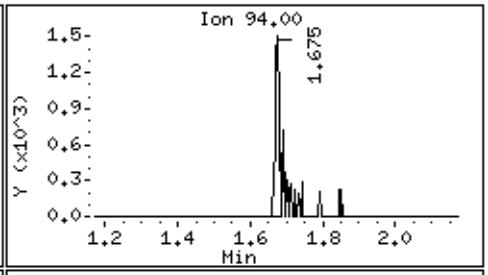


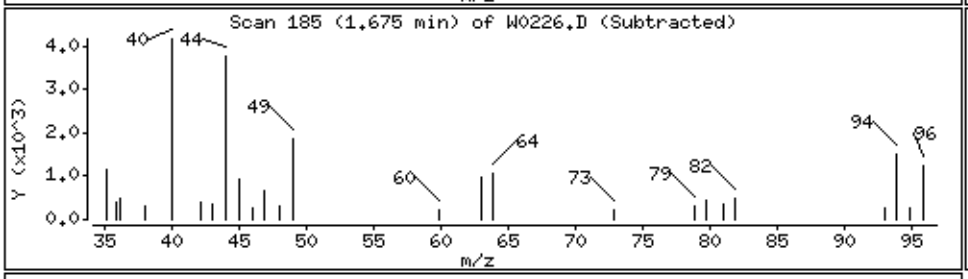


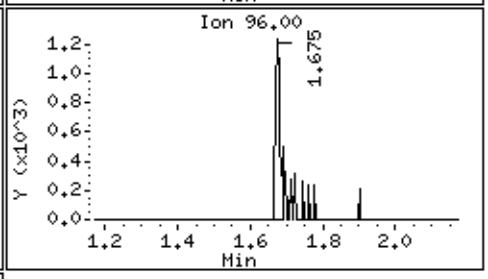


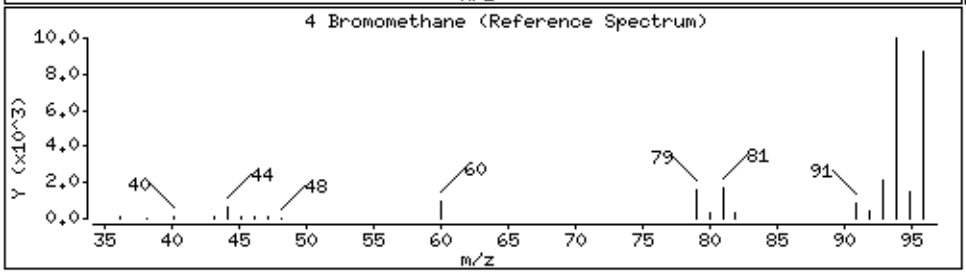
4 Bromomethane Concentration: 2.5 ug/l











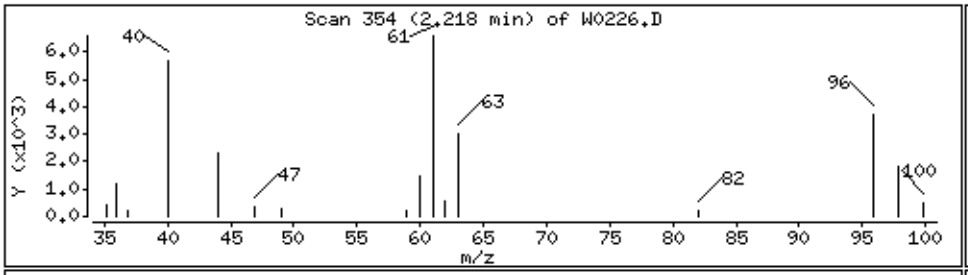
Data File: \\target_server\gg\chem\gcms-w.i\W092421.b\W0226.D

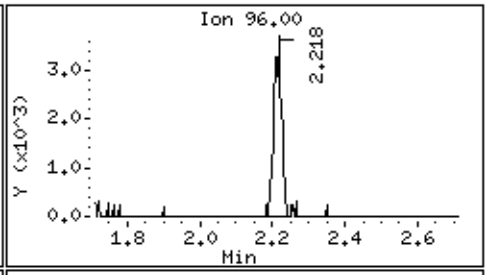
Date : 24-SEP-2021 18:43

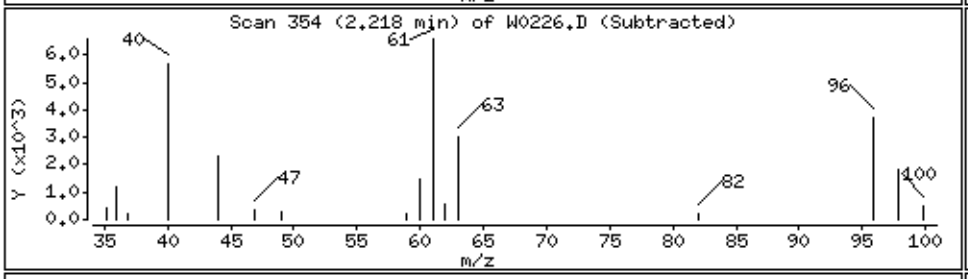
Client ID: VA-MW-84R-1(2021091 Instrument: gcms-w.i

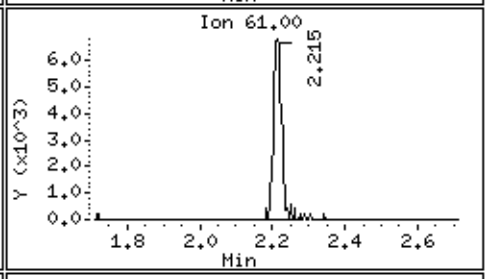
Sample Info: S06313-14DL2

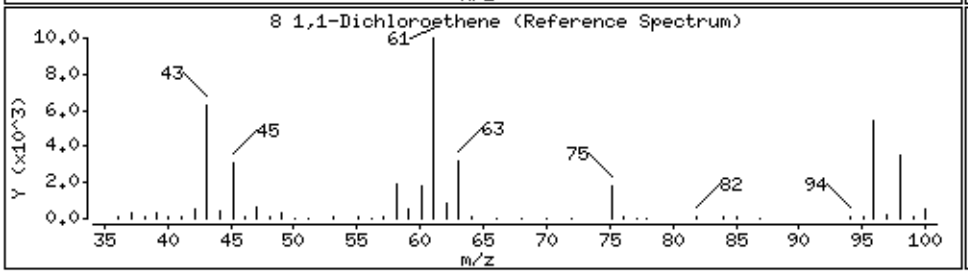
8 1,1-Dichloroethene Concentration: 5.5 ug/l

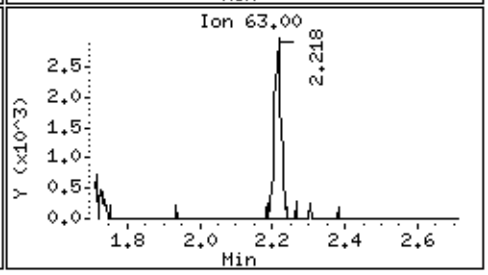




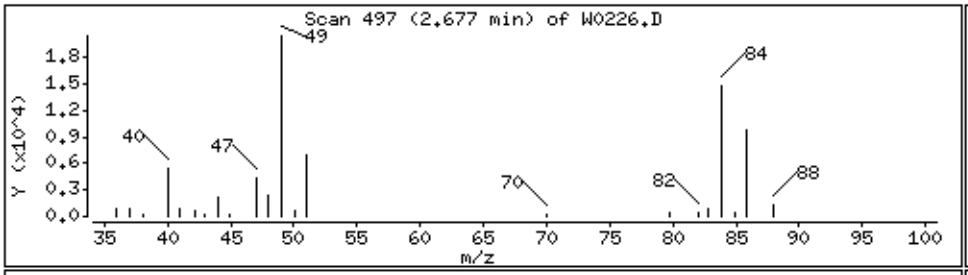


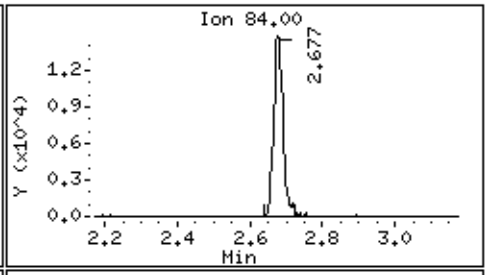


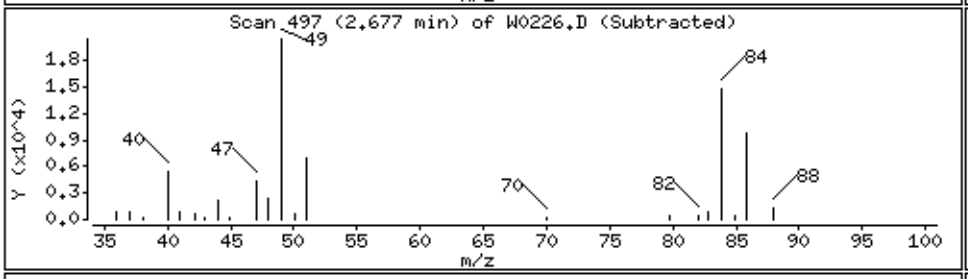


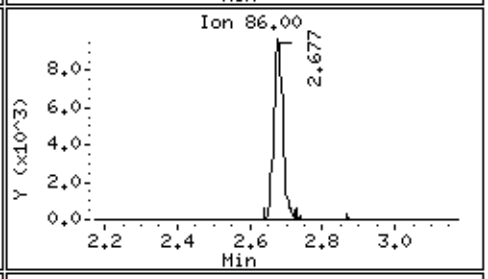


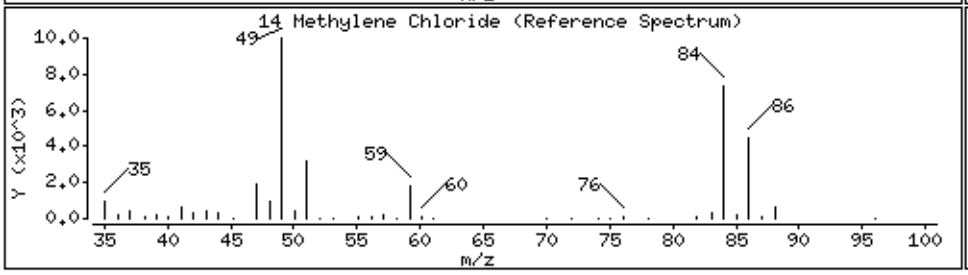
14 Methylene Chloride Concentration: 24.8 ug/l

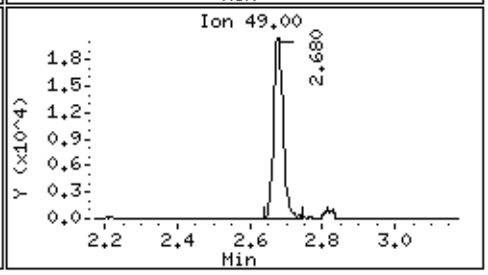












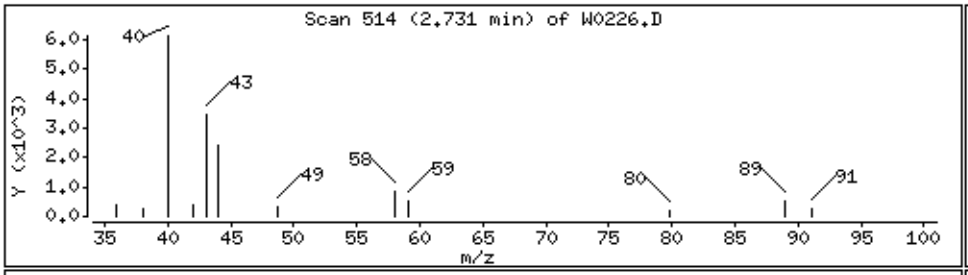
Data File: \\target_server\gg\chem\gcms-w.i\W092421.b\W0226.D

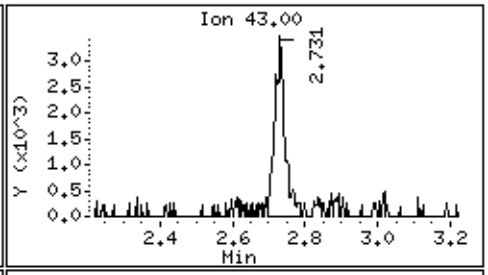
Date : 24-SEP-2021 18:43

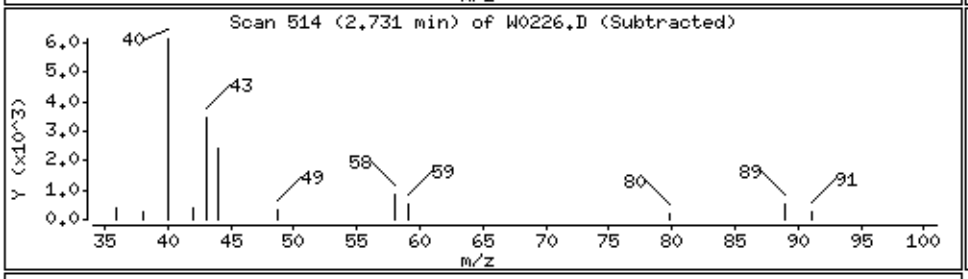
Client ID: VA-MW-84R-1(2021091 Instrument: gcms-w.i

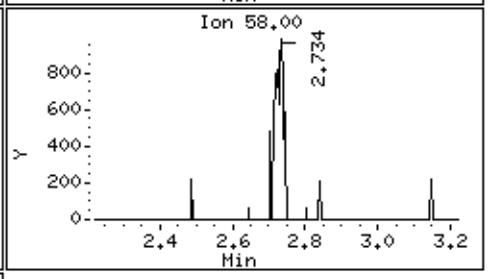
Sample Info: S06313-14DL2

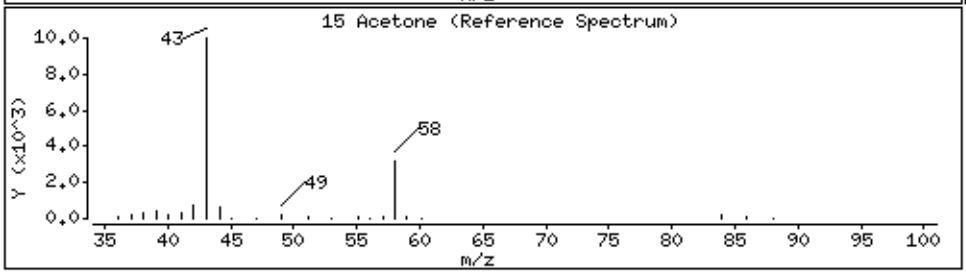
15 Acetone Concentration: 20.6 ug/l



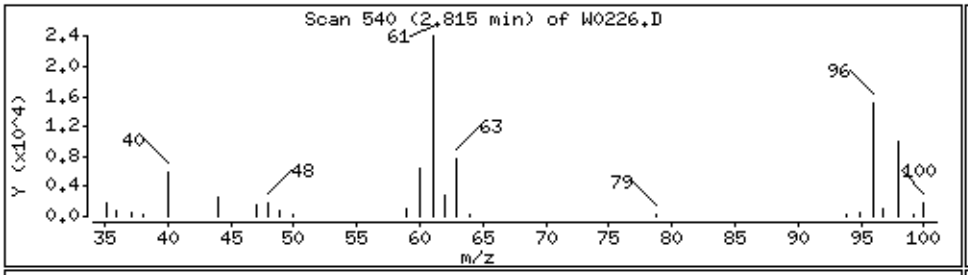


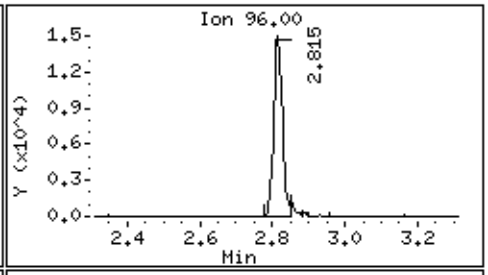


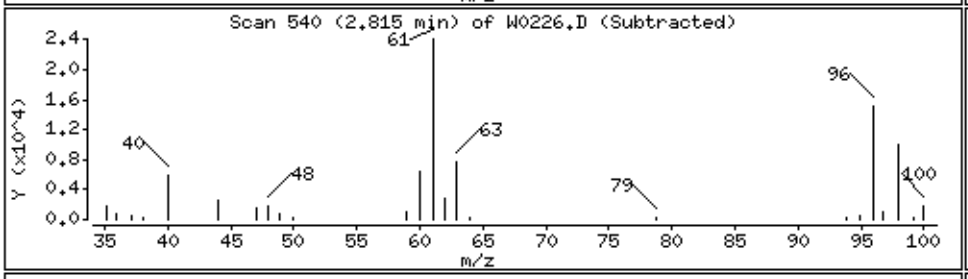


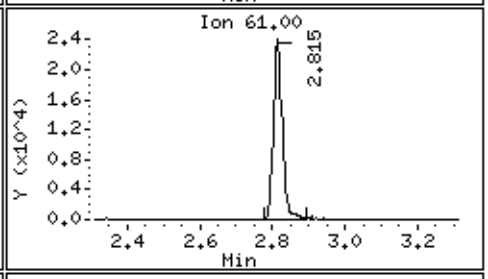


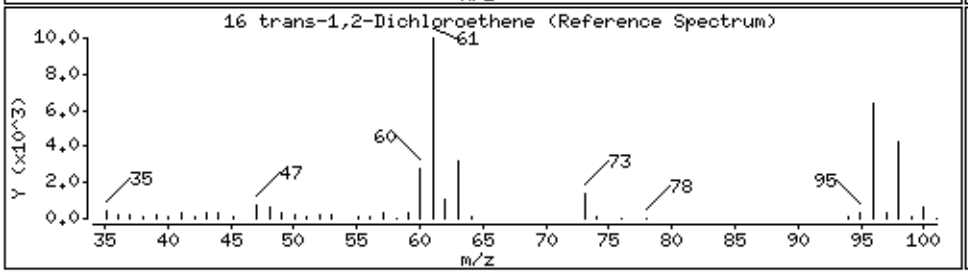
16 trans-1,2-Dichloroethene Concentration: 23.6 ug/l

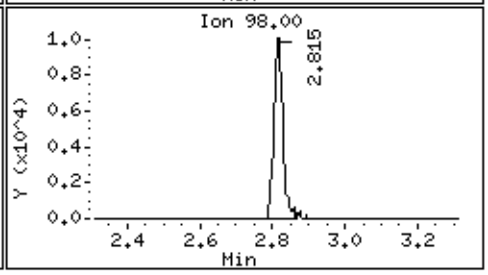












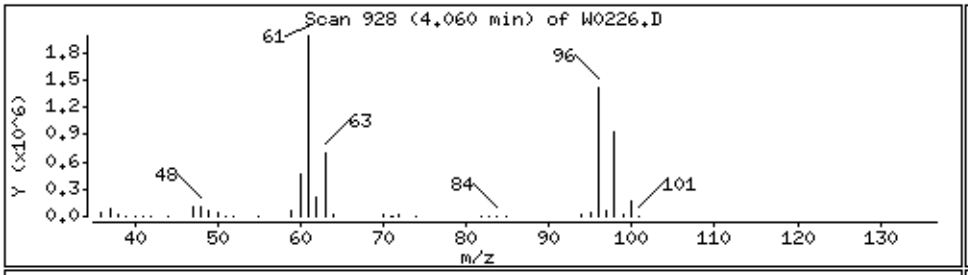
Data File: \\target_server\gg\chem\gcms-w.i\W092421.b\W0226.D

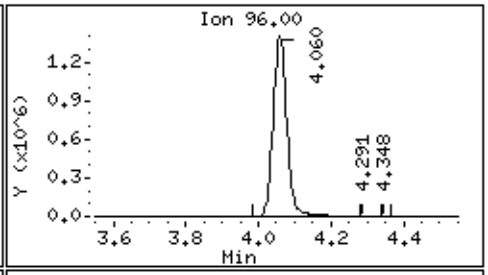
Date : 24-SEP-2021 18:43

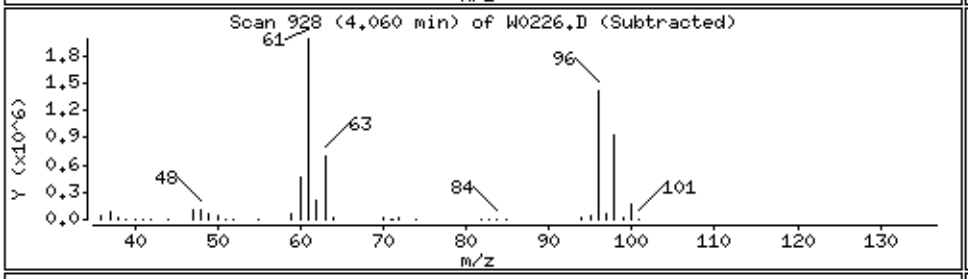
Client ID: VA-MW-84R-1(2021091 Instrument: gcms-w.i

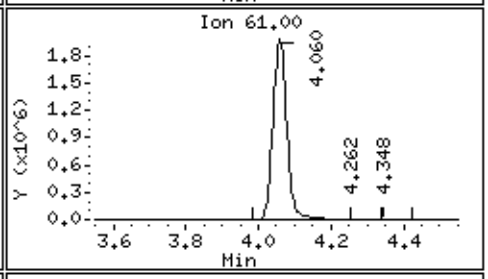
Sample Info: S06313-14DL2

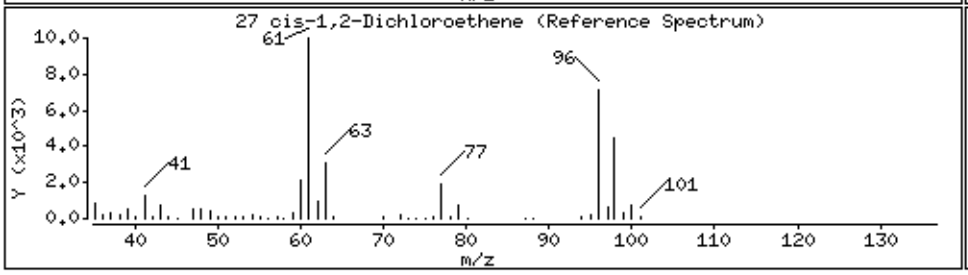
27 cis-1,2-Dichloroethene Concentration: 3560 ug/l

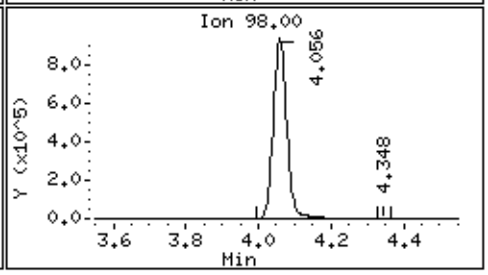




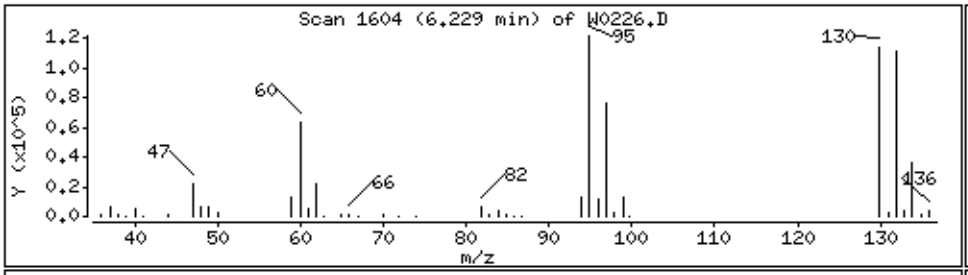


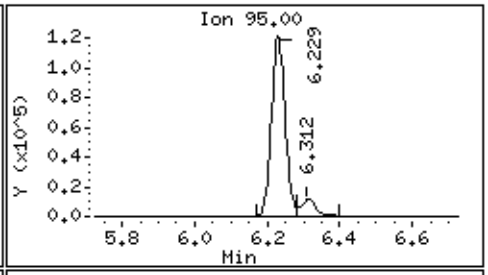


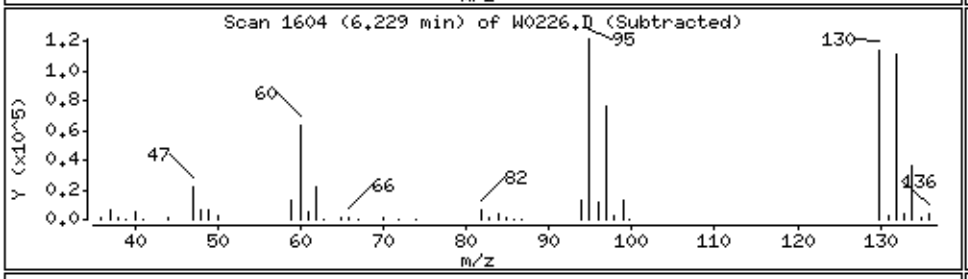


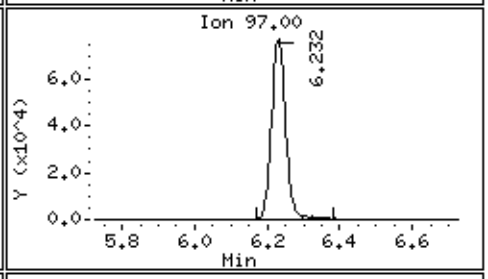


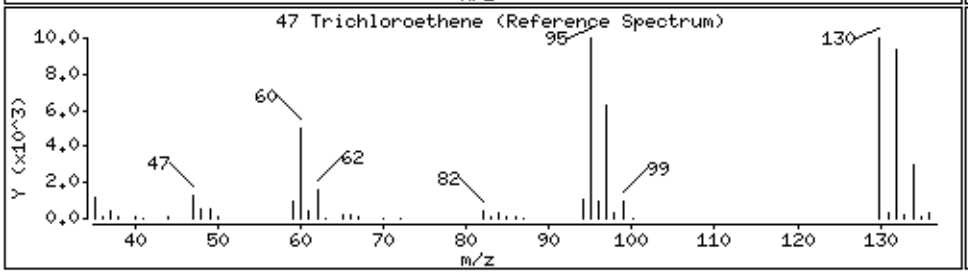
47 Trichloroethene Concentration: 299 ug/l

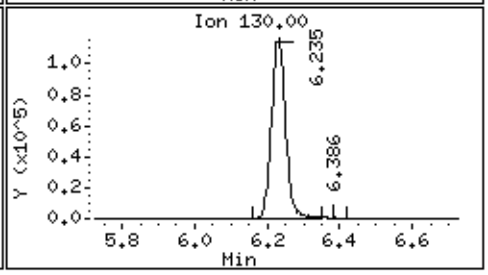












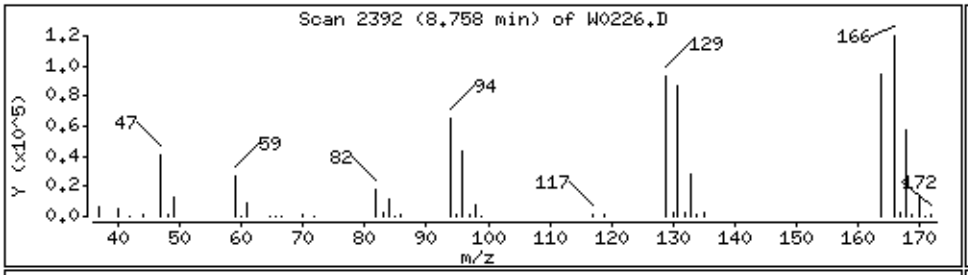
Data File: \\target_server\gg\chem\gcms-w.i\W092421.b\W0226.D

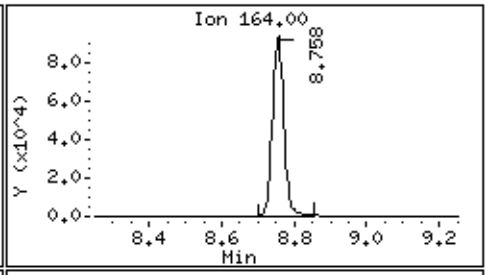
Date : 24-SEP-2021 18:43

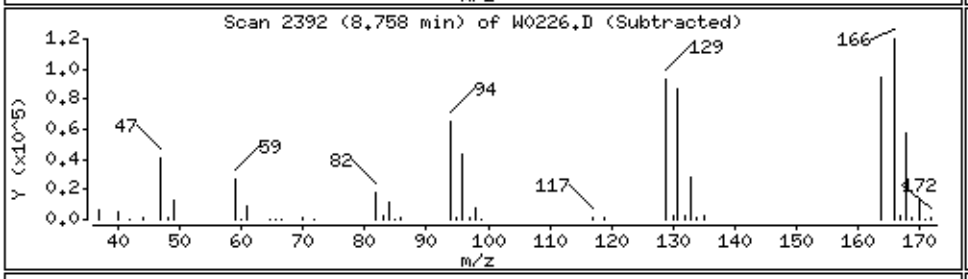
Client ID: VA-MW-84R-1(2021091 Instrument: gcms-w.i

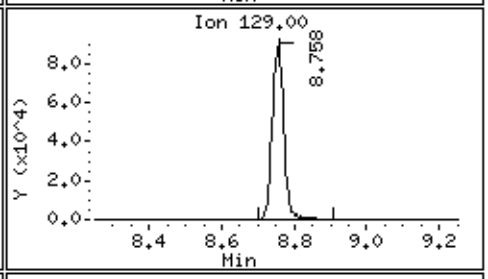
Sample Info: S06313-14DL2

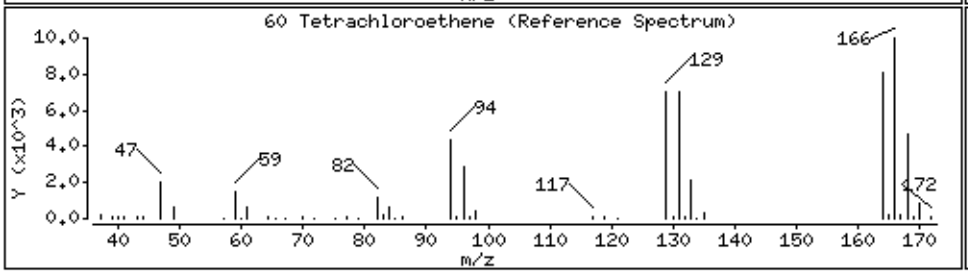
60 Tetrachloroethene Concentration: 244 ug/l

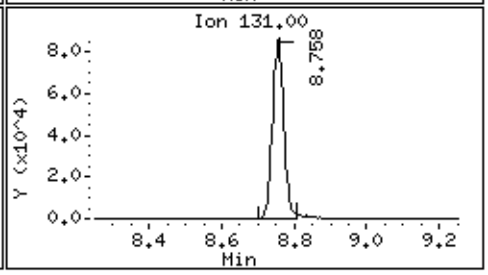








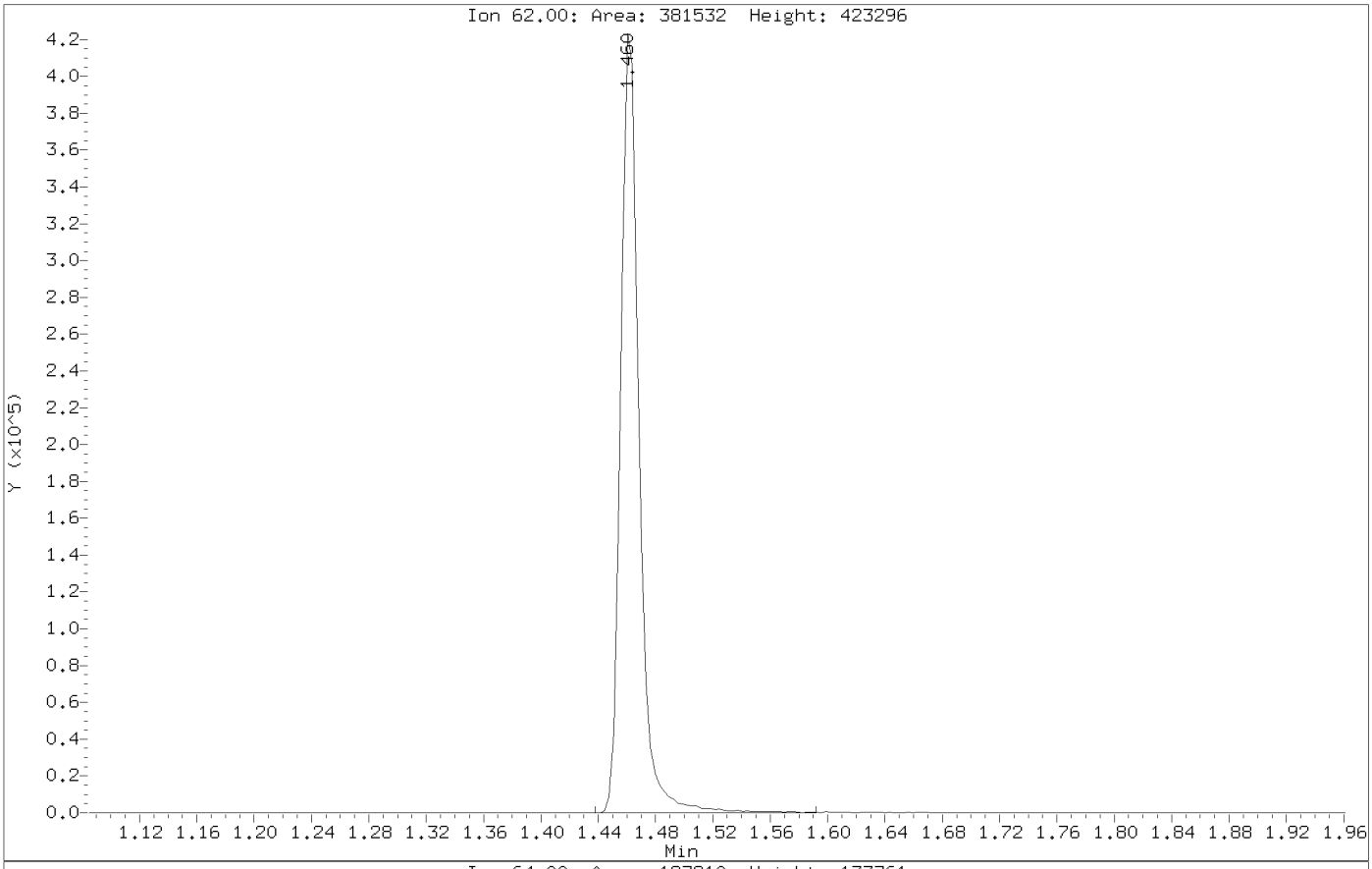


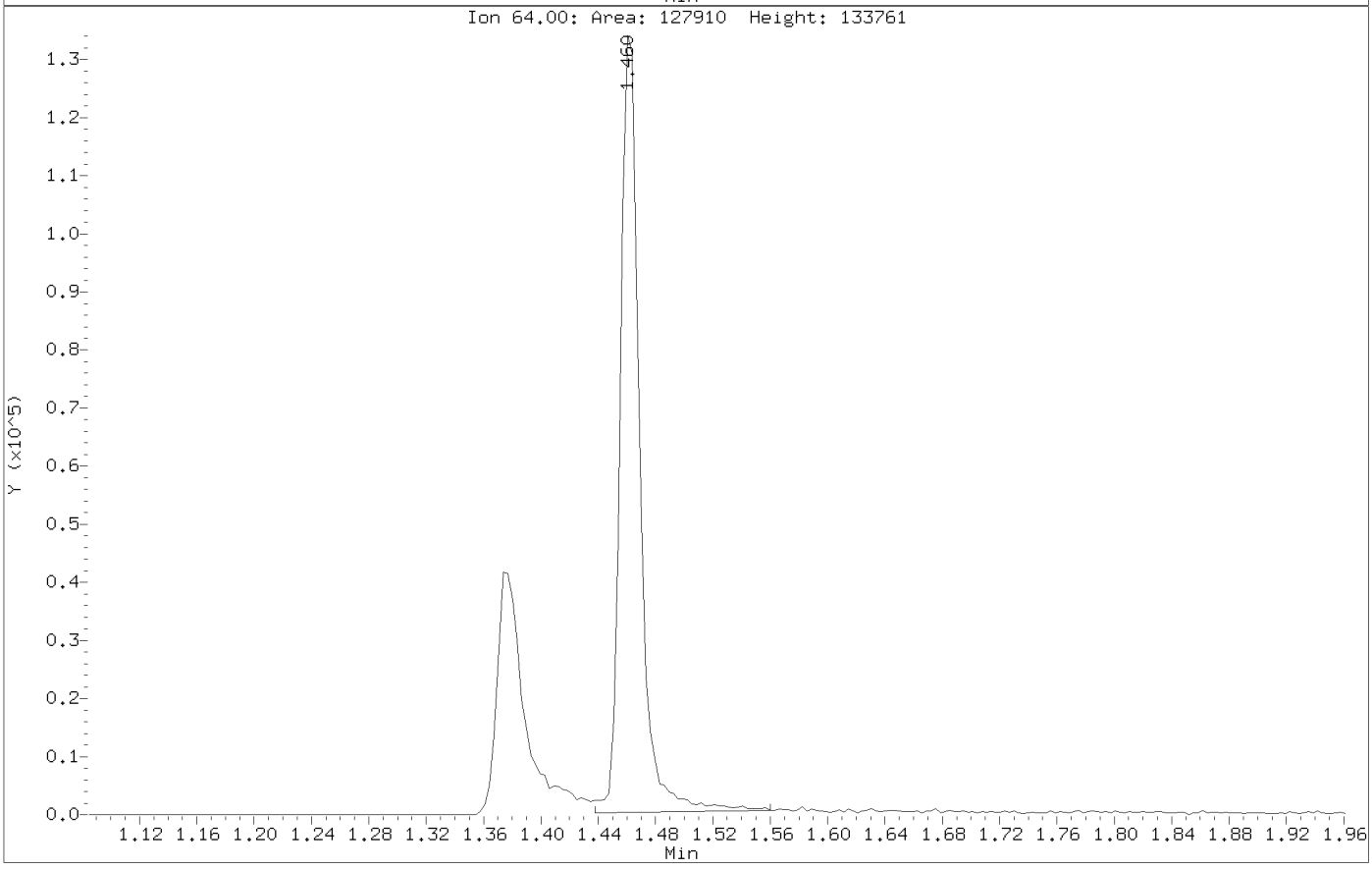


Data File: \\target_server\gg\chem\gcms-w.i\W092421.b\W0226.D
Injection Date: 24-SEP-2021 18:43
Instrument: gcms-w.i
Client Sample ID: VA-MW-84R-1(2021091

Compound: Vinyl chloride
CAS Number: 75-01-4

BEFORE MANUAL INTEGRATION

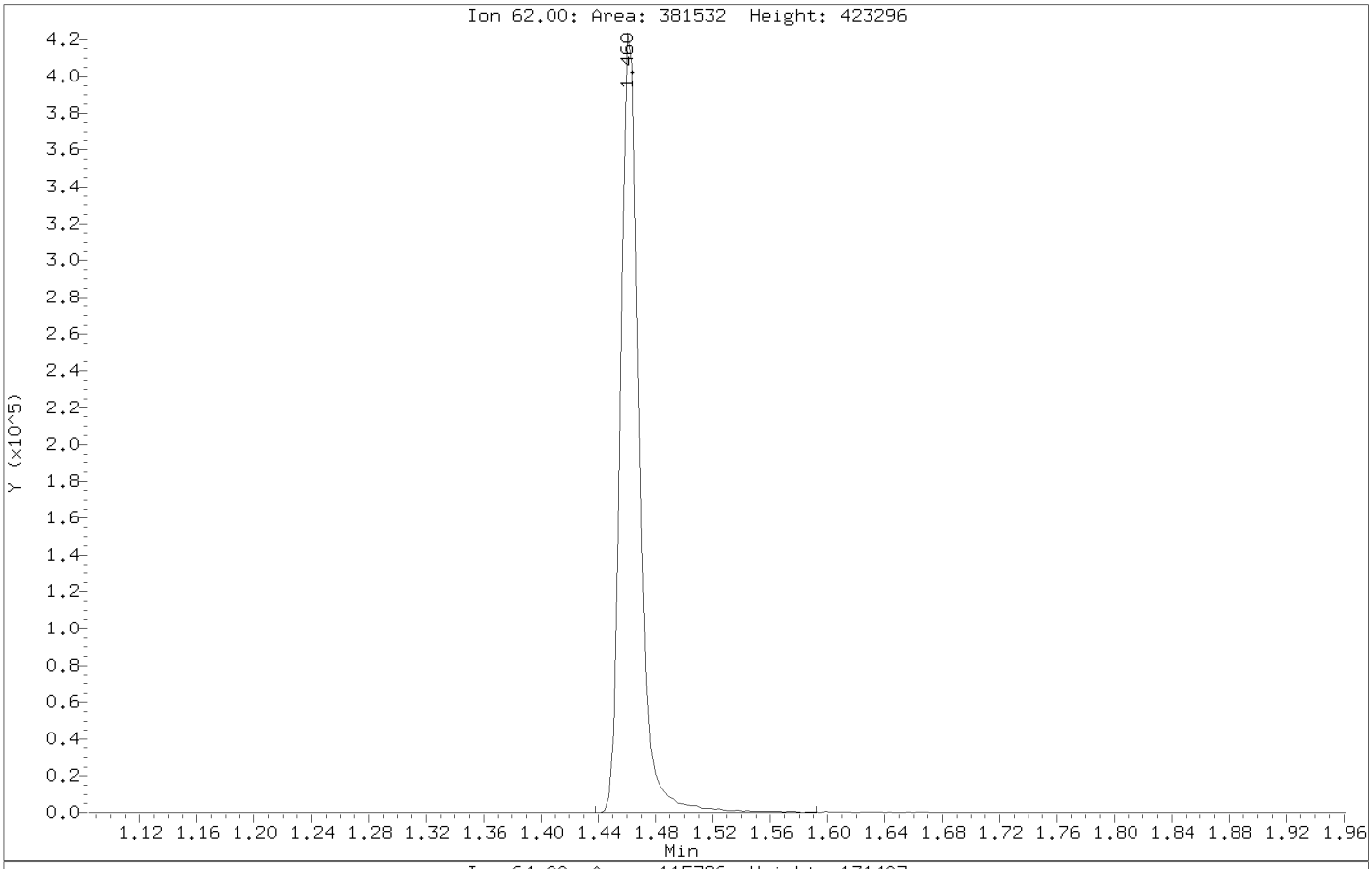


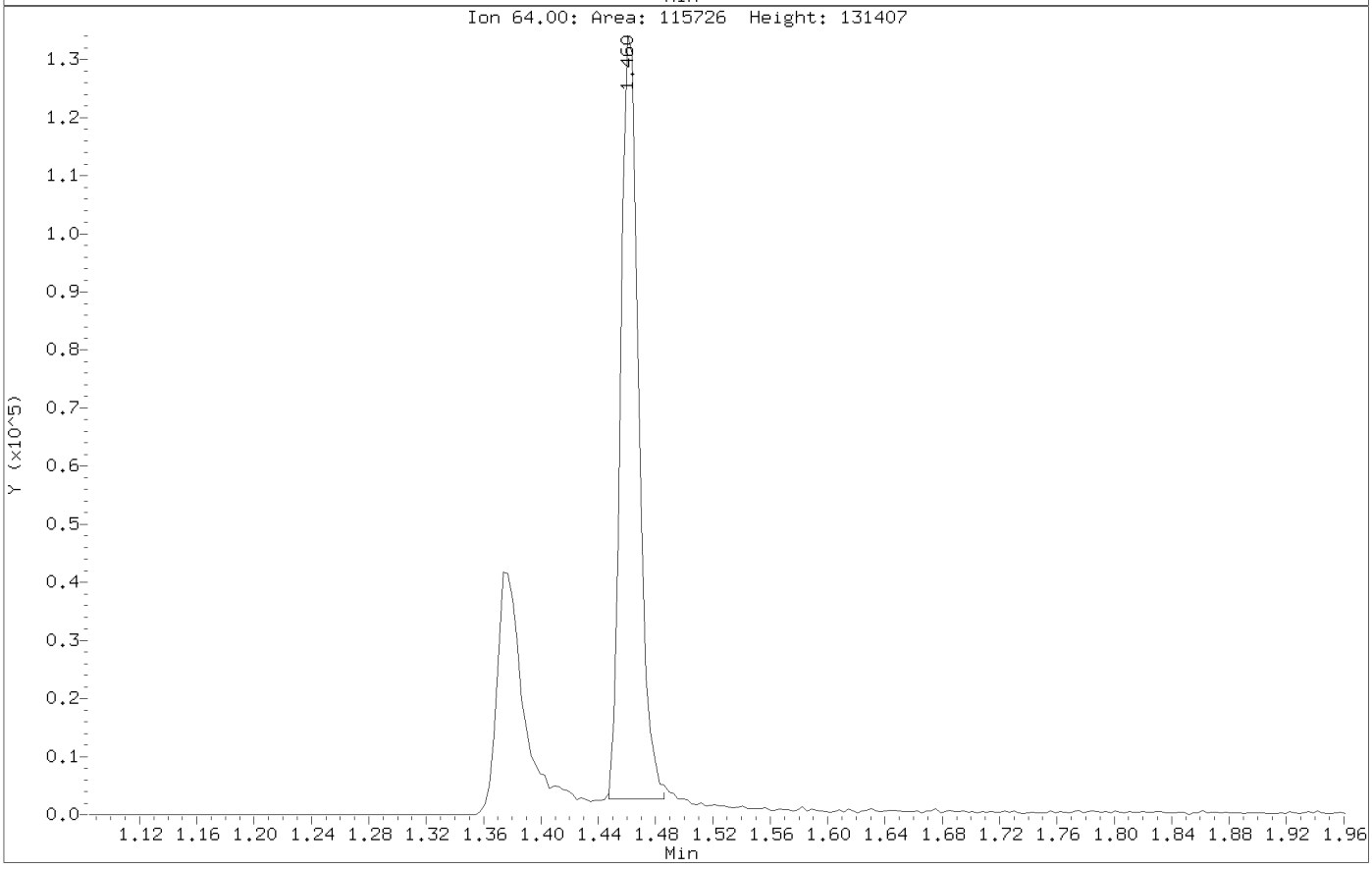


AFTER MANUAL INTEGRATION

Data File: \\target_server\gg\chem\gcms-w.i\W092421.b\W0226.D
Injection Date: 24-SEP-2021 18:43
Instrument: gcms-w.i
Client Sample ID: VA-MW-84R-1(2021091

Compound: Vinyl chloride
CAS Number: 75-01-4





Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-15DL
Client ID: WVA-MW-84R-2(20210915)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0151.D

Sample Date: 15-SEP-21
Received Date: 18-SEP-21
Extract Date: 22-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306464

Analysis Date: 22-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	400	ug/L	200	2	400
Vinyl Chloride		4100	ug/L	200	2	400
Bromomethane	U	400	ug/L	200	2	400
Chloroethane	U	400	ug/L	200	2	400
Trichlorofluoromethane	U	400	ug/L	200	2	400
1,1-Dichloroethene	U	200	ug/L	200	1	200
Carbon Disulfide	U	200	ug/L	200	1	200
Methylene Chloride	U	1000	ug/L	200	5	1000
trans-1,2-Dichloroethene	U	200	ug/L	200	1	200
1,1-Dichloroethane	U	200	ug/L	200	1	200
cis-1,2-Dichloroethene		23000	ug/L	200	1	200
Chloroform	U	200	ug/L	200	1	200
Carbon Tetrachloride	U	200	ug/L	200	1	200
1,1,1-Trichloroethane	U	200	ug/L	200	1	200
2-Butanone	U	1000	ug/L	200	5	1000
Benzene	U	200	ug/L	200	1	200
1,2-Dichloroethane	U	200	ug/L	200	1	200
Trichloroethene		3200	ug/L	200	1	200
1,2-Dichloropropane	U	200	ug/L	200	1	200
Bromodichloromethane	U	200	ug/L	200	1	200
cis-1,3-Dichloropropene	U	200	ug/L	200	1	200
Toluene	U	200	ug/L	200	1	200
4-Methyl-2-Pentanone	U	1000	ug/L	200	5	1000
Tetrachloroethene		6900	ug/L	200	1	200
trans-1,3-Dichloropropene	U	200	ug/L	200	1	200
1,1,2-Trichloroethane	U	200	ug/L	200	1	200
Dibromochloromethane	U	200	ug/L	200	1	200
Chlorobenzene	U	200	ug/L	200	1	200
Ethylbenzene	U	200	ug/L	200	1	200
m+p-Xylenes	U	400	ug/L	200	2	400
o-Xylene	U	200	ug/L	200	1	200
Bromoform	U	200	ug/L	200	1	200
1,1,2,2-Tetrachloroethane	U	200	ug/L	200	1	200
P-Bromofluorobenzene		101.	%			
Toluene-d8		102.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-15DL
Client ID: WVA-MW-84R-2(20210915)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0151.D

Sample Date: 15-SEP-21
Received Date: 18-SEP-21
Extract Date: 22-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306464

Analysis Date: 22-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		116.	%			
Dibromofluoromethane		106.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Data File: \\target_server\gg\chem\gcms-w.i\W092221.b\W0151.D
Report Date: 12-Oct-2021 08:54

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-w.i\W092221.b\W0151.D
Lab Smp Id: SO6313-15DL Client Smp ID: VA-MW-84R-2(2021091
Inj Date : 22-SEP-2021 10:25
Operator : ES Inst ID: gcms-w.i
Smp Info : SO6313-15DL
Misc Info : WG306464,WG306464-4
Comment : SW846 5030
Method : \\target_server\gg\chem\gcms-w.i\W092221.b\W8A05(08).m
Meth Date : 11-Oct-2021 13:03 hgould Quant Type: ISTD
Cal Date : 20-SEP-2021 11:30 Cal File: W0105.D
Als bottle: 7
Dil Factor: 200.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.12

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

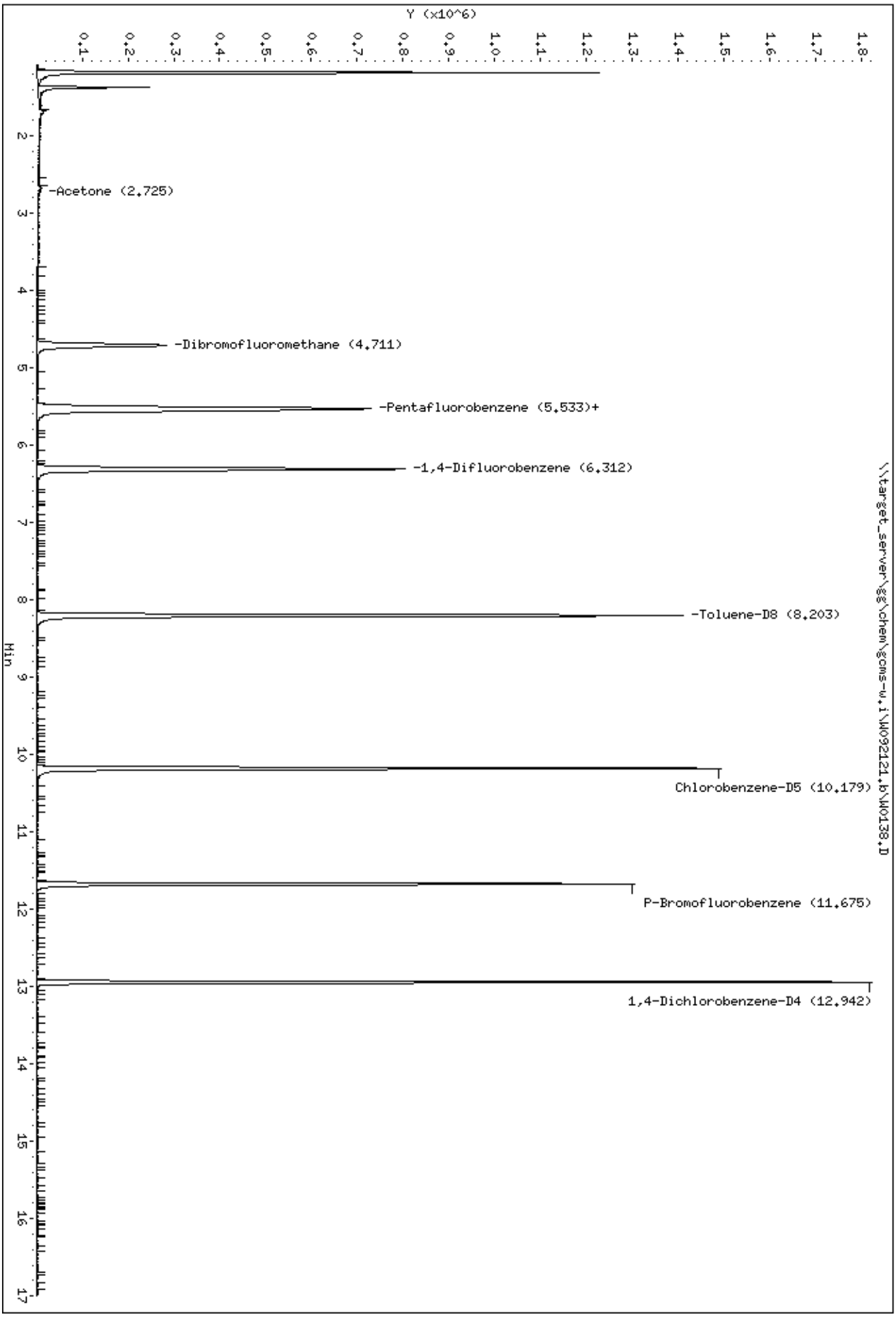
Name	Value	Description
DF	200.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

10:22 am, Oct 12, 2021

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)	REVIEW CODE
	3 Vinyl chloride	62	1.460	1.460	(0.265)	114402	20.5118	4100(M)	M10
	14 Methylene Chloride	84	2.670	2.677	(0.484)	17420	3.48225	696(a)	
	16 trans-1,2-Dichloroethene	96	2.817	2.815	(0.511)	3109	0.57842	116(a)	
	27 cis-1,2-Dichloroethene	96	4.050	4.056	(0.734)	662034	115.649	23100	
$	34 Dibromofluoromethane	113	4.714	4.714	(0.854)	268581	52.8341	52.8	
*	41 Pentafluorobenzene	168	5.519	5.526	(1.000)	507556	50.0000		
$	42 1,2-Dichloroethane-D4	65	5.542	5.549	(1.004)	383271	57.8835	57.9	
	47 Trichloroethene	95	6.229	6.226	(0.987)	88801	16.2331	3250	
*	48 1,4-Difluorobenzene	114	6.309	6.315	(1.000)	862100	50.0000		
$	58 Toluene-D8	98	8.202	8.209	(1.300)	1051403	50.9952	51.0	
	60 Tetrachloroethene	164	8.751	8.754	(0.860)	168509	34.6225	6920	
*	68 Chlorobenzene-D5	117	10.179	10.182	(1.000)	846923	50.0000		
$	77 P-Bromofluorobenzene	95	11.674	11.678	(1.850)	436521	50.5991	50.6	
*	93 1,4-Dichlorobenzene-D4	152	12.942	12.948	(1.000)	433281	50.0000		
M	97 1,2-Dichloroethylene (total)	96				665143	116.227	23200	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.


Data File: \\target_server\gg\chem\gcms-w.i\W092121.b\W0138.D
Date : 21-SEP-2021 15:26
Client ID: 92EM-SP-8(20210916)
Sample Info: SD6313-18
Instrument: gcms-w.i
\\target_server\gg\chem\gcms-w.i\W092121.b\W0138.D
Y (x10^6)
Min
-Acetone (2.725)
-Dibromofluoromethane (4.711)
-Pentafluorobenzene (5.533)+
-1,4-Difluorobenzene (6.312)
-Toluene-D8 (8.203)
Chlorobenzene-D5 (10.179)
P-Bromofluorobenzene (11.675)
1,4-Dichlorobenzene-D4 (12.942)

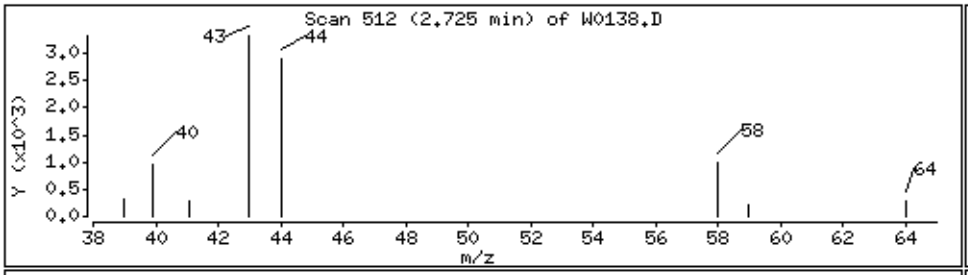
Data File: \\target_server\gg\chem\gcms-w.i\W092121.b\W0138.D

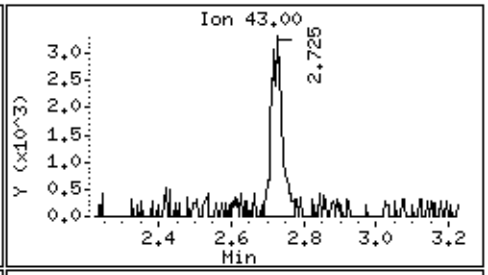
Date : 21-SEP-2021 15:26

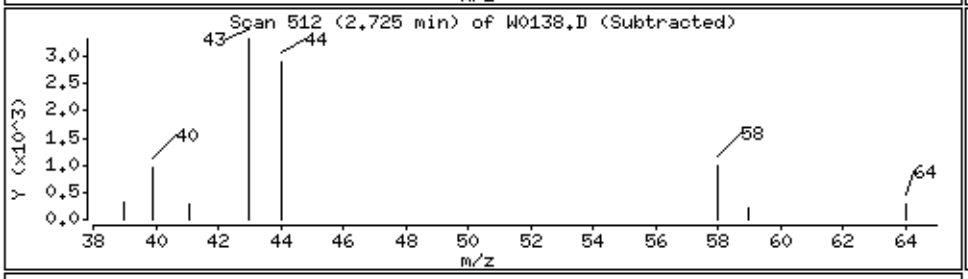
Client ID: 92EM-SP-8(20210916) Instrument: gcms-w.i

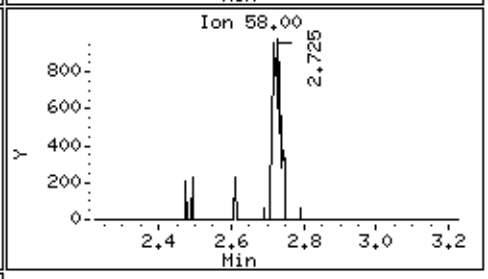
Sample Info: S06313-18

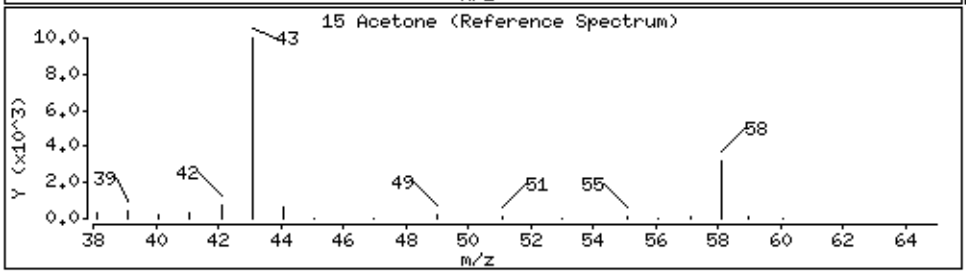
15 Acetone Concentration: 4.8 ug/l











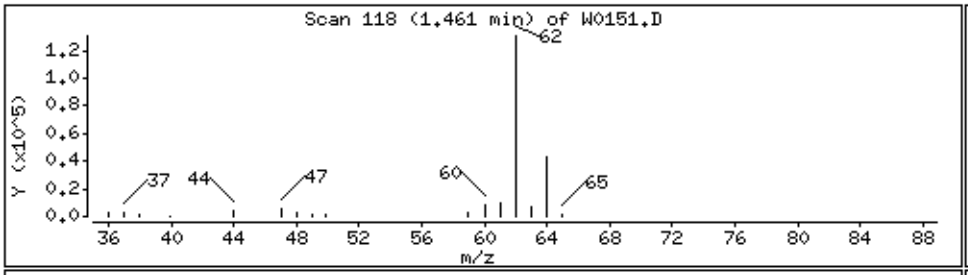
Data File: \\target_server\gg\chem\gcms-w.i\W092221.b\W0151.D

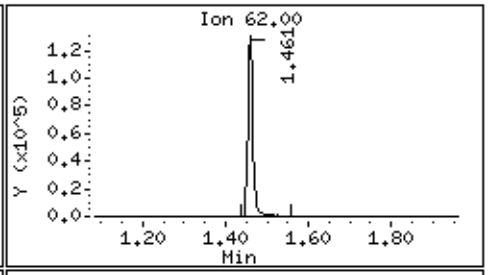
Date : 22-SEP-2021 10:25

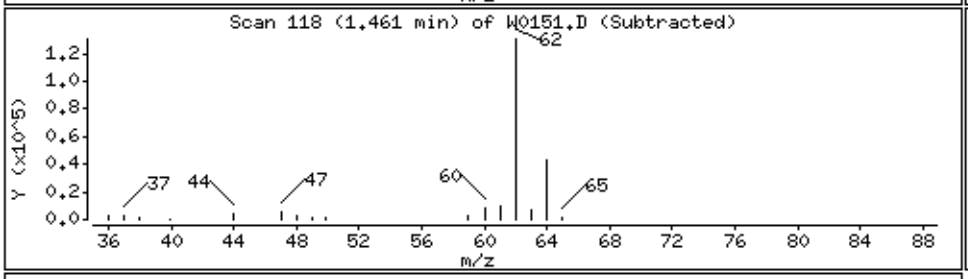
Client ID: VA-MW-84R-2(2021091 Instrument: gcms-w.i

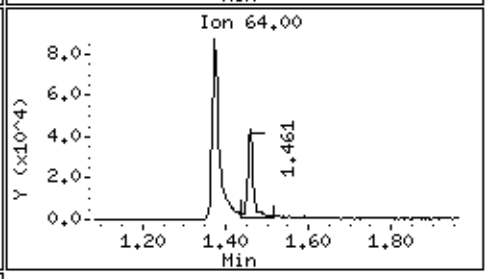
Sample Info: SO6313-15DL

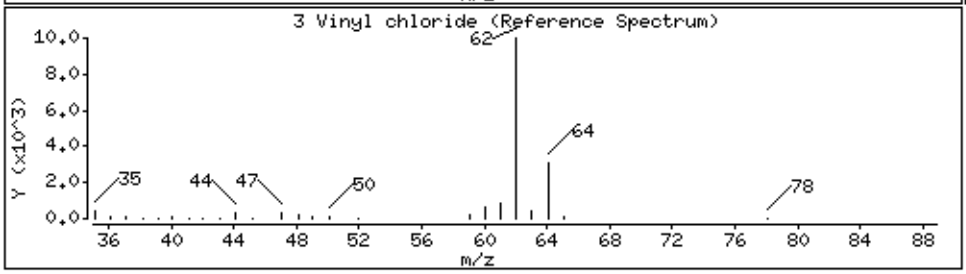
3 Vinyl chloride Concentration: 4100 ug/l



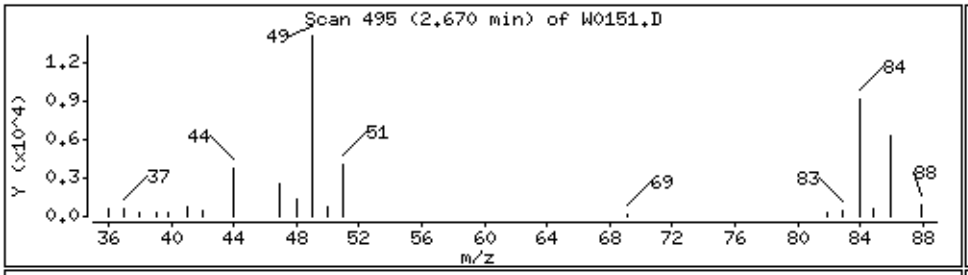


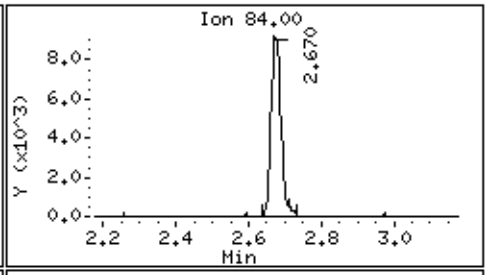


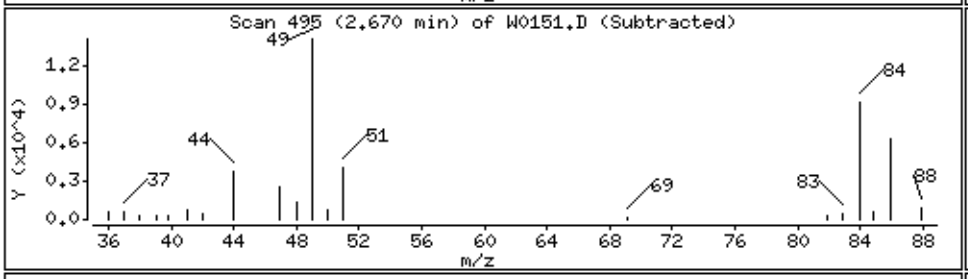


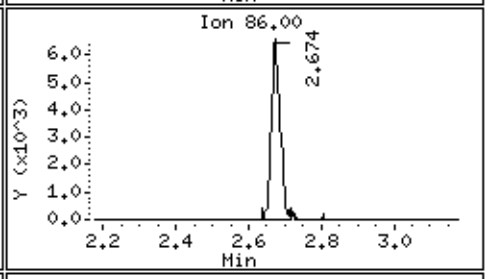


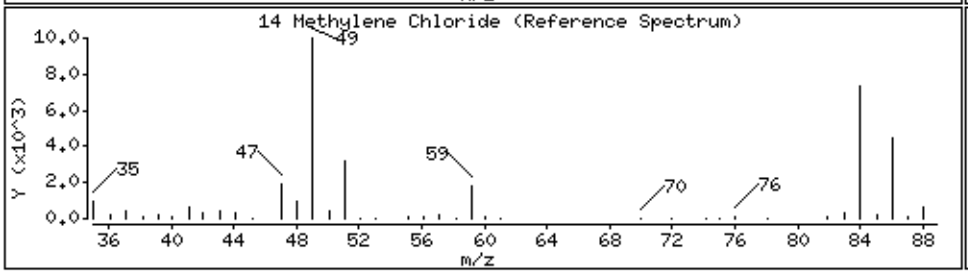
14 Methylene Chloride Concentration: 696 ug/l

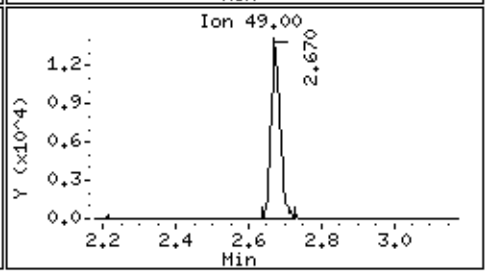












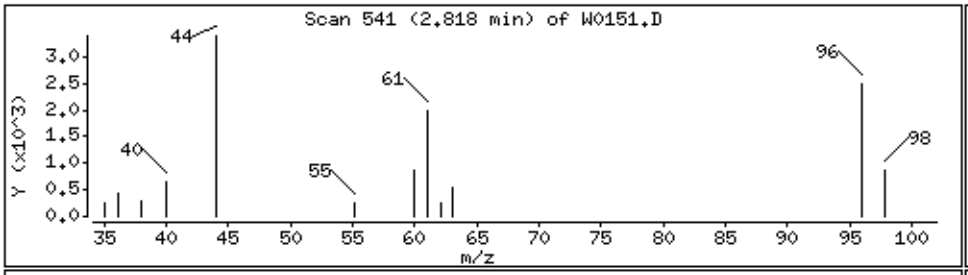
Data File: \\target_server\gg\chem\gcms-w.i\W092221.b\W0151.D

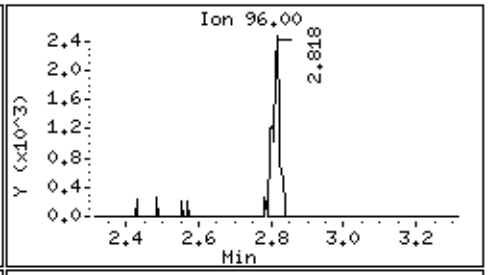
Date : 22-SEP-2021 10:25

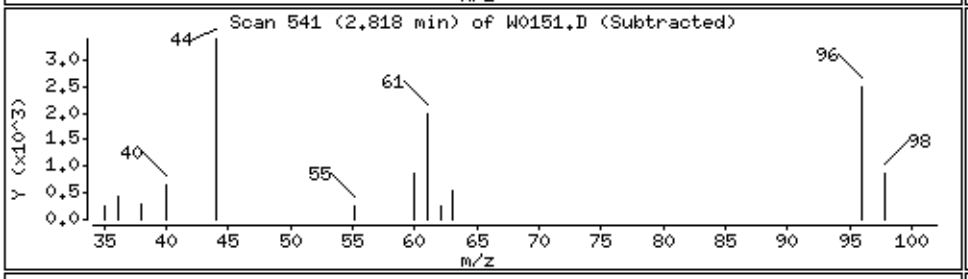
Client ID: VA-MW-84R-2(2021091 Instrument: gcms-w.i

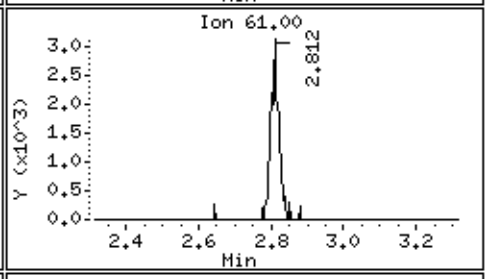
Sample Info: S06313-15DL

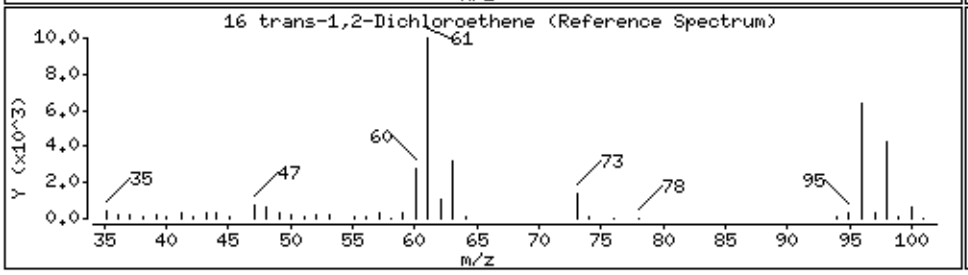
16 trans-1,2-Dichloroethene Concentration: 116 ug/l

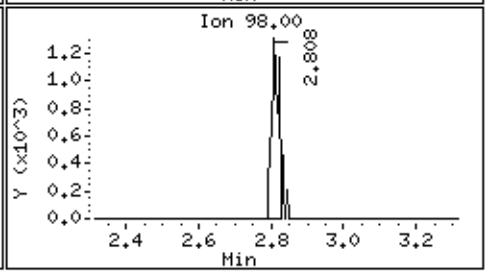




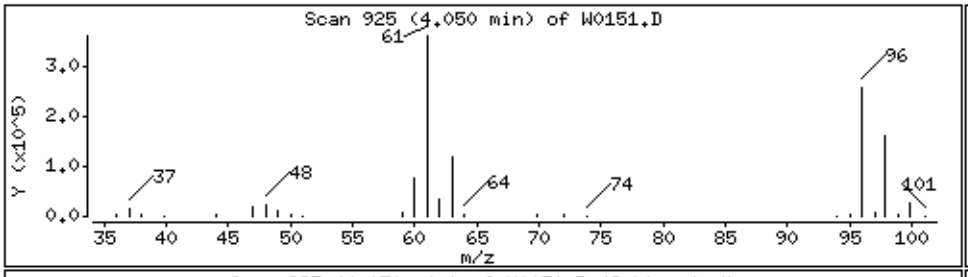


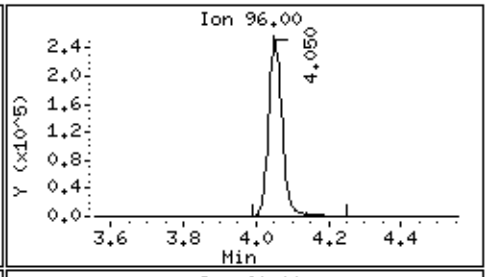


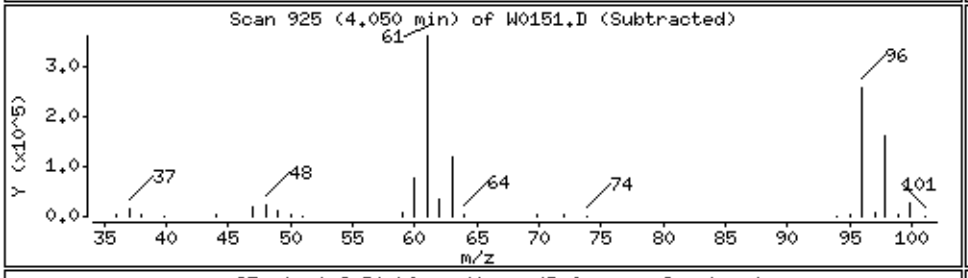


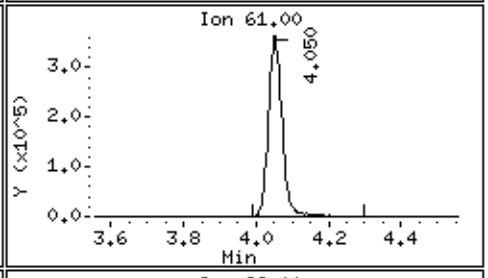


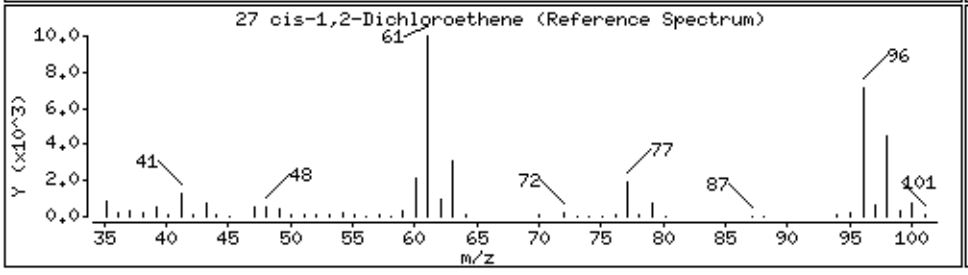
27 cis-1,2-Dichloroethene Concentration: 23100 ug/l

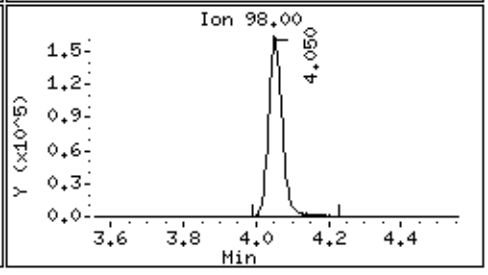












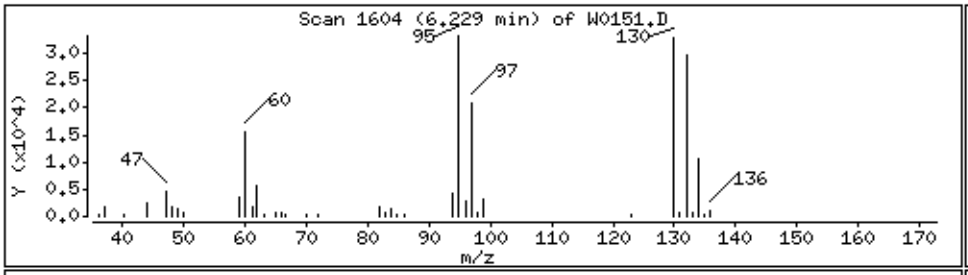
Data File: \\target_server\gg\chem\gcms-w.i\W092221.b\W0151.D

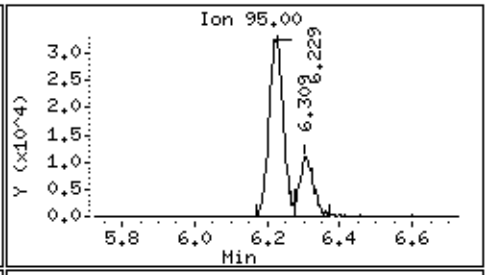
Date : 22-SEP-2021 10:25

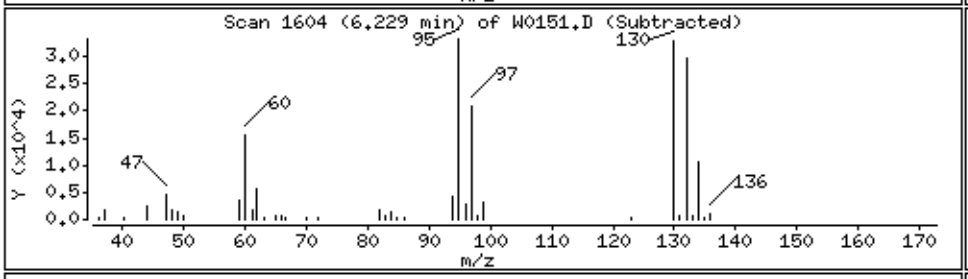
Client ID: VA-MW-84R-2(2021091 Instrument: gcms-w.i

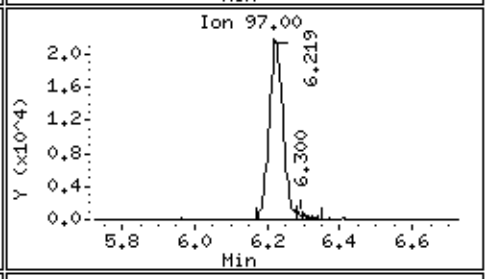
Sample Info: S06313-15DL

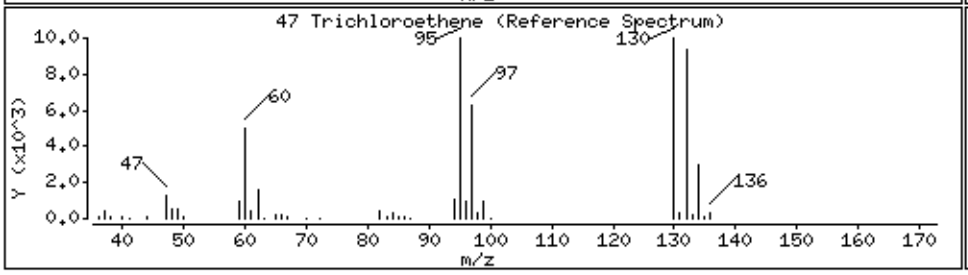
47 Trichloroethene Concentration: 3250 ug/l

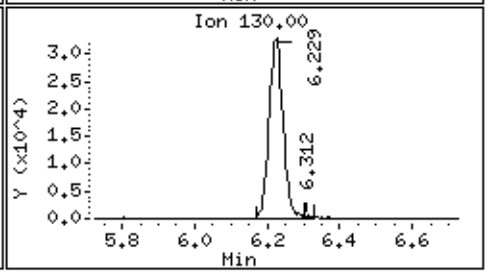




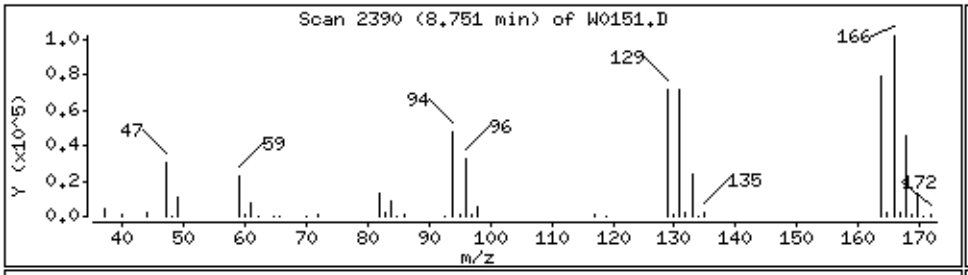


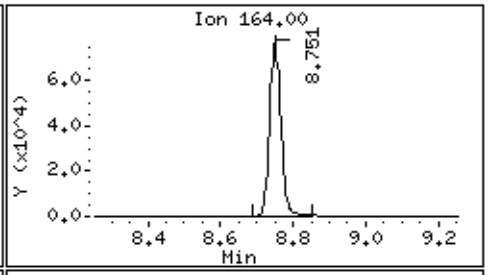


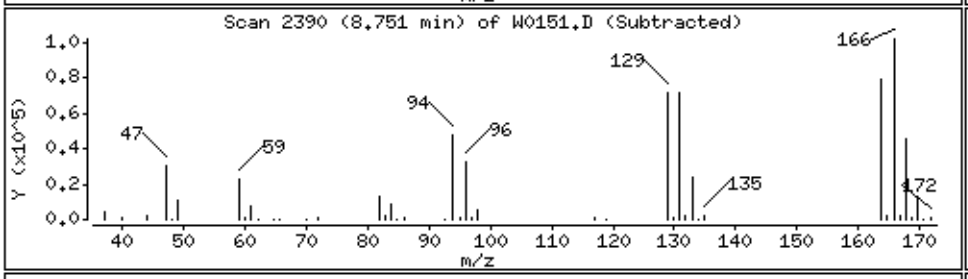


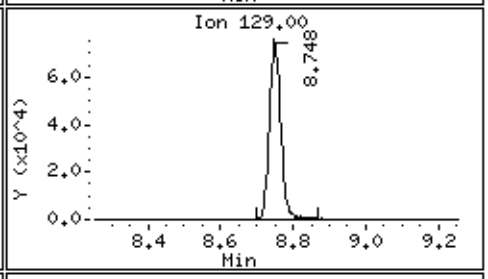


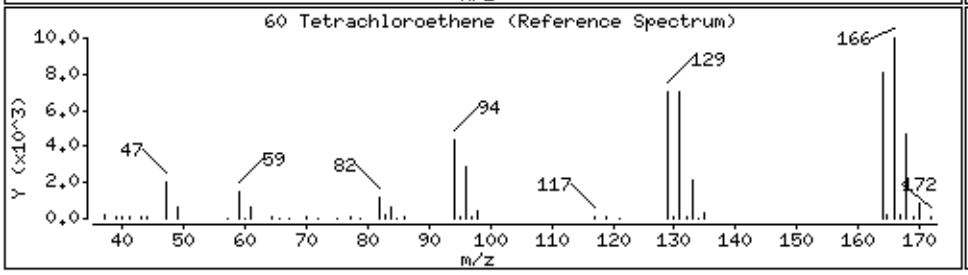
60 Tetrachloroethene Concentration: 6920 ug/l

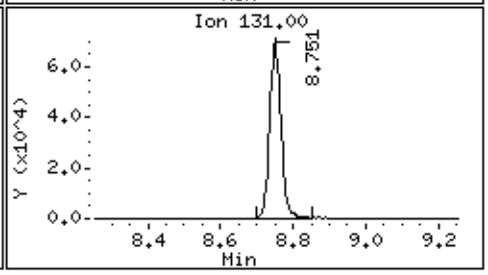








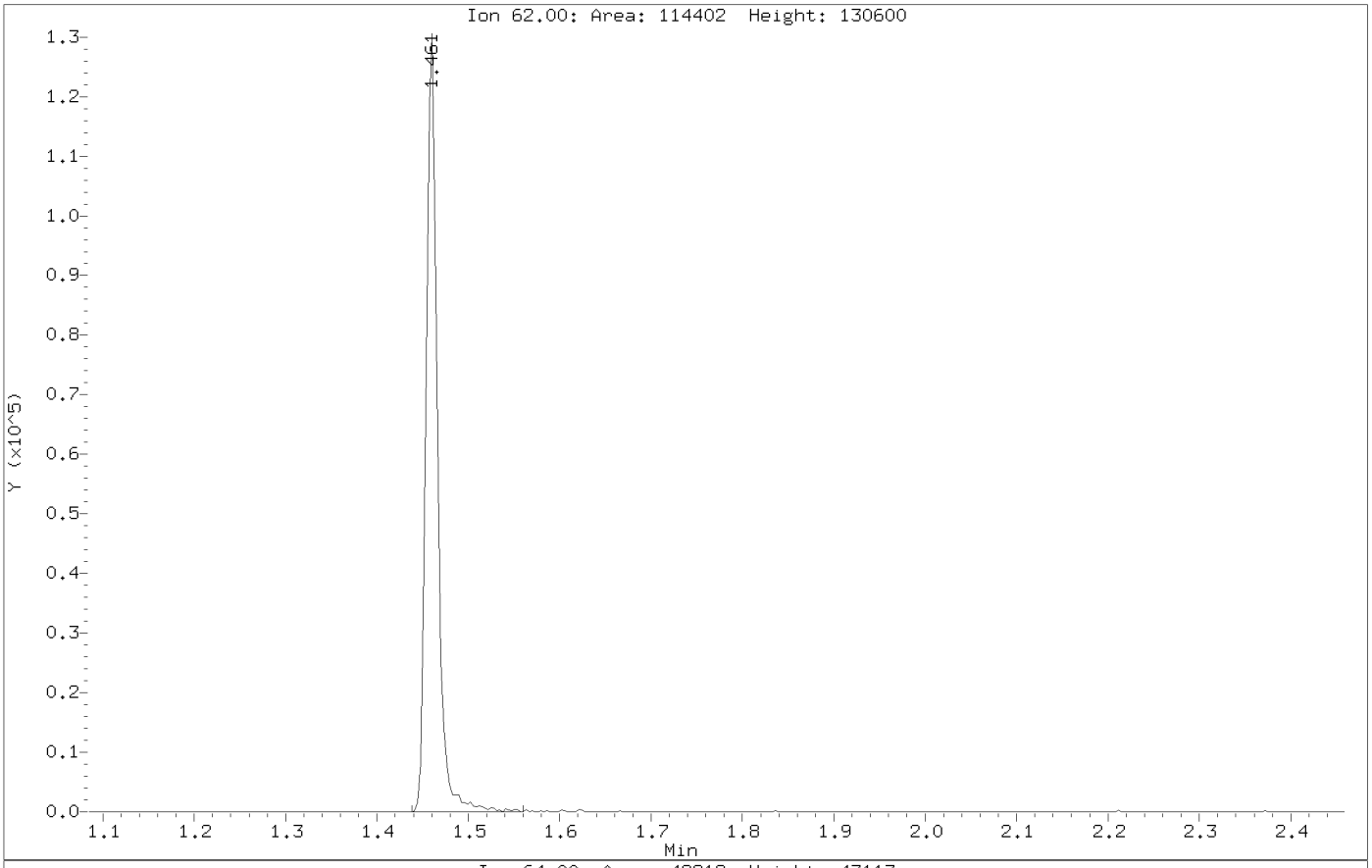


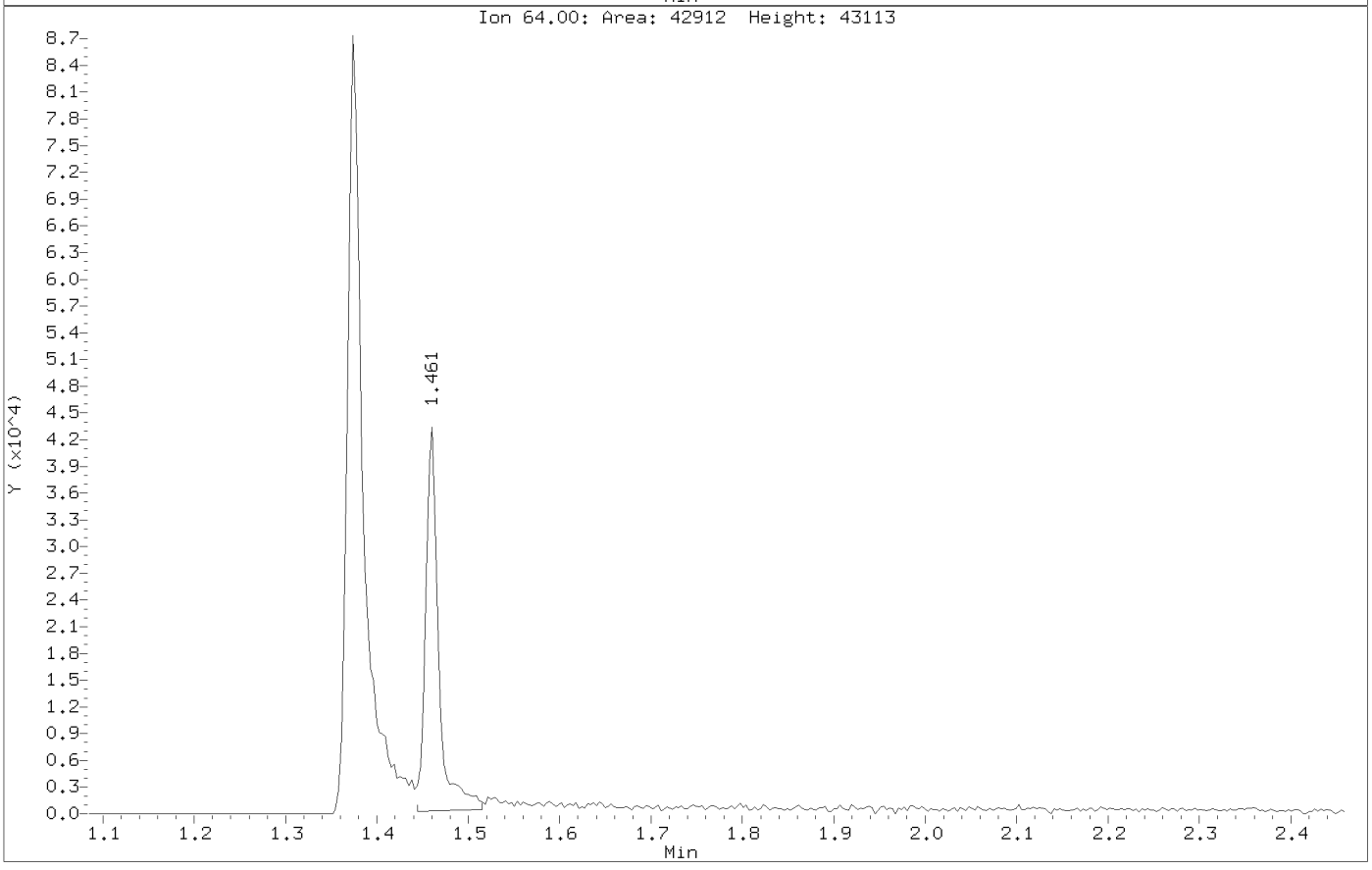


BEFORE MANUAL INTEGRATION

Data File: \\target_server\gg\chem\gcms-w.i\W092221.b\W0151.D
Injection Date: 22-SEP-2021 10:25
Instrument: gcms-w.i
Client Sample ID: VA-MW-84R-2(2021091

Compound: Vinyl chloride
CAS Number: 75-01-4

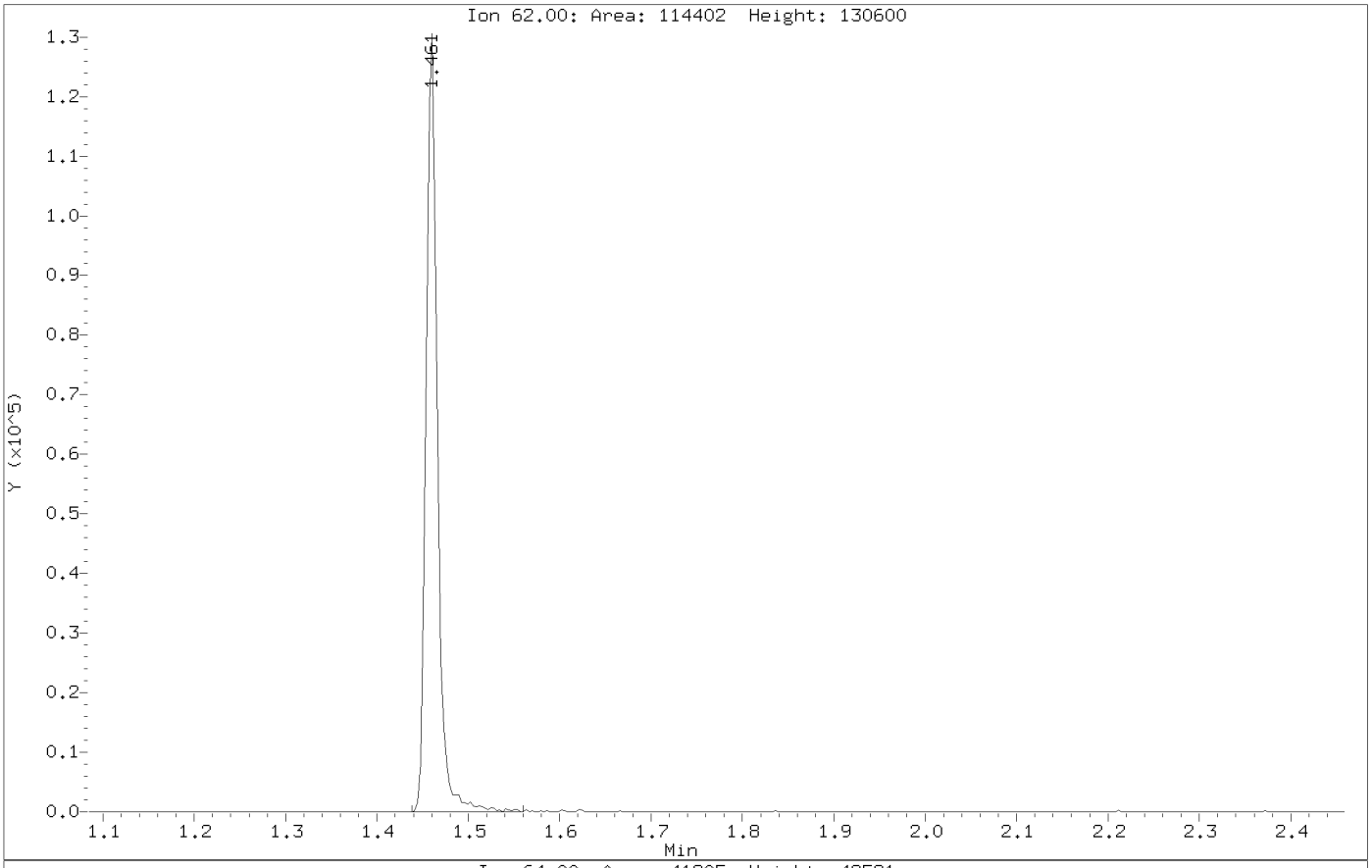


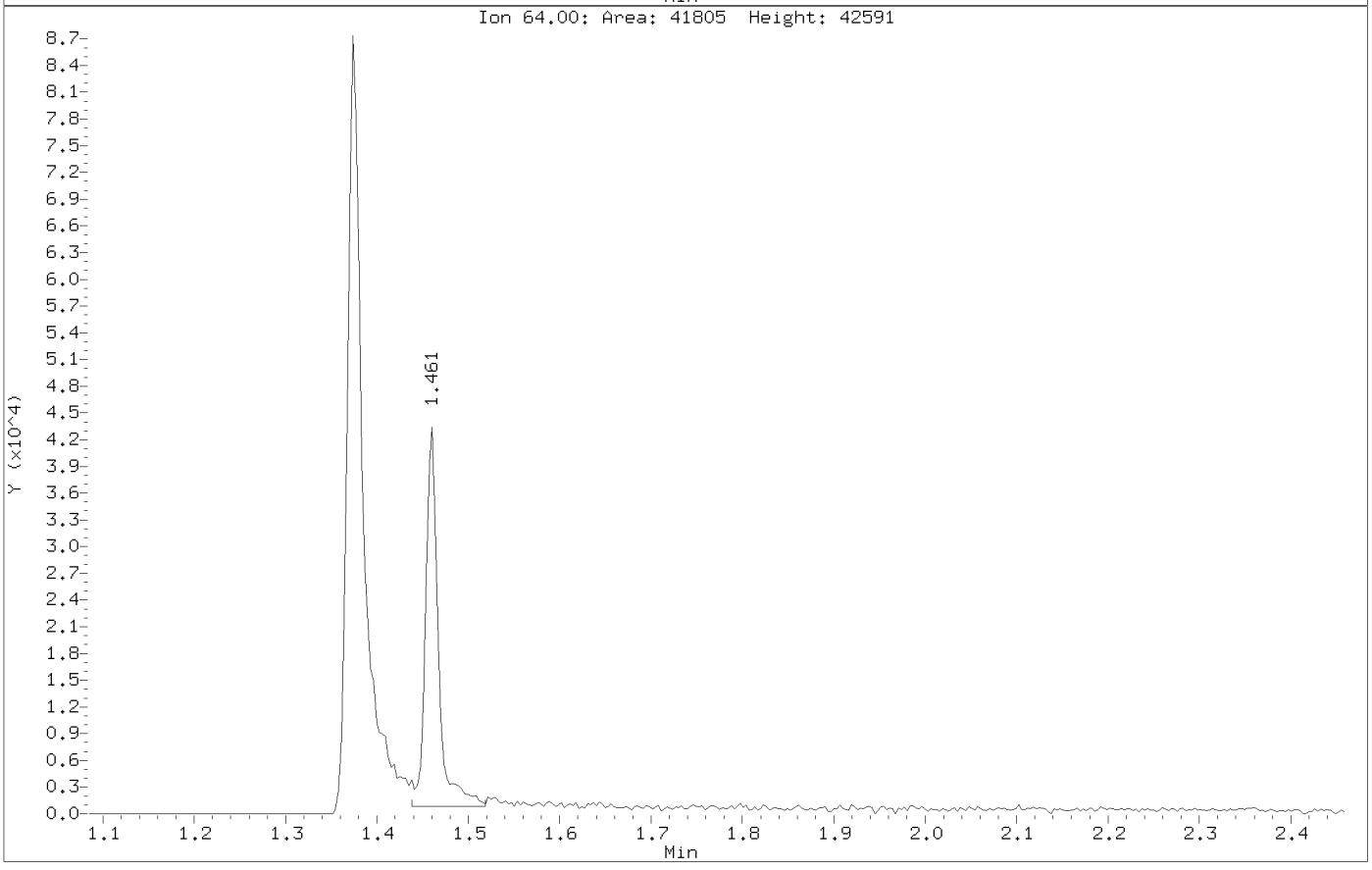


Data File: \\target_server\gg\chem\gcms-w.i\W092221.b\W0151.D
Injection Date: 22-SEP-2021 10:25
Instrument: gcms-w.i
Client Sample ID: VA-MW-84R-2(2021091

Compound: Vinyl chloride
CAS Number: 75-01-4

AFTER MANUAL INTEGRATION





Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-15DL2
Client ID: WVA-MW-84R-2(20210915)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0163.D

Sample Date: 15-SEP-21
Received Date: 18-SEP-21
Extract Date: 22-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306464

Analysis Date: 22-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 13-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	40.	ug/L	20	2	40.
Vinyl Chloride	E	3800	ug/L	20	2	40.
Bromomethane	U	40.	ug/L	20	2	40.
Chloroethane	U	40.	ug/L	20	2	40.
Trichlorofluoromethane	U	40.	ug/L	20	2	40.
1,1-Dichloroethene		50.	ug/L	20	1	20.
Carbon Disulfide	U	20.	ug/L	20	1	20.
Methylene Chloride	U	100	ug/L	20	5	100
trans-1,2-Dichloroethene		110	ug/L	20	1	20.
1,1-Dichloroethane	U	20.	ug/L	20	1	20.
cis-1,2-Dichloroethene	E	22000	ug/L	20	1	20.
Chloroform	U	20.	ug/L	20	1	20.
Carbon Tetrachloride	U	20.	ug/L	20	1	20.
1,1,1-Trichloroethane	U	20.	ug/L	20	1	20.
2-Butanone	U	100	ug/L	20	5	100
Benzene	U	20.	ug/L	20	1	20.
1,2-Dichloroethane	U	20.	ug/L	20	1	20.
Trichloroethene	E	3200	ug/L	20	1	20.
1,2-Dichloropropane	U	20.	ug/L	20	1	20.
Bromodichloromethane	U	20.	ug/L	20	1	20.
cis-1,3-Dichloropropene	U	20.	ug/L	20	1	20.
Toluene	U	20.	ug/L	20	1	20.
4-Methyl-2-Pentanone	U	100	ug/L	20	5	100
Tetrachloroethene	E	7200	ug/L	20	1	20.
trans-1,3-Dichloropropene	U	20.	ug/L	20	1	20.
1,1,2-Trichloroethane		190	ug/L	20	1	20.
Dibromochloromethane	U	20.	ug/L	20	1	20.
Chlorobenzene	U	20.	ug/L	20	1	20.
Ethylbenzene	U	20.	ug/L	20	1	20.
m+p-Xylenes	U	40.	ug/L	20	2	40.
o-Xylene	U	20.	ug/L	20	1	20.
Bromoform	U	20.	ug/L	20	1	20.
1,1,2,2-Tetrachloroethane	U	20.	ug/L	20	1	20.
P-Bromofluorobenzene		97.9	%			
Toluene-d8		99.6	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-15DL2
Client ID: WVA-MW-84R-2(20210915)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0163.D

Sample Date: 15-SEP-21
Received Date: 18-SEP-21
Extract Date: 22-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306464

Analysis Date: 22-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 13-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		117.	%			
Dibromofluoromethane		107.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Data File: \\target_server\gg\chem\gcms-w.i\W092221.b\W0163.D
Report Date: 13-Oct-2021 14:06

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-w.i\W092221.b\W0163.D
Lab Smp Id: SO6313-15DL2 Client Smp ID: VA-MW-84R-2(2021091
Inj Date : 22-SEP-2021 16:33
Operator : ES Inst ID: gcms-w.i
Smp Info : SO6313-15DL2
Misc Info : WG306464,WG306646-4
Comment : SW846 5030
Method : \\target_server\gg\chem\gcms-w.i\W092221.b\W8A05(08).m
Meth Date : 11-Oct-2021 13:03 hgould Quant Type: ISTD
Cal Date : 20-SEP-2021 11:30 Cal File: W0105.D
Als bottle: 19
Dil Factor: 20.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.12
Processing Host: VOA-WS

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

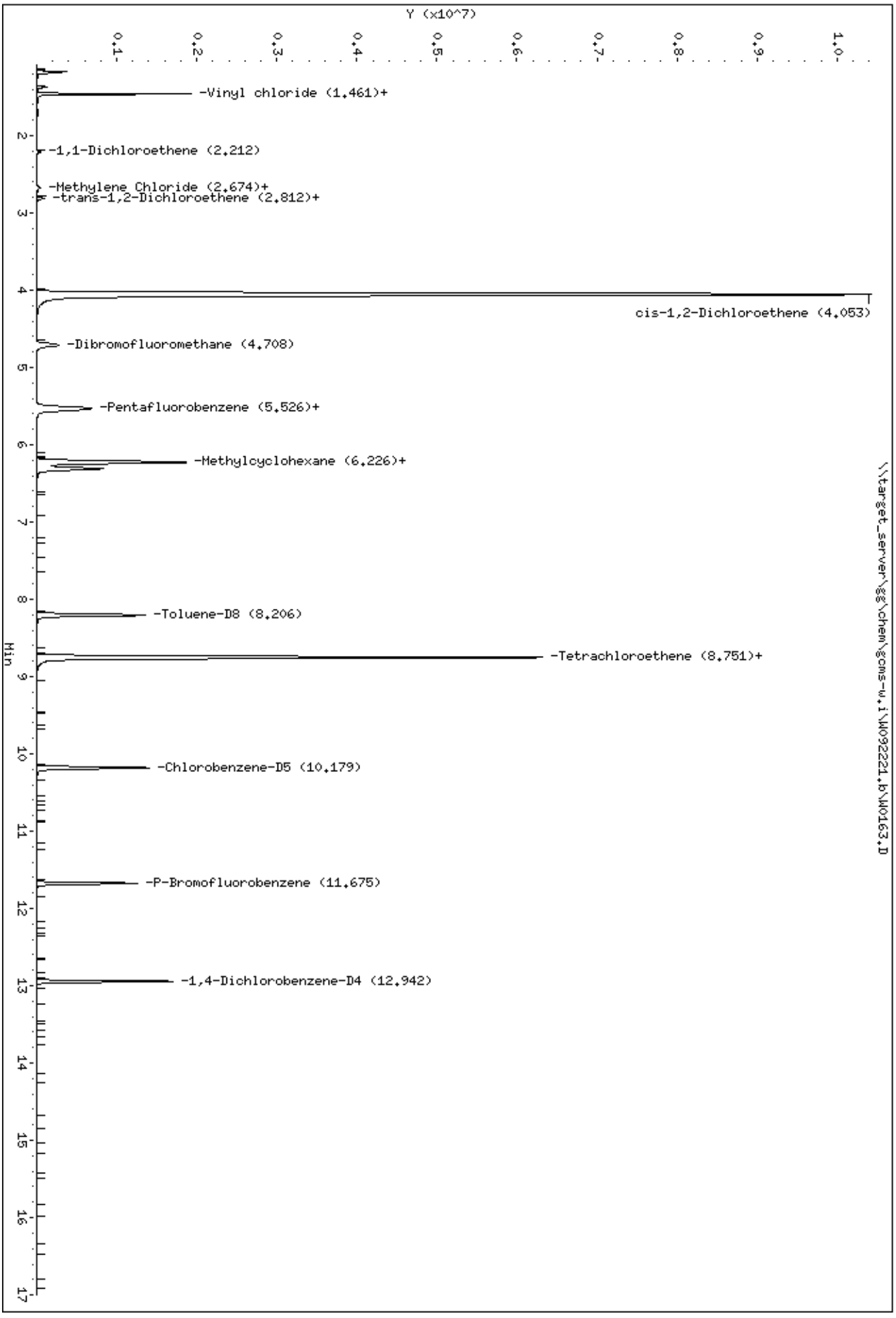
Name	Value	Description
DF	20.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

		Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)	REVIEW CODE
	3	Vinyl chloride	62	1.460	1.460	(0.264)	1012371	187.877	3760(A)	
	5	Chloroethane	64	1.560	1.752	(0.282)	2426	0.67479	13.5(a)	
	8	1,1-Dichloroethene	96	2.211	2.211	(0.400)	12108	2.47599	49.5	
	14	Methylene Chloride	84	2.673	2.677	(0.484)	18247	3.77545	75.5(a)	
	15	Acetone	43	2.721	2.725	(0.493)	2976	2.22199	44.4(a)	
	16	trans-1,2-Dichloroethene	96	2.811	2.815	(0.509)	27999	5.39180	108	
	19	Tertiary-butyl alcohol	59	2.814	3.017	(0.509)	1690	4.11980	82.4(a)	
	27	cis-1,2-Dichloroethene	96	4.053	4.056	(0.733)	5989473	1082.96	21600(A)	
$	34	Dibromofluoromethane	113	4.708	4.714	(0.852)	263063	53.5629	53.6	
*	41	Pentafluorobenzene	168	5.526	5.526	(1.000)	490364	50.0000		
$	42	1,2-Dichloroethane-D4	65	5.548	5.549	(1.004)	374028	58.4680	58.5	
	44	1,2-Dichloroethane	62	5.519	5.658	(0.875)	2739	0.34648	6.9(a)	
	46	Methylcyclohexane	83	6.219	6.184	(1.125)	10857	1.20590	24.1	
	47	Trichloroethene	95	6.225	6.226	(0.987)	863210	158.120	3160(A)	
*	48	1,4-Difluorobenzene	114	6.309	6.315	(1.000)	860340	50.0000		
$	58	Toluene-D8	98	8.205	8.209	(1.301)	1024977	49.8152	49.8	
	60	Tetrachloroethene	164	8.751	8.754	(0.860)	1669321	357.726	7150(A)	
	63	1,1,2-Trichloroethane	83	8.754	9.049	(1.388)	37112	9.66238	193	
*	68	Chlorobenzene-D5	117	10.179	10.182	(1.000)	812023	50.0000		
$	77	P-Bromofluorobenzene	95	11.674	11.678	(1.850)	421501	48.9580	49.0	
*	93	1,4-Dichlorobenzene-D4	152	12.945	12.948	(1.000)	414848	50.0000		
M	97	1,2-Dichloroethylene (total)	96				6017472	1088.36	21800	

Data File: \\target_server\gg\chem\gcms-w.i\W092221.b\W0163.D
Report Date: 13-Oct-2021 14:06

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount
    exceeded maximum amount.


Y (x10^7)
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0
Min
-Vinyl chloride (1.461)+
-1,1-Dichloroethene (2.212)
-Methylene Chloride (2.674)+
-trans-1,2-Dichloroethene (2.812)+
cis-1,2-Dichloroethene (4.053)
-Dibromofluoromethane (4.708)
-Pentafluorobenzene (5.526)+
-Methylcyclohexane (6.226)+
-Toluene-D8 (8.206)
-Tetrachloroethene (8.751)+
-Chlorobenzene-D5 (10.179)
-P-Bromofluorobenzene (11.675)
-1,4-Dichlorobenzene-D4 (12.942)
\\target_server\gc\chem\gcms-w.i\W092221.b\W0163.D
Data File: \\target_server\gc\chem\gcms-w.i\W092221.b\W0163.D
Date : 22-SEP-2021 16:33
Client ID: VA-MW-84R-2(2021091
Sample Info: SD6313-15DL2
Instrument: gcms-w.i

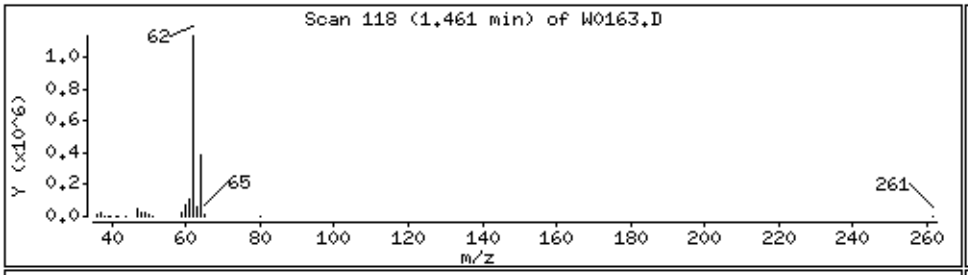
Data File: \\target_server\gg\chem\gcms-w.i\W092221.b\W0163.D

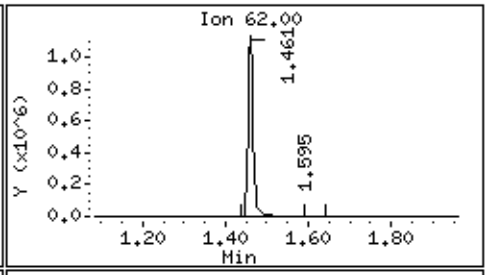
Date : 22-SEP-2021 16:33

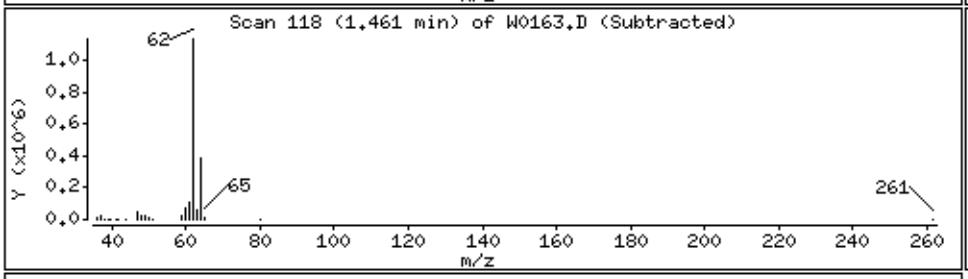
Client ID: VA-MW-84R-2(2021091 Instrument: gcms-w.i

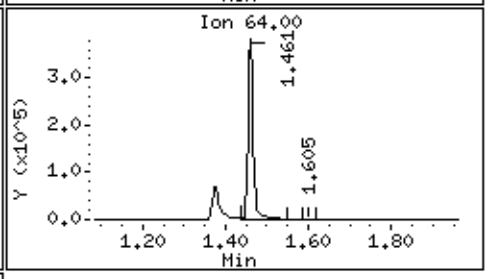
Sample Info: S06313-15DL2

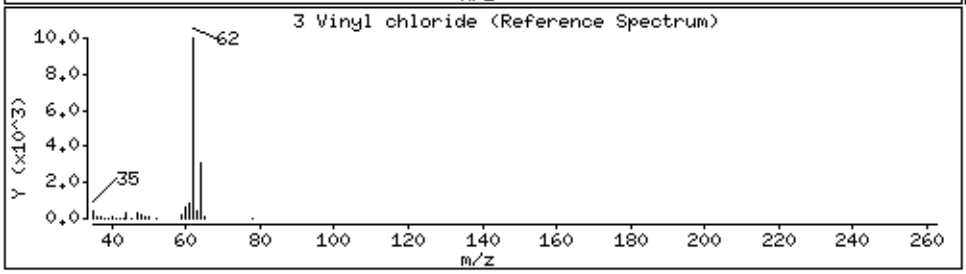
3 Vinyl chloride Concentration: 3760 ug/l



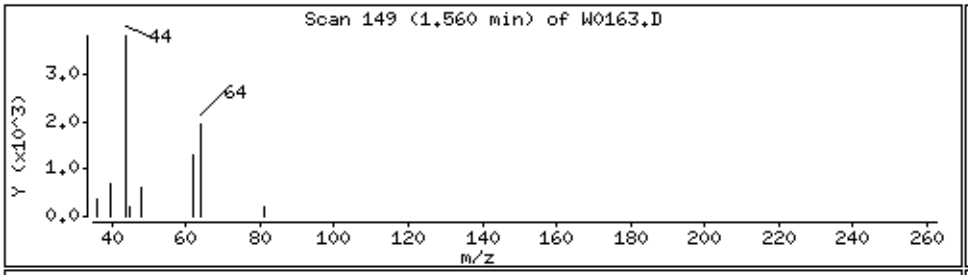


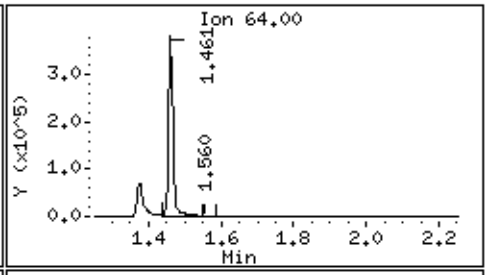


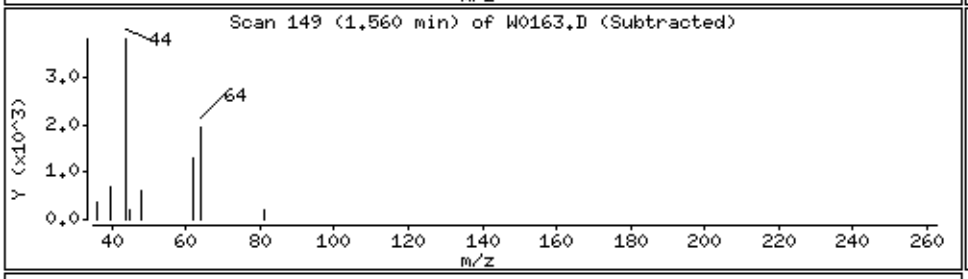


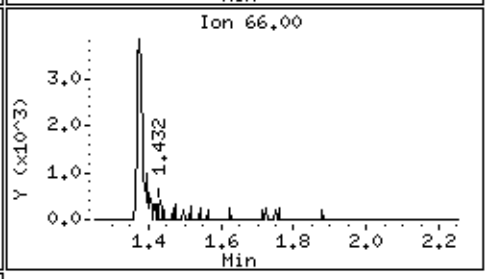


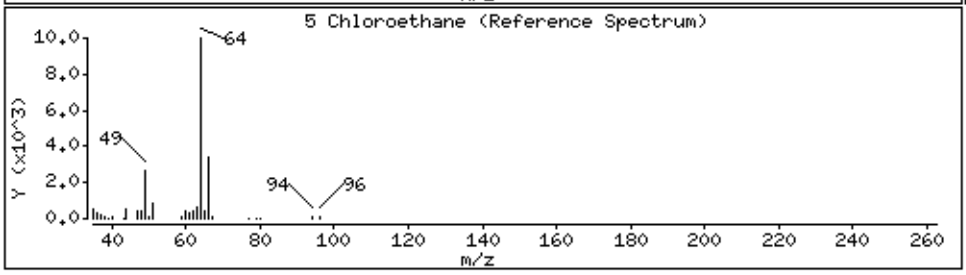
5 Chloroethane Concentration: 13.5 ug/l











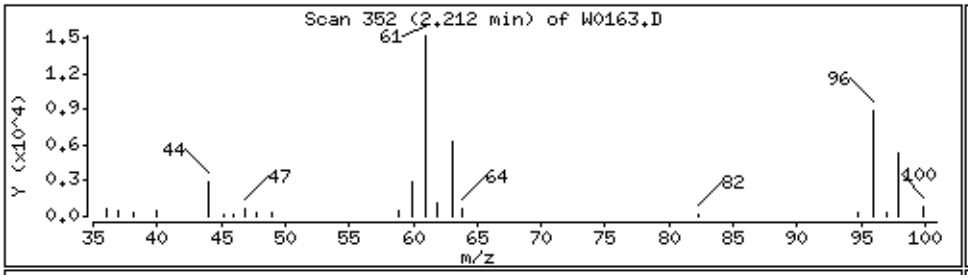
Data File: \\target_server\gg\chem\gcms-w.i\W092221.b\W0163.D

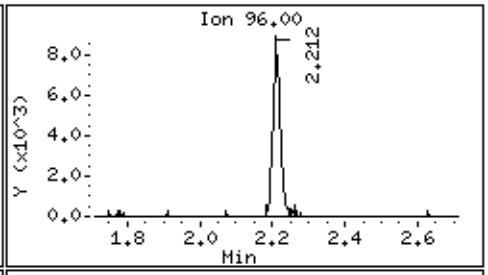
Date : 22-SEP-2021 16:33

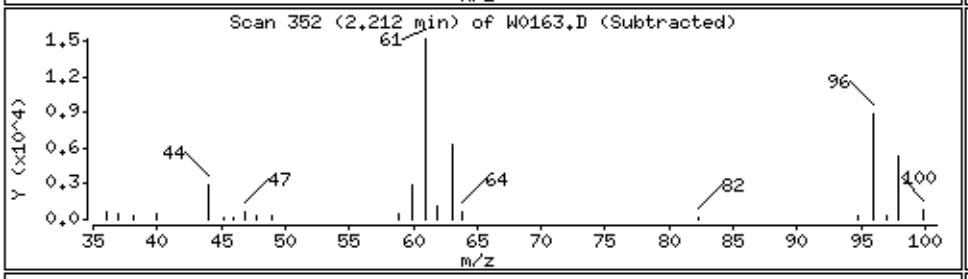
Client ID: VA-MW-84R-2(2021091 Instrument: gcms-w.i

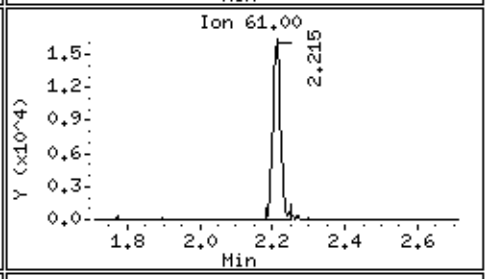
Sample Info: S06313-15DL2

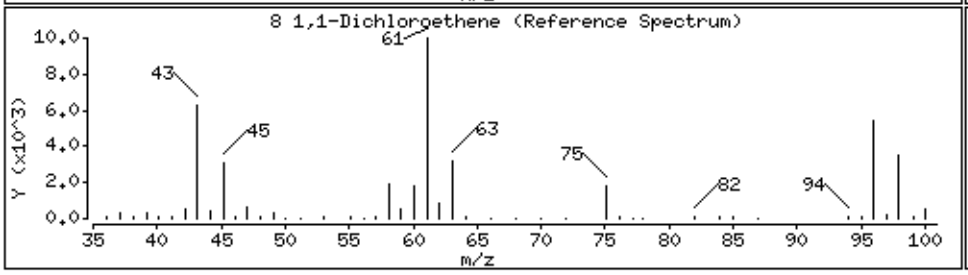
8 1,1-Dichloroethene Concentration: 49.5 ug/l

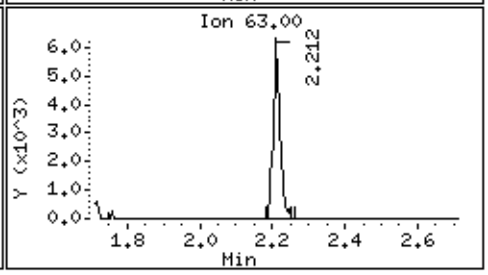




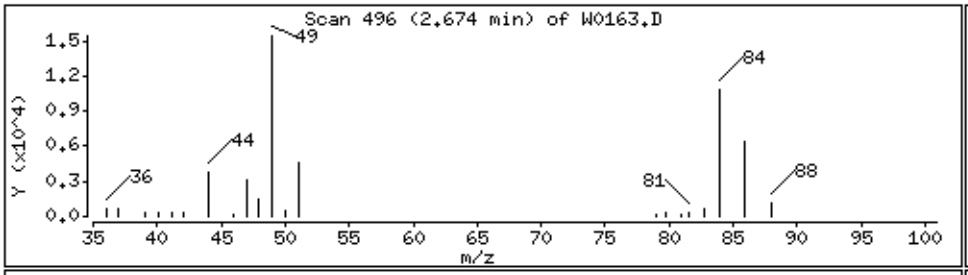


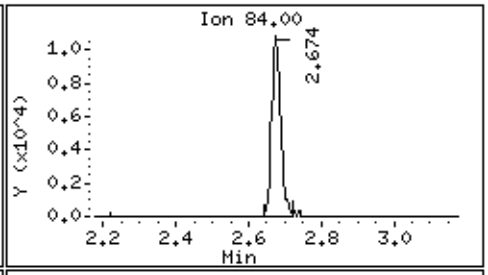


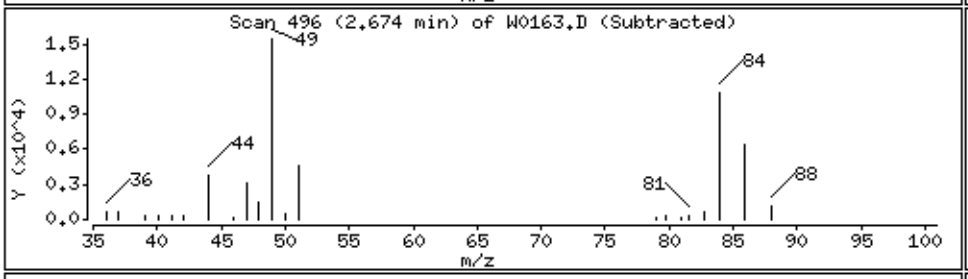


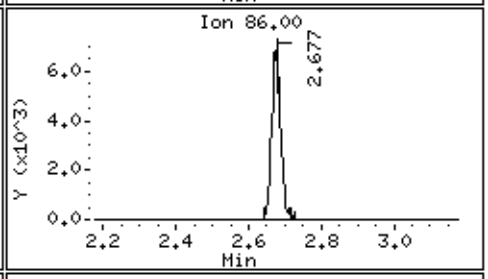


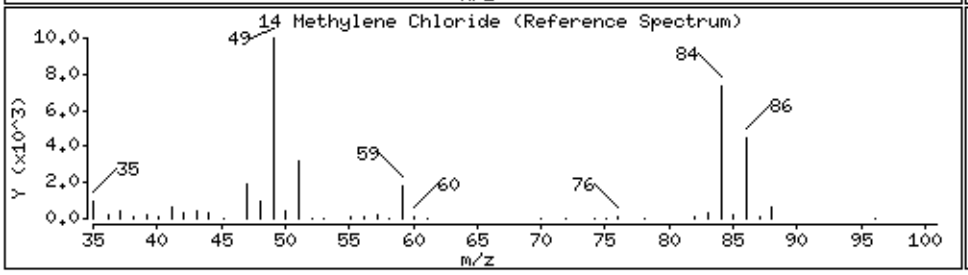
14 Methylene Chloride Concentration: 75.5 ug/l

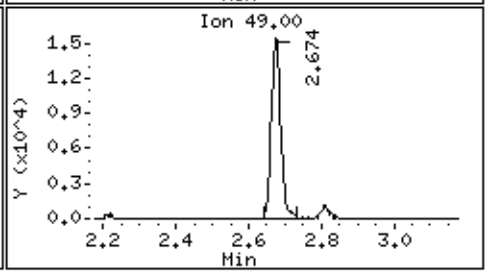












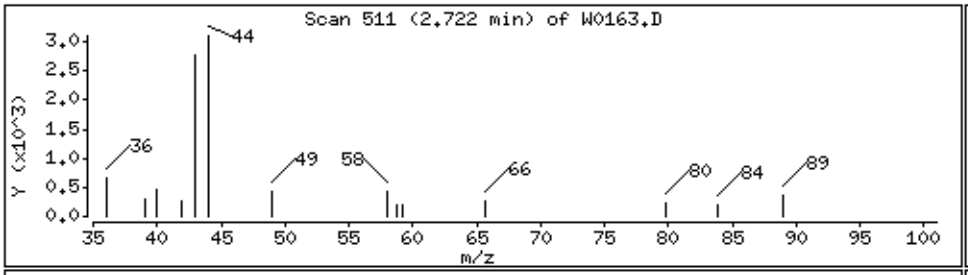
Data File: \\target_server\gg\chem\gcms-w.i\W092221.b\W0163.D

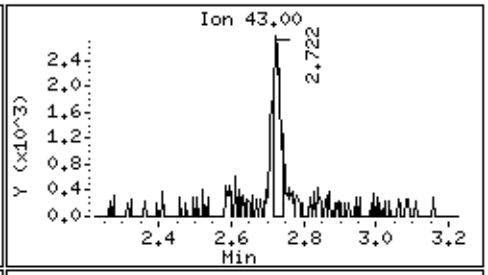
Date : 22-SEP-2021 16:33

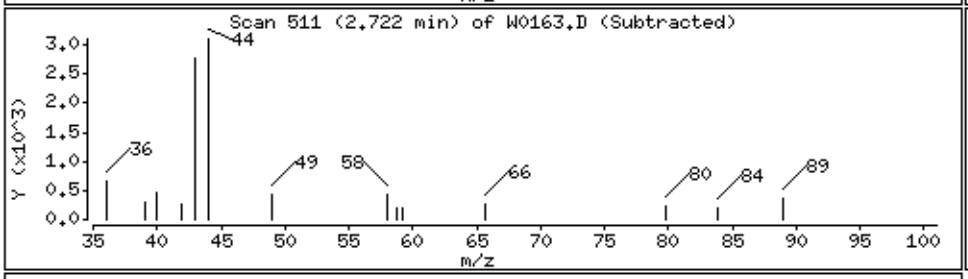
Client ID: VA-MW-84R-2(2021091 Instrument: gcms-w.i

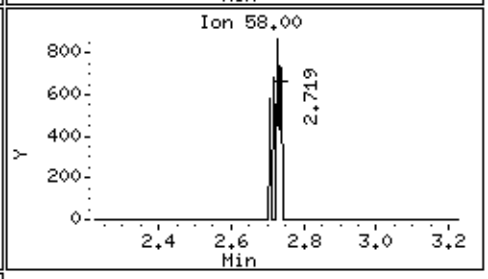
Sample Info: S06313-15DL2

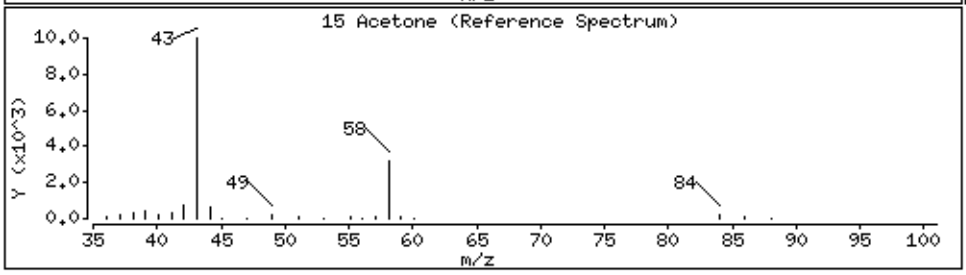
15 Acetone Concentration: 44.4 ug/l



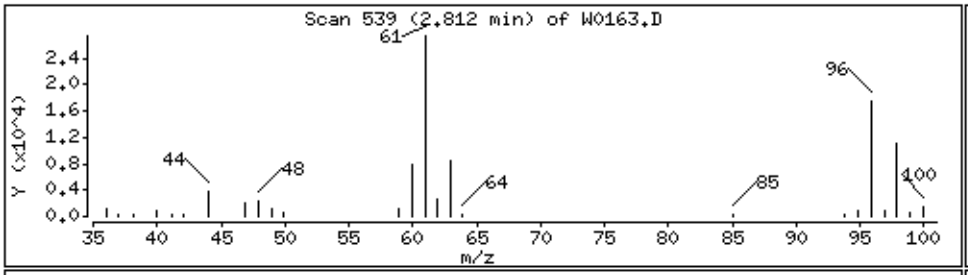


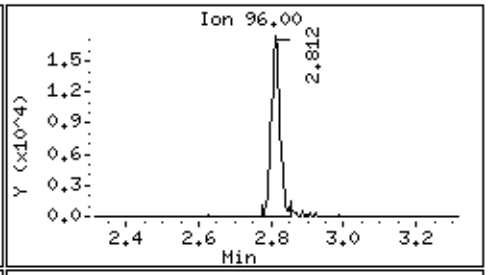


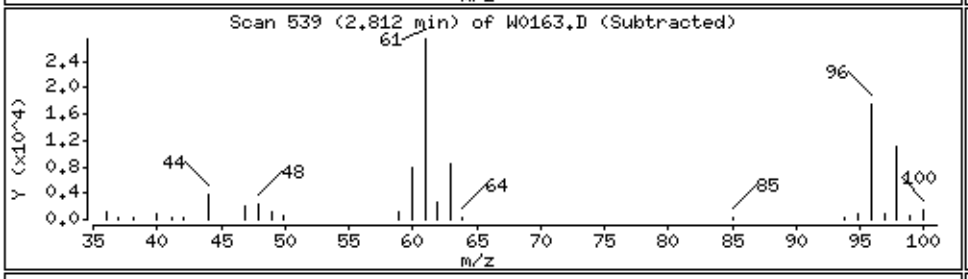


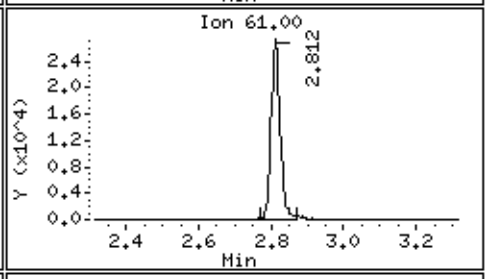


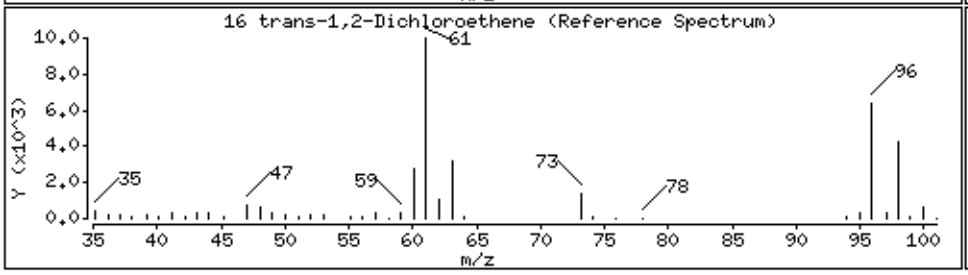
16 trans-1,2-Dichloroethene Concentration: 108 ug/l

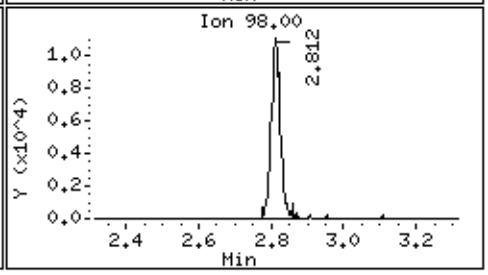












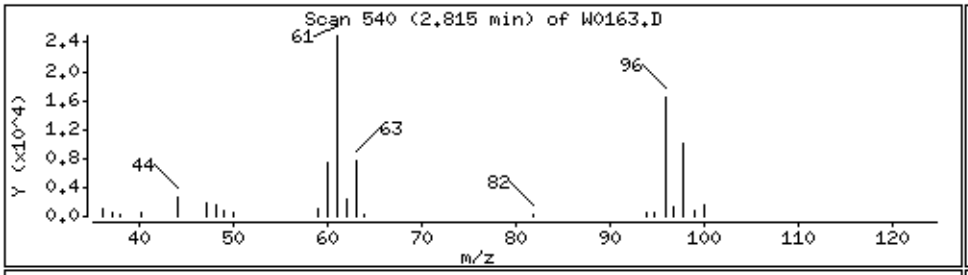
Data File: \\target_server\gg\chem\gcms-w.i\W092221.b\W0163.D

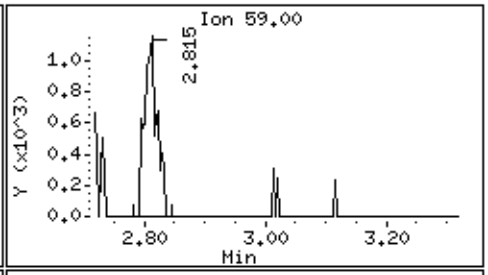
Date : 22-SEP-2021 16:33

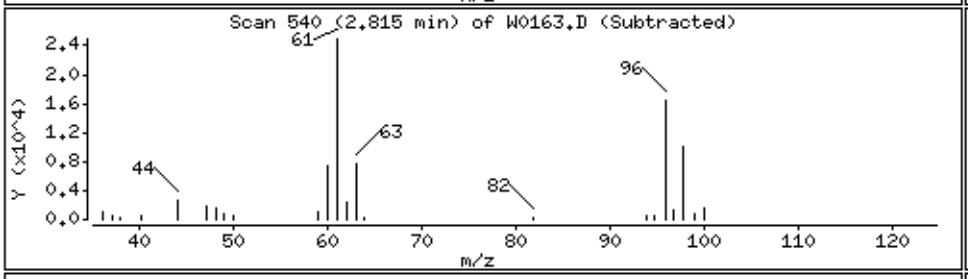
Client ID: VA-MW-84R-2(2021091 Instrument: gcms-w.i

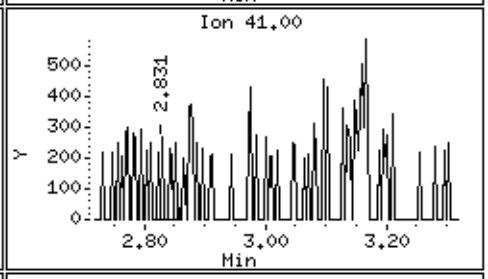
Sample Info: SO6313-15DL2

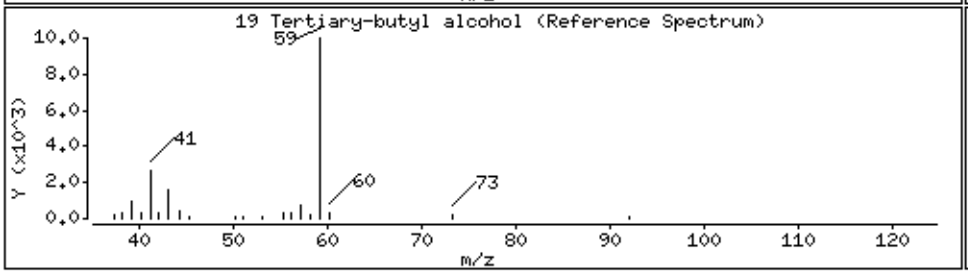
19 Tertiary-butyl alcohol Concentration: 82.4 ug/l

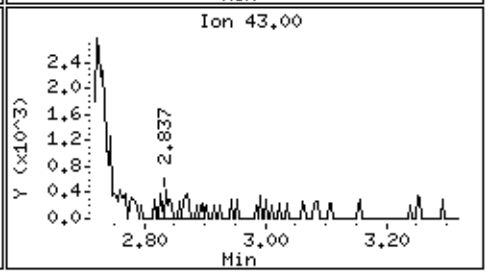




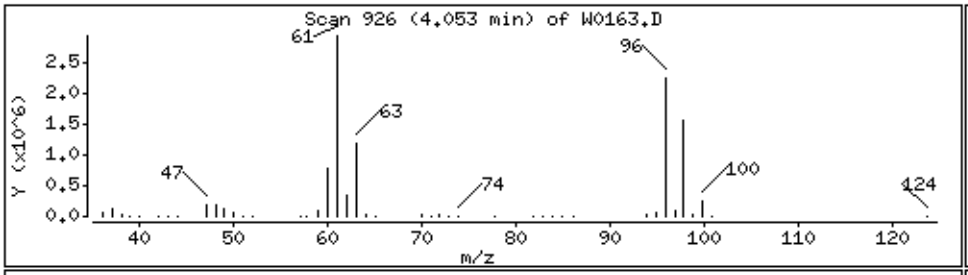


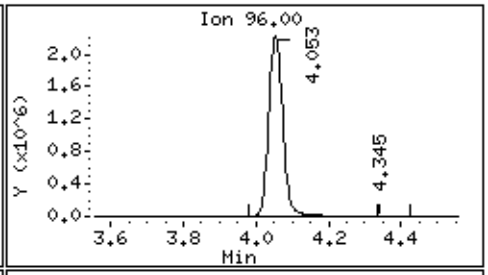


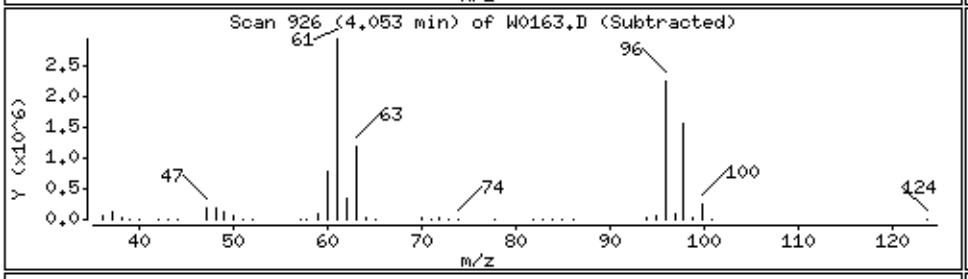


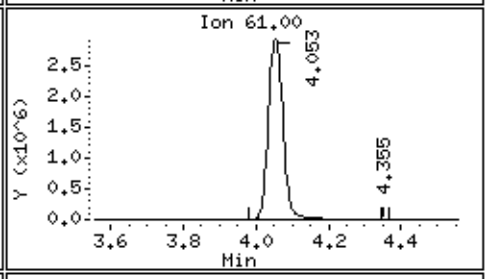


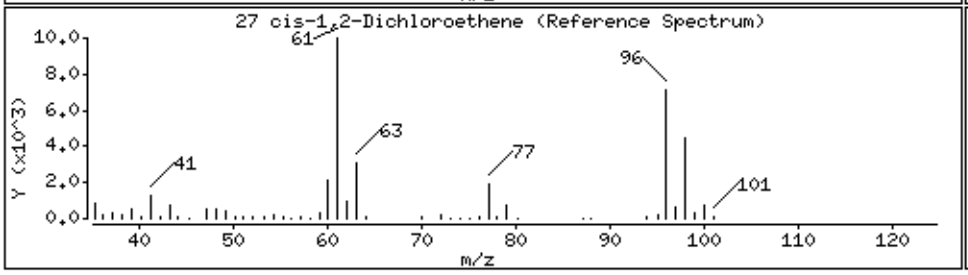
27 cis-1,2-Dichloroethene Concentration: 21600 ug/l

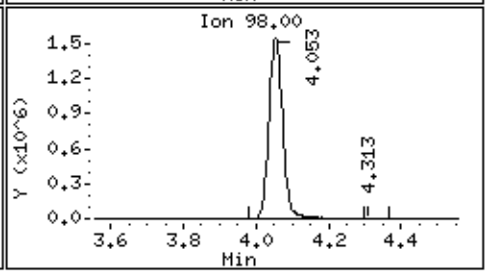












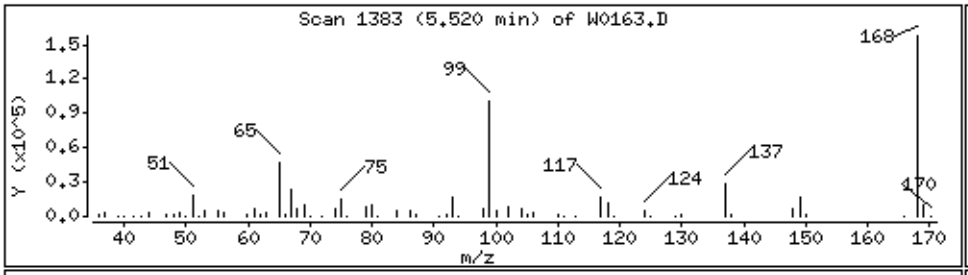
Data File: \\target_server\gg\chem\gcms-w.i\W092221.b\W0163.D

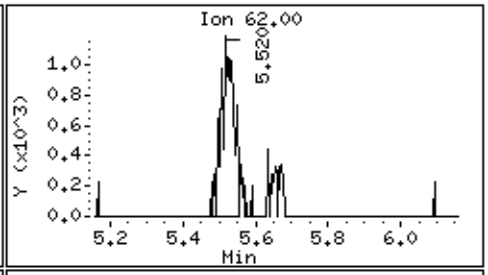
Date : 22-SEP-2021 16:33

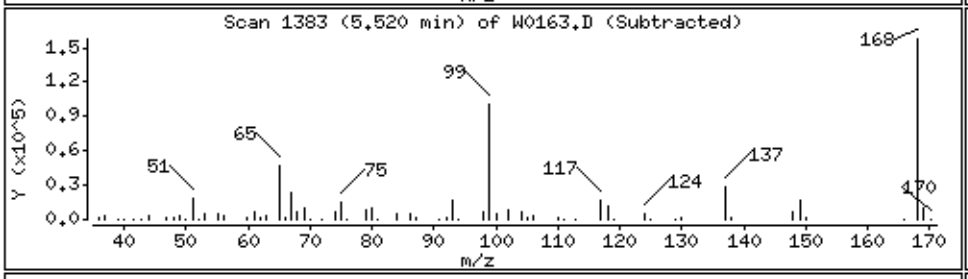
Client ID: VA-MW-84R-2(2021091 Instrument: gcms-w.i

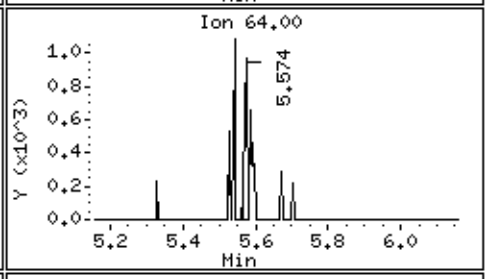
Sample Info: S06313-15DL2

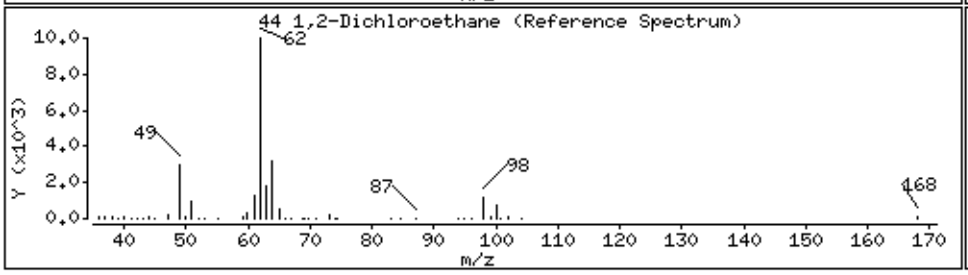
44 1,2-Dichloroethane Concentration: 6.9 ug/l

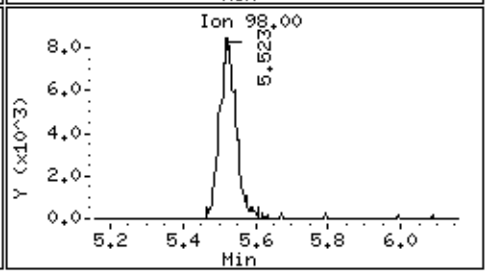




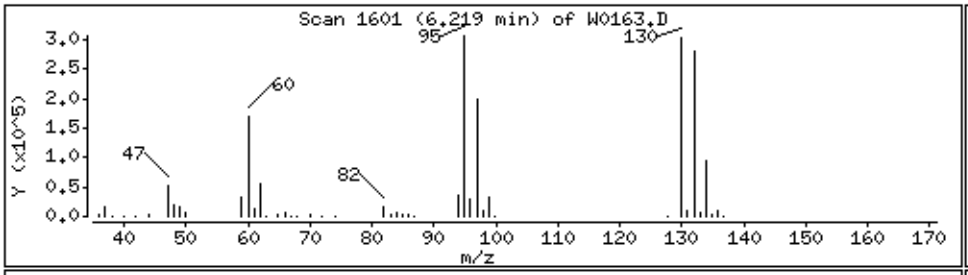


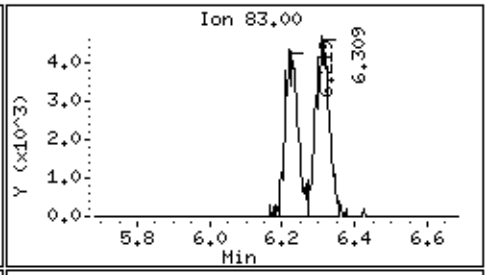


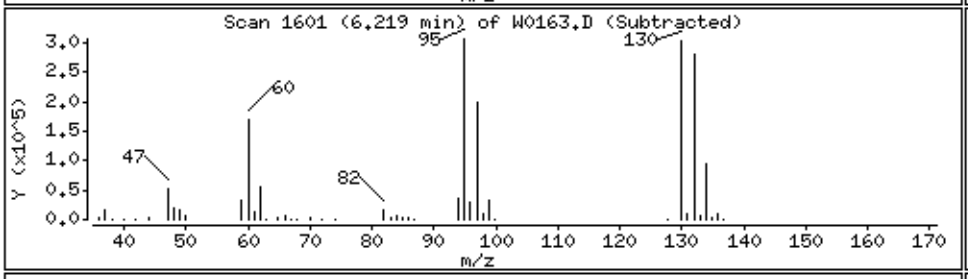


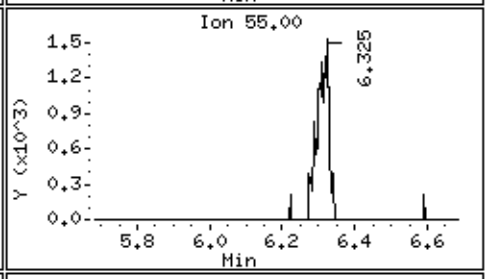


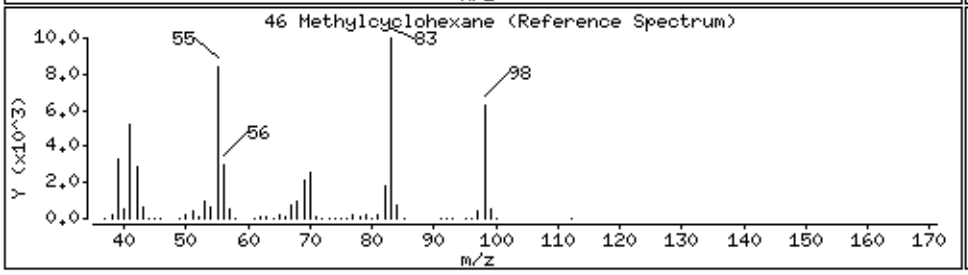
46 Methylcyclohexane Concentration: 24.1 ug/l

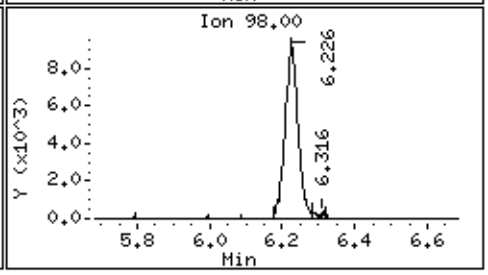












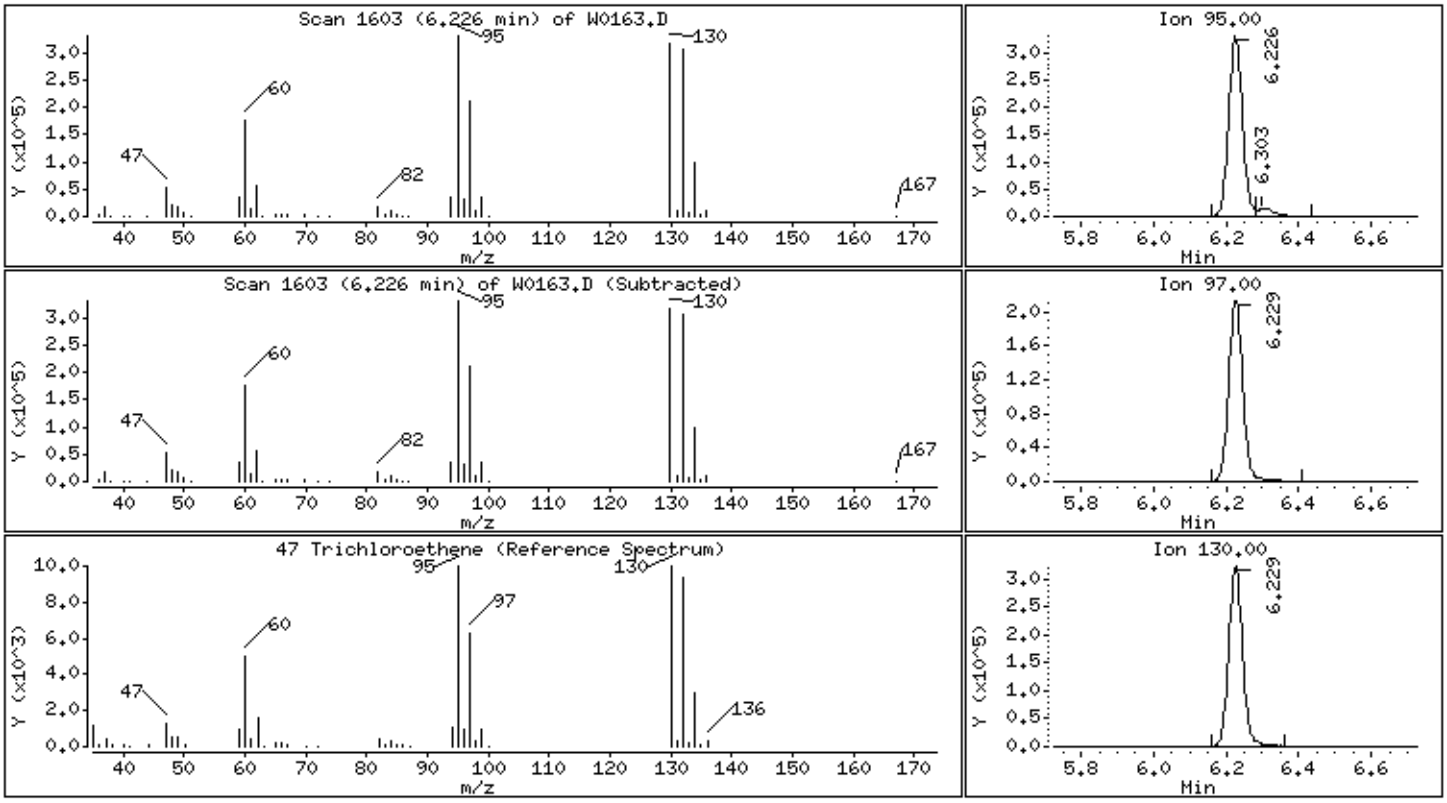
Data File: \\target_server\gg\chem\gcms-w.i\W092221.b\W0163.D

Date : 22-SEP-2021 16:33

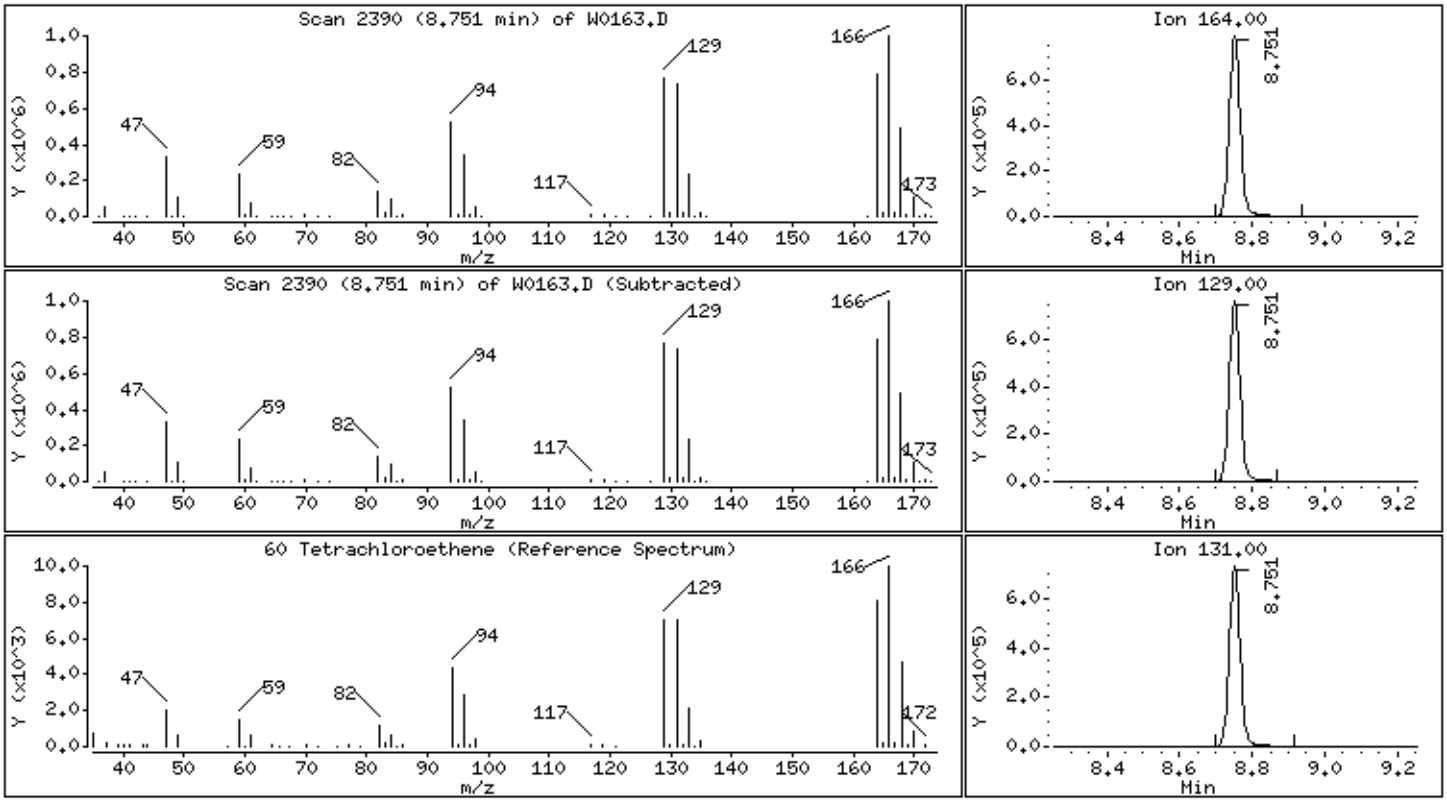
Client ID: VA-MW-84R-2(2021091 Instrument: gcms-w.i

Sample Info: S06313-15DL2

47 Trichloroethene Concentration: 3160 ug/l



60 Tetrachloroethene Concentration: 7150 ug/l



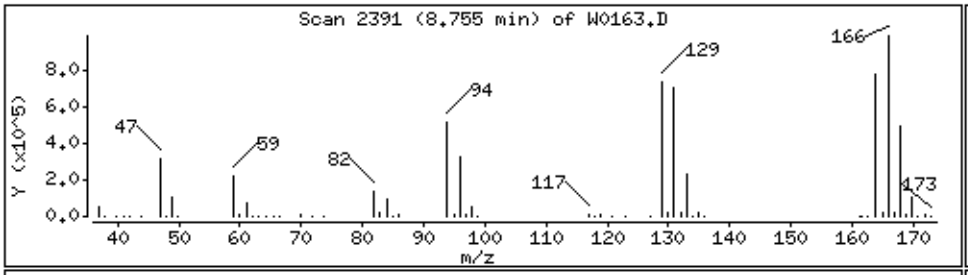
Data File: \\target_server\gg\chem\gcms-w.i\W092221.b\W0163.D

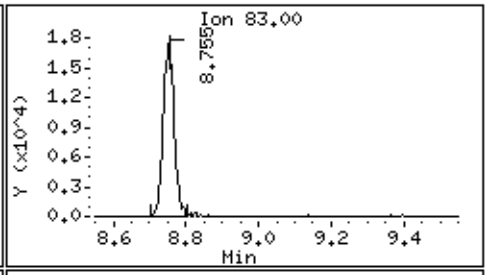
Date : 22-SEP-2021 16:33

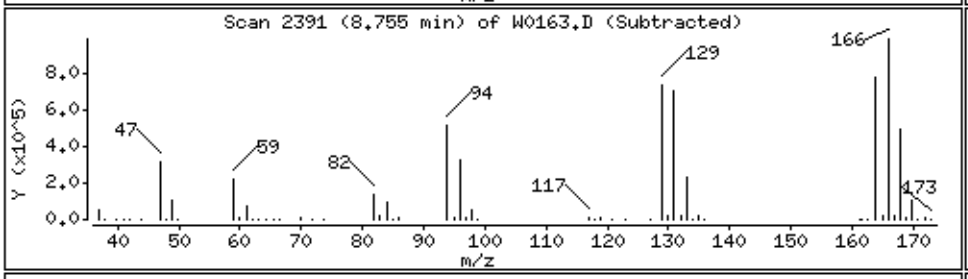
Client ID: VA-MW-84R-2(2021091 Instrument: gcms-w.i

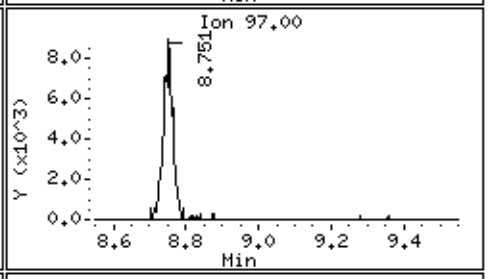
Sample Info: SO6313-15DL2

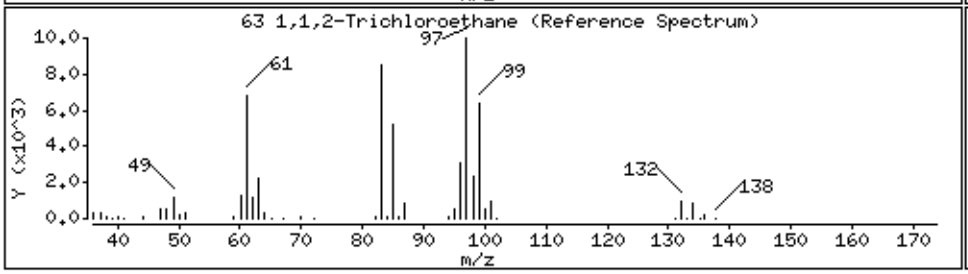
63 1,1,2-Trichloroethane Concentration: 193 ug/l

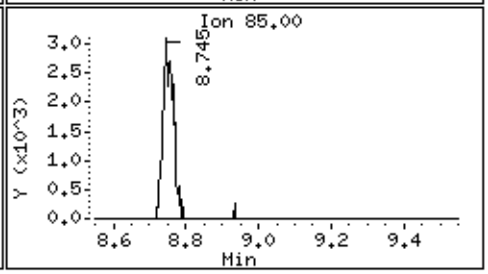












Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-16
Client ID: 86EM-SP-6(20210916)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0192.D

Sample Date: 16-SEP-21
Received Date: 18-SEP-21
Extract Date: 23-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306545

Analysis Date: 23-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	2.0	ug/L	1	2	2.0
Vinyl Chloride	U	2.0	ug/L	1	2	2.0
Bromomethane	U	2.0	ug/L	1	2	2.0
Chloroethane	U	2.0	ug/L	1	2	2.0
Trichlorofluoromethane	U	2.0	ug/L	1	2	2.0
1,1-Dichloroethene	U	1.0	ug/L	1	1	1.0
Carbon Disulfide	U	1.0	ug/L	1	1	1.0
Methylene Chloride	U	5.0	ug/L	1	5	5.0
trans-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
1,1-Dichloroethane	U	1.0	ug/L	1	1	1.0
cis-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
Chloroform	U	1.0	ug/L	1	1	1.0
Carbon Tetrachloride	U	1.0	ug/L	1	1	1.0
1,1,1-Trichloroethane	U	1.0	ug/L	1	1	1.0
2-Butanone	U	5.0	ug/L	1	5	5.0
Benzene	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethane	U	1.0	ug/L	1	1	1.0
Trichloroethene	U	1.0	ug/L	1	1	1.0
1,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Bromodichloromethane	U	1.0	ug/L	1	1	1.0
cis-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
Toluene	U	1.0	ug/L	1	1	1.0
4-Methyl-2-Pentanone	U	5.0	ug/L	1	5	5.0
Tetrachloroethene	U	1.0	ug/L	1	1	1.0
trans-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
1,1,2-Trichloroethane	U	1.0	ug/L	1	1	1.0
Dibromochloromethane	U	1.0	ug/L	1	1	1.0
Chlorobenzene	U	1.0	ug/L	1	1	1.0
Ethylbenzene	U	1.0	ug/L	1	1	1.0
m+p-Xylenes	U	2.0	ug/L	1	2	2.0
o-Xylene	U	1.0	ug/L	1	1	1.0
Bromoform	U	1.0	ug/L	1	1	1.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
P-Bromofluorobenzene		104.	%			
Toluene-d8		102.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-16
Client ID: 86EM-SP-6(20210916)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0192.D

Sample Date: 16-SEP-21
Received Date: 18-SEP-21
Extract Date: 23-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306545

Analysis Date: 23-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		121.	%			
Dibromofluoromethane		109.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Data File: \\target_server\gg\chem\gcms-w.i\W092321.b\W0192.D
Report Date: 12-Oct-2021 08:54

Katahdin Analytical Services

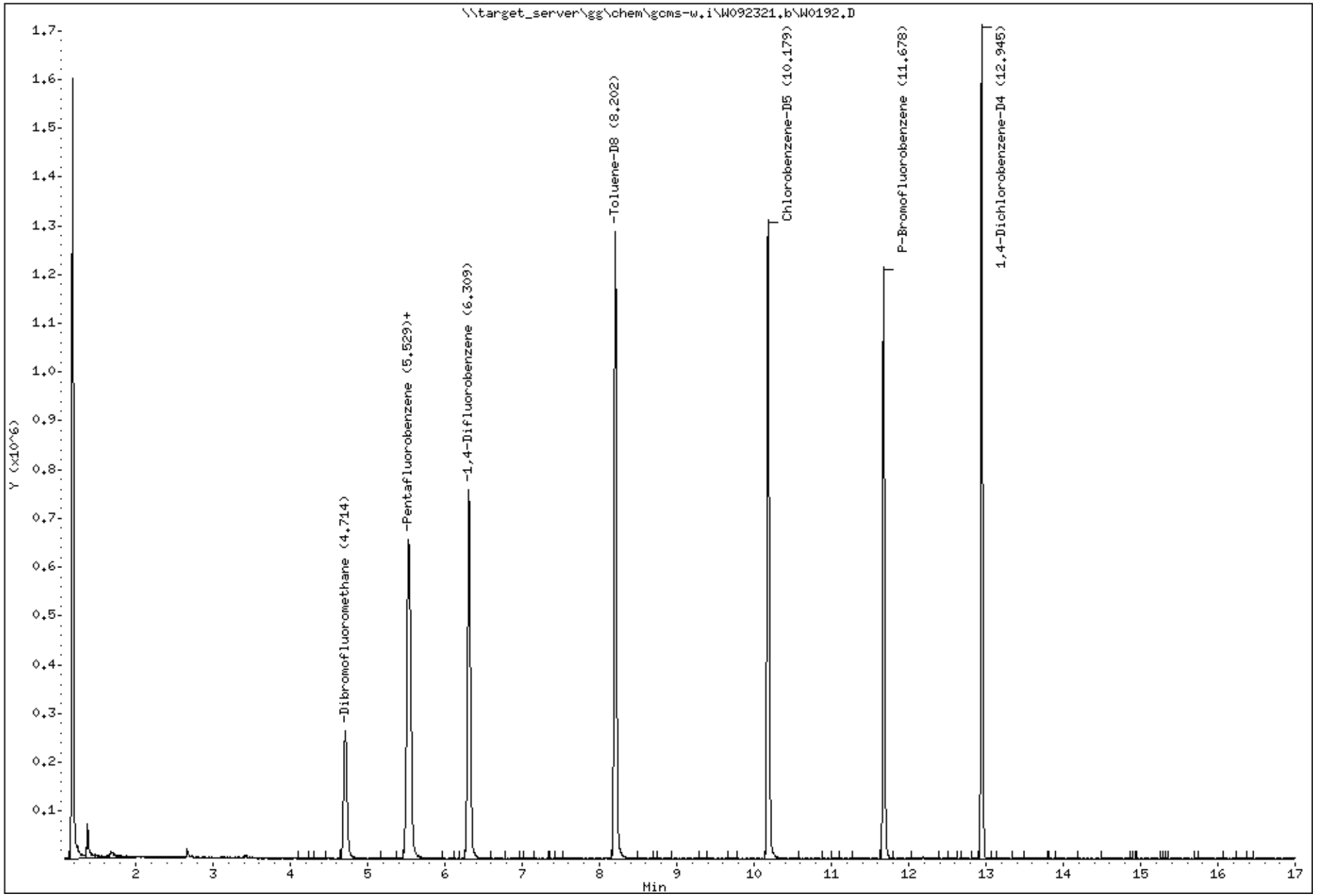
Data file : \\target_server\gg\chem\gcms-w.i\W092321.b\W0192.D
Lab Smp Id: SO6313-16 Client Smp ID: 86EM-SP-6(20210916)
Inj Date : 23-SEP-2021 12:56
Operator : ES Inst ID: gcms-w.i
Smp Info : SO6313-16
Misc Info : WG306545,WG306545-4
Comment : SW846 5030
Method : \\target_server\gg\chem\gcms-w.i\W092321.b\W8A05(08).m
Meth Date : 11-Oct-2021 13:19 gcms-w.i Quant Type: ISTD
Cal Date : 20-SEP-2021 11:30 Cal File: W0105.D
Als bottle: 12
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.12

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)	REVIEW CODE
$	34 Dibromofluoromethane	113	4.707	4.714	(0.852)	248814	54.3569	54.4	
*	41 Pentafluorobenzene	168	5.523	5.526	(1.000)	457028	50.0000		
$	42 1,2-Dichloroethane-D4	65	5.542	5.549	(1.003)	360451	60.4556	60.4	
*	48 1,4-Difluorobenzene	114	6.309	6.315	(1.000)	793296	50.0000		
$	58 Toluene-D8	98	8.202	8.209	(1.300)	968710	51.0594	51.0	
*	68 Chlorobenzene-D5	117	10.182	10.182	(1.000)	780595	50.0000		
$	77 P-Bromofluorobenzene	95	11.674	11.678	(1.850)	413175	52.0468	52.0	
*	93 1,4-Dichlorobenzene-D4	152	12.945	12.948	(1.000)	400229	50.0000		

Data File: \\target_server\gg\chem\gcms-w.i\W092321.b\W0192.D
Date : 23-SEP-2021 12:56
Client ID: 86EM-SP-6(20210916)
Instrument: gcms-w.i
Sample Info: S06313-16



Katahdin Analytical Services 1000227

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-17
Client ID: 83DM-SP-3(20210916)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0282.D

Sample Date: 16-SEP-21
Received Date: 18-SEP-21
Extract Date: 28-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306817

Analysis Date: 28-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	2.0	ug/L	1	2	2.0
Vinyl Chloride	U	2.0	ug/L	1	2	2.0
Bromomethane	U	2.0	ug/L	1	2	2.0
Chloroethane	U	2.0	ug/L	1	2	2.0
Trichlorofluoromethane	U	2.0	ug/L	1	2	2.0
1,1-Dichloroethene	U	1.0	ug/L	1	1	1.0
Carbon Disulfide	U	1.0	ug/L	1	1	1.0
Methylene Chloride	U	5.0	ug/L	1	5	5.0
trans-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
1,1-Dichloroethane	U	1.0	ug/L	1	1	1.0
cis-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
Chloroform	U	1.0	ug/L	1	1	1.0
Carbon Tetrachloride	U	1.0	ug/L	1	1	1.0
1,1,1-Trichloroethane	U	1.0	ug/L	1	1	1.0
2-Butanone	U	5.0	ug/L	1	5	5.0
Benzene	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethane	U	1.0	ug/L	1	1	1.0
Trichloroethene	U	1.0	ug/L	1	1	1.0
1,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Bromodichloromethane	U	1.0	ug/L	1	1	1.0
cis-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
Toluene	U	1.0	ug/L	1	1	1.0
4-Methyl-2-Pentanone	U	5.0	ug/L	1	5	5.0
Tetrachloroethene	U	1.0	ug/L	1	1	1.0
trans-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
1,1,2-Trichloroethane	U	1.0	ug/L	1	1	1.0
Dibromochloromethane	U	1.0	ug/L	1	1	1.0
Chlorobenzene	U	1.0	ug/L	1	1	1.0
Ethylbenzene	U	1.0	ug/L	1	1	1.0
m+p-Xylenes	U	2.0	ug/L	1	2	2.0
o-Xylene	U	1.0	ug/L	1	1	1.0
Bromoform	U	1.0	ug/L	1	1	1.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
P-Bromofluorobenzene		98.2	%			
Toluene-d8		101.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-17
Client ID: 83DM-SP-3(20210916)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0282.D

Sample Date: 16-SEP-21
Received Date: 18-SEP-21
Extract Date: 28-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306817

Analysis Date: 28-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		114.	%			
Dibromofluoromethane		106.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://www.katahdinlab.com

Data File: \\target_server\gg\chem\gcms-w.i\W092821B.b\W0282.D
Report Date: 12-Oct-2021 09:02

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-w.i\W092821B.b\W0282.D
Lab Smp Id: SO6313-17 Client Smp ID: 83DM-SP-3(20210916)
Inj Date : 28-SEP-2021 19:42
Operator : ES Inst ID: gcms-w.i
Smp Info : SO6313-17
Misc Info : WG306817,WG306817-4
Comment : SW846 5030
Method : \\target_server\gg\chem\gcms-w.i\W092821B.b\W8A05(09).m
Meth Date : 01-Oct-2021 17:40 HGOULD Quant Type: ISTD
Cal Date : 28-SEP-2021 12:38 Cal File: W0268.D
Als bottle: 19
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.12
Processing Host: ORGANICS2

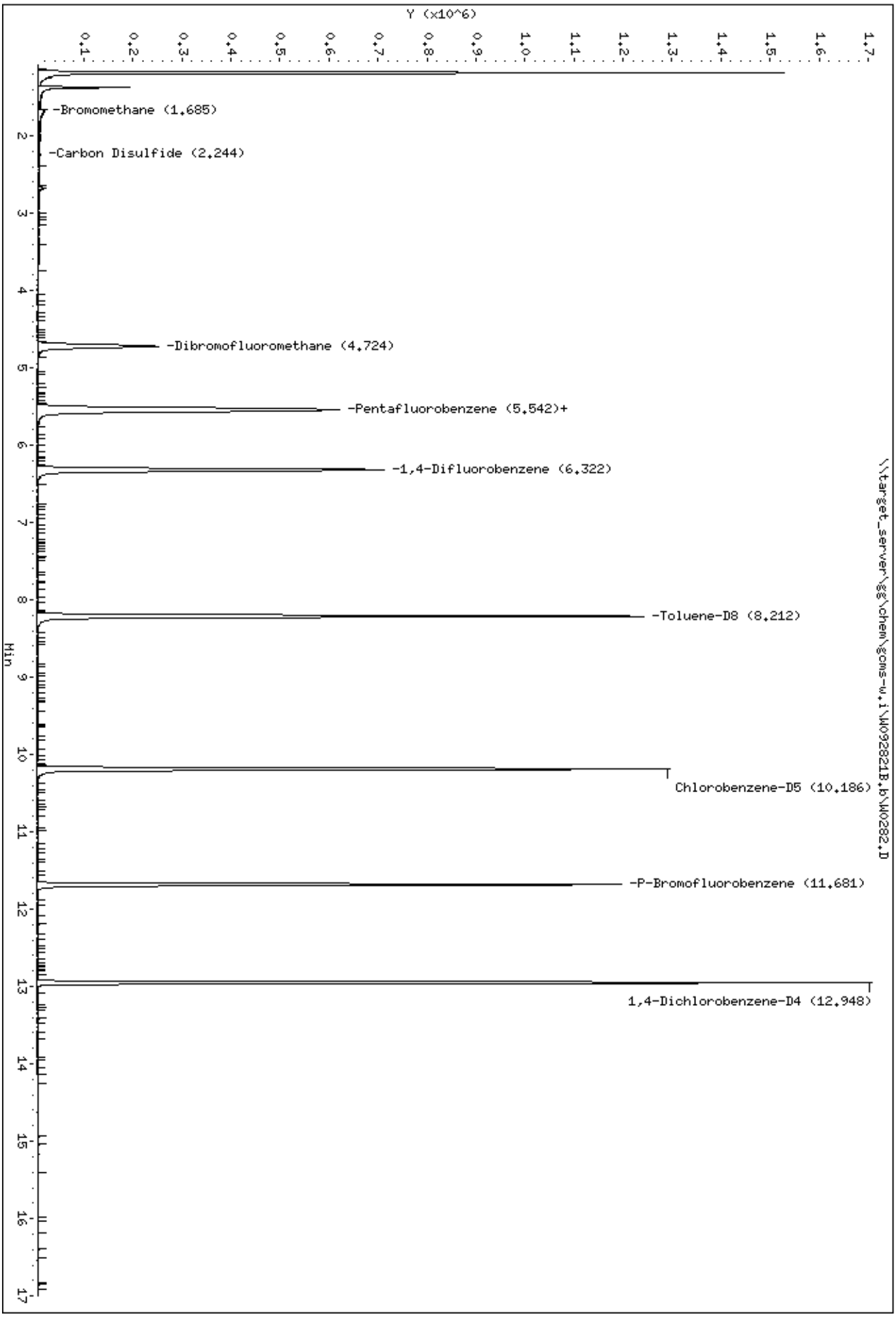
Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)	REVIEW CODE
	4 Bromomethane	94	1.675	1.672	(0.303)	1079	0.73114	0.73(a)	
	10 Carbon Disulfide	76	2.243	2.240	(0.405)	3479	0.28368	0.28(a)	
$	34 Dibromofluoromethane	113	4.724	4.711	(0.853)	234416	52.9891	53.0	
*	41 Pentafluorobenzene	168	5.535	5.529	(1.000)	436958	50.0000		
$	42 1,2-Dichloroethane-D4	65	5.551	5.545	(1.003)	339503	56.9191	56.9	
*	48 1,4-Difluorobenzene	114	6.318	6.315	(1.000)	760322	50.0000		
$	58 Toluene-D8	98	8.212	8.205	(1.300)	920111	50.3889	50.4	
*	68 Chlorobenzene-D5	117	10.185	10.182	(1.000)	760996	50.0000		
$	77 P-Bromofluorobenzene	95	11.680	11.677	(1.849)	402882	49.0933	49.1	
*	93 1,4-Dichlorobenzene-D4	152	12.951	12.942	(1.000)	407527	50.0000		

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).


Y (x10^6)
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0
1.1
1.2
1.3
1.4
1.5
1.6
1.7
-Bromomethane (1.685)
-Carbon Disulfide (2.244)
-Dibromofluoromethane (4.724)
-Pentafluorobenzene (5.542)+
-1,4-Difluorobenzene (6.322)
-Toluene-D8 (8.212)
Chlorobenzene-D5 (10.186)
-P-Bromofluorobenzene (11.681)
1,4-Dichlorobenzene-D4 (12.948)
Min
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
\\target_server\gg\chem\gcms-w.i\W092821B.b\W0282.D
Data File: \\target_server\gg\chem\gcms-w.i\W092821B.b\W0282.D
Date : 28-SEP-2021 19:42
Client ID: 83DH-SP-3(20210916)
Sample Info: SD6313-17
Instrument: gcms-w.i

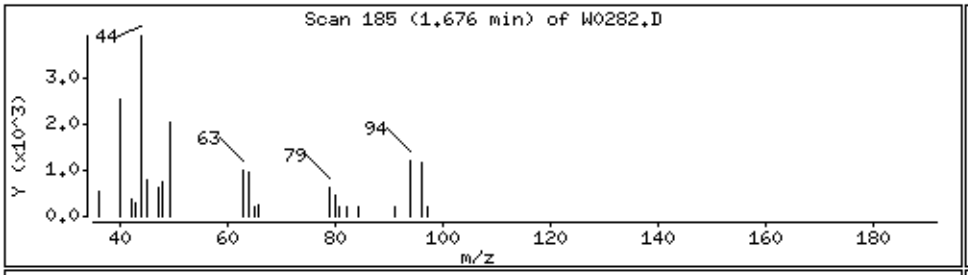
Data File: \\target_server\gg\chem\gcms-w.i\W092821B.b\W0282.D

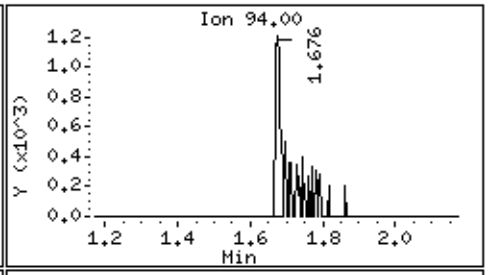
Date : 28-SEP-2021 19:42

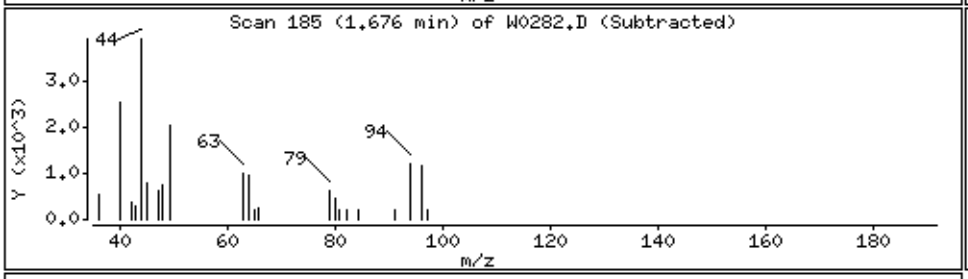
Client ID: 83DM-SP-3(20210916) Instrument: gcms-w.i

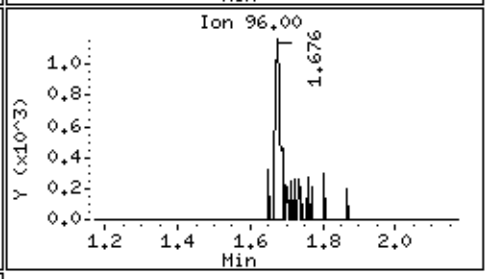
Sample Info: S06313-17

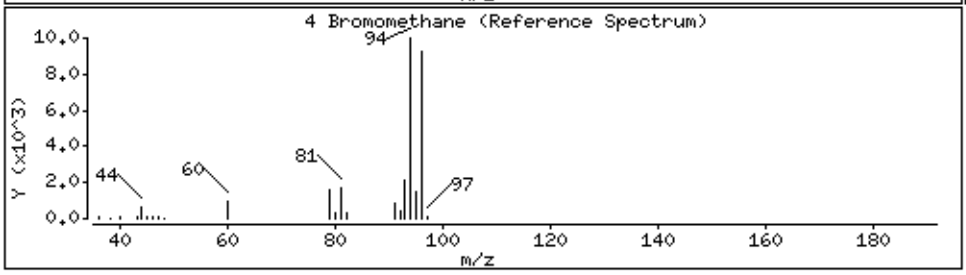
4 Bromomethane Concentration: 0.73 ug/l



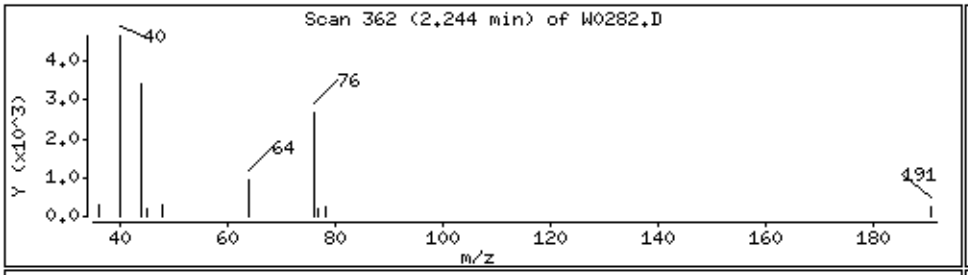


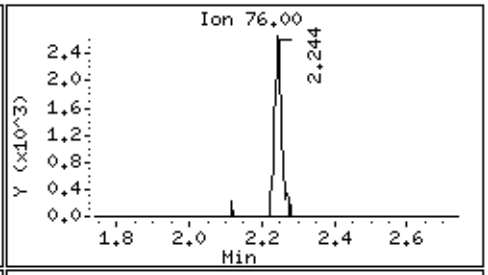


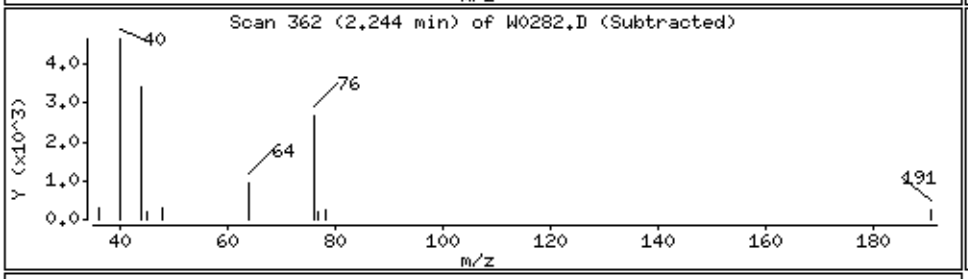


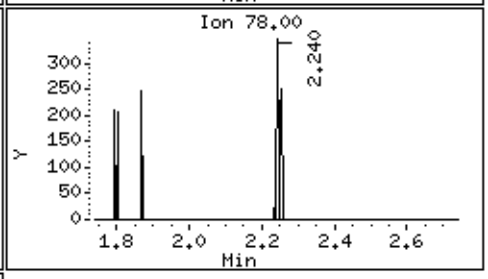


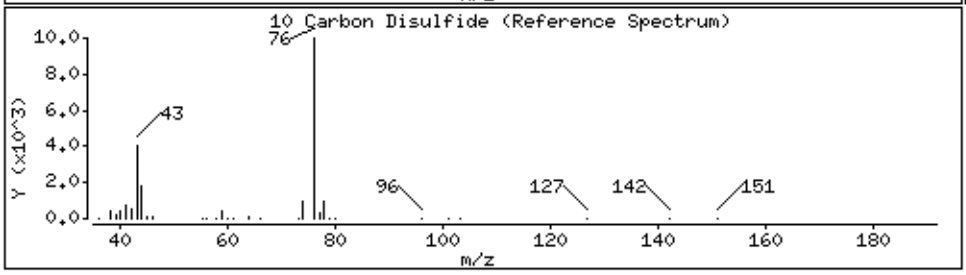
10 Carbon Disulfide Concentration: 0.28 ug/l











Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-18
Client ID: 92EM-SP-8(20210916)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0138.D

Sample Date: 16-SEP-21
Received Date: 18-SEP-21
Extract Date: 21-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306383

Analysis Date: 21-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	2.0	ug/L	1	2	2.0
Vinyl Chloride	U	2.0	ug/L	1	2	2.0
Bromomethane	U	2.0	ug/L	1	2	2.0
Chloroethane	U	2.0	ug/L	1	2	2.0
Trichlorofluoromethane	U	2.0	ug/L	1	2	2.0
1,1-Dichloroethene	U	1.0	ug/L	1	1	1.0
Carbon Disulfide	U	1.0	ug/L	1	1	1.0
Methylene Chloride	U	5.0	ug/L	1	5	5.0
trans-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
1,1-Dichloroethane	U	1.0	ug/L	1	1	1.0
cis-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
Chloroform	U	1.0	ug/L	1	1	1.0
Carbon Tetrachloride	U	1.0	ug/L	1	1	1.0
1,1,1-Trichloroethane	U	1.0	ug/L	1	1	1.0
2-Butanone	U	5.0	ug/L	1	5	5.0
Benzene	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethane	U	1.0	ug/L	1	1	1.0
Trichloroethene	U	1.0	ug/L	1	1	1.0
1,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Bromodichloromethane	U	1.0	ug/L	1	1	1.0
cis-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
Toluene	U	1.0	ug/L	1	1	1.0
4-Methyl-2-Pentanone	U	5.0	ug/L	1	5	5.0
Tetrachloroethene	U	1.0	ug/L	1	1	1.0
trans-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
1,1,2-Trichloroethane	U	1.0	ug/L	1	1	1.0
Dibromochloromethane	U	1.0	ug/L	1	1	1.0
Chlorobenzene	U	1.0	ug/L	1	1	1.0
Ethylbenzene	U	1.0	ug/L	1	1	1.0
m+p-Xylenes	U	2.0	ug/L	1	2	2.0
o-Xylene	U	1.0	ug/L	1	1	1.0
Bromoform	U	1.0	ug/L	1	1	1.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
P-Bromofluorobenzene		100.	%			
Toluene-d8		101.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-18
Client ID: 92EM-SP-8(20210916)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0138.D

Sample Date: 16-SEP-21
Received Date: 18-SEP-21
Extract Date: 21-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306383

Analysis Date: 21-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		116.	%			
Dibromofluoromethane		108.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://www.katahdinlab.com

Data File: \\target_server\gg\chem\gcms-w.i\W092121.b\W0138.D
Report Date: 12-Oct-2021 08:57

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-w.i\W092121.b\W0138.D
Lab Smp Id: SO6313-18 Client Smp ID: 92EM-SP-8(20210916)
Inj Date : 21-SEP-2021 15:26
Operator : ES Inst ID: gcms-w.i
Smp Info : SO6313-18
Misc Info : WG306383,WG306383-4
Comment : SW846 5030
Method : \\target_server\gg\chem\gcms-w.i\W092121.b\W8A05(08).m
Meth Date : 11-Oct-2021 12:27 gcms-w.i Quant Type: ISTD
Cal Date : 20-SEP-2021 11:30 Cal File: W0105.D
Als bottle: 16
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.12

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

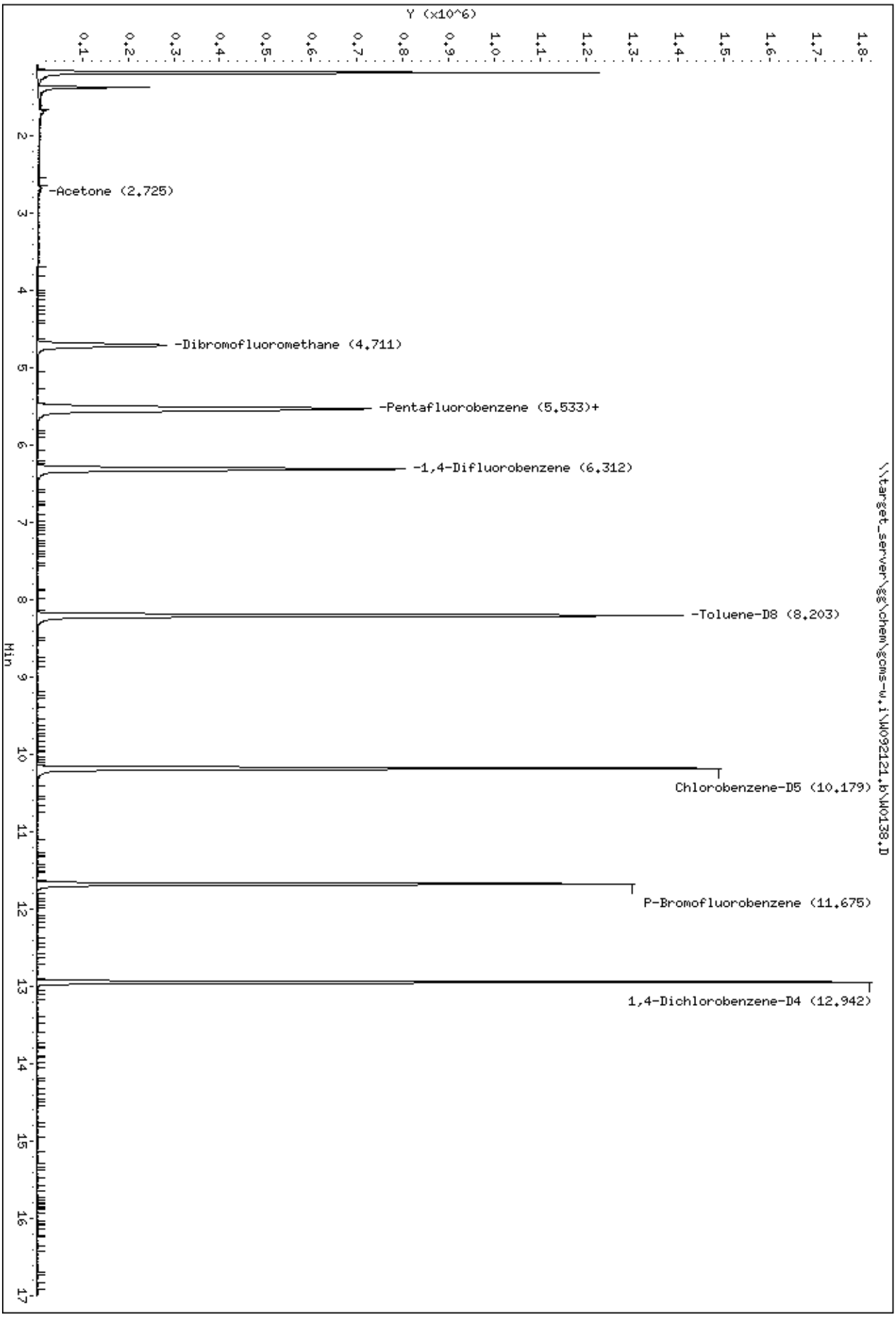
Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

10:22 am, Oct 12, 2021

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)	REVIEW CODE
	15 Acetone	43	2.724	2.725	(0.494)	6752	4.85375	4.8(aM)	M9
$	34 Dibromofluoromethane	113	4.708	4.714	(0.853)	276050	54.1531	54.2	
*	41 Pentafluorobenzene	168	5.519	5.526	(1.000)	508964	50.0000		
$	42 1,2-Dichloroethane-D4	65	5.545	5.549	(1.005)	385598	58.0738	58.1	
*	48 1,4-Difluorobenzene	114	6.312	6.315	(1.000)	882674	50.0000		
$	58 Toluene-D8	98	8.205	8.209	(1.300)	1062110	50.3138	50.3	
*	68 Chlorobenzene-D5	117	10.179	10.182	(1.000)	860567	50.0000		
$	77 P-Bromofluorobenzene	95	11.674	11.678	(1.849)	442857	50.1370	50.1	
*	93 1,4-Dichlorobenzene-D4	152	12.942	12.948	(1.000)	436787	50.0000		

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.


Data File: \\target_server\gg\chem\gcms-w.i\W092121.b\W0138.D
Date : 21-SEP-2021 15:26
Client ID: 92EM-SP-8(20210916)
Sample Info: SD6313-18
Instrument: gcms-w.i
\\target_server\gg\chem\gcms-w.i\W092121.b\W0138.D
Y (x10^6)
Min
-Acetone (2.725)
-Dibromofluoromethane (4.711)
-Pentafluorobenzene (5.533)+
-1,4-Difluorobenzene (6.312)
-Toluene-D8 (8.203)
Chlorobenzene-D5 (10.179)
P-Bromofluorobenzene (11.675)
1,4-Dichlorobenzene-D4 (12.942)

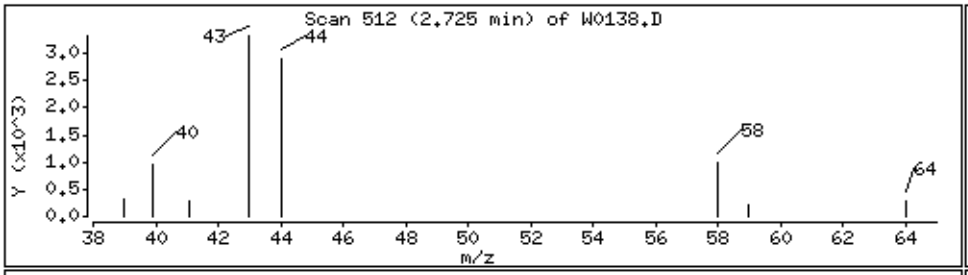
Data File: \\target_server\gg\chem\gcms-w.i\W092121.b\W0138.D

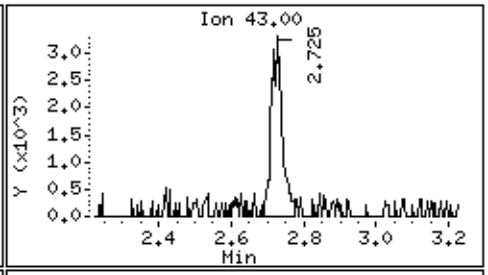
Date : 21-SEP-2021 15:26

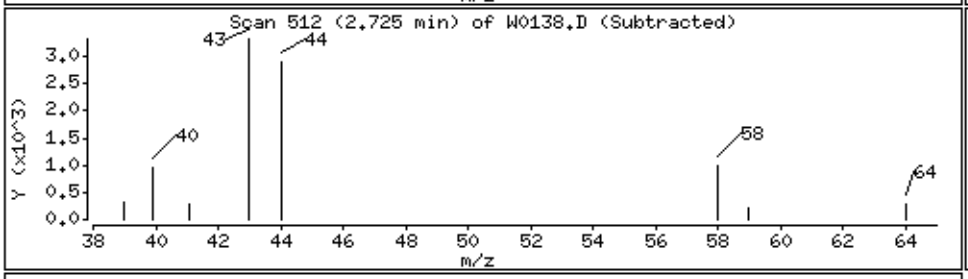
Client ID: 92EM-SP-8(20210916) Instrument: gcms-w.i

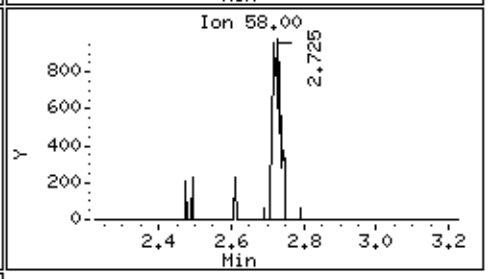
Sample Info: S06313-18

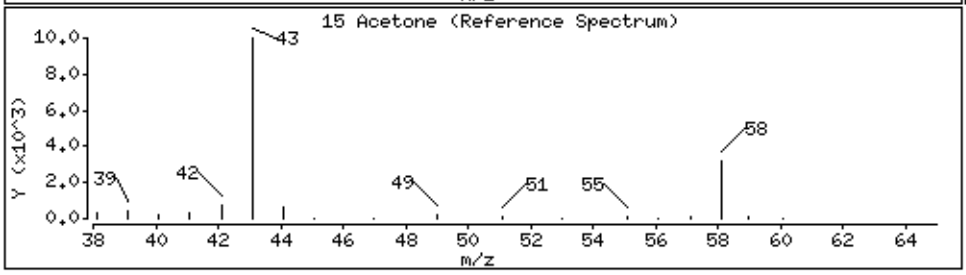
15 Acetone Concentration: 4.8 ug/l











Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-20
Client ID: WVA-SA-STS-6(20210916)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0139.D

Sample Date: 16-SEP-21
Received Date: 18-SEP-21
Extract Date: 21-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306383

Analysis Date: 21-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	2.0	ug/L	1	2	2.0
Vinyl Chloride	U	2.0	ug/L	1	2	2.0
Bromomethane	U	2.0	ug/L	1	2	2.0
Chloroethane	U	2.0	ug/L	1	2	2.0
Trichlorofluoromethane	U	2.0	ug/L	1	2	2.0
1,1-Dichloroethene	U	1.0	ug/L	1	1	1.0
Carbon Disulfide	U	1.0	ug/L	1	1	1.0
Methylene Chloride	U	5.0	ug/L	1	5	5.0
trans-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
1,1-Dichloroethane	U	1.0	ug/L	1	1	1.0
cis-1,2-Dichloroethene		2.7	ug/L	1	1	1.0
Chloroform	U	1.0	ug/L	1	1	1.0
Carbon Tetrachloride	U	1.0	ug/L	1	1	1.0
1,1,1-Trichloroethane	U	1.0	ug/L	1	1	1.0
2-Butanone	U	5.0	ug/L	1	5	5.0
Benzene	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethane	U	1.0	ug/L	1	1	1.0
Trichloroethene	U	1.0	ug/L	1	1	1.0
1,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Bromodichloromethane	U	1.0	ug/L	1	1	1.0
cis-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
Toluene	U	1.0	ug/L	1	1	1.0
4-Methyl-2-Pentanone	U	5.0	ug/L	1	5	5.0
Tetrachloroethene		2.0	ug/L	1	1	1.0
trans-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
1,1,2-Trichloroethane	U	1.0	ug/L	1	1	1.0
Dibromochloromethane	U	1.0	ug/L	1	1	1.0
Chlorobenzene	U	1.0	ug/L	1	1	1.0
Ethylbenzene	U	1.0	ug/L	1	1	1.0
m+p-Xylenes	U	2.0	ug/L	1	2	2.0
o-Xylene	U	1.0	ug/L	1	1	1.0
Bromoform	U	1.0	ug/L	1	1	1.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
P-Bromofluorobenzene		101.	%			
Toluene-d8		101.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-20
Client ID: WVA-SA-STS-6(20210916)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0139.D

Sample Date: 16-SEP-21
Received Date: 18-SEP-21
Extract Date: 21-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306383

Analysis Date: 21-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		115.	%			
Dibromofluoromethane		108.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://www.katahdinlab.com

Data File: \\target_server\gg\chem\gcms-w.i\W092121.b\W0139.D
Report Date: 12-Oct-2021 08:54

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-w.i\W092121.b\W0139.D
Lab Smp Id: SO6313-20 Client Smp ID: VA-SA-STS-6(2021091
Inj Date : 21-SEP-2021 15:56
Operator : ES Inst ID: gcms-w.i
Smp Info : SO6313-20
Misc Info : WG306383,WG306383-4
Comment : SW846 5030
Method : \\target_server\gg\chem\gcms-w.i\W092121.b\W8A05(08).m
Meth Date : 11-Oct-2021 12:27 gcms-w.i Quant Type: ISTD
Cal Date : 20-SEP-2021 11:30 Cal File: W0105.D
Als bottle: 17
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.12

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

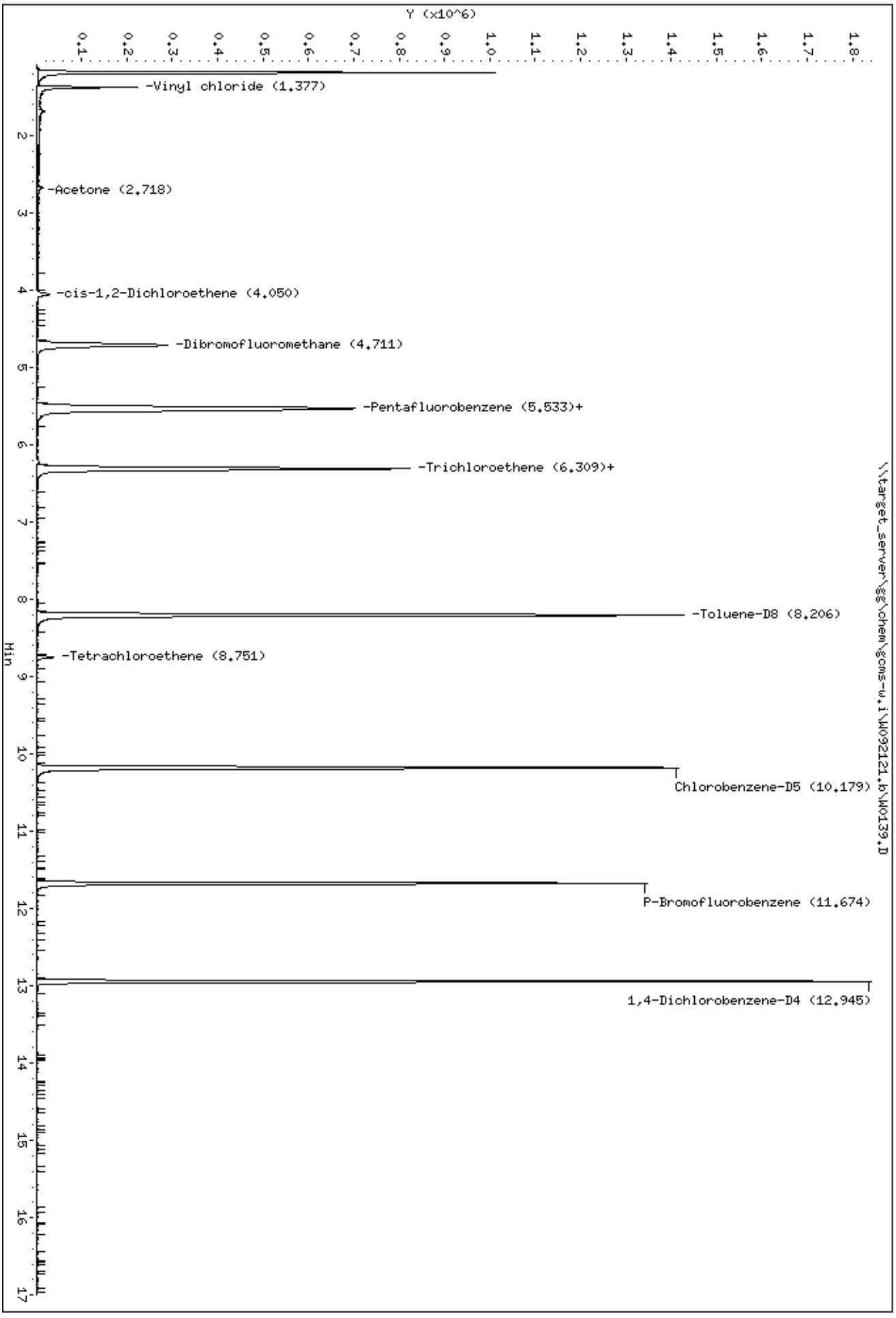
Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

10:23 am, Oct 12, 2021

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)	REVIEW CODE
	3 Vinyl chloride	62	1.460	1.460	(0.264)	1923	0.34341	0.34(a)	
	15 Acetone	43	2.718	2.725	(0.492)	3097	2.22510	2.2(aM)	M10
	27 cis-1,2-Dichloroethene	96	4.050	4.056	(0.733)	15698	2.73131	2.7	
$	34 Dibromofluoromethane	113	4.711	4.714	(0.853)	276849	54.2435	54.2	
*	41 Pentafluorobenzene	168	5.526	5.526	(1.000)	509586	50.0000		
$	42 1,2-Dichloroethane-D4	65	5.545	5.549	(1.003)	382969	57.6075	57.6	
	47 Trichloroethene	95	6.225	6.226	(0.987)	2682	0.48105	0.48(a)	
*	48 1,4-Difluorobenzene	114	6.309	6.315	(1.000)	878635	50.0000		
$	58 Toluene-D8	98	8.205	8.209	(1.301)	1065972	50.7288	50.7	
	60 Tetrachloroethene	164	8.757	8.754	(0.860)	9656	1.95768	2.0	
*	68 Chlorobenzene-D5	117	10.182	10.182	(1.000)	858291	50.0000		
$	77 P-Bromofluorobenzene	95	11.674	11.678	(1.850)	445033	50.6150	50.6	
*	93 1,4-Dichlorobenzene-D4	152	12.945	12.948	(1.000)	436464	50.0000		
M	97 1,2-Dichloroethylene (total)	96				15698	2.73131	2.7	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.


Y (x10^6)
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0
1.1
1.2
1.3
1.4
1.5
1.6
1.7
1.8
-Vinyl chloride (1.377)
-Acetone (2.718)
-cis-1,2-Dichloroethene (4.050)
-Dibromofluoromethane (4.711)
-Pentafluorobenzene (5.533)+
-Trichloroethene (6.309)+
-Toluene-D8 (8.206)
-Tetrachloroethene (8.751)
Chlorobenzene-D5 (10.179)
P-Bromofluorobenzene (11.674)
1,4-Dichlorobenzene-D4 (12.945)
Min
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
\\target_server\gg\chem\gcms-w.i\W092121.b\W0139.D
Data File: \\target_server\gg\chem\gcms-w.i\W092121.b\W0139.D
Date : 21-SEP-2021 15:56
Client ID: WA-SA-STS-6(2021091
Sample Info: SD6313-20
Instrument: gcms-w.i

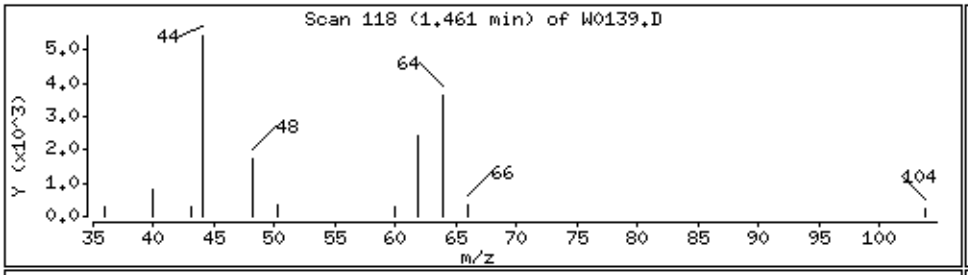
Data File: \\target_server\gg\chem\gcms-w.i\W092121.b\W0139.D

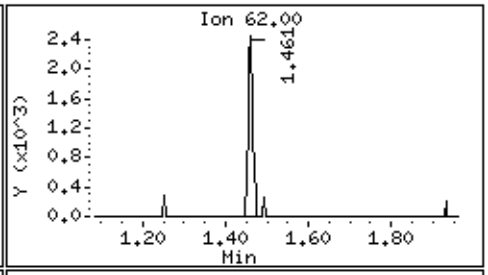
Date : 21-SEP-2021 15:56

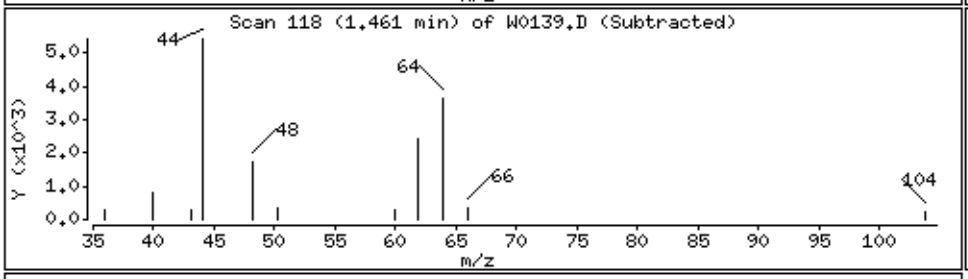
Client ID: VA-SA-STS-6(2021091 Instrument: gcms-w.i

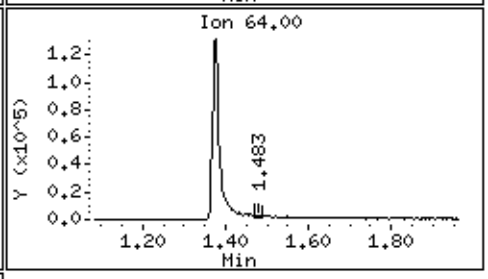
Sample Info: S06313-20

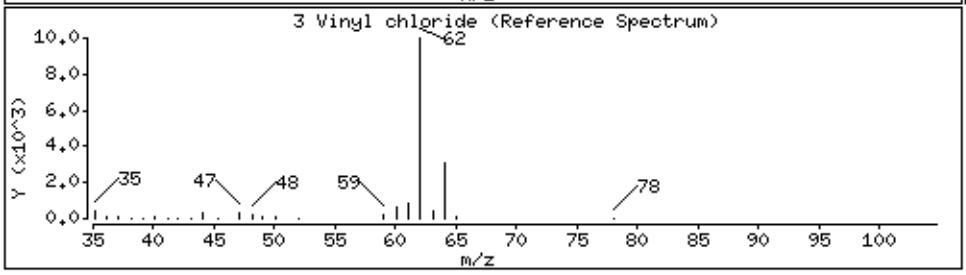
3 Vinyl chloride Concentration: 0.34 ug/l



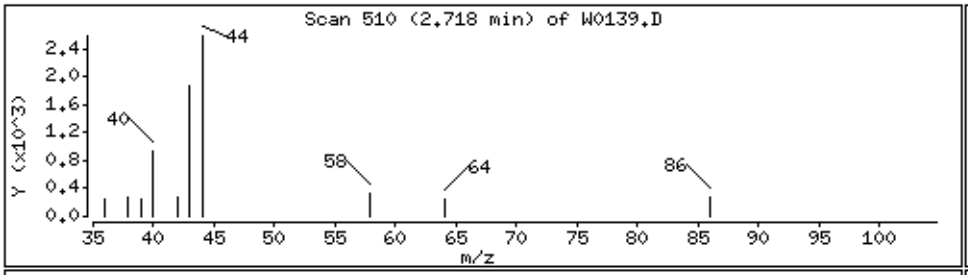


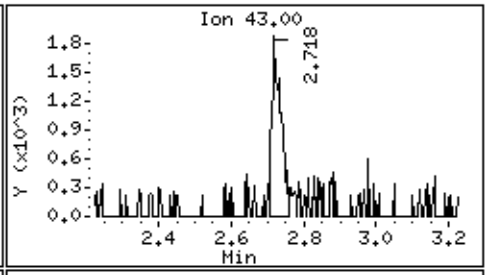


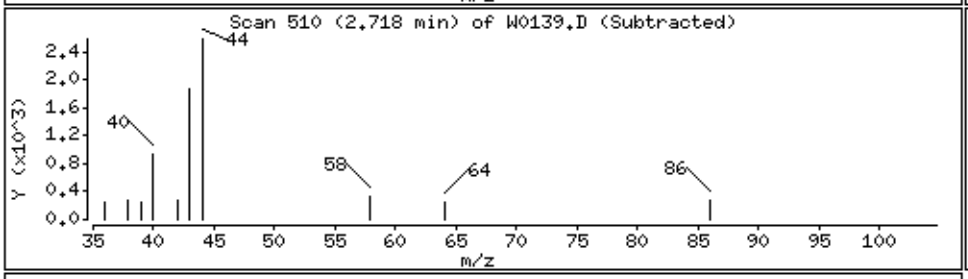


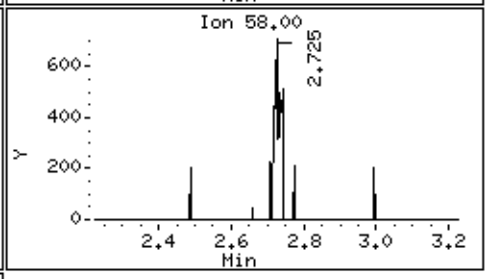


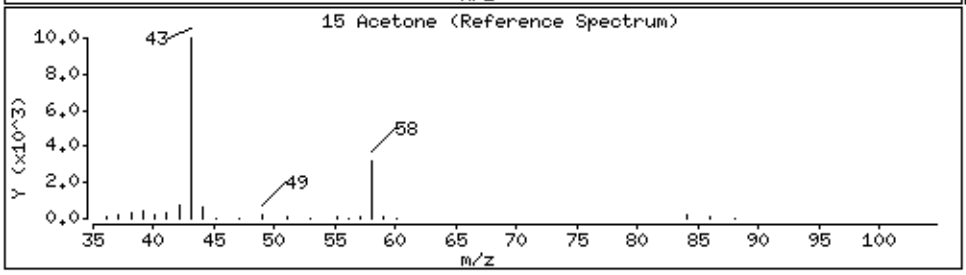
15 Acetone Concentration: 2.2 ug/l











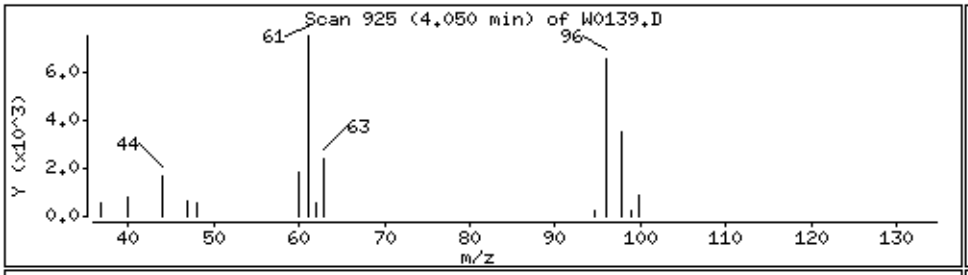
Data File: \\target_server\gg\chem\gcms-w.i\W092121.b\W0139.D

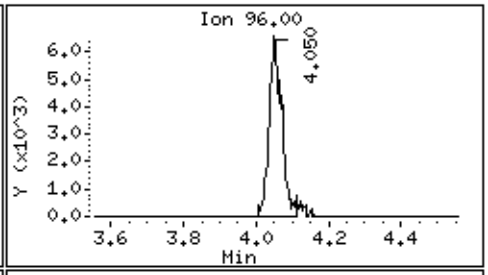
Date : 21-SEP-2021 15:56

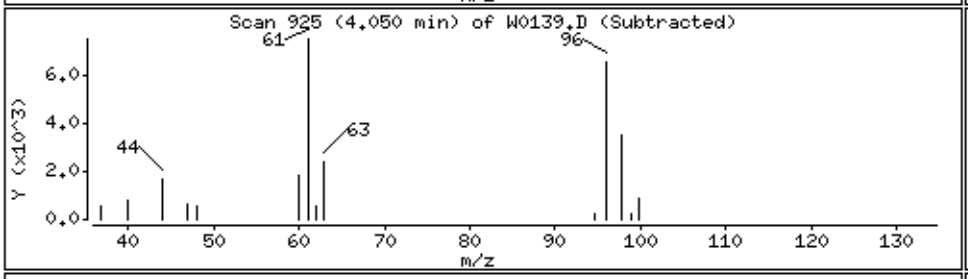
Client ID: VA-SA-STS-6(2021091 Instrument: gcms-w.i

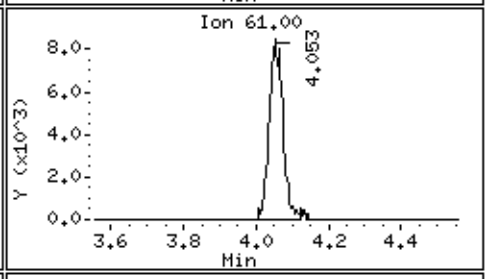
Sample Info: S06313-20

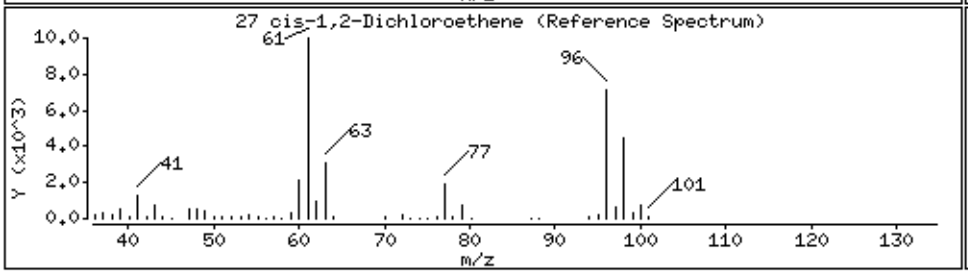
27 cis-1,2-Dichloroethene Concentration: 2.7 ug/l

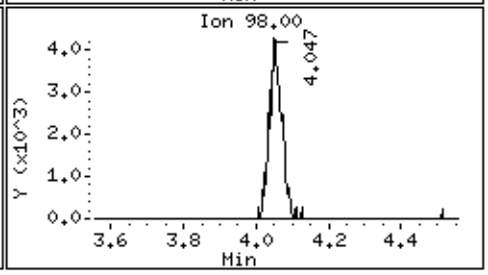




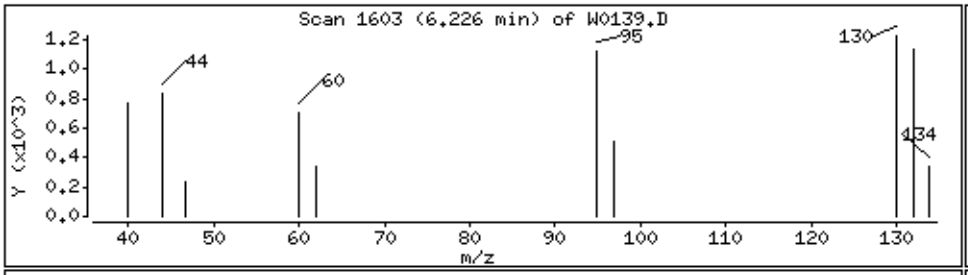


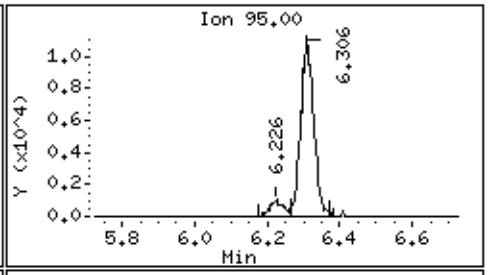


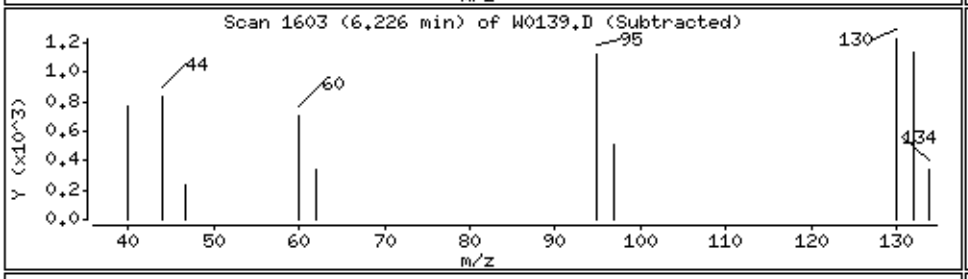


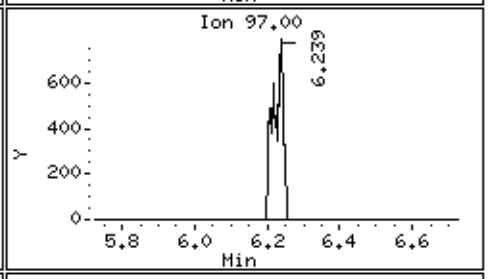


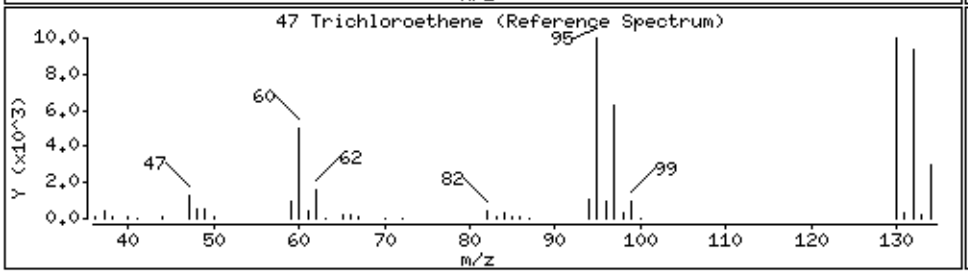
47 Trichloroethene Concentration: 0.48 ug/l

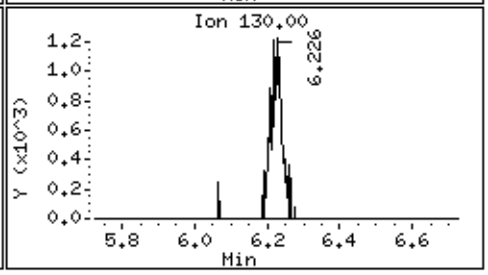












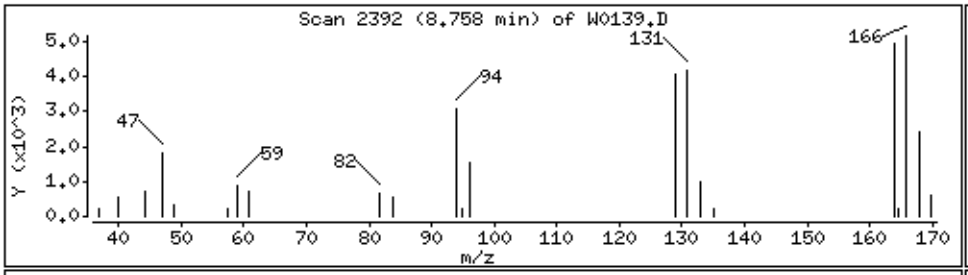
Data File: \\target_server\gg\chem\gcms-w.i\W092121.b\W0139.D

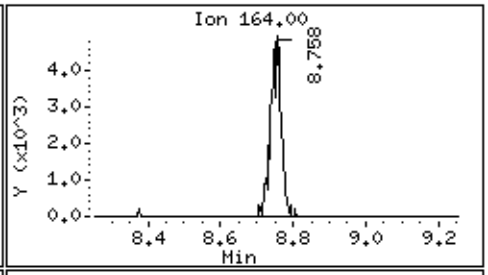
Date : 21-SEP-2021 15:56

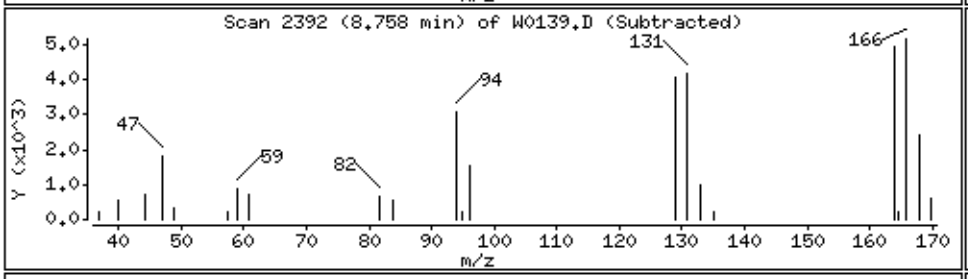
Client ID: VA-SA-STS-6(2021091 Instrument: gcms-w.i

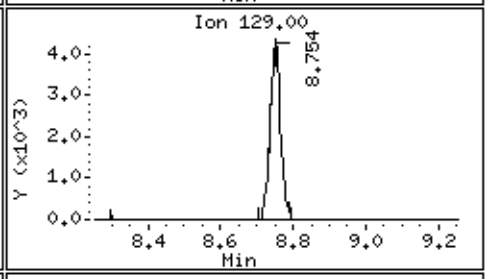
Sample Info: S06313-20

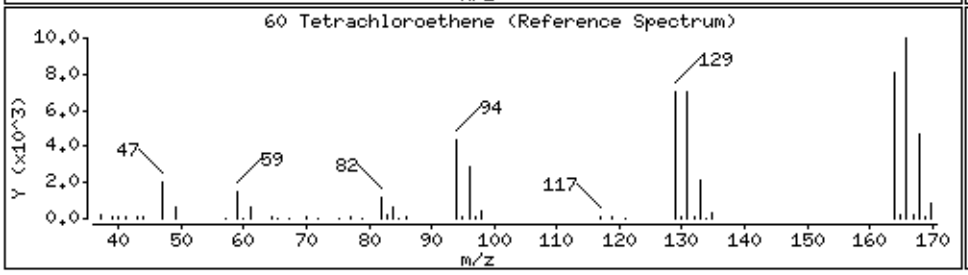
60 Tetrachloroethene Concentration: 2.0 ug/l

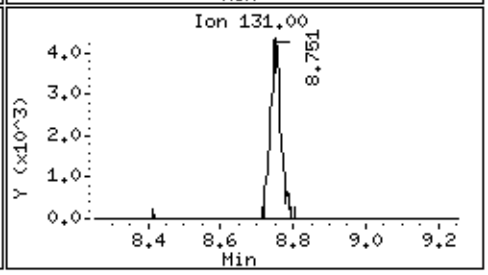












Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-21
Client ID: WVA-SA-SNS-6(20210916)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0140.D

Sample Date: 16-SEP-21
Received Date: 18-SEP-21
Extract Date: 21-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306383

Analysis Date: 21-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	2.0	ug/L	1	2	2.0
Vinyl Chloride	U	2.0	ug/L	1	2	2.0
Bromomethane	U	2.0	ug/L	1	2	2.0
Chloroethane	U	2.0	ug/L	1	2	2.0
Trichlorofluoromethane	U	2.0	ug/L	1	2	2.0
1,1-Dichloroethene	U	1.0	ug/L	1	1	1.0
Carbon Disulfide	U	1.0	ug/L	1	1	1.0
Methylene Chloride	U	5.0	ug/L	1	5	5.0
trans-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
1,1-Dichloroethane	U	1.0	ug/L	1	1	1.0
cis-1,2-Dichloroethene		3.6	ug/L	1	1	1.0
Chloroform	U	1.0	ug/L	1	1	1.0
Carbon Tetrachloride	U	1.0	ug/L	1	1	1.0
1,1,1-Trichloroethane	U	1.0	ug/L	1	1	1.0
2-Butanone	U	5.0	ug/L	1	5	5.0
Benzene	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethane	U	1.0	ug/L	1	1	1.0
Trichloroethene		2.6	ug/L	1	1	1.0
1,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Bromodichloromethane	U	1.0	ug/L	1	1	1.0
cis-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
Toluene	U	1.0	ug/L	1	1	1.0
4-Methyl-2-Pentanone	U	5.0	ug/L	1	5	5.0
Tetrachloroethene	U	1.0	ug/L	1	1	1.0
trans-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
1,1,2-Trichloroethane	U	1.0	ug/L	1	1	1.0
Dibromochloromethane	U	1.0	ug/L	1	1	1.0
Chlorobenzene	U	1.0	ug/L	1	1	1.0
Ethylbenzene	U	1.0	ug/L	1	1	1.0
m+p-Xylenes	U	2.0	ug/L	1	2	2.0
o-Xylene	U	1.0	ug/L	1	1	1.0
Bromoform	U	1.0	ug/L	1	1	1.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
P-Bromofluorobenzene		101.	%			
Toluene-d8		102.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-21
Client ID: WVA-SA-SNS-6(20210916)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0140.D

Sample Date: 16-SEP-21
Received Date: 18-SEP-21
Extract Date: 21-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306383

Analysis Date: 21-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		120.	%			
Dibromofluoromethane		107.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Data File: \\target_server\gg\chem\gcms-w.i\W092121.b\W0140.D
Report Date: 12-Oct-2021 09:13

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-w.i\W092121.b\W0140.D
Lab Smp Id: SO6313-21
Inj Date : 21-SEP-2021 16:27
Operator : ES   Inst ID: gcms-w.i
Smp Info : SO6313-21
Misc Info : WG306383,WG306383-4
Comment   : SW846 5030
Method   : \\target_server\gg\chem\gcms-w.i\W092121.b\W8A05(08).m
Meth Date : 11-Oct-2021 12:27 gcms-w.i   Quant Type: ISTD
Cal Date : 20-SEP-2021 11:30   Cal File: W0105.D
Als bottle: 18
Dil Factor: 1.00000
Integrator: HP RTE   Compound Sublist: all.sub
Target Version: 4.12

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

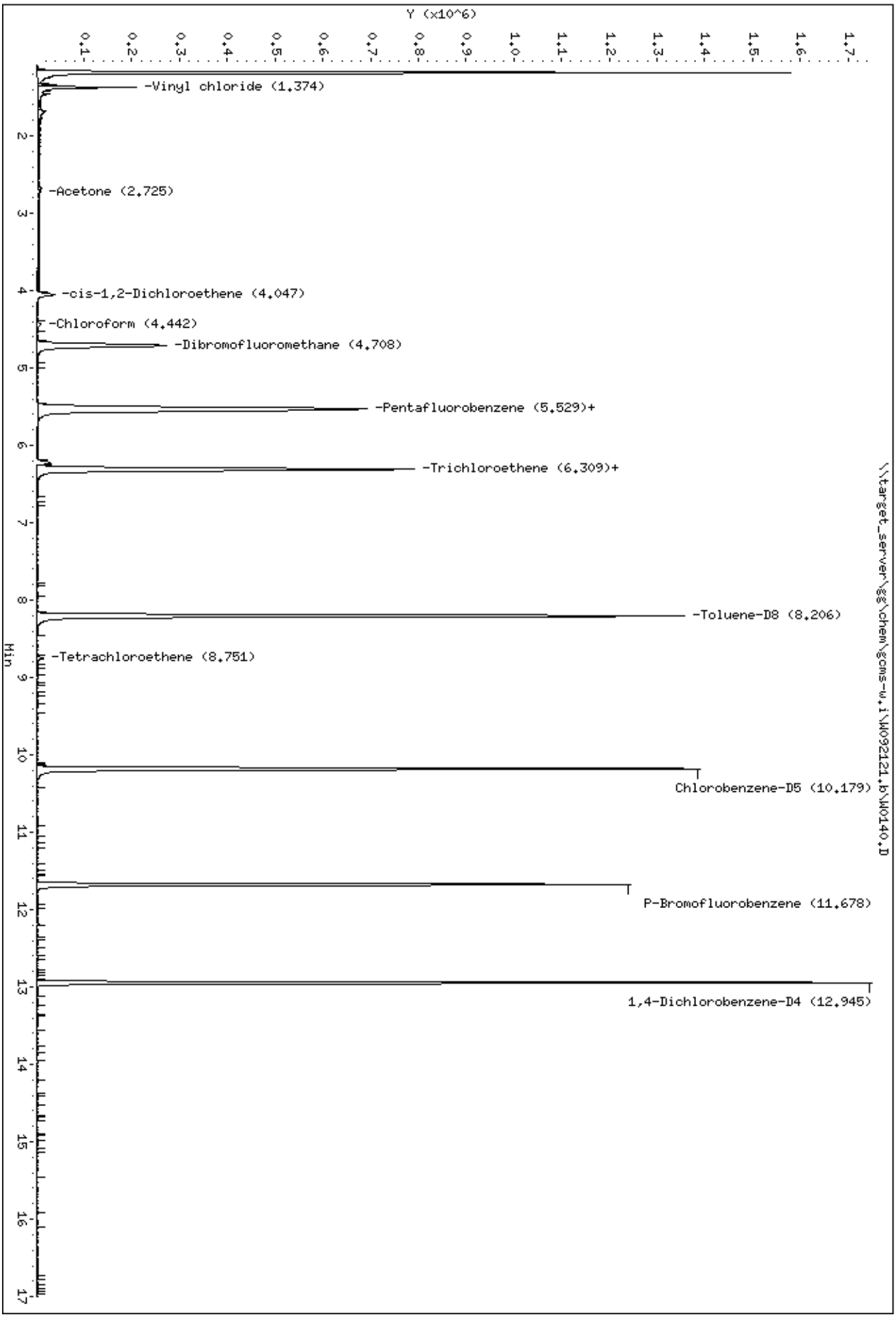
Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

10:23 am, Oct 12, 2021

		Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)	REVIEW CODE
	3	Vinyl chloride	62	1.460	1.460	(0.264)	8705	1.62391	1.6	
	15	Acetone	43	2.724	2.725	(0.493)	3767	2.82680	2.8(aM)	M10
	27	cis-1,2-Dichloroethene	96	4.046	4.056	(0.733)	19676	3.57620	3.6	
	31	Chloroform	83	4.425	4.445	(0.801)	8126	0.86624	0.87(a)	
$	34	Dibromofluoromethane	113	4.708	4.714	(0.852)	262376	53.7016	53.7	
*	41	Pentafluorobenzene	168	5.523	5.526	(1.000)	487820	50.0000		
$	42	1,2-Dichloroethane-D4	65	5.548	5.549	(1.005)	380382	59.7714	59.8	
	47	Trichloroethene	95	6.229	6.226	(0.987)	13723	2.56038	2.6	
*	48	1,4-Difluorobenzene	114	6.309	6.315	(1.000)	844668	50.0000		
$	58	Toluene-D8	98	8.205	8.209	(1.301)	1030557	51.0157	51.0	
	60	Tetrachloroethene	164	8.748	8.754	(0.859)	3140	0.66423	0.66(a)	
*	68	Chlorobenzene-D5	117	10.179	10.182	(1.000)	822598	50.0000		
$	77	P-Bromofluorobenzene	95	11.674	11.678	(1.850)	426343	50.4393	50.4	
*	93	1,4-Dichlorobenzene-D4	152	12.945	12.948	(1.000)	424297	50.0000		
M	97	1,2-Dichloroethylene (total)	96				19676	3.57620	3.6	

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.


Y (x10^6)
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0
1.1
1.2
1.3
1.4
1.5
1.6
1.7
-Vinyl chloride (1.374)
-Acetone (2.725)
-cis-1,2-Dichloroethene (4.047)
-Chloroform (4.442)
-Dibromofluoromethane (4.708)
-Pentafluorobenzene (5.529)+
-Trichloroethene (6.309)+
-Toluene-D8 (8.206)
-Tetrachloroethene (8.751)
Chlorobenzene-D5 (10.179)
P-Bromofluorobenzene (11.678)
1,4-Dichlorobenzene-D4 (12.945)
Min
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
\\target_server\gg\chem\gcms-w.i\W092121.b\W0140.D
Data File: \\target_server\gg\chem\gcms-w.i\W092121.b\W0140.D
Date : 21-SEP-2021 16:27
Client ID:
Sample Info: S06313-21
Instrument: gcms-w.i

Data File: \\target_server\gg\chem\gcms-w.i\W092121.b\W0140.D

Date : 21-SEP-2021 16:27

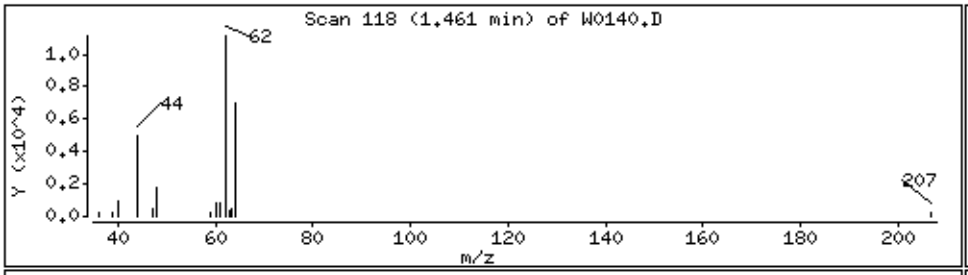
Client ID:

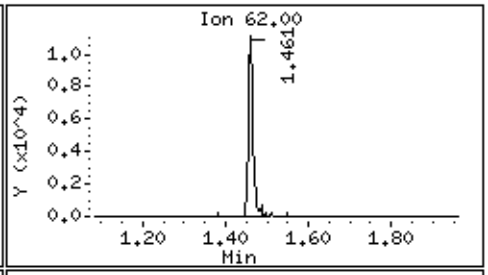
Instrument: gcms-w.i

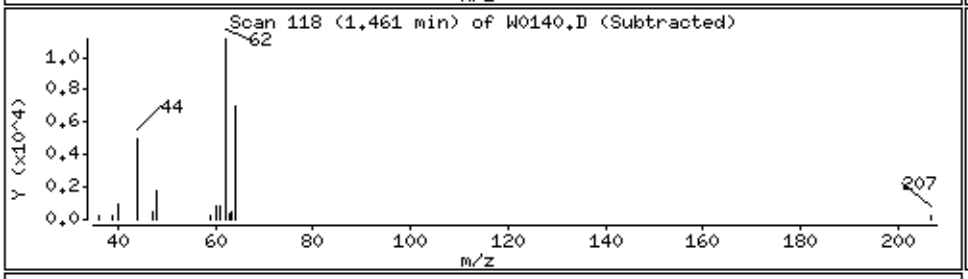
Sample Info: S06313-21

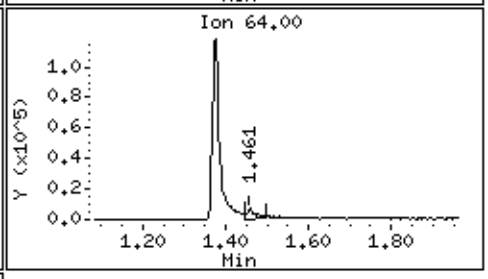
3 Vinyl chloride

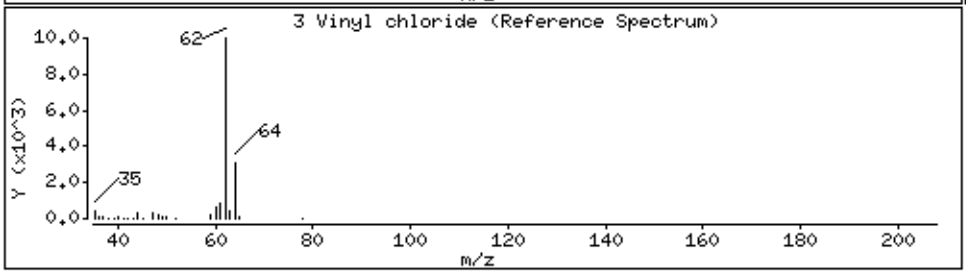
Concentration: 1.6 ug/l





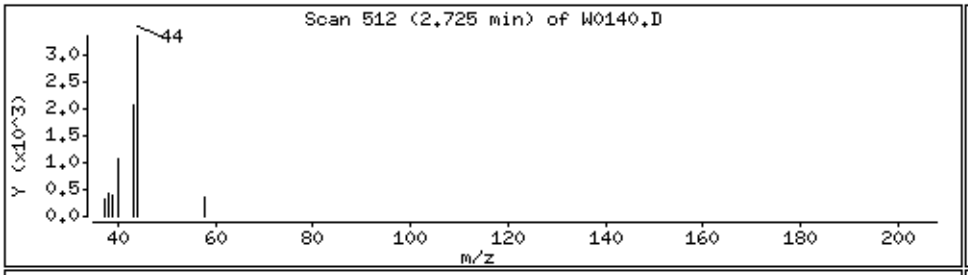


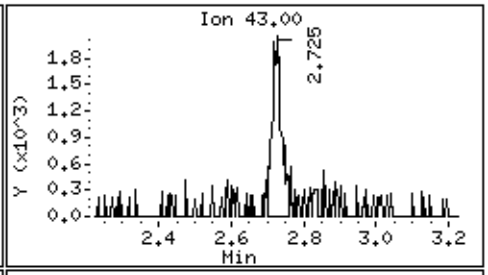


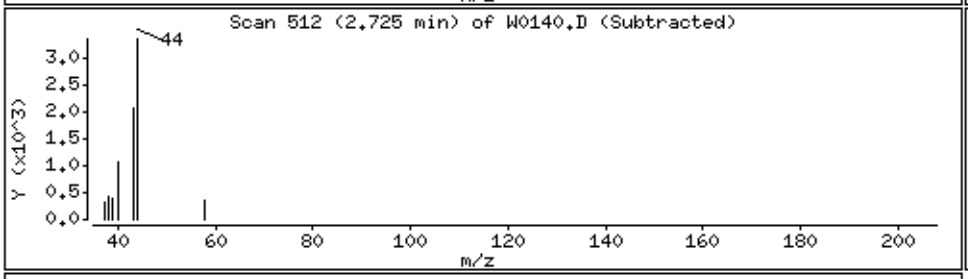


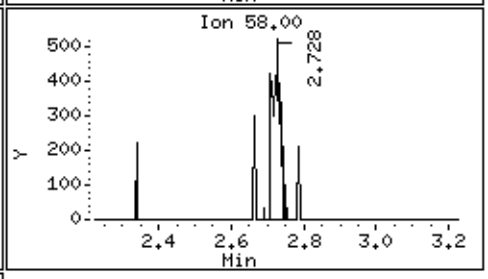
15 Acetone

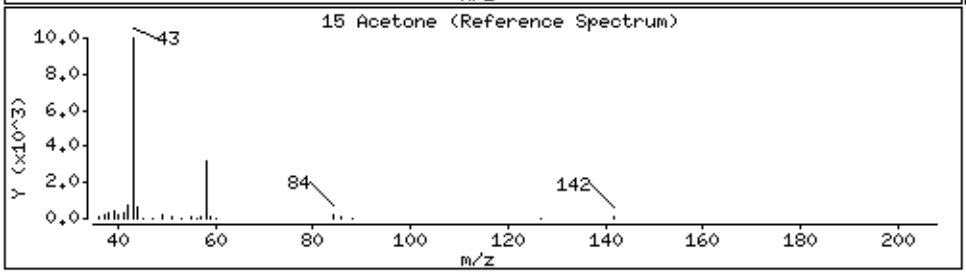
Concentration: 2.8 ug/l











Data File: \\target_server\gg\chem\gcms-w.i\W092121.b\W0140.D

Date : 21-SEP-2021 16:27

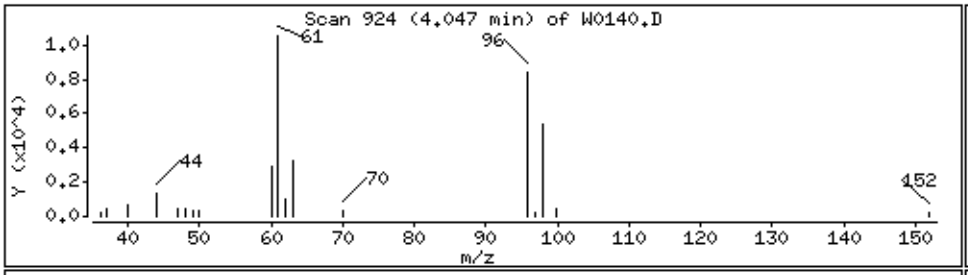
Client ID:

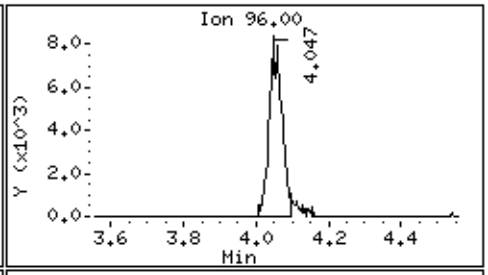
Instrument: gcms-w.i

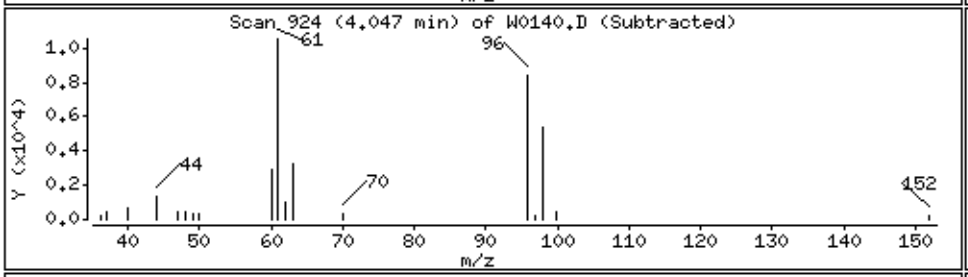
Sample Info: S06313-21

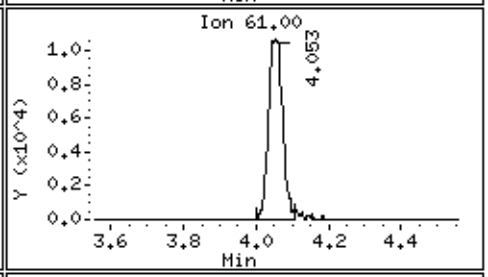
27 cis-1,2-Dichloroethene

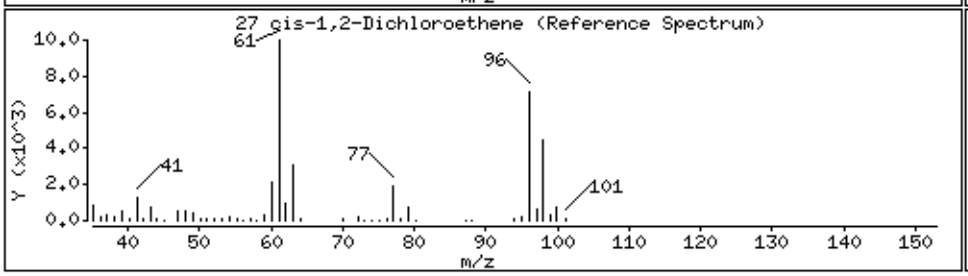
Concentration: 3.6 ug/l

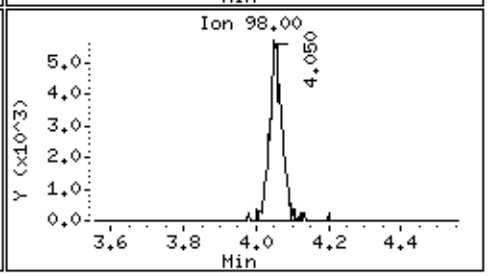






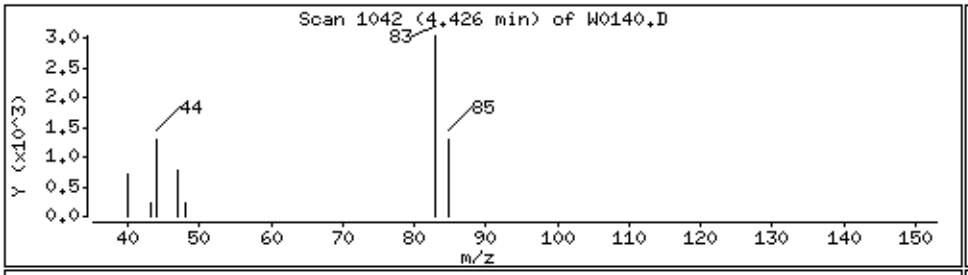


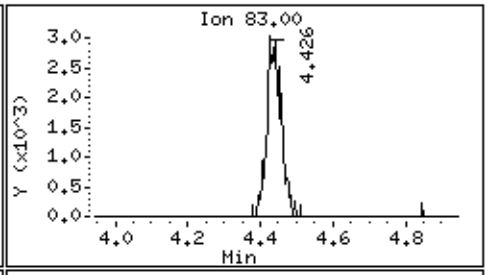


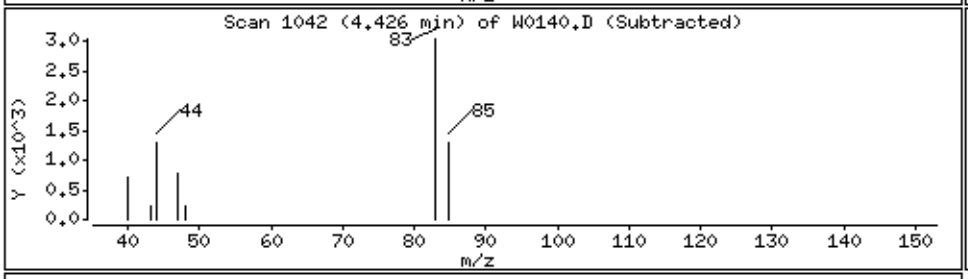


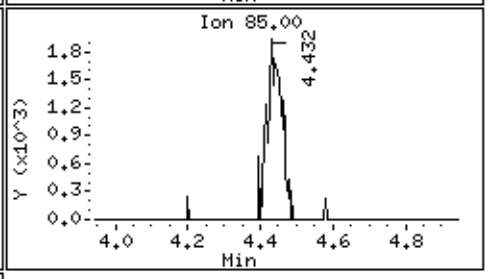
31 Chloroform

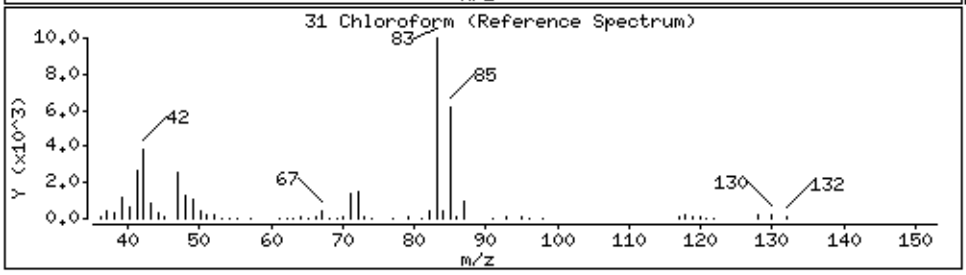
Concentration: 0.87 ug/l











Data File: \\target_server\gg\chem\gcms-w.i\W092121.b\W0140.D

Date : 21-SEP-2021 16:27

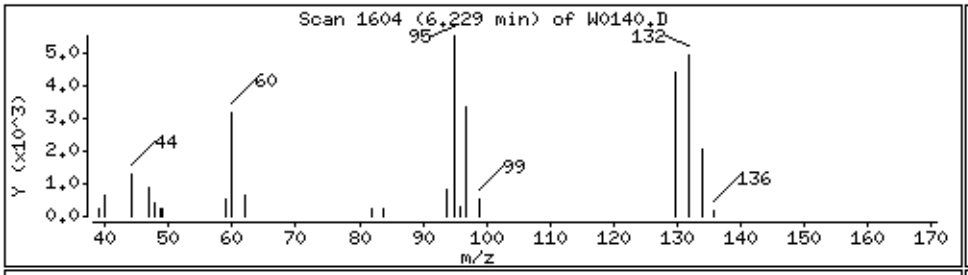
Client ID:

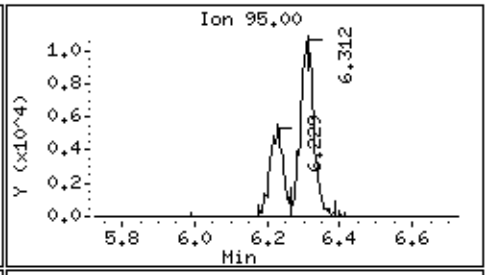
Instrument: gcms-w.i

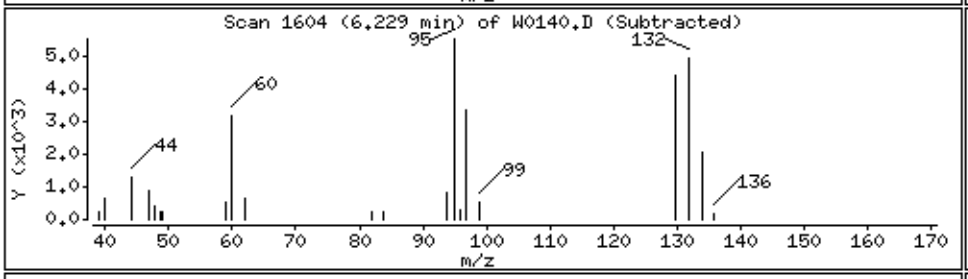
Sample Info: S06313-21

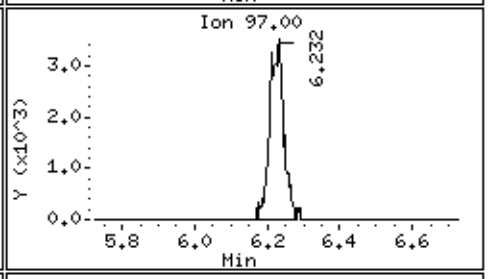
47 Trichloroethene

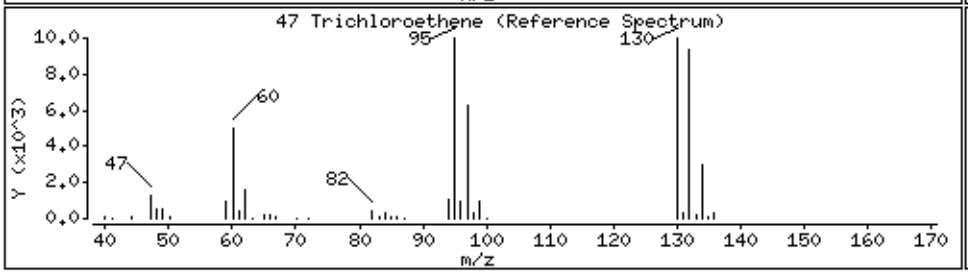
Concentration: 2.6 ug/l

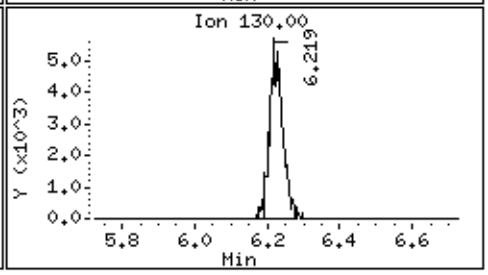






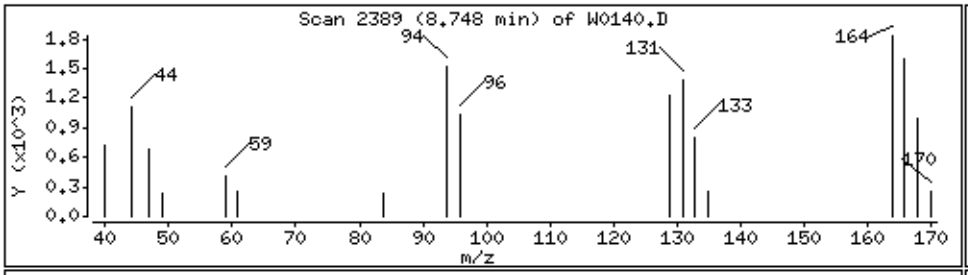


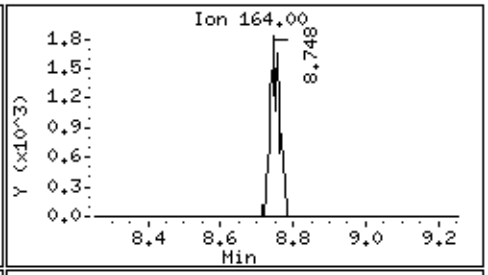


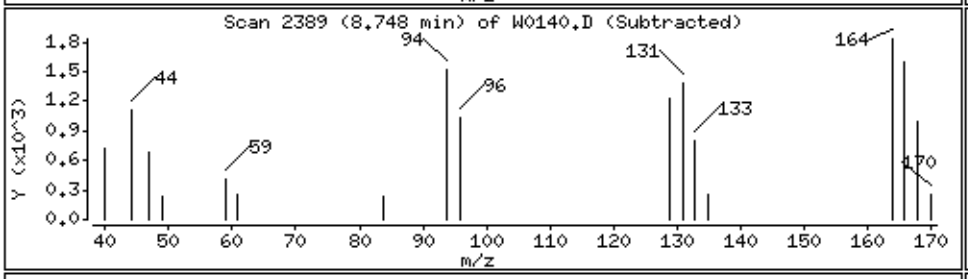


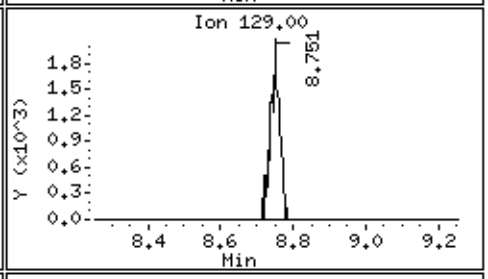
60 Tetrachloroethene

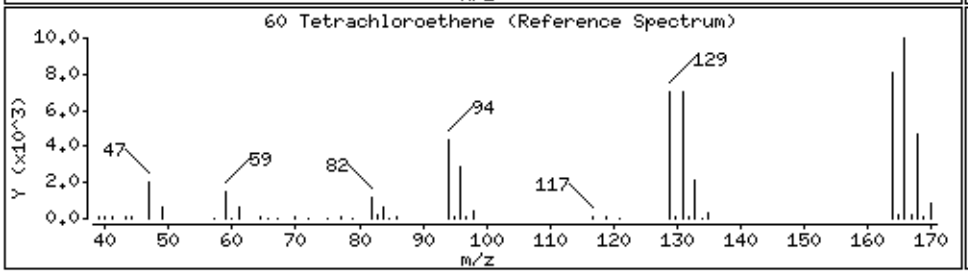
Concentration: 0.66 ug/l

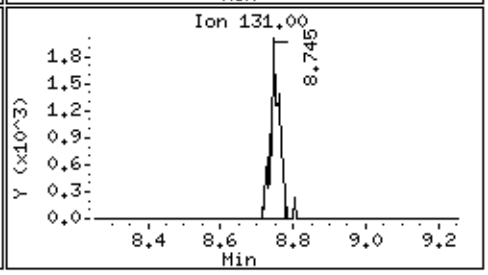












Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-22
Client ID: WVA-MW-82R-1(20210916)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0223.D

Sample Date: 16-SEP-21
Received Date: 18-SEP-21
Extract Date: 24-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306608

Analysis Date: 24-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	2.0	ug/L	1	2	2.0
Vinyl Chloride		56.	ug/L	1	2	2.0
Bromomethane	U	2.0	ug/L	1	2	2.0
Chloroethane	U	2.0	ug/L	1	2	2.0
Trichlorofluoromethane	U	2.0	ug/L	1	2	2.0
1,1-Dichloroethene	U	1.0	ug/L	1	1	1.0
Carbon Disulfide	U	1.0	ug/L	1	1	1.0
Methylene Chloride	U	5.0	ug/L	1	5	5.0
trans-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
1,1-Dichloroethane	U	1.0	ug/L	1	1	1.0
cis-1,2-Dichloroethene		67.	ug/L	1	1	1.0
Chloroform	U	1.0	ug/L	1	1	1.0
Carbon Tetrachloride	U	1.0	ug/L	1	1	1.0
1,1,1-Trichloroethane	U	1.0	ug/L	1	1	1.0
2-Butanone	U	5.0	ug/L	1	5	5.0
Benzene	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethane	U	1.0	ug/L	1	1	1.0
Trichloroethene		1.2	ug/L	1	1	1.0
1,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Bromodichloromethane	U	1.0	ug/L	1	1	1.0
cis-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
Toluene	U	1.0	ug/L	1	1	1.0
4-Methyl-2-Pentanone	U	5.0	ug/L	1	5	5.0
Tetrachloroethene	U	1.0	ug/L	1	1	1.0
trans-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
1,1,2-Trichloroethane	U	1.0	ug/L	1	1	1.0
Dibromochloromethane	U	1.0	ug/L	1	1	1.0
Chlorobenzene	U	1.0	ug/L	1	1	1.0
Ethylbenzene	U	1.0	ug/L	1	1	1.0
m+p-Xylenes	U	2.0	ug/L	1	2	2.0
o-Xylene	U	1.0	ug/L	1	1	1.0
Bromoform	U	1.0	ug/L	1	1	1.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
P-Bromofluorobenzene		97.4	%			
Toluene-d8		102.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-22
Client ID: WVA-MW-82R-1(20210916)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0223.D

Sample Date: 16-SEP-21
Received Date: 18-SEP-21
Extract Date: 24-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306608

Analysis Date: 24-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		112.	%			
Dibromofluoromethane		106.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Data File: \\target_server\gg\chem\gcms-w.i\W092421.b\W0223.D
Report Date: 12-Oct-2021 08:55

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-w.i\W092421.b\W0223.D
Lab Smp Id: SO6313-22 Client Smp ID: VA-MW-82R-1(2021091
Inj Date : 24-SEP-2021 17:11
Operator : ES Inst ID: gcms-w.i
Smp Info : SO6313-22
Misc Info : WG306608,WG306608-4
Comment : SW846 5030
Method : \\target_server\gg\chem\gcms-w.i\W092421.b\W8A05(08A).m
Meth Date : 08-Oct-2021 09:51 gcms-w.i Quant Type: ISTD
Cal Date : 24-SEP-2021 11:36 Cal File: W0215.D
Als bottle: 18
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.12

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

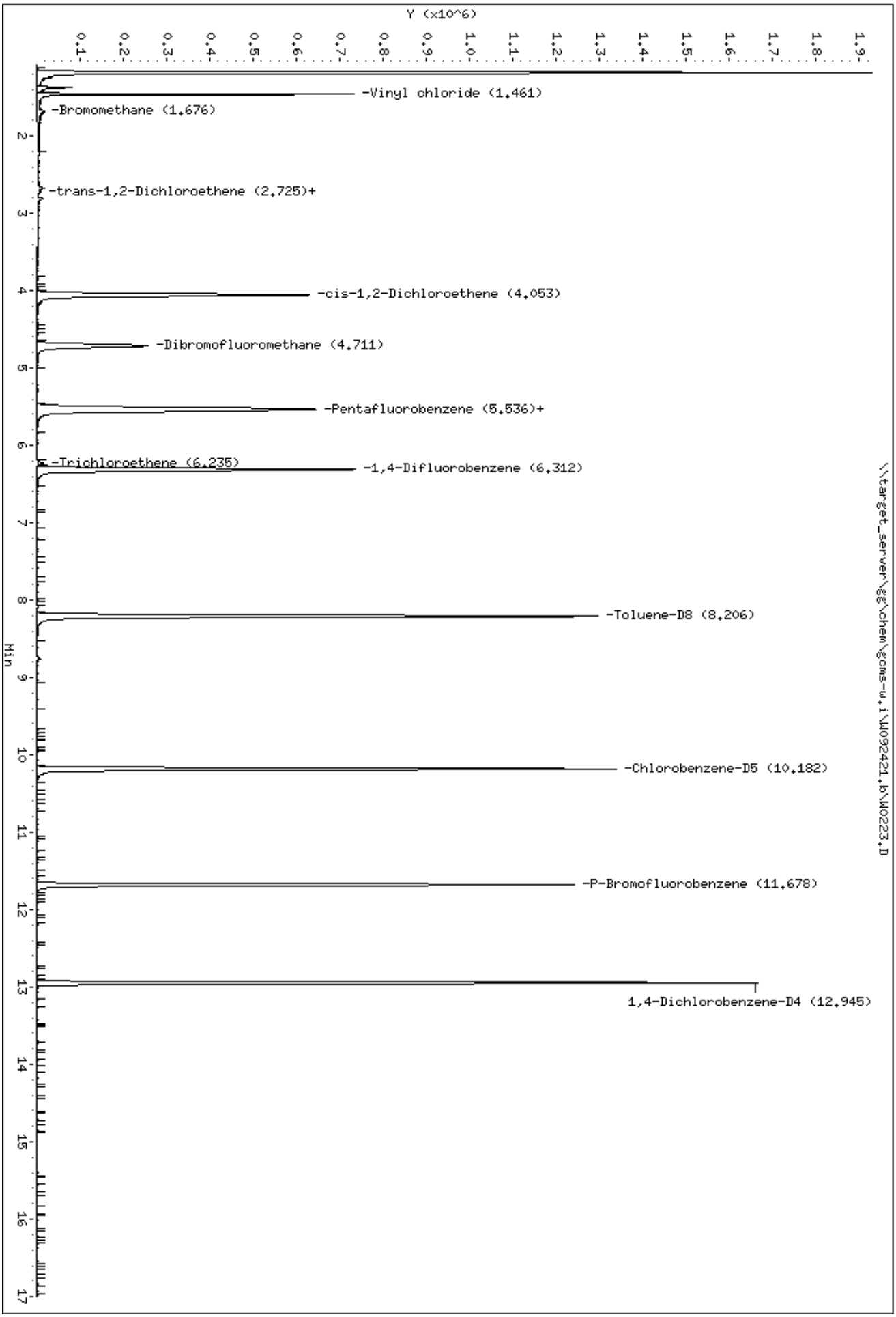
Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

10:23 am, Oct 12, 2021

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)	REVIEW CODE
	3 Vinyl chloride	62	1.460	1.460	(0.264)	387682	56.3988	56.4(M)	M7
	4 Bromomethane	94	1.675	1.672	(0.303)	1270	0.55805	0.56(a)	
	15 Acetone	43	2.724	2.722	(0.493)	4102	2.58351	2.6(aM)	
	16 trans-1,2-Dichloroethene	96	2.811	2.811	(0.508)	4461	0.85855	0.86(a)	
	27 cis-1,2-Dichloroethene	96	4.056	4.050	(0.734)	354121	67.3994	67.4	
$	34 Dibromofluoromethane	113	4.711	4.714	(0.852)	244075	53.2001	53.2	
*	41 Pentafluorobenzene	168	5.529	5.520	(1.000)	454292	50.0000		
$	42 1,2-Dichloroethane-D4	65	5.551	5.549	(1.004)	352342	55.8095	55.8	
	47 Trichloroethene	95	6.235	6.226	(0.988)	6304	1.20437	1.2	
*	48 1,4-Difluorobenzene	114	6.312	6.312	(1.000)	785804	50.0000		
$	58 Toluene-D8	98	8.205	8.202	(1.300)	960684	50.9528	51.0	
*	68 Chlorobenzene-D5	117	10.182	10.182	(1.000)	779938	50.0000		
$	77 P-Bromofluorobenzene	95	11.677	11.674	(1.850)	400611	48.7242	48.7	
*	93 1,4-Dichlorobenzene-D4	152	12.945	12.942	(1.000)	400793	50.0000		
M	97 1,2-Dichloroethylene (total)	96				358582	68.2580	68.2	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.



Data File: \\target_server\gg\chem\gcms-w.i\W092421.b\W0223.D
Date : 24-SEP-2021 17:11
Client ID: VA-MW-82R-1(2021091
Sample Info: SD6313-22

Instrument: gcms-w.i

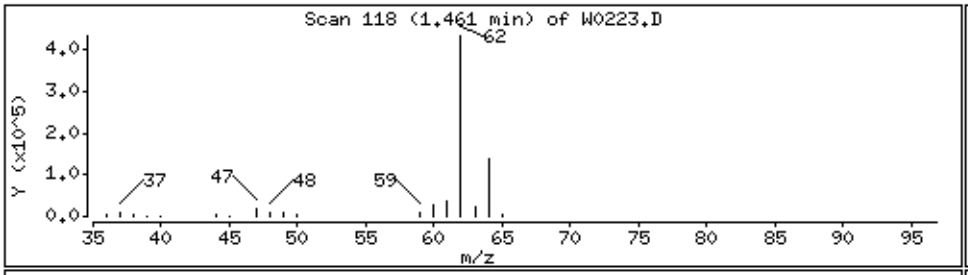
Data File: \\target_server\gg\chem\gcms-w.i\W092421.b\W0223.D

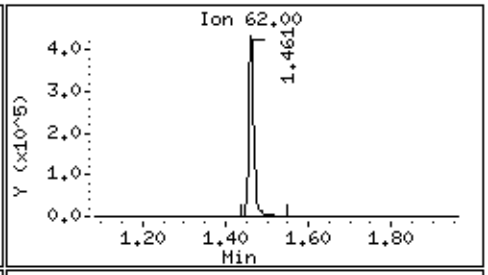
Date : 24-SEP-2021 17:11

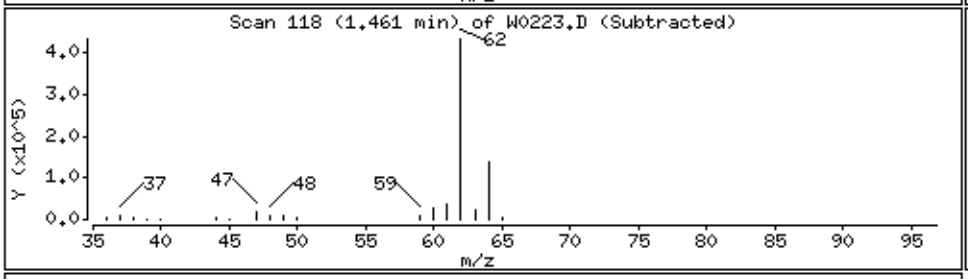
Client ID: VA-MW-82R-1(2021091 Instrument: gcms-w.i

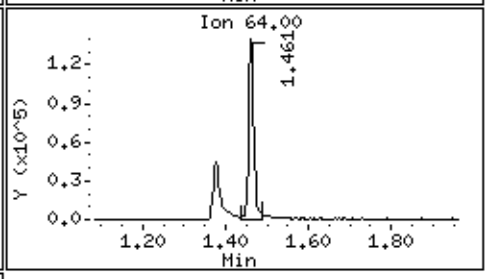
Sample Info: S06313-22

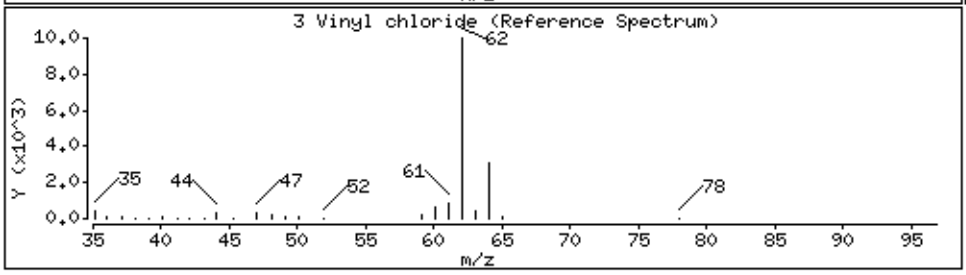
3 Vinyl chloride Concentration: 56.4 ug/l



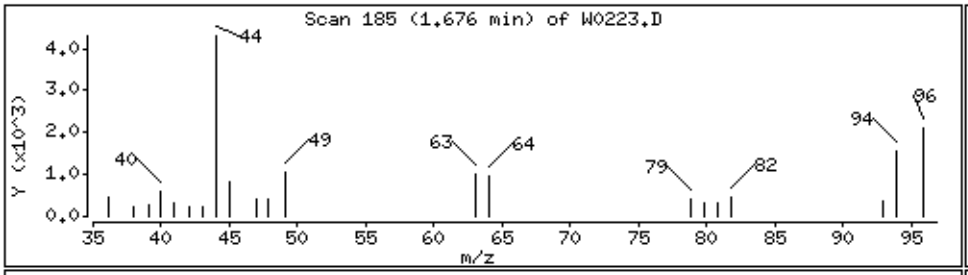


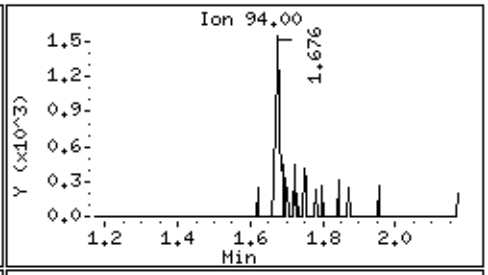


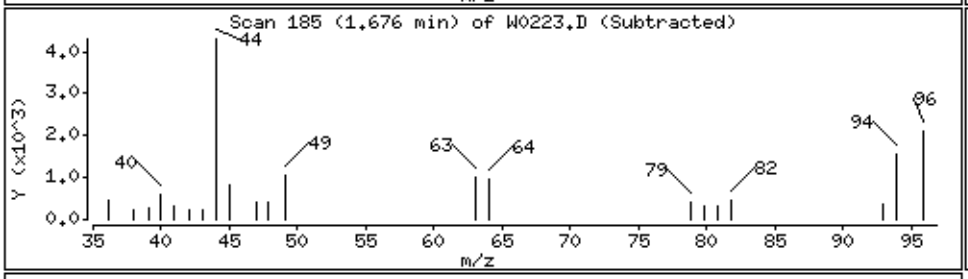


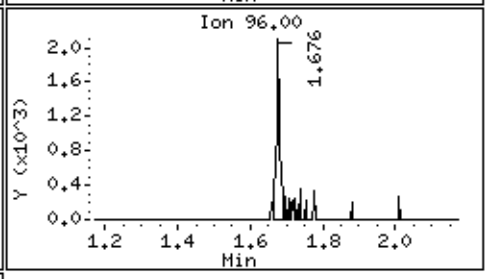


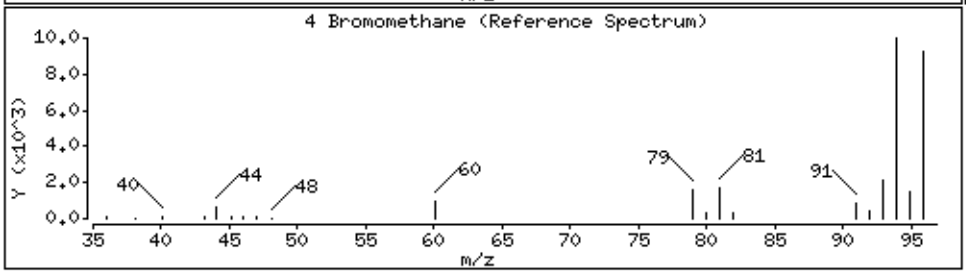
4 Bromomethane Concentration: 0.56 ug/l











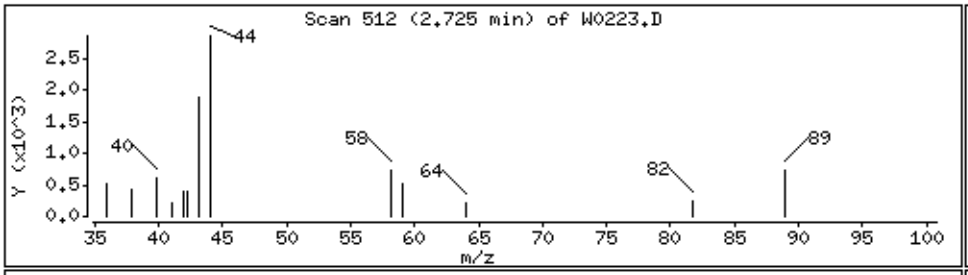
Data File: \\target_server\gg\chem\gcms-w.i\W092421.b\W0223.D

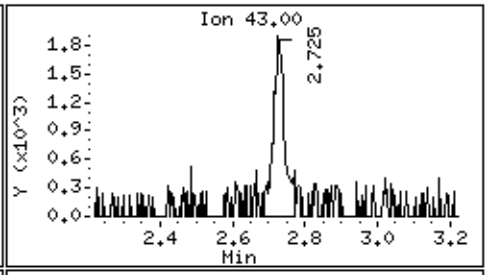
Date : 24-SEP-2021 17:11

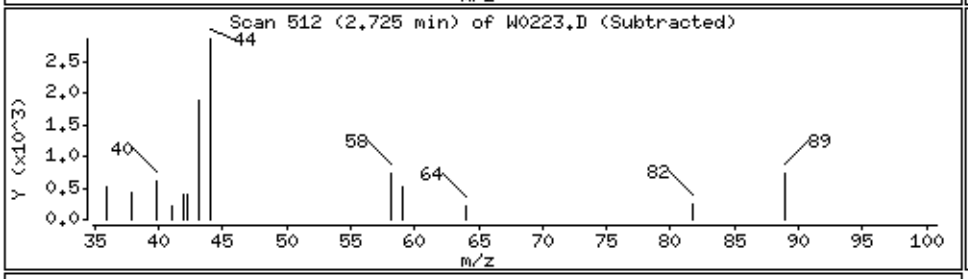
Client ID: VA-MW-82R-1(2021091 Instrument: gcms-w.i

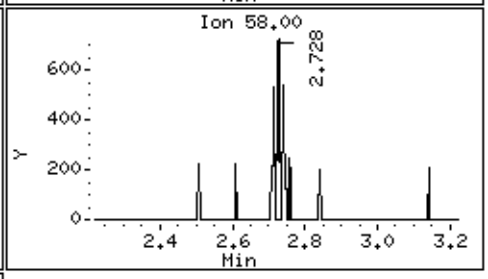
Sample Info: S06313-22

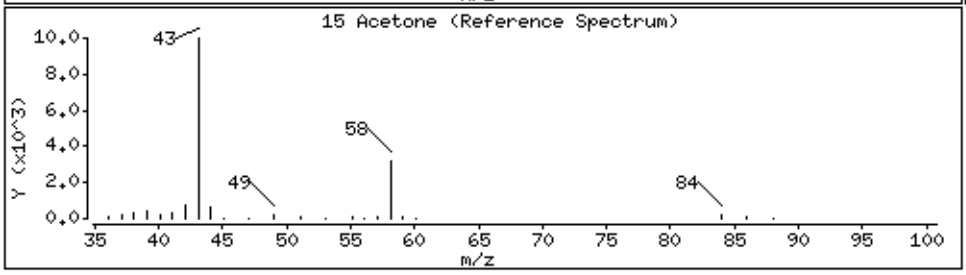
15 Acetone Concentration: 2.6 ug/l



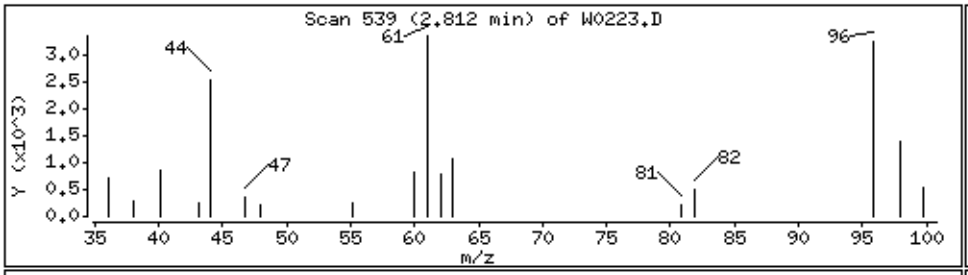


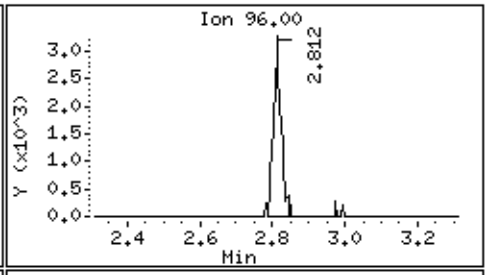


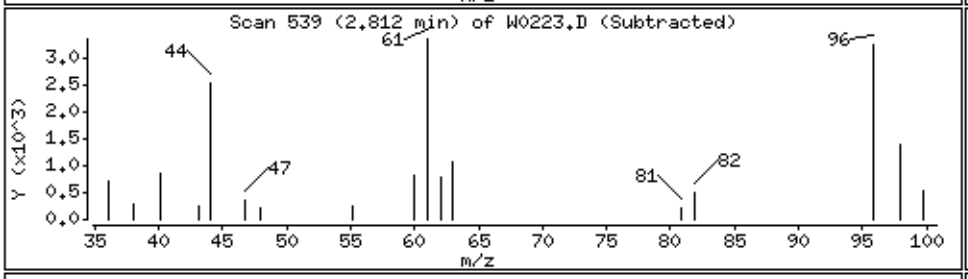


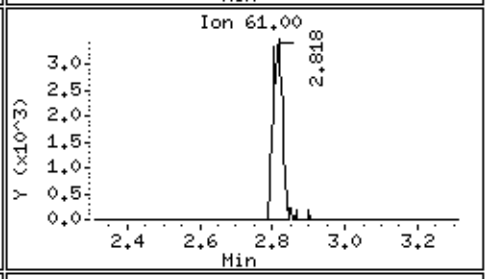


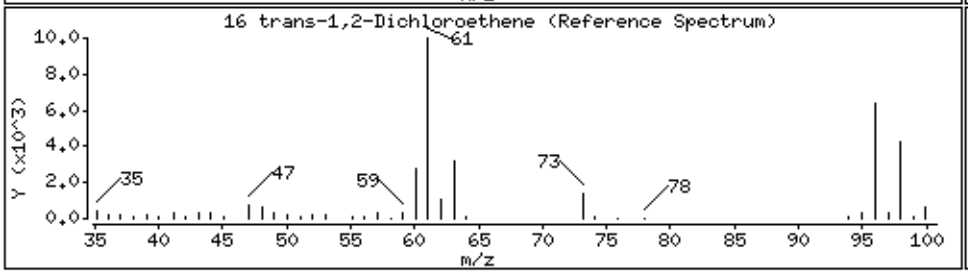
16 trans-1,2-Dichloroethene Concentration: 0.86 ug/l

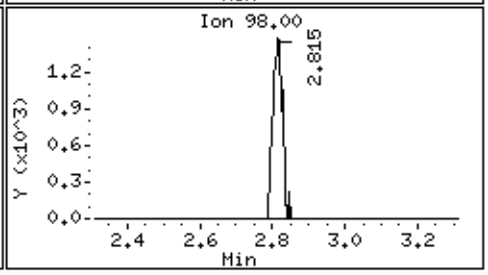












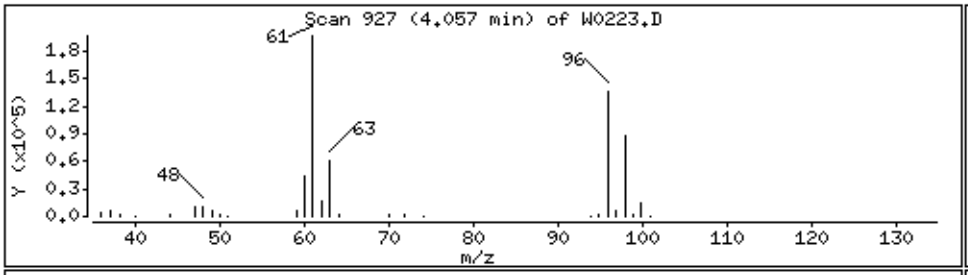
Data File: \\target_server\gg\chem\gcms-w.i\W092421.b\W0223.D

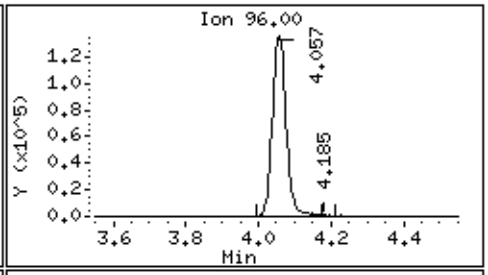
Date : 24-SEP-2021 17:11

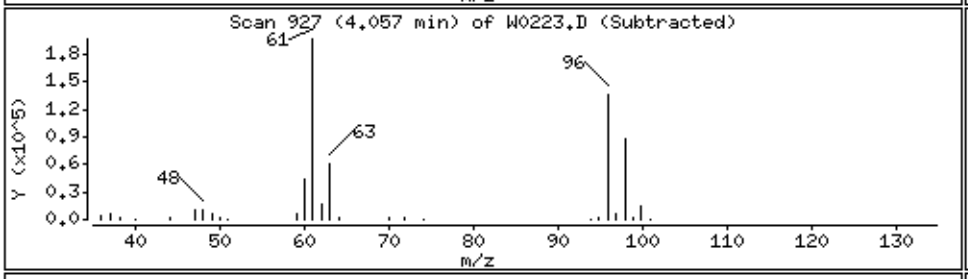
Client ID: VA-MW-82R-1(2021091 Instrument: gcms-w.i

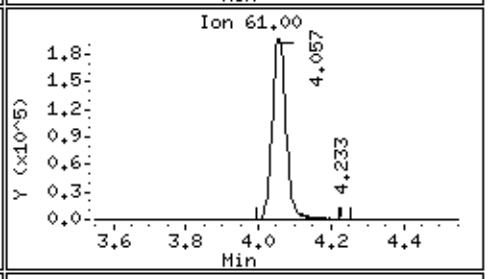
Sample Info: S06313-22

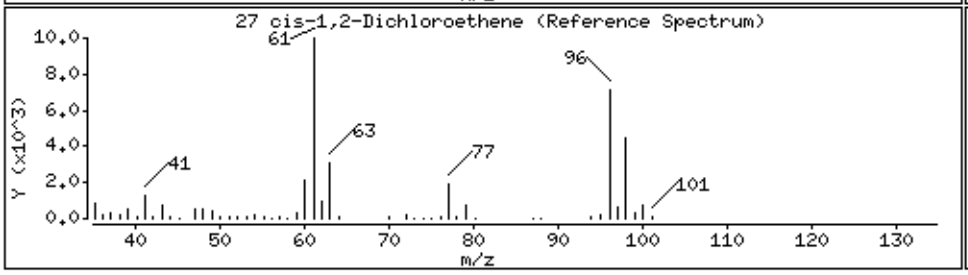
27 cis-1,2-Dichloroethene Concentration: 67.4 ug/l

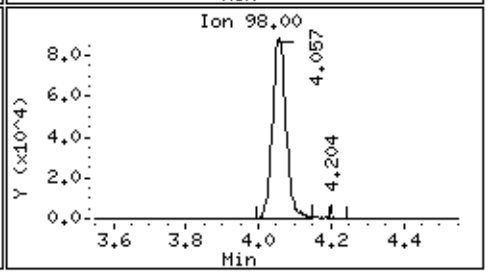




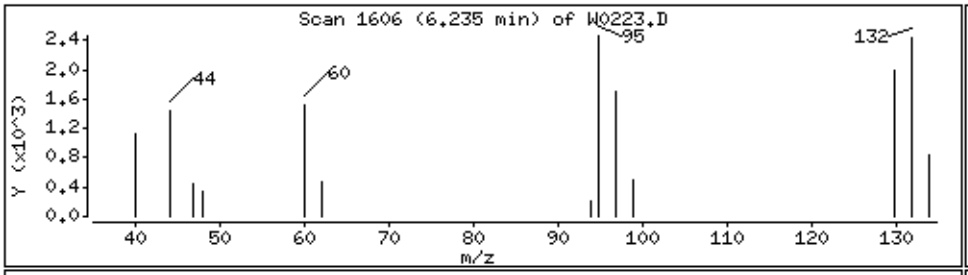


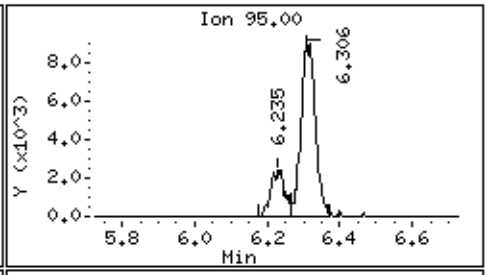


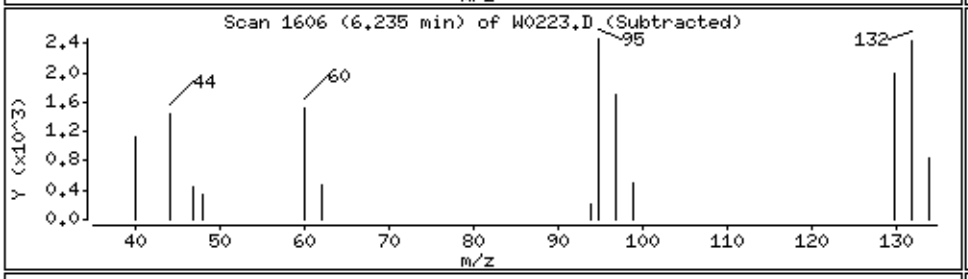


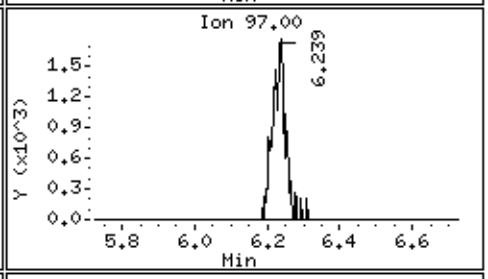


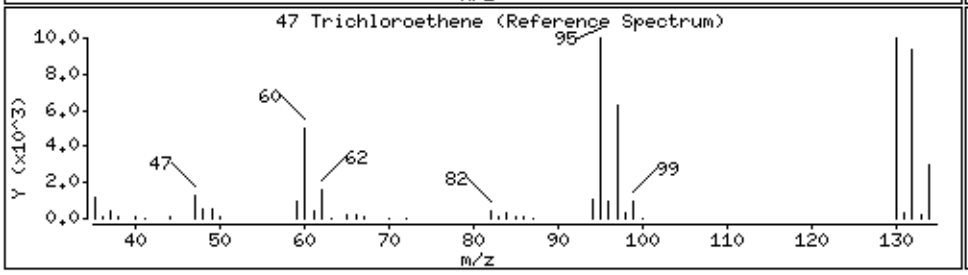
47 Trichloroethene Concentration: 1.2 ug/l

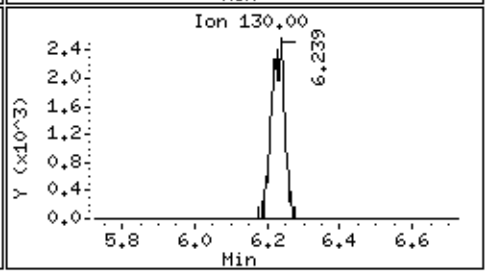








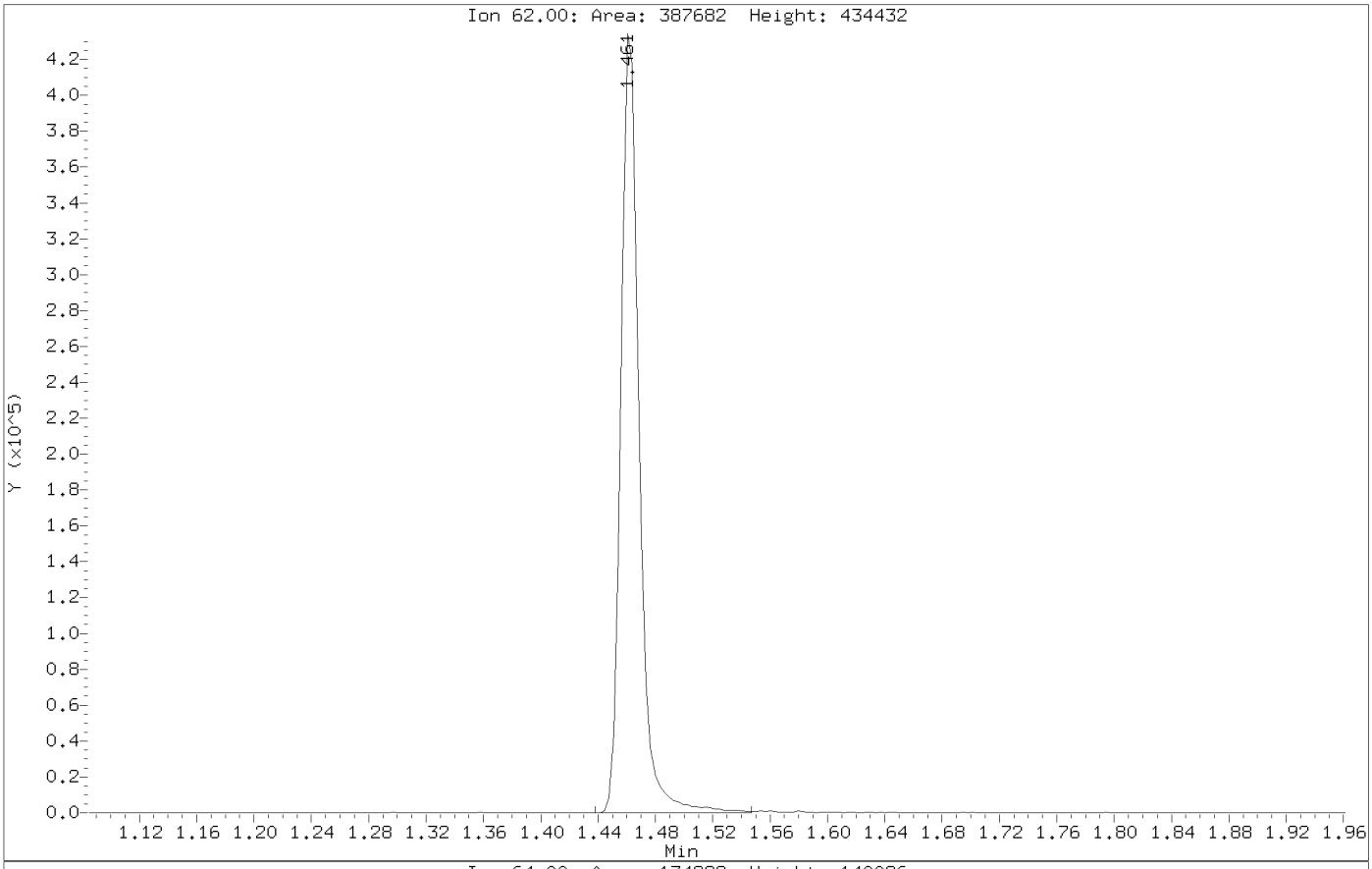


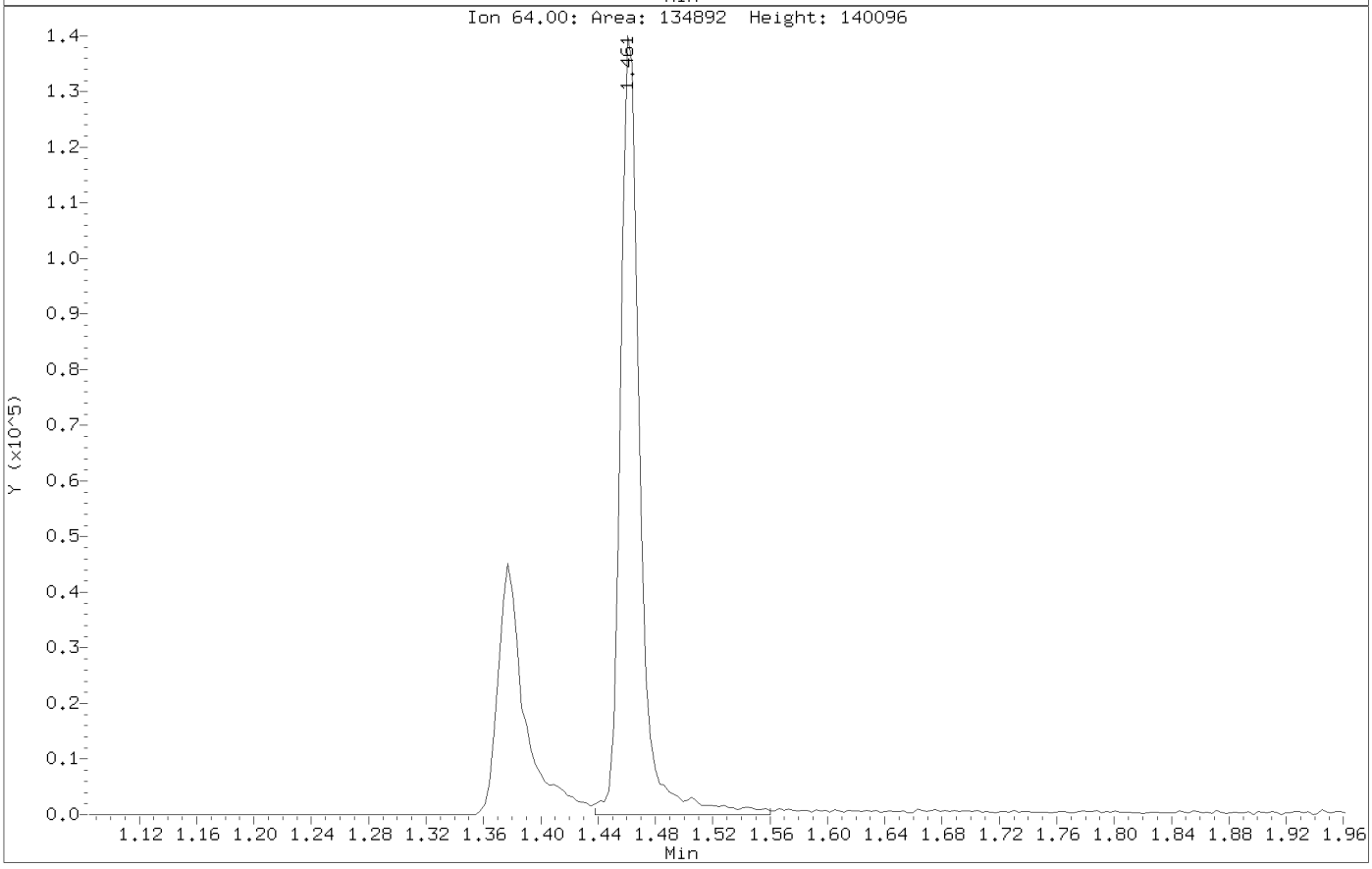


Data File: \\target_server\gg\chem\gcms-w.i\W092421.b\W0223.D
Injection Date: 24-SEP-2021 17:11
Instrument: gcms-w.i
Client Sample ID: VA-MW-82R-1(2021091

Compound: Vinyl chloride
CAS Number: 75-01-4

BEFORE MANUAL INTEGRATION

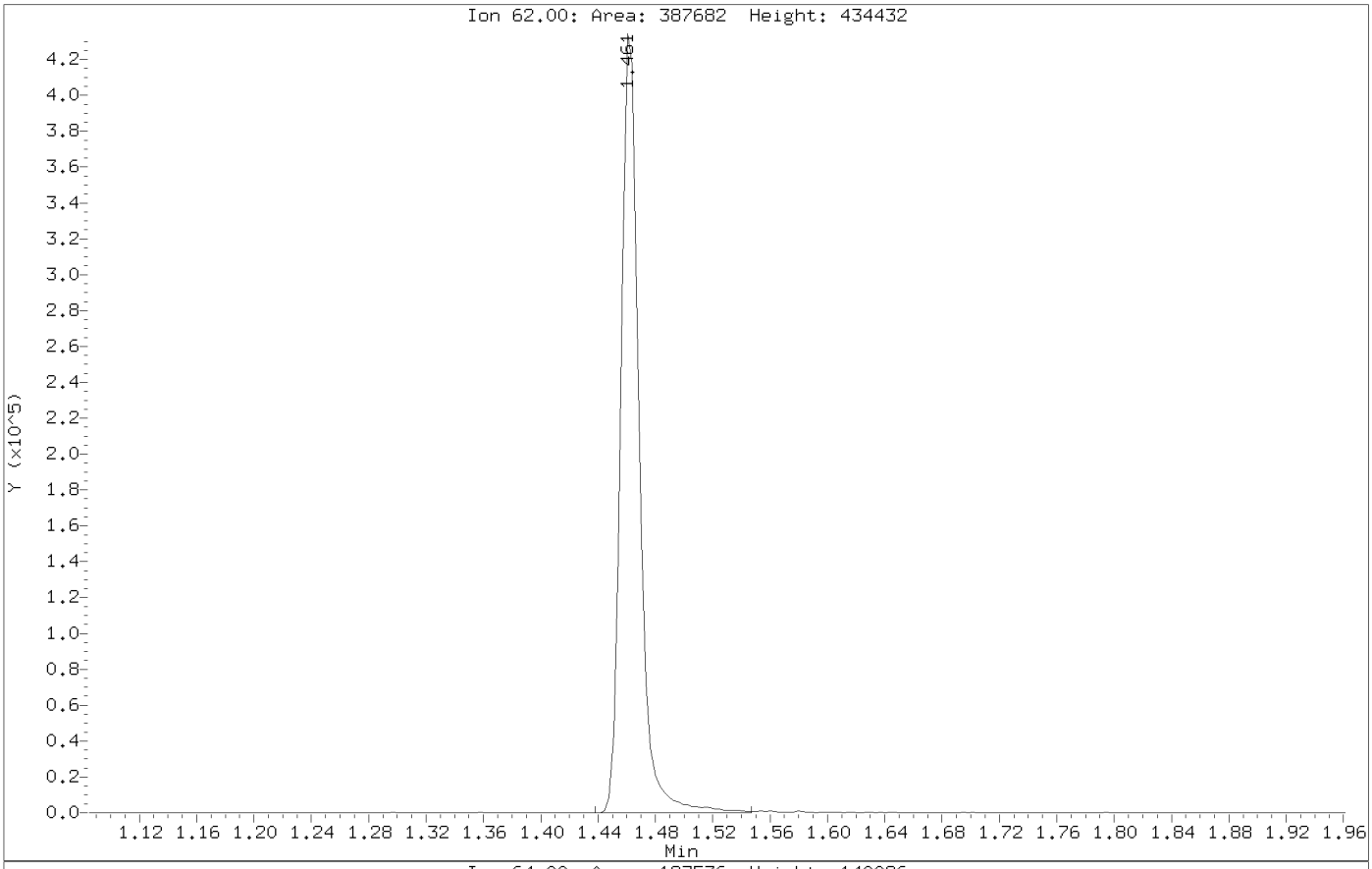


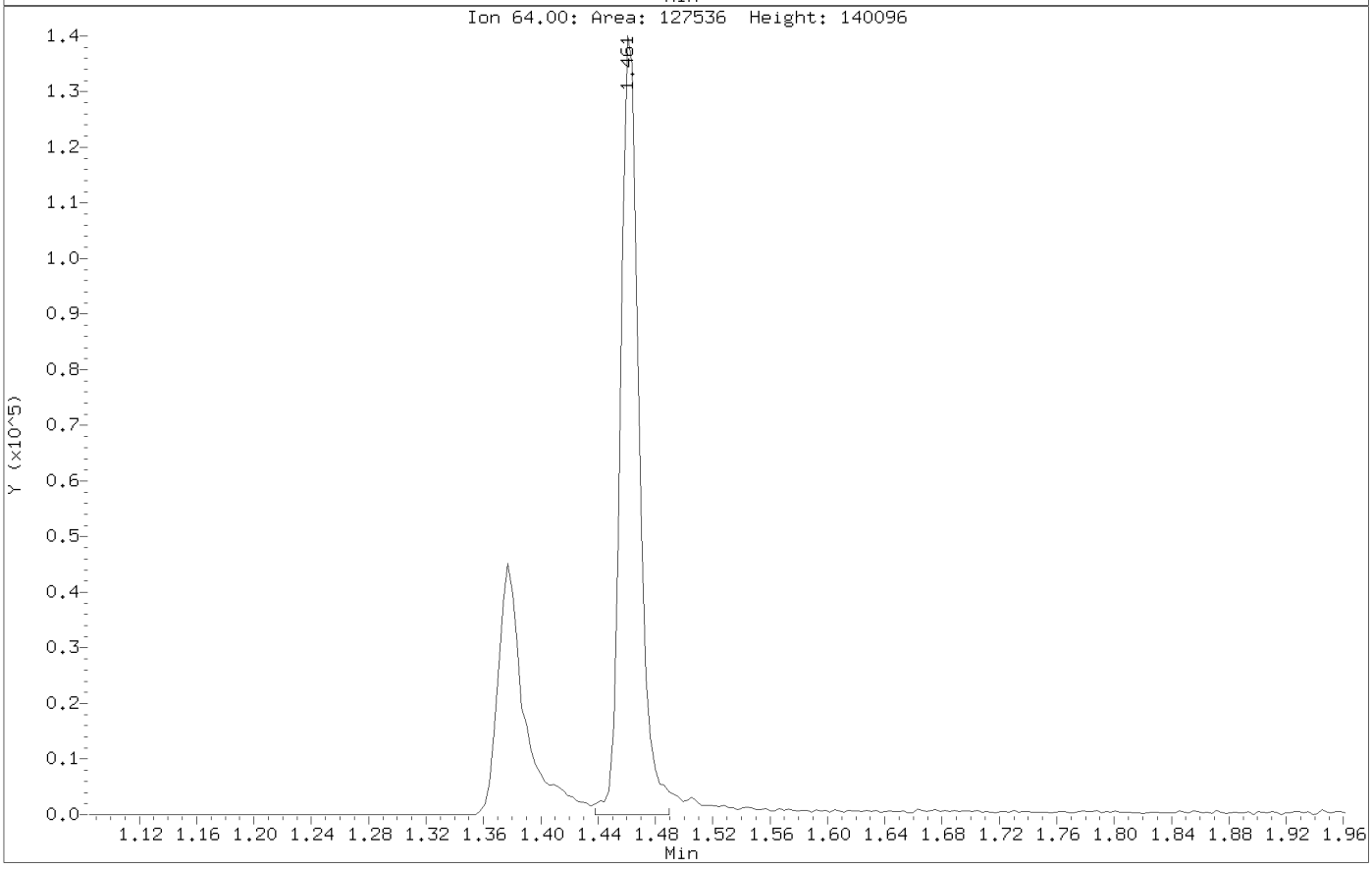


Data File: \\target_server\gg\chem\gcms-w.i\W092421.b\W0223.D
Injection Date: 24-SEP-2021 17:11
Instrument: gcms-w.i
Client Sample ID: VA-MW-82R-1(2021091

Compound: Vinyl chloride
CAS Number: 75-01-4

AFTER MANUAL INTEGRATION





Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-23
Client ID: WVA-MW-82R-2(20210916)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0193.D

Sample Date: 16-SEP-21
Received Date: 18-SEP-21
Extract Date: 23-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306545

Analysis Date: 23-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	2.0	ug/L	1	2	2.0
Vinyl Chloride		28.	ug/L	1	2	2.0
Bromomethane	U	2.0	ug/L	1	2	2.0
Chloroethane	U	2.0	ug/L	1	2	2.0
Trichlorofluoromethane	U	2.0	ug/L	1	2	2.0
1,1-Dichloroethene	U	1.0	ug/L	1	1	1.0
Carbon Disulfide	U	1.0	ug/L	1	1	1.0
Methylene Chloride	U	5.0	ug/L	1	5	5.0
trans-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
1,1-Dichloroethane	U	1.0	ug/L	1	1	1.0
cis-1,2-Dichloroethene		63.	ug/L	1	1	1.0
Chloroform	U	1.0	ug/L	1	1	1.0
Carbon Tetrachloride	U	1.0	ug/L	1	1	1.0
1,1,1-Trichloroethane	U	1.0	ug/L	1	1	1.0
2-Butanone	U	5.0	ug/L	1	5	5.0
Benzene	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethane	U	1.0	ug/L	1	1	1.0
Trichloroethene	U	1.0	ug/L	1	1	1.0
1,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Bromodichloromethane	U	1.0	ug/L	1	1	1.0
cis-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
Toluene	U	1.0	ug/L	1	1	1.0
4-Methyl-2-Pentanone	U	5.0	ug/L	1	5	5.0
Tetrachloroethene	U	1.0	ug/L	1	1	1.0
trans-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
1,1,2-Trichloroethane	U	1.0	ug/L	1	1	1.0
Dibromochloromethane	U	1.0	ug/L	1	1	1.0
Chlorobenzene	U	1.0	ug/L	1	1	1.0
Ethylbenzene	U	1.0	ug/L	1	1	1.0
m+p-Xylenes	U	2.0	ug/L	1	2	2.0
o-Xylene	U	1.0	ug/L	1	1	1.0
Bromoform	U	1.0	ug/L	1	1	1.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
P-Bromofluorobenzene		103.	%			
Toluene-d8		101.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-23
Client ID: WVA-MW-82R-2(20210916)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0193.D

Sample Date: 16-SEP-21
Received Date: 18-SEP-21
Extract Date: 23-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306545

Analysis Date: 23-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		121.	%			
Dibromofluoromethane		107.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Data File: \\target_server\gg\chem\gcms-w.i\W092321.b\W0193.D
Report Date: 12-Oct-2021 08:54

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-w.i\W092321.b\W0193.D
Lab Smp Id: SO6313-23 Client Smp ID: VA-MW-82R-2(2021091
Inj Date : 23-SEP-2021 13:27
Operator : ES Inst ID: gcms-w.i
Smp Info : SO6313-23
Misc Info : WG306545,WG306545-4
Comment : SW846 5030
Method : \\target_server\gg\chem\gcms-w.i\W092321.b\W8A05(08).m
Meth Date : 11-Oct-2021 13:19 gcms-w.i Quant Type: ISTD
Cal Date : 20-SEP-2021 11:30 Cal File: W0105.D
Als bottle: 13
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.12

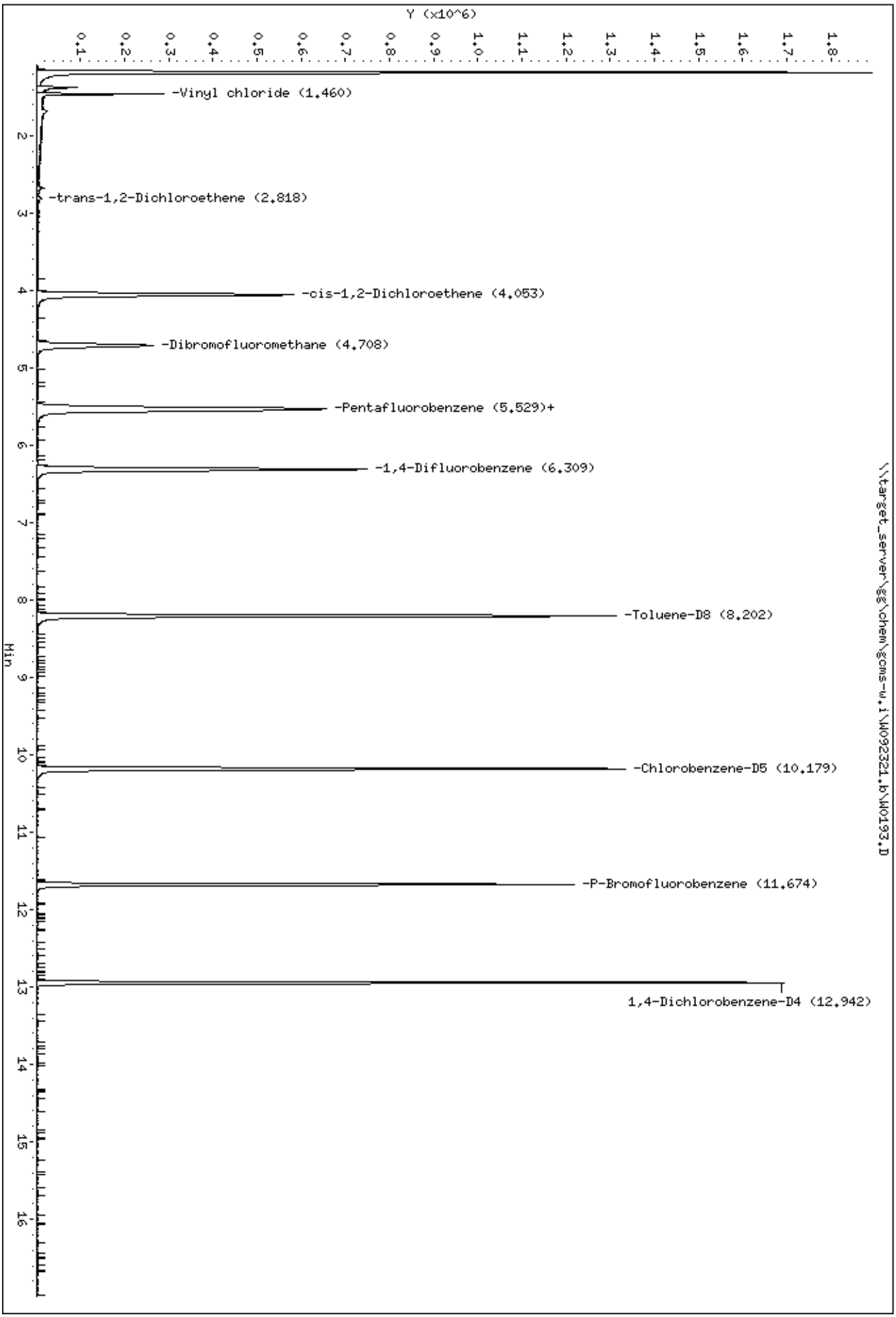
Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)	REVIEW CODE
3	Vinyl chloride	62	1.460	1.460	(0.264)	143209	28.1520	28.2(M)	M10
16	trans-1,2-Dichloroethene	96	2.817	2.815	(0.510)	2543	0.51873	0.52(a)	
27	cis-1,2-Dichloroethene	96	4.056	4.056	(0.734)	328420	62.9011	62.9	
$ 34	Dibromofluoromethane	113	4.707	4.714	(0.852)	247165	53.3082	53.3	
* 41	Pentafluorobenzene	168	5.526	5.526	(1.000)	462930	50.0000		
$ 42	1,2-Dichloroethane-D4	65	5.545	5.549	(1.003)	364446	60.3463	60.3	
* 48	1,4-Difluorobenzene	114	6.309	6.315	(1.000)	799888	50.0000		
$ 58	Toluene-D8	98	8.202	8.209	(1.300)	967204	50.5599	50.6	
* 68	Chlorobenzene-D5	117	10.179	10.182	(1.000)	782295	50.0000		
$ 77	P-Bromofluorobenzene	95	11.674	11.678	(1.850)	413719	51.6859	51.7	
* 93	1,4-Dichlorobenzene-D4	152	12.945	12.948	(1.000)	397422	50.0000		
M 97	1,2-Dichloroethylene (total)	96				330963	63.4199	63.4	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.



Data File: \\target_server\gg\chem\gcms-w.i\W092321.b\W0193.D
Date : 23-SEP-2021 13:27
Client ID: VA-MW-82R-2(2021091
Sample Info: SD6313-23

Instrument: gcms-w.i

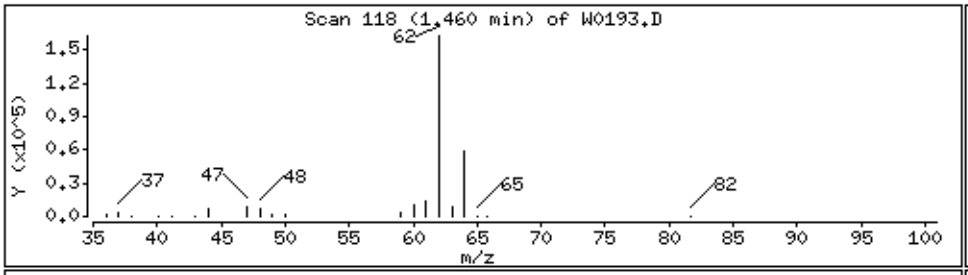
Data File: \\target_server\gg\chem\gcms-w.i\W092321.b\W0193.D

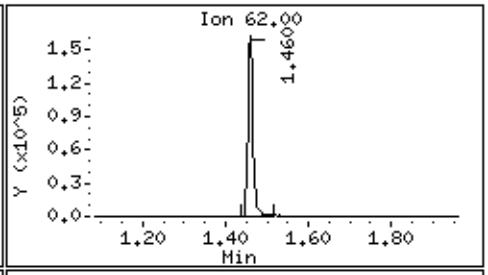
Date : 23-SEP-2021 13:27

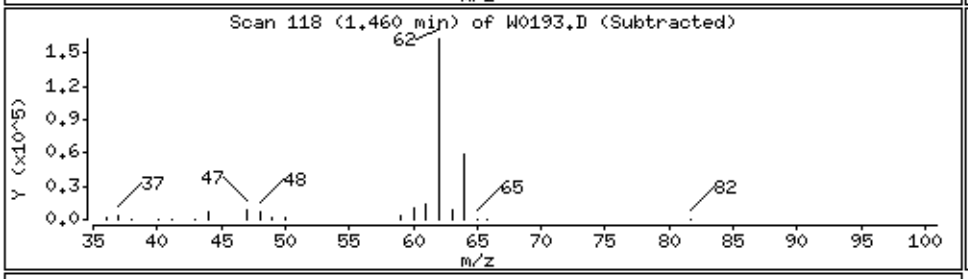
Client ID: VA-MW-82R-2(2021091 Instrument: gcms-w.i

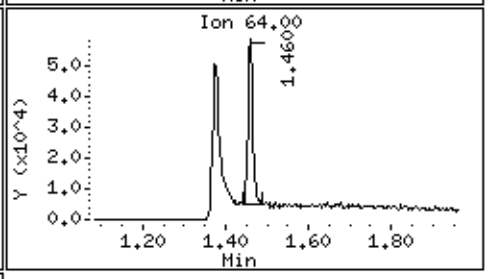
Sample Info: S06313-23

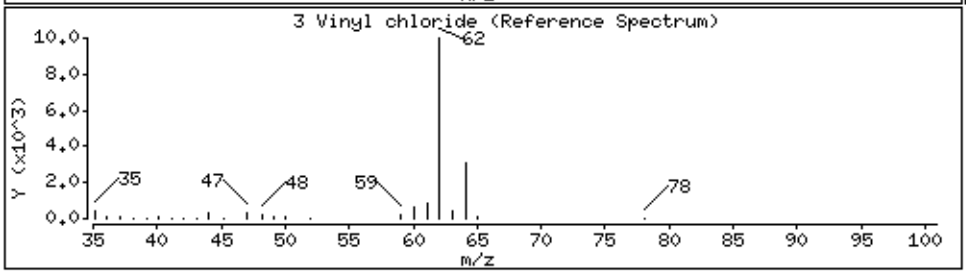
3 Vinyl chloride Concentration: 28.2 ug/l



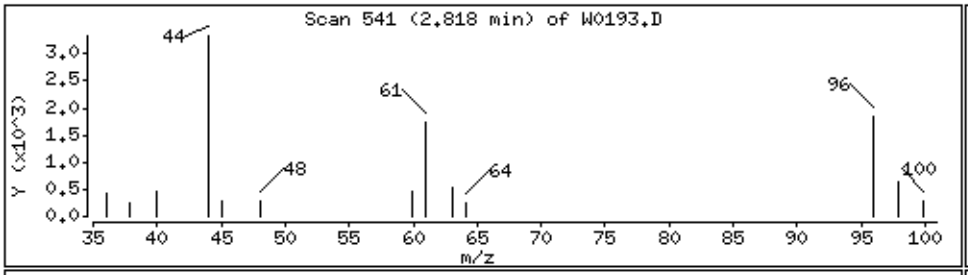


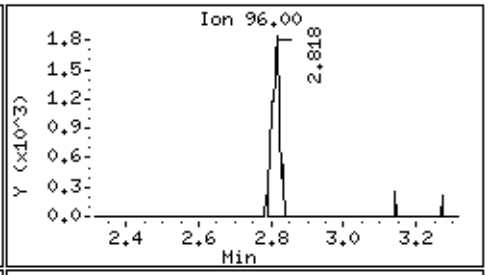


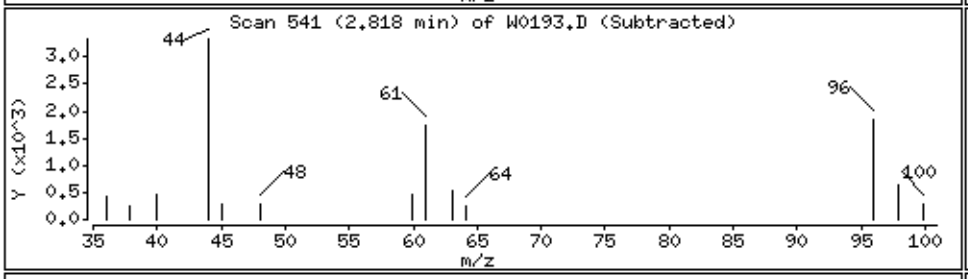


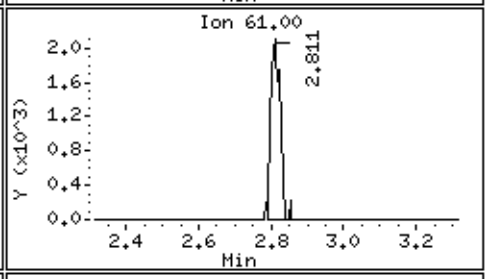


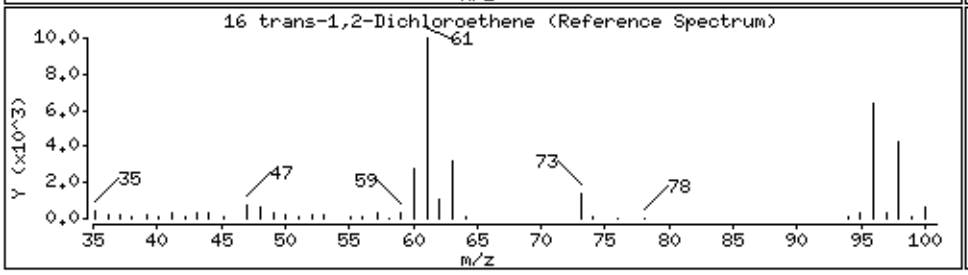
16 trans-1,2-Dichloroethene Concentration: 0.52 ug/l

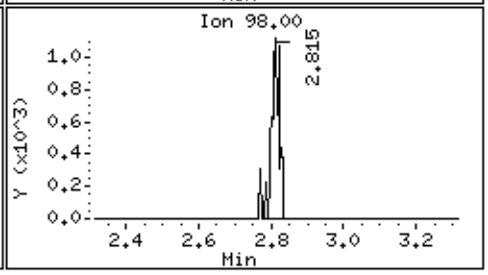












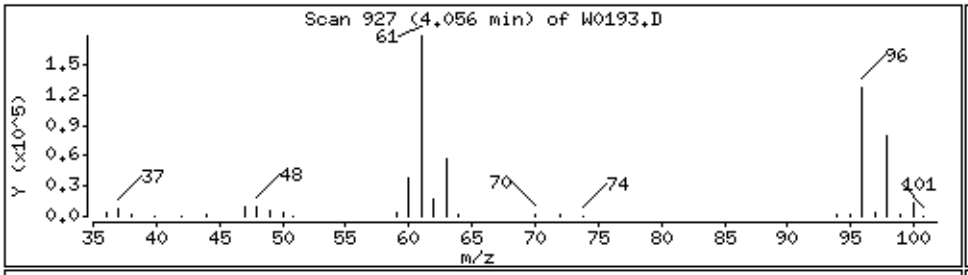
Data File: \\target_server\gg\chem\gcms-w.i\W092321.b\W0193.D

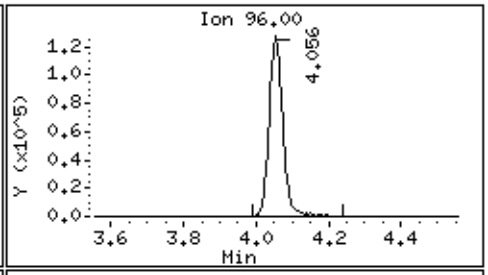
Date : 23-SEP-2021 13:27

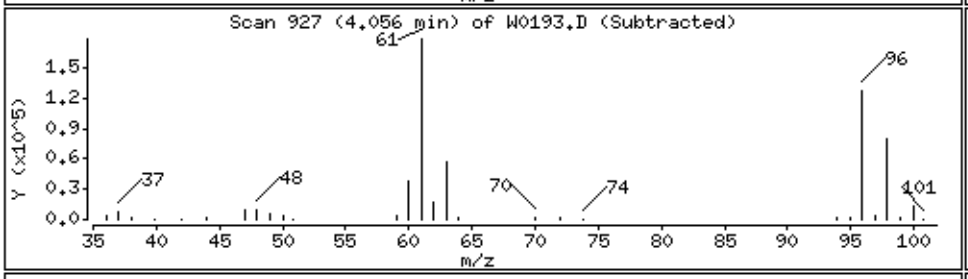
Client ID: VA-MW-82R-2(2021091 Instrument: gcms-w.i

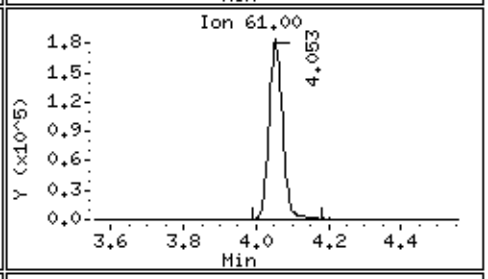
Sample Info: S06313-23

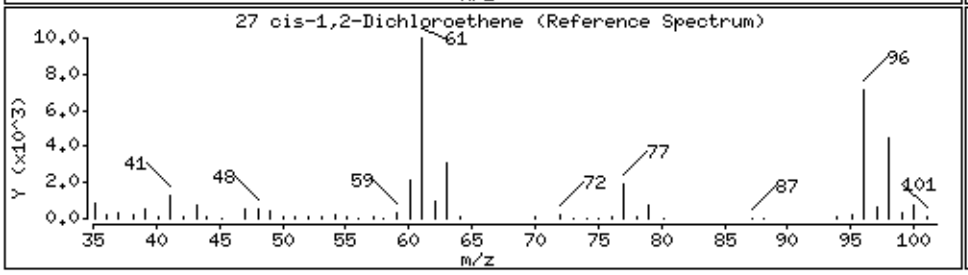
27 cis-1,2-Dichloroethene Concentration: 62.9 ug/l

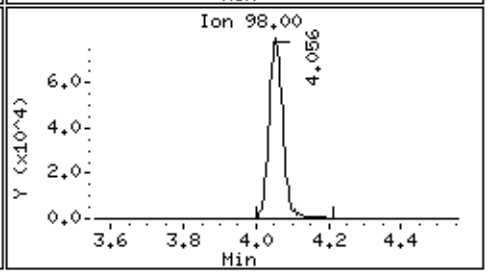








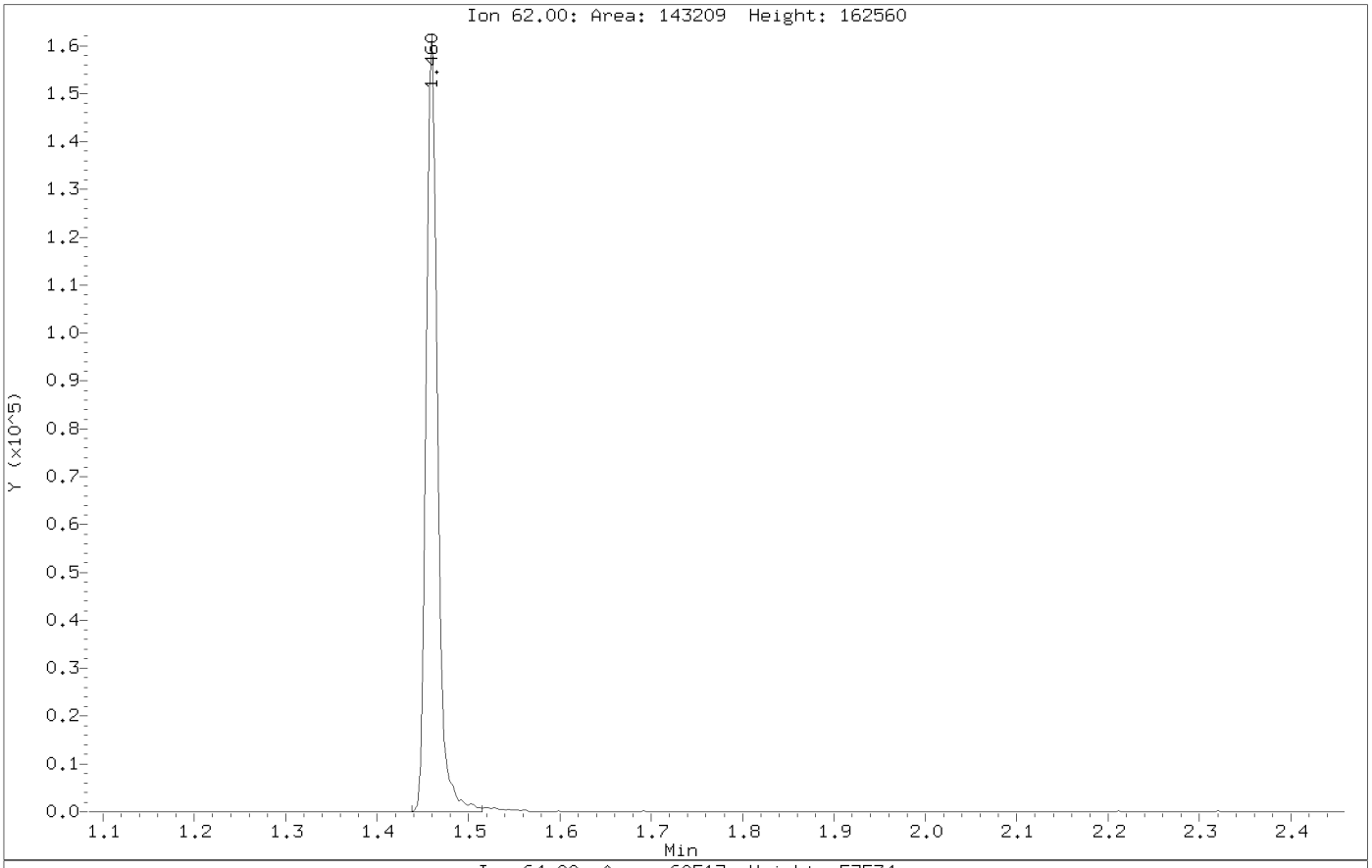


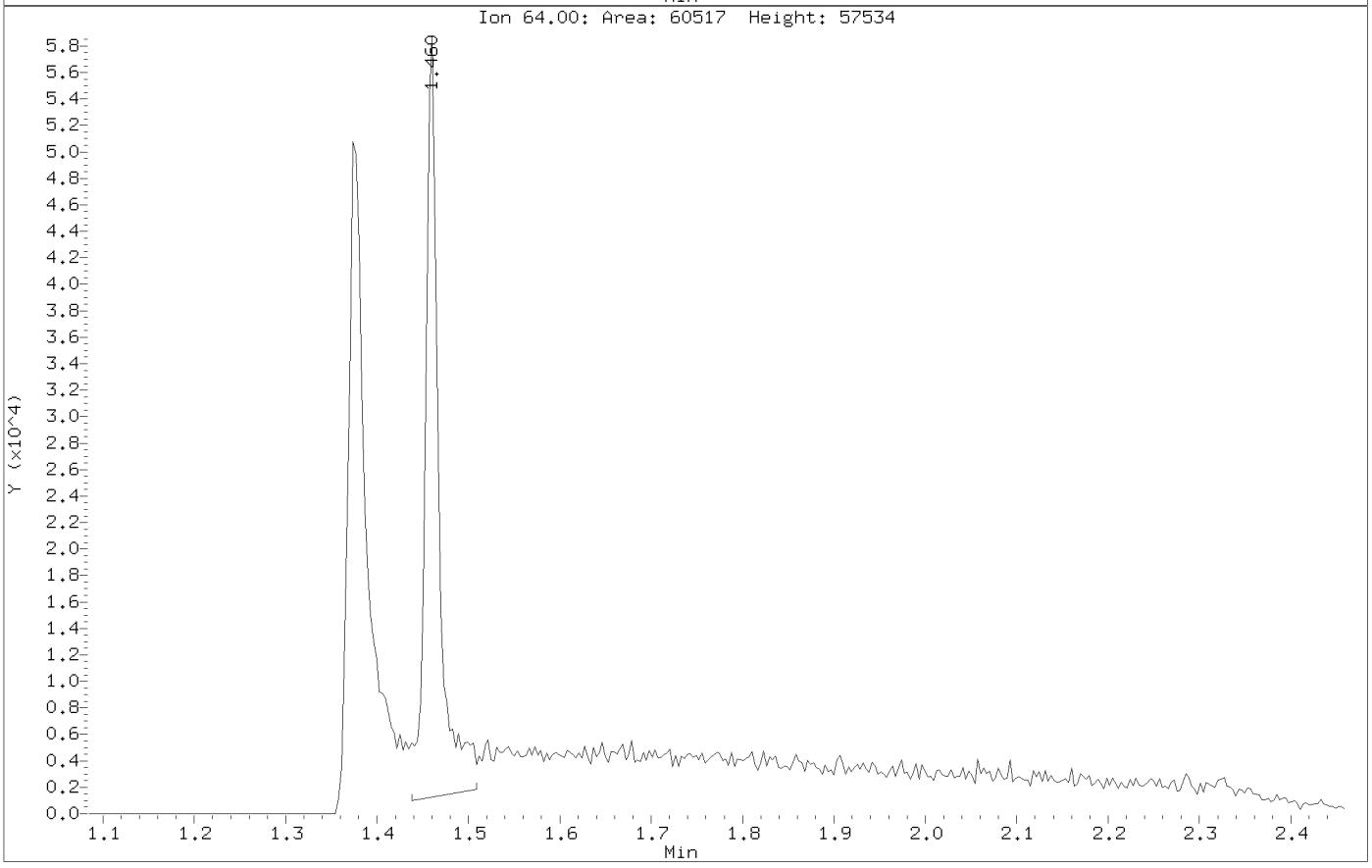


Data File: \\target_server\gg\chem\gcms-w.i\W092321.b\W0193.D
Injection Date: 23-SEP-2021 13:27
Instrument: gcms-w.i
Client Sample ID: VA-MW-82R-2(2021091

Compound: Vinyl chloride
CAS Number: 75-01-4

BEFORE MANUAL INTEGRATION

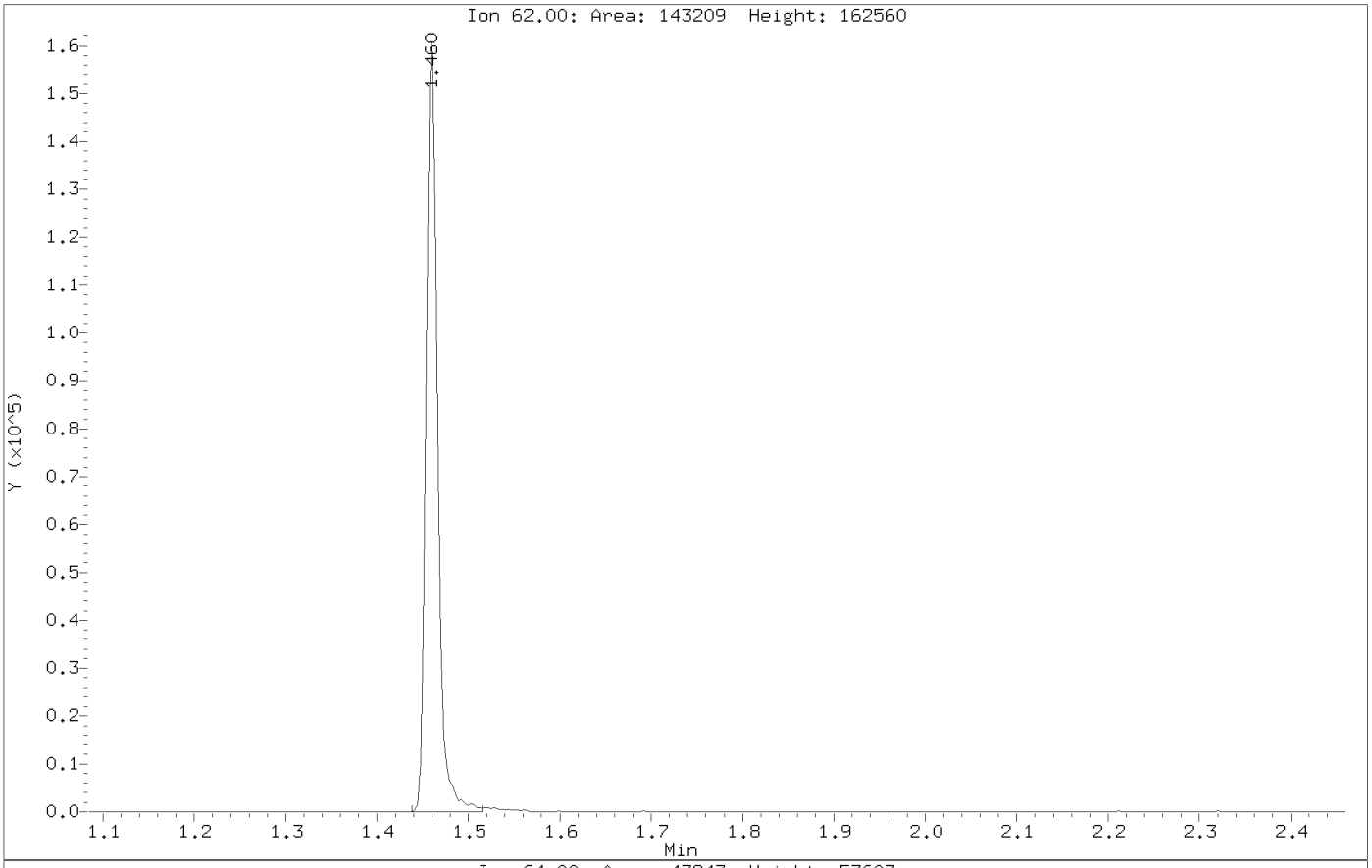


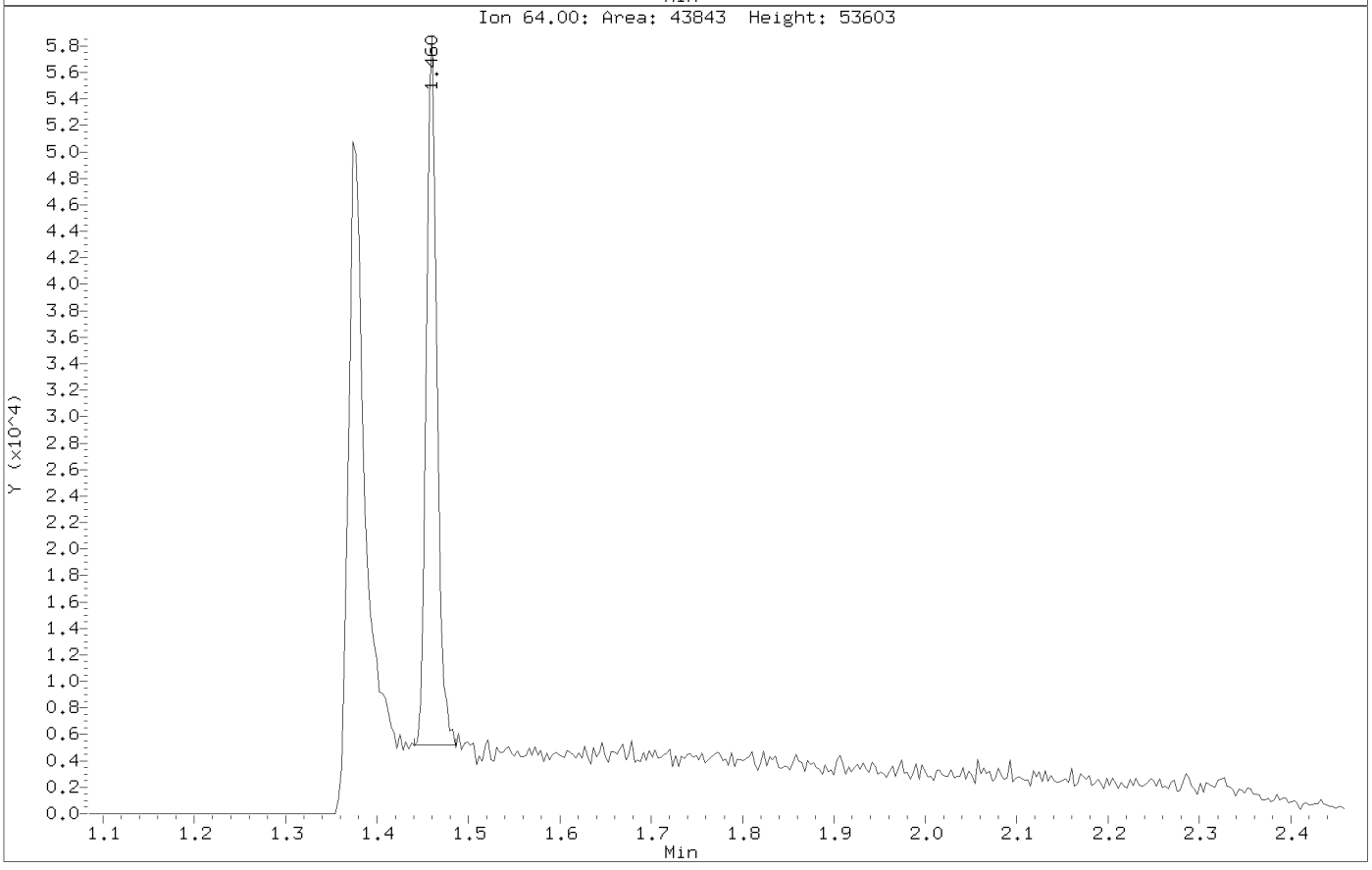


Data File: \\target_server\gg\chem\gcms-w.i\W092321.b\W0193.D
Injection Date: 23-SEP-2021 13:27
Instrument: gcms-w.i
Client Sample ID: VA-MW-82R-2(2021091

Compound: Vinyl chloride
CAS Number: 75-01-4

AFTER MANUAL INTEGRATION





Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-24
Client ID: WVA-MW-82R-3(20210916)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0194.D

Sample Date: 16-SEP-21
Received Date: 18-SEP-21
Extract Date: 23-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306545

Analysis Date: 23-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	2.0	ug/L	1	2	2.0
Vinyl Chloride		20.	ug/L	1	2	2.0
Bromomethane	U	2.0	ug/L	1	2	2.0
Chloroethane	U	2.0	ug/L	1	2	2.0
Trichlorofluoromethane	U	2.0	ug/L	1	2	2.0
1,1-Dichloroethene	U	1.0	ug/L	1	1	1.0
Carbon Disulfide	U	1.0	ug/L	1	1	1.0
Methylene Chloride	U	5.0	ug/L	1	5	5.0
trans-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
1,1-Dichloroethane	U	1.0	ug/L	1	1	1.0
cis-1,2-Dichloroethene		26.	ug/L	1	1	1.0
Chloroform	U	1.0	ug/L	1	1	1.0
Carbon Tetrachloride	U	1.0	ug/L	1	1	1.0
1,1,1-Trichloroethane	U	1.0	ug/L	1	1	1.0
2-Butanone	U	5.0	ug/L	1	5	5.0
Benzene	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethane	U	1.0	ug/L	1	1	1.0
Trichloroethene	U	1.0	ug/L	1	1	1.0
1,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Bromodichloromethane	U	1.0	ug/L	1	1	1.0
cis-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
Toluene	U	1.0	ug/L	1	1	1.0
4-Methyl-2-Pentanone	U	5.0	ug/L	1	5	5.0
Tetrachloroethene	U	1.0	ug/L	1	1	1.0
trans-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
1,1,2-Trichloroethane	U	1.0	ug/L	1	1	1.0
Dibromochloromethane	U	1.0	ug/L	1	1	1.0
Chlorobenzene	U	1.0	ug/L	1	1	1.0
Ethylbenzene	U	1.0	ug/L	1	1	1.0
m+p-Xylenes	U	2.0	ug/L	1	2	2.0
o-Xylene	U	1.0	ug/L	1	1	1.0
Bromoform	U	1.0	ug/L	1	1	1.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
P-Bromofluorobenzene		104.	%			
Toluene-d8		104.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-24
Client ID: WVA-MW-82R-3(20210916)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0194.D

Sample Date: 16-SEP-21
Received Date: 18-SEP-21
Extract Date: 23-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306545

Analysis Date: 23-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		120.	%			
Dibromofluoromethane		107.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Data File: \\target_server\gg\chem\gcms-w.i\W092321.b\W0194.D
Report Date: 12-Oct-2021 08:55

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-w.i\W092321.b\W0194.D
Lab Smp Id: SO6313-24 Client Smp ID: VA-MW-82R-3(2021091
Inj Date : 23-SEP-2021 13:57
Operator : ES Inst ID: gcms-w.i
Smp Info : SO6313-24
Misc Info : WG306545,WG306545-4
Comment : SW846 5030
Method : \\target_server\gg\chem\gcms-w.i\W092321.b\W8A05(08).m
Meth Date : 11-Oct-2021 13:19 gcms-w.i Quant Type: ISTD
Cal Date : 20-SEP-2021 11:30 Cal File: W0105.D
Als bottle: 14
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.12

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

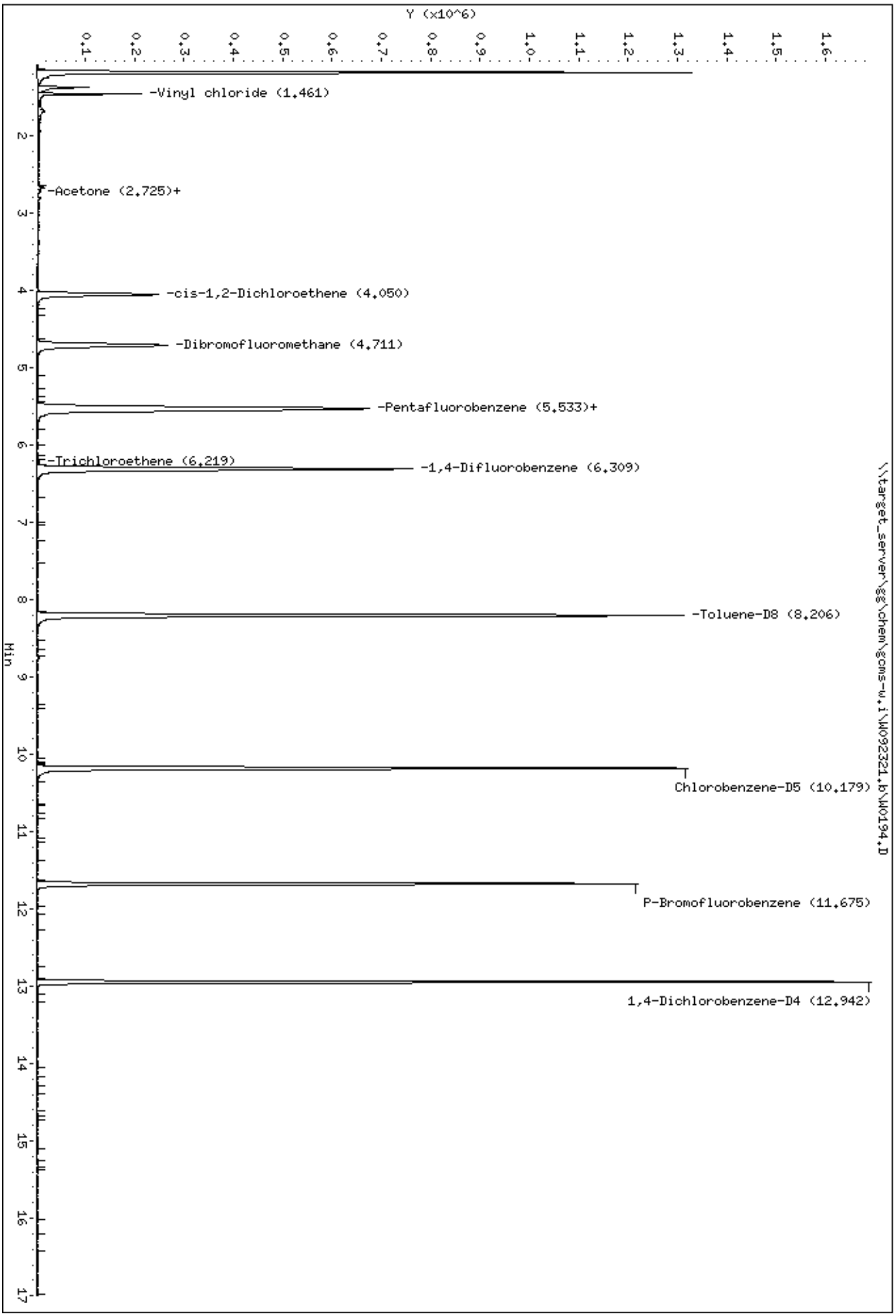
Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

10:24 am, Oct 12, 2021

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)	REVIEW CODE
	3 Vinyl chloride	62	1.460	1.460	(0.265)	101620	19.9576	20.0(M)	M10
	15 Acetone	43	2.724	2.725	(0.494)	4488	3.54493	3.5(aM)	M10
	16 trans-1,2-Dichloroethene	96	2.814	2.815	(0.510)	1435	0.29244	0.29(aM)	M10
	27 cis-1,2-Dichloroethene	96	4.053	4.056	(0.734)	137813	26.3700	26.4	
$	34 Dibromofluoromethane	113	4.711	4.714	(0.854)	248037	53.4460	53.4	
*	41 Pentafluorobenzene	168	5.519	5.526	(1.000)	463366	50.0000		
$	42 1,2-Dichloroethane-D4	65	5.542	5.549	(1.004)	361236	59.7585	59.8	
	47 Trichloroethene	95	6.219	6.226	(0.986)	1756	0.34883	0.35(a)	
*	48 1,4-Difluorobenzene	114	6.309	6.315	(1.000)	793320	50.0000		
$	58 Toluene-D8	98	8.205	8.209	(1.301)	984668	51.8990	51.9	
*	68 Chlorobenzene-D5	117	10.179	10.182	(1.000)	790120	50.0000		
$	77 P-Bromofluorobenzene	95	11.674	11.678	(1.850)	412051	51.9037	51.9	
*	93 1,4-Dichlorobenzene-D4	152	12.942	12.948	(1.000)	400098	50.0000		
M	97 1,2-Dichloroethylene (total)	96				139248	26.6625	26.7	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.


Y (x10^6)
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0
1.1
1.2
1.3
1.4
1.5
1.6
-Vinyl chloride (1.461)
-Acetone (2.725)+
-cis-1,2-Dichloroethene (4.050)
-Dibromofluoromethane (4.711)
-Pentafluorobenzene (5.533)+
-Trichloroethene (6.219)
-1,4-Difluorobenzene (6.309)
-Toluene-D8 (8.206)
Chlorobenzene-D5 (10.179)
P-Bromofluorobenzene (11.675)
1,4-Dichlorobenzene-D4 (12.942)
Min
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
\\target_server\gg\chem\gcms-w.i\W092321.b\W0194.D
Data File: \\target_server\gg\chem\gcms-w.i\W092321.b\W0194.D
Date : 23-SEP-2021 13:57
Client ID: VA-MW-82R-3(2021091
Sample Info: SD6313-24
Instrument: gcms-w.i

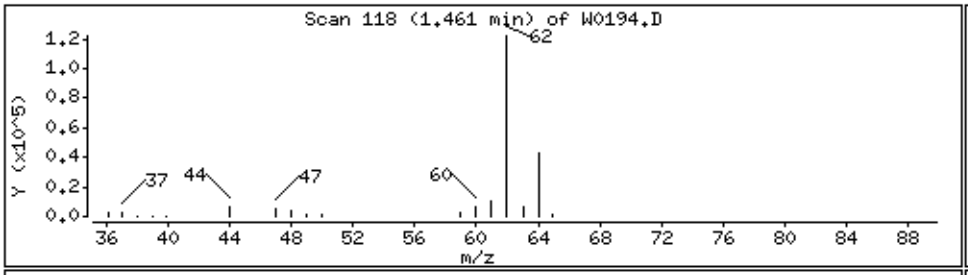
Data File: \\target_server\gg\chem\gcms-w.i\W092321.b\W0194.D

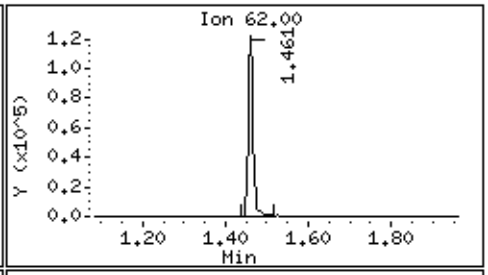
Date : 23-SEP-2021 13:57

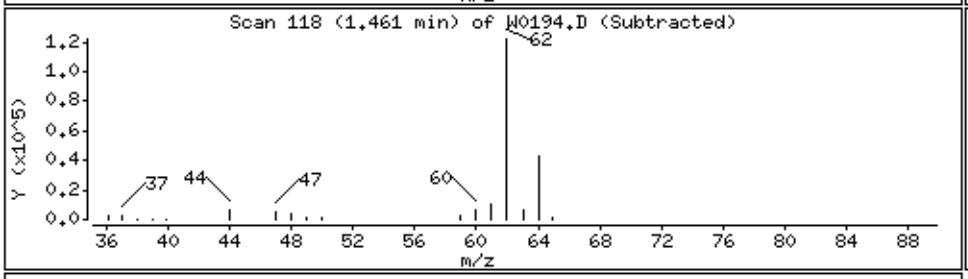
Client ID: VA-MW-82R-3(2021091 Instrument: gcms-w.i

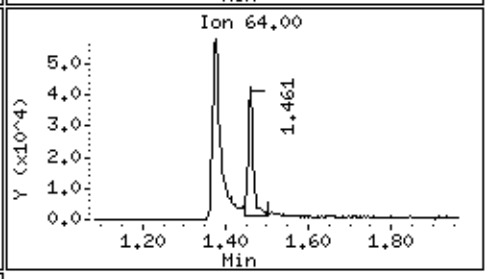
Sample Info: S06313-24

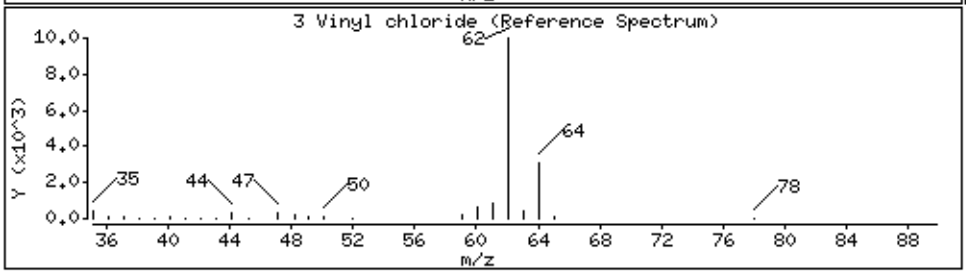
3 Vinyl chloride Concentration: 20.0 ug/l



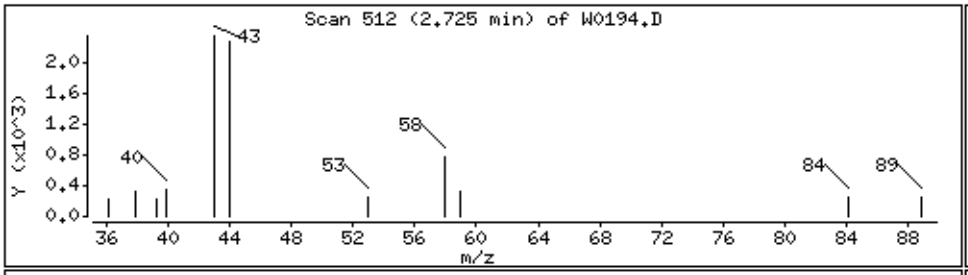


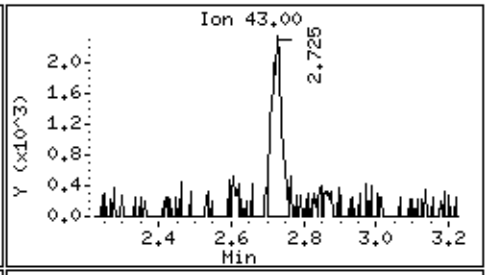


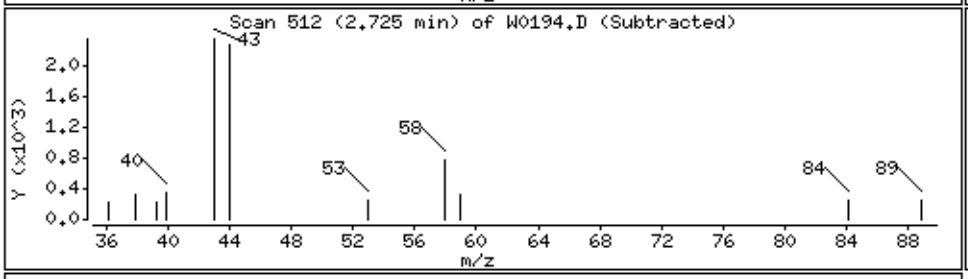


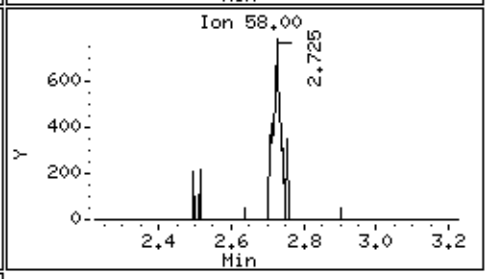


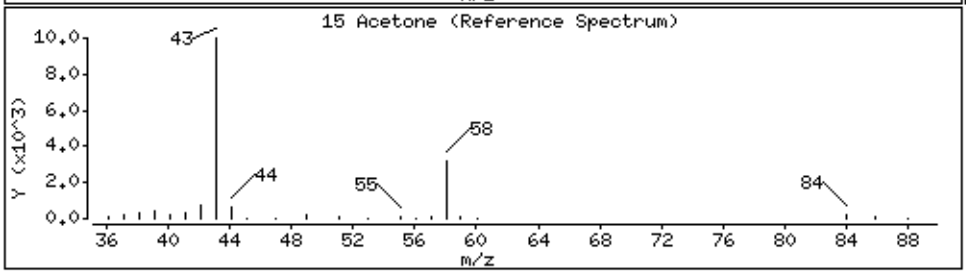
15 Acetone Concentration: 3.5 ug/l











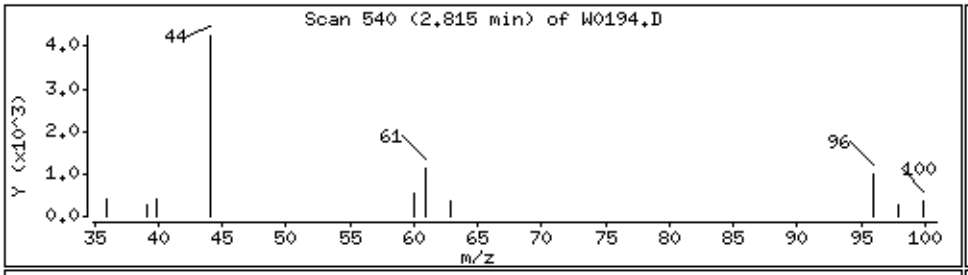
Data File: \\target_server\gg\chem\gcms-w.i\W092321.b\W0194.D

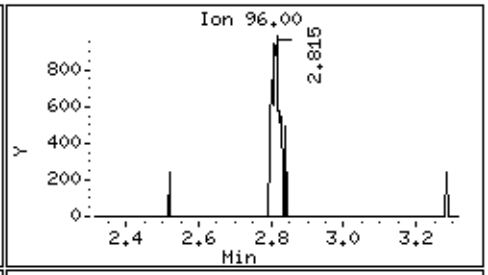
Date : 23-SEP-2021 13:57

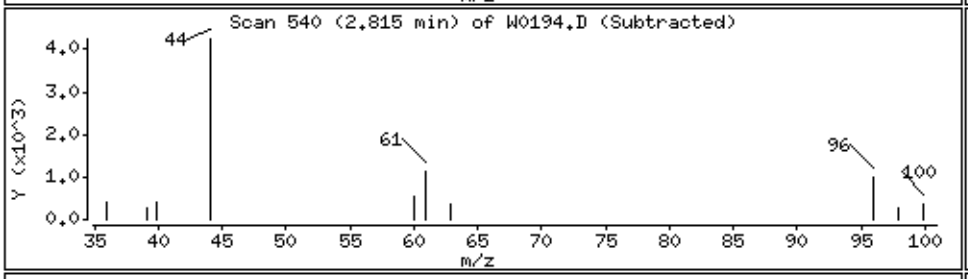
Client ID: VA-MW-82R-3(2021091 Instrument: gcms-w.i

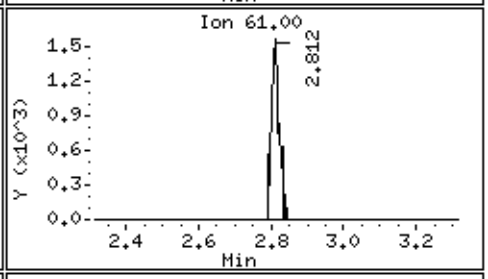
Sample Info: S06313-24

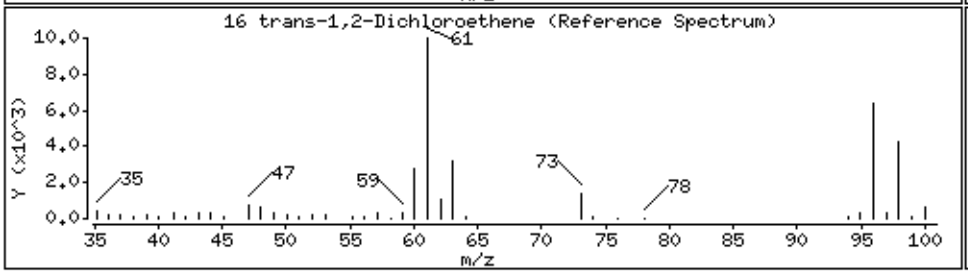
16 trans-1,2-Dichloroethene Concentration: 0.29 ug/l

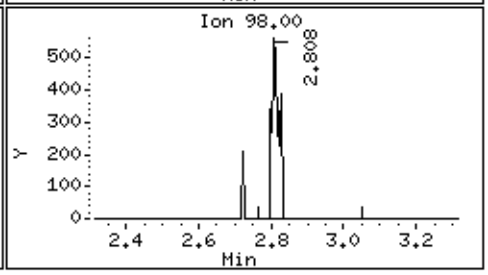




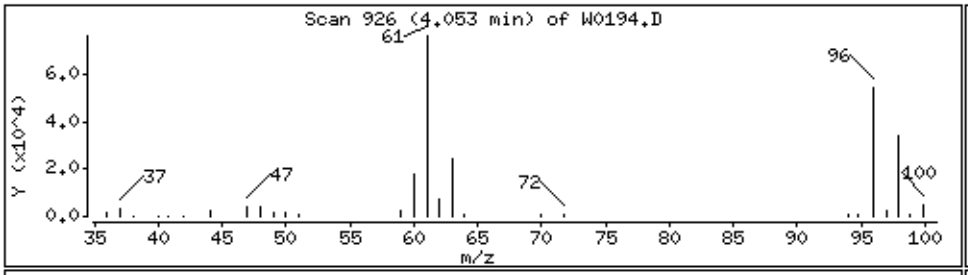


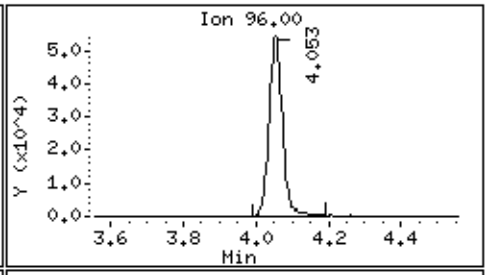


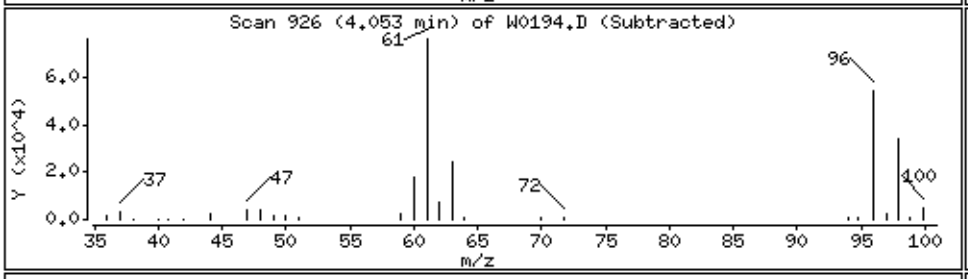


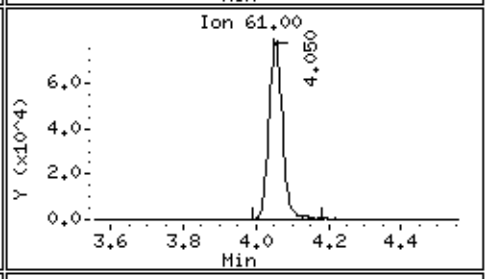


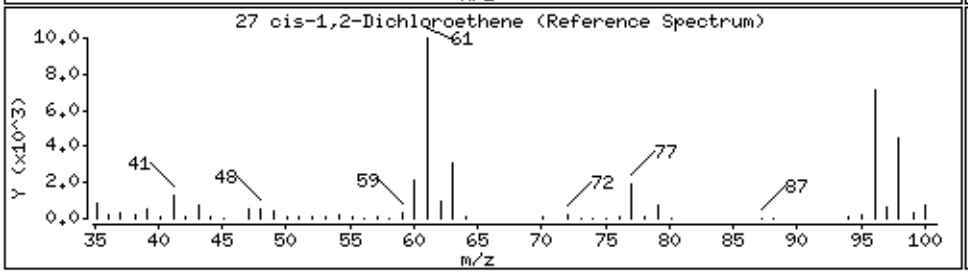
27 cis-1,2-Dichloroethene Concentration: 26.4 ug/l

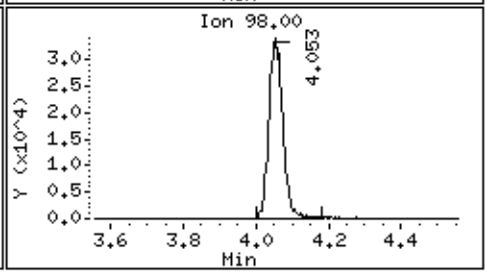












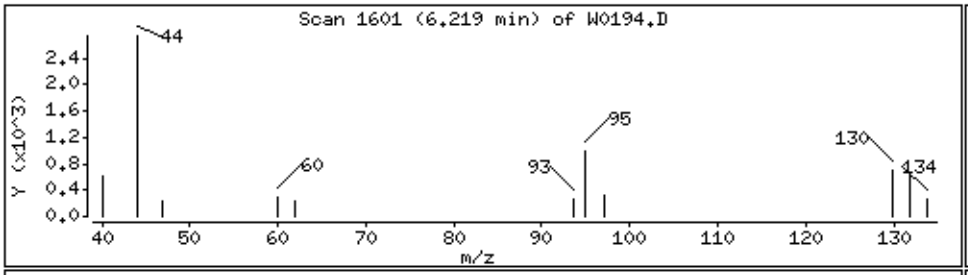
Data File: \\target_server\gg\chem\gcms-w.i\W092321.b\W0194.D

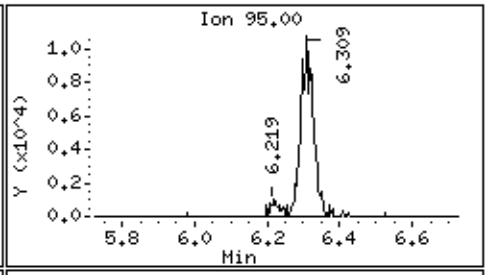
Date : 23-SEP-2021 13:57

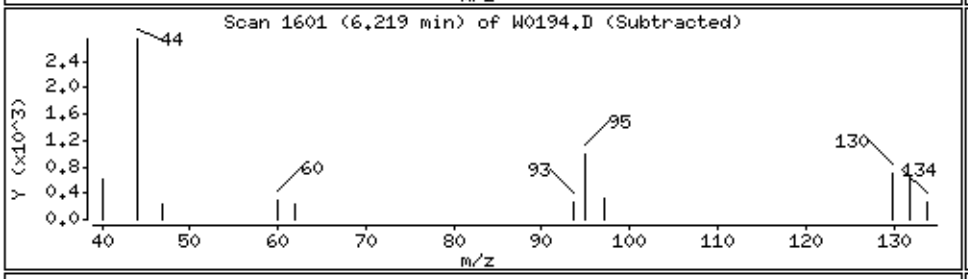
Client ID: VA-MW-82R-3(2021091 Instrument: gcms-w.i

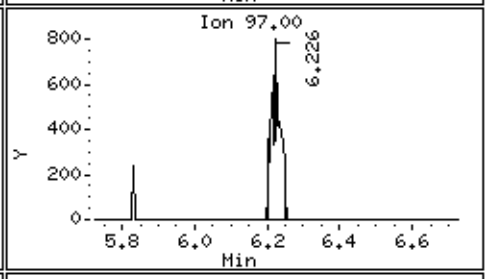
Sample Info: S06313-24

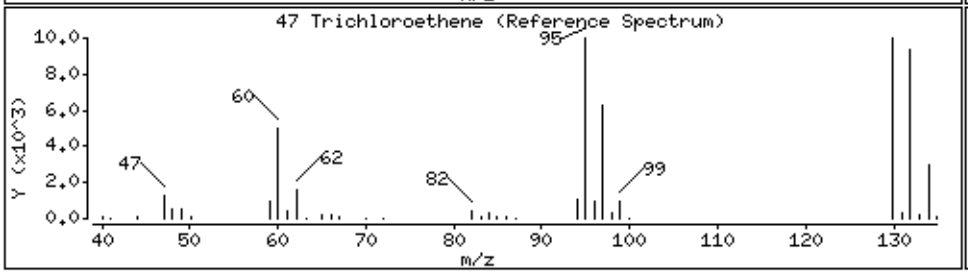
47 Trichloroethene Concentration: 0.35 ug/l

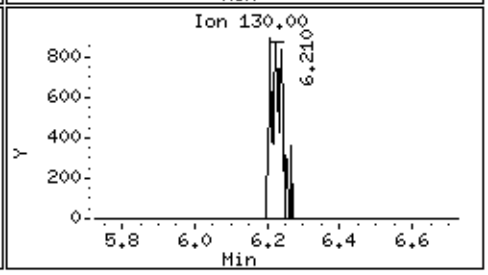








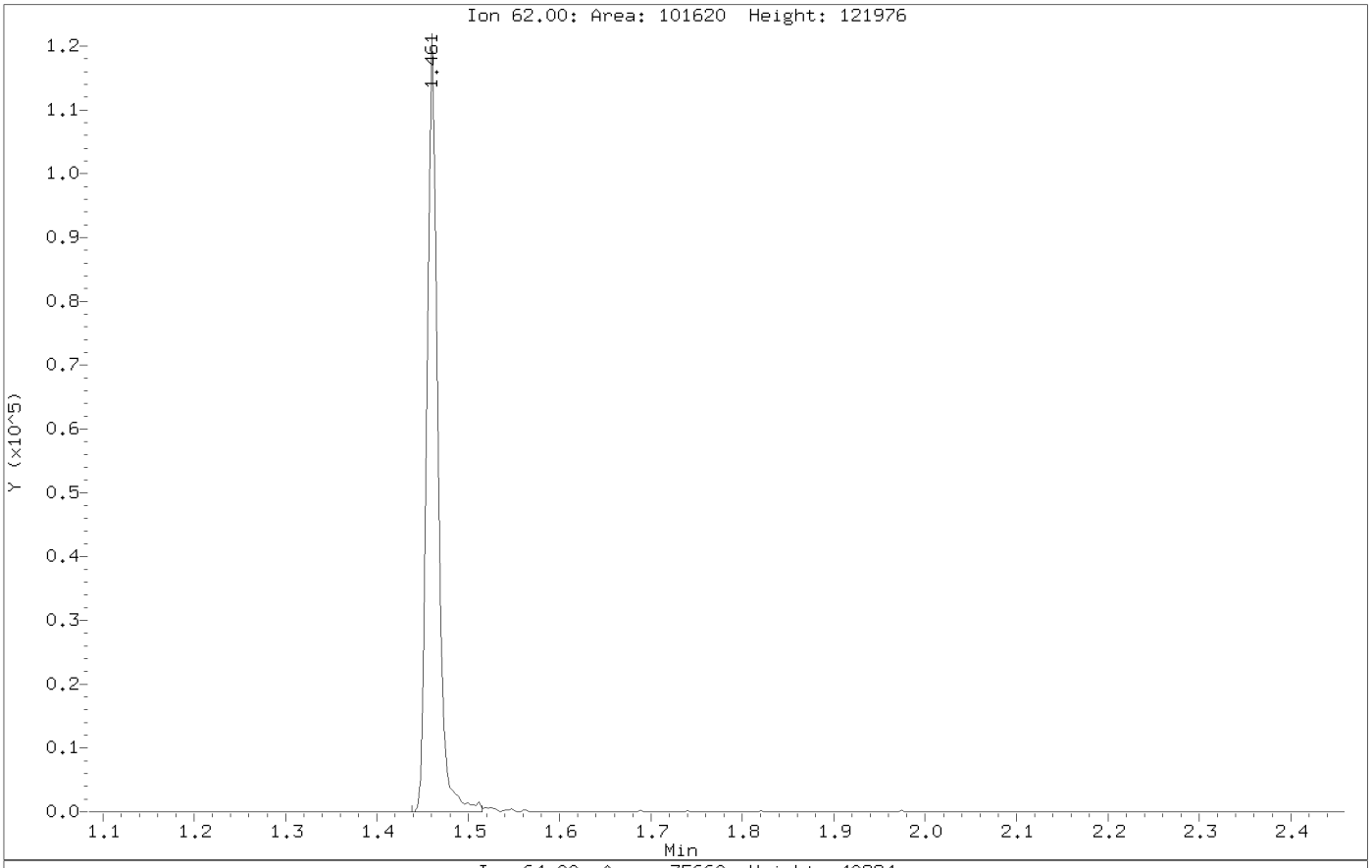


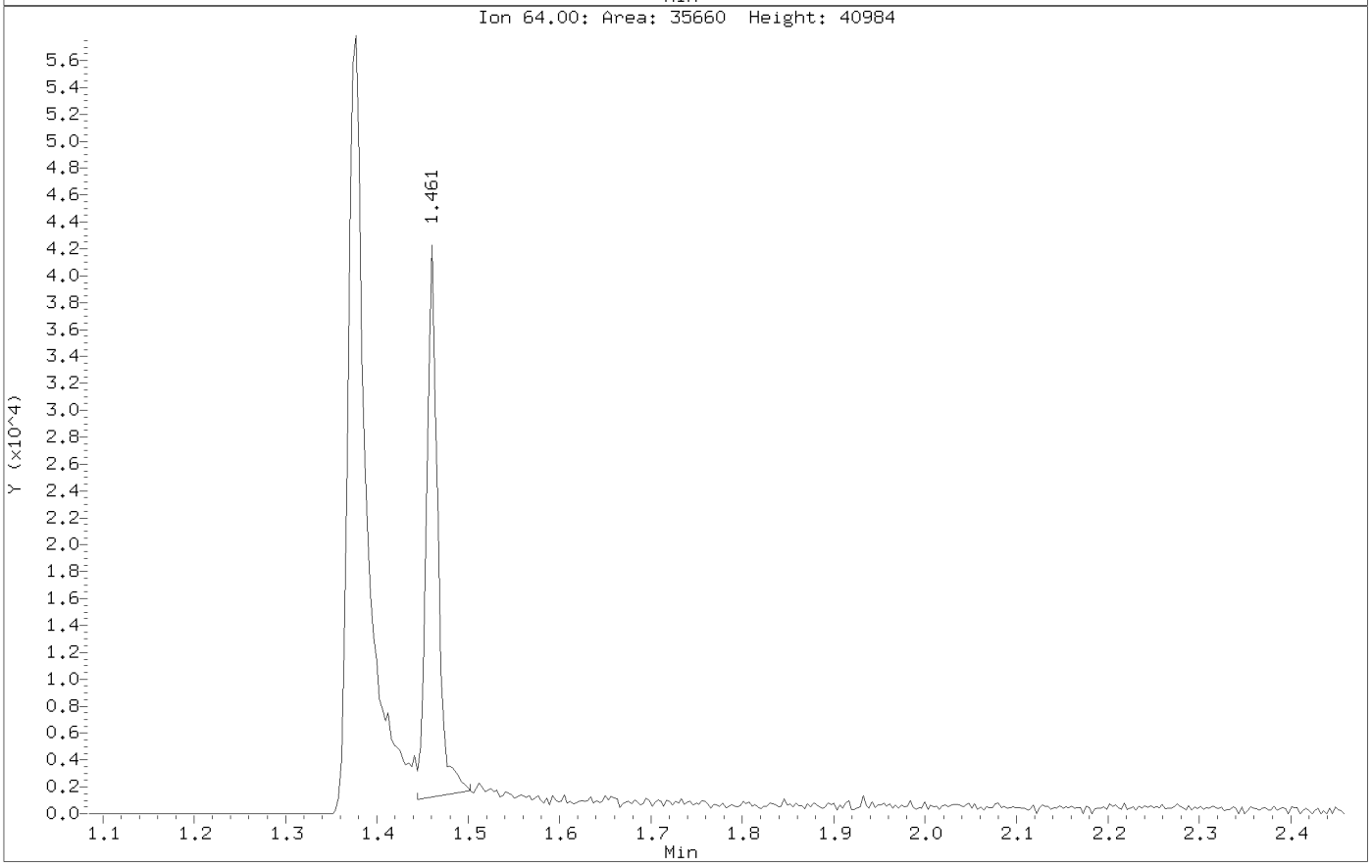


BEFORE MANUAL INTEGRATION

Data File: \\target_server\gg\chem\gcms-w.i\W092321.b\W0194.D
Injection Date: 23-SEP-2021 13:57
Instrument: gcms-w.i
Client Sample ID: VA-MW-82R-3(2021091

Compound: Vinyl chloride
CAS Number: 75-01-4

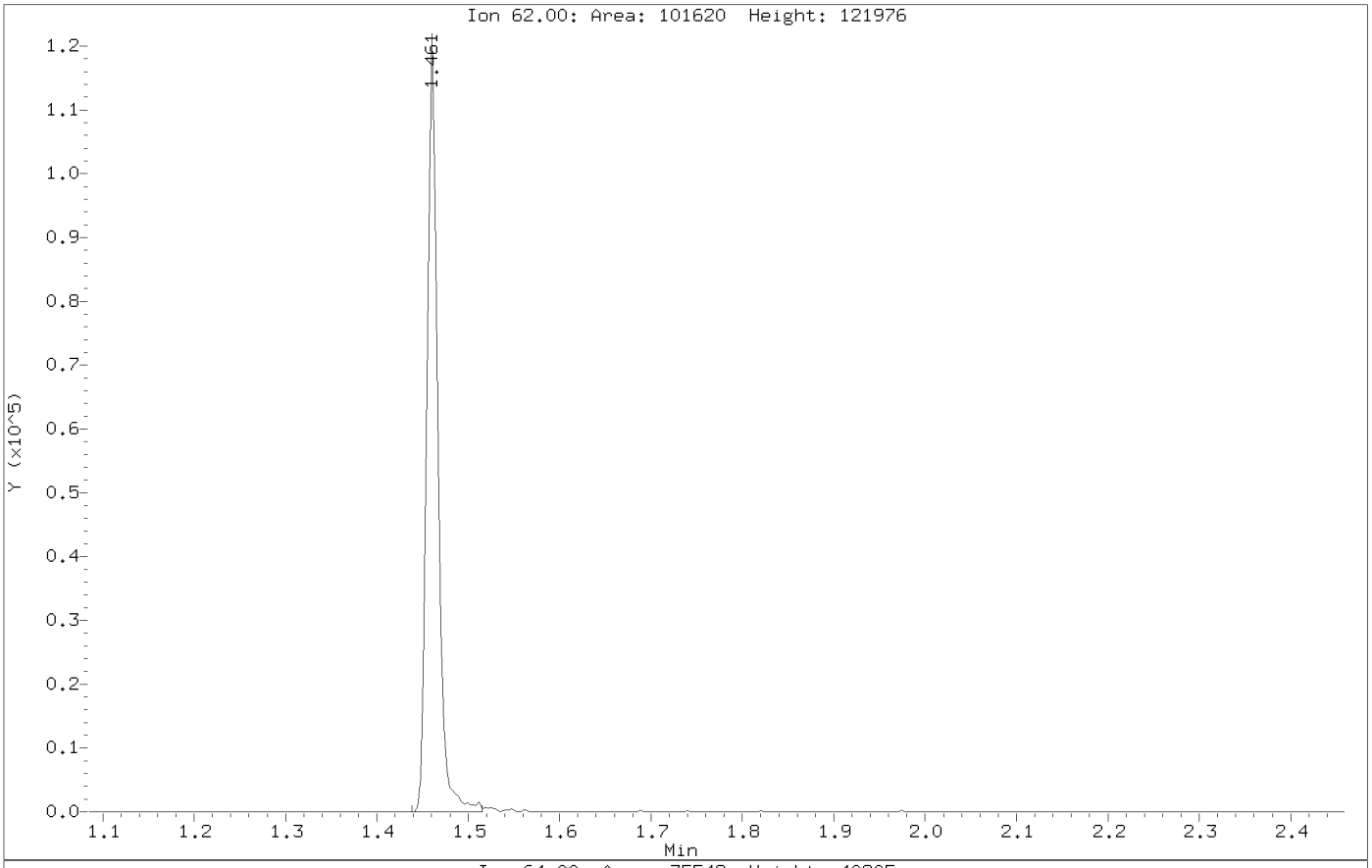


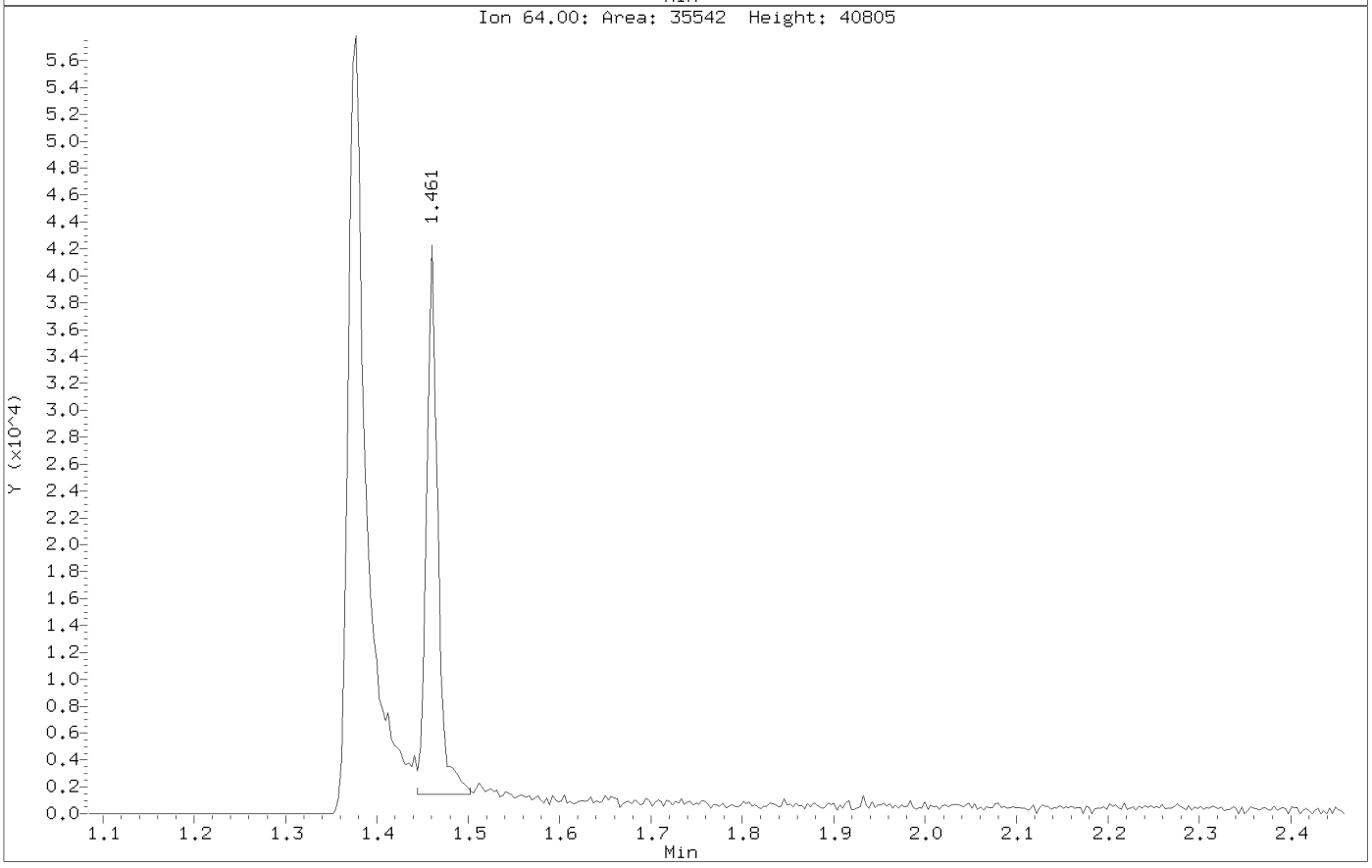


AFTER MANUAL INTEGRATION

Data File: \\target_server\gg\chem\gcms-w.i\W092321.b\W0194.D
Injection Date: 23-SEP-2021 13:57
Instrument: gcms-w.i
Client Sample ID: VA-MW-82R-3(2021091

Compound: Vinyl chloride
CAS Number: 75-01-4

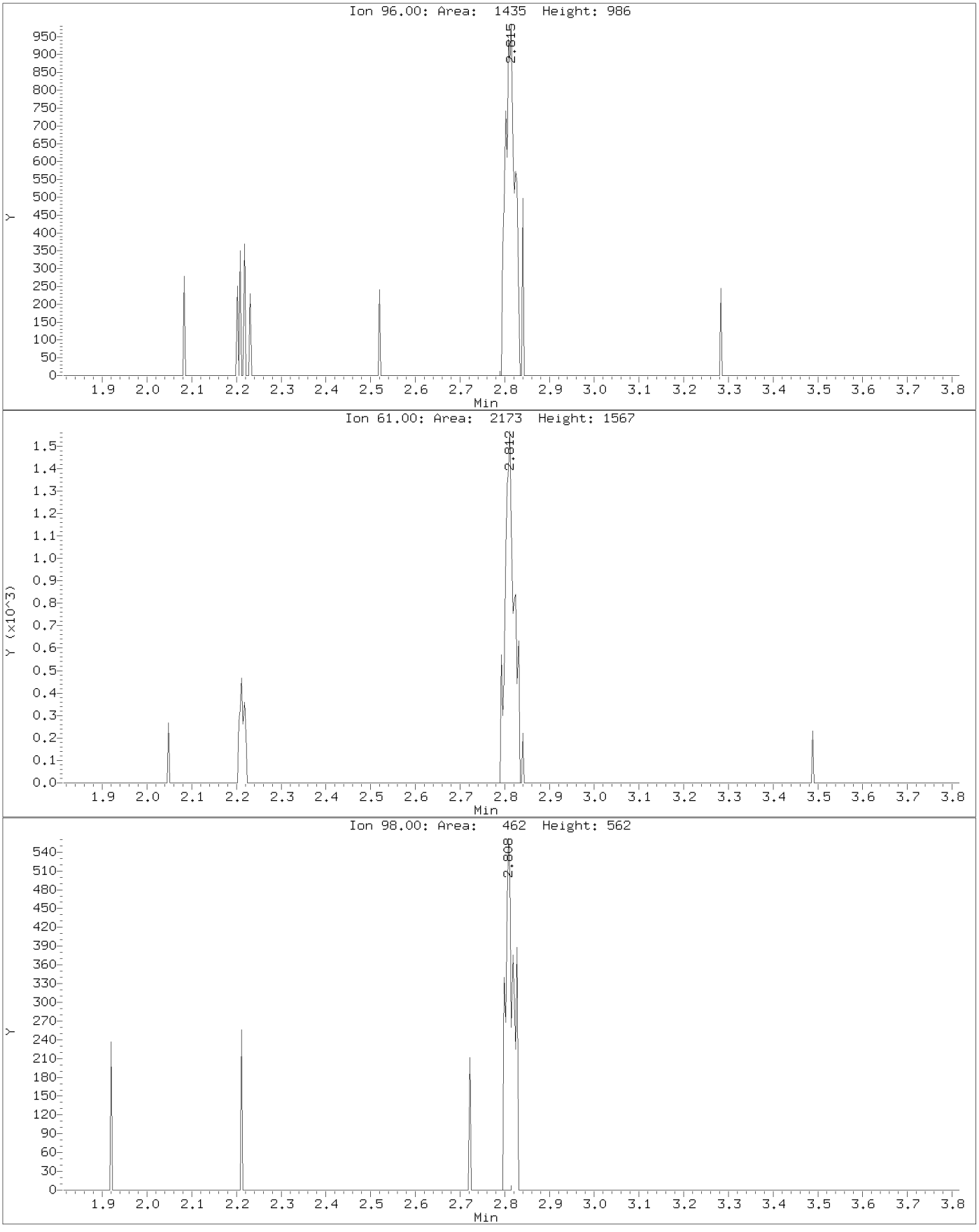




BEFORE MANUAL INTEGRATION

Data File: \\target_server\gg\chem\gcms-w.i\W092321.b\W0194.D
Injection Date: 23-SEP-2021 13:57
Instrument: gcms-w.i
Client Sample ID: VA-MW-82R-3(2021091

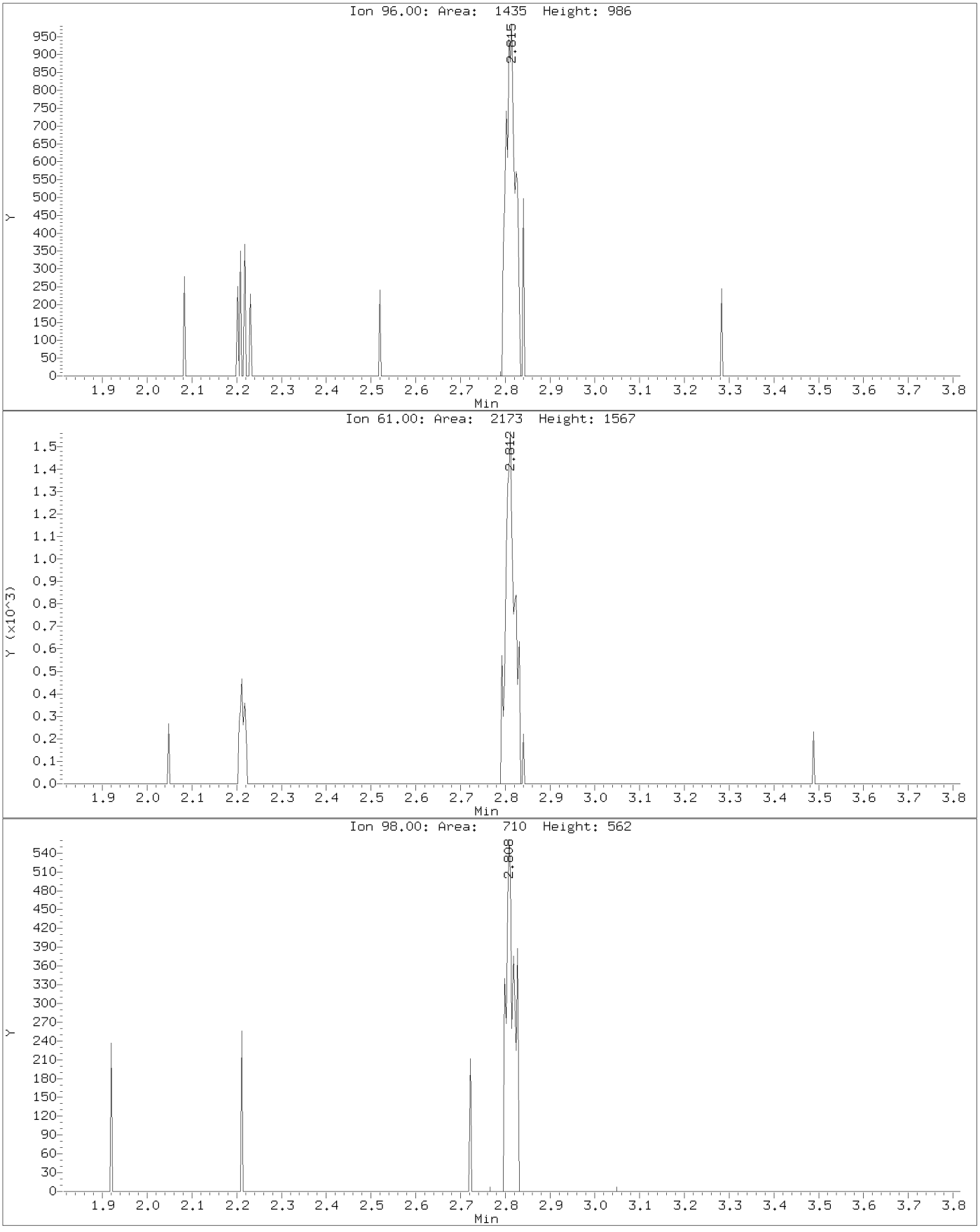
Compound: trans-1,2-Dichloroethene
CAS Number: 156-60-5



Data File: \\target_server\gg\chem\gcms-w.i\W092321.b\W0194.D
Injection Date: 23-SEP-2021 13:57
Instrument: gcms-w.i
Client Sample ID: VA-MW-82R-3(2021091

Compound: trans-1,2-Dichloroethene
CAS Number: 156-60-5

AFTER MANUAL INTEGRATION



Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-25DL
Client ID: WVA-MW-83-1(20210916)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0153.D

Sample Date: 16-SEP-21
Received Date: 18-SEP-21
Extract Date: 22-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306464

Analysis Date: 22-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	200	ug/L	100	2	200
Vinyl Chloride		260	ug/L	100	2	200
Bromomethane	U	200	ug/L	100	2	200
Chloroethane	U	200	ug/L	100	2	200
Trichlorofluoromethane	U	200	ug/L	100	2	200
1,1-Dichloroethene	U	100	ug/L	100	1	100
Carbon Disulfide	U	100	ug/L	100	1	100
Methylene Chloride	U	500	ug/L	100	5	500
trans-1,2-Dichloroethene	U	100	ug/L	100	1	100
1,1-Dichloroethane	U	100	ug/L	100	1	100
cis-1,2-Dichloroethene		3400	ug/L	100	1	100
Chloroform	U	100	ug/L	100	1	100
Carbon Tetrachloride	U	100	ug/L	100	1	100
1,1,1-Trichloroethane	U	100	ug/L	100	1	100
2-Butanone	U	500	ug/L	100	5	500
Benzene	U	100	ug/L	100	1	100
1,2-Dichloroethane	U	100	ug/L	100	1	100
Trichloroethene		3100	ug/L	100	1	100
1,2-Dichloropropane	U	100	ug/L	100	1	100
Bromodichloromethane	U	100	ug/L	100	1	100
cis-1,3-Dichloropropene	U	100	ug/L	100	1	100
Toluene	U	100	ug/L	100	1	100
4-Methyl-2-Pentanone	U	500	ug/L	100	5	500
Tetrachloroethene		7700	ug/L	100	1	100
trans-1,3-Dichloropropene	U	100	ug/L	100	1	100
1,1,2-Trichloroethane	U	100	ug/L	100	1	100
Dibromochloromethane	U	100	ug/L	100	1	100
Chlorobenzene	U	100	ug/L	100	1	100
Ethylbenzene	U	100	ug/L	100	1	100
m+p-Xylenes	U	200	ug/L	100	2	200
o-Xylene	U	100	ug/L	100	1	100
Bromoform	U	100	ug/L	100	1	100
1,1,2,2-Tetrachloroethane	U	100	ug/L	100	1	100
P-Bromofluorobenzene		102.	%			
Toluene-d8		101.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-25DL
Client ID: WVA-MW-83-1(20210916)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0153.D

Sample Date: 16-SEP-21
Received Date: 18-SEP-21
Extract Date: 22-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306464

Analysis Date: 22-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		119.	%			
Dibromofluoromethane		107.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Data File: \\target_server\gg\chem\gcms-w.i\W092221.b\W0153.D
Report Date: 12-Oct-2021 08:54

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-w.i\W092221.b\W0153.D
Lab Smp Id: SO6313-25DL Client Smp ID: VA-MW-83-1(20210916
Inj Date : 22-SEP-2021 11:27
Operator : ES Inst ID: gcms-w.i
Smp Info : SO6313-25DL
Misc Info : WG306464,WG306464-4
Comment : SW846 5030
Method : \\target_server\gg\chem\gcms-w.i\W092221.b\W8A05(08).m
Meth Date : 11-Oct-2021 13:03 hgould Quant Type: ISTD
Cal Date : 20-SEP-2021 11:30 Cal File: W0105.D
Als bottle: 9
Dil Factor: 100.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.12

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

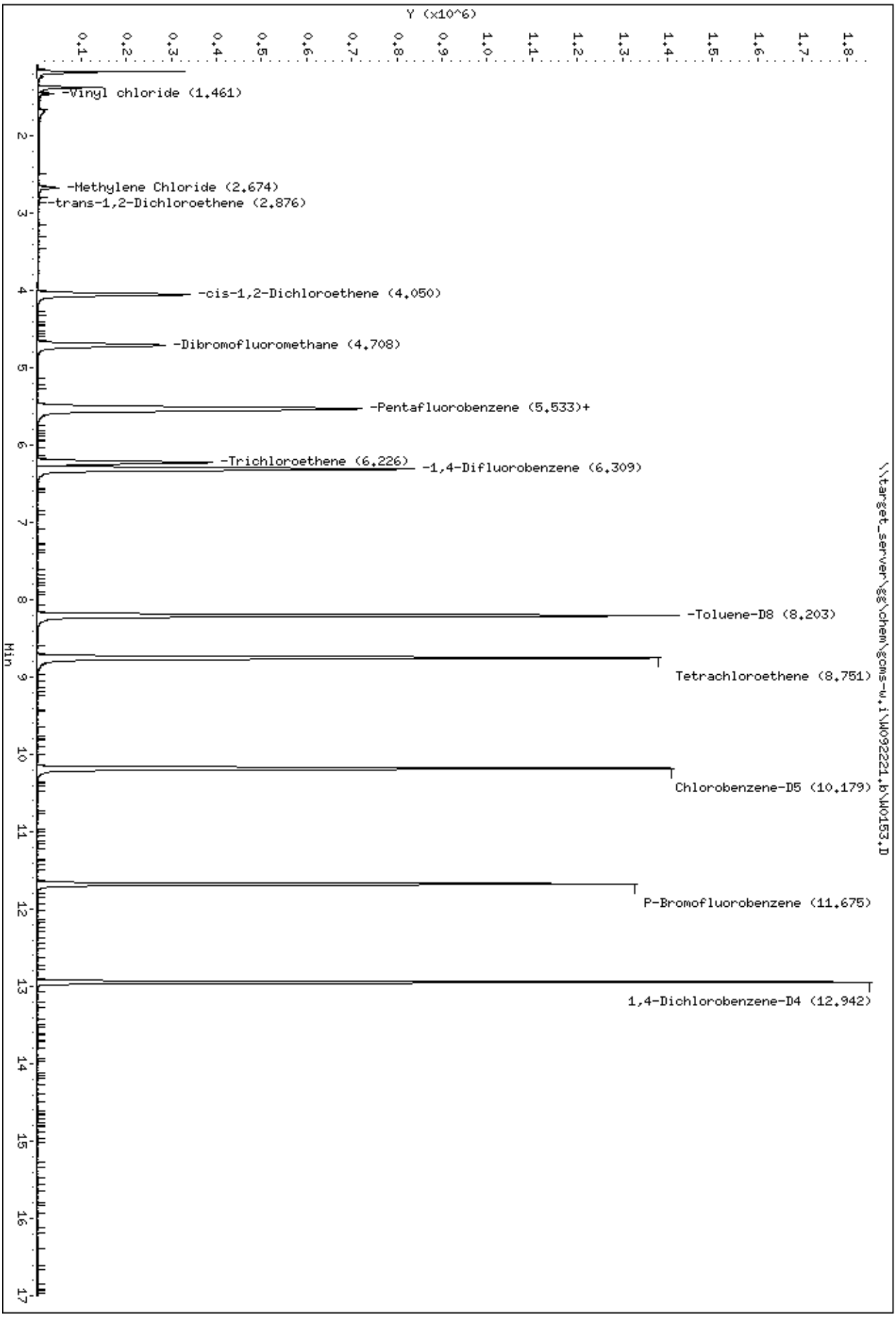
Name	Value	Description
DF	100.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

10:24 am, Oct 12, 2021

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)	REVIEW CODE
	3 Vinyl chloride	62	1.460	1.460	(0.265)	14877	2.65463	265(M)	M10
	14 Methylene Chloride	84	2.673	2.677	(0.484)	17654	3.51216	351(a)	
	16 trans-1,2-Dichloroethene	96	2.814	2.815	(0.510)	1556	0.28811	28.8(aM)	M10
	27 cis-1,2-Dichloroethene	96	4.053	4.056	(0.734)	193513	33.6427	3360	
$	34 Dibromofluoromethane	113	4.708	4.714	(0.853)	273156	53.4773	53.5	
*	41 Pentafluorobenzene	168	5.519	5.526	(1.000)	509993	50.0000		
$	42 1,2-Dichloroethane-D4	65	5.545	5.549	(1.005)	396114	59.5373	59.5	
	47 Trichloroethene	95	6.222	6.226	(0.986)	177262	31.4051	3140	
*	48 1,4-Difluorobenzene	114	6.309	6.315	(1.000)	889522	50.0000		
$	58 Toluene-D8	98	8.202	8.209	(1.300)	1078452	50.6946	50.7	
	60 Tetrachloroethene	164	8.748	8.754	(0.859)	383167	77.4519	7740	
*	68 Chlorobenzene-D5	117	10.179	10.182	(1.000)	860865	50.0000		
$	77 P-Bromofluorobenzene	95	11.674	11.678	(1.850)	453396	50.9350	50.9	
*	93 1,4-Dichlorobenzene-D4	152	12.942	12.948	(1.000)	437898	50.0000		
M	97 1,2-Dichloroethylene (total)	96				195069	33.9308	3390	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.


Y (x10^6)
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0
1.1
1.2
1.3
1.4
1.5
1.6
1.7
1.8
Min
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
-Vinyl chloride (1.461)
-Methylene Chloride (2.674)
-trans-1,2-Dichloroethene (2.876)
-cis-1,2-Dichloroethene (4.050)
-Dibromofluoromethane (4.708)
-Pentafluorobenzene (5.533)+
-Trichloroethene (6.226)
-1,4-Difluorobenzene (6.309)
-Toluene-D8 (8.203)
Tetrachloroethene (8.751)
Chlorobenzene-D5 (10.179)
P-Bromofluorobenzene (11.675)
1,4-Dichlorobenzene-D4 (12.942)
\\target_server\gg\chem\gcms-w.i\W092221.b\W0153.D
Data File: \\target_server\gg\chem\gcms-w.i\W092221.b\W0153.D
Date : 22-SEP-2021 11:27
Client ID: VA-MW-83-1(20210916
Sample Info: SD6313-25DL
Instrument: gcms-w.i

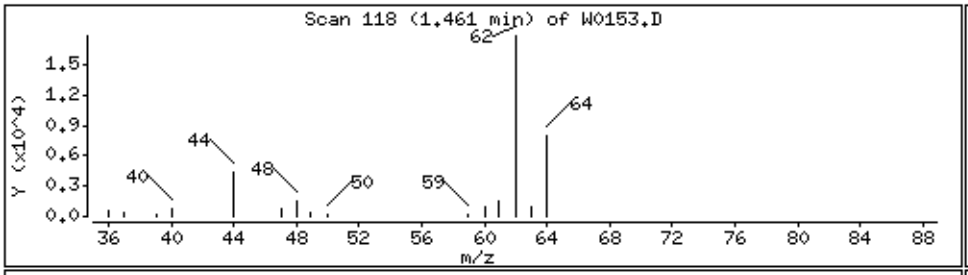
Data File: \\target_server\gg\chem\gcms-w.i\W092221.b\W0153.D

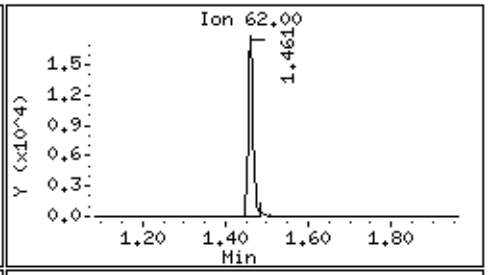
Date : 22-SEP-2021 11:27

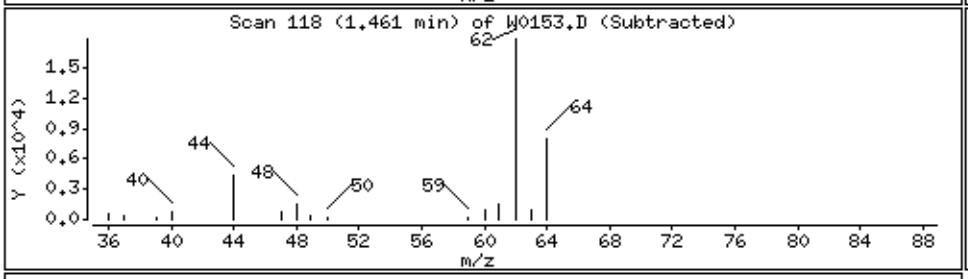
Client ID: VA-MW-83-1(20210916 Instrument: gcms-w.i

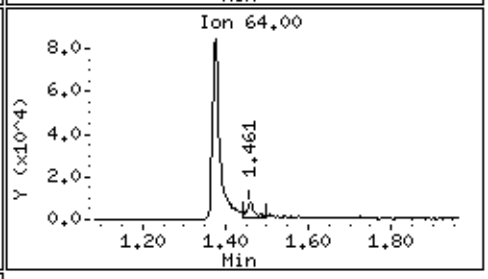
Sample Info: S06313-25DL

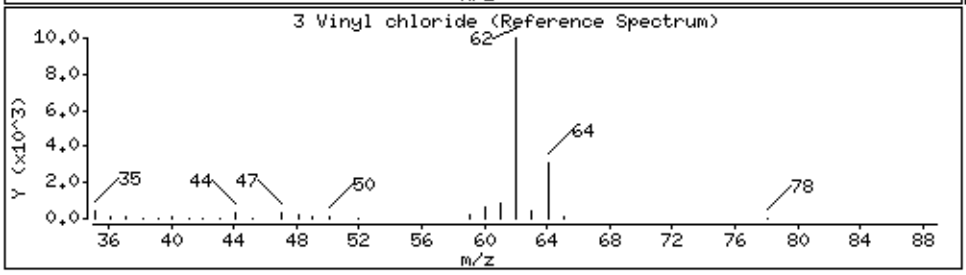
3 Vinyl chloride Concentration: 265 ug/l



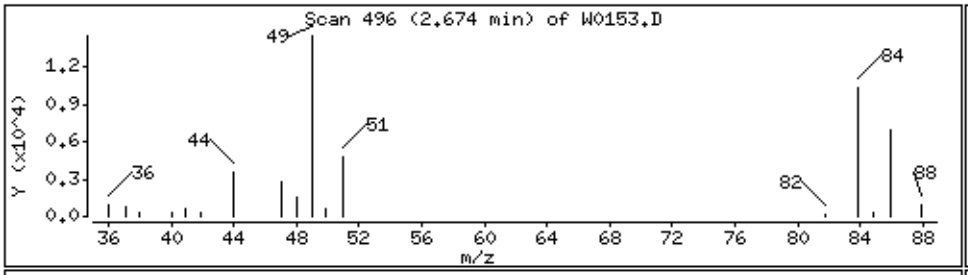


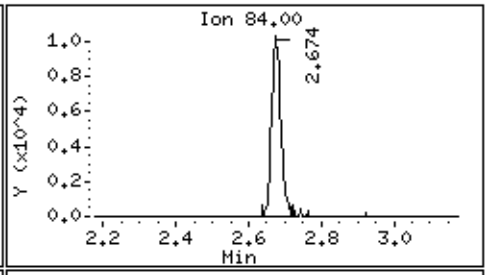


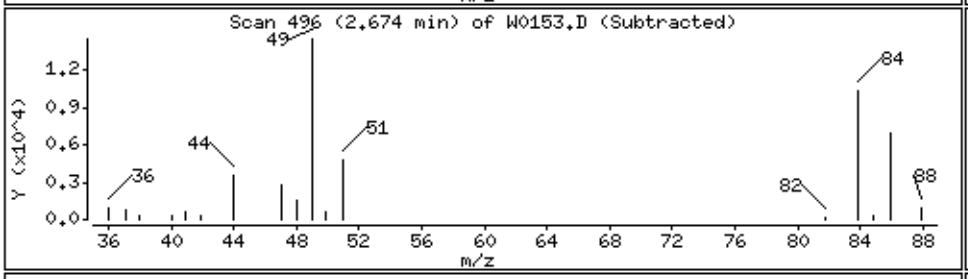


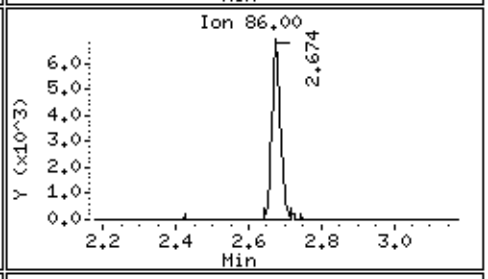


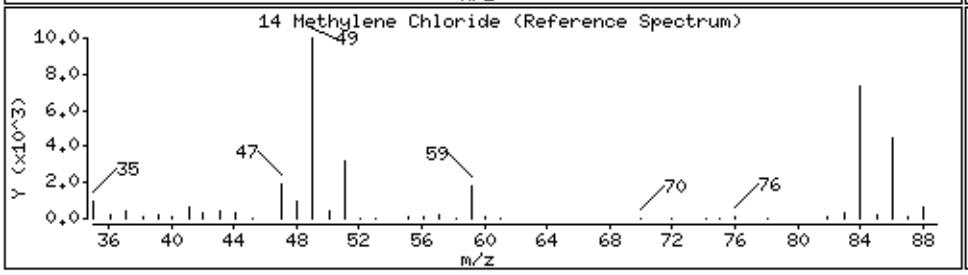
14 Methylene Chloride Concentration: 351 ug/l

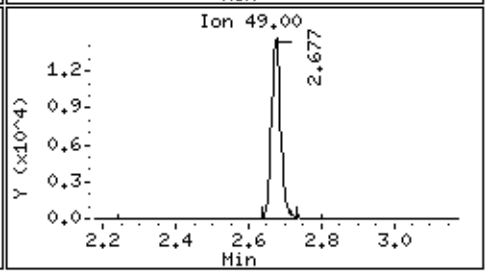












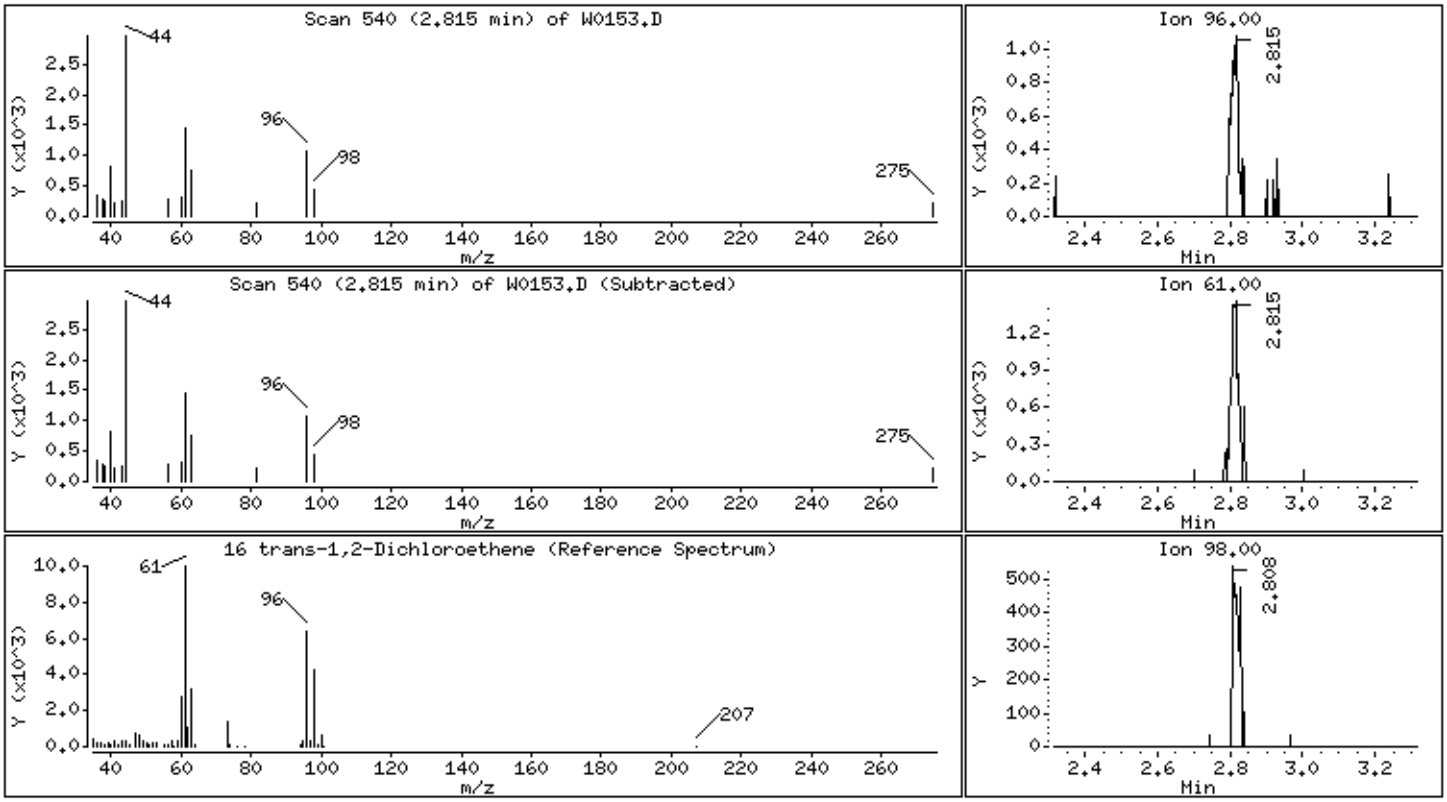
Data File: \\target_server\gg\chem\gcms-w.i\W092221.b\W0153.D

Date : 22-SEP-2021 11:27

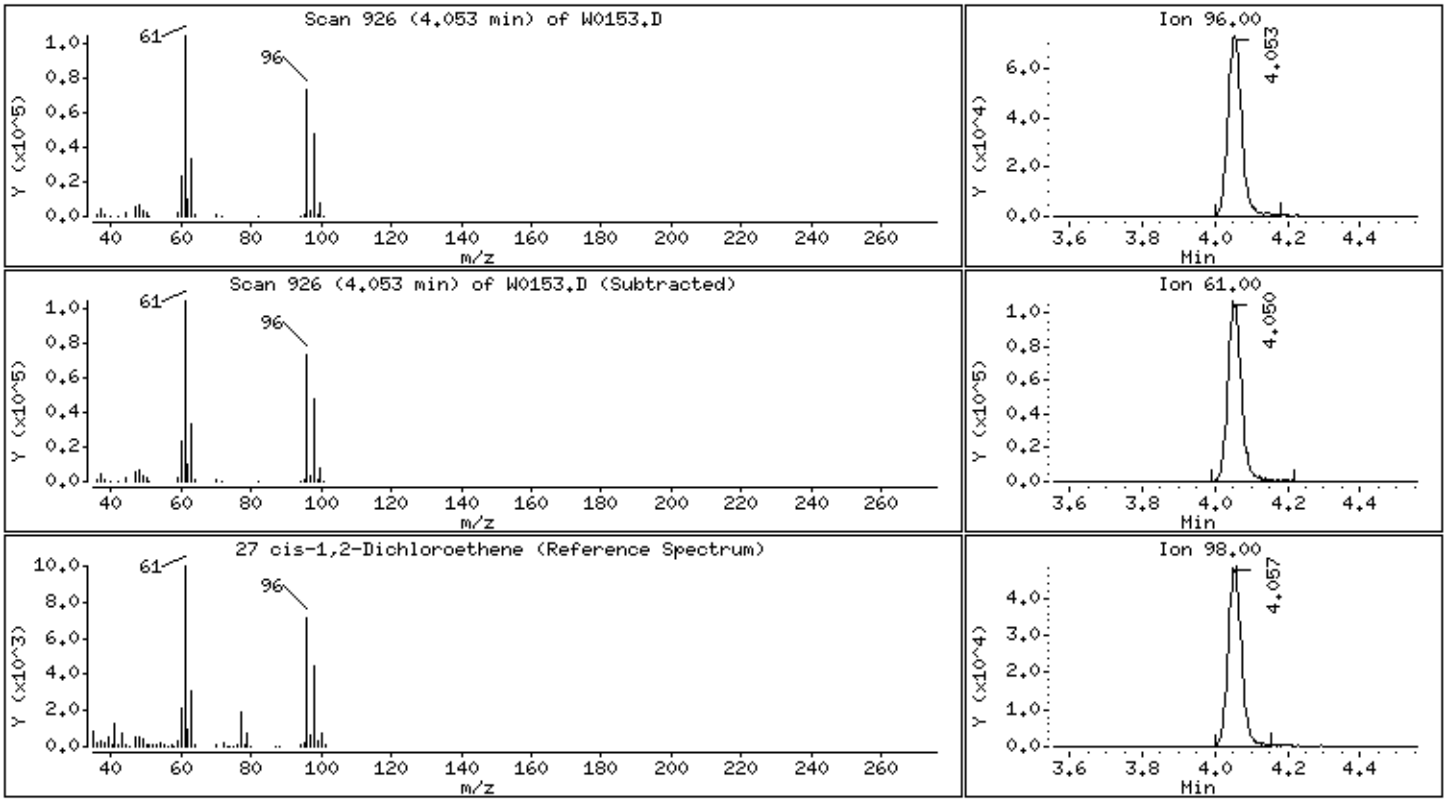
Client ID: VA-MW-83-1(20210916 Instrument: gcms-w.i

Sample Info: S06313-25DL

16 trans-1,2-Dichloroethene Concentration: 28.8 ug/l



27 cis-1,2-Dichloroethene Concentration: 3360 ug/l



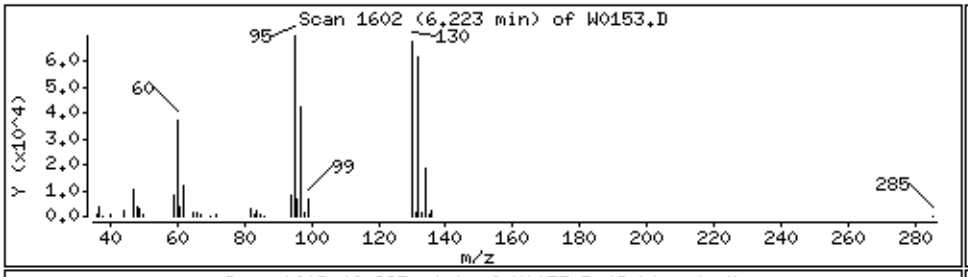
Data File: \\target_server\gg\chem\gcms-w.i\W092221.b\W0153.D

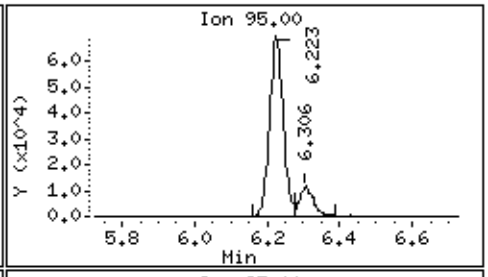
Date : 22-SEP-2021 11:27

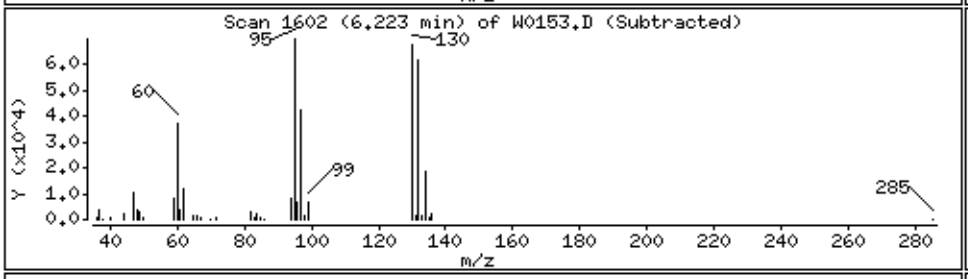
Client ID: VA-MW-83-1(20210916 Instrument: gcms-w.i

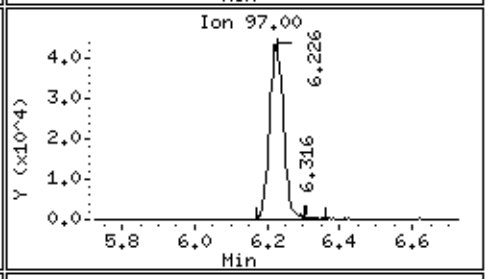
Sample Info: S06313-25DL

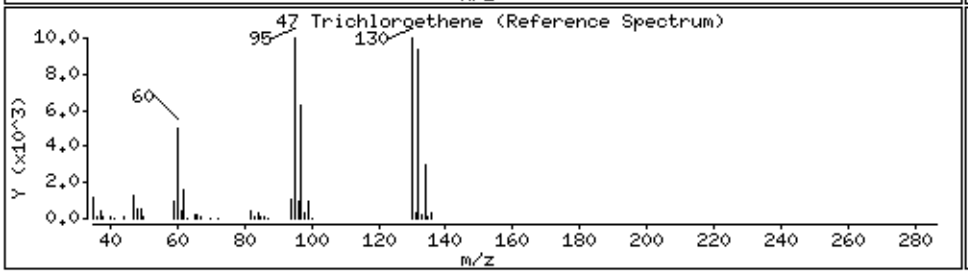
47 Trichloroethene Concentration: 3140 ug/l

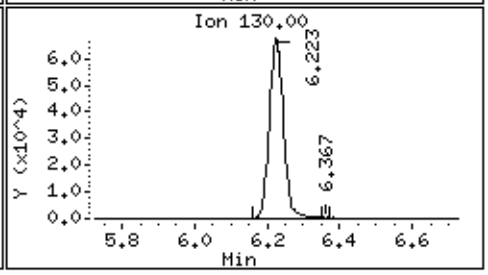




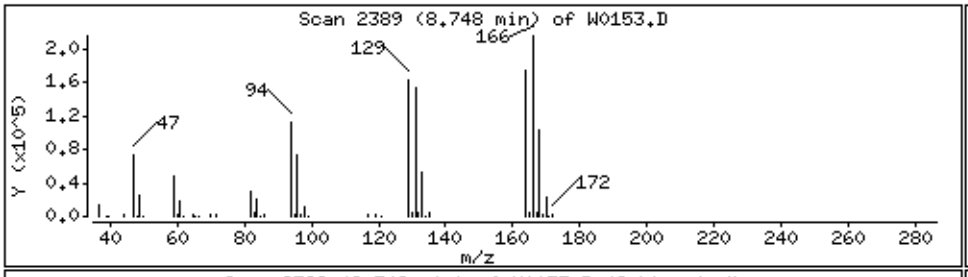


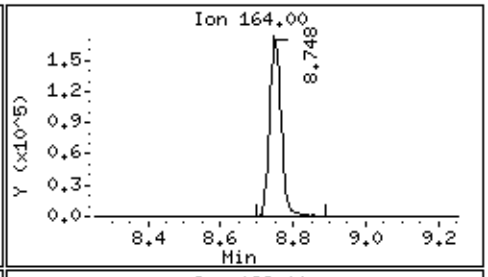


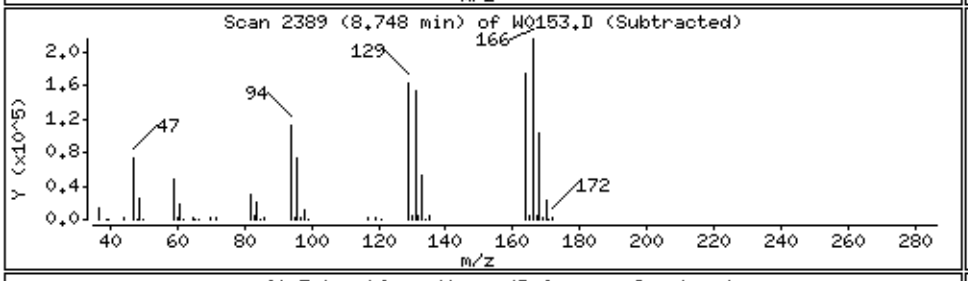


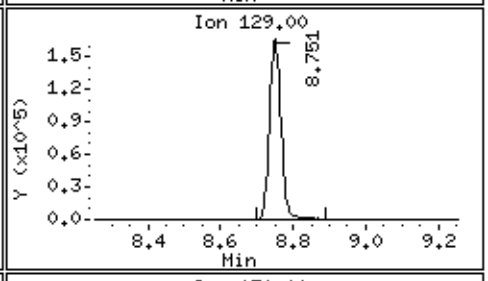


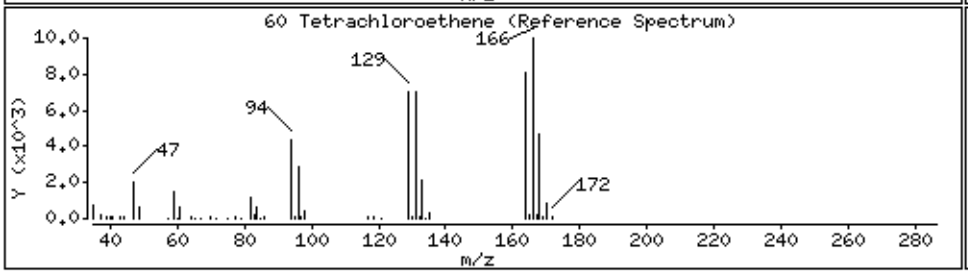
60 Tetrachloroethene Concentration: 7740 ug/l

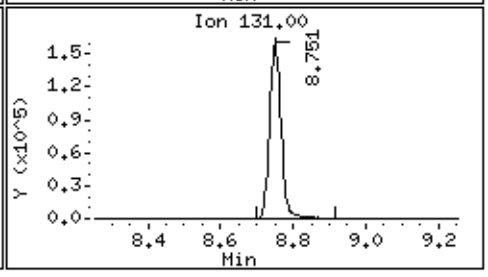








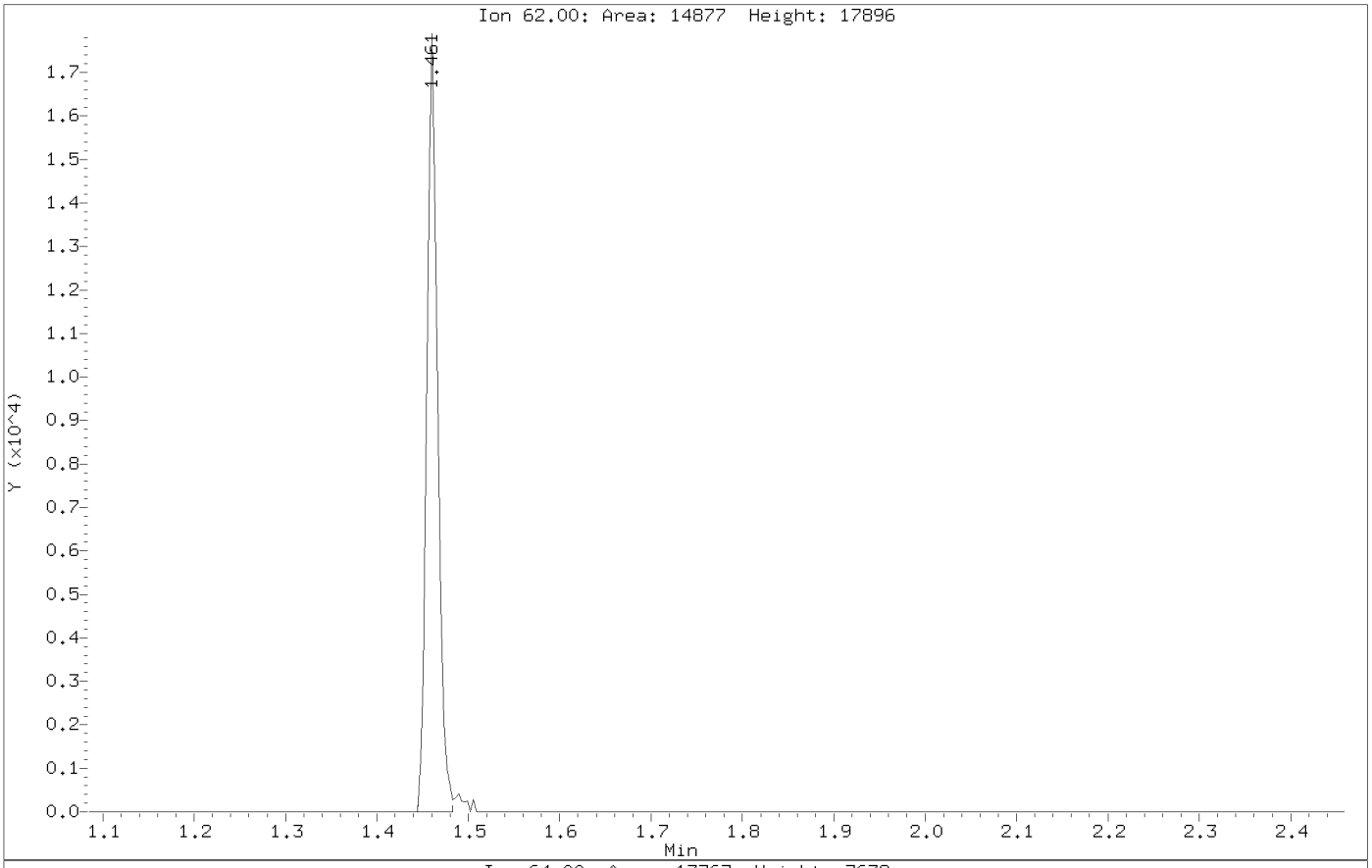


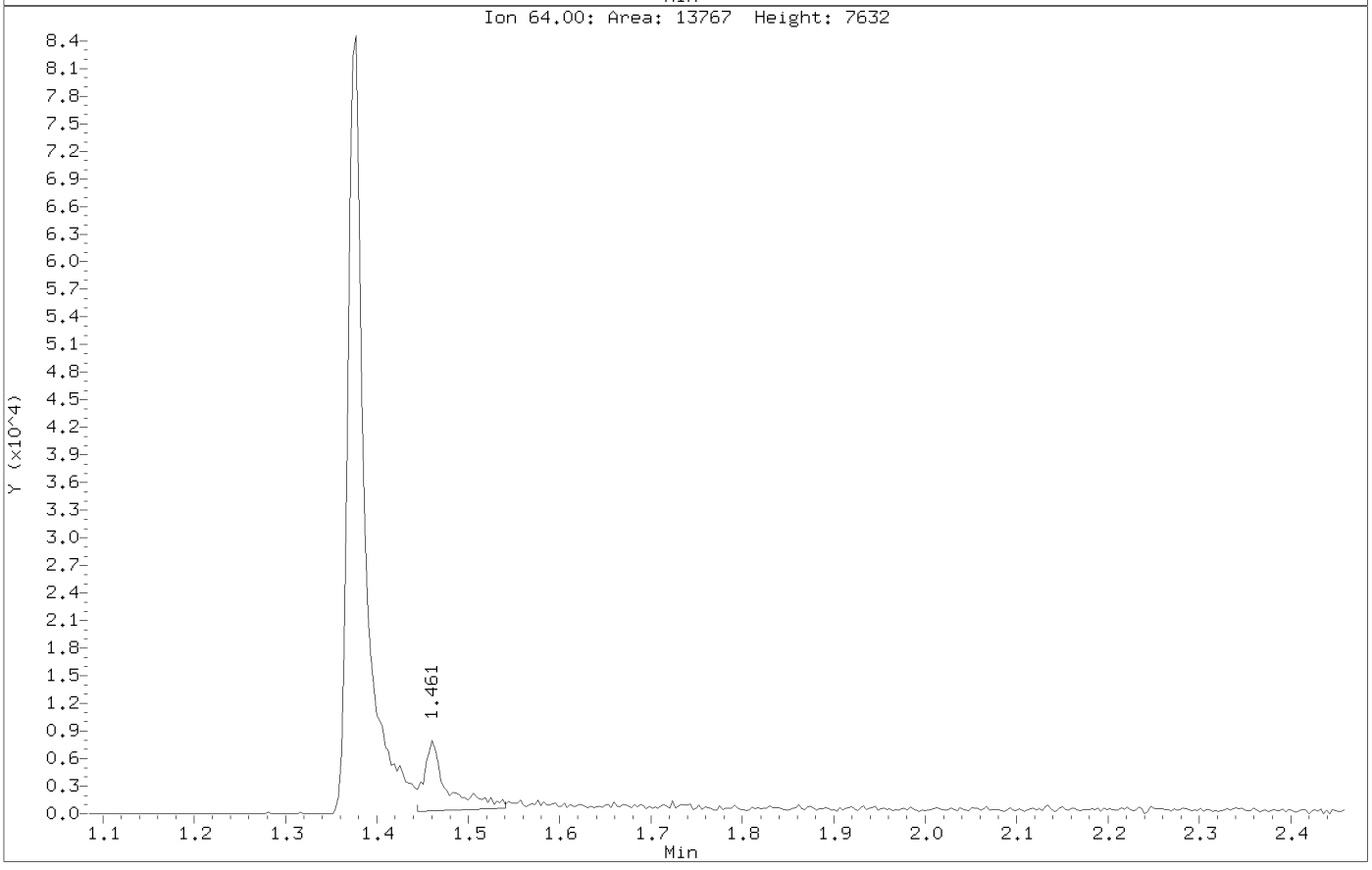


BEFORE MANUAL INTEGRATION

Data File: \\target_server\gg\chem\gcms-w.i\W092221.b\W0153.D
Injection Date: 22-SEP-2021 11:27
Instrument: gcms-w.i
Client Sample ID: VA-MW-83-1(20210916

Compound: Vinyl chloride
CAS Number: 75-01-4

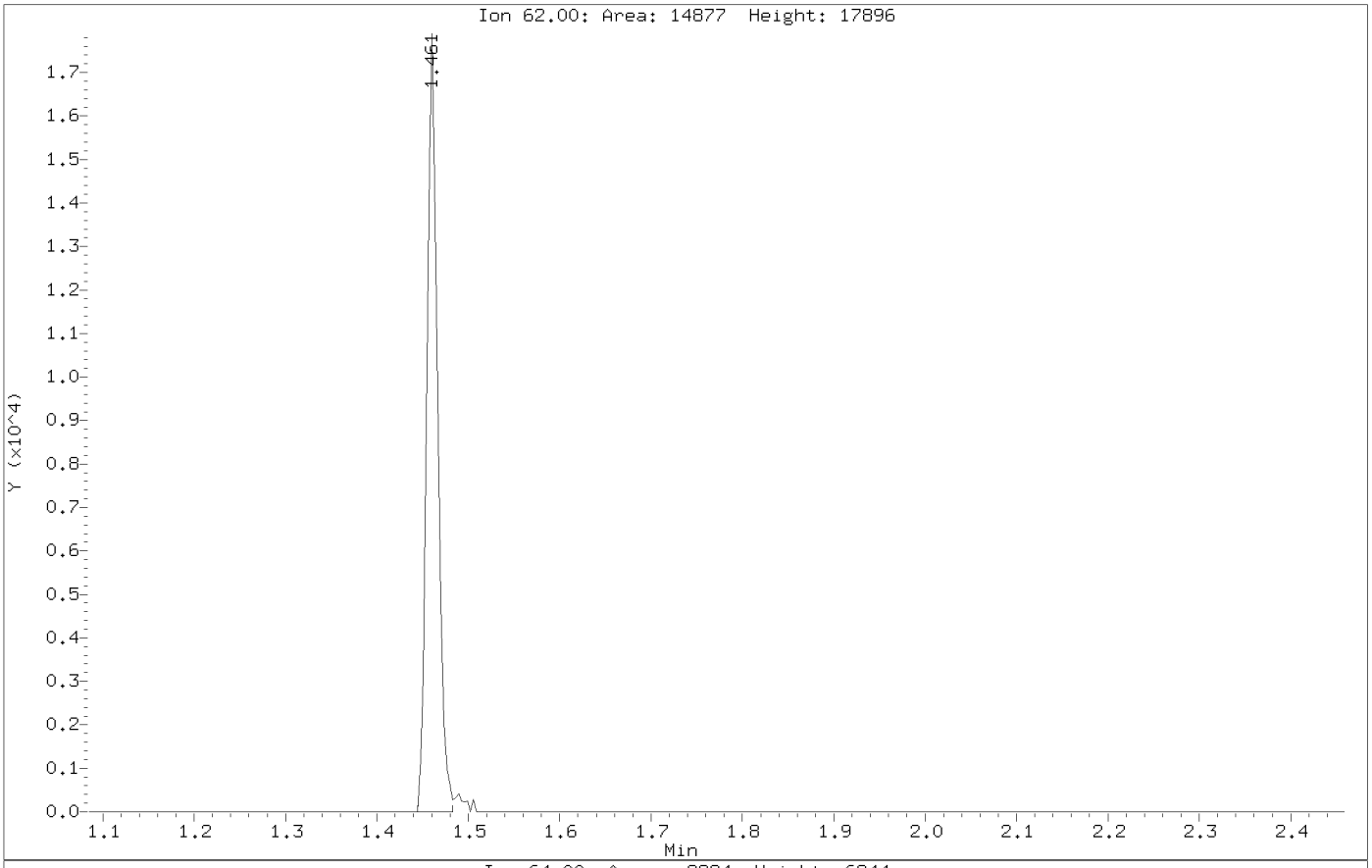


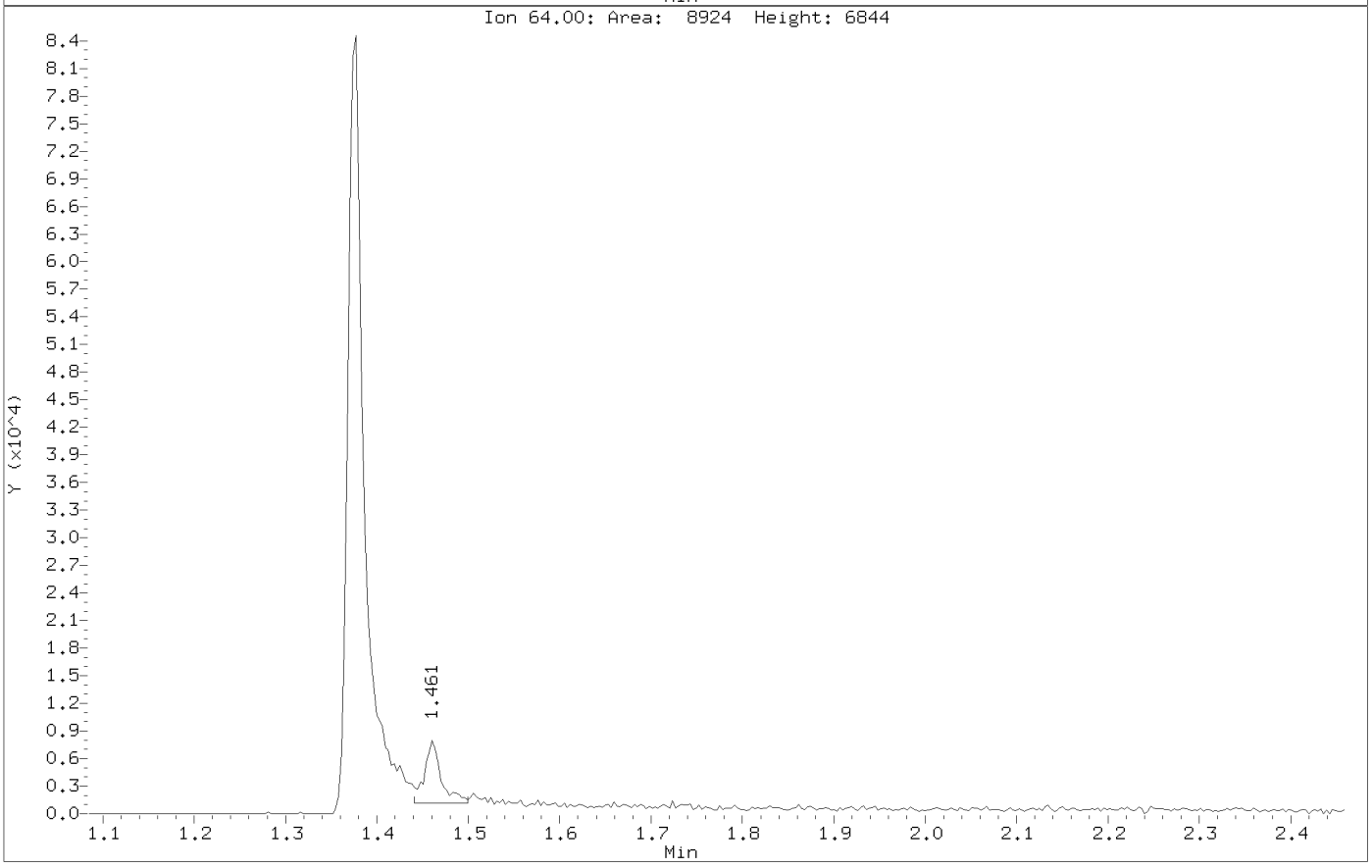


AFTER MANUAL INTEGRATION

Data File: \\target_server\gg\chem\gcms-w.i\W092221.b\W0153.D
Injection Date: 22-SEP-2021 11:27
Instrument: gcms-w.i
Client Sample ID: VA-MW-83-1(20210916

Compound: Vinyl chloride
CAS Number: 75-01-4

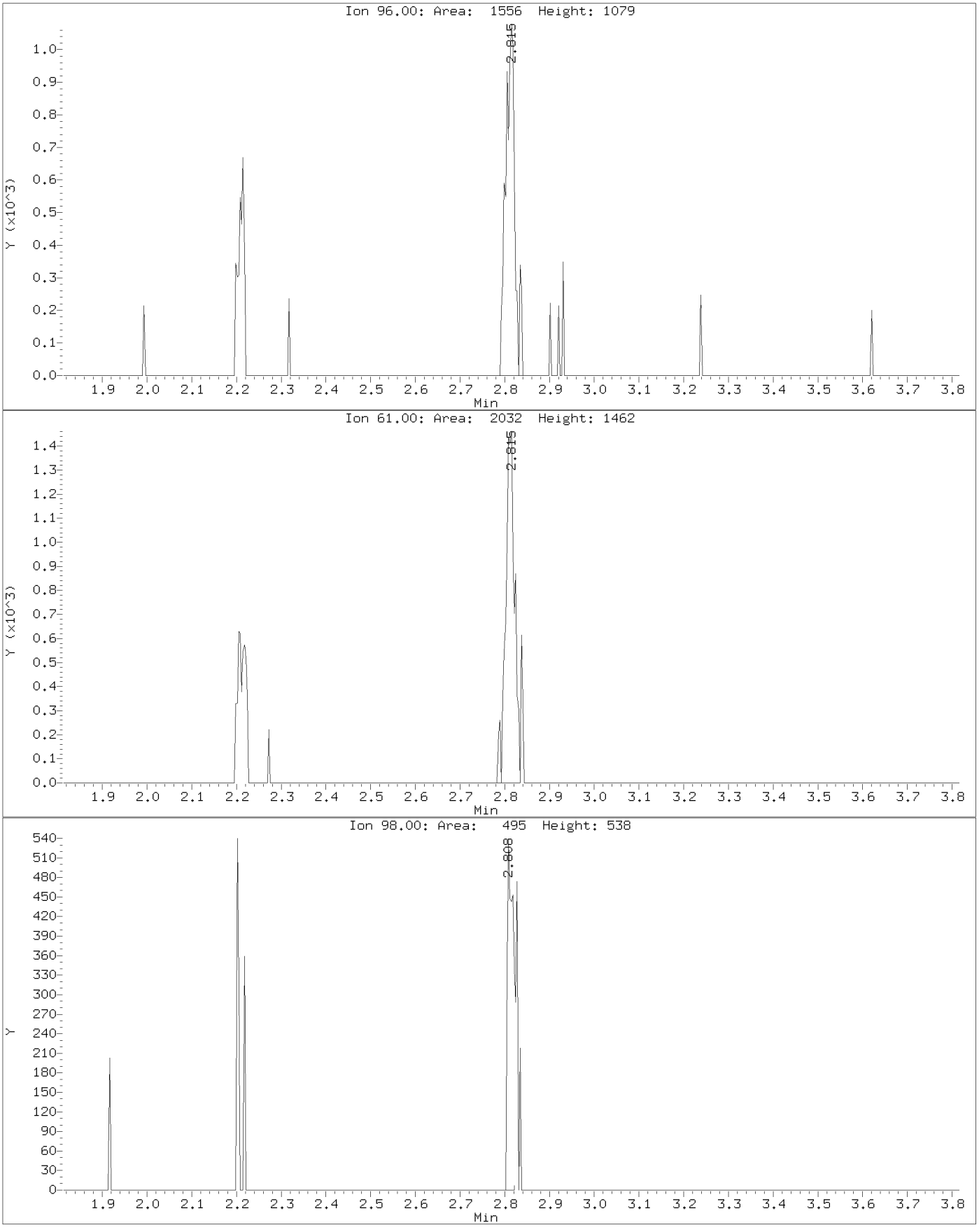




BEFORE MANUAL INTEGRATION

Data File: \\target_server\gg\chem\gcms-w.i\W092221.b\W0153.D
Injection Date: 22-SEP-2021 11:27
Instrument: gcms-w.i
Client Sample ID: VA-MW-83-1(20210916

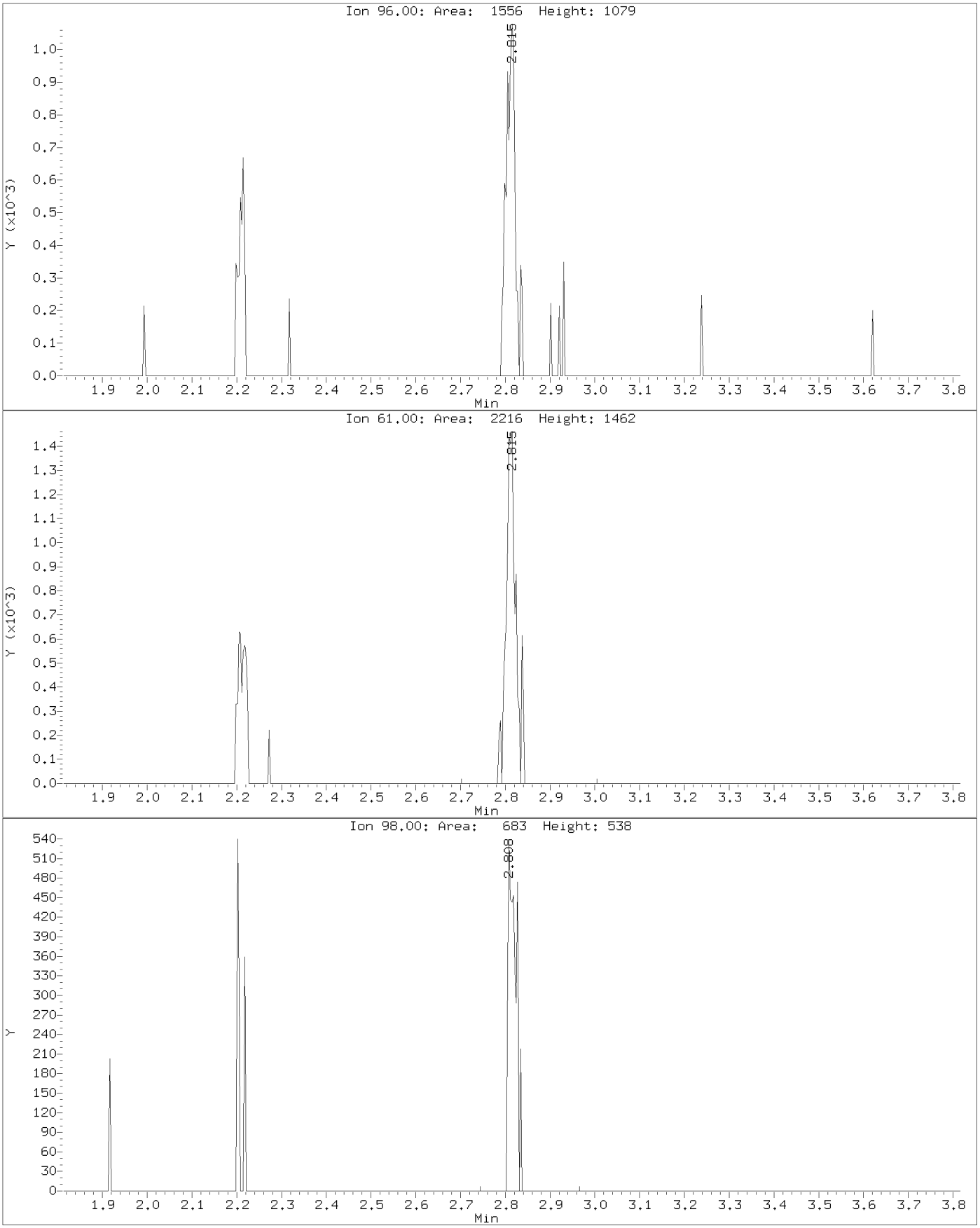
Compound: trans-1,2-Dichloroethene
CAS Number: 156-60-5



Data File: \\target_server\gg\chem\gcms-w.i\W092221.b\W0153.D
Injection Date: 22-SEP-2021 11:27
Instrument: gcms-w.i
Client Sample ID: VA-MW-83-1(20210916

Compound: trans-1,2-Dichloroethene
CAS Number: 156-60-5

AFTER MANUAL INTEGRATION



Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-25DL2
Client ID: WVA-MW-83-1(20210916)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0165.D

Sample Date: 16-SEP-21
Received Date: 18-SEP-21
Extract Date: 22-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306464

Analysis Date: 22-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	20.	ug/L	10	2	20.
Vinyl Chloride		240	ug/L	10	2	20.
Bromomethane	U	20.	ug/L	10	2	20.
Chloroethane	U	20.	ug/L	10	2	20.
Trichlorofluoromethane	U	20.	ug/L	10	2	20.
1,1-Dichloroethene	U	10.	ug/L	10	1	10.
Carbon Disulfide	U	10.	ug/L	10	1	10.
Methylene Chloride	U	50.	ug/L	10	5	50.
trans-1,2-Dichloroethene		25.	ug/L	10	1	10.
1,1-Dichloroethane	U	10.	ug/L	10	1	10.
cis-1,2-Dichloroethene	E	3200	ug/L	10	1	10.
Chloroform	U	10.	ug/L	10	1	10.
Carbon Tetrachloride	U	10.	ug/L	10	1	10.
1,1,1-Trichloroethane	U	10.	ug/L	10	1	10.
2-Butanone	U	50.	ug/L	10	5	50.
Benzene	U	10.	ug/L	10	1	10.
1,2-Dichloroethane	U	10.	ug/L	10	1	10.
Trichloroethene	E	3000	ug/L	10	1	10.
1,2-Dichloropropane	U	10.	ug/L	10	1	10.
Bromodichloromethane	U	10.	ug/L	10	1	10.
cis-1,3-Dichloropropene	U	10.	ug/L	10	1	10.
Toluene	U	10.	ug/L	10	1	10.
4-Methyl-2-Pentanone	U	50.	ug/L	10	5	50.
Tetrachloroethene	E	7600	ug/L	10	1	10.
trans-1,3-Dichloropropene	U	10.	ug/L	10	1	10.
1,1,2-Trichloroethane	U	10.	ug/L	10	1	10.
Dibromochloromethane	U	10.	ug/L	10	1	10.
Chlorobenzene	U	10.	ug/L	10	1	10.
Ethylbenzene	U	10.	ug/L	10	1	10.
m+p-Xylenes	U	20.	ug/L	10	2	20.
o-Xylene	U	10.	ug/L	10	1	10.
Bromoform	U	10.	ug/L	10	1	10.
1,1,2,2-Tetrachloroethane	U	10.	ug/L	10	1	10.
P-Bromofluorobenzene		100.	%			
Toluene-d8		99.3	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-25DL2
Client ID: WVA-MW-83-1(20210916)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0165.D

Sample Date: 16-SEP-21
Received Date: 18-SEP-21
Extract Date: 22-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306464

Analysis Date: 22-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		119.	%			
Dibromofluoromethane		106.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Data File: \\target_server\gg\chem\gcms-w.i\W092221.b\W0165.D
Report Date: 12-Oct-2021 08:54

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-w.i\W092221.b\W0165.D
Lab Smp Id: SO6313-25DL2 Client Smp ID: VA-MW-83-1(20210916
Inj Date : 22-SEP-2021 17:35
Operator : ES Inst ID: gcms-w.i
Smp Info : SO6313-25DL2
Misc Info : WG306464,WG306464-4
Comment : SW846 5030
Method : \\target_server\gg\chem\gcms-w.i\W092221.b\W8A05(08).m
Meth Date : 11-Oct-2021 13:03 hgould Quant Type: ISTD
Cal Date : 20-SEP-2021 11:30 Cal File: W0105.D
Als bottle: 21
Dil Factor: 10.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.12

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	10.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

10:25 am, Oct 12, 2021

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)	REVIEW CODE
	3 Vinyl chloride	62	1.460	1.460	(0.264)	128586	24.5156	245	
	8 1,1-Dichloroethene	96	2.214	2.211	(0.400)	3547	0.74516	7.4(a)	
	14 Methylene Chloride	84	2.679	2.677	(0.484)	20824	4.42644	44.3(a)	
	15 Acetone	43	2.724	2.725	(0.492)	4823	3.69806	37.0(aM)	M9
	16 trans-1,2-Dichloroethene	96	2.814	2.815	(0.509)	12422	2.45752	24.6	
	27 cis-1,2-Dichloroethene	96	4.059	4.056	(0.734)	1712674	318.137	3180(A)	
$	34 Dibromofluoromethane	113	4.717	4.714	(0.853)	254502	53.2364	53.2	
*	41 Pentafluorobenzene	168	5.532	5.526	(1.000)	477315	50.0000		
$	42 1,2-Dichloroethane-D4	65	5.558	5.549	(1.005)	369398	59.3229	59.3	
	47 Trichloroethene	95	6.235	6.226	(0.987)	1623721	302.789	3030(A)	
*	48 1,4-Difluorobenzene	114	6.315	6.315	(1.000)	845109	50.0000		
$	58 Toluene-D8	98	8.212	8.209	(1.300)	1003398	49.6453	49.6	
	60 Tetrachloroethene	164	8.757	8.754	(0.860)	3523993	759.294	7590(A)	
*	68 Chlorobenzene-D5	117	10.182	10.182	(1.000)	807615	50.0000		
$	77 P-Bromofluorobenzene	95	11.680	11.678	(1.850)	422773	49.9908	50.0	
*	93 1,4-Dichlorobenzene-D4	152	12.948	12.948	(1.000)	418673	50.0000		
M	97 1,2-Dichloroethylene (total)	96				1725096	320.594	3200	

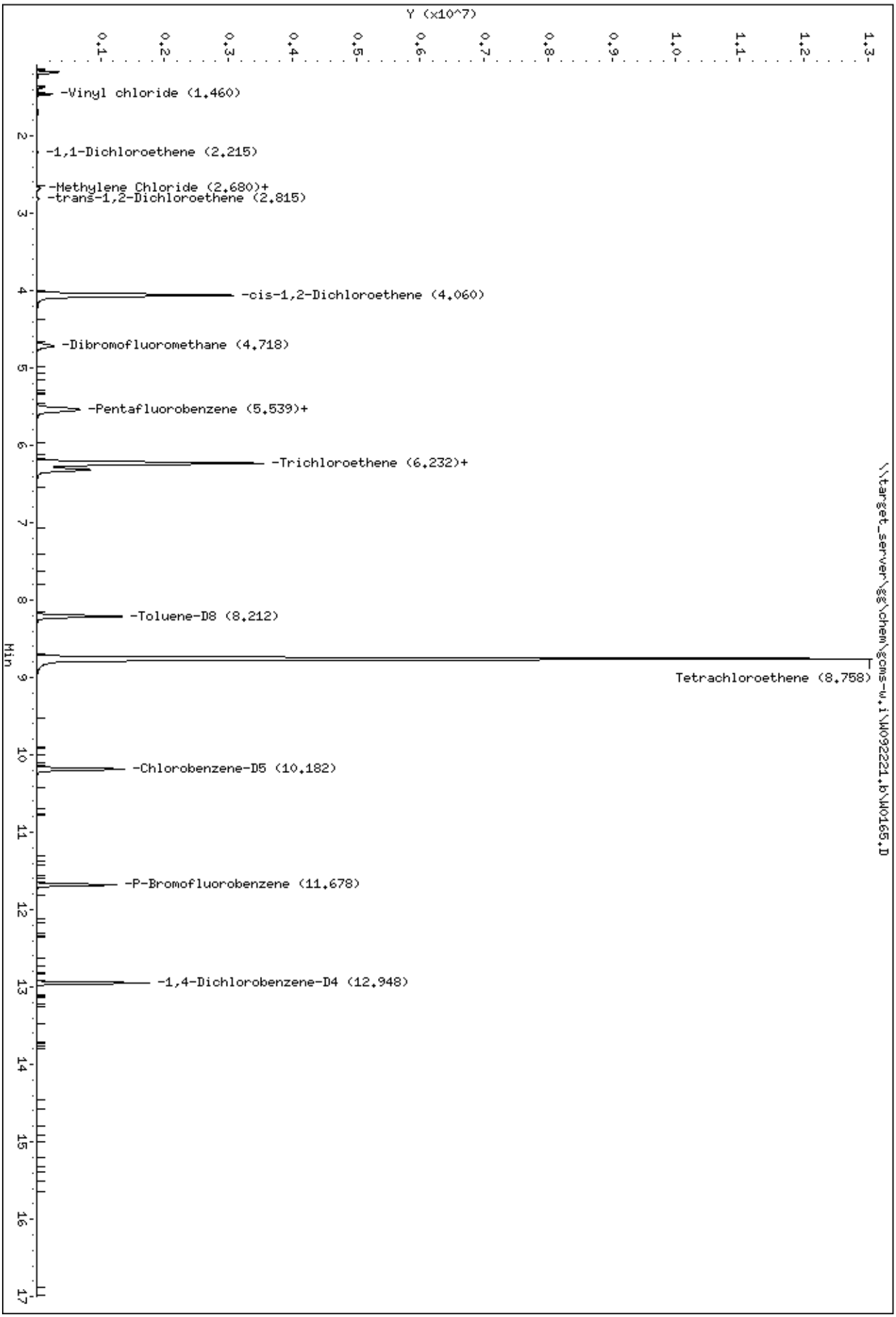
QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount
exceeded maximum amount.

Data File: \\target_server\gg\chem\gcms-w.i\W092221.b\W0165.D
Report Date: 12-Oct-2021 08:54

QC Flag Legend

M - Compound response manually integrated.


Y (x10^7)
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0
1.1
1.2
1.3
Min
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
-Vinyl chloride (1.460)
-1,1-Dichloroethene (2.215)
-Methylene Chloride (2.680)+
-trans-1,2-Dichloroethene (2.815)
-cis-1,2-Dichloroethene (4.060)
-Dibromofluoromethane (4.718)
-Pentafluorobenzene (5.539)+
-Trichloroethene (6.232)+
-Toluene-D8 (8.212)
Tetrachloroethene (8.758)
-Chlorobenzene-D5 (10.182)
-P-Bromofluorobenzene (11.678)
-1,4-Dichlorobenzene-D4 (12.948)
\\target_server\gg\chem\gcms-w.i\W092221.b\W0165.D
Data File: \\target_server\gg\chem\gcms-w.i\W092221.b\W0165.D
Date : 22-SEP-2021 17:35
Client ID: VA-MW-83-1(20210916
Sample Info: SD6313-25DL2
Instrument: gcms-w.i

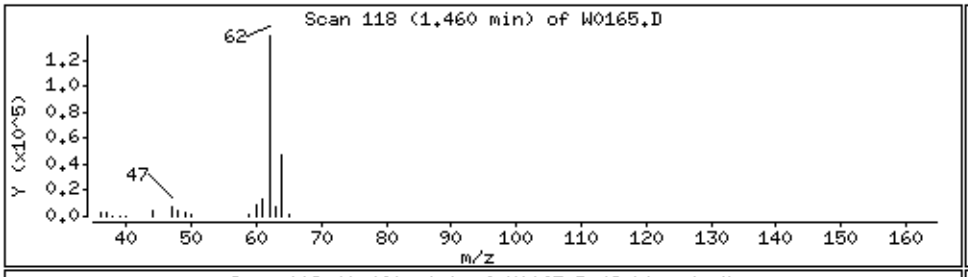
Data File: \\target_server\gg\chem\gcms-w.i\W092221.b\W0165.D

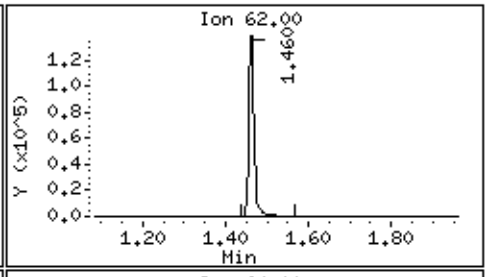
Date : 22-SEP-2021 17:35

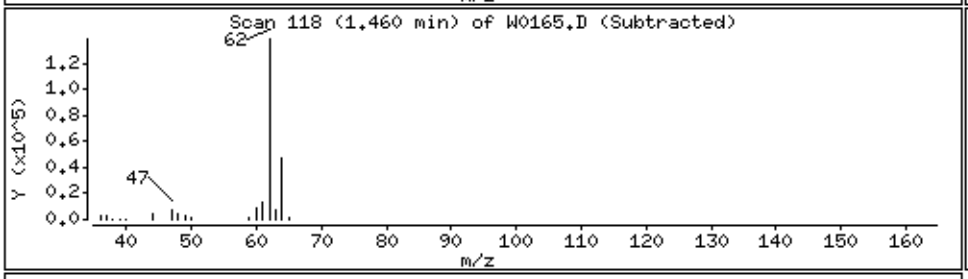
Client ID: VA-MW-83-1(20210916 Instrument: gcms-w.i

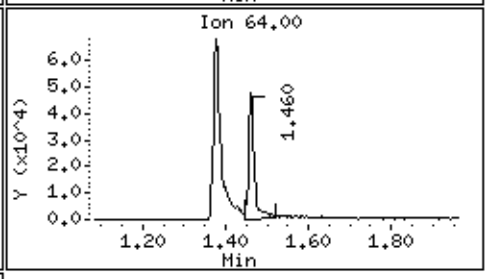
Sample Info: S06313-25DL2

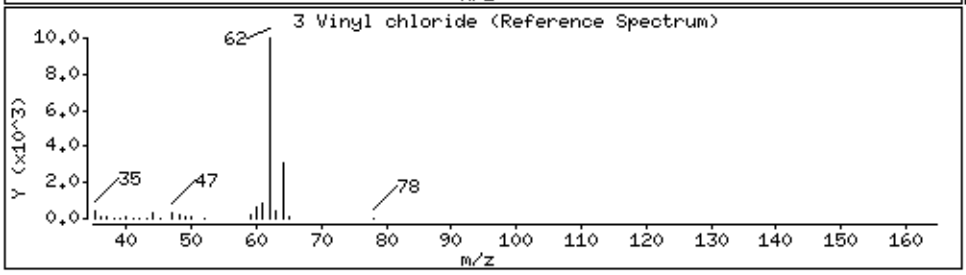
3 Vinyl chloride Concentration: 245 ug/l



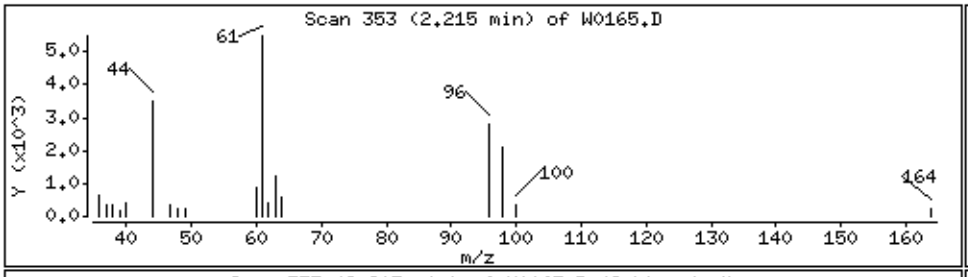


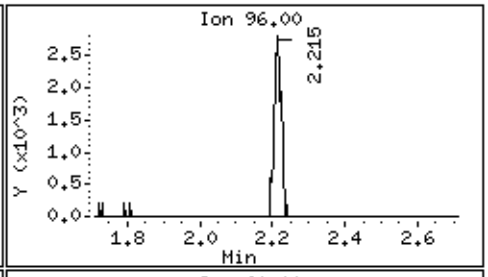


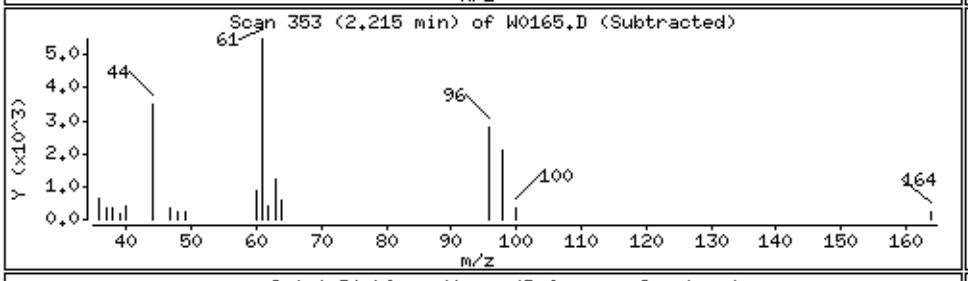


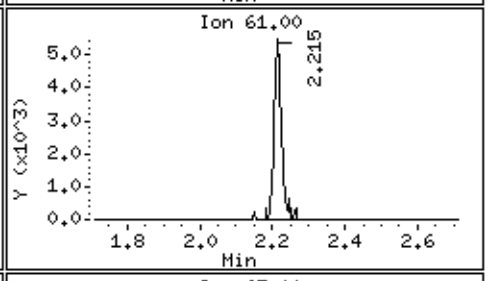


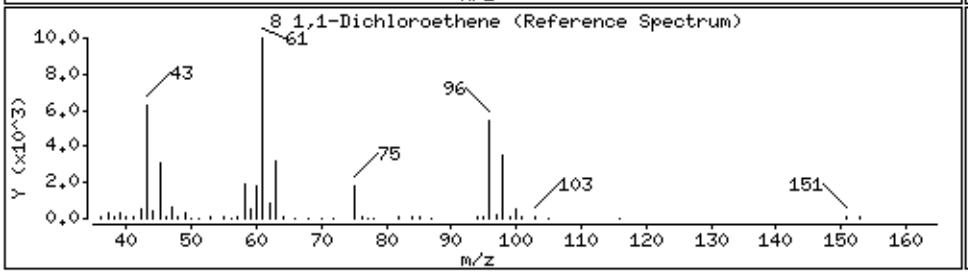
8 1,1-Dichloroethene Concentration: 7.4 ug/l

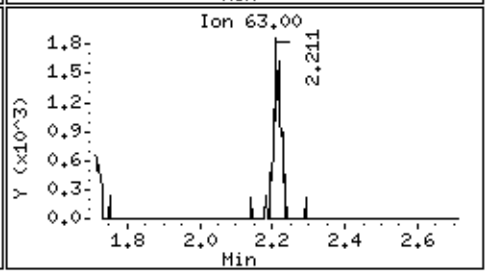












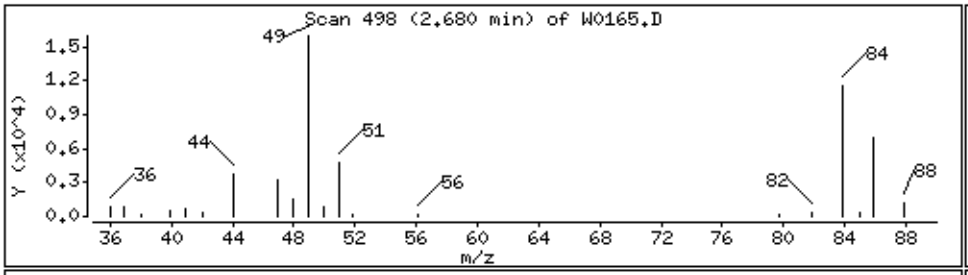
Data File: \\target_server\gg\chem\gcms-w.i\W092221.b\W0165.D

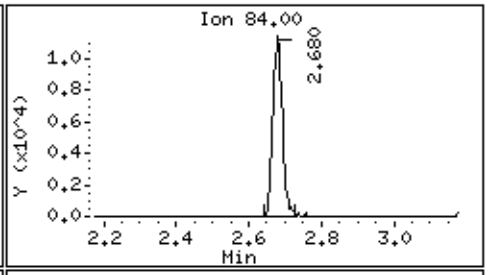
Date : 22-SEP-2021 17:35

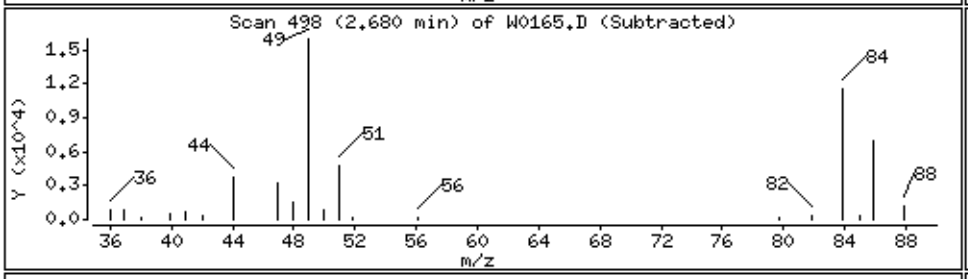
Client ID: VA-MW-83-1(20210916 Instrument: gcms-w.i

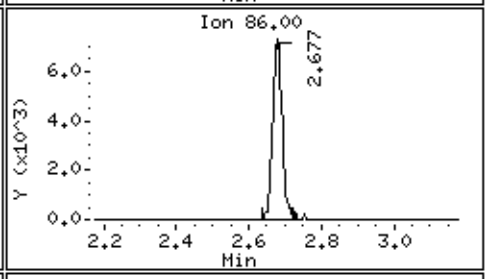
Sample Info: S06313-25DL2

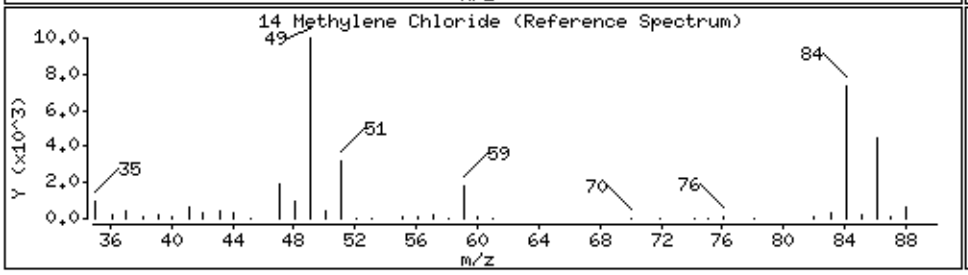
14 Methylene Chloride Concentration: 44.3 ug/l

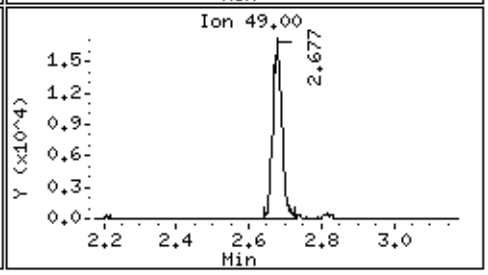




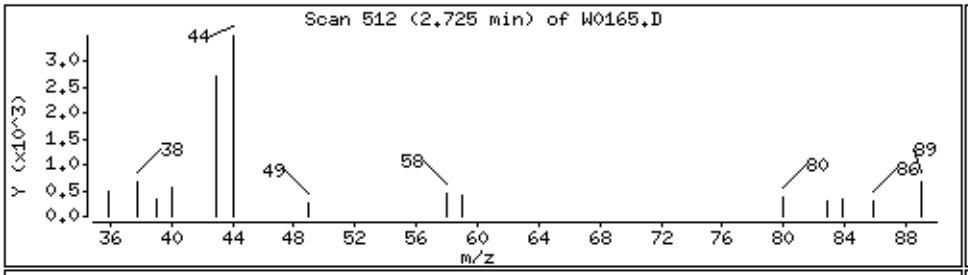


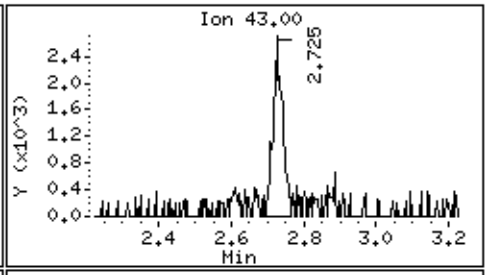


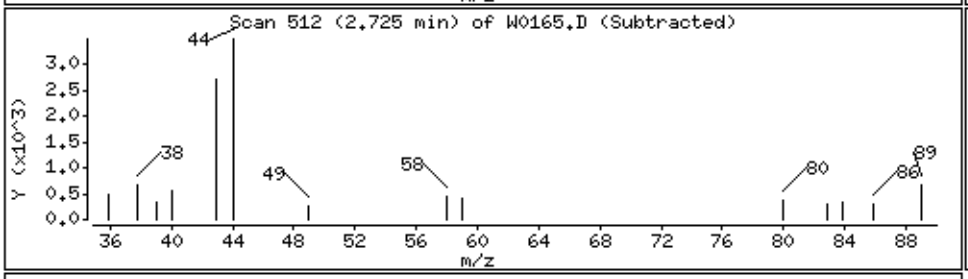


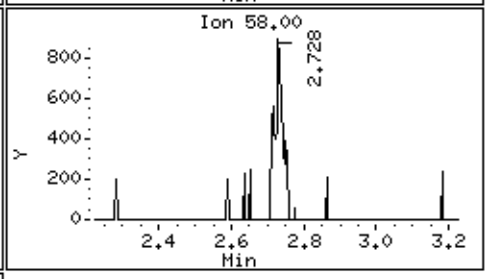


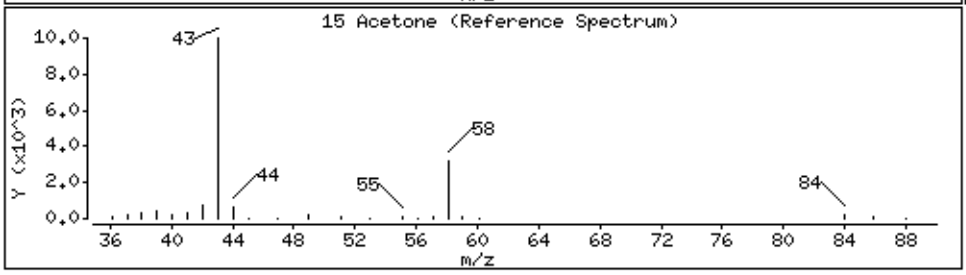
15 Acetone Concentration: 37.0 ug/l











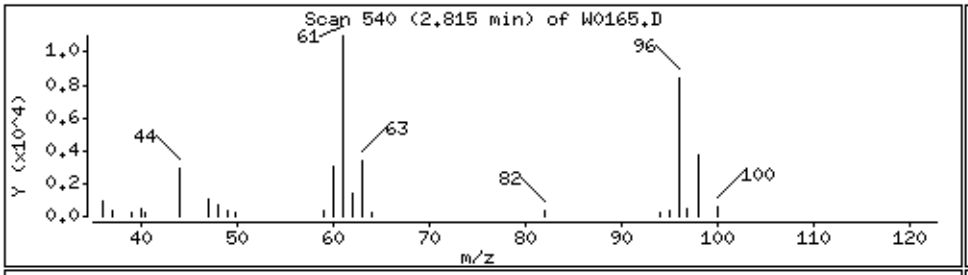
Data File: \\target_server\gg\chem\gcms-w.i\W092221.b\W0165.D

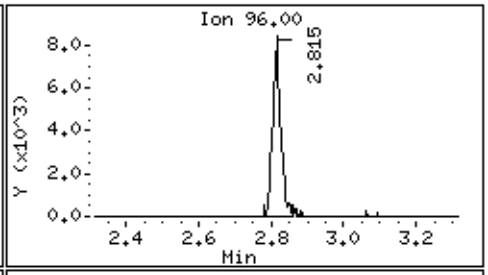
Date : 22-SEP-2021 17:35

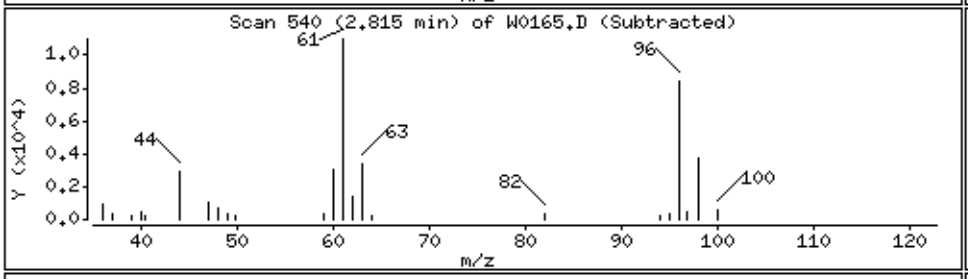
Client ID: VA-MW-83-1(20210916 Instrument: gcms-w.i

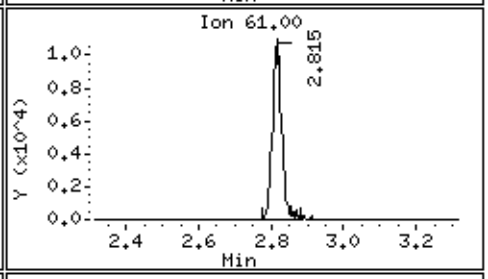
Sample Info: S06313-25DL2

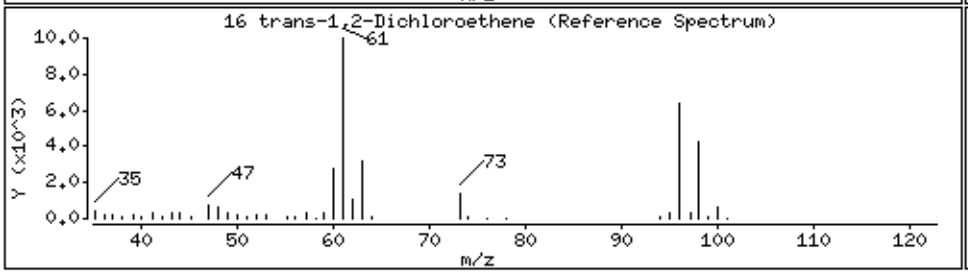
16 trans-1,2-Dichloroethene Concentration: 24.6 ug/l

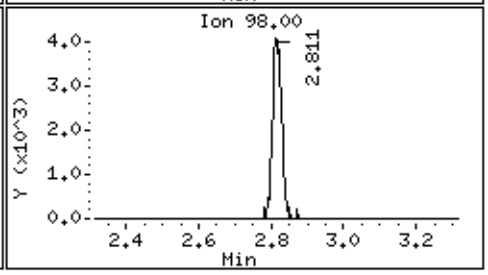




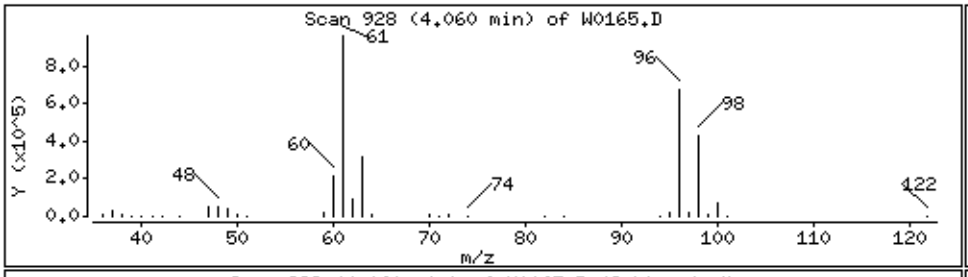


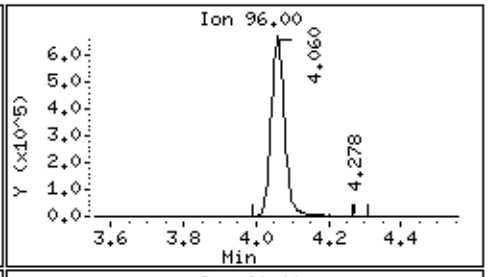


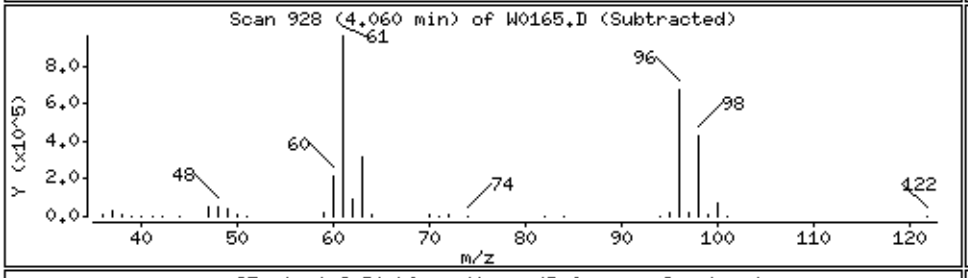


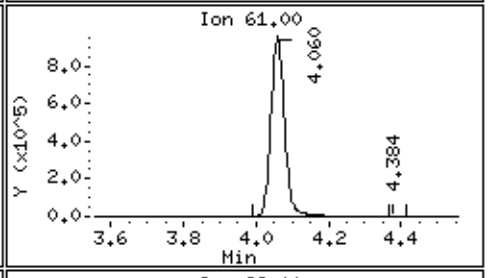


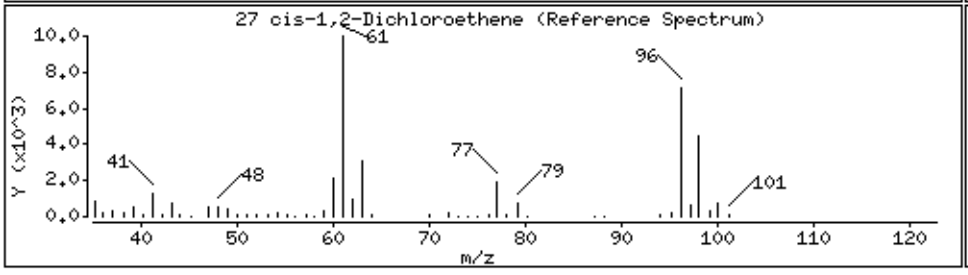
27 cis-1,2-Dichloroethene Concentration: 3180 ug/l

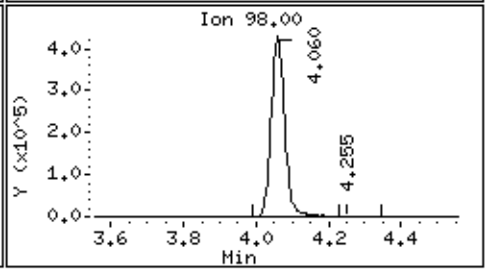












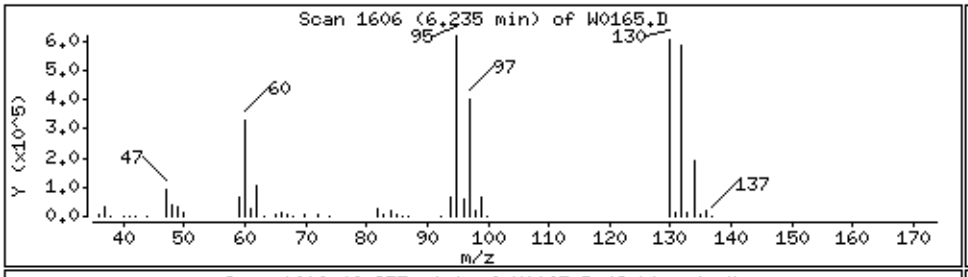
Data File: \\target_server\gg\chem\gcms-w.i\W092221.b\W0165.D

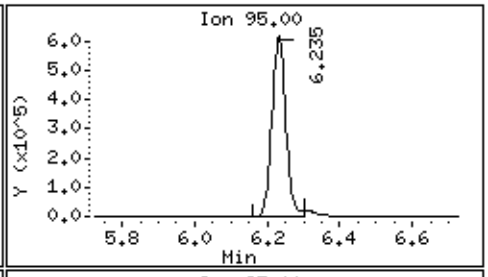
Date : 22-SEP-2021 17:35

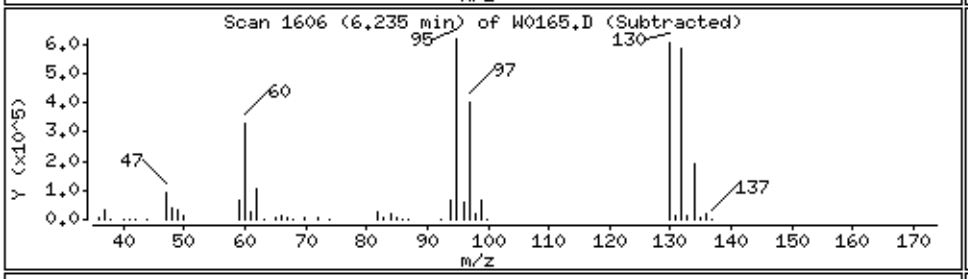
Client ID: VA-MW-83-1(20210916 Instrument: gcms-w.i

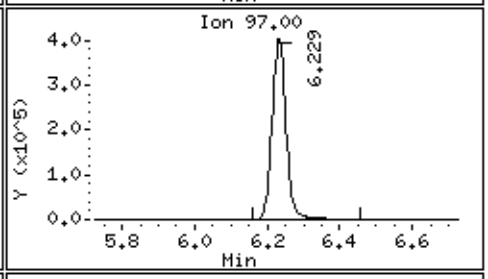
Sample Info: S06313-25DL2

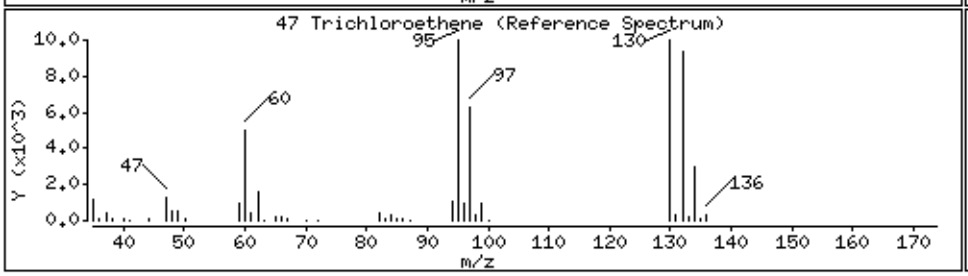
47 Trichloroethene Concentration: 3030 ug/l

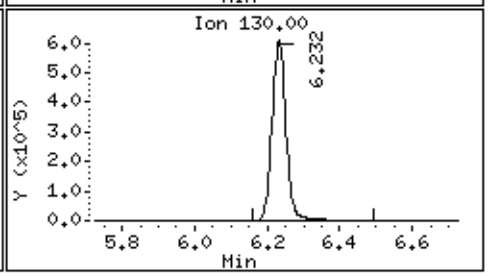




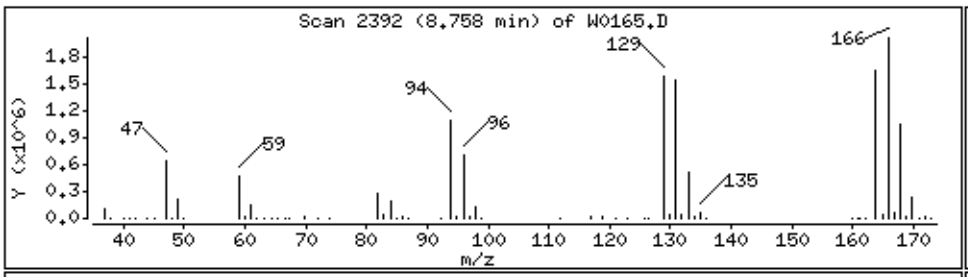


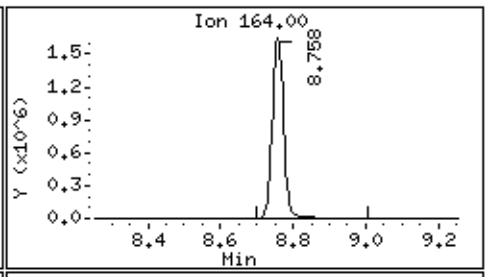


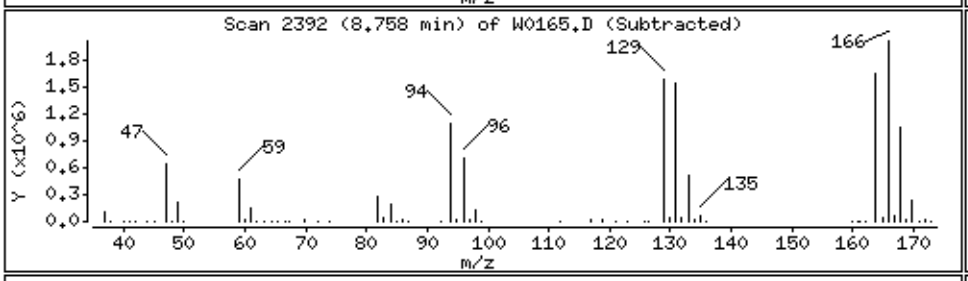


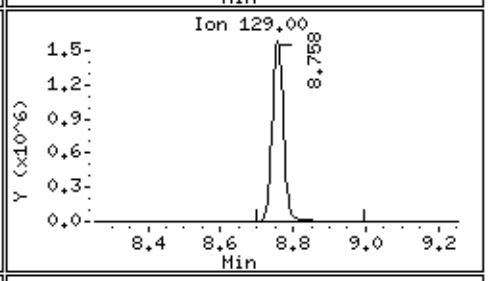


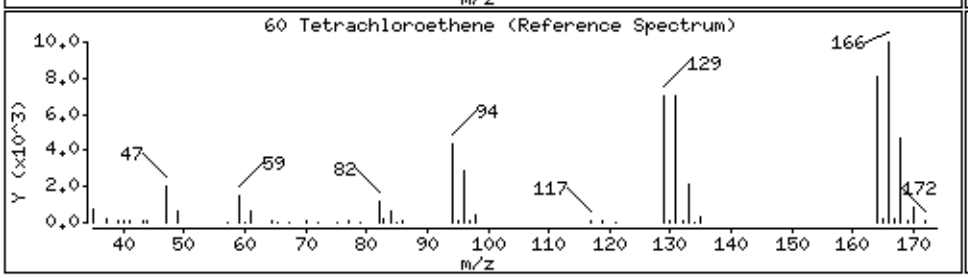
60 Tetrachloroethene Concentration: 7590 ug/l

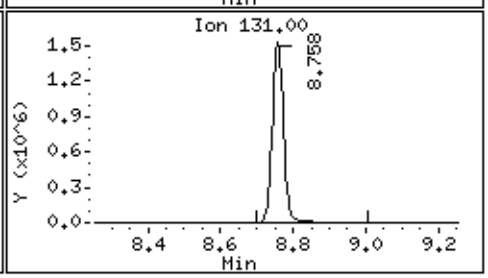












Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-26DL
Client ID: WVA-MW-83-2(20210916)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0221.D

Sample Date: 16-SEP-21
Received Date: 18-SEP-21
Extract Date: 24-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306608

Analysis Date: 24-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	200	ug/L	100	2	200
Vinyl Chloride		260	ug/L	100	2	200
Bromomethane	U	200	ug/L	100	2	200
Chloroethane	U	200	ug/L	100	2	200
Trichlorofluoromethane	U	200	ug/L	100	2	200
1,1-Dichloroethene	U	100	ug/L	100	1	100
Carbon Disulfide	U	100	ug/L	100	1	100
Methylene Chloride	U	500	ug/L	100	5	500
trans-1,2-Dichloroethene	U	100	ug/L	100	1	100
1,1-Dichloroethane	U	100	ug/L	100	1	100
cis-1,2-Dichloroethene		2600	ug/L	100	1	100
Chloroform	U	100	ug/L	100	1	100
Carbon Tetrachloride	U	100	ug/L	100	1	100
1,1,1-Trichloroethane	U	100	ug/L	100	1	100
2-Butanone	U	500	ug/L	100	5	500
Benzene	U	100	ug/L	100	1	100
1,2-Dichloroethane	U	100	ug/L	100	1	100
Trichloroethene		1400	ug/L	100	1	100
1,2-Dichloropropane	U	100	ug/L	100	1	100
Bromodichloromethane	U	100	ug/L	100	1	100
cis-1,3-Dichloropropene	U	100	ug/L	100	1	100
Toluene	U	100	ug/L	100	1	100
4-Methyl-2-Pentanone	U	500	ug/L	100	5	500
Tetrachloroethene		6400	ug/L	100	1	100
trans-1,3-Dichloropropene	U	100	ug/L	100	1	100
1,1,2-Trichloroethane	U	100	ug/L	100	1	100
Dibromochloromethane	U	100	ug/L	100	1	100
Chlorobenzene	U	100	ug/L	100	1	100
Ethylbenzene	U	100	ug/L	100	1	100
m+p-Xylenes	U	200	ug/L	100	2	200
o-Xylene	U	100	ug/L	100	1	100
Bromoform	U	100	ug/L	100	1	100
1,1,2,2-Tetrachloroethane	U	100	ug/L	100	1	100
P-Bromofluorobenzene		97.7	%			
Toluene-d8		100.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-26DL
Client ID: WVA-MW-83-2(20210916)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0221.D

Sample Date: 16-SEP-21
Received Date: 18-SEP-21
Extract Date: 24-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306608

Analysis Date: 24-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		107.	%			
Dibromofluoromethane		104.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Data File: \\target_server\gg\chem\gcms-w.i\W092421.b\W0221.D
Report Date: 12-Oct-2021 08:55

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-w.i\W092421.b\W0221.D
Lab Smp Id: SO6313-26DL Client Smp ID: VA-MW-83-2(20210916
Inj Date : 24-SEP-2021 16:09
Operator : ES Inst ID: gcms-w.i
Smp Info : SO6313-26DL
Misc Info : WG306608,WG306608-4
Comment   : SW846 5030
Method   : \\target_server\gg\chem\gcms-w.i\W092421.b\W8A05(08A).m
Meth Date : 08-Oct-2021 09:51 gcms-w.i Quant Type: ISTD
Cal Date : 24-SEP-2021 11:36 Cal File: W0215.D
Als bottle: 16
Dil Factor: 100.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.12

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

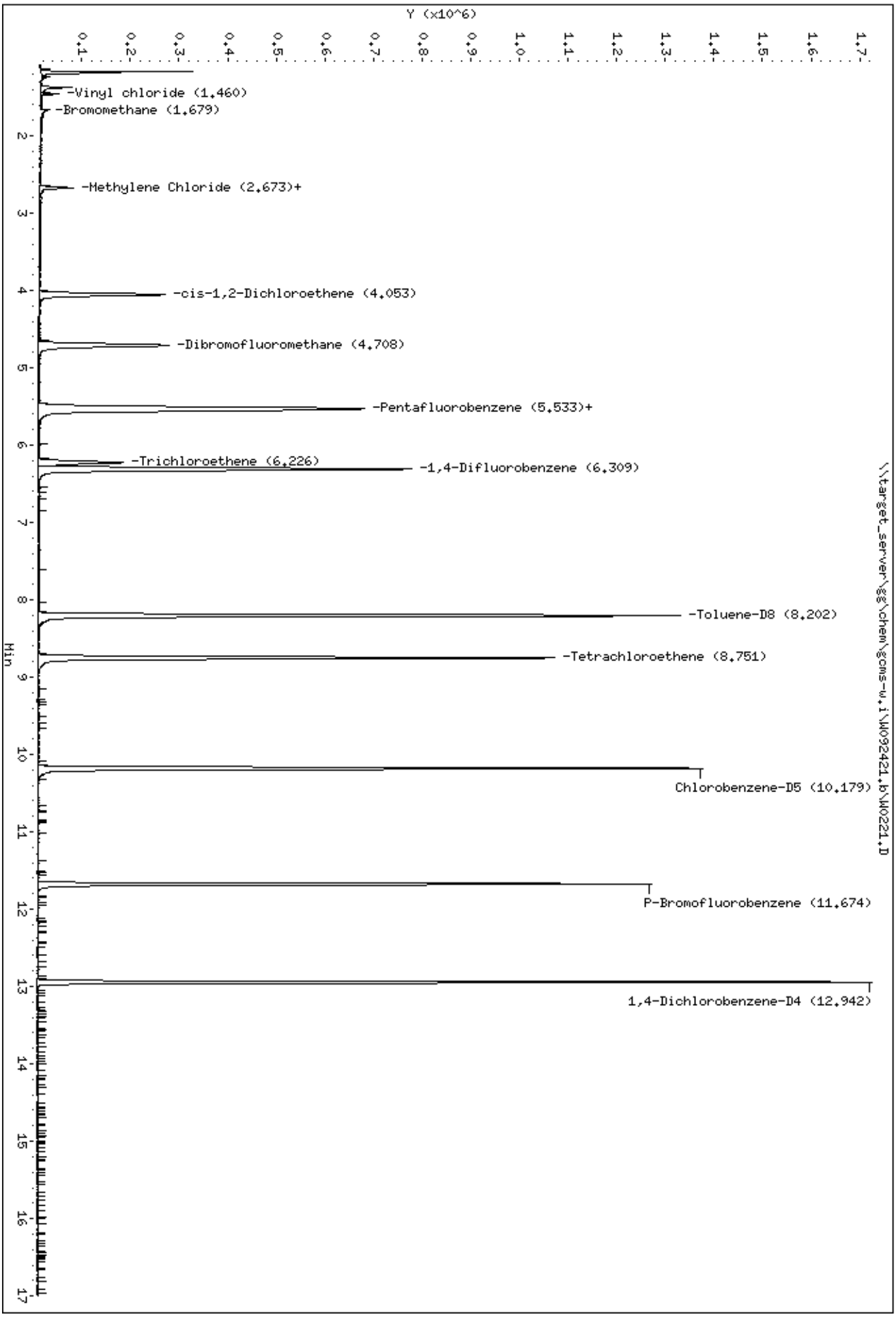
Name	Value	Description
DF	100.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

10:25 am, Oct 12, 2021

		Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)	REVIEW CODE
	3	Vinyl chloride	62	1.460	1.460	(0.264)	18951	2.59148	259	
	4	Bromomethane	94	1.678	1.672	(0.304)	1705	0.70423	70.4(a)	
	14	Methylene Chloride	84	2.670	2.673	(0.483)	27542	4.93867	494(a)	
	15	Acetone	43	2.724	2.722	(0.493)	5220	3.09035	309(aM)	M9
	27	cis-1,2-Dichloroethene	96	4.053	4.050	(0.734)	144406	25.8352	2580	
$	34	Dibromofluoromethane	113	4.707	4.714	(0.852)	253502	51.9389	51.9	
*	41	Pentafluorobenzene	168	5.522	5.520	(1.000)	483296	50.0000		
$	42	1,2-Dichloroethane-D4	65	5.548	5.549	(1.005)	359331	53.5008	53.5	
	47	Trichloroethene	95	6.225	6.226	(0.987)	78420	14.1722	1420	
*	48	1,4-Difluorobenzene	114	6.309	6.312	(1.000)	830708	50.0000		
$	58	Toluene-D8	98	8.202	8.202	(1.300)	1001045	50.2235	50.2	
	60	Tetrachloroethene	164	8.747	8.751	(0.859)	284832	64.3717	6440	
*	68	Chlorobenzene-D5	117	10.179	10.182	(1.000)	810110	50.0000		
$	77	P-Bromofluorobenzene	95	11.674	11.674	(1.850)	424543	48.8437	48.8	
*	93	1,4-Dichlorobenzene-D4	152	12.945	12.942	(1.000)	412305	50.0000		
M	97	1,2-Dichloroethylene (total)	96				144406	25.8352	2580	

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.


Data File: \\target_server\gg\chem\gcms-w.i\W092421.b\W0221.D
Date : 24-SEP-2021 16:09
Client ID: VA-MW-83-2(20210916
Sample Info: SD6313-26DL
Instrument: gcms-w.i
\\target_server\gg\chem\gcms-w.i\W092421.b\W0221.D
Y (x10^6)
Min
-Vinyl chloride (1.460)
-Bromomethane (1.679)
-Methylene Chloride (2.673)+
-cis-1,2-Dichloroethene (4.053)
-Dibromofluoromethane (4.708)
-Pentafluorobenzene (5.533)+
-Trichloroethene (6.226)
-1,4-Difluorobenzene (6.309)
-Toluene-D8 (8.202)
-Tetrachloroethene (8.751)
Chlorobenzene-D5 (10.179)
P-Bromofluorobenzene (11.674)
1,4-Dichlorobenzene-D4 (12.942)

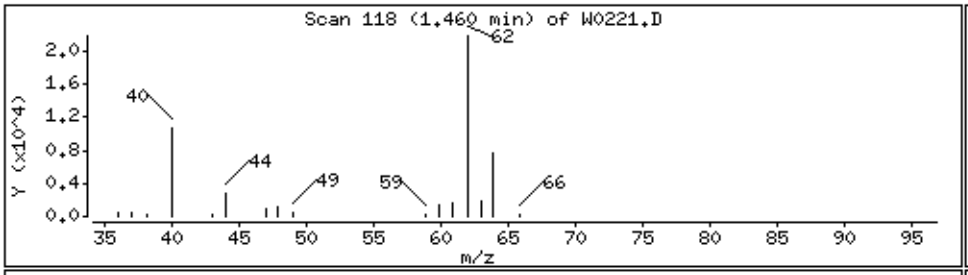
Data File: \\target_server\gg\chem\gcms-w.i\W092421.b\W0221.D

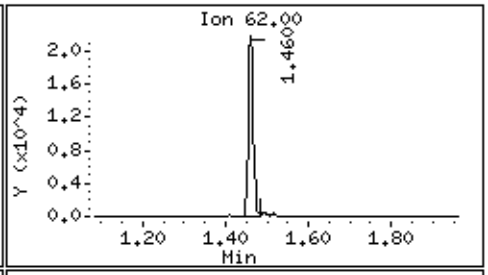
Date : 24-SEP-2021 16:09

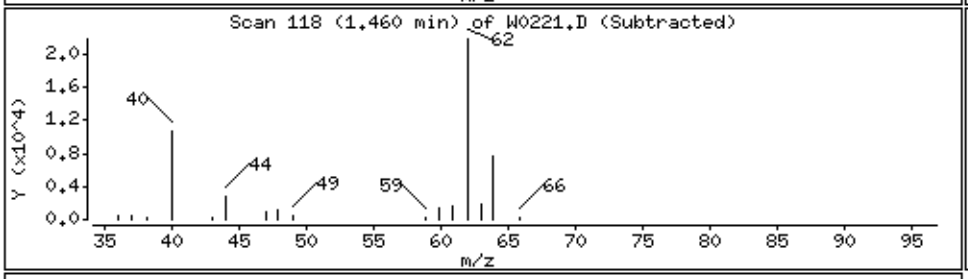
Client ID: VA-MW-83-2(20210916 Instrument: gcms-w.i

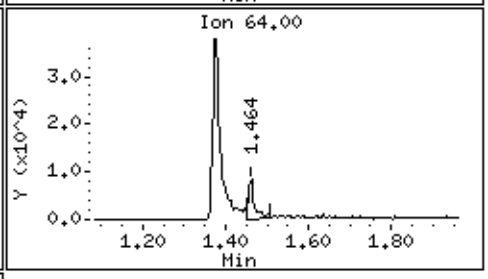
Sample Info: S06313-26DL

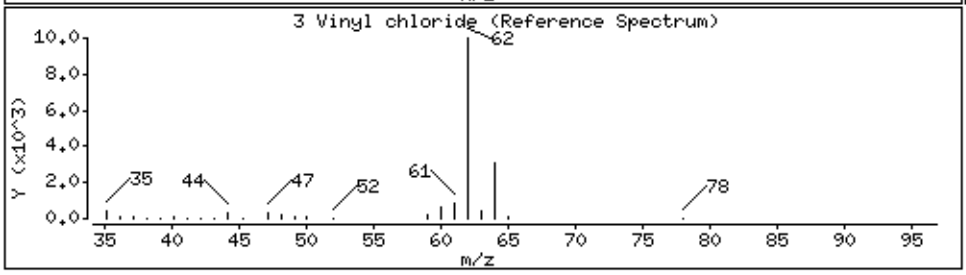
3 Vinyl chloride Concentration: 259 ug/l



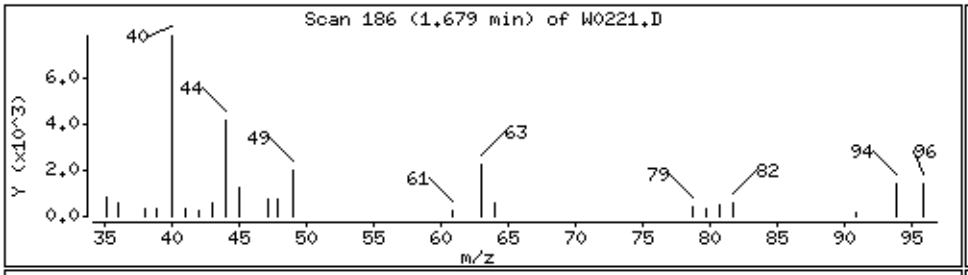


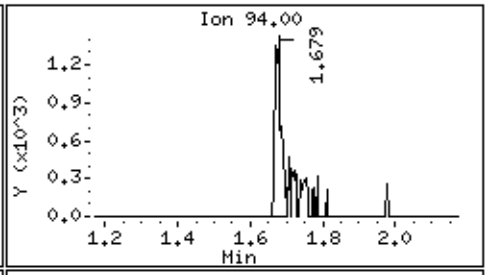


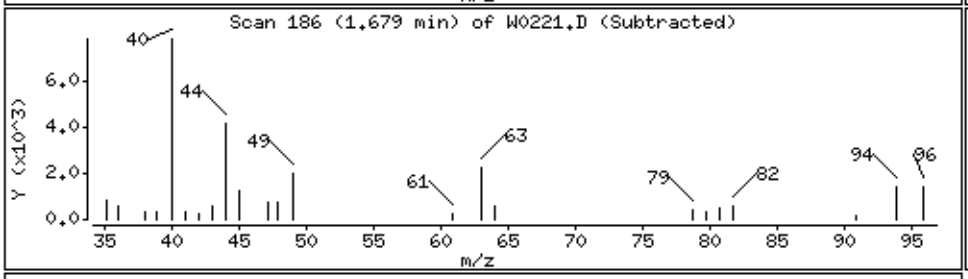


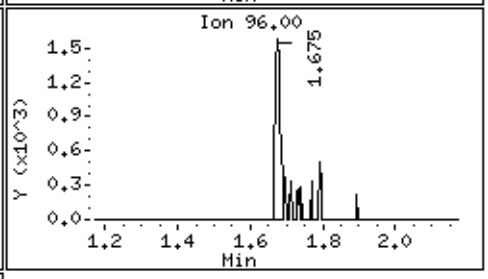


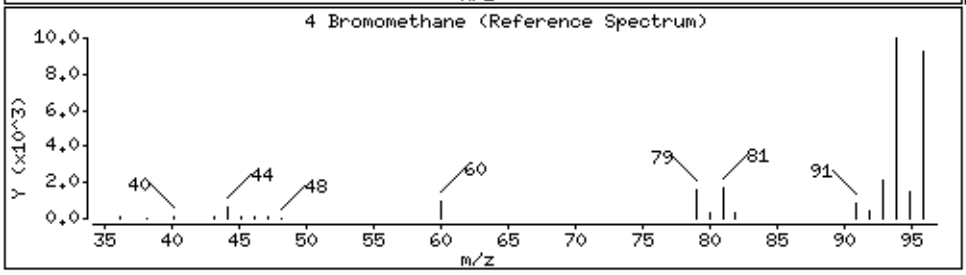
4 Bromomethane Concentration: 70.4 ug/l











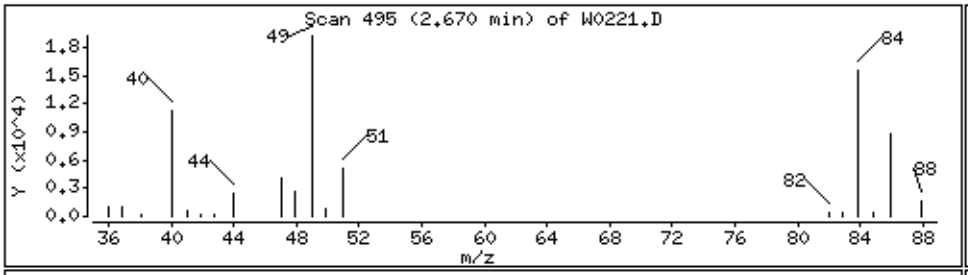
Data File: \\target_server\gg\chem\gcms-w.i\W092421.b\W0221.D

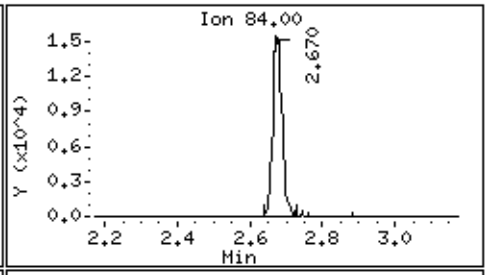
Date : 24-SEP-2021 16:09

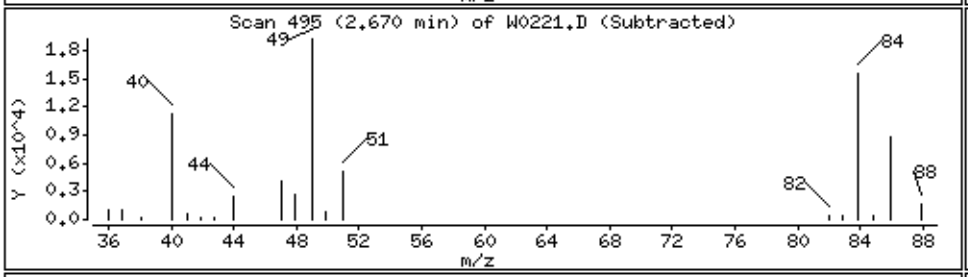
Client ID: VA-MW-83-2(20210916 Instrument: gcms-w.i

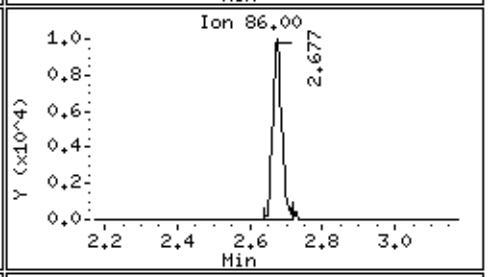
Sample Info: S06313-26DL

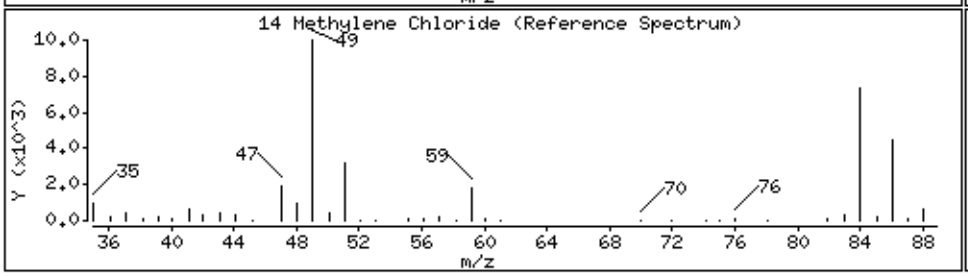
14 Methylene Chloride Concentration: 494 ug/l

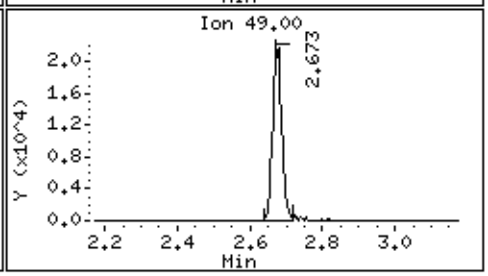




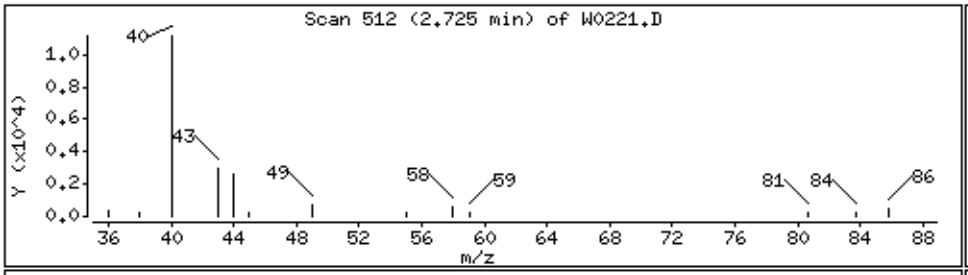


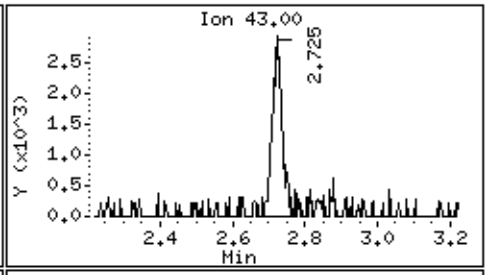


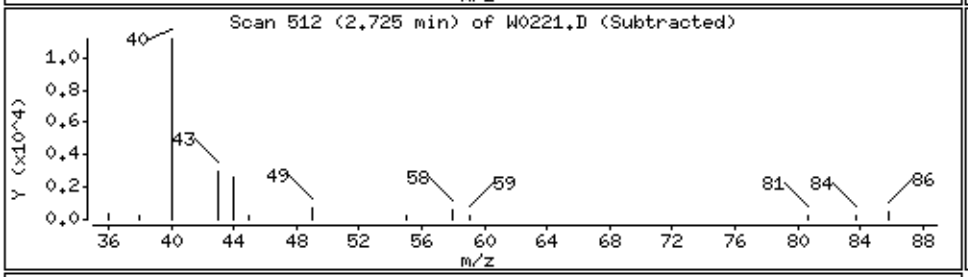


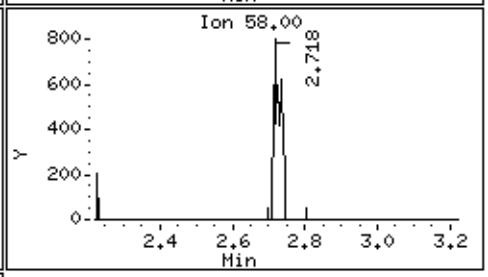


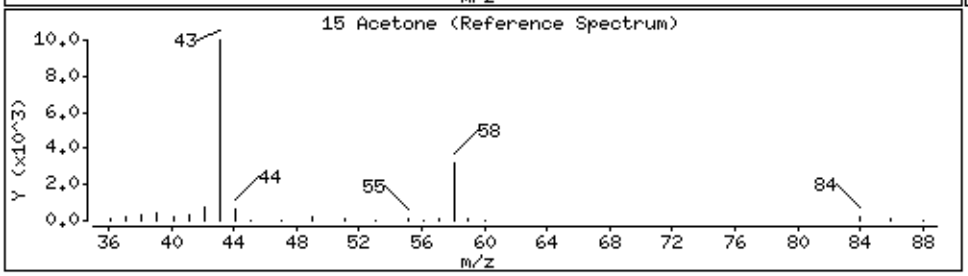
15 Acetone Concentration: 309 ug/l











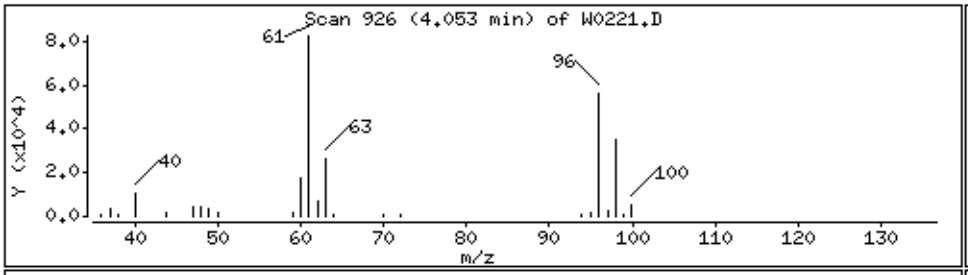
Data File: \\target_server\gg\chem\gcms-w.i\W092421.b\W0221.D

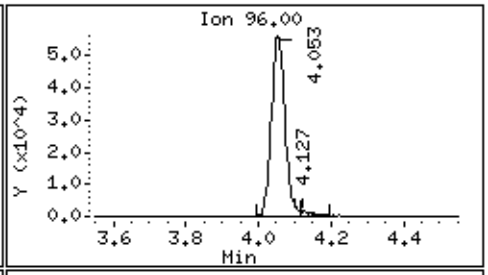
Date : 24-SEP-2021 16:09

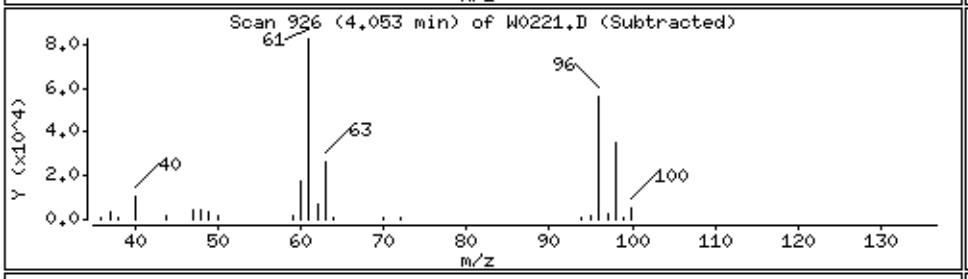
Client ID: VA-MW-83-2(20210916 Instrument: gcms-w.i

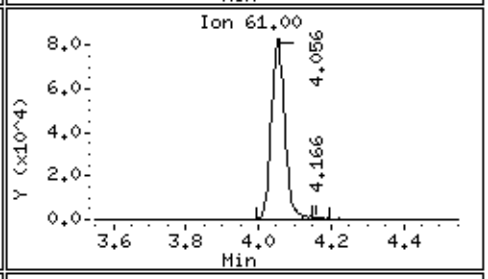
Sample Info: S06313-26DL

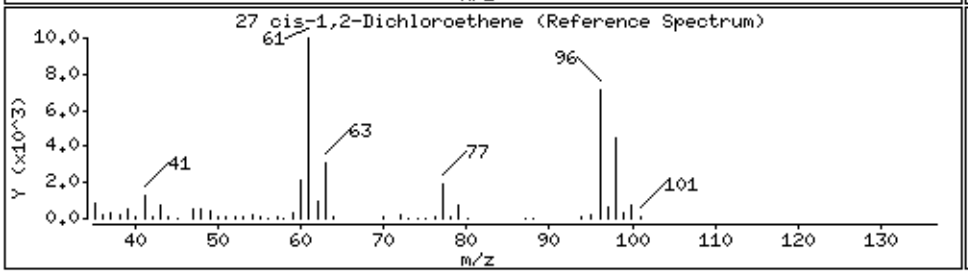
27 cis-1,2-Dichloroethene Concentration: 2580 ug/l

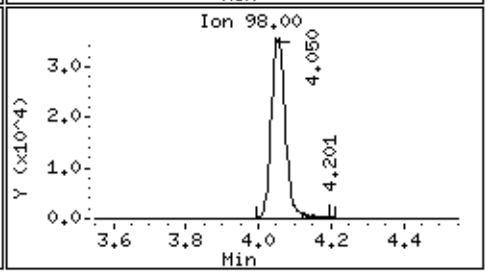




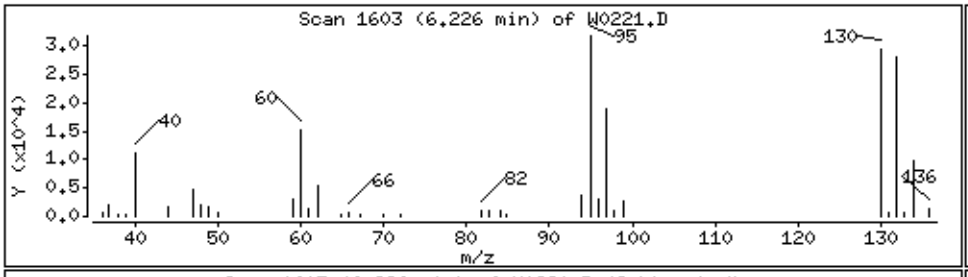


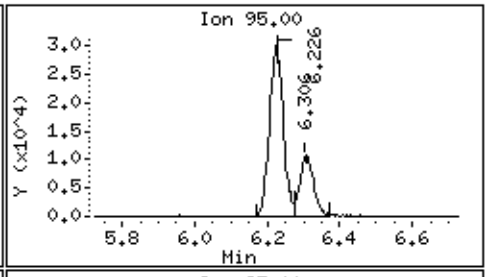


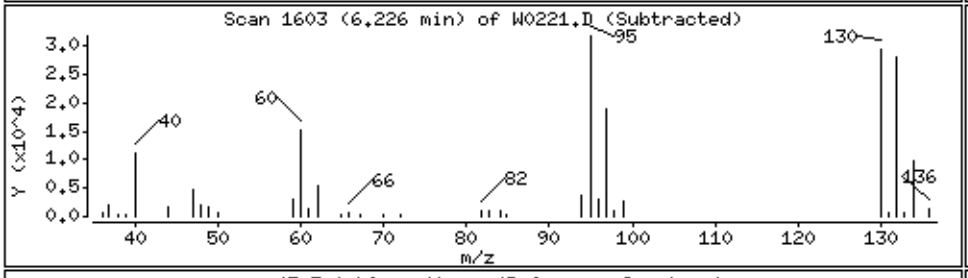


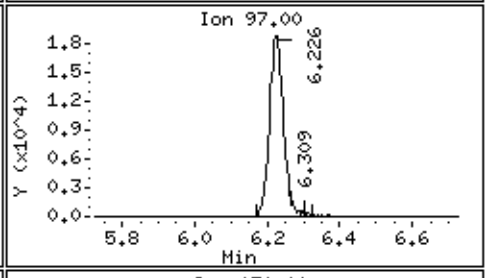


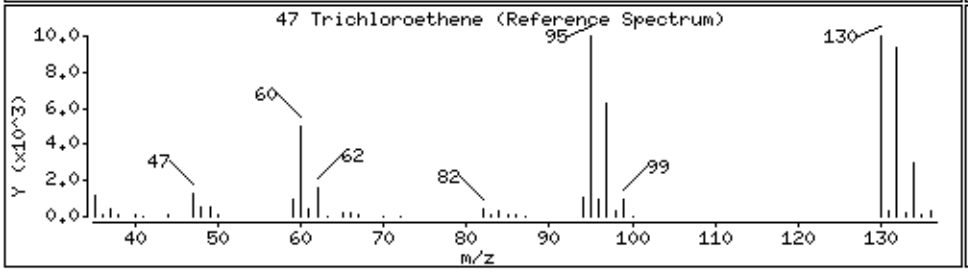
47 Trichloroethene Concentration: 1420 ug/l

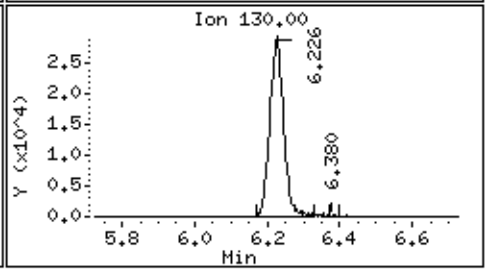












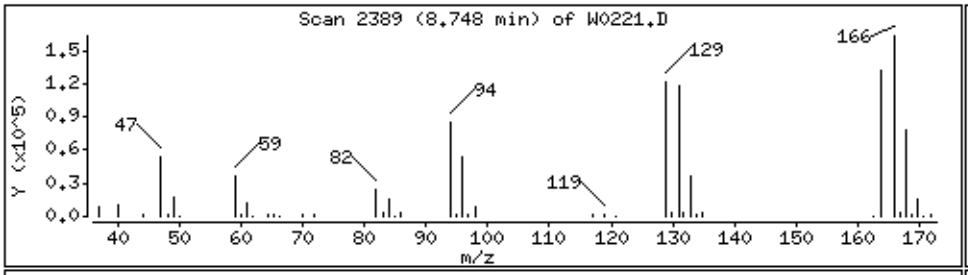
Data File: \\target_server\gg\chem\gcms-w.i\W092421.b\W0221.D

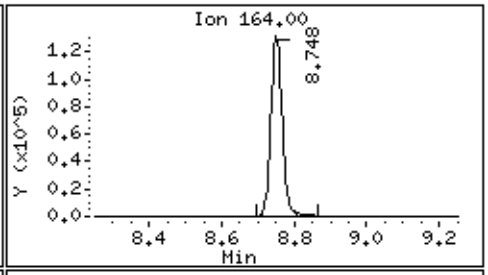
Date : 24-SEP-2021 16:09

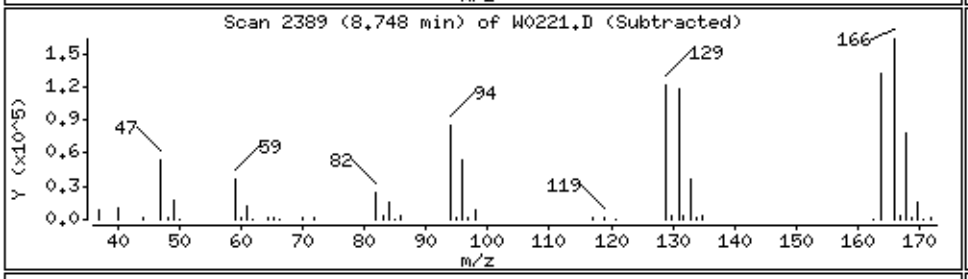
Client ID: VA-MW-83-2(20210916 Instrument: gcms-w.i

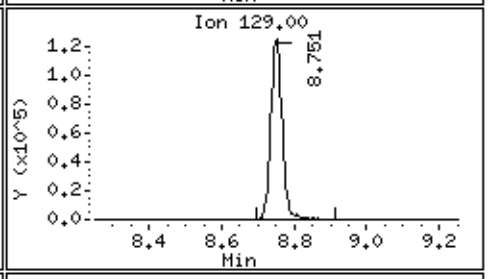
Sample Info: SO6313-26DL

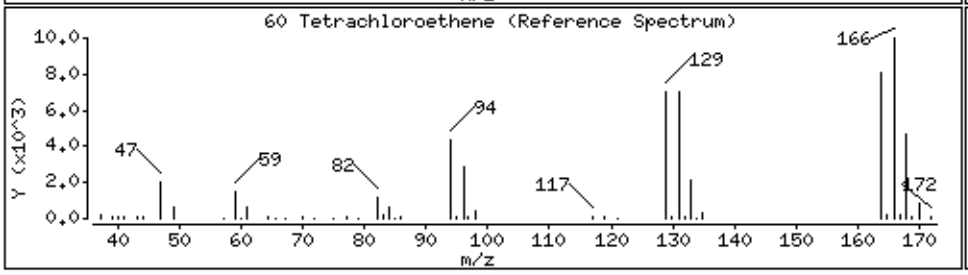
60 Tetrachloroethene Concentration: 6440 ug/l

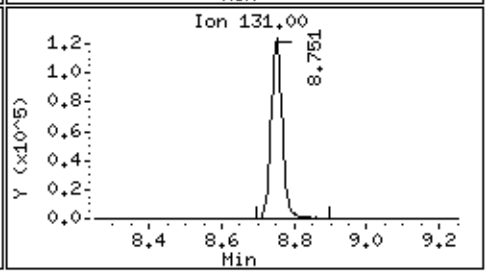












Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-26DL2
Client ID: WVA-MW-83-2(20210916)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0225.D

Sample Date: 16-SEP-21
Received Date: 18-SEP-21
Extract Date: 24-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306608

Analysis Date: 24-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	20.	ug/L	10	2	20.
Vinyl Chloride		250	ug/L	10	2	20.
Bromomethane	U	20.	ug/L	10	2	20.
Chloroethane	U	20.	ug/L	10	2	20.
Trichlorofluoromethane	U	20.	ug/L	10	2	20.
1,1-Dichloroethene	U	10.	ug/L	10	1	10.
Carbon Disulfide	U	10.	ug/L	10	1	10.
Methylene Chloride		52.	ug/L	10	5	50.
trans-1,2-Dichloroethene		18.	ug/L	10	1	10.
1,1-Dichloroethane	U	10.	ug/L	10	1	10.
cis-1,2-Dichloroethene	E	3000	ug/L	10	1	10.
Chloroform	U	10.	ug/L	10	1	10.
Carbon Tetrachloride	U	10.	ug/L	10	1	10.
1,1,1-Trichloroethane	U	10.	ug/L	10	1	10.
2-Butanone	U	50.	ug/L	10	5	50.
Benzene	U	10.	ug/L	10	1	10.
1,2-Dichloroethane	U	10.	ug/L	10	1	10.
Trichloroethene	E	1500	ug/L	10	1	10.
1,2-Dichloropropane	U	10.	ug/L	10	1	10.
Bromodichloromethane	U	10.	ug/L	10	1	10.
cis-1,3-Dichloropropene	U	10.	ug/L	10	1	10.
Toluene	U	10.	ug/L	10	1	10.
4-Methyl-2-Pentanone	U	50.	ug/L	10	5	50.
Tetrachloroethene	E	7400	ug/L	10	1	10.
trans-1,3-Dichloropropene	U	10.	ug/L	10	1	10.
1,1,2-Trichloroethane	U	10.	ug/L	10	1	10.
Dibromochloromethane	U	10.	ug/L	10	1	10.
Chlorobenzene	U	10.	ug/L	10	1	10.
Ethylbenzene	U	10.	ug/L	10	1	10.
m+p-Xylenes	U	20.	ug/L	10	2	20.
o-Xylene	U	10.	ug/L	10	1	10.
Bromoform	U	10.	ug/L	10	1	10.
1,1,2,2-Tetrachloroethane	U	10.	ug/L	10	1	10.
P-Bromofluorobenzene		95.1	%			
Toluene-d8		98.0	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-26DL2
Client ID: WVA-MW-83-2(20210916)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0225.D

Sample Date: 16-SEP-21
Received Date: 18-SEP-21
Extract Date: 24-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306608

Analysis Date: 24-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		112.	%			
Dibromofluoromethane		104.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Data File: \\target_server\gg\chem\gcms-w.i\W092421.b\W0225.D
Report Date: 12-Oct-2021 08:56

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-w.i\W092421.b\W0225.D
Lab Smp Id: SO6313-26DL2 Client Smp ID: VA-MW-83-2(20210916
Inj Date : 24-SEP-2021 18:12
Operator : ES Inst ID: gcms-w.i
Smp Info : SO6313-26DL2
Misc Info : WG306608,WG306608-4
Comment : SW846 5030
Method : \\target_server\gg\chem\gcms-w.i\W092421.b\W8A05(08A).m
Meth Date : 08-Oct-2021 09:51 gcms-w.i Quant Type: ISTD
Cal Date : 24-SEP-2021 11:36 Cal File: W0215.D
Als bottle: 20
Dil Factor: 10.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.12

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	10.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

10:25 am, Oct 12, 2021

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)	REVIEW CODE
	3 Vinyl chloride	62	1.460	1.460	(0.264)	168491	24.6979	247(M)	M10
	8 1,1-Dichloroethene	96	2.211	2.211	(0.400)	3089	0.62877	6.3(a)	
	14 Methylene Chloride	84	2.676	2.673	(0.485)	26775	5.14650	51.5	
	15 Acetone	43	2.728	2.722	(0.494)	6423	4.07607	40.8(aM)	M10
	16 trans-1,2-Dichloroethene	96	2.811	2.811	(0.509)	9065	1.75788	17.6	
	27 cis-1,2-Dichloroethene	96	4.056	4.050	(0.734)	1577172	302.464	3020(A)	
$	34 Dibromofluoromethane	113	4.711	4.714	(0.853)	236898	52.0284	52.0	
*	41 Pentafluorobenzene	168	5.523	5.520	(1.000)	450864	50.0000		
$	42 1,2-Dichloroethane-D4	65	5.548	5.549	(1.005)	349786	55.8259	55.8	
	47 Trichloroethene	95	6.229	6.226	(0.987)	815006	151.919	1520(A)	
*	48 1,4-Difluorobenzene	114	6.312	6.312	(1.000)	805390	50.0000		
$	58 Toluene-D8	98	8.205	8.202	(1.300)	947166	49.0142	49.0	
	60 Tetrachloroethene	164	8.754	8.751	(0.860)	3096325	738.174	7380(A)	
*	68 Chlorobenzene-D5	117	10.182	10.182	(1.000)	767959	50.0000		
$	77 P-Bromofluorobenzene	95	11.677	11.674	(1.850)	400615	47.5397	47.5	
*	93 1,4-Dichlorobenzene-D4	152	12.945	12.942	(1.000)	394485	50.0000		
M	97 1,2-Dichloroethylene (total)	96				1586237	304.221	3040	

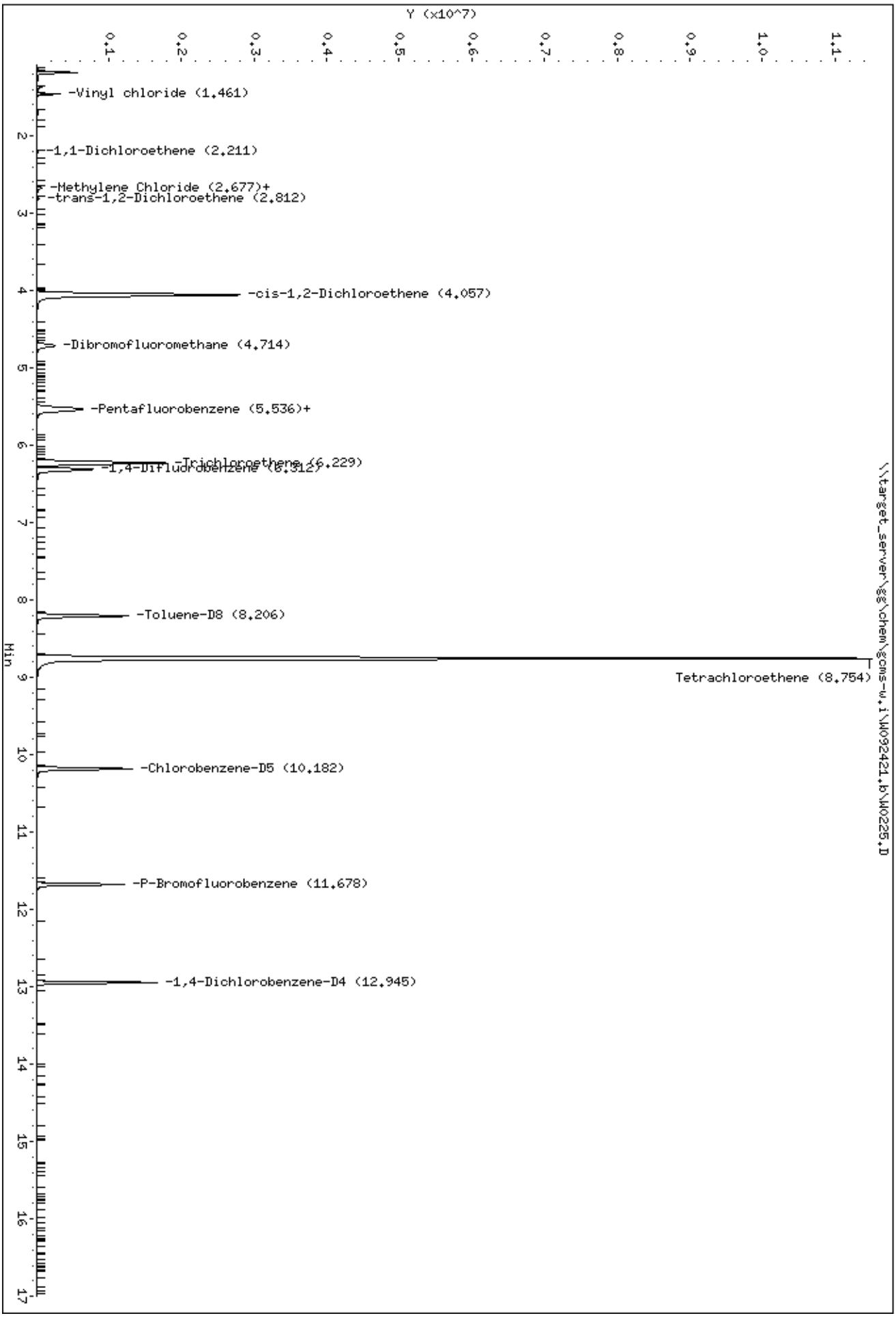
QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount
exceeded maximum amount.

Data File: \\target_server\gg\chem\gcms-w.i\W092421.b\W0225.D
Report Date: 12-Oct-2021 08:56

QC Flag Legend

M - Compound response manually integrated.


Y (x10^7)
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0
1.1
Min
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
-Vinyl chloride (1.461)
-1,1-Dichloroethene (2.211)
-Methylene Chloride (2.677)+
-trans-1,2-Dichloroethene (2.812)
-cis-1,2-Dichloroethene (4.057)
-Dibromofluoromethane (4.714)
-Pentafluorobenzene (5.536)+
-Trichloroethene (6.229)
-1,4-Difluorobenzene (6.312)
-Toluene-D8 (8.206)
Tetrachloroethene (8.754)
-Chlorobenzene-D5 (10.182)
-P-Bromofluorobenzene (11.678)
-1,4-Dichlorobenzene-D4 (12.945)
\\target_server\gg\chem\gcms-w.i\W092421.b\W0225.D
Data File: \\target_server\gg\chem\gcms-w.i\W092421.b\W0225.D
Date : 24-SEP-2021 18:12
Client ID: VA-MW-83-2(20210916
Sample Info: SD6313-26DL2
Instrument: gcms-w.i

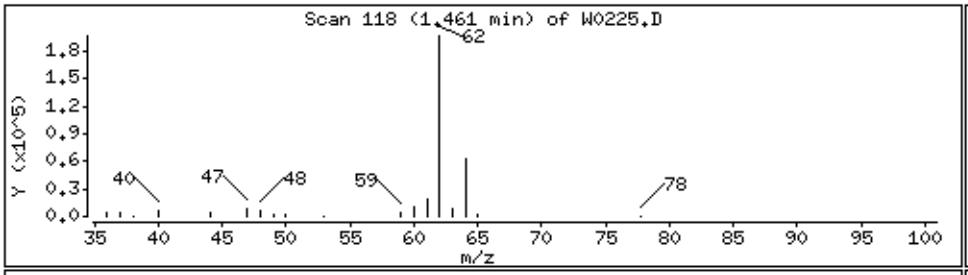
Data File: \\target_server\gg\chem\gcms-w.i\W092421.b\W0225.D

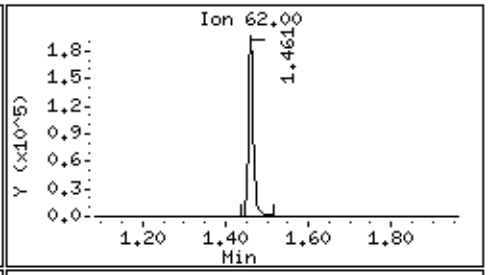
Date : 24-SEP-2021 18:12

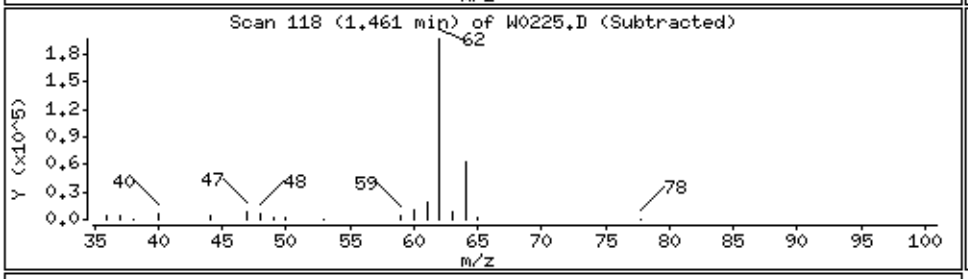
Client ID: VA-MW-83-2(20210916 Instrument: gcms-w.i

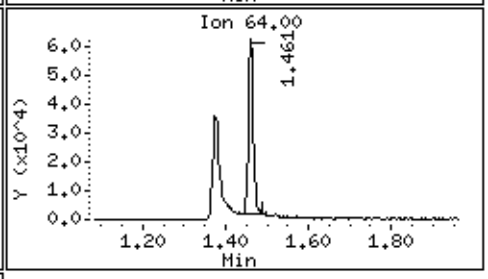
Sample Info: S06313-26DL2

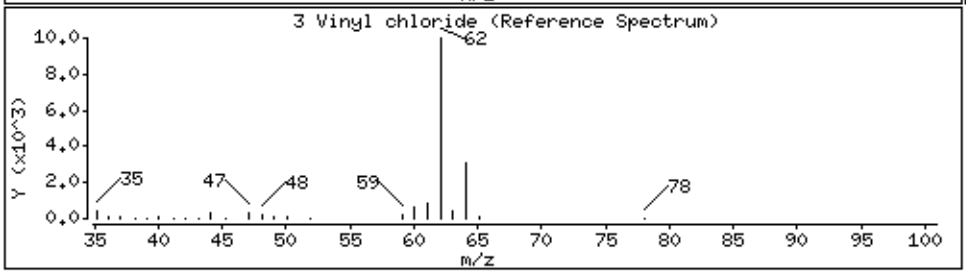
3 Vinyl chloride Concentration: 247 ug/l



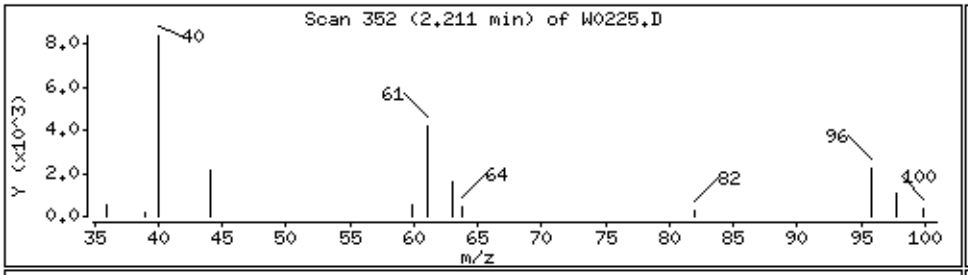


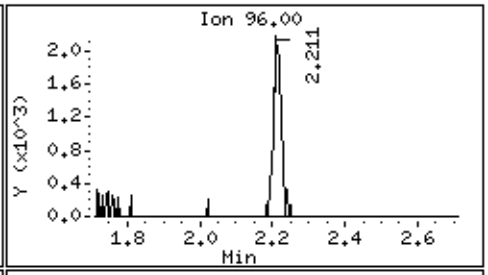


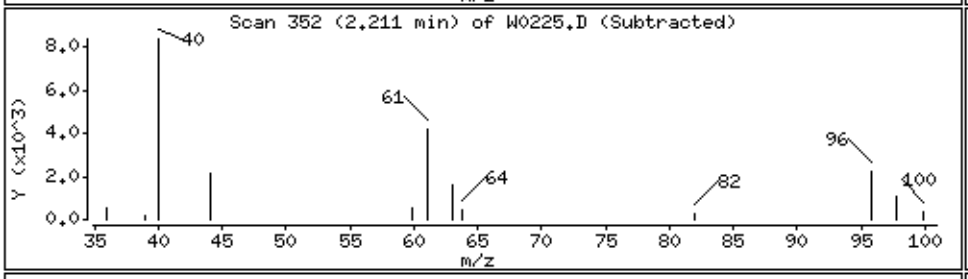


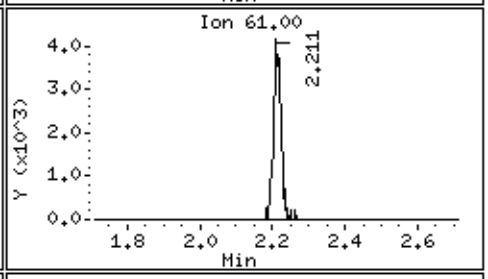


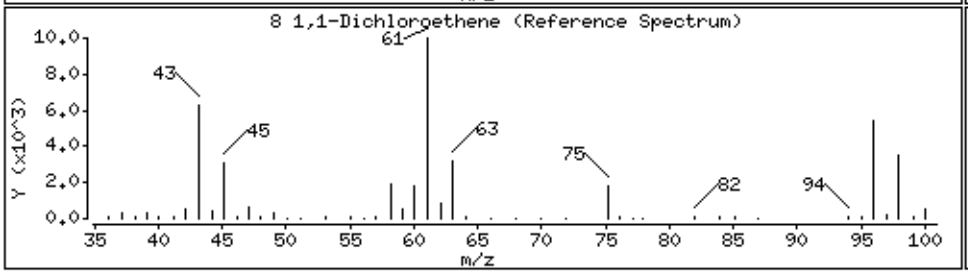
8 1,1-Dichloroethene Concentration: 6.3 ug/l

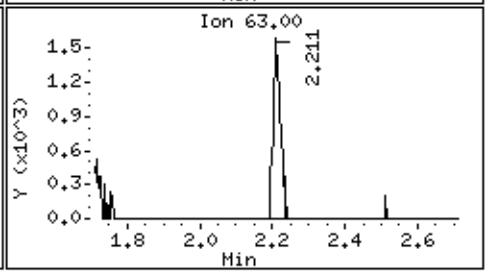












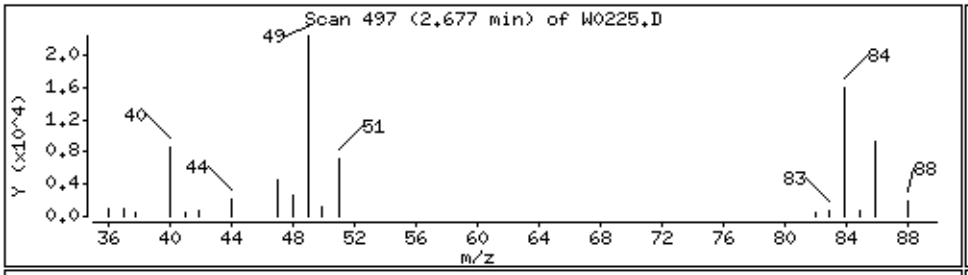
Data File: \\target_server\gg\chem\gcms-w.i\W092421.b\W0225.D

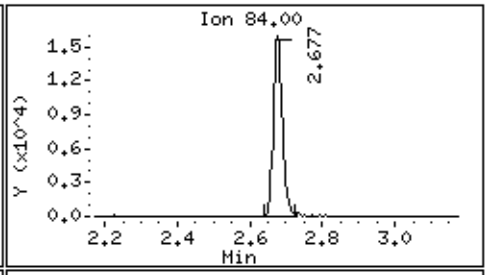
Date : 24-SEP-2021 18:12

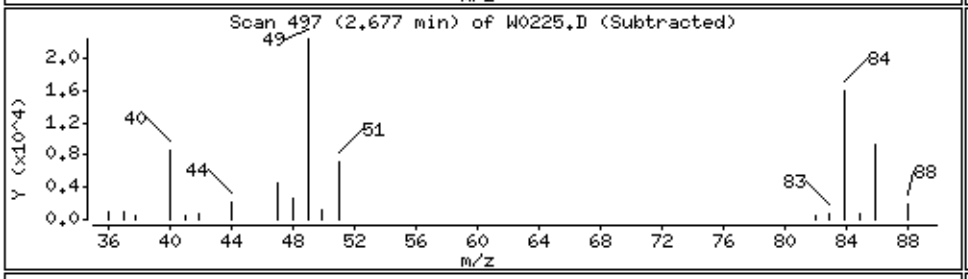
Client ID: VA-MW-83-2(20210916 Instrument: gcms-w.i

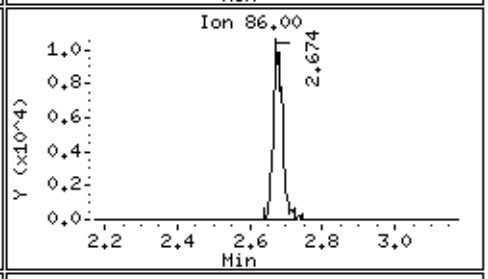
Sample Info: S06313-26DL2

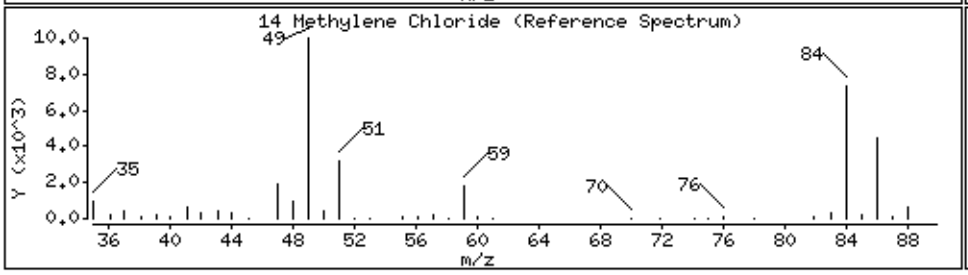
14 Methylene Chloride Concentration: 51.5 ug/l

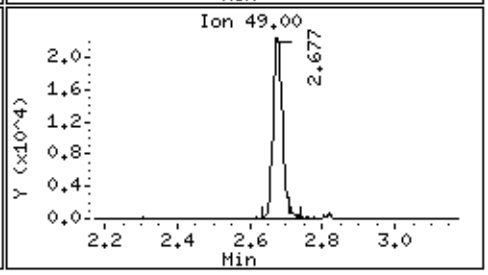




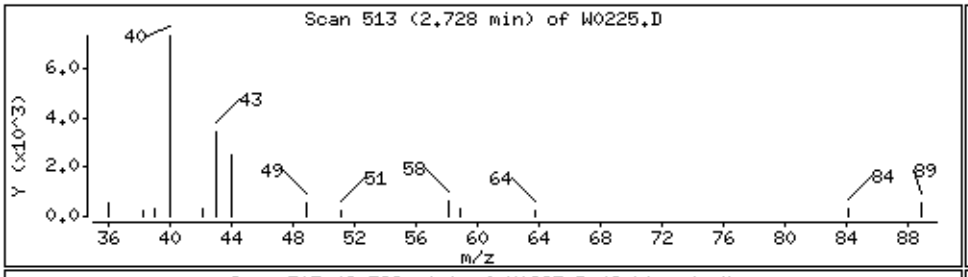


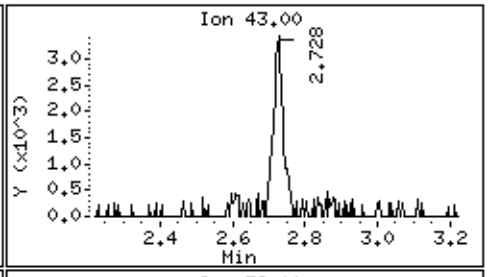


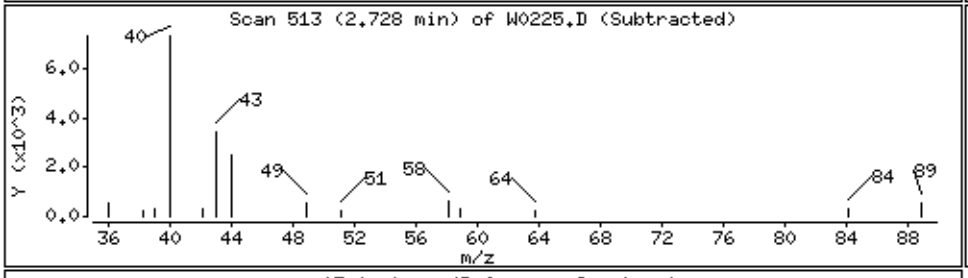


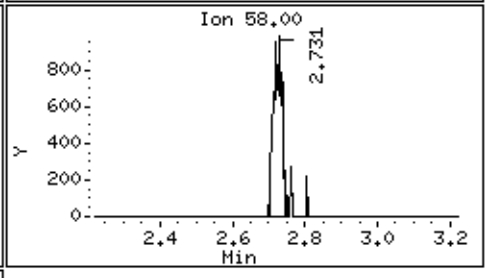


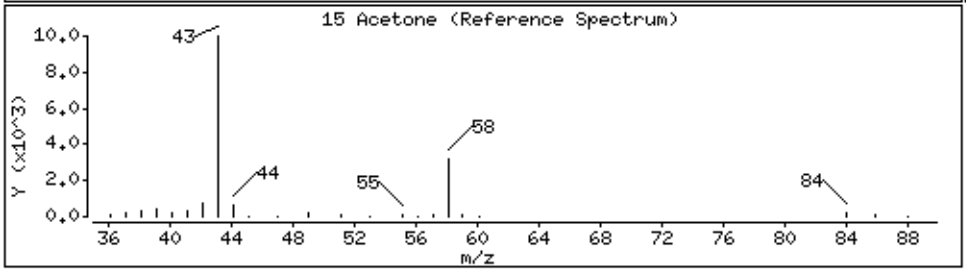
15 Acetone Concentration: 40.8 ug/l











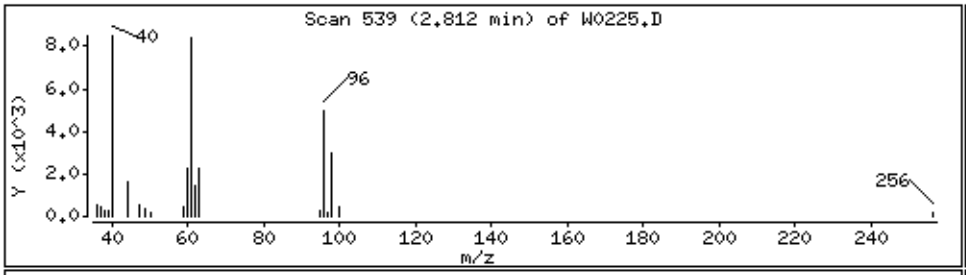
Data File: \\target_server\gg\chem\gcms-w.i\W092421.b\W0225.D

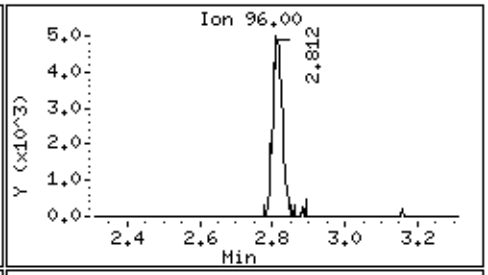
Date : 24-SEP-2021 18:12

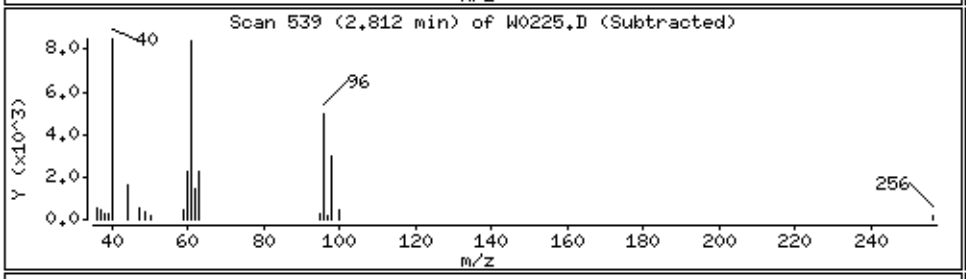
Client ID: VA-MW-83-2(20210916 Instrument: gcms-w.i

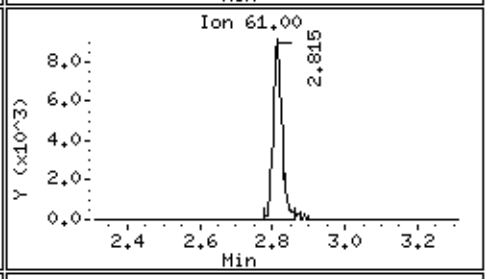
Sample Info: S06313-26DL2

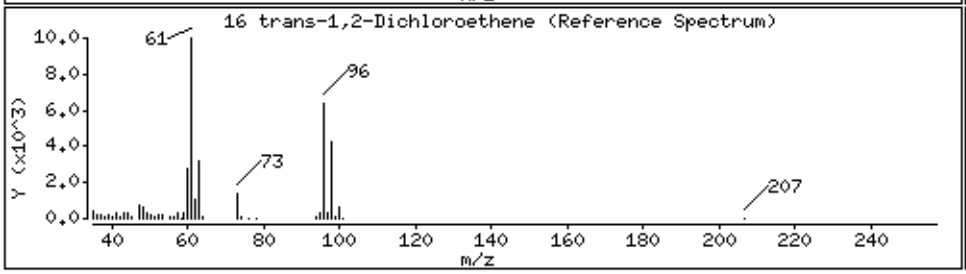
16 trans-1,2-Dichloroethene Concentration: 17.6 ug/l

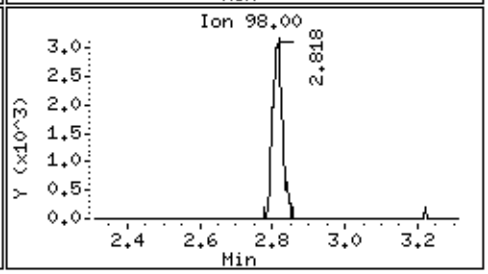




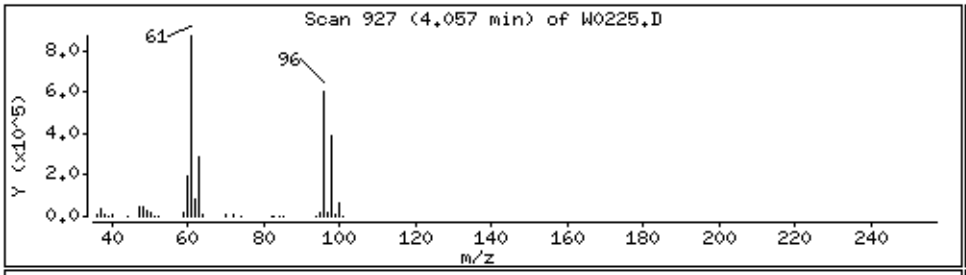


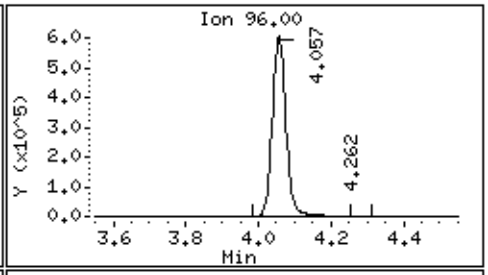


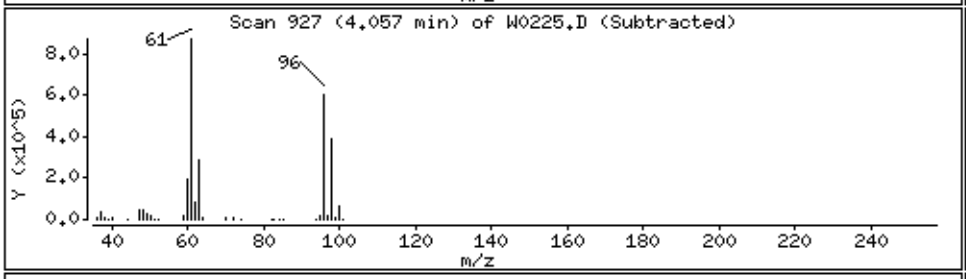


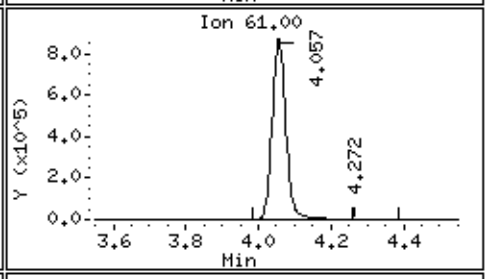


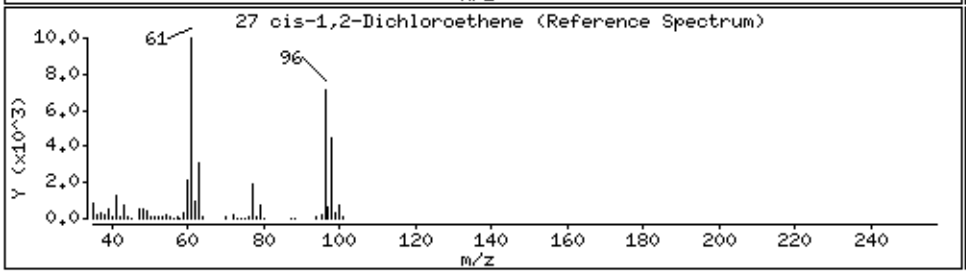
27 cis-1,2-Dichloroethene Concentration: 3020 ug/l

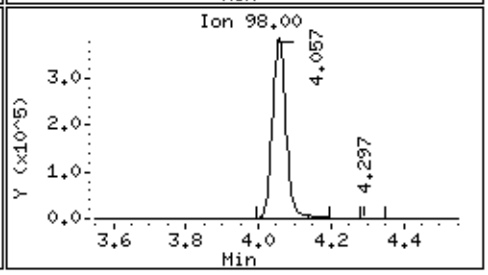












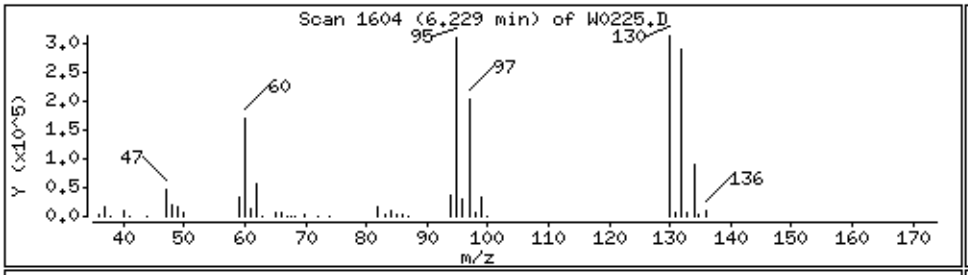
Data File: \\target_server\gg\chem\gcms-w.i\W092421.b\W0225.D

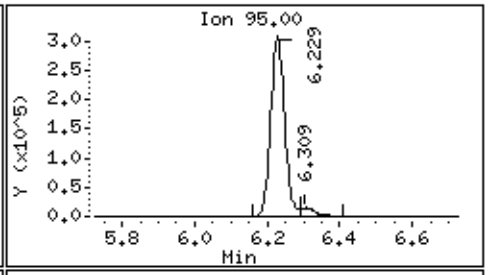
Date : 24-SEP-2021 18:12

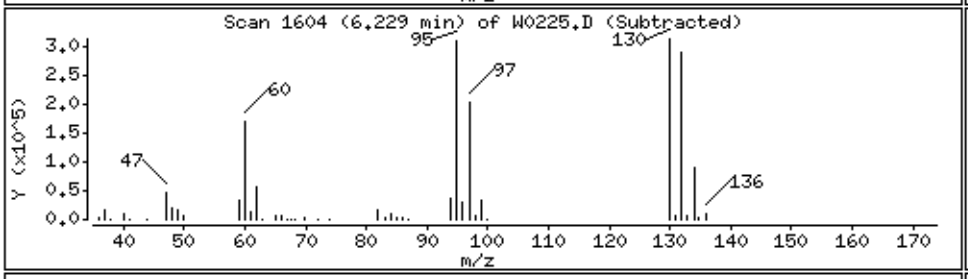
Client ID: VA-MW-83-2(20210916 Instrument: gcms-w.i

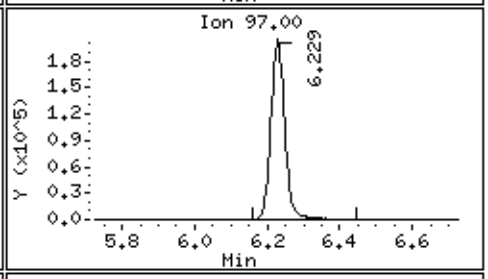
Sample Info: S06313-26DL2

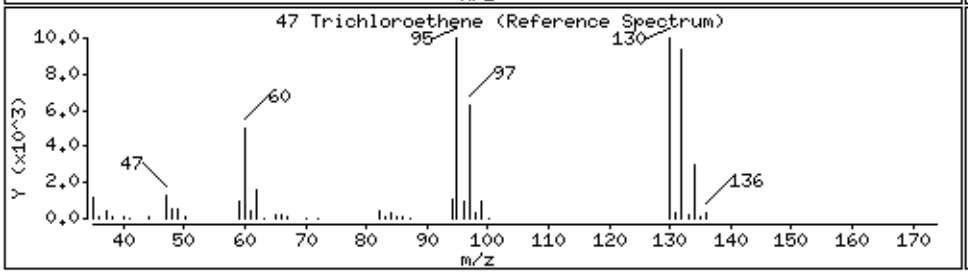
47 Trichloroethene Concentration: 1520 ug/l

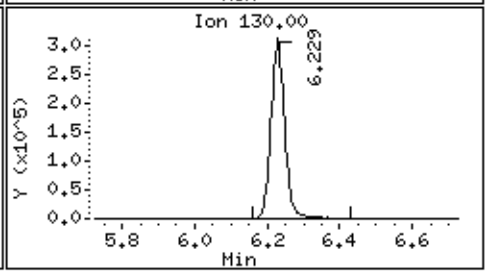




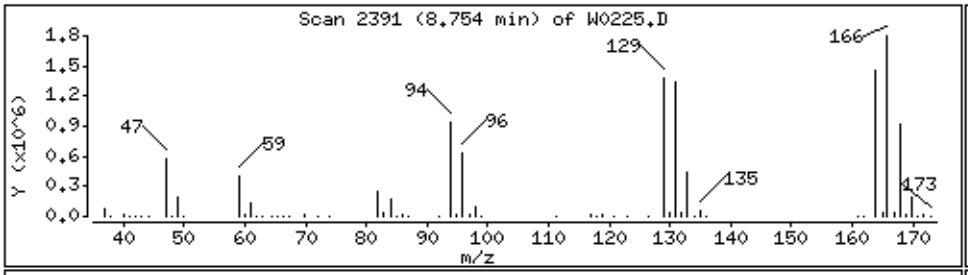


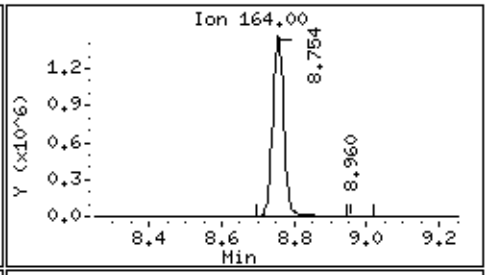


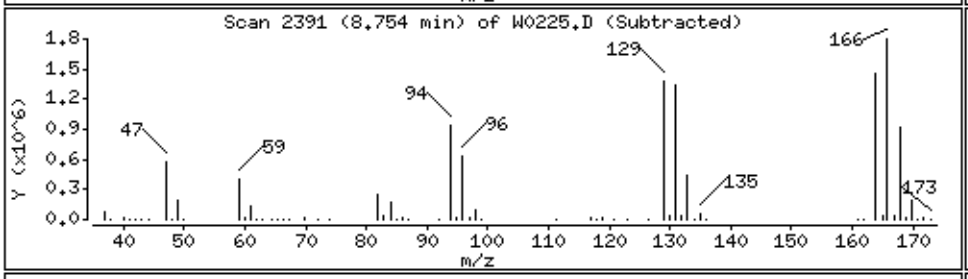


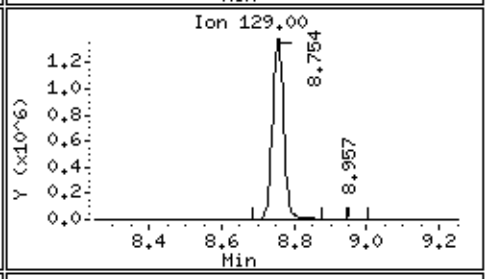


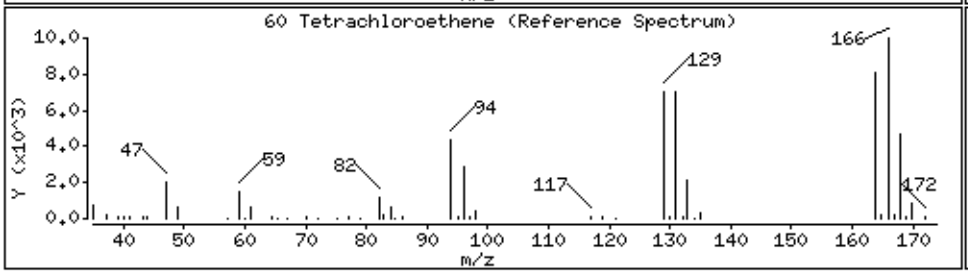
60 Tetrachloroethene Concentration: 7380 ug/l

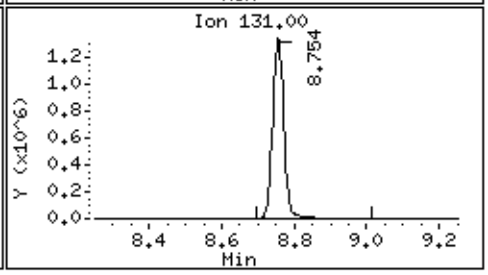








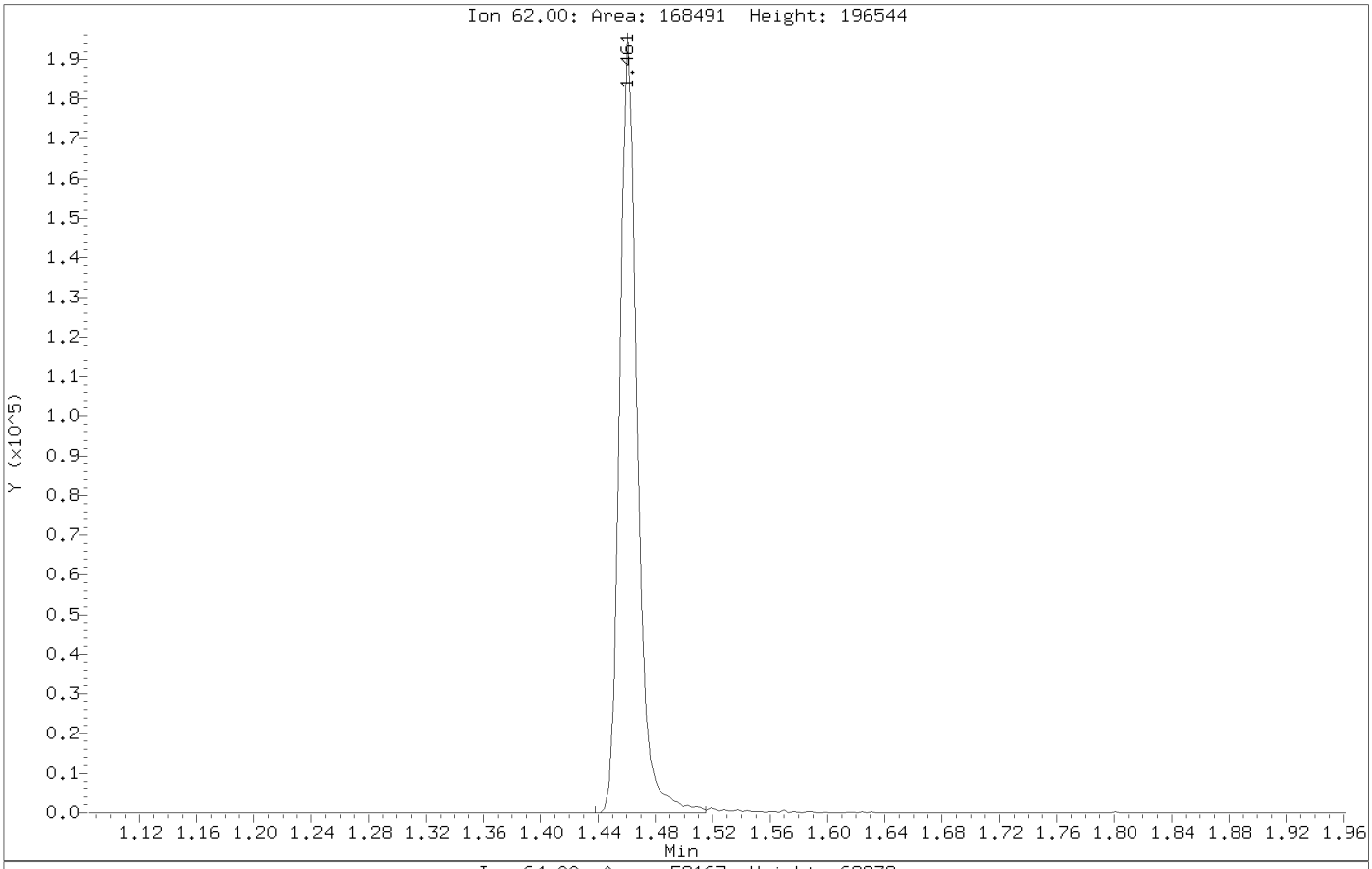


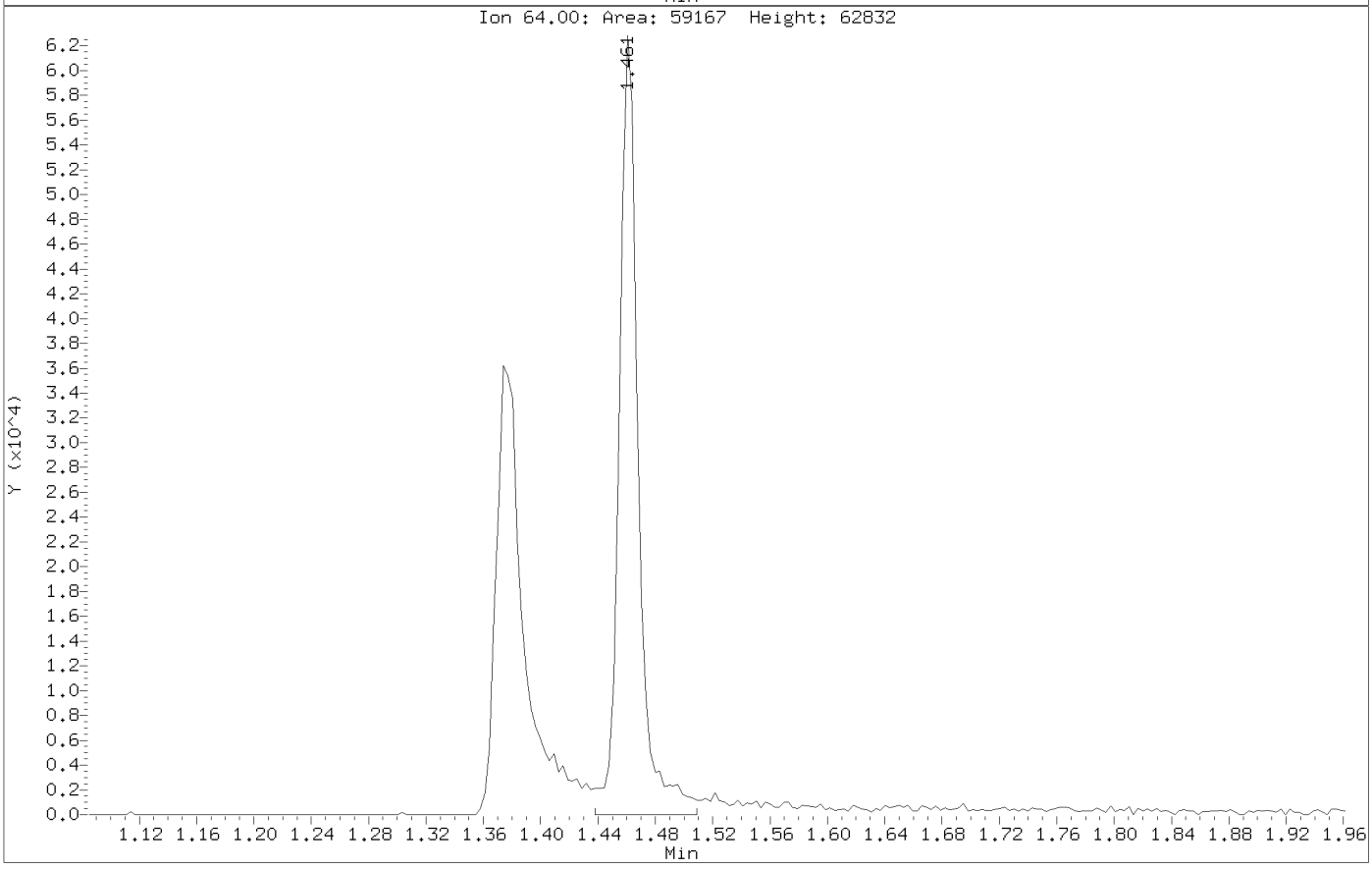


BEFORE MANUAL INTEGRATION

Data File: \\target_server\gg\chem\gcms-w.i\W092421.b\W0225.D
Injection Date: 24-SEP-2021 18:12
Instrument: gcms-w.i
Client Sample ID: VA-MW-83-2(20210916

Compound: Vinyl chloride
CAS Number: 75-01-4

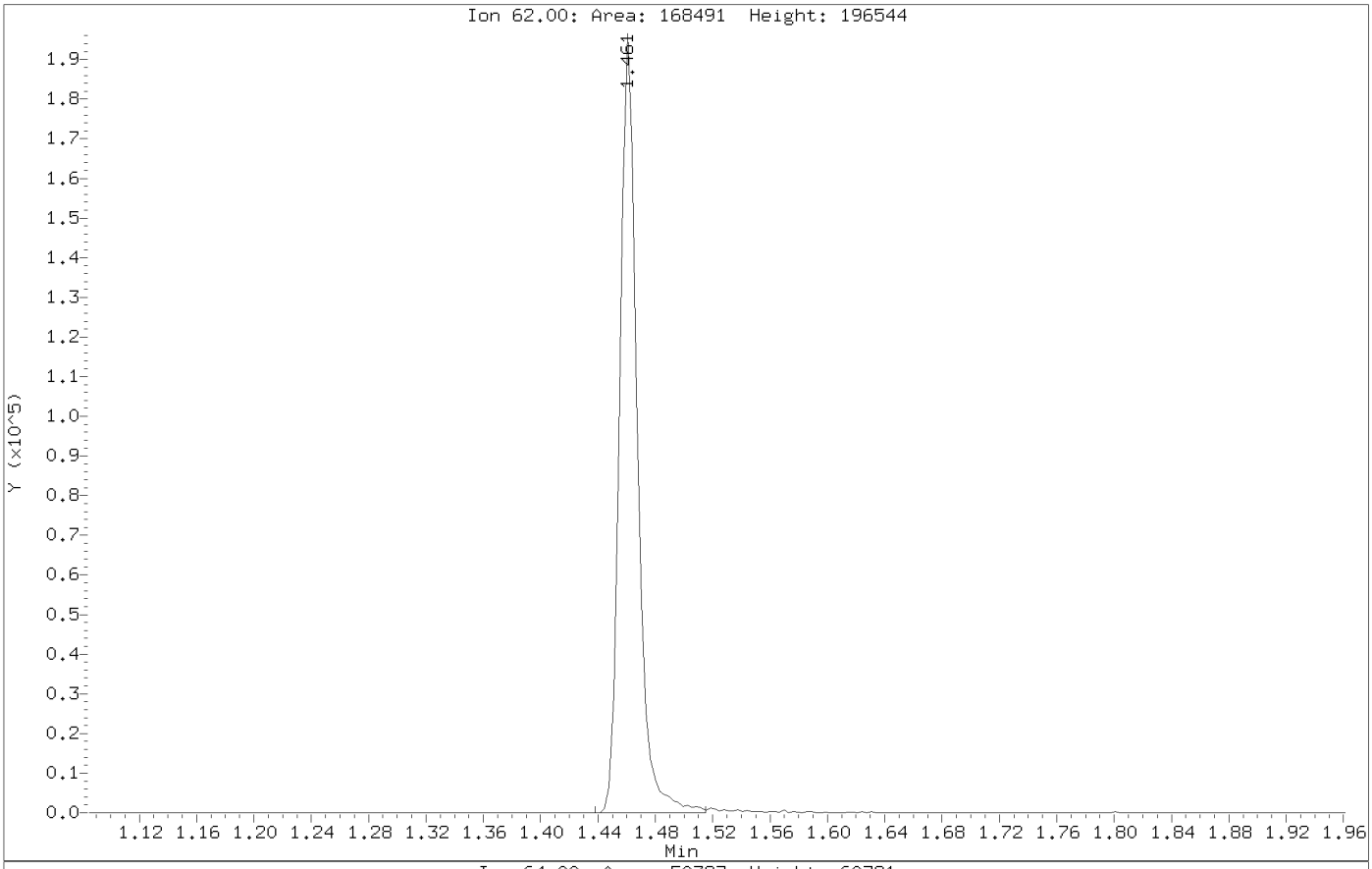


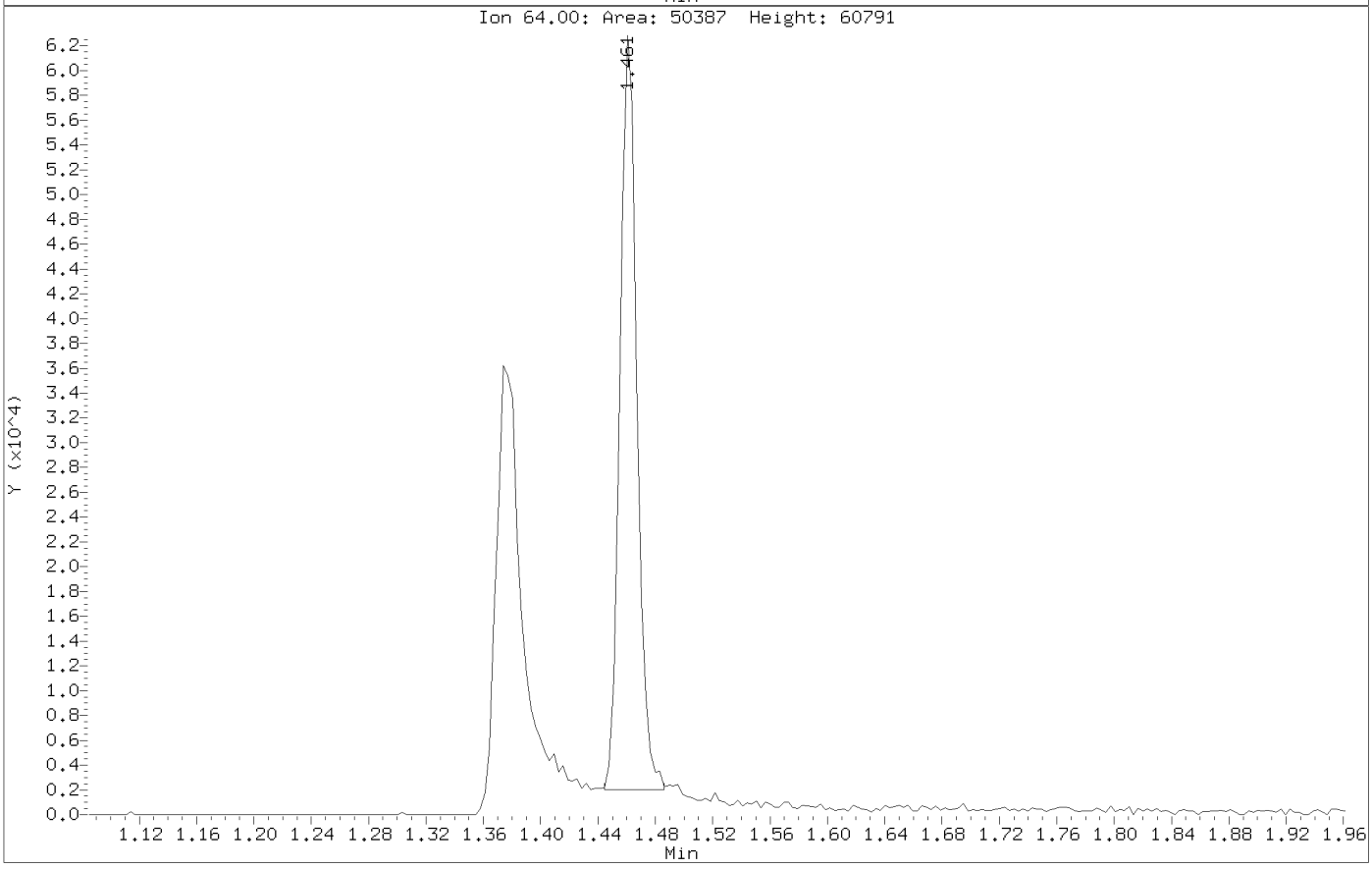


AFTER MANUAL INTEGRATION

Data File: \\target_server\gg\chem\gcms-w.i\W092421.b\W0225.D
Injection Date: 24-SEP-2021 18:12
Instrument: gcms-w.i
Client Sample ID: VA-MW-83-2(20210916

Compound: Vinyl chloride
CAS Number: 75-01-4





Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-27
Client ID: WVA-MW-83-3(20210916)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0198.D

Sample Date: 16-SEP-21
Received Date: 18-SEP-21
Extract Date: 23-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306545

Analysis Date: 23-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	2.0	ug/L	1	2	2.0
Vinyl Chloride	E	470	ug/L	1	2	2.0
Bromomethane	U	2.0	ug/L	1	2	2.0
Chloroethane	U	2.0	ug/L	1	2	2.0
Trichlorofluoromethane	U	2.0	ug/L	1	2	2.0
1,1-Dichloroethene	U	1.0	ug/L	1	1	1.0
Carbon Disulfide	U	1.0	ug/L	1	1	1.0
Methylene Chloride	U	5.0	ug/L	1	5	5.0
trans-1,2-Dichloroethene		4.0	ug/L	1	1	1.0
1,1-Dichloroethane	U	1.0	ug/L	1	1	1.0
cis-1,2-Dichloroethene	E	390	ug/L	1	1	1.0
Chloroform	U	1.0	ug/L	1	1	1.0
Carbon Tetrachloride	U	1.0	ug/L	1	1	1.0
1,1,1-Trichloroethane	U	1.0	ug/L	1	1	1.0
2-Butanone	U	5.0	ug/L	1	5	5.0
Benzene	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethane	U	1.0	ug/L	1	1	1.0
Trichloroethene		13.	ug/L	1	1	1.0
1,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Bromodichloromethane	U	1.0	ug/L	1	1	1.0
cis-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
Toluene	U	1.0	ug/L	1	1	1.0
4-Methyl-2-Pentanone	U	5.0	ug/L	1	5	5.0
Tetrachloroethene		15.	ug/L	1	1	1.0
trans-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
1,1,2-Trichloroethane	U	1.0	ug/L	1	1	1.0
Dibromochloromethane	U	1.0	ug/L	1	1	1.0
Chlorobenzene	U	1.0	ug/L	1	1	1.0
Ethylbenzene	U	1.0	ug/L	1	1	1.0
m+p-Xylenes	U	2.0	ug/L	1	2	2.0
o-Xylene	U	1.0	ug/L	1	1	1.0
Bromoform	U	1.0	ug/L	1	1	1.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
P-Bromofluorobenzene		103.	%			
Toluene-d8		101.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-27
Client ID: WVA-MW-83-3(20210916)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0198.D

Sample Date: 16-SEP-21
Received Date: 18-SEP-21
Extract Date: 23-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306545

Analysis Date: 23-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		119.	%			
Dibromofluoromethane		107.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Data File: \\target_server\gg\chem\gcms-w.i\W092321.b\W0198.D
Report Date: 12-Oct-2021 08:55

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-w.i\W092321.b\W0198.D
Lab Smp Id: SO6313-27 Client Smp ID: VA-MW-83-3(20210916
Inj Date : 23-SEP-2021 16:00
Operator : ES Inst ID: gcms-w.i
Smp Info : SO6313-27
Misc Info : WG306545,WG306545-4
Comment : SW846 5030
Method : \\target_server\gg\chem\gcms-w.i\W092321.b\W8A05(08).m
Meth Date : 11-Oct-2021 13:19 gcms-w.i Quant Type: ISTD
Cal Date : 20-SEP-2021 11:30 Cal File: W0105.D
Als bottle: 18
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.12

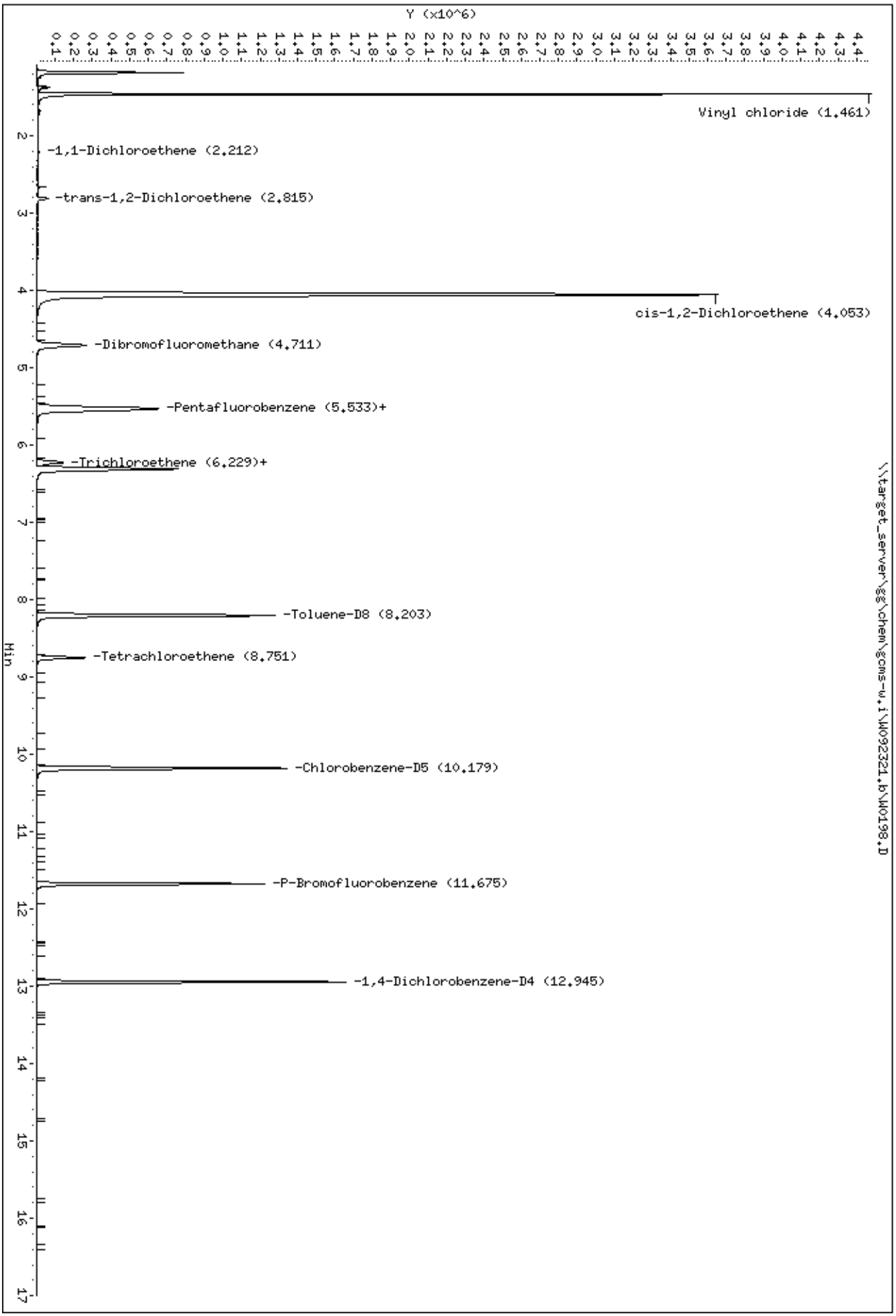
Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)	REVIEW CODE
3	Vinyl chloride	62	1.460	1.460	(0.264)	2354334	466.762	467(A)	
8	1,1-Dichloroethene	96	2.211	2.211	(0.400)	2811	0.61409	0.61(aH)	
16	trans-1,2-Dichloroethene	96	2.814	2.815	(0.510)	19448	4.00091	4.0	
27	cis-1,2-Dichloroethene	96	4.056	4.056	(0.734)	2041296	394.298	394(A)	
$ 34	Dibromofluoromethane	113	4.711	4.714	(0.853)	245829	53.4724	53.5	
* 41	Pentafluorobenzene	168	5.523	5.526	(1.000)	459014	50.0000		
$ 42	1,2-Dichloroethane-D4	65	5.545	5.549	(1.004)	355566	59.3782	59.4	
47	Trichloroethene	95	6.222	6.226	(0.986)	65466	12.9842	13.0	
* 48	1,4-Difluorobenzene	114	6.312	6.315	(1.000)	794590	50.0000		
$ 58	Toluene-D8	98	8.202	8.209	(1.299)	960007	50.5183	50.5	
60	Tetrachloroethene	164	8.751	8.754	(0.860)	68282	15.2513	15.2	
* 68	Chlorobenzene-D5	117	10.179	10.182	(1.000)	779074	50.0000		
$ 77	P-Bromofluorobenzene	95	11.674	11.678	(1.849)	410076	51.5723	51.6	
* 93	1,4-Dichlorobenzene-D4	152	12.945	12.948	(1.000)	387681	50.0000		
M 97	1,2-Dichloroethylene (total)	96				2060744	398.299	398	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount
exceeded maximum amount.
H - Operator selected an alternate compound hit.



Data File: \\target_server\gg\chem\gcms-w.i\W092321.b\W0198.D
Date : 23-SEP-2021 16:00
Client ID: VA-MW-83-3(20210916
Sample Info: SD6313-27

Instrument: gcms-w.i

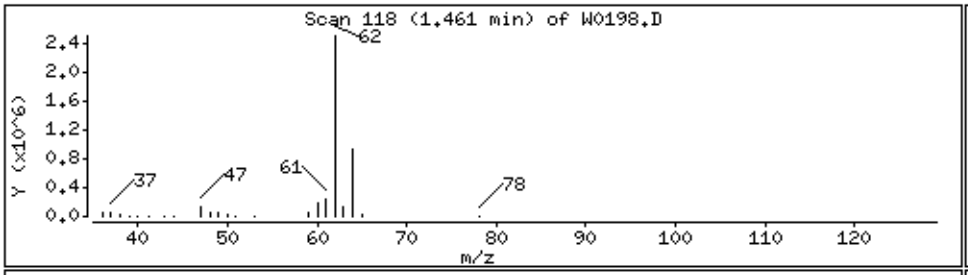
Data File: \\target_server\gg\chem\gcms-w.i\W092321.b\W0198.D

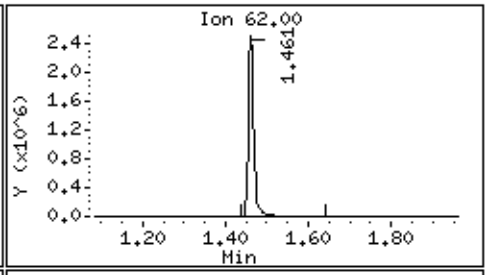
Date : 23-SEP-2021 16:00

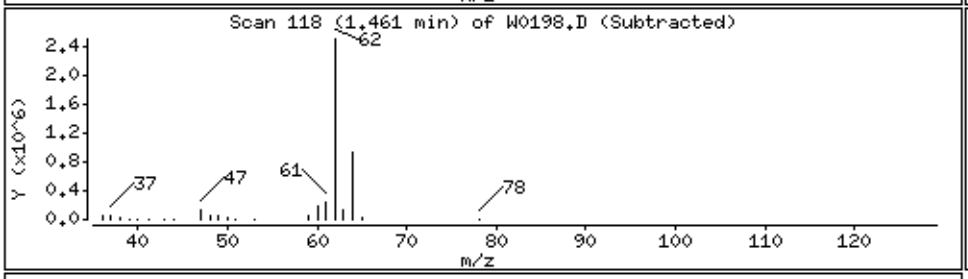
Client ID: VA-MW-83-3(20210916 Instrument: gcms-w.i

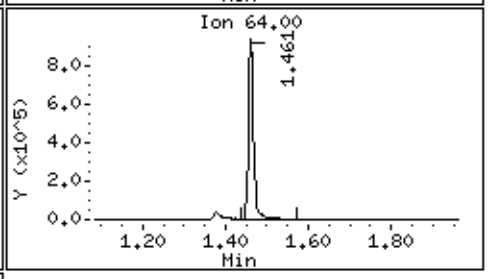
Sample Info: S06313-27

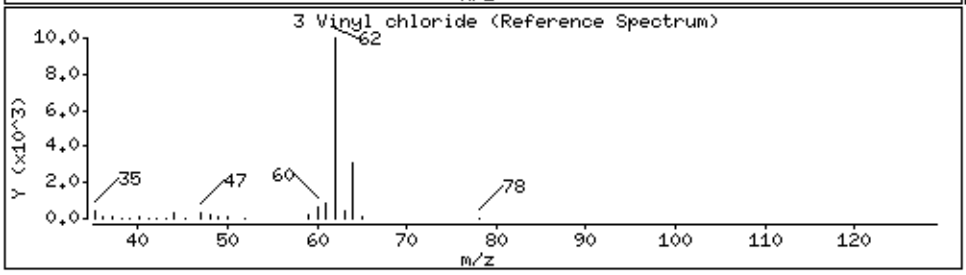
3 Vinyl chloride Concentration: 467 ug/l



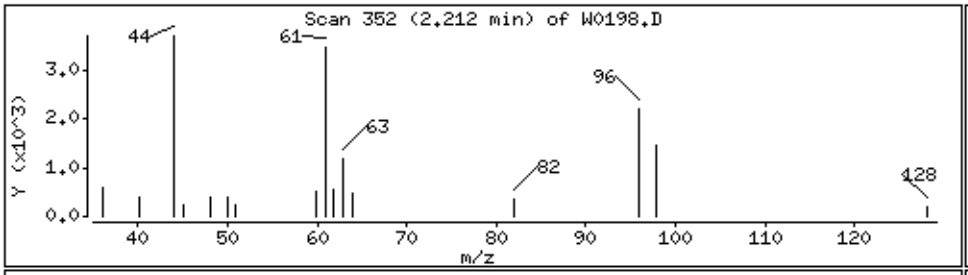


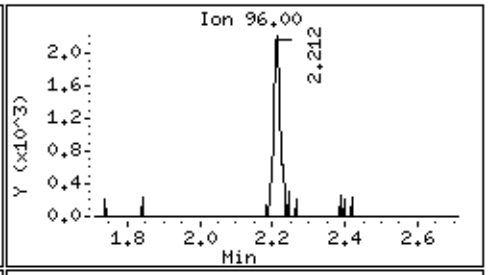


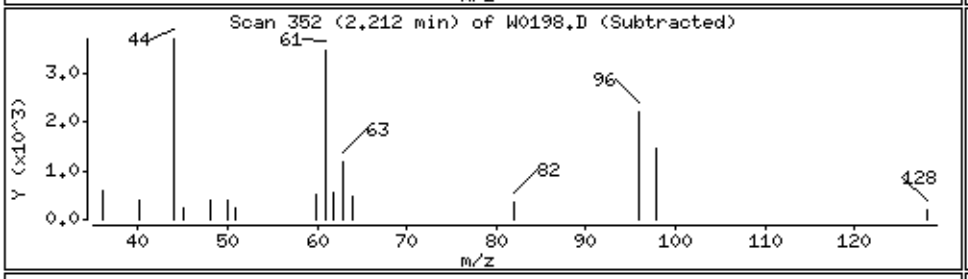


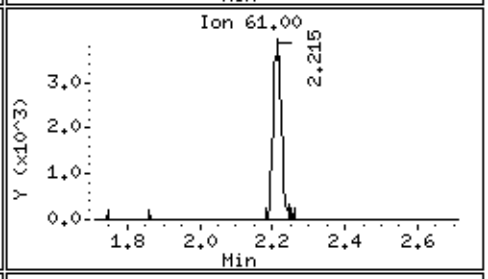


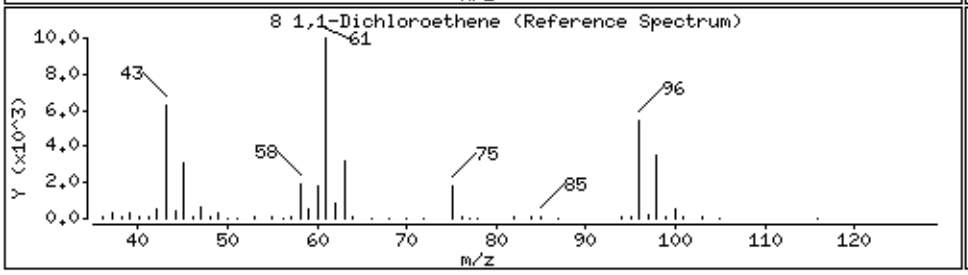
8 1,1-Dichloroethene Concentration: 0.61 ug/l

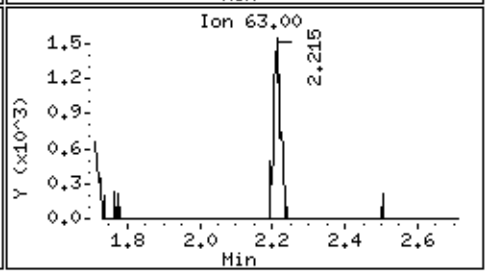












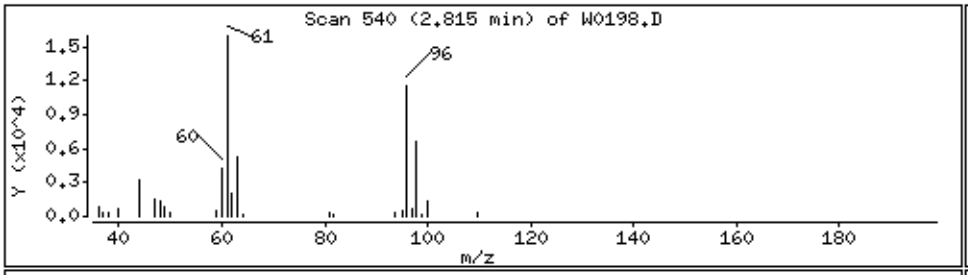
Data File: \\target_server\gg\chem\gcms-w.i\W092321.b\W0198.D

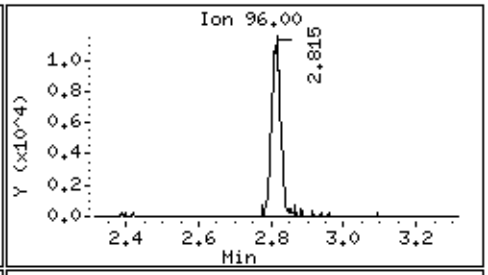
Date : 23-SEP-2021 16:00

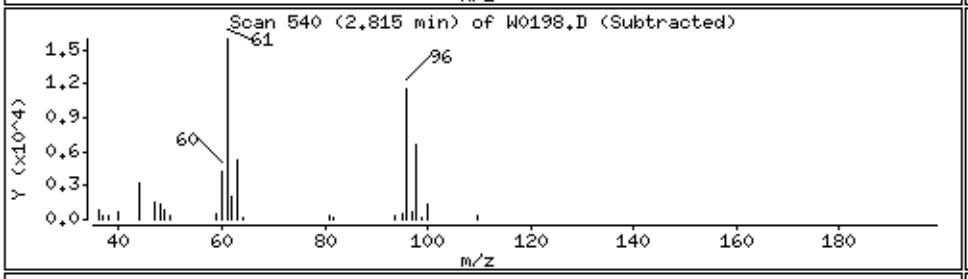
Client ID: VA-MW-83-3(20210916 Instrument: gcms-w.i

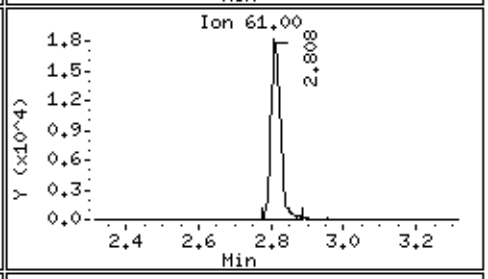
Sample Info: S06313-27

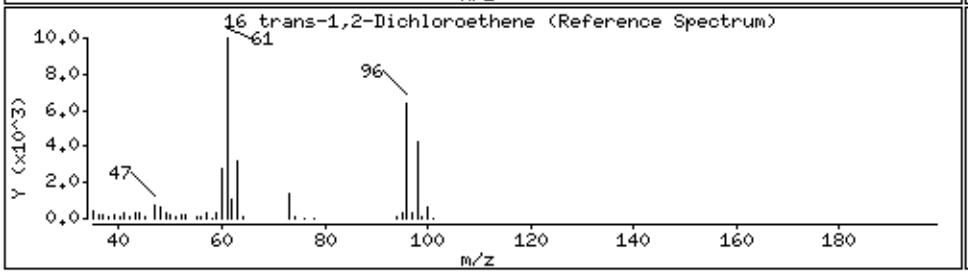
16 trans-1,2-Dichloroethene Concentration: 4.0 ug/l

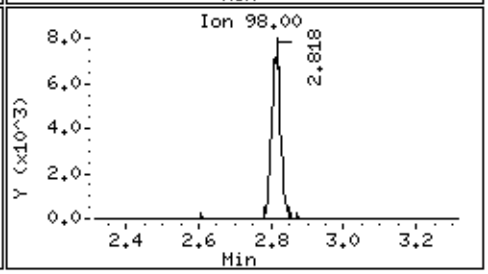




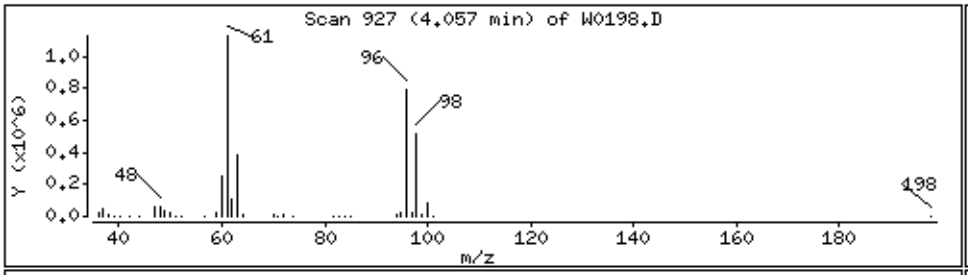


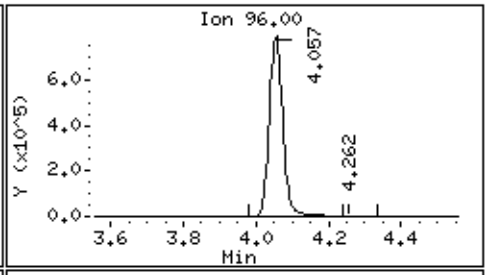


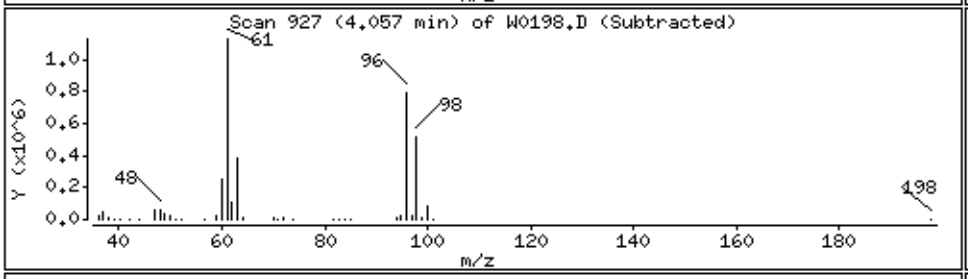


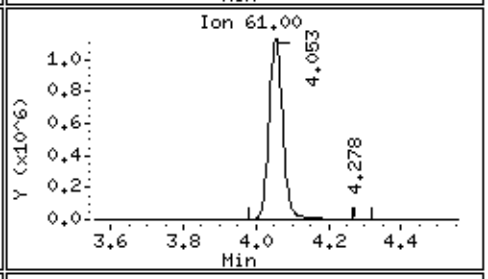


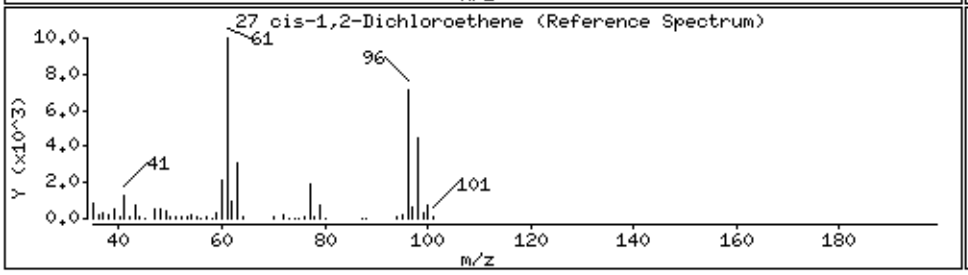
27 cis-1,2-Dichloroethene Concentration: 394 ug/l

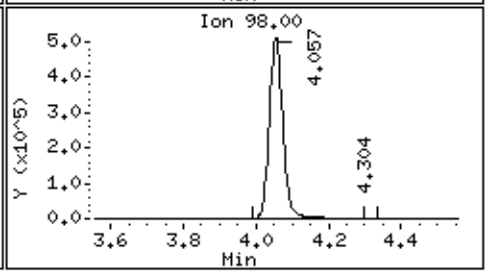












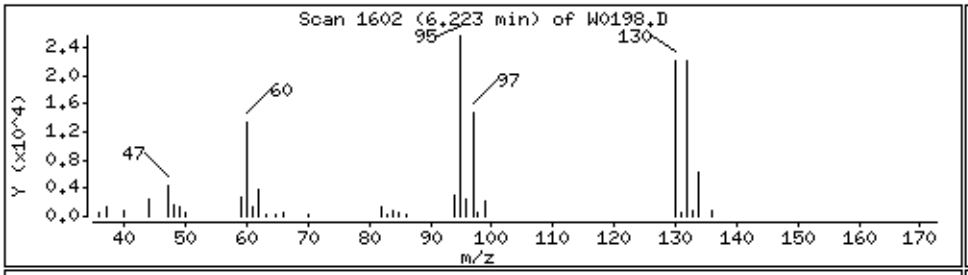
Data File: \\target_server\gg\chem\gcms-w.i\W092321.b\W0198.D

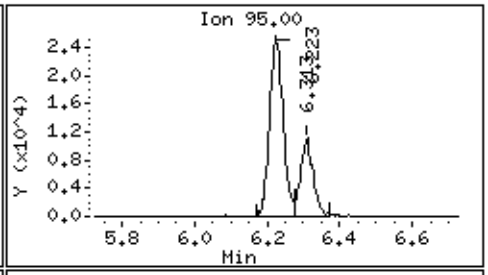
Date : 23-SEP-2021 16:00

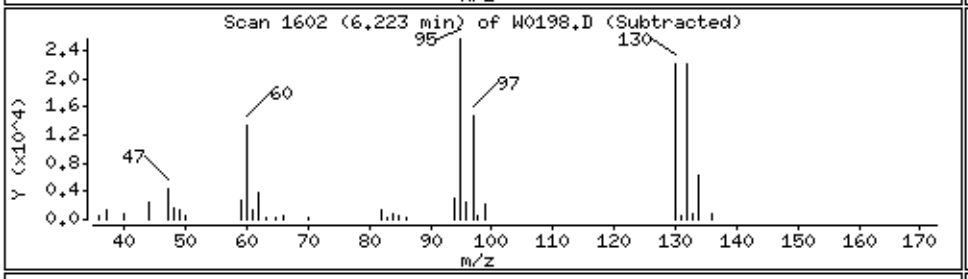
Client ID: VA-MW-83-3(20210916 Instrument: gcms-w.i

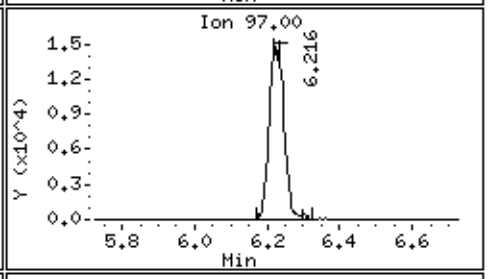
Sample Info: S06313-27

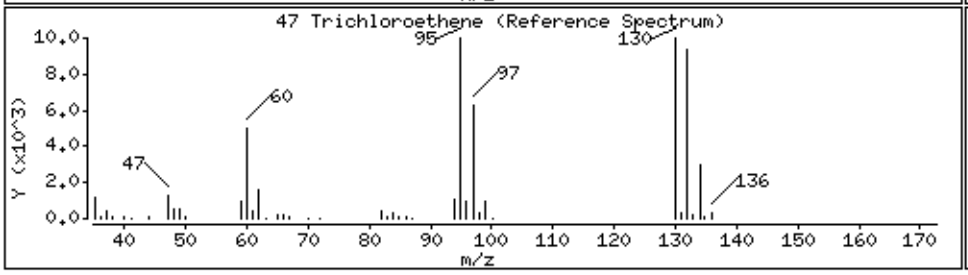
47 Trichloroethene Concentration: 13.0 ug/l

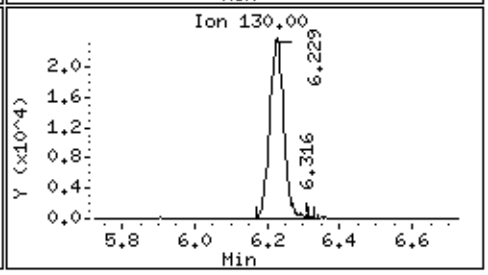




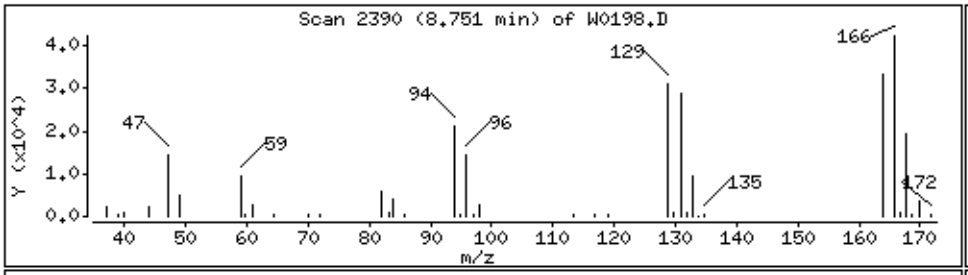


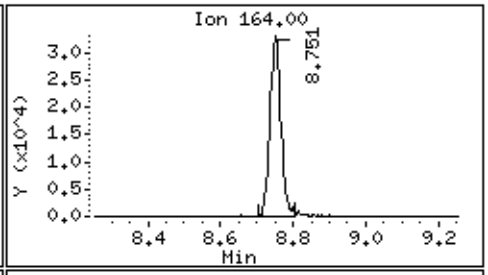


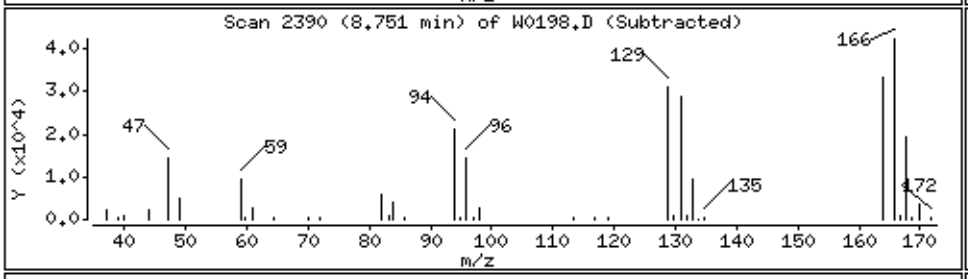


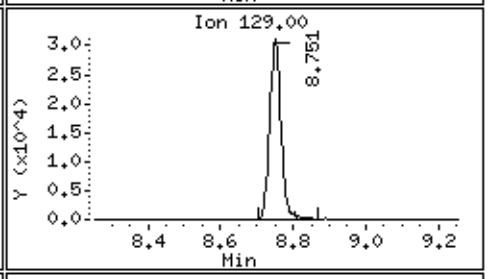


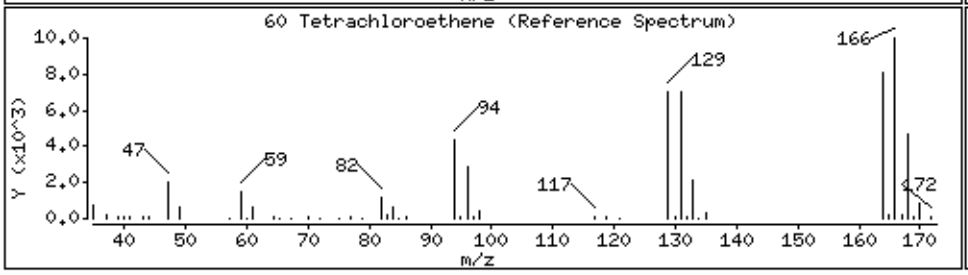
60 Tetrachloroethene Concentration: 15.2 ug/l

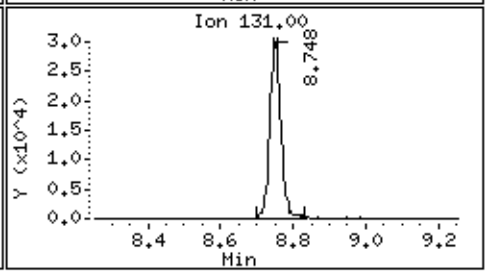












Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-27DL
Client ID: WVA-MW-83-3(20210916)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0190.D

Sample Date: 16-SEP-21
Received Date: 18-SEP-21
Extract Date: 23-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306545

Analysis Date: 23-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	8.0	ug/L	4	2	8.0
Vinyl Chloride		410	ug/L	4	2	8.0
Bromomethane	U	8.0	ug/L	4	2	8.0
Chloroethane	U	8.0	ug/L	4	2	8.0
Trichlorofluoromethane	U	8.0	ug/L	4	2	8.0
1,1-Dichloroethene	U	4.0	ug/L	4	1	4.0
Carbon Disulfide	U	4.0	ug/L	4	1	4.0
Methylene Chloride	U	20.	ug/L	4	5	20.
trans-1,2-Dichloroethene	U	4.0	ug/L	4	1	4.0
1,1-Dichloroethane	U	4.0	ug/L	4	1	4.0
cis-1,2-Dichloroethene		340	ug/L	4	1	4.0
Chloroform	U	4.0	ug/L	4	1	4.0
Carbon Tetrachloride	U	4.0	ug/L	4	1	4.0
1,1,1-Trichloroethane	U	4.0	ug/L	4	1	4.0
2-Butanone	U	20.	ug/L	4	5	20.
Benzene	U	4.0	ug/L	4	1	4.0
1,2-Dichloroethane	U	4.0	ug/L	4	1	4.0
Trichloroethene		11.	ug/L	4	1	4.0
1,2-Dichloropropane	U	4.0	ug/L	4	1	4.0
Bromodichloromethane	U	4.0	ug/L	4	1	4.0
cis-1,3-Dichloropropene	U	4.0	ug/L	4	1	4.0
Toluene	U	4.0	ug/L	4	1	4.0
4-Methyl-2-Pentanone	U	20.	ug/L	4	5	20.
Tetrachloroethene		12.	ug/L	4	1	4.0
trans-1,3-Dichloropropene	U	4.0	ug/L	4	1	4.0
1,1,2-Trichloroethane	U	4.0	ug/L	4	1	4.0
Dibromochloromethane	U	4.0	ug/L	4	1	4.0
Chlorobenzene	U	4.0	ug/L	4	1	4.0
Ethylbenzene	U	4.0	ug/L	4	1	4.0
m+p-Xylenes	U	8.0	ug/L	4	2	8.0
o-Xylene	U	4.0	ug/L	4	1	4.0
Bromoform	U	4.0	ug/L	4	1	4.0
1,1,2,2-Tetrachloroethane	U	4.0	ug/L	4	1	4.0
P-Bromofluorobenzene		102.	%			
Toluene-d8		101.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-27DL
Client ID: WVA-MW-83-3(20210916)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0190.D

Sample Date: 16-SEP-21
Received Date: 18-SEP-21
Extract Date: 23-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306545

Analysis Date: 23-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		118.	%			
Dibromofluoromethane		104.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Data File: \\target_server\gg\chem\gcms-w.i\W092321.b\W0190.D
Report Date: 12-Oct-2021 08:54

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-w.i\W092321.b\W0190.D
Lab Smp Id: SO6313-27DL Client Smp ID: VA-MW-83-3(20210916
Inj Date : 23-SEP-2021 11:55
Operator : ES Inst ID: gcms-w.i
Smp Info : SO6313-27DL
Misc Info : WG306545,WG306545-4
Comment   : SW846 5030
Method   : \\target_server\gg\chem\gcms-w.i\W092321.b\W8A05(08).m
Meth Date : 11-Oct-2021 13:19 gcms-w.i Quant Type: ISTD
Cal Date : 20-SEP-2021 11:30 Cal File: W0105.D
Als bottle: 10
Dil Factor: 4.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.12

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

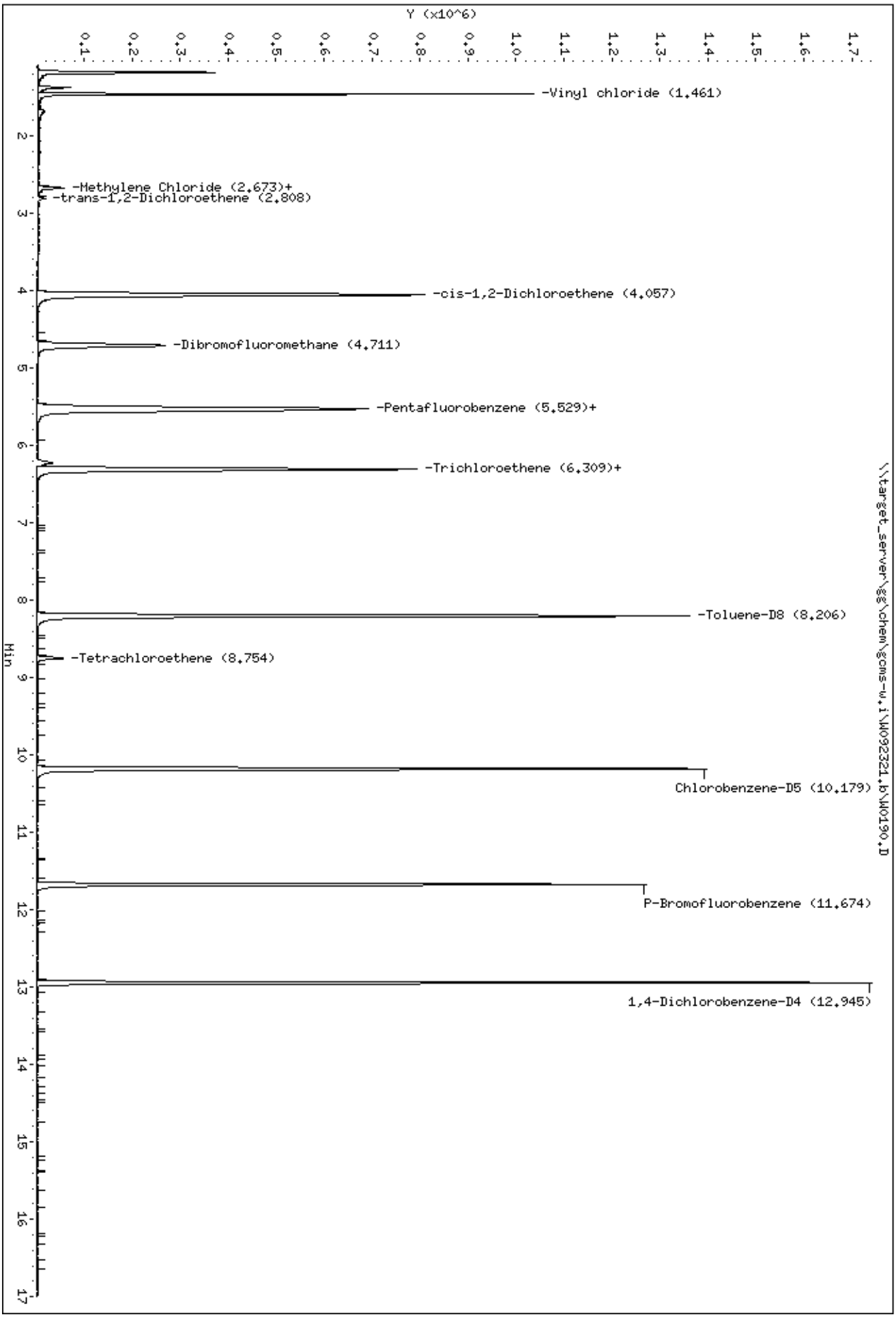
Name	Value	Description
DF	4.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

10:26 am, Oct 12, 2021

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)	REVIEW CODE
	3 Vinyl chloride	62	1.460	1.460	(0.264)	539391	101.706	407	
	14 Methylene Chloride	84	2.673	2.677	(0.484)	21207	4.45825	17.8(a)	
	15 Acetone	43	2.728	2.725	(0.494)	5122	3.88391	15.5(aM)	M9
	16 trans-1,2-Dichloroethene	96	2.808	2.815	(0.508)	4509	0.88223	3.5(a)	
	27 cis-1,2-Dichloroethene	96	4.053	4.056	(0.734)	458114	84.1603	337	
$	34 Dibromofluoromethane	113	4.704	4.714	(0.852)	252371	52.2097	52.2	
*	41 Pentafluorobenzene	168	5.523	5.526	(1.000)	482626	50.0000		
$	42 1,2-Dichloroethane-D4	65	5.545	5.549	(1.004)	372573	59.1744	59.2	
	47 Trichloroethene	95	6.222	6.226	(0.986)	14432	2.73094	10.9	
*	48 1,4-Difluorobenzene	114	6.309	6.315	(1.000)	832829	50.0000		
$	58 Toluene-D8	98	8.205	8.209	(1.301)	1003294	50.3721	50.4	
	60 Tetrachloroethene	164	8.754	8.754	(0.860)	14617	3.10443	12.4	
*	68 Chlorobenzene-D5	117	10.179	10.182	(1.000)	819325	50.0000		
$	77 P-Bromofluorobenzene	95	11.674	11.678	(1.850)	426180	51.1367	51.1	
*	93 1,4-Dichlorobenzene-D4	152	12.945	12.948	(1.000)	411930	50.0000		
M	97 1,2-Dichloroethylene (total)	96				462623	85.0425	340	

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.


Y (x10^6)
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0
1.1
1.2
1.3
1.4
1.5
1.6
1.7
-Vinyl chloride (1.461)
-Methylene Chloride (2.673)+
-trans-1,2-Dichloroethene (2.808)
-cis-1,2-Dichloroethene (4.057)
-Dibromofluoromethane (4.711)
-Pentafluorobenzene (5.529)+
-Trichloroethene (6.309)+
-Toluene-D8 (8.206)
-Tetrachloroethene (8.754)
Chlorobenzene-D5 (10.179)
P-Bromofluorobenzene (11.674)
1,4-Dichlorobenzene-D4 (12.945)
Min
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
\\target_server\gg\chem\gcms-w.i\W092321.b\W0190.D
Data File: \\target_server\gg\chem\gcms-w.i\W092321.b\W0190.D
Date : 23-SEP-2021 11:55
Client ID: VA-MW-83-3(20210916
Sample Info: SD6313-27DL
Instrument: gcms-w.i

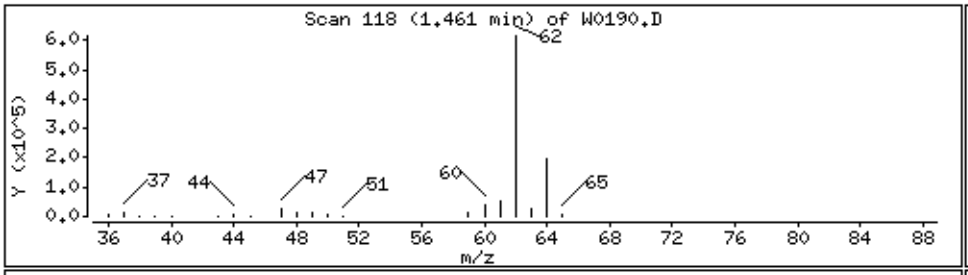
Data File: \\target_server\gg\chem\gcms-w.i\W092321.b\W0190.D

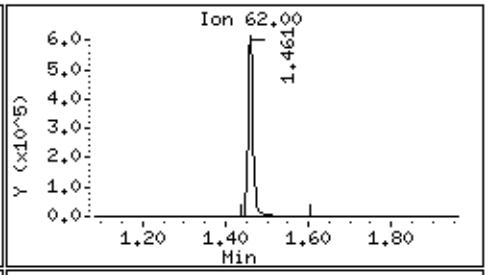
Date : 23-SEP-2021 11:55

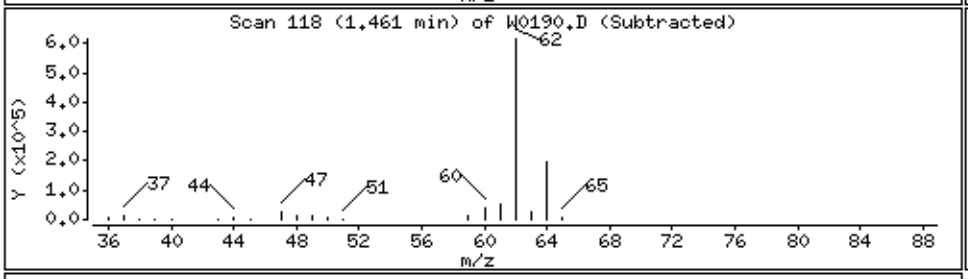
Client ID: VA-MW-83-3(20210916 Instrument: gcms-w.i

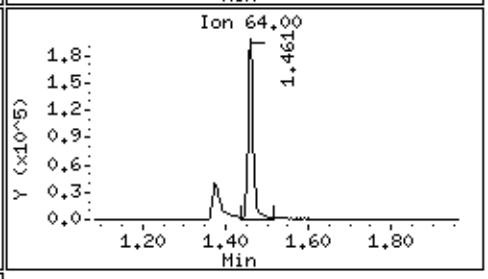
Sample Info: S06313-27DL

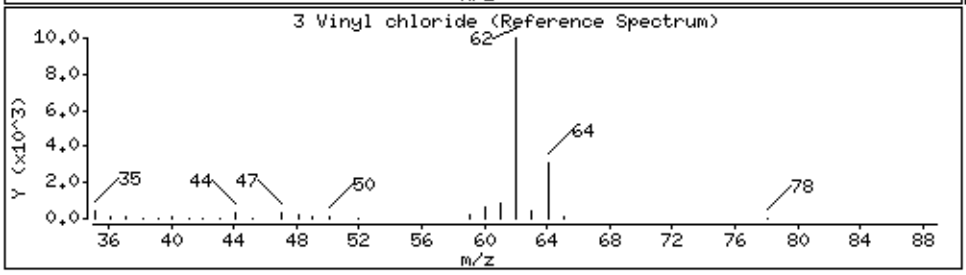
3 Vinyl chloride Concentration: 407 ug/l



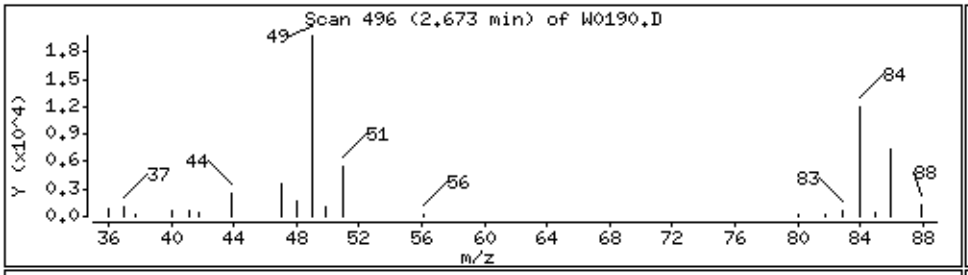


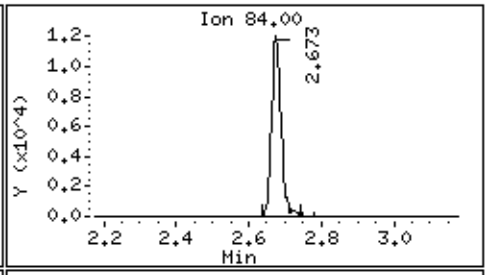


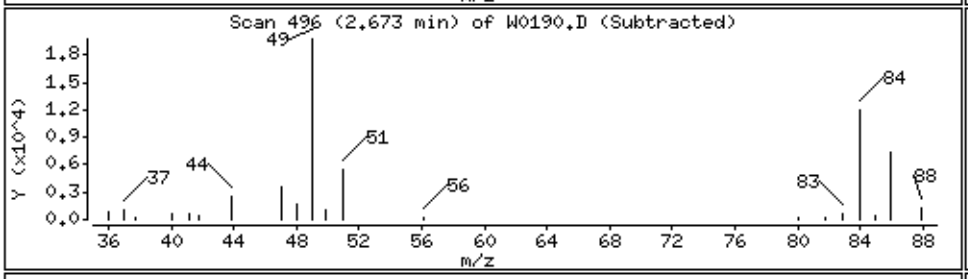


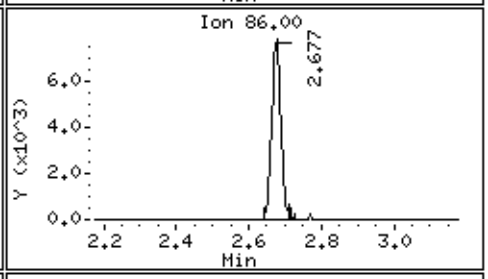


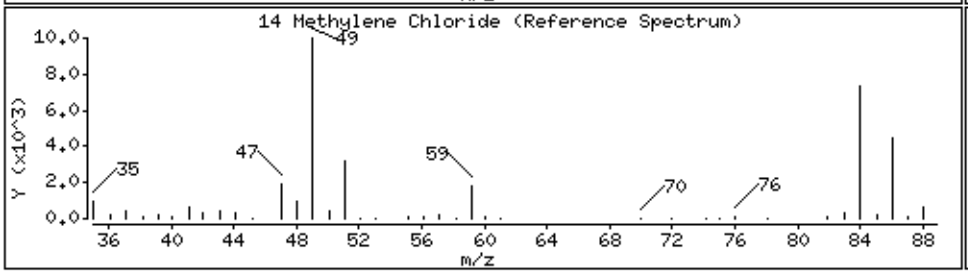
14 Methylene Chloride Concentration: 17.8 ug/l

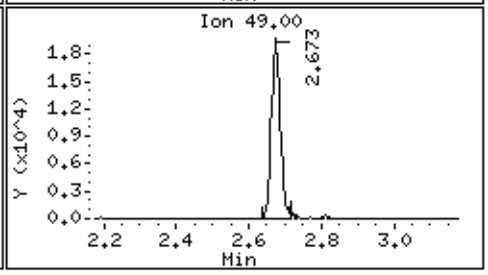












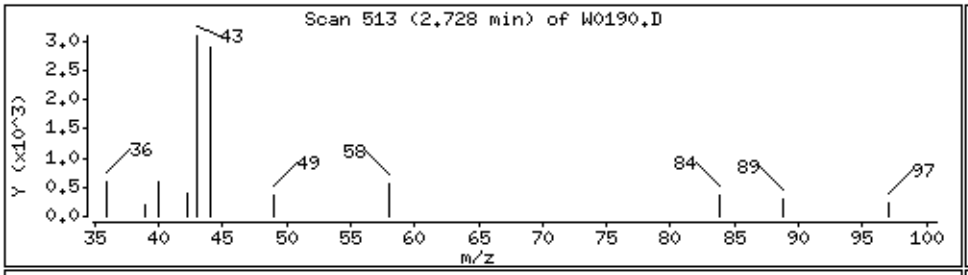
Data File: \\target_server\gg\chem\gcms-w.i\W092321.b\W0190.D

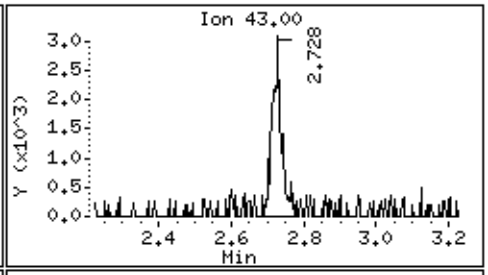
Date : 23-SEP-2021 11:55

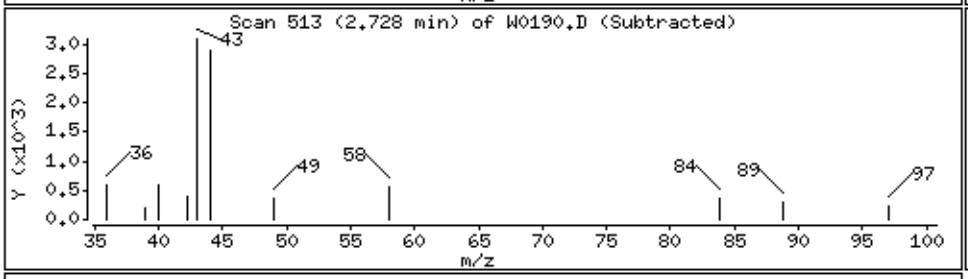
Client ID: VA-MW-83-3(20210916 Instrument: gcms-w.i

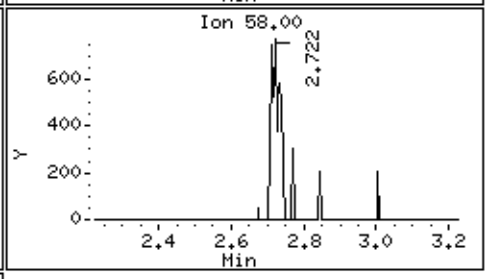
Sample Info: S06313-27DL

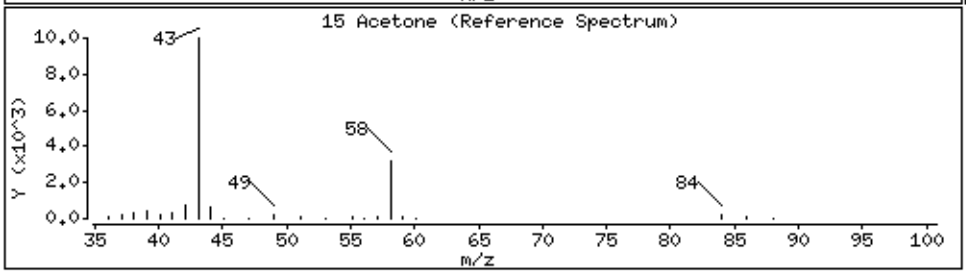
15 Acetone Concentration: 15.5 ug/l



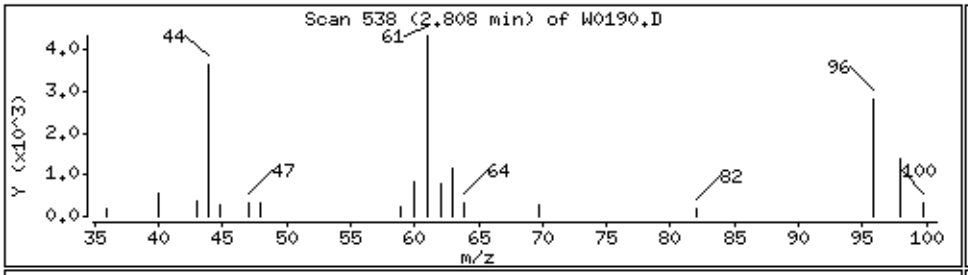


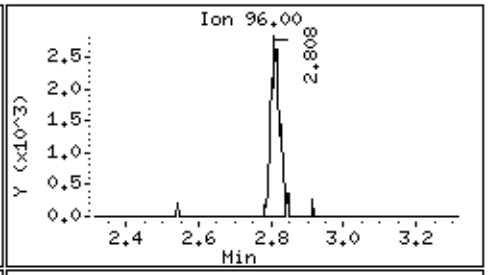


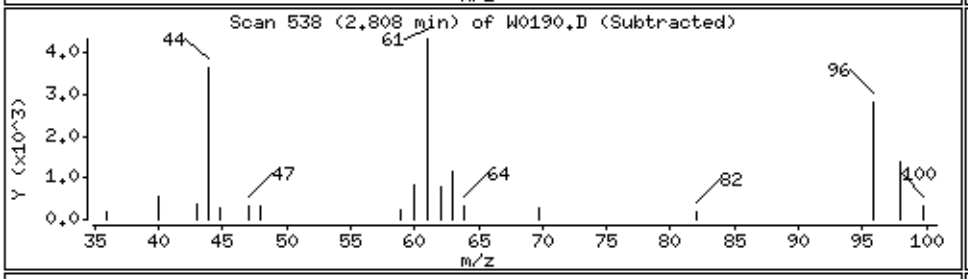


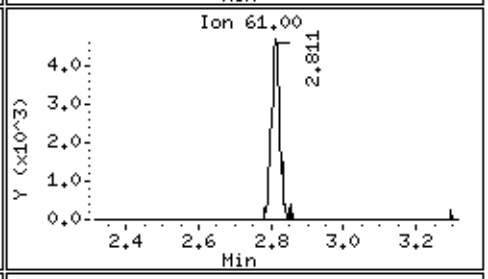


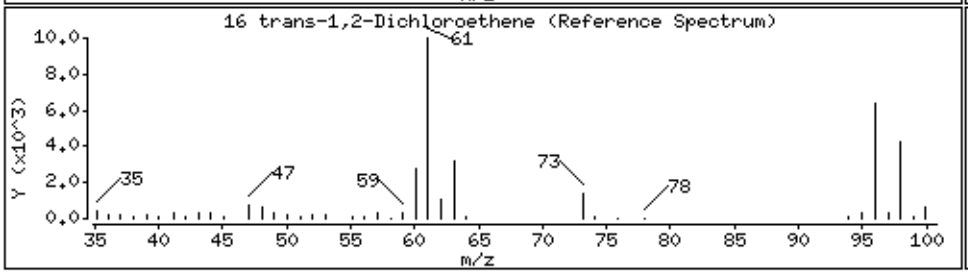
16 trans-1,2-Dichloroethene Concentration: 3.5 ug/l

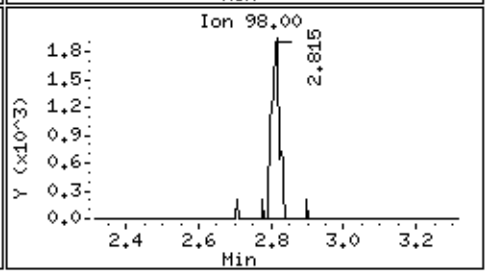












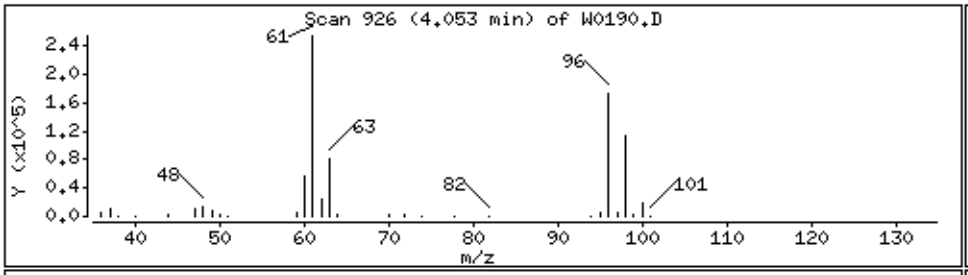
Data File: \\target_server\gg\chem\gcms-w.i\W092321.b\W0190.D

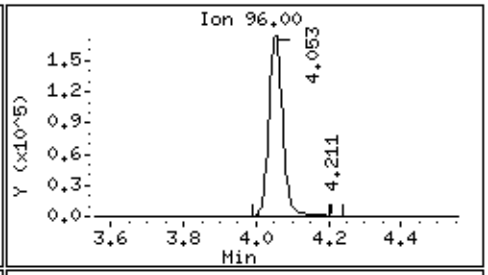
Date : 23-SEP-2021 11:55

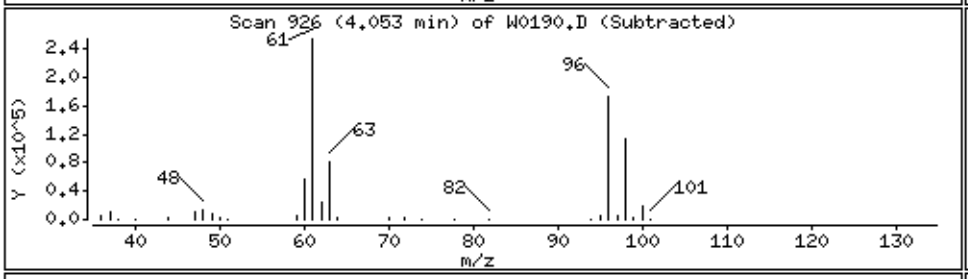
Client ID: VA-MW-83-3(20210916 Instrument: gcms-w.i

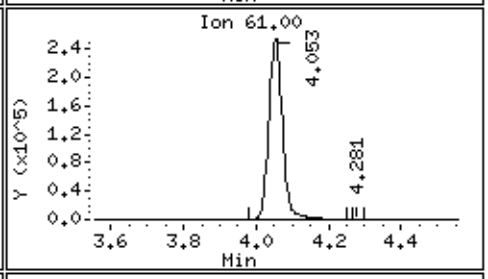
Sample Info: S06313-27DL

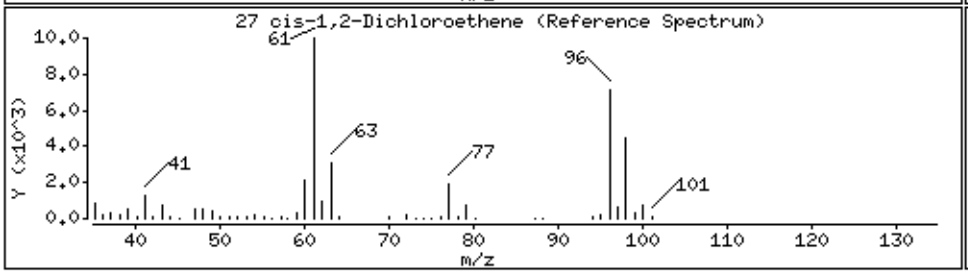
27 cis-1,2-Dichloroethene Concentration: 337 ug/l

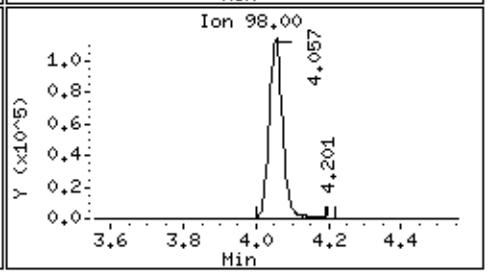




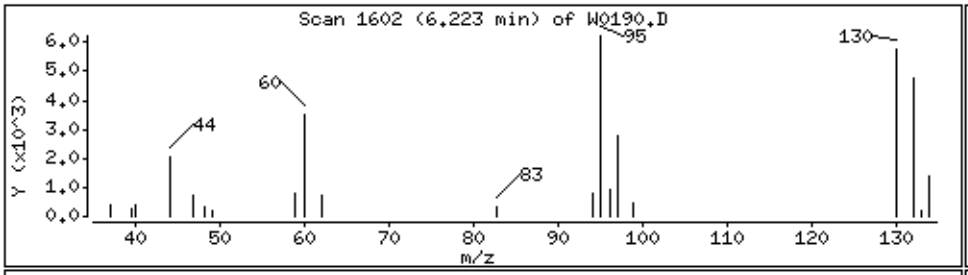


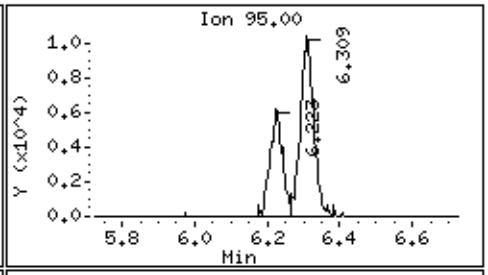


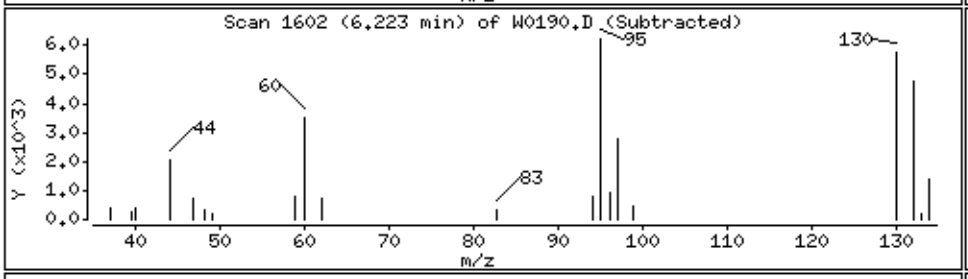


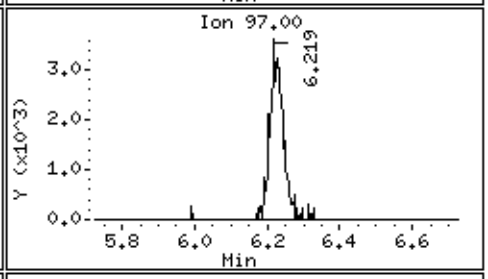


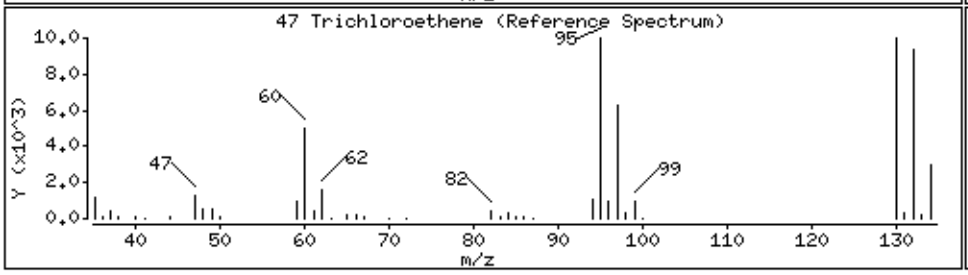
47 Trichloroethene Concentration: 10.9 ug/l

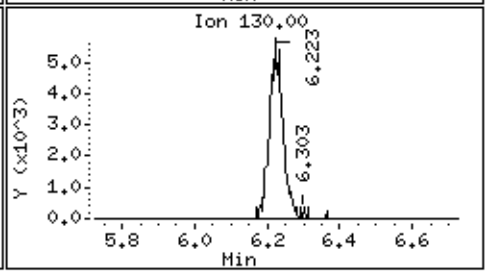












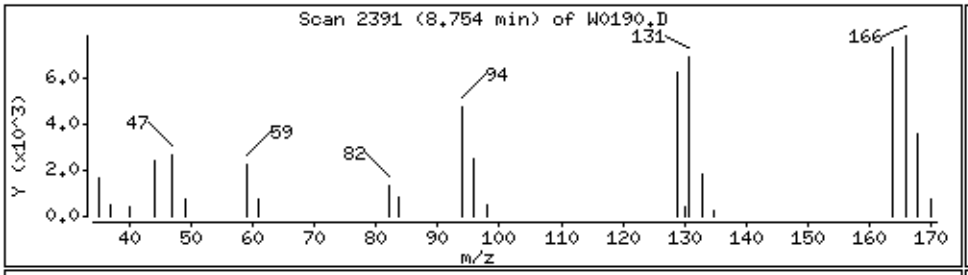
Data File: \\target_server\gg\chem\gcms-w.i\W092321.b\W0190.D

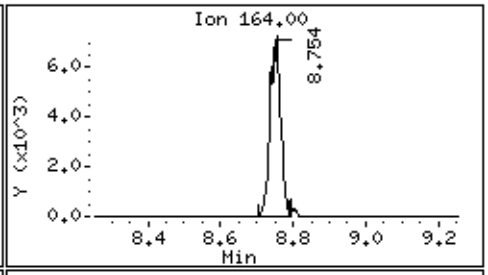
Date : 23-SEP-2021 11:55

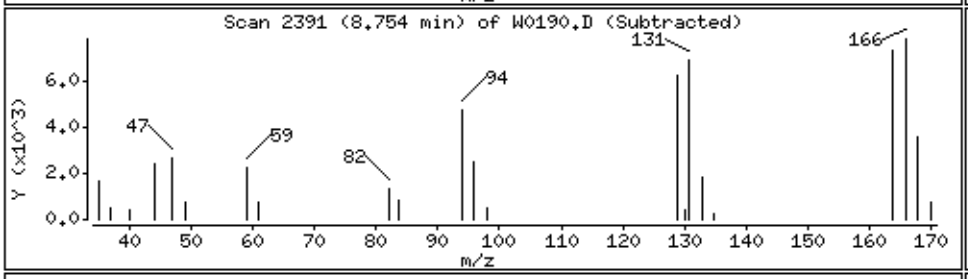
Client ID: VA-MW-83-3(20210916 Instrument: gcms-w.i

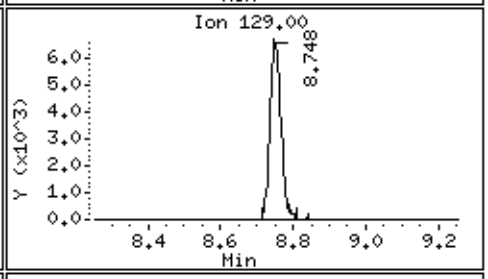
Sample Info: S06313-27DL

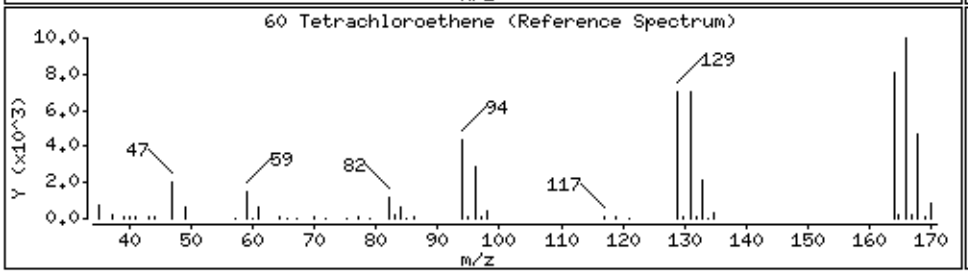
60 Tetrachloroethene Concentration: 12.4 ug/l

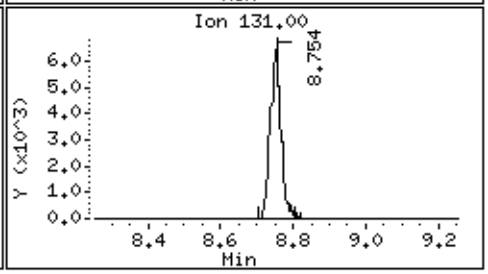












Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-28DL
Client ID: WVA-MW-84R-3(20210916)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0220.D

Sample Date: 16-SEP-21
Received Date: 18-SEP-21
Extract Date: 24-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306608

Analysis Date: 24-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	200	ug/L	100	2	200
Vinyl Chloride		2600	ug/L	100	2	200
Bromomethane	U	200	ug/L	100	2	200
Chloroethane	U	200	ug/L	100	2	200
Trichlorofluoromethane	U	200	ug/L	100	2	200
1,1-Dichloroethene	U	100	ug/L	100	1	100
Carbon Disulfide	U	100	ug/L	100	1	100
Methylene Chloride	U	500	ug/L	100	5	500
trans-1,2-Dichloroethene	U	100	ug/L	100	1	100
1,1-Dichloroethane	U	100	ug/L	100	1	100
cis-1,2-Dichloroethene		4400	ug/L	100	1	100
Chloroform	U	100	ug/L	100	1	100
Carbon Tetrachloride	U	100	ug/L	100	1	100
1,1,1-Trichloroethane	U	100	ug/L	100	1	100
2-Butanone	U	500	ug/L	100	5	500
Benzene	U	100	ug/L	100	1	100
1,2-Dichloroethane	U	100	ug/L	100	1	100
Trichloroethene		240	ug/L	100	1	100
1,2-Dichloropropane	U	100	ug/L	100	1	100
Bromodichloromethane	U	100	ug/L	100	1	100
cis-1,3-Dichloropropene	U	100	ug/L	100	1	100
Toluene	U	100	ug/L	100	1	100
4-Methyl-2-Pentanone	U	500	ug/L	100	5	500
Tetrachloroethene		250	ug/L	100	1	100
trans-1,3-Dichloropropene	U	100	ug/L	100	1	100
1,1,2-Trichloroethane	U	100	ug/L	100	1	100
Dibromochloromethane	U	100	ug/L	100	1	100
Chlorobenzene	U	100	ug/L	100	1	100
Ethylbenzene	U	100	ug/L	100	1	100
m+p-Xylenes	U	200	ug/L	100	2	200
o-Xylene	U	100	ug/L	100	1	100
Bromoform	U	100	ug/L	100	1	100
1,1,2,2-Tetrachloroethane	U	100	ug/L	100	1	100
P-Bromofluorobenzene		97.1	%			
Toluene-d8		101.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-28DL
Client ID: WVA-MW-84R-3(20210916)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0220.D

Sample Date: 16-SEP-21
Received Date: 18-SEP-21
Extract Date: 24-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306608

Analysis Date: 24-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		107.	%			
Dibromofluoromethane		102.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Data File: \\target_server\gg\chem\gcms-w.i\W092421.b\W0220.D
Report Date: 12-Oct-2021 08:55

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-w.i\W092421.b\W0220.D
Lab Smp Id: SO6313-28DL Client Smp ID: VA-MW-84R-3(2021091
Inj Date : 24-SEP-2021 15:39
Operator : ES Inst ID: gcms-w.i
Smp Info : SO6313-28DL
Misc Info : WG306608,WG306608-4
Comment   : SW846 5030
Method   : \\target_server\gg\chem\gcms-w.i\W092421.b\W8A05(08A).m
Meth Date : 08-Oct-2021 09:51 gcms-w.i Quant Type: ISTD
Cal Date : 24-SEP-2021 11:36 Cal File: W0215.D
Als bottle: 15
Dil Factor: 100.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.12

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

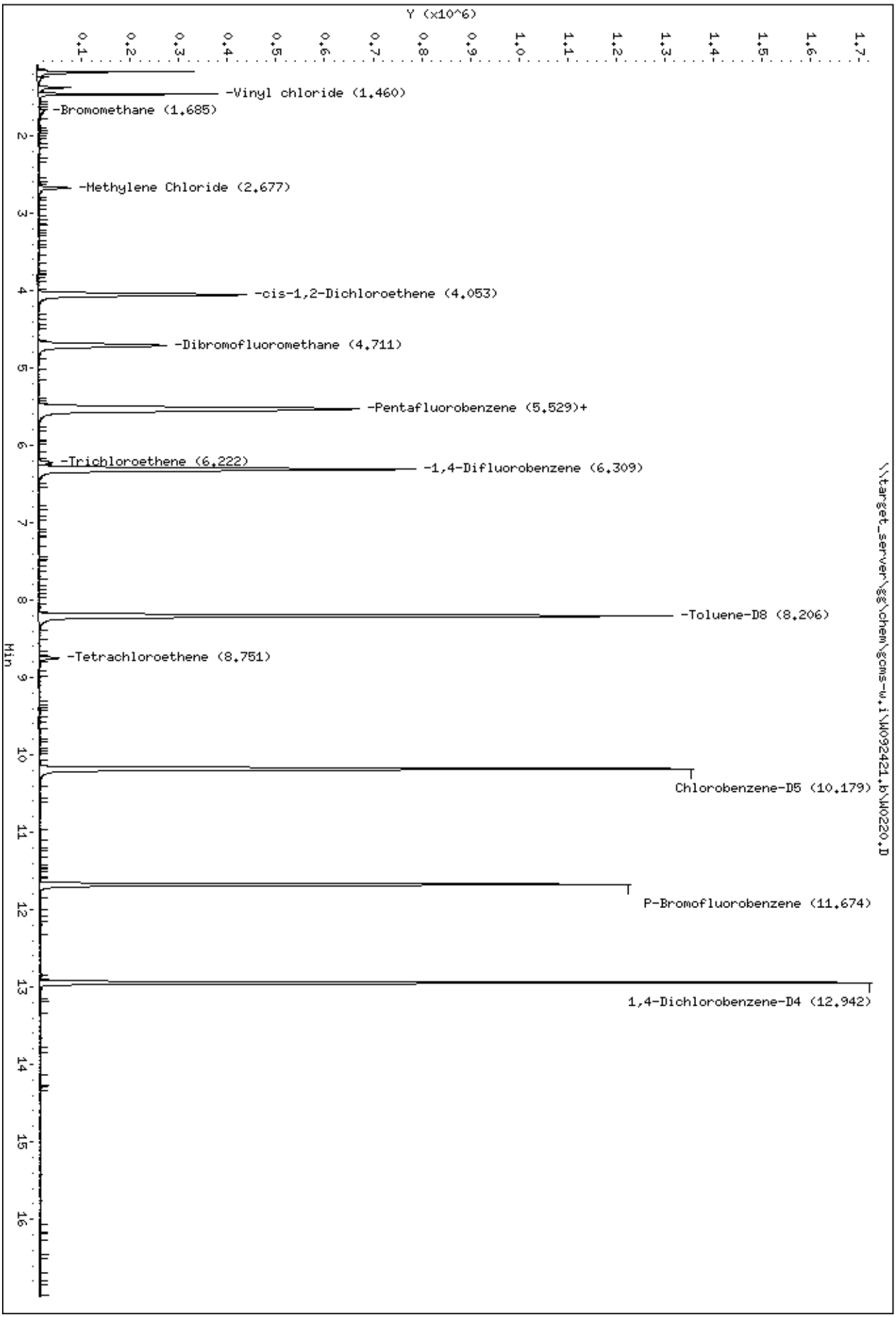
Name	Value	Description
DF	100.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

10:26 am, Oct 12, 2021

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)	REVIEW CODE
3 Vinyl chloride	62	1.460	1.460	(0.265)	190275	26.0181	2600(M)	M10
4 Bromomethane	94	1.672	1.672	(0.303)	1825	0.75376	75.4(a)	
14 Methylene Chloride	84	2.673	2.673	(0.484)	27023	4.84536	484(a)	
27 cis-1,2-Dichloroethene	96	4.056	4.050	(0.735)	243012	43.4742	4350	
$ 34 Dibromofluoromethane	113	4.707	4.714	(0.853)	249216	51.0581	51.0	
* 41 Pentafluorobenzene	168	5.519	5.520	(1.000)	483321	50.0000		
$ 42 1,2-Dichloroethane-D4	65	5.548	5.549	(1.005)	360389	53.6556	53.6	
47 Trichloroethene	95	6.219	6.226	(0.986)	13074	2.38858	239	
* 48 1,4-Difluorobenzene	114	6.309	6.312	(1.000)	821726	50.0000		
$ 58 Toluene-D8	98	8.202	8.202	(1.300)	993601	50.3949	50.4	
60 Tetrachloroethene	164	8.757	8.751	(0.860)	10887	2.47109	247	
* 68 Chlorobenzene-D5	117	10.179	10.182	(1.000)	806622	50.0000		
$ 77 P-Bromofluorobenzene	95	11.674	11.674	(1.850)	417638	48.5745	48.6	
* 93 1,4-Dichlorobenzene-D4	152	12.945	12.942	(1.000)	408681	50.0000		
M 97 1,2-Dichloroethylene (total)	96				243012	43.4742	4350	

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.



Data File: \\target_server\gg\chem\gcms-w.i\W092421.b\W0220.D
Date : 24-SEP-2021 15:39
Client ID: VA-MW-84R-3(2021091
Sample Info: SD6313-28DL

Instrument: gcms-w.i

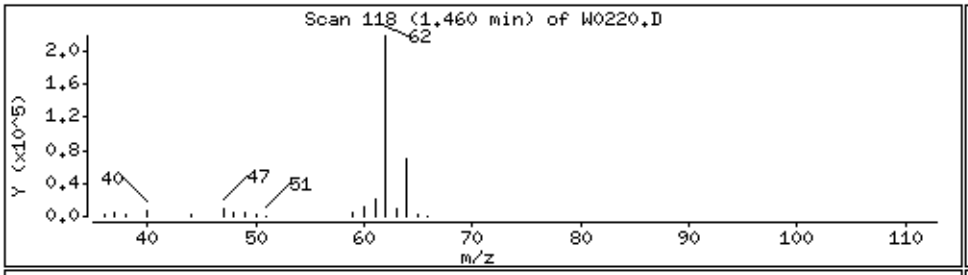
Data File: \\target_server\gg\chem\gcms-w.i\W092421.b\W0220.D

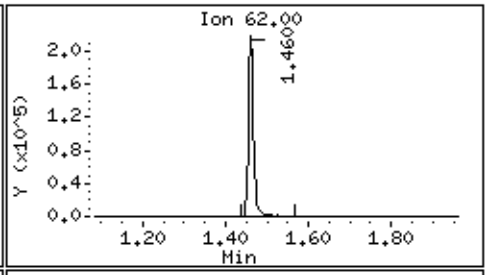
Date : 24-SEP-2021 15:39

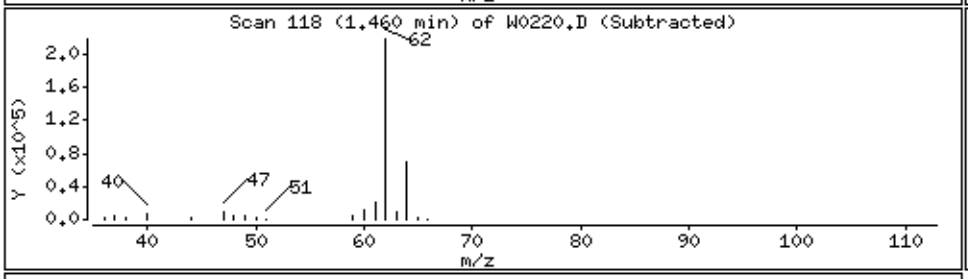
Client ID: VA-MW-84R-3(2021091 Instrument: gcms-w.i

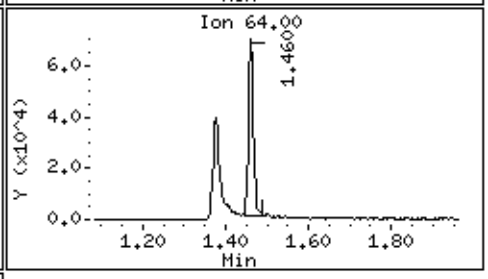
Sample Info: S06313-28DL

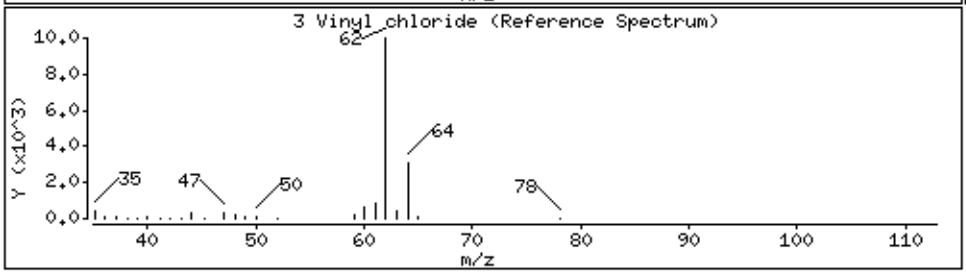
3 Vinyl chloride Concentration: 2600 ug/l



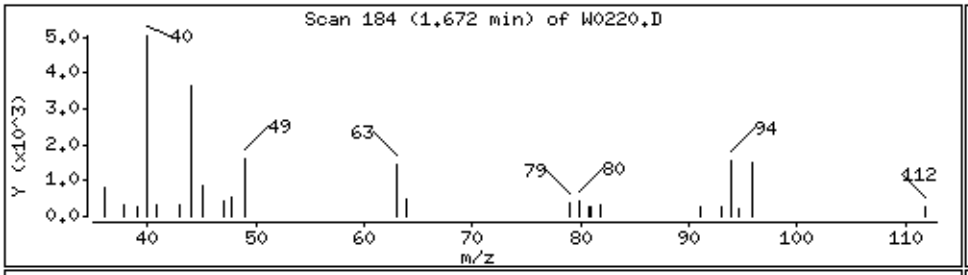


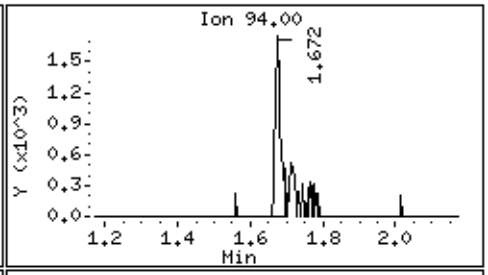


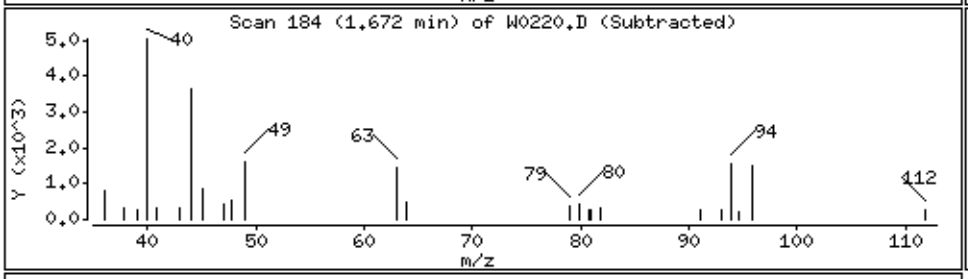


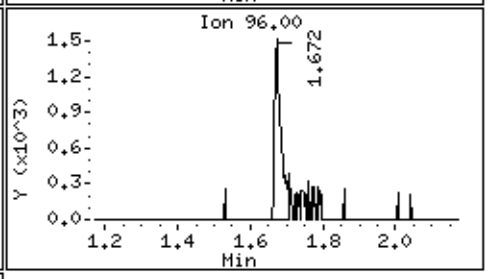


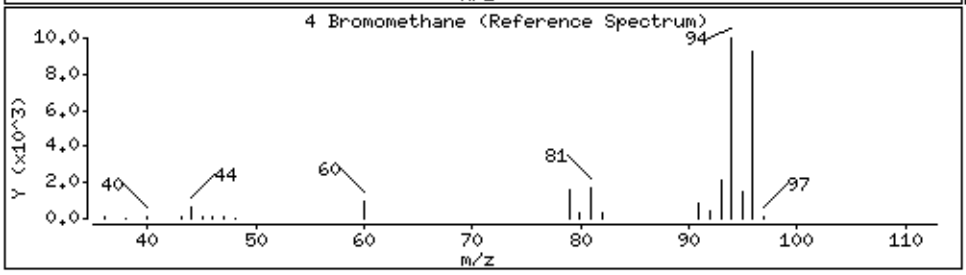
4 Bromomethane Concentration: 75.4 ug/l











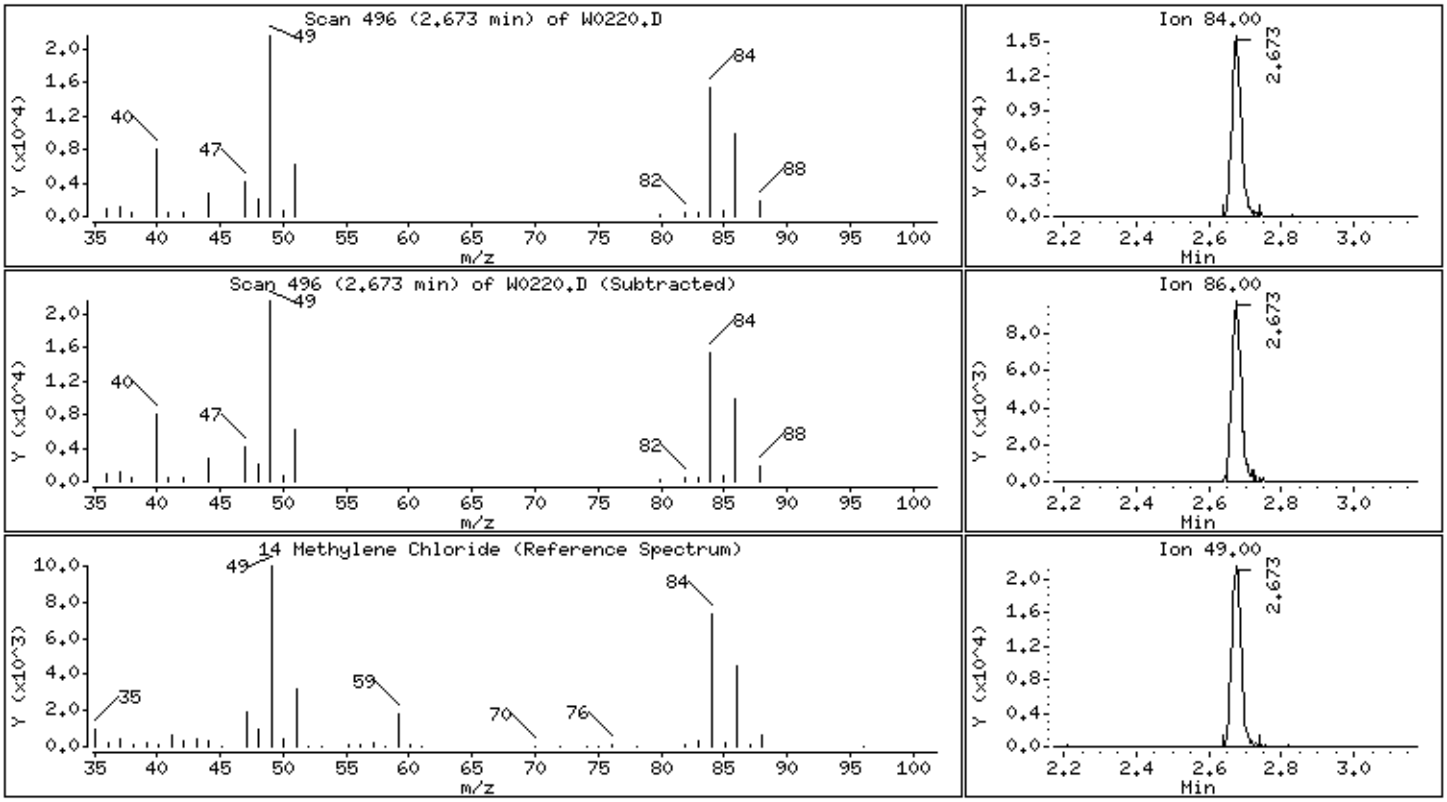
Data File: \\target_server\gg\chem\gcms-w.i\W092421.b\W0220.D

Date : 24-SEP-2021 15:39

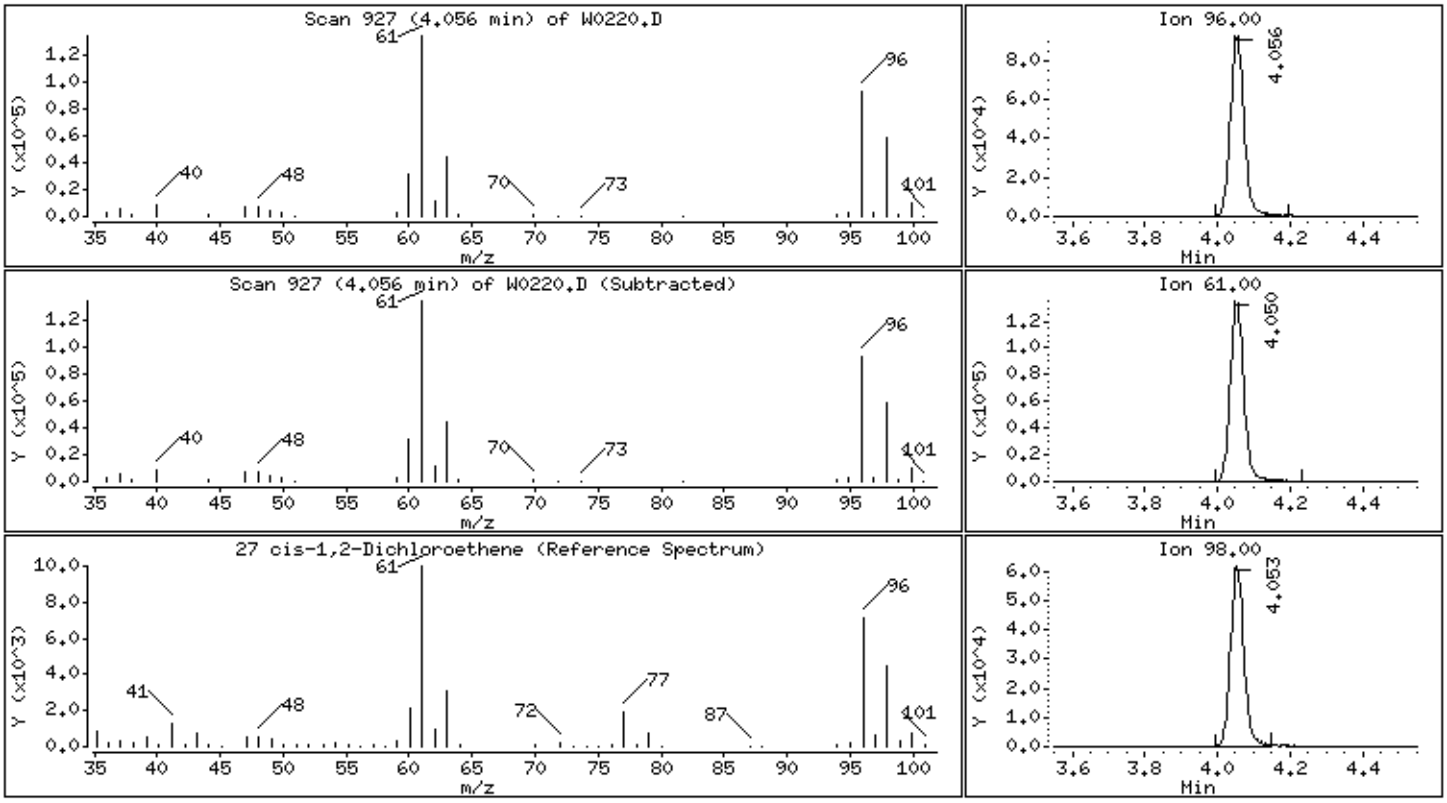
Client ID: VA-MW-84R-3(2021091 Instrument: gcms-w.i

Sample Info: S06313-28DL

14 Methylene Chloride Concentration: 484 ug/l



27 cis-1,2-Dichloroethene Concentration: 4350 ug/l



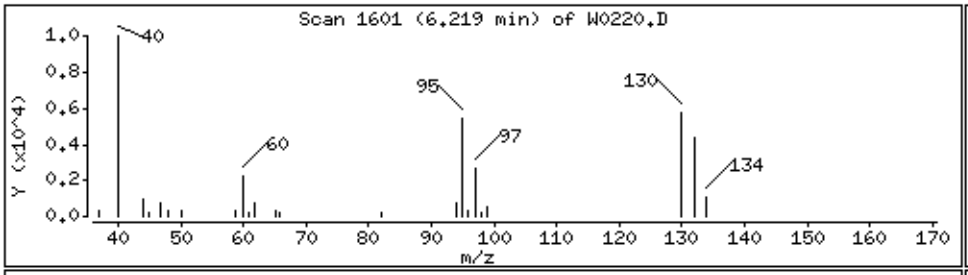
Data File: \\target_server\gg\chem\gcms-w.i\W092421.b\W0220.D

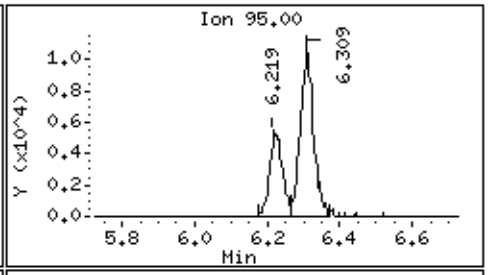
Date : 24-SEP-2021 15:39

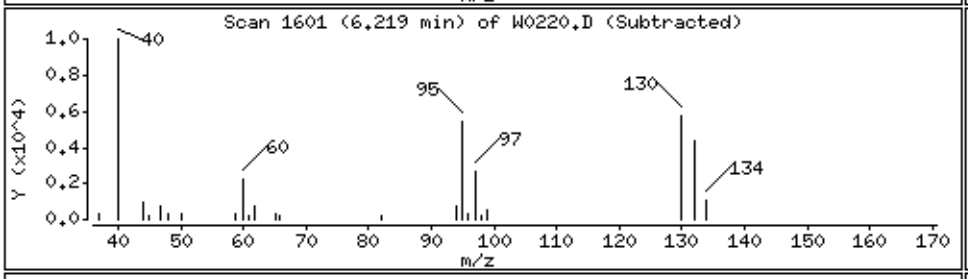
Client ID: VA-MW-84R-3(2021091 Instrument: gcms-w.i

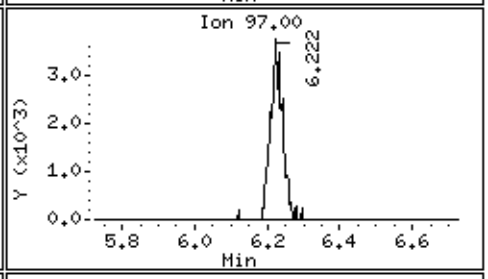
Sample Info: S06313-28DL

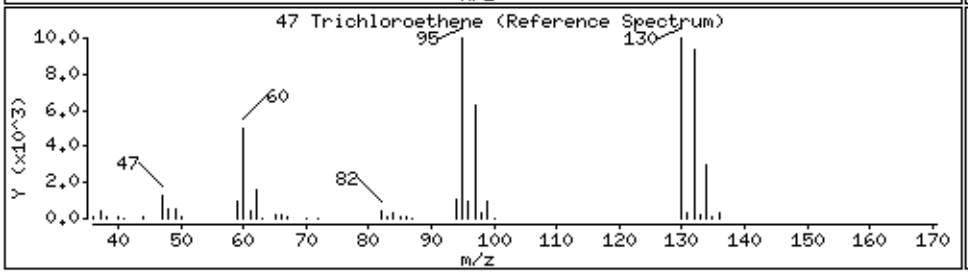
47 Trichloroethene Concentration: 239 ug/l

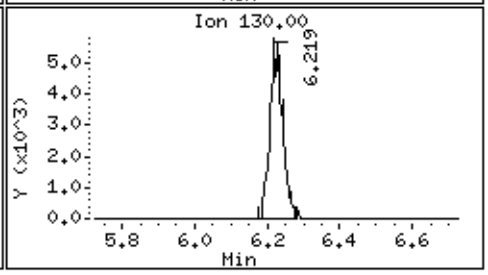




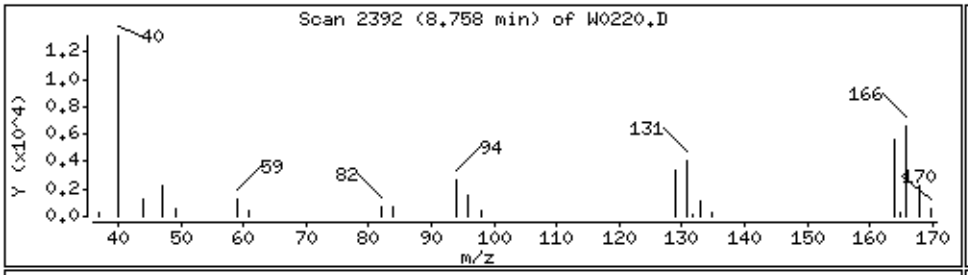


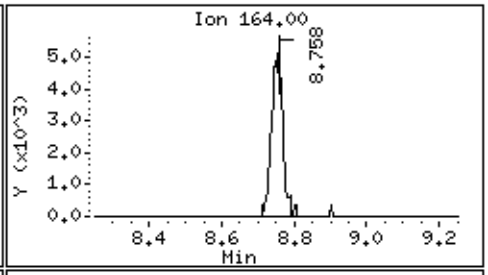


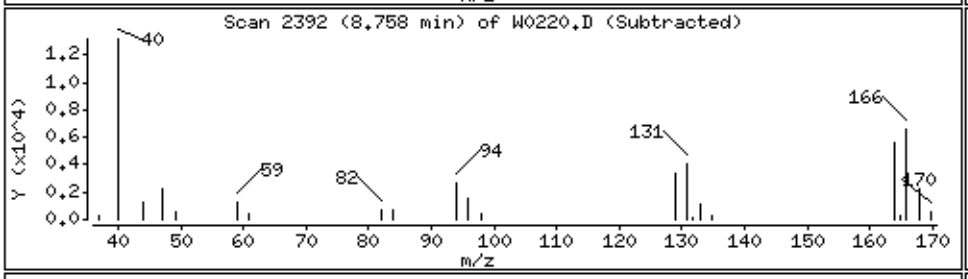


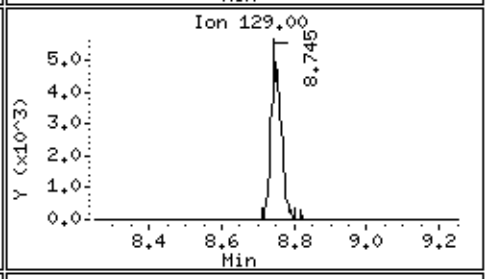


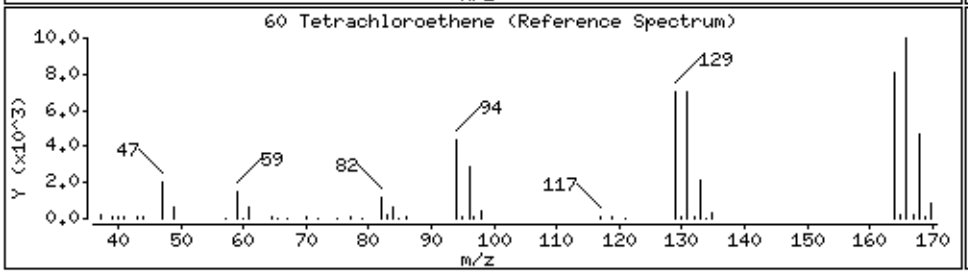
60 Tetrachloroethene Concentration: 247 ug/l

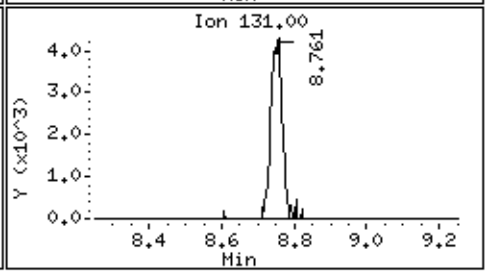








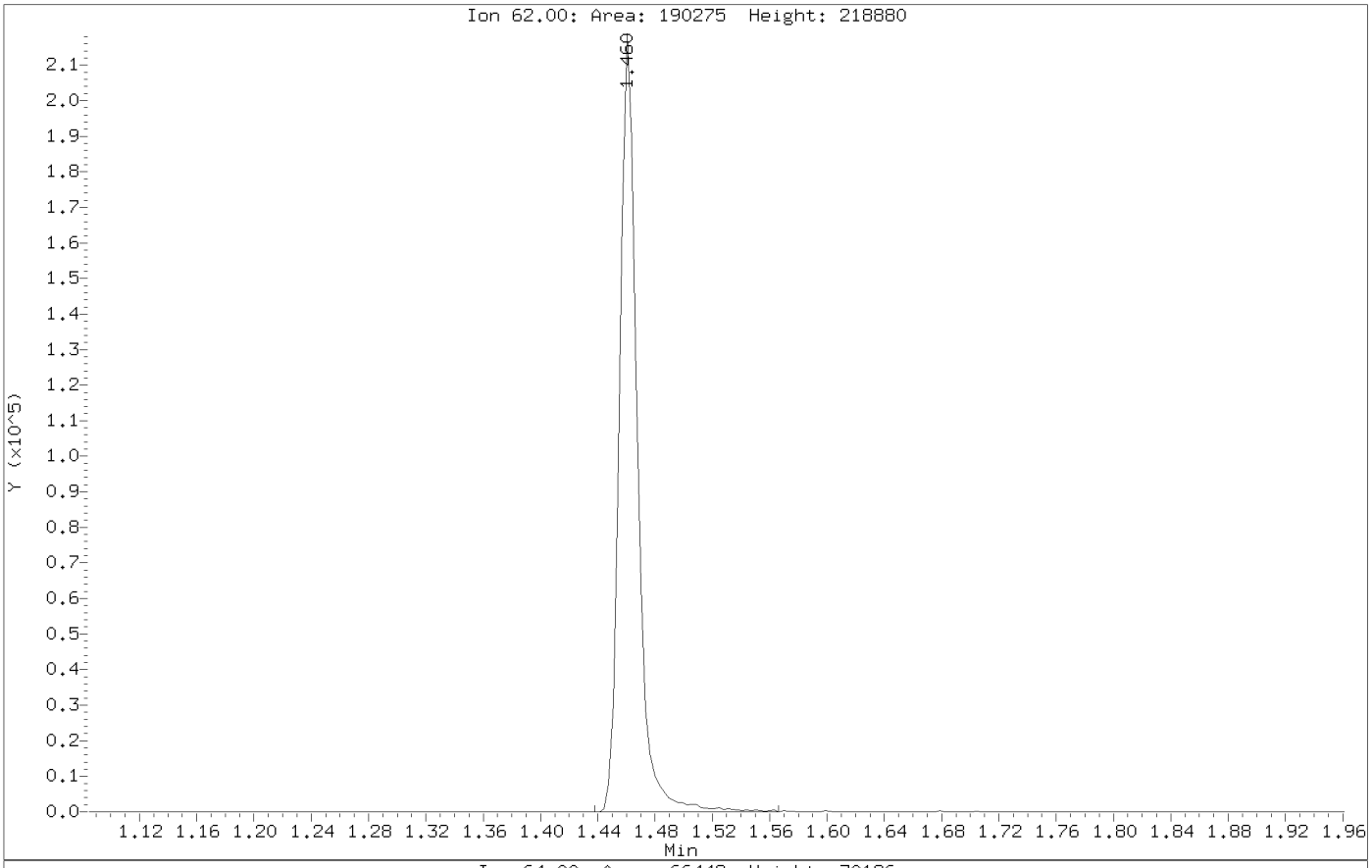


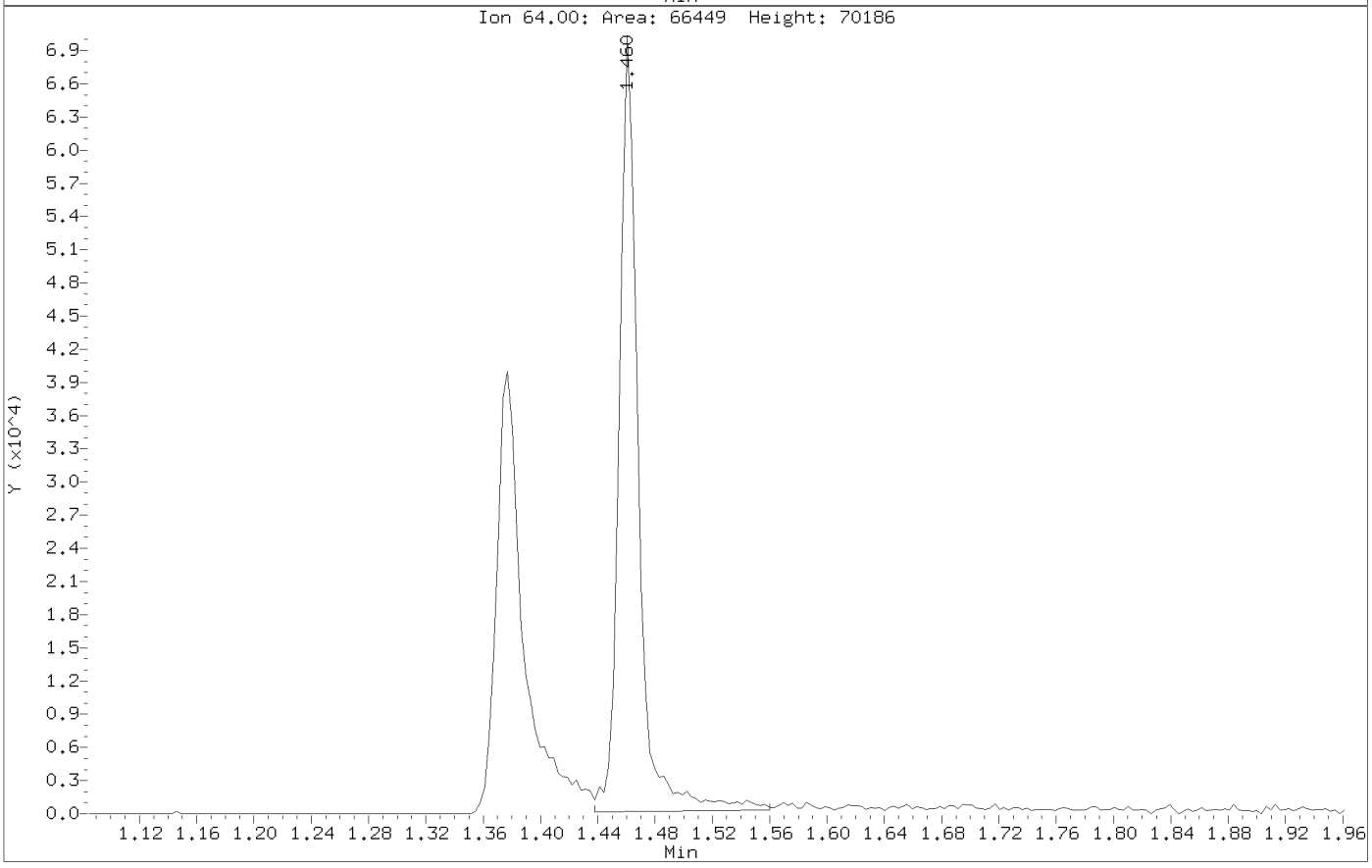


BEFORE MANUAL INTEGRATION

Data File: \\target_server\gg\chem\gcms-w.i\W092421.b\W0220.D
Injection Date: 24-SEP-2021 15:39
Instrument: gcms-w.i
Client Sample ID: VA-MW-84R-3(2021091

Compound: Vinyl chloride
CAS Number: 75-01-4

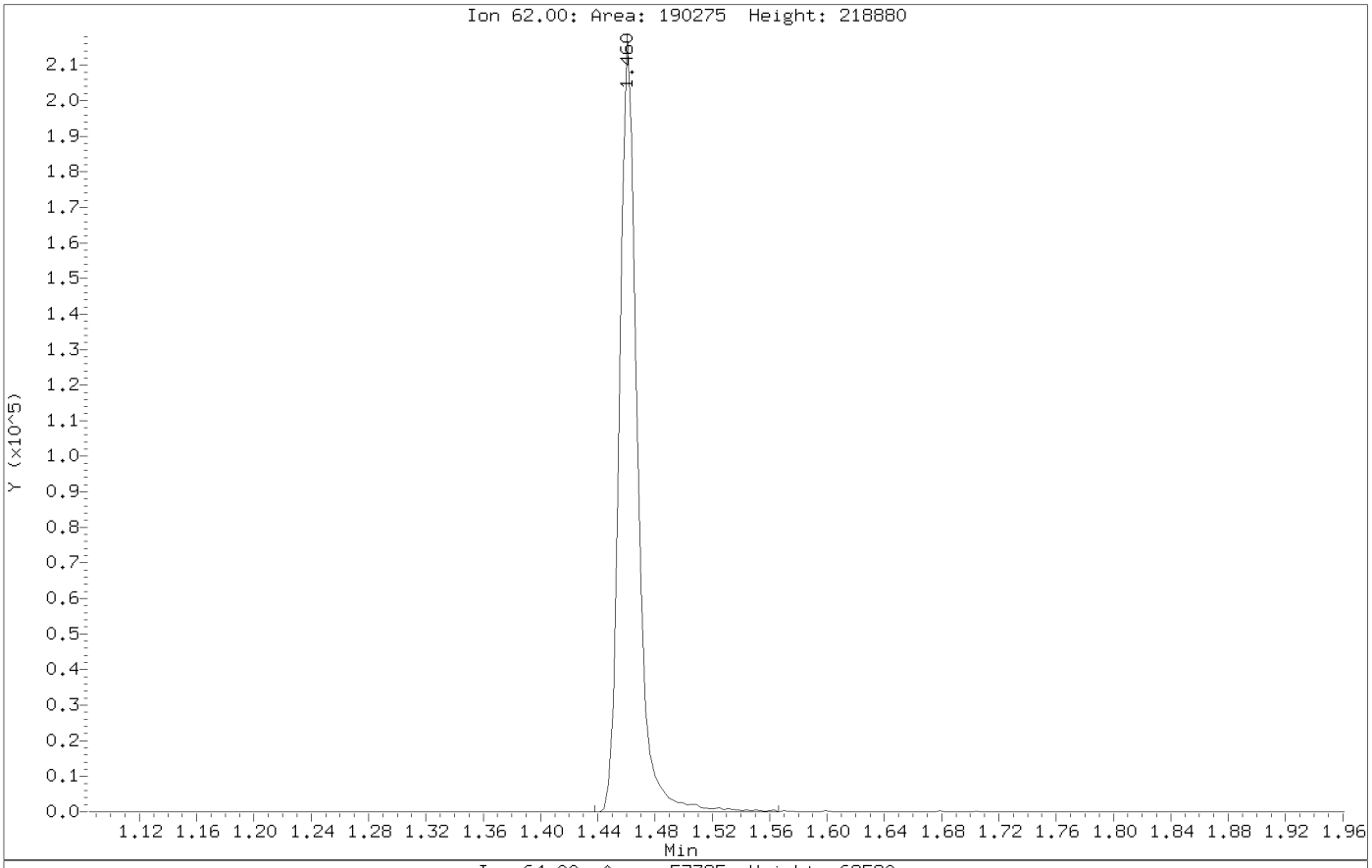


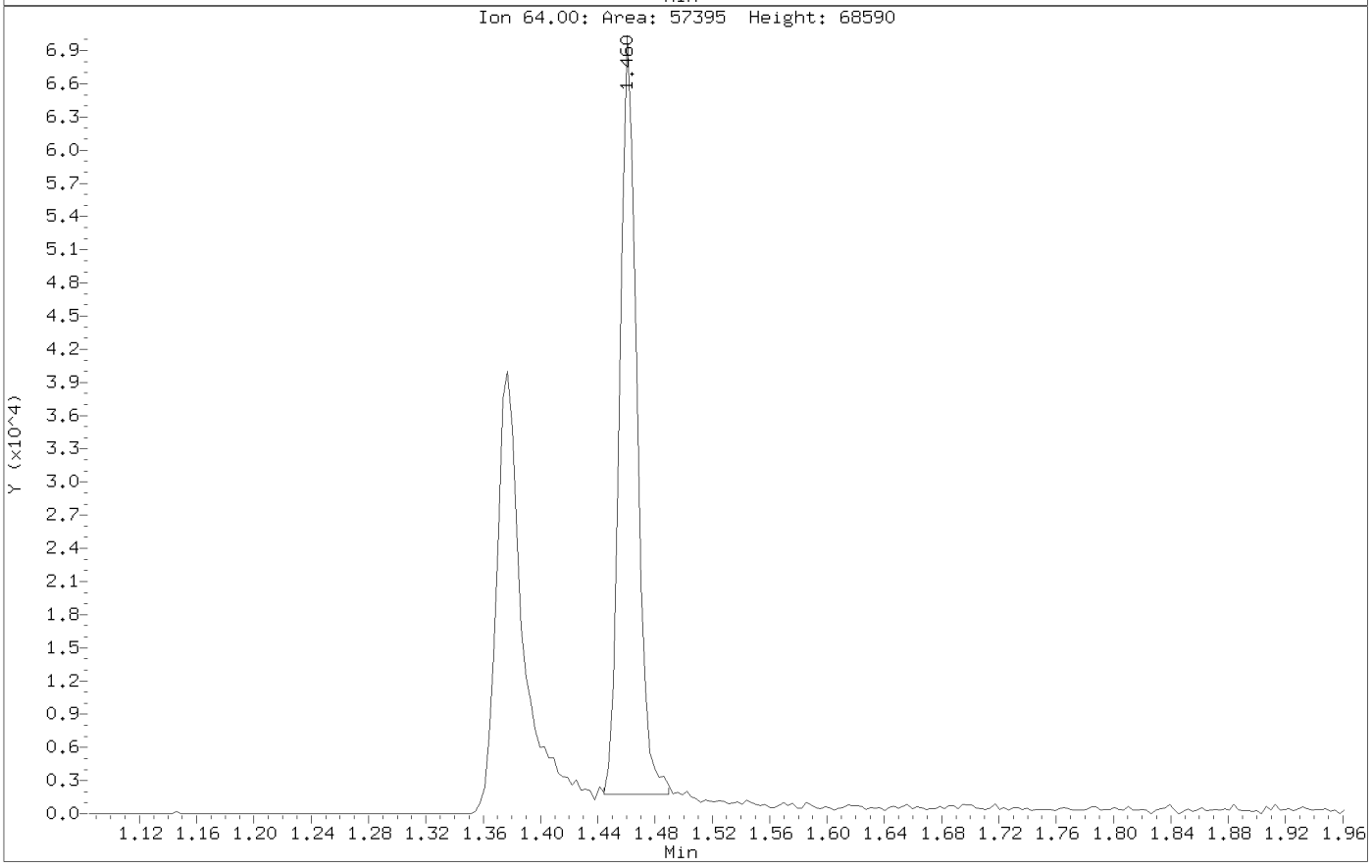


AFTER MANUAL INTEGRATION

Data File: \\target_server\gg\chem\gcms-w.i\W092421.b\W0220.D
Injection Date: 24-SEP-2021 15:39
Instrument: gcms-w.i
Client Sample ID: VA-MW-84R-3(2021091

Compound: Vinyl chloride
CAS Number: 75-01-4





Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-28DL2
Client ID: WVA-MW-84R-3(20210916)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0224.D

Sample Date: 16-SEP-21
Received Date: 18-SEP-21
Extract Date: 24-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306608

Analysis Date: 24-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	20.	ug/L	10	2	20.
Vinyl Chloride	E	2400	ug/L	10	2	20.
Bromomethane	U	20.	ug/L	10	2	20.
Chloroethane	U	20.	ug/L	10	2	20.
Trichlorofluoromethane	U	20.	ug/L	10	2	20.
1,1-Dichloroethene	U	10.	ug/L	10	1	10.
Carbon Disulfide	U	10.	ug/L	10	1	10.
Methylene Chloride		50.	ug/L	10	5	50.
trans-1,2-Dichloroethene		20.	ug/L	10	1	10.
1,1-Dichloroethane	U	10.	ug/L	10	1	10.
cis-1,2-Dichloroethene	E	4500	ug/L	10	1	10.
Chloroform	U	10.	ug/L	10	1	10.
Carbon Tetrachloride	U	10.	ug/L	10	1	10.
1,1,1-Trichloroethane	U	10.	ug/L	10	1	10.
2-Butanone	U	50.	ug/L	10	5	50.
Benzene	U	10.	ug/L	10	1	10.
1,2-Dichloroethane	U	10.	ug/L	10	1	10.
Trichloroethene		220	ug/L	10	1	10.
1,2-Dichloropropane	U	10.	ug/L	10	1	10.
Bromodichloromethane	U	10.	ug/L	10	1	10.
cis-1,3-Dichloropropene	U	10.	ug/L	10	1	10.
Toluene	U	10.	ug/L	10	1	10.
4-Methyl-2-Pentanone	U	50.	ug/L	10	5	50.
Tetrachloroethene		230	ug/L	10	1	10.
trans-1,3-Dichloropropene	U	10.	ug/L	10	1	10.
1,1,2-Trichloroethane	U	10.	ug/L	10	1	10.
Dibromochloromethane	U	10.	ug/L	10	1	10.
Chlorobenzene	U	10.	ug/L	10	1	10.
Ethylbenzene	U	10.	ug/L	10	1	10.
m+p-Xylenes	U	20.	ug/L	10	2	20.
o-Xylene	U	10.	ug/L	10	1	10.
Bromoform	U	10.	ug/L	10	1	10.
1,1,2,2-Tetrachloroethane	U	10.	ug/L	10	1	10.
P-Bromofluorobenzene		95.4	%			
Toluene-d8		99.8	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-28DL2
Client ID: WVA-MW-84R-3(20210916)
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0224.D

Sample Date: 16-SEP-21
Received Date: 18-SEP-21
Extract Date: 24-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306608

Analysis Date: 24-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		110.	%			
Dibromofluoromethane		105.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Data File: \\target_server\gg\chem\gcms-w.i\W092421.b\W0224.D
Report Date: 12-Oct-2021 08:55

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-w.i\W092421.b\W0224.D
Lab Smp Id: SO6313-28DL2 Client Smp ID: VA-MW-84R-3(2021091
Inj Date : 24-SEP-2021 17:42
Operator : ES Inst ID: gcms-w.i
Smp Info : SO6313-28DL2
Misc Info : WG306608,WG306608-4
Comment : SW846 5030
Method : \\target_server\gg\chem\gcms-w.i\W092421.b\W8A05(08A).m
Meth Date : 08-Oct-2021 09:51 gcms-w.i Quant Type: ISTD
Cal Date : 24-SEP-2021 11:36 Cal File: W0215.D
Als bottle: 19
Dil Factor: 10.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.12

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	10.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

10:27 am, Oct 12, 2021

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)	REVIEW CODE
3 Vinyl chloride	62	1.460	1.460	(0.264)	1625222	239.854	2400(A)	
4 Bromomethane	94	1.675	1.672	(0.303)	1332	0.59376	5.9(a)	
8 1,1-Dichloroethene	96	2.211	2.211	(0.400)	3387	0.69412	6.9(a)	
14 Methylene Chloride	84	2.676	2.673	(0.484)	25602	4.95457	49.5(a)	
15 Acetone	43	2.731	2.722	(0.494)	5521	3.52754	35.3(aM)	M10
16 trans-1,2-Dichloroethene	96	2.817	2.811	(0.510)	10351	2.02094	20.2	
27 cis-1,2-Dichloroethene	96	4.059	4.050	(0.735)	2322415	448.419	4480(A)	
$ 34 Dibromofluoromethane	113	4.717	4.714	(0.854)	237299	52.4716	52.5	
* 41 Pentafluorobenzene	168	5.526	5.520	(1.000)	447812	50.0000		
$ 42 1,2-Dichloroethane-D4	65	5.551	5.549	(1.005)	341505	54.8757	54.9	
47 Trichloroethene	95	6.228	6.226	(0.986)	117543	22.4578	224	
* 48 1,4-Difluorobenzene	114	6.315	6.312	(1.000)	785754	50.0000		
$ 58 Toluene-D8	98	8.208	8.202	(1.300)	940972	49.9105	49.9	
60 Tetrachloroethene	164	8.757	8.751	(0.860)	94957	22.8407	228	
* 68 Chlorobenzene-D5	117	10.185	10.182	(1.000)	761147	50.0000		
$ 77 P-Bromofluorobenzene	95	11.677	11.674	(1.849)	392077	47.6892	47.7	
* 93 1,4-Dichlorobenzene-D4	152	12.945	12.942	(1.000)	394251	50.0000		
M 97 1,2-Dichloroethylene (total)	96				2332766	450.440	4500	

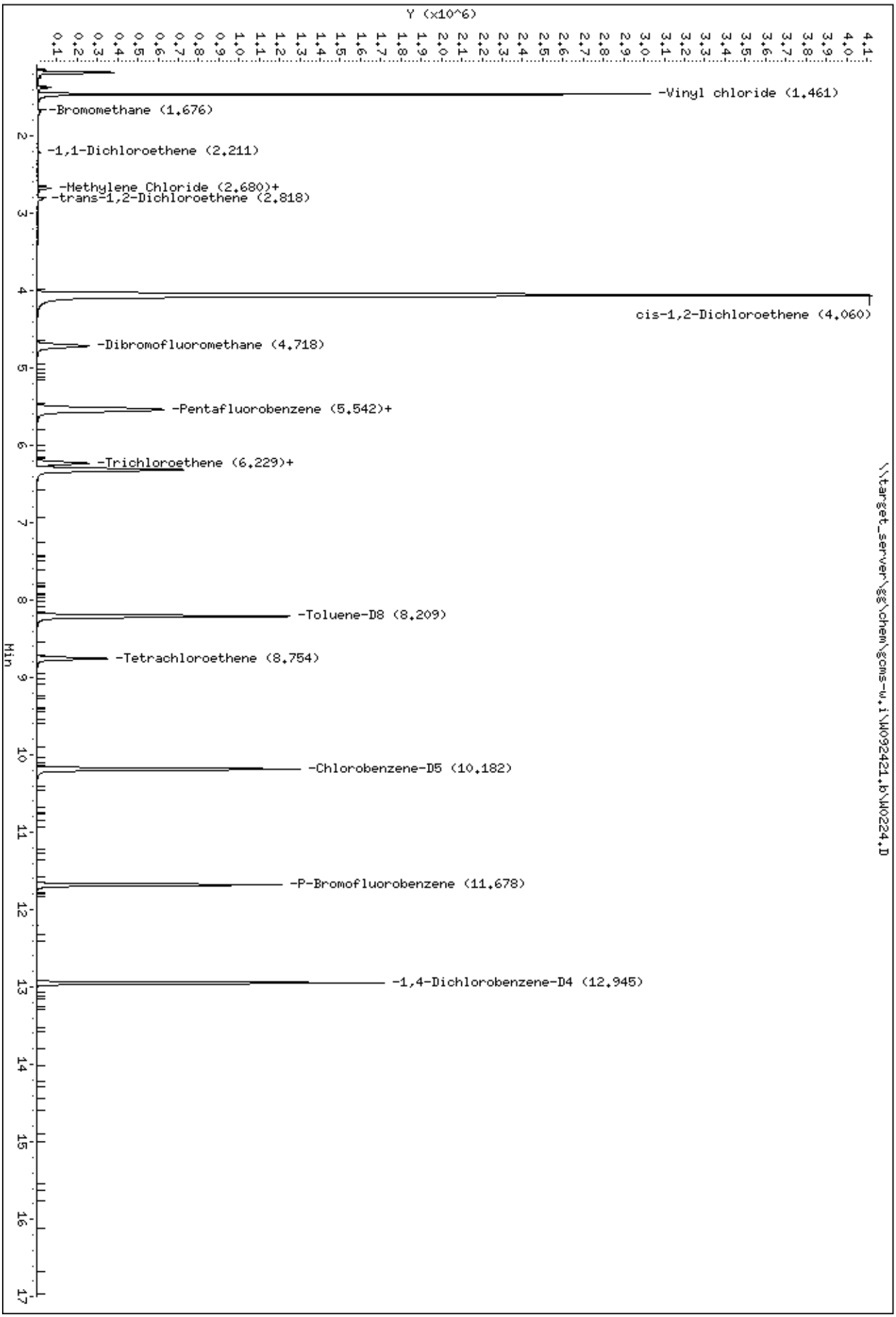
QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount
exceeded maximum amount.

Data File: \\target_server\gg\chem\gcms-w.i\W092421.b\W0224.D
Report Date: 12-Oct-2021 08:55

QC Flag Legend

M - Compound response manually integrated.



Data File: \\target_server\gg\chem\gcms-w.i\W092421.b\W0224.D
Date : 24-SEP-2021 17:42
Client ID: VA-MW-84R-3(2021091
Sample Info: SD6313-28DL2

Instrument: gcms-w.i

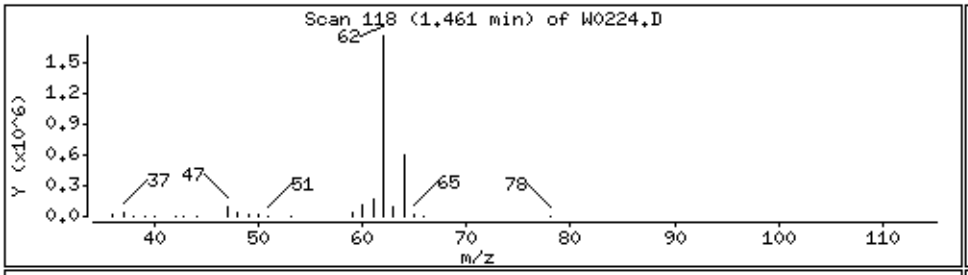
Data File: \\target_server\gg\chem\gcms-w.i\W092421.b\W0224.D

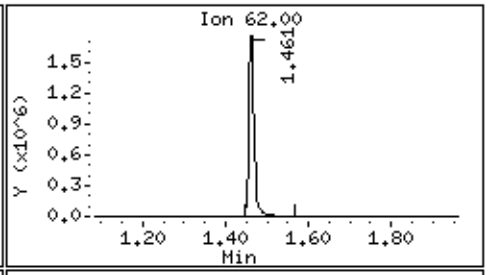
Date : 24-SEP-2021 17:42

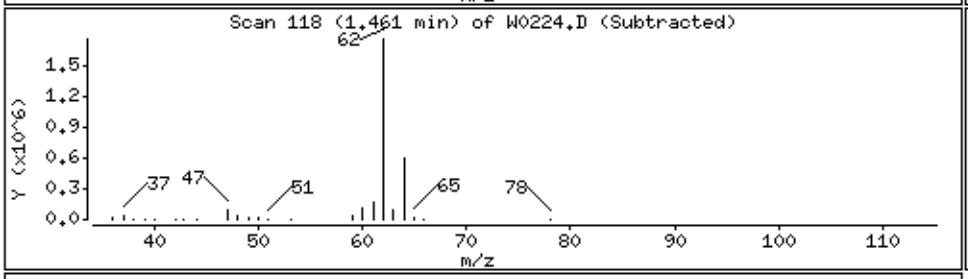
Client ID: VA-MW-84R-3(2021091 Instrument: gcms-w.i

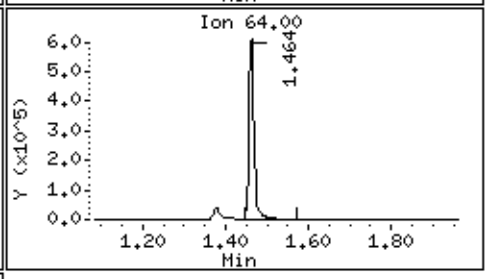
Sample Info: S06313-28DL2

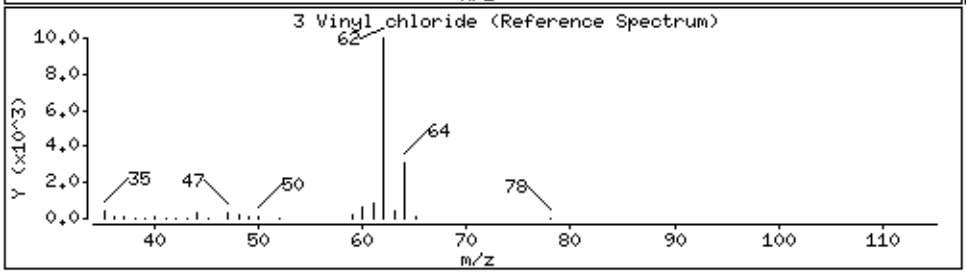
3 Vinyl chloride Concentration: 2400 ug/l



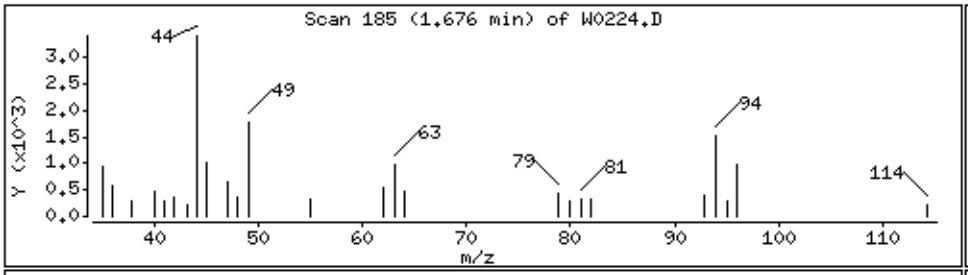


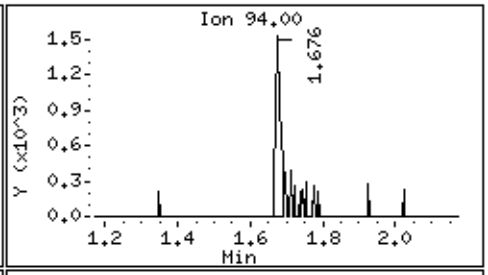


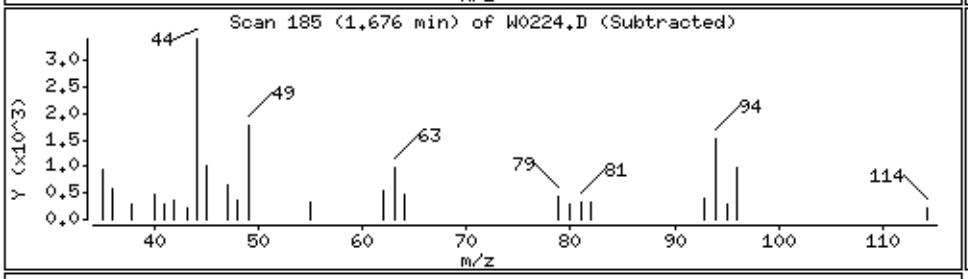


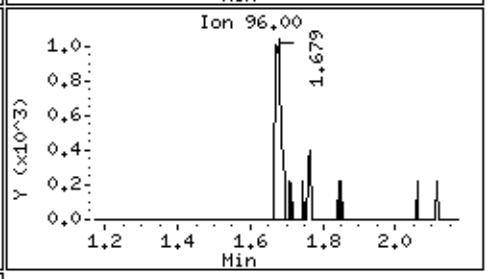


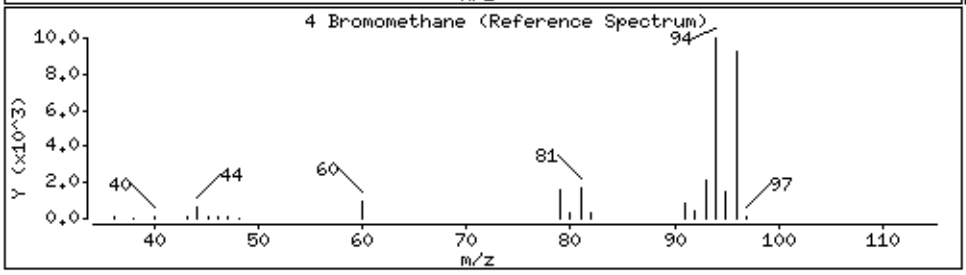
4 Bromomethane Concentration: 5.9 ug/l











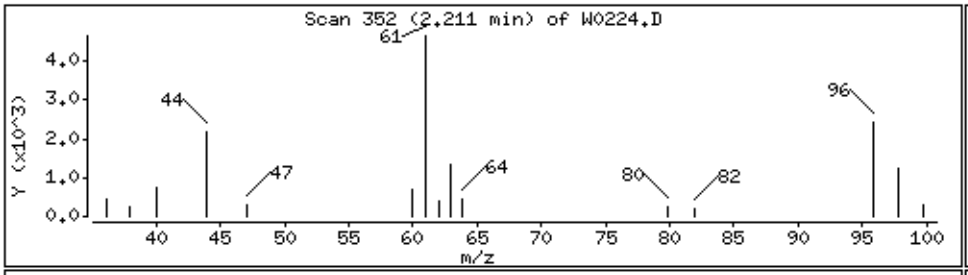
Data File: \\target_server\gg\chem\gcms-w.i\W092421.b\W0224.D

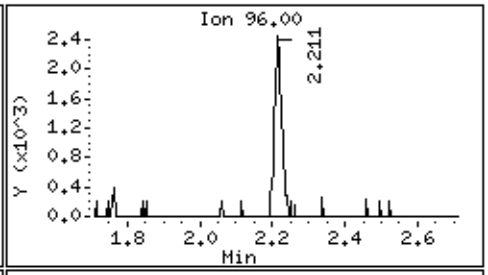
Date : 24-SEP-2021 17:42

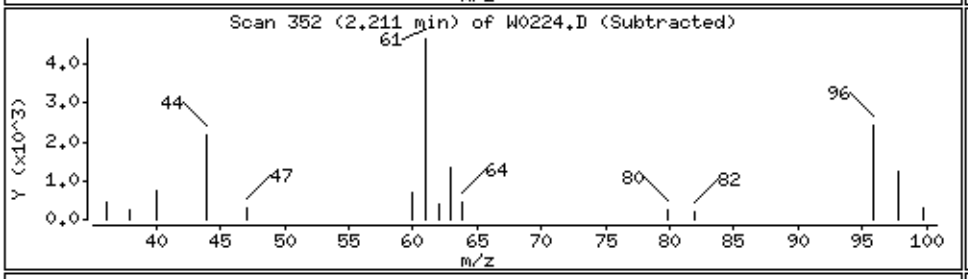
Client ID: VA-MW-84R-3(2021091 Instrument: gcms-w.i

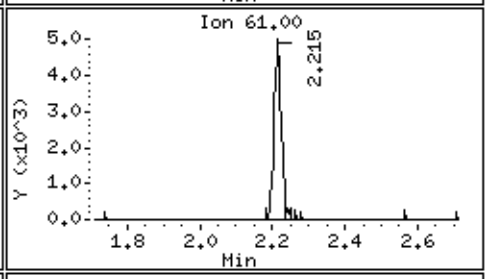
Sample Info: S06313-28DL2

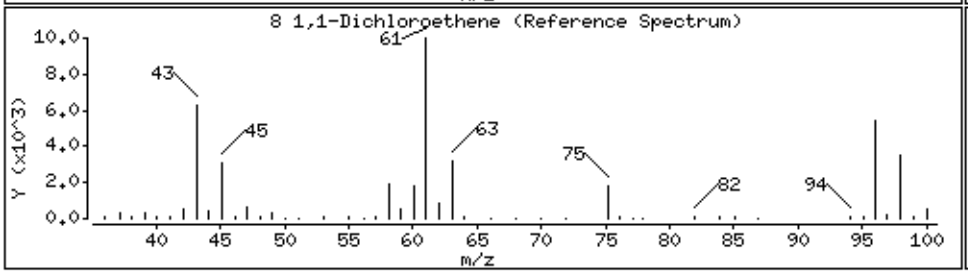
8 1,1-Dichloroethene Concentration: 6.9 ug/l

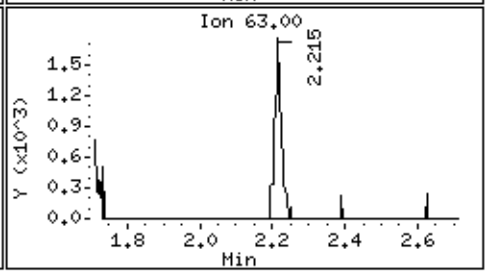




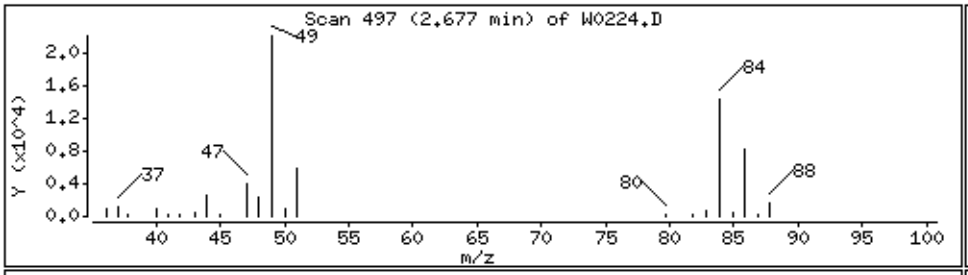


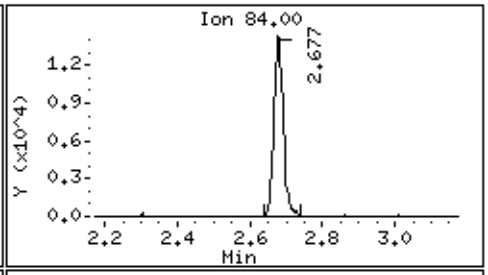


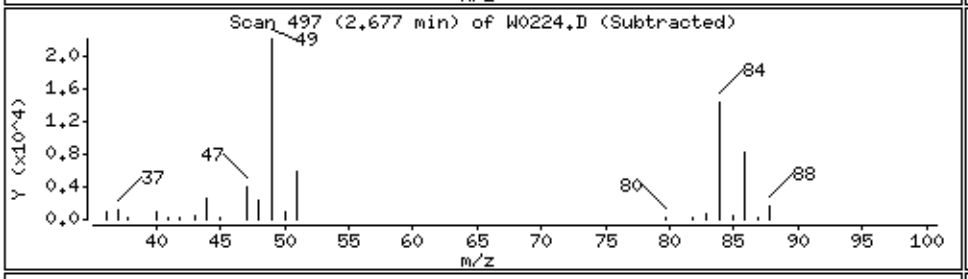


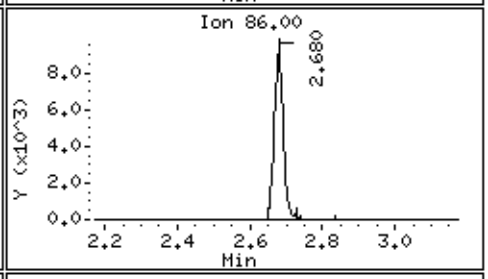


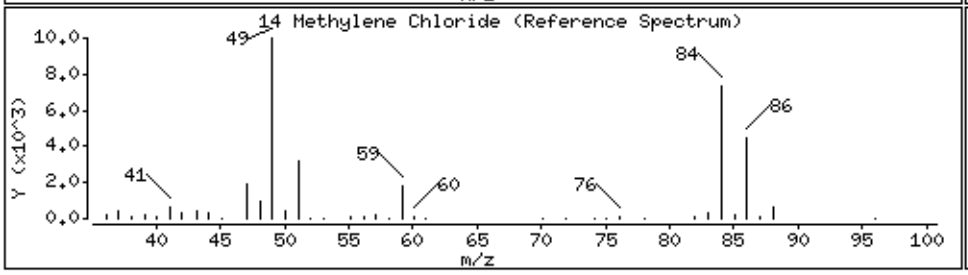
14 Methylene Chloride Concentration: 49.5 ug/l

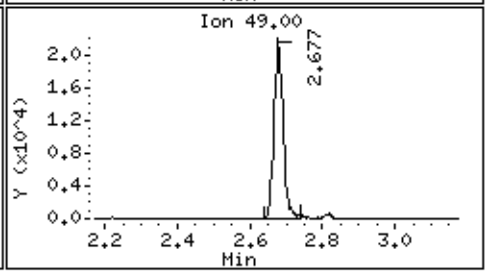












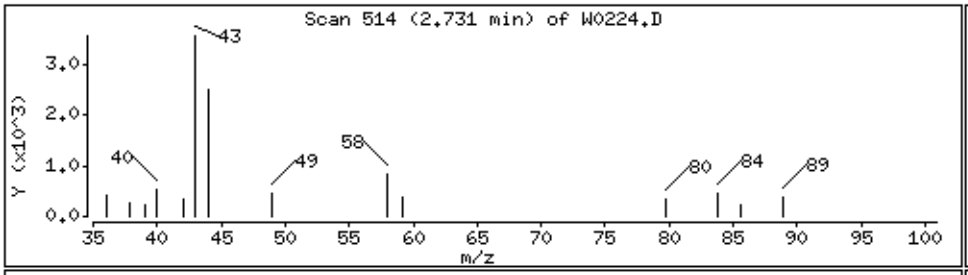
Data File: \\target_server\gg\chem\gcms-w.i\W092421.b\W0224.D

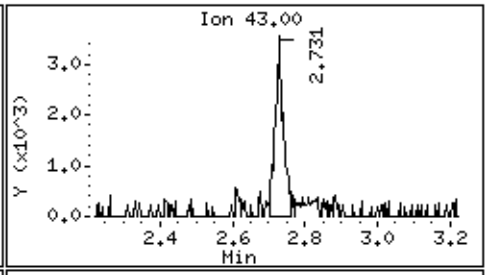
Date : 24-SEP-2021 17:42

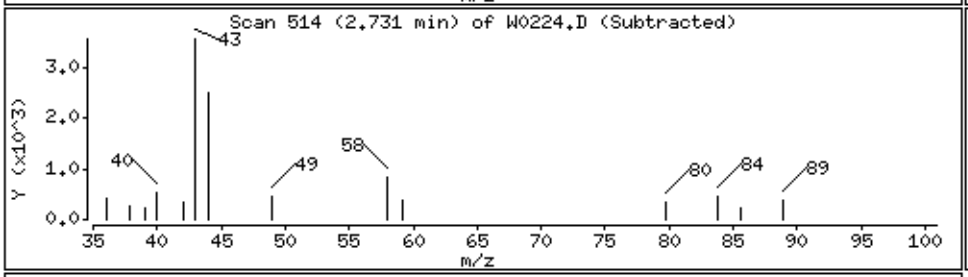
Client ID: VA-MW-84R-3(2021091 Instrument: gcms-w.i

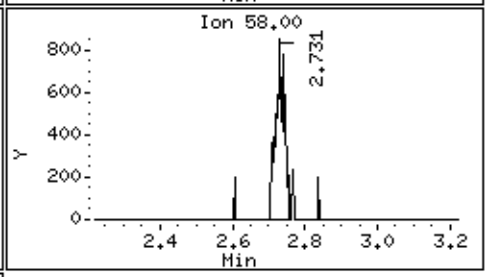
Sample Info: S06313-28DL2

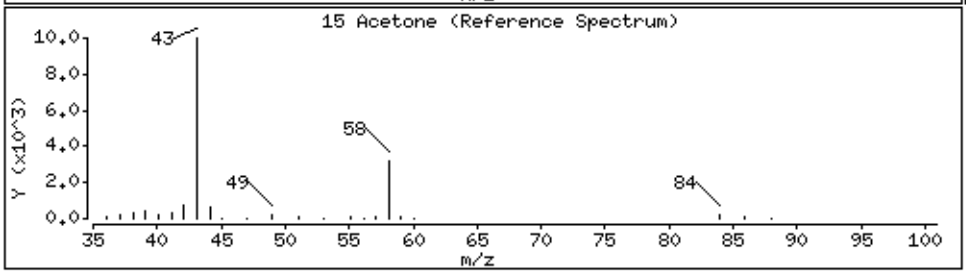
15 Acetone Concentration: 35.3 ug/l



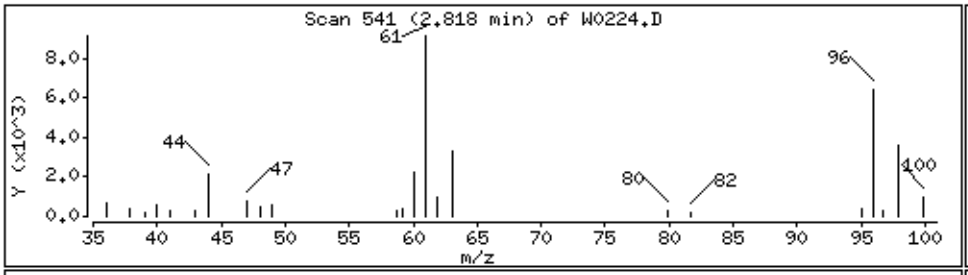


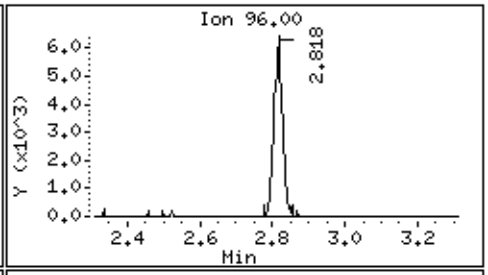


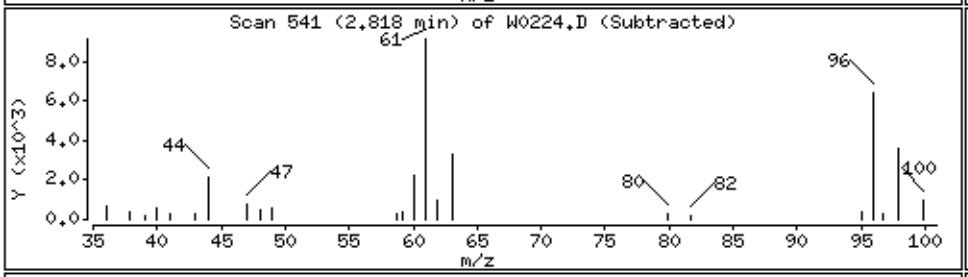


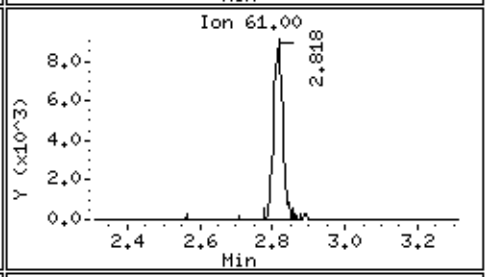


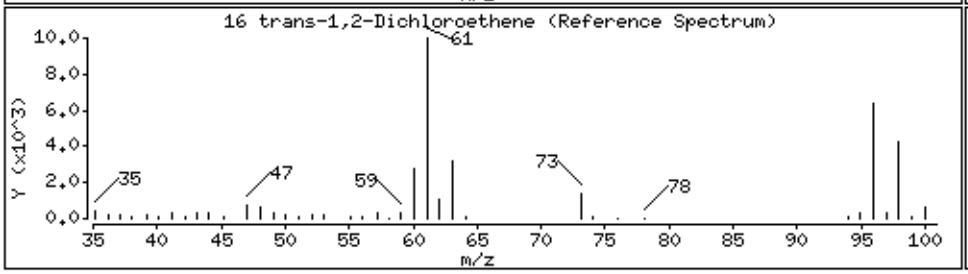
16 trans-1,2-Dichloroethene Concentration: 20.2 ug/l

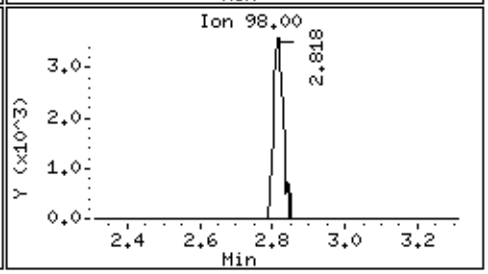












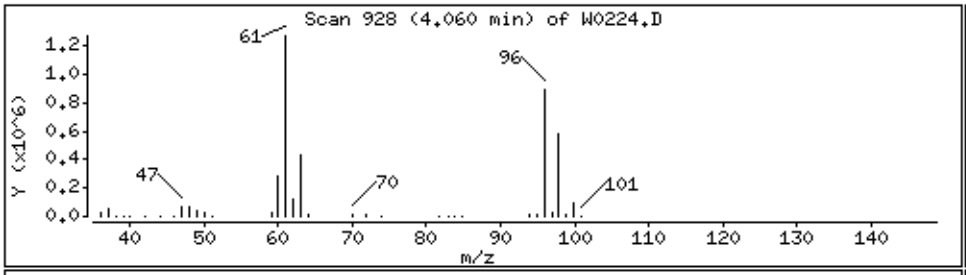
Data File: \\target_server\gg\chem\gcms-w.i\W092421.b\W0224.D

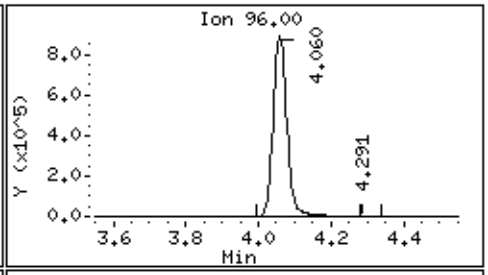
Date : 24-SEP-2021 17:42

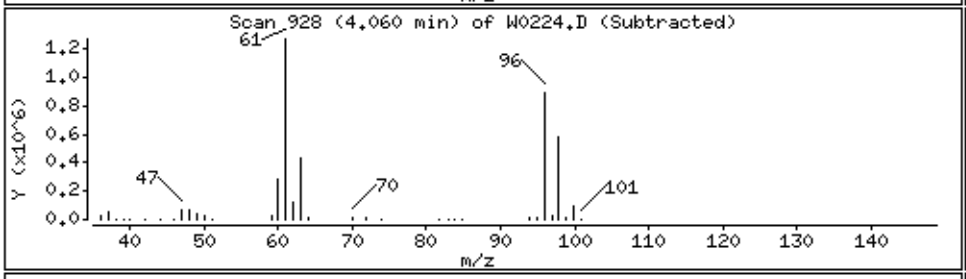
Client ID: VA-MW-84R-3(2021091 Instrument: gcms-w.i

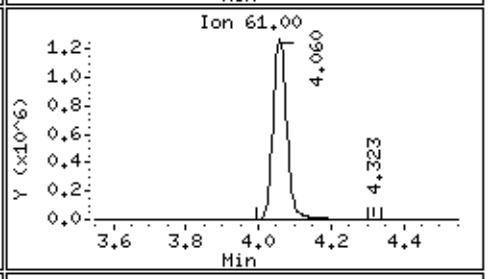
Sample Info: S06313-28DL2

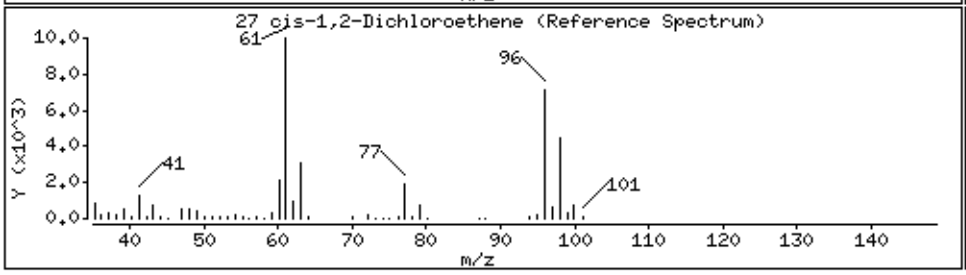
27 cis-1,2-Dichloroethene Concentration: 4480 ug/l

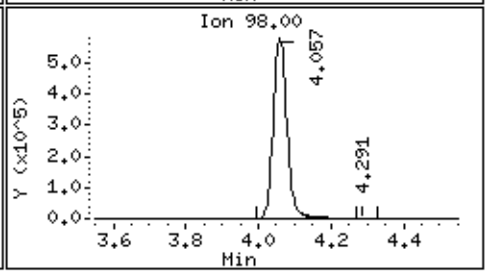




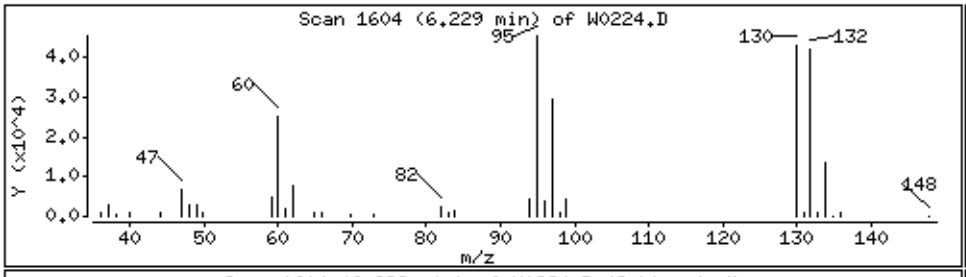


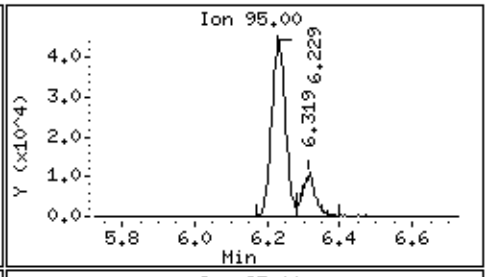


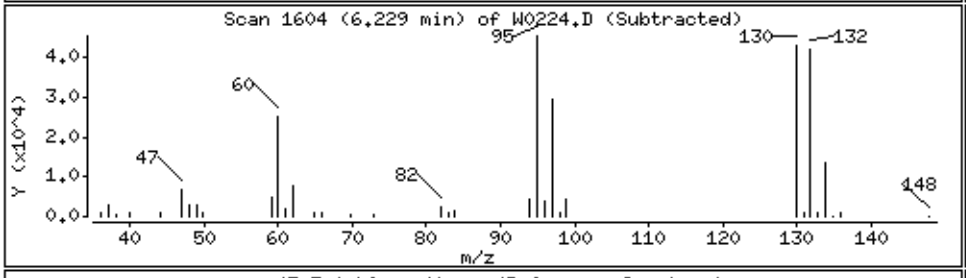


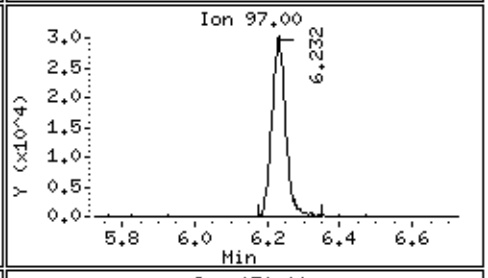


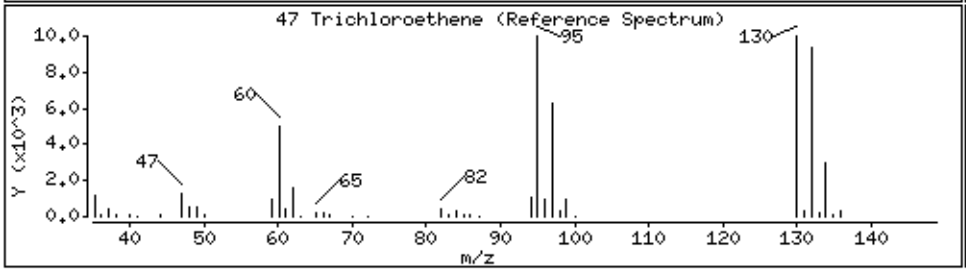
47 Trichloroethene Concentration: 224 ug/l

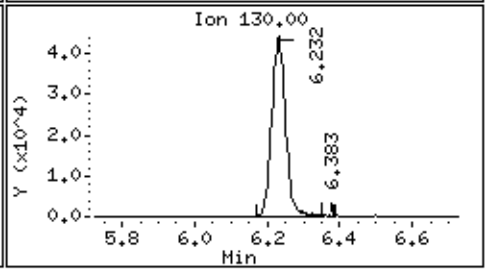












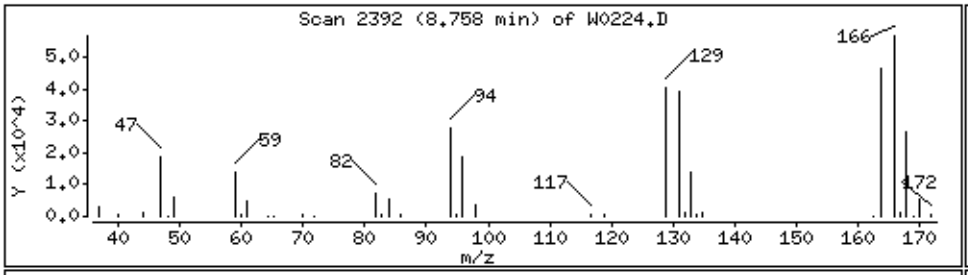
Data File: \\target_server\gg\chem\gcms-w.i\W092421.b\W0224.D

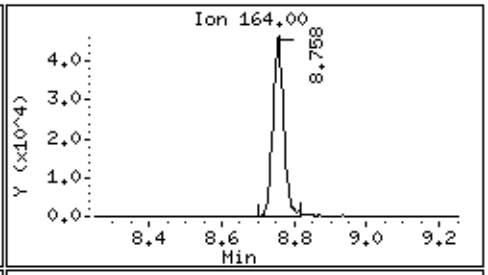
Date : 24-SEP-2021 17:42

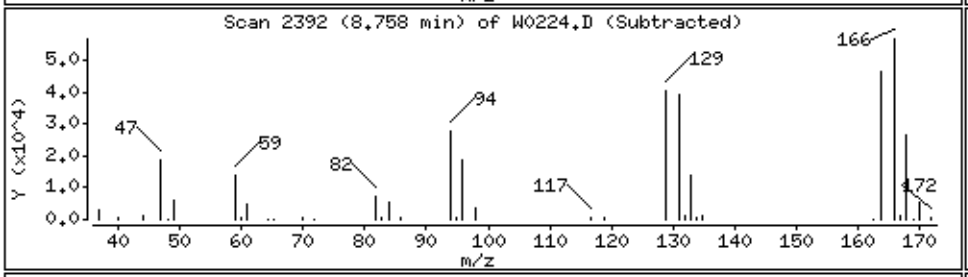
Client ID: VA-MW-84R-3(2021091 Instrument: gcms-w.i

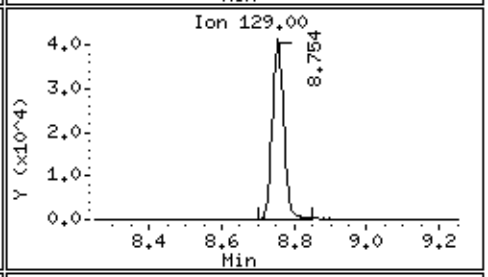
Sample Info: S06313-28DL2

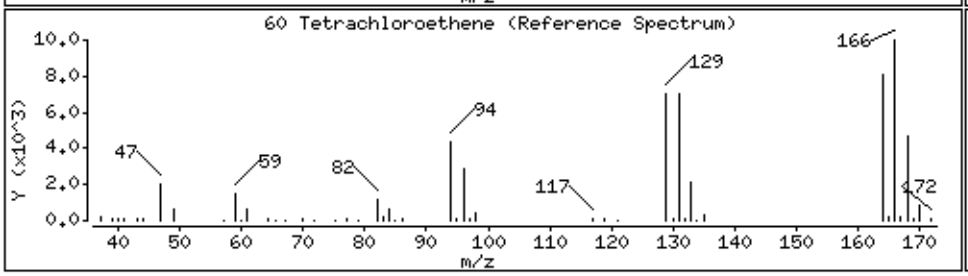
60 Tetrachloroethene Concentration: 228 ug/l

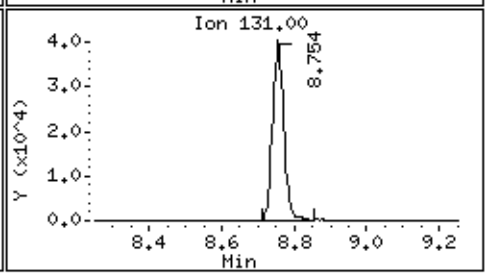












Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-29
Client ID: TRIP BLANK
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0127.D

Sample Date: 16-SEP-21
Received Date: 18-SEP-21
Extract Date: 21-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306383

Analysis Date: 21-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	2.0	ug/L	1	2	2.0
Vinyl Chloride	U	2.0	ug/L	1	2	2.0
Bromomethane	U	2.0	ug/L	1	2	2.0
Chloroethane	U	2.0	ug/L	1	2	2.0
Trichlorofluoromethane	U	2.0	ug/L	1	2	2.0
1,1-Dichloroethene	U	1.0	ug/L	1	1	1.0
Carbon Disulfide	U	1.0	ug/L	1	1	1.0
Methylene Chloride	U	5.0	ug/L	1	5	5.0
trans-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
1,1-Dichloroethane	U	1.0	ug/L	1	1	1.0
cis-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
Chloroform	U	1.0	ug/L	1	1	1.0
Carbon Tetrachloride	U	1.0	ug/L	1	1	1.0
1,1,1-Trichloroethane	U	1.0	ug/L	1	1	1.0
2-Butanone	U	5.0	ug/L	1	5	5.0
Benzene	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethane	U	1.0	ug/L	1	1	1.0
Trichloroethene	U	1.0	ug/L	1	1	1.0
1,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Bromodichloromethane	U	1.0	ug/L	1	1	1.0
cis-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
Toluene	U	1.0	ug/L	1	1	1.0
4-Methyl-2-Pentanone	U	5.0	ug/L	1	5	5.0
Tetrachloroethene	U	1.0	ug/L	1	1	1.0
trans-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
1,1,2-Trichloroethane	U	1.0	ug/L	1	1	1.0
Dibromochloromethane	U	1.0	ug/L	1	1	1.0
Chlorobenzene	U	1.0	ug/L	1	1	1.0
Ethylbenzene	U	1.0	ug/L	1	1	1.0
m+p-Xylenes	U	2.0	ug/L	1	2	2.0
o-Xylene	U	1.0	ug/L	1	1	1.0
Bromoform	U	1.0	ug/L	1	1	1.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
P-Bromofluorobenzene		99.9	%			
Toluene-d8		101.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6313-29
Client ID: TRIP BLANK
Project: Watervliet Arsenal LTM
SDG: SO6313
Lab File ID: W0127.D

Sample Date: 16-SEP-21
Received Date: 18-SEP-21
Extract Date: 21-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306383

Analysis Date: 21-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		108.	%			
Dibromofluoromethane		104.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Data File: \\target_server\gg\chem\gcms-w.i\W092121.b\W0127.D
Report Date: 12-Oct-2021 08:53

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-w.i\W092121.b\W0127.D
Lab Smp Id: SO6313-29 Client Smp ID: TRIP BLANK
Inj Date : 21-SEP-2021 09:49
Operator : ES Inst ID: gcms-w.i
Smp Info : SO6313-29
Misc Info : WG306383,WG306383-4
Comment : SW846 5030
Method : \\target_server\gg\chem\gcms-w.i\W092121.b\W8A05(08).m
Meth Date : 11-Oct-2021 12:27 gcms-w.i Quant Type: ISTD
Cal Date : 20-SEP-2021 11:30 Cal File: W0105.D
Als bottle: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.12

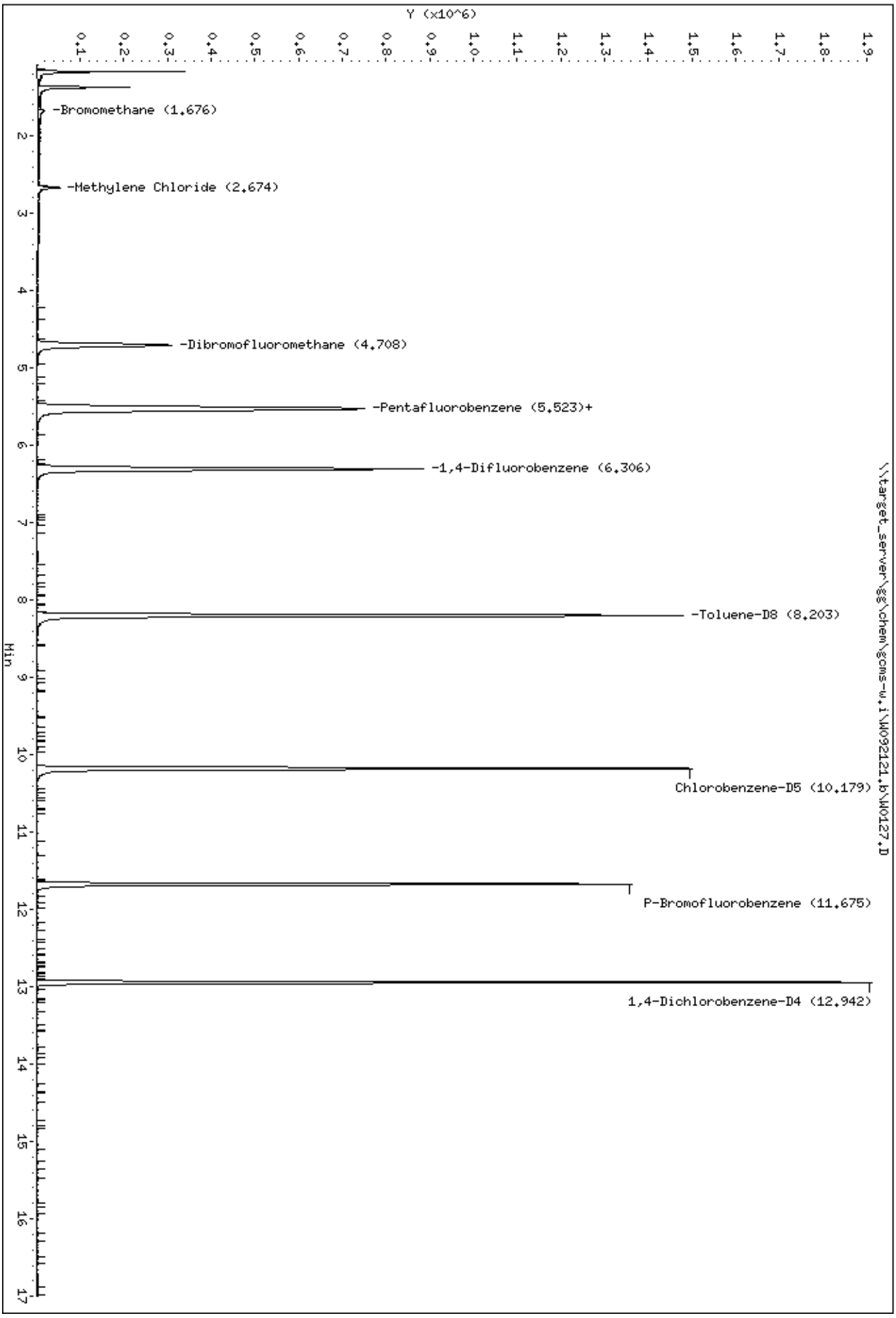
Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)	REVIEW CODE
4	Bromomethane	94	1.675	1.672	(0.304)	2025	0.63392	0.63(a)	
14	Methylene Chloride	84	2.673	2.677	(0.484)	19274	3.43221	3.4(a)	
$ 34	Dibromofluoromethane	113	4.708	4.714	(0.853)	296707	51.9944	52.0	
* 41	Pentafluorobenzene	168	5.519	5.526	(1.000)	569763	50.0000		
$ 42	1,2-Dichloroethane-D4	65	5.542	5.549	(1.004)	400505	53.8824	53.9	
* 48	1,4-Difluorobenzene	114	6.306	6.315	(1.000)	956773	50.0000		
$ 58	Toluene-D8	98	8.202	8.209	(1.301)	1159475	50.6722	50.7	
* 68	Chlorobenzene-D5	117	10.179	10.182	(1.000)	935208	50.0000		
$ 77	P-Bromofluorobenzene	95	11.674	11.678	(1.851)	478365	49.9627	50.0	
* 93	1,4-Dichlorobenzene-D4	152	12.942	12.948	(1.000)	460326	50.0000		

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).


Data File: \\target_server\gg\chem\gcms-w.i\W092121.b\W0127.D
Date : 21-SEP-2021 09:49
Client ID: TRIP BLANK
Sample Info: SD6313-29
Instrument: gcms-w.i
\\target_server\gg\chem\gcms-w.i\W092121.b\W0127.D
Y (x10^6)
Min
-Bromomethane (1.676)
-Methylene Chloride (2.674)
-Dibromofluoromethane (4.708)
-Pentafluorobenzene (5.523)+
-1,4-Difluorobenzene (6.306)
-Toluene-D8 (8.203)
Chlorobenzene-D5 (10.179)
P-Bromofluorobenzene (11.675)
1,4-Dichlorobenzene-D4 (12.942)

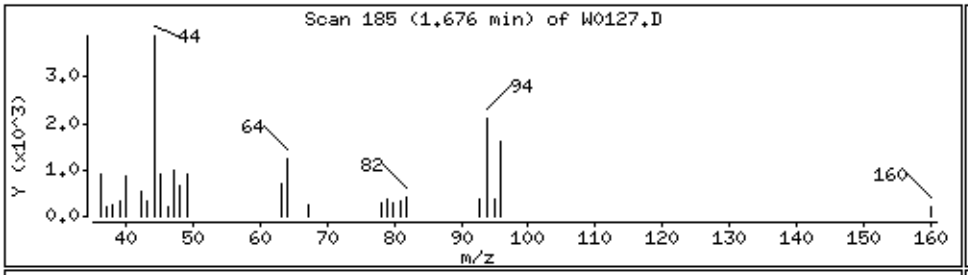
Data File: \\target_server\gg\chem\gcms-w.i\W092121.b\W0127.D

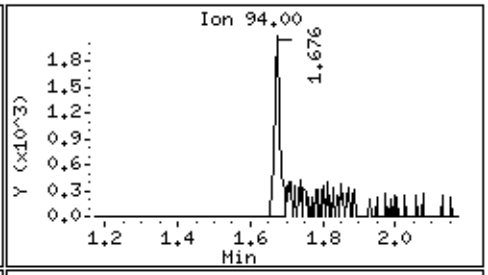
Date : 21-SEP-2021 09:49

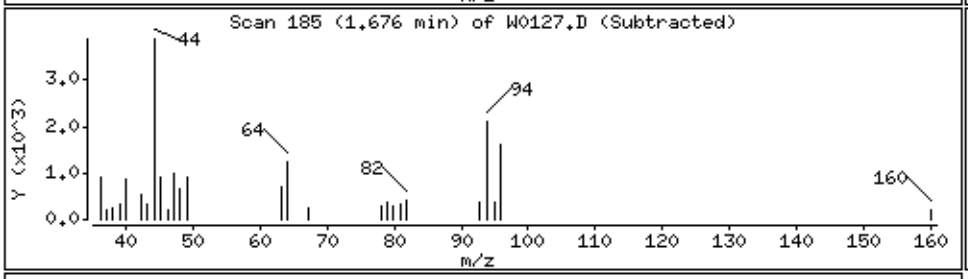
Client ID: TRIP BLANK Instrument: gcms-w.i

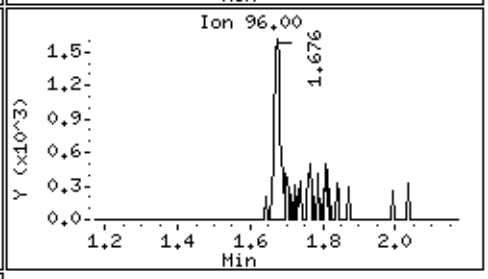
Sample Info: S06313-29

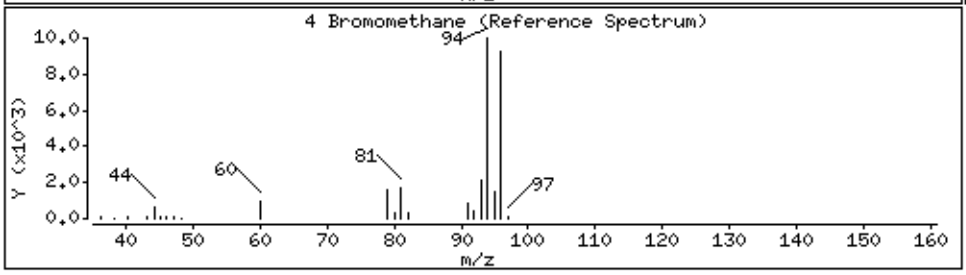
4 Bromomethane Concentration: 0.63 ug/l



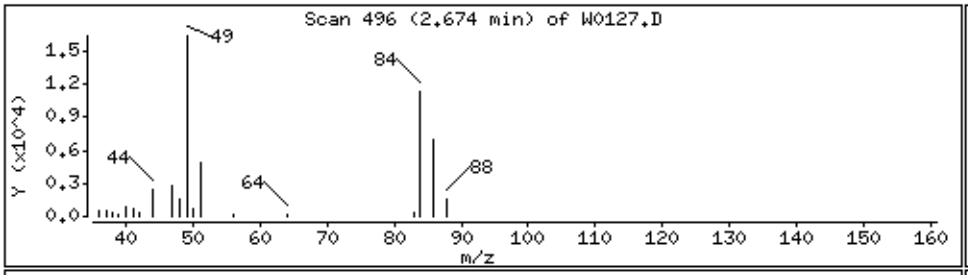


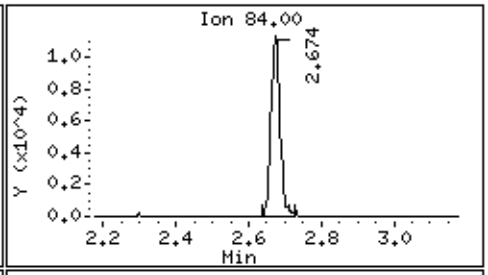


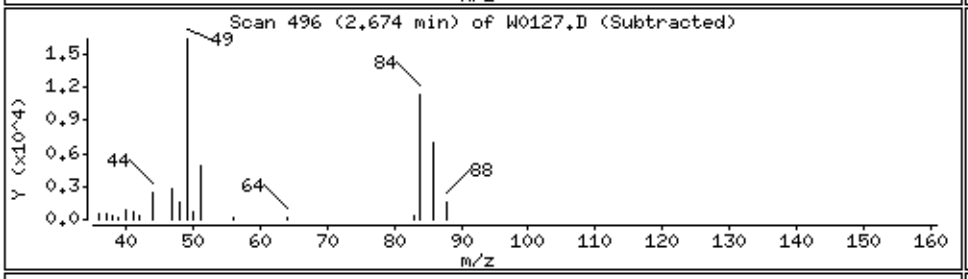


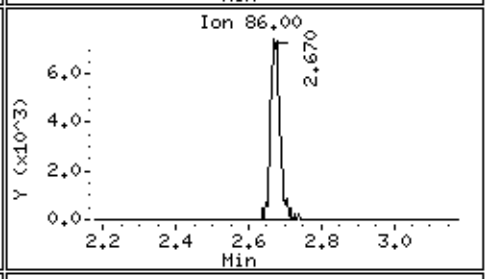


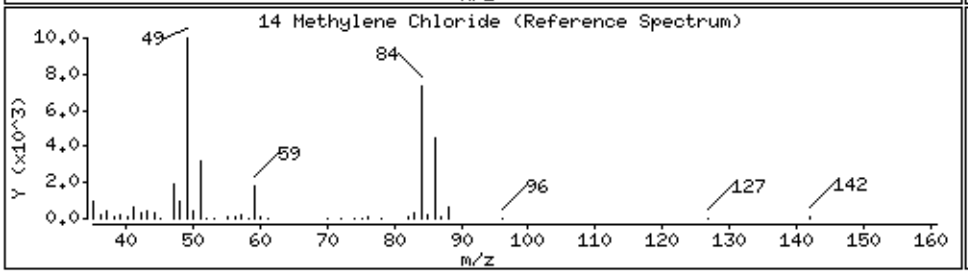
14 Methylene Chloride Concentration: 3.4 ug/l

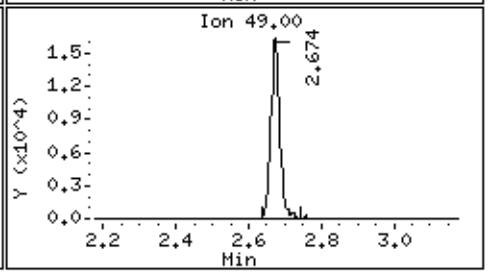












Standards Data Section

Katahdin
ANALYTICAL SERVICES

Form 6
Initial Calibration Summary

Lab Name : Katahdin Analytical Services
SDG: SO6313
Project : Watervliet Arsenal LTM
Instrument ID: GCMS-W
Lab File IDs : W0105.D W0104.D W0102.D W0101.D W0099.D W0098.D W0100.D
Calibration Date(s): 20-SEP-21 07:56 20-SEP-21 11:30

	1.0000 Level 1	5.0000 Level 2	20.0000 Level 3	50.0000 Level 4	100.0000 Level 5	150.0000 Level 6	75.0000 Level 7		Curve Type	b	m1	m2	%RSD	MAX %RSD	
Chloromethane	0.83093	0.59448	0.60292	0.57449	0.58104	0.57159	0.56532		AVG		.6172		15.41	15	WO
Vinyl chloride	0.70996	0.51733	0.55866	0.52423	0.51219	0.50664	0.51703		AVG		.5494		13.25	15	O
Bromomethane	6942	18334	69529	157680	315034	390472	241878		QUA	0	3.556	3.222	.9952	.99	O
Chloroethane	6919	21859	90688	192628	337795	432041	276447		QUA	0	2.71	3.616	.9995	.99	O
Trichlorofluoromethane	0.95035	0.71328	0.77661	0.74430	0.74876	0.73703	0.74985		AVG		.7743		10.31	15	O
1,1-Dichloroethene	0.62718	0.48137	0.49688	0.46770	0.46551	0.47134	0.48042		AVG		.4986		11.56	15	O
Carbon Disulfide	1.63248	1.16247	1.23363	1.16400	1.16461	1.16113	1.18252		AVG		1.243		13.97	15	O
Methylene Chloride	13268	40566	152942	361763	709612	1046579	563594		LNR	0	.4928		.9994	.99	O
trans-1,2-Dichloroethene	0.67649	0.51351	0.53416	0.49624	0.49340	0.48978	0.50287		AVG		.5295		12.57	15	O
1,1-Dichloroethane	1.17536	1.00554	1.01296	0.97012	0.98282	0.95551	0.96005		AVG		1.009		7.587	15	O
cis-1,2-Dichloroethene	0.66791	0.54909	0.56020	0.54611	0.54681	0.54017	0.53723		AVG		.5639		8.233	15	O
Chloroform	1.14915	0.94368	0.95274	0.91207	0.93244	0.91685	0.92360		AVG		.9615		8.735	15	O
Carbon Tetrachloride	0.34101	0.31059	0.38614	0.40359	0.43928	0.43516	0.41619		AVG		.3903		12.4	15	O
1,1,1-Trichloroethane	0.97021	0.78471	0.84924	0.83846	0.86974	0.86374	0.84776		AVG		.8606		6.479	15	O
2-Butanone	0.27038	0.21145	0.22650	0.24571	0.21434	0.24817	0.24392		AVG		.2372		8.841	15	O
Benzene	1.43334	1.23462	1.27882	1.24171	1.25021	1.21306	1.23805		AVG		1.27		5.88	15	O
1,2-Dichloroethane	0.59362	0.43704	0.43394	0.43521	0.43752	0.44686	0.43174		AVG		.4594		12.92	15	O
Trichloroethene	0.36167	0.29314	0.31267	0.30490	0.31834	0.32017	0.30998		AVG		.3173		6.798	15	O
1,2-Dichloropropane	0.37372	0.30623	0.32144	0.31788	0.32703	0.32579	0.32482		AVG		.3281		6.495	15	O
Bromodichloromethane	0.41093	0.36914	0.40760	0.41095	0.43044	0.43766	0.41742		AVG		.412		5.323	15	O
cis-1,3-dichloropropene	0.41666	0.39650	0.47729	0.49994	0.52860	0.54030	0.51246		AVG		.4817		11.5	15	O
Toluene	0.91492	0.77262	0.79047	0.77260	0.78498	0.78057	0.77832		AVG		.7992		6.434	15	O
4-methyl-2-pentanone	0.24387	0.22772	0.27016	0.29917	0.26257	0.27810	0.28746		AVG		.267		9.281	15	O
Tetrachloroethene	0.33503	0.26075	0.27817	0.27711	0.28738	0.28746	0.28546		AVG		.2873		8.004	15	O
trans-1,3-Dichloropropene	0.34963	0.32060	0.41088	0.45122	0.46916	0.49022	0.46091		AVG		.4218		15.27	15	WO
1,1,2-Trichloroethane	0.25657	0.20407	0.21495	0.22252	0.21739	0.22683	0.22020		AVG		.2232		7.325	15	O
Dibromochloromethane	0.27391	0.25530	0.29421	0.31535	0.32594	0.33933	0.32403		AVG		.304		10.08	15	O
Chlorobenzene	1.13359	0.90878	0.90896	0.88315	0.90133	0.88068	0.89623		AVG		.9304		9.706	15	O
Ethylbenzene	1.83348	1.51581	1.58035	1.53674	1.54052	1.46490	1.54089		AVG		1.573		7.621	15	O
m+p-Xylenes	1.26315	1.13194	1.21021	1.17011	1.13962	1.03393	1.16206		AVG		1.159		6.138	15	O
o-Xylene	1.26130	1.09889	1.21595	1.19912	1.22167	1.17920	1.21013		AVG		1.198		4.203	15	O
Bromoform	3261	16002	82508	243473	488325	798383	376131		QUA	0	5.145	-1.271	.9996	.99	O
1,1,2,2-Tetrachloroethane	0.69052	0.58654	0.60171	0.63536	0.57987	0.60450	0.61581		AVG		.6163		6.084	15	O
Dibromofluoromethane	0.52095	0.50824	0.49896	0.49946	0.49551	0.49070	0.49165		AVG		.5008		2.126	15	
1,2-Dichloroethane-D4	0.68910	0.66488	0.64128	0.64483	0.62739	0.65931	0.63921		AVG		.6523		3.148	15	
Toluene-D8	1.19604	1.19788	1.19877	1.19449	1.20202	1.19903	1.18224		AVG		1.196		.5376	15	

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://katahdinlab.com
sales@katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Form 6
Initial Calibration Summary

Lab Name : Katahdin Analytical Services
Project : Watervliet Arsenal LTM
Lab File IDs : W0105.D W0104.D W0102.D W0101.D W0099.D W0098.D W0100.D

SDG: SO6313
Instrument ID: GCMS-W
Calibration Date(s): 20-SEP-21 07:56 20-SEP-21 11:30

P-Bromofluorobenzene	0.49506	0.49861	0.50652	0.50037	0.49770	0.50815	0.49605		AVG		.5004		1.017	15	

Legend: O = Kept Original Curve
Y = Failed Minimum RF
W = Failed %RSD Value

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://katahdinlab.com
sales@katahdinlab.com

Data File: \\target_server\gg\chem\gcms-w.i\W092021.b\W0106A.D
Report Date: 11-Oct-2021 15:22

Katahdin Analytical Services

RECOVERY REPORT

Client Name: Client SDG: SDGa02236
Sample Matrix: LIQUID Fraction: VOA
Lab Smp Id: WG306317-9
Level: LOW Operator: HG
Data Type: MS DATA SampleType: LCS
SpikeList File: IND_CHECK.spk Quant Type: ISTD
Sublist File: all.sub
Method File: \\target_server\gg\chem\gcms-w.i\W092021.b\W8A05(08).m
Misc Info: WG306317,WG306317-4

	SPIKE	COMPOUND	CONC ADDED ug/l	CONC RECOVERED ug/l	% RECOVERED	LIMITS
	1	Dichlorodifluorome	50.0	63.1	126.26*	80-120
	2	Chloromethane	50.0	52.0	104.02	80-120
	3	Vinyl chloride	50.0	56.1	112.19	80-120
	4	Bromomethane	50.0	45.3	90.69	80-120
	5	Chloroethane	50.0	67.4	134.81*	80-120
	6	Trichlorofluoromet	50.0	57.4	114.86	80-120
	7	Diethyl Ether	50.0	51.4	102.83	80-120
	19	Tertiary-butyl alc	250	177	70.82*	80-120
	8	1,1-Dichloroethene	50.0	46.1	92.18	80-120
	10	Carbon Disulfide	50.0	49.4	98.88	80-120
	9	Freon-113	50.0	53.6	107.22	80-120
	11	Iodomethane	50.0	52.0	103.99	80-120
	12	Acrolein	250	229	91.58	80-120
	14	Methylene Chloride	50.0	53.4	106.71	80-120
	15	Acetone	50.0	59.0	118.04	80-120
	45	Isobutyl Alcohol	1000	643	64.31*	80-120
	16	trans-1,2-Dichloro	50.0	48.6	97.29	80-120
	13	Allyl Chloride	50.0	53.6	107.19	80-120
	18	Methyl tert-butyl	50.0	45.8	91.52	80-120
	20	Acetonitrile	500	441	88.15	80-120
	21	Di-isopropyl ether	50.0	51.7	103.35	80-120
	22	Chloroprene	50.0	51.3	102.69	80-120
	39	Propionitrile	500	450	90.08	80-120
	40	Methacrylonitrile	500	495	98.98	80-120
	23	1,1-Dichloroethane	50.0	50.1	100.24	80-120
	24	Acrylonitrile	250	231	92.51	80-120
	25	Ethyl tertiary-but	50.0	48.9	97.80	80-120
	26	Vinyl Acetate	50.0	72.4	144.78*	80-120
	27	cis-1,2-Dichloroet	50.0	49.4	98.72	80-120
M	97	1,2-Dichloroethyle	100	98.0	98.00	80-120
	52	Methyl Methacrylat	50.0	48.1	96.21	80-120
	28	2,2-Dichloropropan	50.0	42.7	85.48	80-120
	29	Bromochloromethane	50.0	52.8	105.69	80-120
	31	Chloroform	50.0	48.6	97.19	80-120
	32	Carbon Tetrachlori	50.0	48.2	96.47	80-120
	33	Tetrahydrofuran	50.0	36.2	72.47*	80-120
	35	1,1,1-Trichloroeth	50.0	48.3	96.59	80-120
	37	1,1-Dichloropropen	50.0	48.2	96.37	80-120
	36	2-Butanone	50.0	43.9	87.82	80-120
	38	Benzene	50.0	48.8	97.72	80-120

Data File: \\target_server\gg\chem\gcms-w.i\W092021.b\W0106A.D
Report Date: 11-Oct-2021 15:22

	SPIKE COMPOUND	CONC ADDED ug/l	CONC RECOVERED ug/l	% RECOVERED	LIMITS
	30 Cyclohexane	50.0	50.8	101.68	80-120
	53 Ethyl Methacrylate	50.0	42.6	85.12	80-120
	43 Tertiary-amyl meth	50.0	48.2	96.46	80-120
	44 1,2-Dichloroethane	50.0	47.1	94.26	80-120
	47 Trichloroethene	50.0	49.4	98.74	80-120
	49 Dibromomethane	50.0	45.9	91.86	80-120
	50 1,2-Dichloropropan	50.0	48.3	96.69	80-120
	51 Bromodichlorometha	50.0	48.5	97.09	80-120
	57 cis-1,3-dichloropr	50.0	51.0	102.01	80-120
	54 1,4-Dioxane	1000	485	48.50*	80-120
	56 2-Chloroethylvinyl	50.0	49.0	97.95	80-120
	59 Toluene	50.0	48.3	96.55	80-120
	61 4-methyl-2-pentano	50.0	43.3	86.67	80-120
	60 Tetrachloroethene	50.0	46.3	92.67	80-120
	62 trans-1,3-Dichloro	50.0	49.8	99.58	80-120
	63 1,1,2-Trichloroeth	50.0	48.0	96.11	80-120
	64 Dibromochlorometha	50.0	47.2	94.50	80-120
	65 1,3-Dichloropropan	50.0	47.5	94.97	80-120
	66 1,2-Dibromoethane	50.0	47.6	95.18	80-120
	67 2-Hexanone	50.0	40.8	81.65	80-120
	69 Chlorobenzene	50.0	47.5	95.05	80-120
	70 Ethylbenzene	50.0	49.5	99.04	80-120
	71 1,1,1,2-Tetrachlor	50.0	51.0	101.97	80-120
M	105 Xylenes (total)	150	154	102.52	80-120
	72 m+p-Xylenes	100	103	102.63	80-120
	73 o-Xylene	50.0	51.2	102.32	80-120
	74 Styrene	50.0	51.2	102.49	80-120
	75 Bromoform	50.0	45.4	90.83	80-120
	76 Isopropylbenzene	50.0	50.8	101.71	80-120
	78 cis-1,4-Dichloro-2	50.0	41.1	82.20	80-120
	85 trans-1,4-Dichloro	50.0	44.8	89.55	80-120
	79 Bromobenzene	50.0	48.2	96.48	80-120
	80 N-Propylbenzene	50.0	50.7	101.49	80-120
	81 1,1,2,2-Tetrachlor	50.0	46.9	93.87	80-120
	84 1,3,5-Trimethylben	50.0	51.1	102.17	80-120
	82 2-Chlorotoluene	50.0	48.5	96.93	80-120
	83 1,2,3-Trichloropro	50.0	46.2	92.43	80-120
	86 4-Chlorotoluene	50.0	49.6	99.18	80-120
	87 tert-Butylbenzene	50.0	49.6	99.26	80-120
	88 Pentachloroethane	50.0	0.00	0.00*	80-120
	89 1,2,4-Trimethylben	50.0	50.1	100.24	80-120
	91 P-Isopropyltoluene	50.0	52.2	104.48	80-120
	92 1,3-Dichlorobenzen	50.0	48.4	96.89	80-120
	94 1,4-Dichlorobenzen	50.0	48.1	96.28	80-120
	96 N-Butylbenzene	50.0	54.4	108.75	80-120
	90 sec-Butylbenzene	50.0	51.6	103.26	80-120
	98 1,2-Dichlorobenzen	50.0	48.5	96.96	80-120
	99 1,2-Dibromo-3-Chlo	50.0	38.9	77.82*	80-120
	100 1,3,5-Trichloroben	50.0	48.5	97.06	80-120
	101 Hexachlorobutadien	50.0	47.2	94.40	80-120
	102 1,2,4-Trichloroben	50.0	44.3	88.52	80-120
	95 1,2,3-Trimethylben	50.0	49.5	98.96	80-120
	103 Naphthalene	50.0	38.7	77.36*	80-120
	104 1,2,3-Trichloroben	50.0	46.6	93.16	80-120

Data File: \\target_server\gg\chem\gcms-w.i\W092021.b\W0106A.D
Report Date: 11-Oct-2021 15:22

	SPIKE COMPOUND	CONC ADDED ug/l	CONC RECOVERED ug/l	% RECOVERED	LIMITS
	17 Methyl Acetate	50.0	36.6	73.19*	80-120
	46 Methylcyclohexane	50.0	53.3	106.58	80-120
M	55 Total Alkylbenzene	350	360	102.81	80-120

	SURROGATE COMPOUND	AMOUNT ADDED ug/l	AMOUNT RECOVERED ug/l	% RECOVERED	LIMITS
$	34 Dibromofluorometha	50.0	51.5	102.99	68-128
$	42 1,2-Dichloroethane	50.0	51.2	102.43	67-135
$	58 Toluene-D8	50.0	49.8	99.50	65-128
$	77 P-Bromofluorobenze	50.0	49.7	99.41	56-133

Data File: \\target_server\gg\chem\gcms-w.i\W092021.b\W0106A.D
Report Date: 11-Oct-2021 15:22

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-w.i\W092021.b\W0106A.D
Lab Smp Id: WG306317-9
Inj Date : 20-SEP-2021 12:15
Operator : HG   Inst ID: gcms-w.i
Smp Info : WG306317-9
Misc Info : WG306317,WG306317-4
Comment   : SW846 5030
Method   : \\target_server\gg\chem\gcms-w.i\W092021.b\W8A05(08).m
Meth Date : 08-Oct-2021 09:43 hgould   Quant Type: ISTD
Cal Date : 20-SEP-2021 11:30   Cal File: W0105.D
Als bottle: 32   QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE   Compound Sublist: all.sub
Target Version: 4.12
Processing Host: VOA-WS

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)	REVIEW CODE
1	Dichlorodifluoromethane	85	1.274	1.277	(0.231)	322239	63.1323	63.1(R)	
2	Chloromethane	50	1.409	1.412	(0.255)	422724	52.0124	52.0	
3	Vinyl chloride	62	1.460	1.460	(0.265)	405819	56.0956	56.1	
4	Bromomethane	94	1.672	1.672	(0.303)	140675	45.3462	45.3	
5	Chloroethane	64	1.755	1.752	(0.318)	224949	67.4072	67.4(R)	
6	Trichlorofluoromethane	101	1.848	1.849	(0.335)	585535	57.4316	57.4	
7	Diethyl Ether	59	2.060	2.060	(0.373)	278656	51.4159	51.4	
8	1,1-Dichloroethene	96	2.211	2.211	(0.401)	302600	46.0899	46.1	
9	Freon-113	151	2.237	2.237	(0.405)	263985	53.6089	53.6	
10	Carbon Disulfide	76	2.240	2.240	(0.406)	809150	49.4400	49.4	
11	Iodomethane	142	2.326	2.327	(0.422)	270270	51.9962	52.0	
12	Acrolein	56	2.474	2.478	(0.448)	113843	228.940	229	
13	Allyl Chloride	41	2.583	2.584	(0.468)	534084	53.5972	53.6	
14	Methylene Chloride	84	2.673	2.677	(0.484)	346195	53.3530	53.4	
15	Acetone	43	2.721	2.725	(0.493)	107732	59.0208	59.0	
16	trans-1,2-Dichloroethene	96	2.811	2.815	(0.509)	339154	48.6463	48.6	
17	Methyl Acetate	43	2.827	2.827	(0.512)	221244	36.5947	36.6(R)	
18	Methyl tert-butyl ether	73	2.910	2.914	(0.527)	837753	45.7619	45.8	
19	Tertiary-butyl alcohol	59	3.010	3.017	(0.545)	97510	177.052	177(R)	
20	Acetonitrile	41	3.161	3.164	(0.573)	377325	440.756	441	
21	Di-isopropyl ether	45	3.283	3.289	(0.595)	1114608	51.6736	51.7	
22	Chloroprene	53	3.385	3.389	(0.613)	599771	51.3474	51.3	
23	1,1-Dichloroethane	63	3.417	3.418	(0.619)	665837	50.1221	50.1	

Data File: \\target_server\gg\chem\gcms-w.i\W092021.b\W0106A.D
Report Date: 11-Oct-2021 15:22

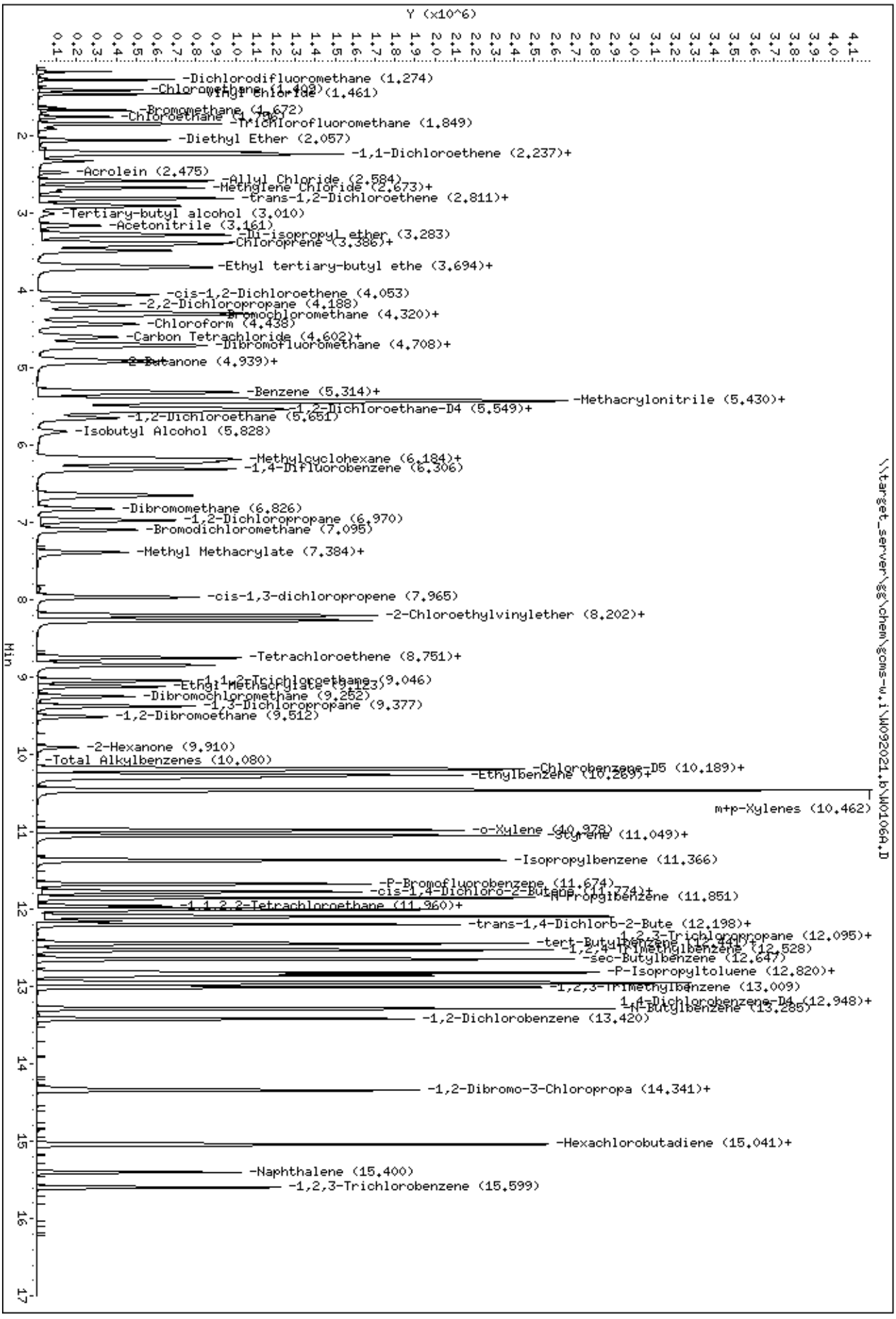
		Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)	REVIEW CODE
	24	Acrylonitrile	52	3.485	3.488	(0.631)	486628	231.268	231	
	25	Ethyl tertiary-butyl ether	59	3.693	3.694	(0.669)	914074	48.8985	48.9	
	26	Vinyl Acetate	43	3.713	3.716	(0.589)	730157	72.3906	72.4(R)	
	27	cis-1,2-Dichloroethene	96	4.053	4.056	(0.734)	366497	49.3580	49.4	
	28	2,2-Dichloropropane	77	4.188	4.191	(0.759)	435935	42.7400	42.7	
	29	Bromochloromethane	128	4.319	4.325	(0.783)	164864	52.8428	52.8	
	30	Cyclohexane	56	4.297	4.300	(0.779)	634990	50.8411	50.8	
	31	Chloroform	83	4.438	4.445	(0.804)	615194	48.5930	48.6	
	32	Carbon Tetrachloride	117	4.602	4.605	(0.730)	424325	48.2348	48.2	
	33	Tetrahydrofuran	42	4.679	4.673	(0.848)	87677	36.2340	36.2(R)	
$	34	Dibromofluoromethane	113	4.707	4.714	(0.853)	339550	51.4954	51.5	
	35	1,1,1-Trichloroethane	97	4.714	4.721	(0.854)	547233	48.2956	48.3	
	36	2-Butanone	43	4.938	4.939	(0.895)	137144	43.9089	43.9	
	37	1,1-Dichloropropene	75	4.910	4.920	(0.779)	502012	48.1841	48.2	
	38	Benzene	78	5.314	5.321	(0.843)	1398589	48.8576	48.8	
	39	Propionitrile	54	5.404	5.411	(0.979)	417068	450.398	450	
	40	Methacrylonitrile	41	5.429	5.436	(0.984)	2013742	494.905	495	
*	41	Pentafluorobenzene	168	5.519	5.526	(1.000)	658351	50.0000		
$	42	1,2-Dichloroethane-D4	65	5.548	5.549	(1.005)	439852	51.2132	51.2	
	43	Tertiary-amyl methyl ether	73	5.558	5.561	(1.007)	709274	48.2320	48.2	
	44	1,2-Dichloroethane	62	5.651	5.658	(0.896)	488073	47.1317	47.1	
	45	Isobutyl Alcohol	43	5.827	5.834	(1.056)	152499	643.129	643(R)	
	46	Methylcyclohexane	83	6.184	6.184	(1.120)	644154	53.2908	53.3	
	47	Trichloroethene	95	6.222	6.226	(0.987)	353083	49.3724	49.4	
*	48	1,4-Difluorobenzene	114	6.305	6.315	(1.000)	1127026	50.0000		
	49	Dibromomethane	93	6.825	6.832	(1.082)	200154	45.9323	45.9	
	50	1,2-Dichloropropane	63	6.970	6.977	(1.105)	357578	48.3464	48.3	
	51	Bromodichloromethane	83	7.095	7.102	(1.125)	450847	48.5452	48.5	
	52	Methyl Methacrylate	41	7.384	7.390	(1.171)	282435	48.1035	48.1	
	53	Ethyl Methacrylate	69	9.120	9.123	(1.446)	375347	42.5601	42.6	
	54	1,4-Dioxane	88	7.406	7.407	(1.175)	47325	484.969	485(R)	
M	55	Total Alkylbenzenes	100				11279844	359.823	360	
	56	2-Chloroethylvinylether	63	8.269	8.270	(1.311)	129037	48.9762	49.0	
	57	cis-1,3-dichloropropene	75	7.964	7.971	(1.263)	553754	51.0030	51.0	
$	58	Toluene-D8	98	8.202	8.209	(1.301)	1340956	49.7506	49.8	
	59	Toluene	92	8.266	8.273	(1.311)	869624	48.2732	48.3	
	60	Tetrachloroethene	164	8.751	8.754	(0.860)	290373	46.3375	46.3	
	61	4-methyl-2-pentanone	43	8.828	8.831	(1.400)	260812	43.3352	43.3	
	62	trans-1,3-Dichloropropene	75	8.847	8.857	(1.403)	473397	49.7910	49.8	
	63	1,1,2-Trichloroethane	83	9.046	9.049	(1.435)	241798	48.0572	48.0	
	64	Dibromochloromethane	129	9.251	9.255	(0.909)	313289	47.2524	47.2	
	65	1,3-Dichloropropane	76	9.376	9.380	(0.921)	530481	47.4870	47.5	
	66	1,2-Dibromoethane	107	9.514	9.518	(1.509)	286656	47.5910	47.6	
	67	2-Hexanone	43	9.909	9.906	(0.974)	163035	40.8226	40.8	
*	68	Chlorobenzene-D5	117	10.179	10.182	(1.000)	1090444	50.0000		
	69	Chlorobenzene	112	10.198	10.201	(1.002)	964337	47.5260	47.5	
	70	Ethylbenzene	91	10.268	10.272	(1.009)	1699147	49.5225	49.5	
	71	1,1,1,2-Tetrachloroethane	131	10.301	10.304	(1.012)	334955	50.9862	51.0	
	72	m+p-Xylenes	91	10.461	10.465	(1.028)	2593374	102.625	103	
	73	o-Xylene	91	10.978	10.981	(1.078)	1336750	51.1618	51.2	
	74	Styrene	104	11.048	11.052	(1.085)	1070121	51.2454	51.2	
	75	Bromoform	173	11.048	11.052	(1.085)	201721	45.4164	45.4	
	76	Isopropylbenzene	105	11.366	11.370	(0.878)	1701113	50.8548	50.8	
$	77	P-Bromofluorobenzene	95	11.674	11.678	(1.851)	560580	49.7049	49.7	

Data File: \\target_server\gg\chem\gcms-w.i\W092021.b\W0106A.D
Report Date: 11-Oct-2021 15:22

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)	REVIEW CODE
	78 cis-1,4-Dichloro-2-Butene	53	11.786	11.790	(0.911)	101928	41.0991	41.1	
	79 Bromobenzene	156	11.773	11.777	(0.910)	405016	48.2424	48.2	
	80 N-Propylbenzene	91	11.854	11.857	(0.916)	2056485	50.7450	50.7	
	81 1,1,2,2-Tetrachloroethane	83	11.960	11.963	(0.924)	351869	46.9374	46.9	
	82 2-Chlorotoluene	91	12.004	12.005	(0.927)	1174543	48.4672	48.5	
	83 1,2,3-Trichloropropane	75	12.085	12.088	(0.934)	310439	46.2172	46.2	
	84 1,3,5-Trimethylbenzene	105	12.098	12.098	(0.935)	1410921	51.0842	51.1	
	85 trans-1,4-Dichloro-2-Butene	53	12.155	12.159	(0.939)	100828	44.7740	44.8	
	86 4-Chlorotoluene	91	12.197	12.204	(0.942)	1243901	49.5885	49.6	
	87 tert-Butylbenzene	119	12.441	12.448	(0.961)	1249148	49.6278	49.6	
	88 Pentachloroethane	165	12.454	12.442	(0.962)	1172		(aR)	
	89 1,2,4-Trimethylbenzene	105	12.528	12.531	(0.968)	1427723	50.1224	50.1	
	90 sec-Butylbenzene	105	12.643	12.647	(0.977)	1905910	51.6276	51.6	
	91 P-Isopropyltoluene	119	12.820	12.823	(0.990)	1645088	52.2396	52.2	
	92 1,3-Dichlorobenzene	146	12.855	12.858	(0.993)	803143	48.4432	48.4	
*	93 1,4-Dichlorobenzene-D4	152	12.945	12.948	(1.000)	608160	50.0000		
	94 1,4-Dichlorobenzene	146	12.961	12.964	(1.001)	824644	48.1419	48.1	
	95 1,2,3-Trimethylbenzene	105	13.009	13.012	(1.005)	1407298	49.4794	49.5	
	96 N-Butylbenzene	91	13.285	13.288	(1.026)	1584569	54.3766	54.4	
M	97 1,2-Dichloroethylene (total)	96				705651	98.0042	98.0	
	98 1,2-Dichlorobenzene	146	13.420	13.420	(1.037)	746189	48.4799	48.5	
	99 1,2-Dibromo-3-Chloropropane	157	14.312	14.315	(1.106)	58899	38.9075	38.9(R)	
	100 1,3,5-Trichlorobenzene	180	14.341	14.344	(1.108)	583469	48.5312	48.5	
	101 Hexachlorobutadiene	225	15.037	15.037	(1.162)	275981	47.2023	47.2	
	102 1,2,4-Trichlorobenzene	180	15.050	15.050	(1.163)	460737	44.2616	44.3	
	103 Naphthalene	128	15.400	15.403	(1.190)	731243	38.6781	38.7(R)	
	104 1,2,3-Trichlorobenzene	180	15.598	15.599	(1.205)	356377	46.5800	46.6	
M	105 Xylenes (total)	106				3930124	153.787	154	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.


Y (x10^6)
Min
Data File: \\target_server\gg\chem\gcms-w.i\W092021.b\W0106A.D
Date : 20-SEP-2021 12:15
Client ID:
Sample Info: WG306317-9
Instrument: gcms-w.i
\\target_server\gg\chem\gcms-w.i\W092021.b\W0106A.D
-Dichlorodifluoromethane (1.274)
-Chloromethane (1.402)
-Vinyl Chloride (1.461)
-Bromomethane (1.672)
-Chloroethane (1.736)
-Trichlorofluoromethane (1.849)
-Diethyl Ether (2.057)
-1,1-Dichloroethene (2.237)+
-Acrolein (2.475)
-Allyl Chloride (2.584)
-Methylene Chloride (2.673)+
-trans-1,2-Dichloroethene (2.811)+
-Tertiary-butyl alcohol (3.010)
-Acetonitrile (3.161)
-Di-isopropyl ether (3.283)
-Chloroprene (3.386)+
-Ethyl tertiary-butyl ethe (3.694)+
-cis-1,2-Dichloroethene (4.053)
-2,2-Dichloropropane (4.188)
-Bromochloromethane (4.320)+
-Chloroform (4.438)
-Carbon Tetrachloride (4.602)+
-Dibromofluoromethane (4.708)+
-2-Butanone (4.939)+
-Benzene (5.314)+
-Methacrylonitrile (5.430)+
-1,2-Dichloroethane-D4 (5.549)+
-1,2-Dichloroethane (5.651)
-Isobutyl Alcohol (5.828)
-Methylcyclohexane (6.184)+
-1,4-Difluorobenzene (6.306)
-Dibromomethane (6.826)
-1,2-Dichloropropane (6.970)
-Bromodichloromethane (7.095)
-Methyl Methacrylate (7.384)+
-cis-1,3-dichloropropene (7.965)
-2-Chloroethylvinylether (8.202)+
-Tetrachloroethene (8.751)+
-1,1,2-Trichloroethane (9.046)
-Ethyl Methacrylate (9.123)
-Dibromochloromethane (9.252)
-1,3-Dichloropropane (9.377)
-1,2-Dibromoethane (9.512)
-2-Hexanone (9.910)
-Total Alkylbenzenes (10.080)
-Chlorobenzene-D5 (10.189)+
-Ethylbenzene (10.289)+
m+p-Xylenes (10.462)
-o-Xylene (10.978)
-Styrene (11.049)+
-Isopropylbenzene (11.366)
-P-Bromofluorobenzene (11.674)
-cis-1,4-Dichloro-2-Butene (11.774)+
-N-Propylbenzene (11.851)
-1,1,2,2-Tetrachloroethane (11.960)+
-trans-1,4-Dichlorb-2-Bute (12.198)+
-1,2,3-Trichloropropane (12.095)+
-tert-Butylbenzene (12.441)+
-1,2,4-Trimethylbenzene (12.528)
-sec-Butylbenzene (12.647)
-P-Isopropyltoluene (12.820)+
-1,2,3-Trimethylbenzene (13.009)
-1,4-Dichlorobenzene-D4 (12.948)+
-n-Butylbenzene (13.285)
-1,2-Dichlorobenzene (13.420)
-1,2-Dibromo-3-Chloropropa (14.341)+
-Hexachlorobutadiene (15.041)+
-Naphthalene (15.400)
-1,2,3-Trichlorobenzene (15.599)

Data File: \\target_server\gg\chem\gcms-w.i\W092021.b\W0098.D
Report Date: 11-Oct-2021 15:21

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-w.i\W092021.b\W0098.D
Lab Smp Id: WG306317-6
Inj Date : 20-SEP-2021 07:56
Operator : HG Inst ID: gcms-w.i
Smp Info : WG306317-6
Misc Info :
Comment : SW846 5030
Method : \\target_server\gg\chem\gcms-w.i\W092021.b\W8A05(08).m
Meth Date : 08-Oct-2021 09:43 hgould Quant Type: ISTD
Cal Date : 20-SEP-2021 07:56 Cal File: W0098.D
Als bottle: 24 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.12
Processing Host: ORGANICS2

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)	REVIEW CODE
1	Dichlorodifluoromethane	85	1.274	1.277	(0.230)	813244	150.000	150	
2	Chloromethane	50	1.412	1.412	(0.255)	1218972	150.000	147	
3	Vinyl chloride	62	1.460	1.460	(0.264)	1080452	150.000	143	
4	Bromomethane	94	1.669	1.672	(0.302)	390472	150.000	146	
5	Chloroethane	64	1.743	1.752	(0.315)	432041	150.000	149	
6	Trichlorofluoromethane	101	1.842	1.849	(0.333)	1571776	150.000	146	
7	Diethyl Ether	59	2.057	2.060	(0.372)	847257	150.000	149	
8	1,1-Dichloroethene	96	2.211	2.211	(0.400)	1005160	150.000	148	
9	Freon-113	151	2.233	2.237	(0.404)	805708	150.000	148	
10	Carbon Disulfide	76	2.237	2.240	(0.405)	2476198	150.000	147	
11	Iodomethane	142	2.323	2.327	(0.420)	954203	150.000	155(A)	
12	Acrolein	56	2.477	2.478	(0.448)	386593	750.000	757(A)	
13	Allyl Chloride	41	2.583	2.584	(0.467)	1550683	150.000	144	
14	Methylene Chloride	84	2.673	2.677	(0.484)	1046579	150.000	149	
15	Acetone	43	2.724	2.725	(0.493)	1991007	750.000	890(A)	
16	trans-1,2-Dichloroethene	96	2.811	2.815	(0.508)	1044488	150.000	144	
17	Methyl Acetate	43	2.827	2.827	(0.511)	967844	150.000	157(A)	
18	Methyl tert-butyl ether	73	2.911	2.914	(0.526)	3006449	150.000	159(A)	
19	Tertiary-butyl alcohol	59	3.029	3.017	(0.548)	441865	750.000	776(A)	
20	Acetonitrile	41	3.167	3.164	(0.573)	1236283	1500.00	1460	
21	Di-isopropyl ether	45	3.283	3.289	(0.594)	3285880	150.000	144	
22	Chloroprene	53	3.389	3.389	(0.613)	1823493	150.000	146	
23	1,1-Dichloroethane	63	3.418	3.418	(0.618)	2037696	150.000	146	

Data File: \\target_server\gg\chem\gcms-w.i\W092021.b\W0098.D
Report Date: 11-Oct-2021 15:21

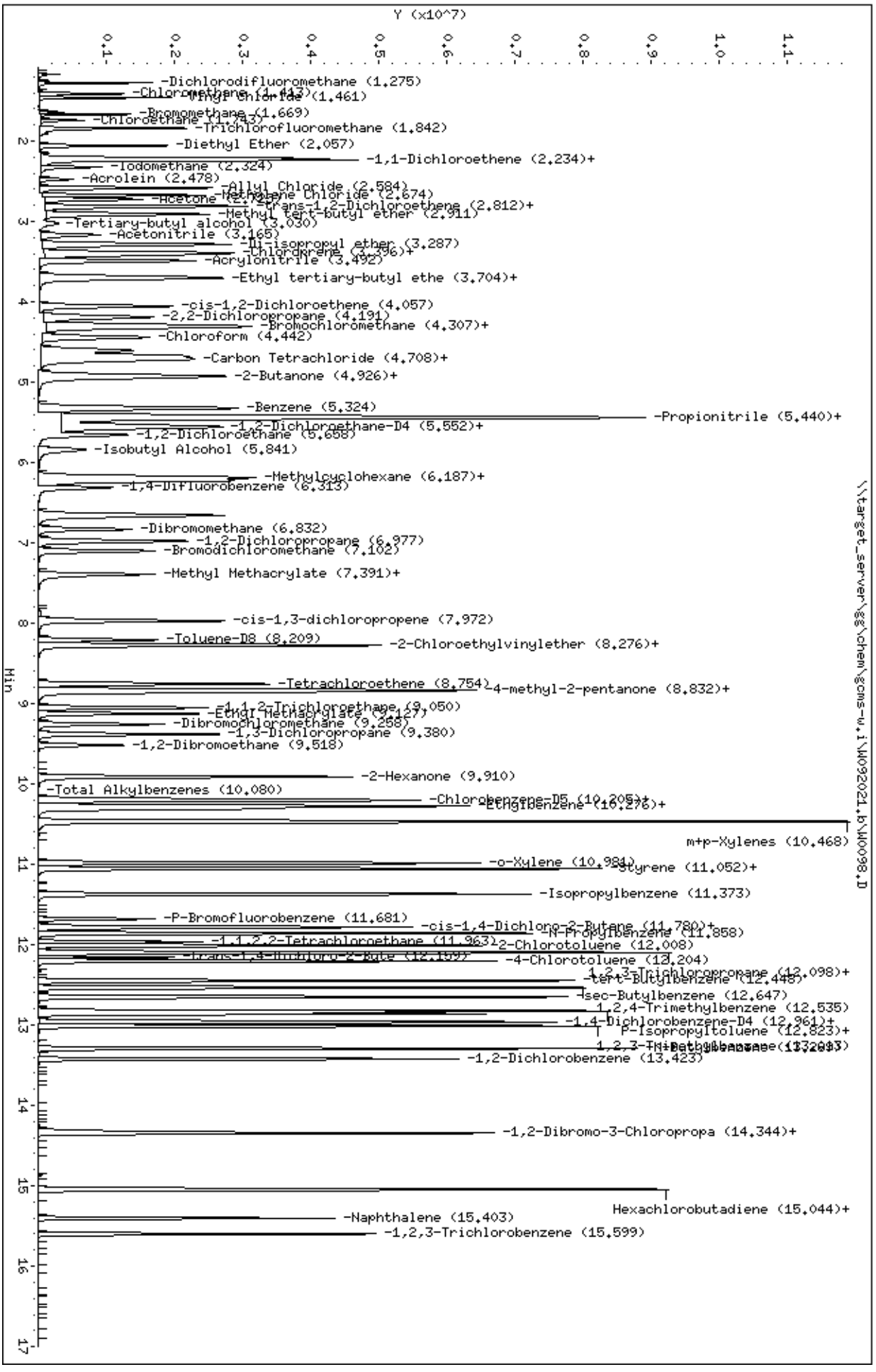
							AMOUNTS		
		QUANT SIG					CAL-AMT	ON-COL	
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/l)	(ug/l)	REVIEW CODE
	24 Acrylonitrile	52	3.488	3.488	(0.631)	1733076	750.000	784(A)	
	25 Ethyl tertiary-butyl ether	59	3.697	3.694	(0.669)	3068024	150.000	154(A)	
	26 Vinyl Acetate	43	3.716	3.716	(0.589)	1721561	150.000	165(A)	
	27 cis-1,2-Dichloroethene	96	4.056	4.056	(0.734)	1151950	150.000	147	
	28 2,2-Dichloropropane	77	4.191	4.191	(0.758)	1694478	150.000	175(A)	
	29 Bromochloromethane	128	4.322	4.325	(0.782)	471165	150.000	144	
	30 Cyclohexane	56	4.294	4.300	(0.777)	1991549	150.000	150	
	31 Chloroform	83	4.441	4.445	(0.803)	1955252	150.000	148	
	32 Carbon Tetrachloride	117	4.611	4.605	(0.731)	1499262	150.000	161(A)	
	33 Tetrahydrofuran	42	4.669	4.673	(0.844)	1970891	750.000	798(A)	
$	34 Dibromofluoromethane	113	4.714	4.714	(0.853)	348818	50.0000	49.2	
	35 1,1,1-Trichloroethane	97	4.720	4.721	(0.854)	1841992	150.000	152(A)	
	36 2-Butanone	43	4.942	4.939	(0.894)	2646255	750.000	829(A)	
	37 1,1-Dichloropropene	75	4.916	4.920	(0.779)	1597422	150.000	152(A)	
	38 Benzene	78	5.324	5.321	(0.843)	4179381	150.000	146	
	39 Propionitrile	54	5.423	5.411	(0.981)	1497231	1500.00	1550(A)	
	40 Methacrylonitrile	41	5.439	5.436	(0.984)	6432931	1500.00	1490	
*	41 Pentafluorobenzene	168	5.529	5.526	(1.000)	710860	50.0000		
$	42 1,2-Dichloroethane-D4	65	5.552	5.549	(1.004)	468677	50.0000	51.4	
	43 Tertiary-amyl methyl ether	73	5.561	5.561	(1.006)	2642616	150.000	165(A)	
	44 1,2-Dichloroethane	62	5.657	5.658	(0.896)	1539592	150.000	154(A)	
	45 Isobutyl Alcohol	43	5.840	5.834	(1.056)	774232	3000.00	3000	
	46 Methylcyclohexane	83	6.187	6.184	(1.119)	2049420	150.000	151(A)	
	47 Trichloroethene	95	6.229	6.226	(0.987)	1103103	150.000	154(A)	
*	48 1,4-Difluorobenzene	114	6.312	6.315	(1.000)	1148440	50.0000		
	49 Dibromomethane	93	6.829	6.832	(1.082)	678261	150.000	158(A)	
	50 1,2-Dichloropropane	63	6.979	6.977	(1.106)	1122441	150.000	151(A)	
	51 Bromodichloromethane	83	7.101	7.102	(1.125)	1507881	150.000	159(A)	
	52 Methyl Methacrylate	41	7.390	7.390	(1.171)	1015915	150.000	166(A)	
	53 Ethyl Methacrylate	69	9.126	9.123	(1.446)	1362263	150.000	166(A)	
	54 1,4-Dioxane	88	7.409	7.407	(1.174)	210141	3000.00	2990	
M	55 Total Alkylbenzenes	100				32946964	150.000	974	
	56 2-Chloroethylvinylether	63	8.273	8.270	(1.311)	405103	150.000	154(A)	
	57 cis-1,3-dichloropropene	75	7.971	7.971	(1.263)	1861490	150.000	163(A)	
$	58 Toluene-D8	98	8.208	8.209	(1.300)	1377016	50.0000	50.2	
	59 Toluene	92	8.276	8.273	(1.311)	2689330	150.000	150(A)	
	60 Tetrachloroethene	164	8.754	8.754	(0.859)	973086	150.000	154(A)	
	61 4-methyl-2-pentanone	43	8.828	8.831	(1.399)	4790635	750.000	788(A)	
	62 trans-1,3-Dichloropropene	75	8.857	8.857	(1.403)	1688960	150.000	169(A)	
	63 1,1,2-Trichloroethane	83	9.049	9.049	(1.434)	781504	150.000	158(A)	
	64 Dibromochloromethane	129	9.258	9.255	(0.909)	1148667	150.000	164(A)	
	65 1,3-Dichloropropane	76	9.380	9.380	(0.921)	1757061	150.000	154(A)	
	66 1,2-Dibromoethane	107	9.518	9.518	(1.508)	964546	150.000	160(A)	
	67 2-Hexanone	43	9.909	9.906	(0.973)	3385782	750.000	834(A)	
*	68 Chlorobenzene-D5	117	10.185	10.182	(1.000)	1128368	50.0000		
	69 Chlorobenzene	112	10.204	10.201	(1.002)	2981185	150.000	147	
	70 Ethylbenzene	91	10.275	10.272	(1.009)	4958847	150.000	143	
	71 1,1,1,2-Tetrachloroethane	131	10.304	10.304	(1.012)	1086809	150.000	159(A)	
	72 m+p-Xylenes	91	10.468	10.465	(1.028)	6999930	300.000	269	
	73 o-Xylene	91	10.981	10.981	(1.078)	3991730	150.000	147	
	74 Styrene	104	11.052	11.052	(1.085)	3303963	150.000	151(A)	
	75 Bromoform	173	11.052	11.052	(1.085)	798383	150.000	177(A)	
	76 Isopropylbenzene	105	11.372	11.370	(0.878)	4986378	150.000	138	
$	77 P-Bromofluorobenzene	95	11.681	11.678	(1.850)	583576	50.0000	50.8	

Data File: \\target_server\gg\chem\gcms-w.i\W092021.b\W0098.D
Report Date: 11-Oct-2021 15:21

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)	REVIEW CODE
	78 cis-1,4-Dichloro-2-Butene	53	11.790	11.790	(0.911)	416189	150.000	178(A)	
	79 Bromobenzene	156	11.777	11.777	(0.910)	1317727	150.000	148	
	80 N-Propylbenzene	91	11.857	11.857	(0.916)	5717836	150.000	132	
	81 1,1,2,2-Tetrachloroethane	83	11.963	11.963	(0.924)	1201032	150.000	153(A)	
	82 2-Chlorotoluene	91	12.008	12.005	(0.927)	3593189	150.000	140	
	83 1,2,3-Trichloropropane	75	12.088	12.088	(0.934)	1094946	150.000	157(A)	
	84 1,3,5-Trimethylbenzene	105	12.101	12.098	(0.935)	4245467	150.000	141	
	85 trans-1,4-Dichloro-2-Butene	53	12.159	12.159	(0.939)	415908	150.000	156(A)	
	86 4-Chlorotoluene	91	12.204	12.204	(0.943)	3754241	150.000	140	
	87 tert-Butylbenzene	119	12.447	12.448	(0.961)	3873234	150.000	143	
	89 1,2,4-Trimethylbenzene	105	12.534	12.531	(0.968)	4347831	150.000	141	
	90 sec-Butylbenzene	105	12.646	12.647	(0.977)	5393217	150.000	136	
	91 P-Isopropyltoluene	119	12.826	12.823	(0.991)	4803297	150.000	140	
	92 1,3-Dichlorobenzene	146	12.858	12.858	(0.993)	2574255	150.000	147	
*	93 1,4-Dichlorobenzene-D4	152	12.948	12.948	(1.000)	662274	50.0000		
	94 1,4-Dichlorobenzene	146	12.964	12.964	(1.001)	2628058	150.000	147	
	95 1,2,3-Trimethylbenzene	105	13.012	13.012	(1.005)	4314943	150.000	140	
	96 N-Butylbenzene	91	13.288	13.288	(1.026)	4566082	150.000	140	
M	97 1,2-Dichloroethylene (total)	96				2196438	150.000	291	
	98 1,2-Dichlorobenzene	146	13.423	13.420	(1.037)	2417708	150.000	149	
	99 1,2-Dibromo-3-Chloropropane	157	14.312	14.315	(1.105)	255127	150.000	176(A)	
	100 1,3,5-Trichlorobenzene	180	14.344	14.344	(1.108)	1994658	150.000	150(A)	
	101 Hexachlorobutadiene	225	15.037	15.037	(1.161)	977489	150.000	156(A)	
	102 1,2,4-Trichlorobenzene	180	15.050	15.050	(1.162)	1714463	150.000	151(A)	
	103 Naphthalene	128	15.403	15.403	(1.190)	3062065	150.000	149	
	104 1,2,3-Trichlorobenzene	180	15.599	15.599	(1.205)	1370906	150.000	162(A)	
M	105 Xylenes (total)	106				10991660	450.000	415	

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.



Data File: \\target_server\gg\chem\gcms-w.i\W092021.b\W0098.D
Date : 20-SEP-2021 07:56
Client ID:
Sample Info: WG306317-6
Purge Volume: 5.0
Column phase: RTX-VMS

Instrument: gcms-w.i
Operator: HG
Column diameter: 0.18

Data File: \\target_server\gg\chem\gcms-w.i\W092021.b\W0099.D
Report Date: 11-Oct-2021 15:21

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-w.i\W092021.b\W0099.D
Lab Smp Id: WG306317-5
Inj Date : 20-SEP-2021 08:26
Operator : HG   Inst ID: gcms-w.i
Smp Info : WG306317-5
Misc Info :
Comment   : SW846 5030
Method   : \\target_server\gg\chem\gcms-w.i\W092021.b\W8A05(08).m
Meth Date : 08-Oct-2021 09:43 hgould   Quant Type: ISTD
Cal Date : 20-SEP-2021 08:26   Cal File: W0099.D
Als bottle: 25   Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE   Compound Sublist: all.sub
Target Version: 4.12
Processing Host: ORGANICS2

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

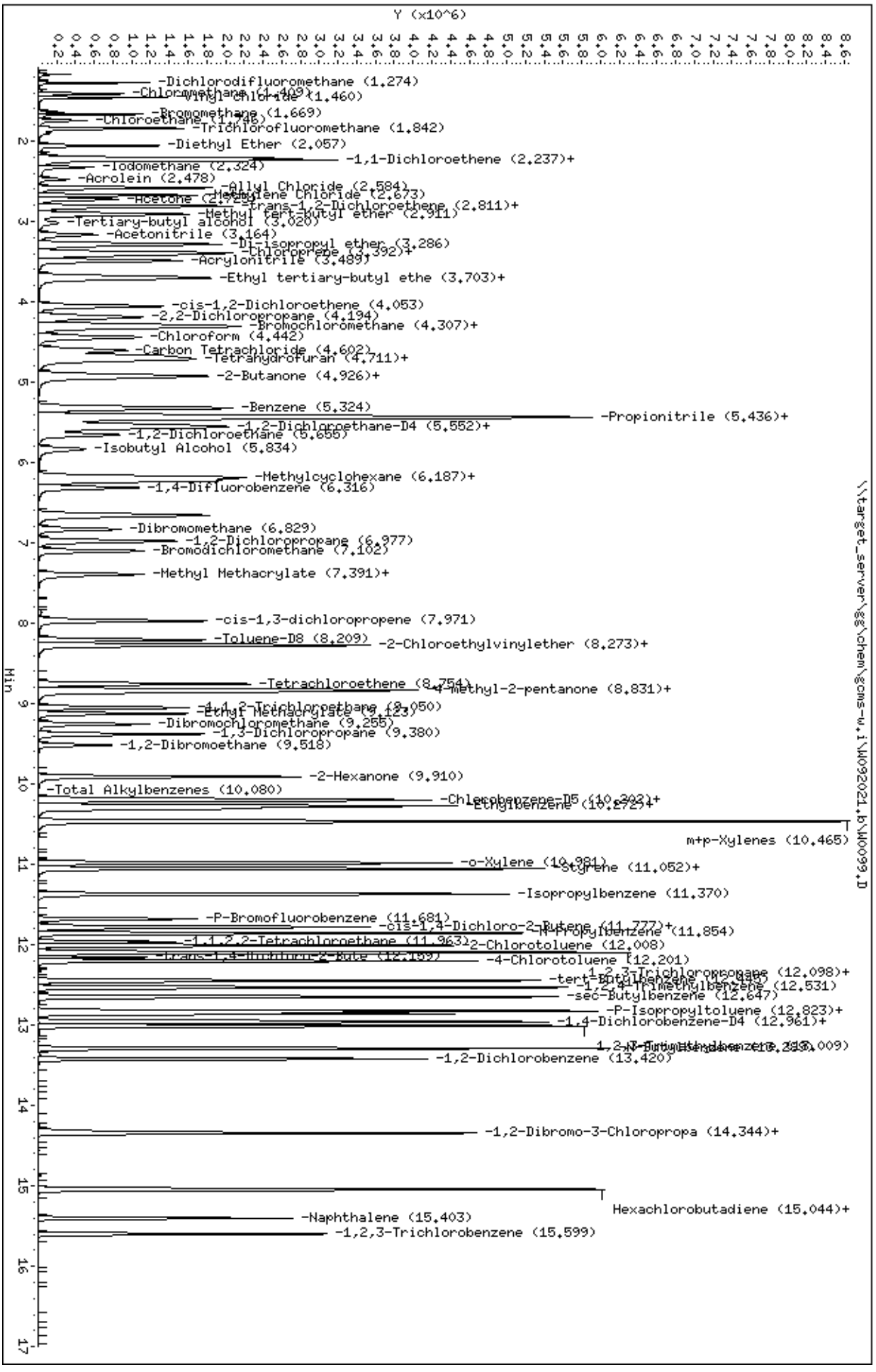
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)	REVIEW CODE
1	Dichlorodifluoromethane	85	1.274	1.277	(0.230)	548626	100.000	99.0	
2	Chloromethane	50	1.409	1.412	(0.255)	844286	100.000	99.6	
3	Vinyl chloride	62	1.460	1.460	(0.264)	744250	100.000	96.6	
4	Bromomethane	94	1.669	1.672	(0.302)	315034	100.000	107	
5	Chloroethane	64	1.746	1.752	(0.316)	337795	100.000	102	
6	Trichlorofluoromethane	101	1.842	1.849	(0.333)	1087990	100.000	99.1	
7	Diethyl Ether	59	2.060	2.060	(0.373)	569452	100.000	97.8	
8	1,1-Dichloroethene	96	2.208	2.211	(0.399)	676414	100.000	97.6	
9	Freon-113	151	2.233	2.237	(0.404)	554110	100.000	99.8	
10	Carbon Disulfide	76	2.237	2.240	(0.405)	1692252	100.000	98.2	
11	Iodomethane	142	2.323	2.327	(0.420)	604679	100.000	96.4	
12	Acrolein	56	2.477	2.478	(0.448)	248947	500.000	477	
13	Allyl Chloride	41	2.583	2.584	(0.467)	1122801	100.000	102	
14	Methylene Chloride	84	2.673	2.677	(0.483)	709612	100.000	99.1	
15	Acetone	43	2.724	2.725	(0.493)	1037291	500.000	454	
16	trans-1,2-Dichloroethene	96	2.811	2.815	(0.508)	716939	100.000	97.1	
17	Methyl Acetate	43	2.827	2.827	(0.511)	595323	100.000	94.4	
18	Methyl tert-butyl ether	73	2.910	2.914	(0.526)	1951367	100.000	101	
19	Tertiary-butyl alcohol	59	3.020	3.017	(0.546)	290615	500.000	500	
20	Acetonitrile	41	3.164	3.164	(0.572)	800154	1000.00	923	
21	Di-isopropyl ether	45	3.286	3.289	(0.594)	2282482	100.000	97.8	
22	Chloroprene	53	3.389	3.389	(0.613)	1300027	100.000	102	
23	1,1-Dichloroethane	63	3.417	3.418	(0.618)	1428098	100.000	100	

Data File: \\target_server\gg\chem\gcms-w.i\W092021.b\W0099.D
Report Date: 11-Oct-2021 15:21

			QUANT SIG					AMOUNTS		
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)	REVIEW CODE
	24	Acrylonitrile	52	3.488	3.488	(0.631)	1129765	500.000	500	
	25	Ethyl tertiary-butyl ether	59	3.693	3.694	(0.668)	2121055	100.000	104	
	26	Vinyl Acetate	43	3.716	3.716	(0.588)	1129976	100.000	106	
	27	cis-1,2-Dichloroethene	96	4.056	4.056	(0.734)	794555	100.000	99.2	
	28	2,2-Dichloropropane	77	4.191	4.191	(0.758)	1114052	100.000	113	
	29	Bromochloromethane	128	4.322	4.325	(0.782)	319046	100.000	95.3	
	30	Cyclohexane	56	4.297	4.300	(0.777)	1368565	100.000	100	
	31	Chloroform	83	4.438	4.445	(0.803)	1354888	100.000	100	
	32	Carbon Tetrachloride	117	4.601	4.605	(0.729)	1028145	100.000	108	
	33	Tetrahydrofuran	42	4.672	4.673	(0.845)	1224848	500.000	485	
$	34	Dibromofluoromethane	113	4.711	4.714	(0.852)	360005	50.0000	49.7	
	35	1,1,1-Trichloroethane	97	4.717	4.721	(0.853)	1263795	100.000	102	
	36	2-Butanone	43	4.938	4.939	(0.893)	1557274	500.000	477	
	37	1,1-Dichloropropene	75	4.916	4.920	(0.778)	1097709	100.000	102	
	38	Benzene	78	5.324	5.321	(0.843)	2926174	100.000	100	
	39	Propionitrile	54	5.417	5.411	(0.980)	996174	1000.00	1010	
	40	Methacrylonitrile	41	5.439	5.436	(0.984)	4335459	1000.00	984	
*	41	Pentafluorobenzene	168	5.529	5.526	(1.000)	726532	50.0000		
$	42	1,2-Dichloroethane-D4	65	5.551	5.549	(1.004)	455821	50.0000	48.9	
	43	Tertiary-amyl methyl ether	73	5.561	5.561	(1.006)	1747079	100.000	107	
	44	1,2-Dichloroethane	62	5.654	5.658	(0.895)	1024031	100.000	100	
	45	Isobutyl Alcohol	43	5.837	5.834	(1.056)	533043	2000.00	1940	
	46	Methylcyclohexane	83	6.187	6.184	(1.119)	1430386	100.000	103	
	47	Trichloroethene	95	6.232	6.226	(0.987)	745100	100.000	102	
*	48	1,4-Difluorobenzene	114	6.315	6.315	(1.000)	1170272	50.0000		
	49	Dibromomethane	93	6.832	6.832	(1.082)	442430	100.000	101	
	50	1,2-Dichloropropane	63	6.976	6.977	(1.105)	765423	100.000	101	
	51	Bromodichloromethane	83	7.098	7.102	(1.124)	1007459	100.000	104	
	52	Methyl Methacrylate	41	7.390	7.390	(1.170)	654331	100.000	105	
	53	Ethyl Methacrylate	69	9.126	9.123	(1.445)	911731	100.000	109	
	54	1,4-Dioxane	88	7.406	7.407	(1.173)	157694	2000.00	1980	
M	55	Total Alkylbenzenes	100				23334000	100.000	698	
	56	2-Chloroethylvinylether	63	8.272	8.270	(1.310)	272345	100.000	102	
	57	cis-1,3-dichloropropene	75	7.971	7.971	(1.262)	1237223	100.000	106	
$	58	Toluene-D8	98	8.208	8.209	(1.300)	1406695	50.0000	50.3	
	59	Toluene	92	8.272	8.273	(1.310)	1837286	100.000	100	
	60	Tetrachloroethene	164	8.754	8.754	(0.859)	654988	100.000	102	
	61	4-methyl-2-pentanone	43	8.828	8.831	(1.398)	3072813	500.000	496	
	62	trans-1,3-Dichloropropene	75	8.853	8.857	(1.402)	1098094	100.000	108	
	63	1,1,2-Trichloroethane	83	9.049	9.049	(1.433)	508802	100.000	101	
	64	Dibromochloromethane	129	9.254	9.255	(0.909)	742868	100.000	105	
	65	1,3-Dichloropropane	76	9.380	9.380	(0.921)	1158326	100.000	101	
	66	1,2-Dibromoethane	107	9.514	9.518	(1.507)	623526	100.000	102	
	67	2-Hexanone	43	9.909	9.906	(0.973)	2050417	500.000	500	
*	68	Chlorobenzene-D5	117	10.185	10.182	(1.000)	1139595	50.0000		
	69	Chlorobenzene	112	10.201	10.201	(1.002)	2054292	100.000	100	
	70	Ethylbenzene	91	10.272	10.272	(1.009)	3511144	100.000	100	
	71	1,1,1,2-Tetrachloroethane	131	10.304	10.304	(1.012)	723967	100.000	105	
	72	m+p-Xylenes	91	10.464	10.465	(1.027)	5194830	200.000	197	
	73	o-Xylene	91	10.981	10.981	(1.078)	2784423	100.000	101	
	74	Styrene	104	11.051	11.052	(1.085)	2242870	100.000	101	
	75	Bromoform	173	11.051	11.052	(1.085)	488325	100.000	107	
	76	Isopropylbenzene	105	11.369	11.370	(0.878)	3515996	100.000	98.5	
$	77	P-Bromofluorobenzene	95	11.680	11.678	(1.850)	582450	50.0000	49.7	

Data File: \\target_server\gg\chem\gcms-w.i\W092021.b\W0099.D
Report Date: 11-Oct-2021 15:21

			QUANT SIG					AMOUNTS		
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)	REVIEW CODE
	78	cis-1,4-Dichloro-2-Butene	53	11.793	11.790	(0.911)	257954	100.000	112	
	79	Bromobenzene	156	11.777	11.777	(0.910)	873391	100.000	99.6	
	80	N-Propylbenzene	91	11.854	11.857	(0.915)	4142895	100.000	97.3	
	81	1,1,2,2-Tetrachloroethane	83	11.960	11.963	(0.924)	757277	100.000	98.1	
	82	2-Chlorotoluene	91	12.008	12.005	(0.927)	2501005	100.000	98.8	
	83	1,2,3-Trichloropropane	75	12.088	12.088	(0.934)	679281	100.000	98.5	
	84	1,3,5-Trimethylbenzene	105	12.101	12.098	(0.935)	2956632	100.000	99.6	
	85	trans-1,4-Dichloro-2-Butene	53	12.155	12.159	(0.939)	239850	100.000	91.2	
	86	4-Chlorotoluene	91	12.203	12.204	(0.943)	2628078	100.000	99.5	
	87	tert-Butylbenzene	119	12.447	12.448	(0.961)	2685694	100.000	100	
	89	1,2,4-Trimethylbenzene	105	12.531	12.531	(0.968)	3025125	100.000	99.6	
	90	sec-Butylbenzene	105	12.646	12.647	(0.977)	3868941	100.000	98.9	
	91	P-Isopropyltoluene	119	12.823	12.823	(0.990)	3406421	100.000	100	
	92	1,3-Dichlorobenzene	146	12.858	12.858	(0.993)	1731440	100.000	100	
*	93	1,4-Dichlorobenzene-D4	152	12.948	12.948	(1.000)	652967	50.0000		
	94	1,4-Dichlorobenzene	146	12.964	12.964	(1.001)	1772029	100.000	100	
	95	1,2,3-Trimethylbenzene	105	13.009	13.012	(1.005)	3133970	100.000	103	
	96	N-Butylbenzene	91	13.288	13.288	(1.026)	3248292	100.000	101	
M	97	1,2-Dichloroethylene (total)	96				1511494	100.000	196	
	98	1,2-Dichlorobenzene	146	13.420	13.420	(1.036)	1605074	100.000	100	
	99	1,2-Dibromo-3-Chloropropane	157	14.315	14.315	(1.106)	151231	100.000	106	
	100	1,3,5-Trichlorobenzene	180	14.344	14.344	(1.108)	1387695	100.000	106	
	101	Hexachlorobutadiene	225	15.040	15.037	(1.162)	646572	100.000	105	
	102	1,2,4-Trichlorobenzene	180	15.050	15.050	(1.162)	1105674	100.000	99.0	
	103	Naphthalene	128	15.403	15.403	(1.190)	1966904	100.000	96.9	
	104	1,2,3-Trichlorobenzene	180	15.598	15.599	(1.205)	883027	100.000	106	
M	105	Xylenes (total)	106				7979253	300.000	299	


Data File: \\target_server\gg\chem\gcms-w.i\WO92021.b\W0099.D
Date : 20-SEP-2021 08:26
Client ID:
Sample Info: WG306317-5
Purge Volume: 5.0
Column phase: RTX-VMS
Instrument: gcms-w.i
Operator: HG
Column diameter: 0.18
\\target_server\gg\chem\gcms-w.i\WO92021.b\W0099.D
Y (x10^6)
Min
-Dichlorodifluoromethane (1.274)
-Chloromethane (1.409)
-Vinyl Chloride (1.460)
-Bromomethane (1.669)
-Chloroethane (1.746)
-Trichlorofluoromethane (1.842)
-Diethyl Ether (2.057)
-1,1-Dichloroethene (2.237)+
-Iodomethane (2.324)
-Acrolein (2.478)
-Allyl Chloride (2.584)
-Methylene Chloride (2.673)
-Acetone (2.722)
-trans-1,2-Dichloroethene (2.811)+
-Methyl tert-butyl ether (2.911)
-Tertiary-butyl alcohol (3.020)
-Acetonitrile (3.164)
-Di-isopropyl ether (3.286)
-Chloroprene (3.392)+
-Acrylonitrile (3.489)
-Ethyl tertiary-butyl ethe (3.703)+
-cis-1,2-Dichloroethene (4.053)
-2,2-Dichloropropane (4.194)
-Bromochloromethane (4.307)+
-Chloroform (4.442)
-Carbon Tetrachloride (4.602)
-Tetrahydrofuran (4.711)+
-2-Butanone (4.926)+
-Benzene (5.324)
-Propionitrile (5.436)+
-1,2-Dichloroethane-D4 (5.552)+
-1,2-Dichloroethane (5.655)
-Isobutyl Alcohol (5.834)
-Methylcyclohexane (6.187)+
-1,4-Difluorobenzene (6.316)
-Dibromomethane (6.829)
-1,2-Dichloropropane (6.977)
-Bromodichloromethane (7.102)
-Methyl Methacrylate (7.391)+
-cis-1,3-dichloropropene (7.971)
-Toluene-D8 (8.209)
-2-Chloroethylvinylether (8.273)+
-Tetrachloroethene (8.754)
-4-methyl-2-pentanone (8.831)+
-1,1,2-Trichloroethane (9.050)
-Ethyl Methacrylate (9.123)
-Dibromochloromethane (9.255)
-1,3-Dichloropropane (9.380)
-1,2-Dibromoethane (9.518)
-2-Hexanone (9.910)
-Total Alkylbenzenes (10.080)
-Chlorobenzene-D5 (10.202)+
-Ethylbenzene (10.272)+
m+p-Xylenes (10.465)
-o-Xylene (10.981)
-Styrene (11.052)+
-Isopropylbenzene (11.370)
-P-Bromofluorobenzene (11.681)
-cis-1,4-Dichloro-2-Butene (11.777)+
-N-Propylbenzene (11.854)
-1,1,2,2-Tetrachloroethane (11.963)
-2-Chlorotoluene (12.008)
-trans-1,4-Dichloro-2-Bute (12.169)
-4-Chlorotoluene (12.201)
-1,2,3-Trichloropropane (12.098)+
-tert-Butylbenzene (12.418)
-1,2,4-Trimethylbenzene (12.531)
-sec-Butylbenzene (12.647)
-P-Isopropyltoluene (12.823)+
-1,4-Dichlorobenzene-D4 (12.961)+
-1,2-Dichlorobenzene (13.420)
-1,2-Dibromo-3-Chloropropa (14.344)+
Hexachlorobutadiene (15.044)+
-Naphthalene (15.403)
-1,2,3-Trichlorobenzene (15.599)

Data File: \\target_server\gg\chem\gcms-w.i\W092021.b\W0100.D
Report Date: 11-Oct-2021 15:21

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-w.i\W092021.b\W0100.D
Lab Smp Id: WG306317-7
Inj Date : 20-SEP-2021 08:57
Operator : HG Inst ID: gcms-w.i
Smp Info : WG306317-7
Misc Info :
Comment : SW846 5030
Method : \\target_server\gg\chem\gcms-w.i\W092021.b\W8A05(08).m
Meth Date : 08-Oct-2021 09:43 hgould Quant Type: ISTD
Cal Date : 20-SEP-2021 08:57 Cal File: W0100.D
Als bottle: 26 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.12
Processing Host: ORGANICS2

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

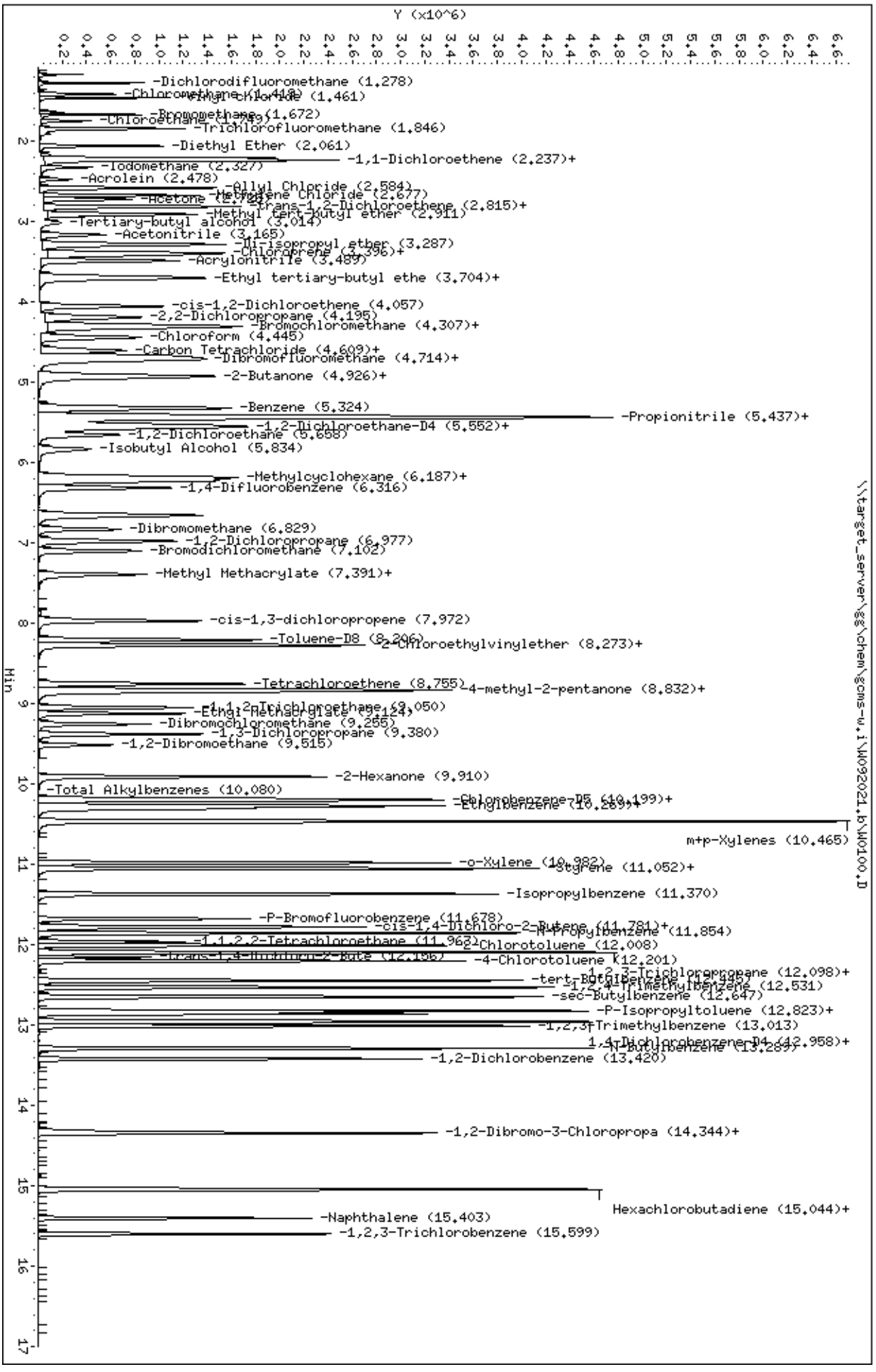
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)	REVIEW CODE
1	Dichlorodifluoromethane	85	1.277	1.277	(0.231)	417519	75.0000	73.2	
2	Chloromethane	50	1.415	1.412	(0.256)	634181	75.0000	72.7	
3	Vinyl chloride	62	1.460	1.460	(0.264)	580008	75.0000	73.2	
4	Bromomethane	94	1.672	1.672	(0.303)	241878	75.0000	74.5	
5	Chloroethane	64	1.749	1.752	(0.317)	276447	75.0000	74.7	
6	Trichlorofluoromethane	101	1.845	1.849	(0.334)	841189	75.0000	74.4	
7	Diethyl Ether	59	2.060	2.060	(0.373)	453393	75.0000	75.6	
8	1,1-Dichloroethene	96	2.211	2.211	(0.400)	538935	75.0000	75.5	
9	Freon-113	151	2.237	2.237	(0.405)	425308	75.0000	74.4	
10	Carbon Disulfide	76	2.240	2.240	(0.405)	1326560	75.0000	74.7	
11	Iodomethane	142	2.327	2.327	(0.421)	469078	75.0000	72.6	
12	Acrolein	56	2.477	2.478	(0.448)	205480	375.000	382	
13	Allyl Chloride	41	2.583	2.584	(0.468)	874875	75.0000	77.2	
14	Methylene Chloride	84	2.676	2.677	(0.484)	563594	75.0000	76.4	
15	Acetone	43	2.724	2.725	(0.493)	939991	375.000	400	
16	trans-1,2-Dichloroethene	96	2.811	2.815	(0.509)	564125	75.0000	74.2	
17	Methyl Acetate	43	2.827	2.827	(0.512)	519795	75.0000	80.0	
18	Methyl tert-butyl ether	73	2.911	2.914	(0.527)	1566253	75.0000	78.6	
19	Tertiary-butyl alcohol	59	3.013	3.017	(0.545)	252061	375.000	421	
20	Acetonitrile	41	3.164	3.164	(0.573)	707720	750.000	793	
21	Di-isopropyl ether	45	3.286	3.289	(0.595)	1810852	75.0000	75.4	
22	Chloroprene	53	3.389	3.389	(0.613)	965022	75.0000	73.2	
23	1,1-Dichloroethane	63	3.421	3.418	(0.619)	1076991	75.0000	73.4	

Data File: \\target_server\gg\chem\gcms-w.i\W092021.b\W0100.D
Report Date: 11-Oct-2021 15:21

			QUANT SIG					AMOUNTS		
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)	REVIEW CODE
	24	Acrylonitrile	52	3.491	3.488	(0.632)	856789	375.000	368	
	25	Ethyl tertiary-butyl ether	59	3.694	3.694	(0.668)	1618750	75.0000	77.1	
	26	Vinyl Acetate	43	3.719	3.716	(0.589)	858703	75.0000	77.9	
	27	cis-1,2-Dichloroethene	96	4.059	4.056	(0.735)	602670	75.0000	73.1	
	28	2,2-Dichloropropane	77	4.194	4.191	(0.759)	840418	75.0000	82.6	
	29	Bromochloromethane	128	4.323	4.325	(0.782)	246361	75.0000	71.5	
	30	Cyclohexane	56	4.297	4.300	(0.778)	1060872	75.0000	75.7	
	31	Chloroform	83	4.441	4.445	(0.804)	1036100	75.0000	74.4	
	32	Carbon Tetrachloride	117	4.608	4.605	(0.730)	758769	75.0000	77.0	
	33	Tetrahydrofuran	42	4.669	4.673	(0.845)	1051070	375.000	404	
$	34	Dibromofluoromethane	113	4.714	4.714	(0.853)	367693	50.0000	49.3	
	35	1,1,1-Trichloroethane	97	4.720	4.721	(0.854)	951024	75.0000	74.4	
	36	2-Butanone	43	4.942	4.939	(0.894)	1368139	375.000	407	
	37	1,1-Dichloropropene	75	4.916	4.920	(0.778)	835718	75.0000	74.9	
	38	Benzene	78	5.324	5.321	(0.843)	2257131	75.0000	74.6	
	39	Propionitrile	54	5.414	5.411	(0.980)	808082	750.000	794	
	40	Methacrylonitrile	41	5.436	5.436	(0.984)	3534056	750.000	780	
*	41	Pentafluorobenzene	168	5.526	5.526	(1.000)	747873	50.0000		
$	42	1,2-Dichloroethane-D4	65	5.552	5.549	(1.005)	478046	50.0000	49.8	
	43	Tertiary-amyl methyl ether	73	5.561	5.561	(1.006)	1318463	75.0000	78.4	
	44	1,2-Dichloroethane	62	5.657	5.658	(0.896)	787126	75.0000	74.3	
	45	Isobutyl Alcohol	43	5.834	5.834	(1.056)	462183	1500.00	1610	
	46	Methylcyclohexane	83	6.187	6.184	(1.120)	1059835	75.0000	74.2	
	47	Trichloroethene	95	6.229	6.226	(0.986)	565136	75.0000	74.4	
*	48	1,4-Difluorobenzene	114	6.315	6.315	(1.000)	1215423	50.0000		
	49	Dibromomethane	93	6.832	6.832	(1.082)	346737	75.0000	76.5	
	50	1,2-Dichloropropane	63	6.979	6.977	(1.105)	592185	75.0000	75.5	
	51	Bromodichloromethane	83	7.101	7.102	(1.124)	761016	75.0000	75.6	
	52	Methyl Methacrylate	41	7.390	7.390	(1.170)	519302	75.0000	80.3	
	53	Ethyl Methacrylate	69	9.123	9.123	(1.445)	698867	75.0000	80.6	
	54	1,4-Dioxane	88	7.409	7.407	(1.173)	135419	1500.00	1560	
M	55	Total Alkylbenzenes	100				17984597	75.0000	528	
	56	2-Chloroethylvinylether	63	8.273	8.270	(1.310)	206651	75.0000	74.5	
	57	cis-1,3-dichloropropene	75	7.971	7.971	(1.262)	934281	75.0000	77.5	
$	58	Toluene-D8	98	8.205	8.209	(1.299)	1436923	50.0000	49.5	
	59	Toluene	92	8.273	8.273	(1.310)	1418985	75.0000	74.8	
	60	Tetrachloroethene	164	8.754	8.754	(0.860)	501597	75.0000	76.4	
	61	4-methyl-2-pentanone	43	8.828	8.831	(1.398)	2620397	375.000	407	
	62	trans-1,3-Dichloropropene	75	8.853	8.857	(1.402)	840309	75.0000	79.4	
	63	1,1,2-Trichloroethane	83	9.049	9.049	(1.433)	401461	75.0000	76.7	
	64	Dibromochloromethane	129	9.255	9.255	(0.909)	569371	75.0000	78.5	
	65	1,3-Dichloropropane	76	9.380	9.380	(0.921)	905469	75.0000	76.6	
	66	1,2-Dibromoethane	107	9.515	9.518	(1.507)	491286	75.0000	77.1	
	67	2-Hexanone	43	9.906	9.906	(0.973)	1786804	375.000	424	
*	68	Chlorobenzene-D5	117	10.182	10.182	(1.000)	1171421	50.0000		
	69	Chlorobenzene	112	10.204	10.201	(1.002)	1574787	75.0000	74.9	
	70	Ethylbenzene	91	10.269	10.272	(1.009)	2707544	75.0000	75.1	
	71	1,1,1,2-Tetrachloroethane	131	10.304	10.304	(1.012)	549787	75.0000	77.7	
	72	m+p-Xylenes	91	10.464	10.465	(1.028)	4083792	150.000	151	
	73	o-Xylene	91	10.981	10.981	(1.078)	2126350	75.0000	75.3	
	74	Styrene	104	11.052	11.052	(1.085)	1725042	75.0000	75.9	
	75	Bromoform	173	11.048	11.052	(1.085)	376131	75.0000	80.2	
	76	Isopropylbenzene	105	11.369	11.370	(0.878)	2717998	75.0000	74.9	
$	77	P-Bromofluorobenzene	95	11.677	11.678	(1.849)	602907	50.0000	49.5	

Data File: \\target_server\gg\chem\gcms-w.i\W092021.b\W0100.D
Report Date: 11-Oct-2021 15:21

			QUANT SIG					AMOUNTS		
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)	REVIEW CODE
	78	cis-1,4-Dichloro-2-Butene	53	11.790	11.790	(0.911)	197069	75.0000	84.1	
	79	Bromobenzene	156	11.777	11.777	(0.910)	666779	75.0000	74.8	
	80	N-Propylbenzene	91	11.854	11.857	(0.915)	3239329	75.0000	74.9	
	81	1,1,2,2-Tetrachloroethane	83	11.963	11.963	(0.924)	613035	75.0000	78.1	
	82	2-Chlorotoluene	91	12.008	12.005	(0.927)	1913677	75.0000	74.4	
	83	1,2,3-Trichloropropane	75	12.085	12.088	(0.933)	546434	75.0000	78.0	
	84	1,3,5-Trimethylbenzene	105	12.098	12.098	(0.934)	2249240	75.0000	74.6	
	85	trans-1,4-Dichloro-2-Butene	53	12.155	12.159	(0.939)	201571	75.0000	75.4	
	86	4-Chlorotoluene	91	12.200	12.204	(0.942)	1997253	75.0000	74.4	
	87	tert-Butylbenzene	119	12.444	12.448	(0.961)	2052534	75.0000	75.5	
	89	1,2,4-Trimethylbenzene	105	12.531	12.531	(0.968)	2324018	75.0000	75.3	
	90	sec-Butylbenzene	105	12.646	12.647	(0.977)	2995995	75.0000	75.3	
	91	P-Isopropyltoluene	119	12.823	12.823	(0.990)	2625041	75.0000	76.3	
	92	1,3-Dichlorobenzene	146	12.858	12.858	(0.993)	1318466	75.0000	75.2	
*	93	1,4-Dichlorobenzene-D4	152	12.948	12.948	(1.000)	663658	50.0000		
	94	1,4-Dichlorobenzene	146	12.961	12.964	(1.001)	1347729	75.0000	75.1	
	95	1,2,3-Trimethylbenzene	105	13.012	13.012	(1.005)	2303278	75.0000	74.4	
	96	N-Butylbenzene	91	13.288	13.288	(1.026)	2498440	75.0000	76.7	
M	97	1,2-Dichloroethylene (total)	96				1166795	75.0000	147	
	98	1,2-Dichlorobenzene	146	13.423	13.420	(1.037)	1236115	75.0000	75.9	
	99	1,2-Dibromo-3-Chloropropane	157	14.315	14.315	(1.106)	123977	75.0000	85.2	
	100	1,3,5-Trichlorobenzene	180	14.344	14.344	(1.108)	1015430	75.0000	76.4	
	101	Hexachlorobutadiene	225	15.037	15.037	(1.161)	488193	75.0000	77.8	
	102	1,2,4-Trichlorobenzene	180	15.050	15.050	(1.162)	852115	75.0000	75.0	
	103	Naphthalene	128	15.403	15.403	(1.190)	1646768	75.0000	79.8	
	104	1,2,3-Trichlorobenzene	180	15.599	15.599	(1.205)	702711	75.0000	82.9	
M	105	Xylenes (total)	106				6210142	225.000	226	


Data File: \\target_server\gg\chem\gcms-w.i\W092021.b\W0100.D
Date : 20-SEP-2021 08:57
Client ID:
Sample Info: WG306317-7
Purge Volume: 5.0
Column phase: RTX-VMS
Instrument: gcms-w.i
Operator: HG
Column diameter: 0.18
\\target_server\gg\chem\gcms-w.i\W092021.b\W0100.D
Y (x10^6)
Min
-Dichlorodifluoromethane (1.278)
-Chloromethane (1.418)
-Vinyl Chloride (1.461)
-Bromomethane (1.672)
-Chloroethane (1.749)
-Trichlorofluoromethane (1.846)
-Diethyl Ether (2.061)
-1,1-Dichloroethene (2.237)+
-Iodomethane (2.327)
-Acrolein (2.478)
-Allyl Chloride (2.584)
-Methylene Chloride (2.677)
-Acetone (2.720)
-trans-1,2-Dichloroethene (2.815)+
-Methyl tert-butyl ether (2.911)
-Tertiary-butyl alcohol (3.014)
-Acetonitrile (3.165)
-Di-isopropyl ether (3.287)
-Chloroprene (3.396)+
-Acrylonitrile (3.489)
-Ethyl tertiary-butyl ethe (3.704)+
-cis-1,2-Dichloroethene (4.057)
-2,2-Dichloropropane (4.195)
-Bromochloromethane (4.307)+
-Chloroform (4.445)
-Carbon Tetrachloride (4.609)+
-Dibromofluoromethane (4.714)+
-2-Butanone (4.926)+
-Benzene (5.324)
-Propionitrile (5.437)+
-1,2-Dichloroethane-D4 (5.552)+
-1,2-Dichloroethane (5.658)
-Isobutyl Alcohol (5.834)
-Methylcyclohexane (6.187)+
-1,4-Difluorobenzene (6.316)
-Dibromomethane (6.829)
-1,2-Dichloropropane (6.977)
-Bromodichloromethane (7.102)
-Methyl Methacrylate (7.391)+
-cis-1,3-dichloropropene (7.972)
-Toluene-D8 (8.206)
-2-Chloroethylvinylether (8.273)+
-Tetrachloroethene (8.755)
-4-methyl-2-pentanone (8.832)+
-1,1,2-Trichloroethane (9.050)
-Ethyl Methacrylate (9.124)
-Dibromochloromethane (9.255)
-1,3-Dichloropropane (9.380)
-1,2-Dibromoethane (9.515)
-2-Hexanone (9.910)
-Total Alkylbenzenes (10.080)
-Chlorobenzene-D5 (10.199)+
-Ethylbenzene (10.289)+
m+p-Xylenes (10.465)
-o-Xylene (10.982)
-Styrene (11.052)+
-Isopropylbenzene (11.370)
-P-Bromofluorobenzene (11.678)
-cis-1,4-Dichloro-2-Butene (11.781)+
-n-Propylbenzene (11.854)
-1,1,2,2-Tetrachloroethane (11.963)
-2-Chlorotoluene (12.008)
-trans-1,4-Dichloro-2-Bute (12.156)
-4-Chlorotoluene (12.201)
-1,2,3-Trichloropropane (12.098)+
-tert-Butylbenzene (12.345)
-1,2,4-Trimethylbenzene (12.531)
-sec-Butylbenzene (12.647)
-P-Isopropyltoluene (12.823)+
-1,2,3-Trimethylbenzene (13.013)
-1,4-Dichlorobenzene-D4 (12.958)+
-n-Butylbenzene (13.289)
-1,2-Dichlorobenzene (13.420)
-1,2-Dibromo-3-Chloropropa (14.344)+
Hexachlorobutadiene (15.044)+
-Naphthalene (15.403)
-1,2,3-Trichlorobenzene (15.599)

Data File: \\target_server\gg\chem\gcms-w.i\W092021.b\W0101.D
Report Date: 11-Oct-2021 15:21

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-w.i\W092021.b\W0101.D
Lab Smp Id: WG306317-4
Inj Date : 20-SEP-2021 09:27
Operator : HG   Inst ID: gcms-w.i
Smp Info : WG306317-4
Misc Info :
Comment   : SW846 5030
Method   : \\target_server\gg\chem\gcms-w.i\W092021.b\W8A05(08).m
Meth Date : 08-Oct-2021 09:43 hgould   Quant Type: ISTD
Cal Date : 24-AUG-2021 12:00   Cal File: W9918.D
Als bottle: 27   Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE   Compound Sublist: all.sub
Target Version: 4.12

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)		REVIEW CODE
1	Dichlorodifluoromethane	85	1.277	1.277	(0.231)	278978	50.0000		(a)	
2	Chloromethane	50	1.412	1.412	(0.256)	419130	50.0000		(a)	
3	Vinyl chloride	62	1.460	1.460	(0.264)	382464	50.0000		(a)	
4	Bromomethane	94	1.672	1.672	(0.303)	157680	50.0000		(a)	
5	Chloroethane	64	1.752	1.752	(0.317)	192628	50.0000		(a)	
6	Trichlorofluoromethane	101	1.848	1.849	(0.335)	543020	50.0000		(a)	
7	Diethyl Ether	59	2.060	2.060	(0.373)	295293	50.0000		(a)	
8	1,1-Dichloroethene	96	2.211	2.211	(0.400)	341221	50.0000		(a)	
9	Freon-113	151	2.236	2.237	(0.405)	269416	50.0000		(a)	
10	Carbon Disulfide	76	2.240	2.240	(0.405)	849221	50.0000		(a)	
11	Iodomethane	142	2.326	2.327	(0.421)	280287	50.0000		(a)	
12	Acrolein	56	2.477	2.478	(0.448)	137030	250.000		(a)	
13	Allyl Chloride	41	2.583	2.584	(0.468)	550768	50.0000		(a)	
14	Methylene Chloride	84	2.676	2.677	(0.484)	361763	50.0000		(a)	
15	Acetone	43	2.724	2.725	(0.493)	566968	250.000		(a)	
16	trans-1,2-Dichloroethene	96	2.814	2.815	(0.509)	362047	50.0000		(a)	
17	Methyl Acetate	43	2.827	2.827	(0.512)	333241	50.0000		(a)	
18	Methyl tert-butyl ether	73	2.914	2.914	(0.527)	1016276	50.0000		(a)	
19	Tertiary-butyl alcohol	59	3.016	3.017	(0.546)	161767	250.000		(a)	
20	Acetonitrile	41	3.164	3.164	(0.573)	446453	500.000		(a)	
21	Di-isopropyl ether	45	3.289	3.289	(0.595)	1139630	50.0000		(a)	
22	Chloroprene	53	3.388	3.389	(0.613)	629545	50.0000		(a)	
23	1,1-Dichloroethane	63	3.417	3.418	(0.618)	707771	50.0000		(a)	
24	Acrylonitrile	52	3.488	3.488	(0.631)	623304	250.000		(a)	

Data File: \\target_server\gg\chem\gcms-w.i\W092021.b\W0101.D
Report Date: 11-Oct-2021 15:21

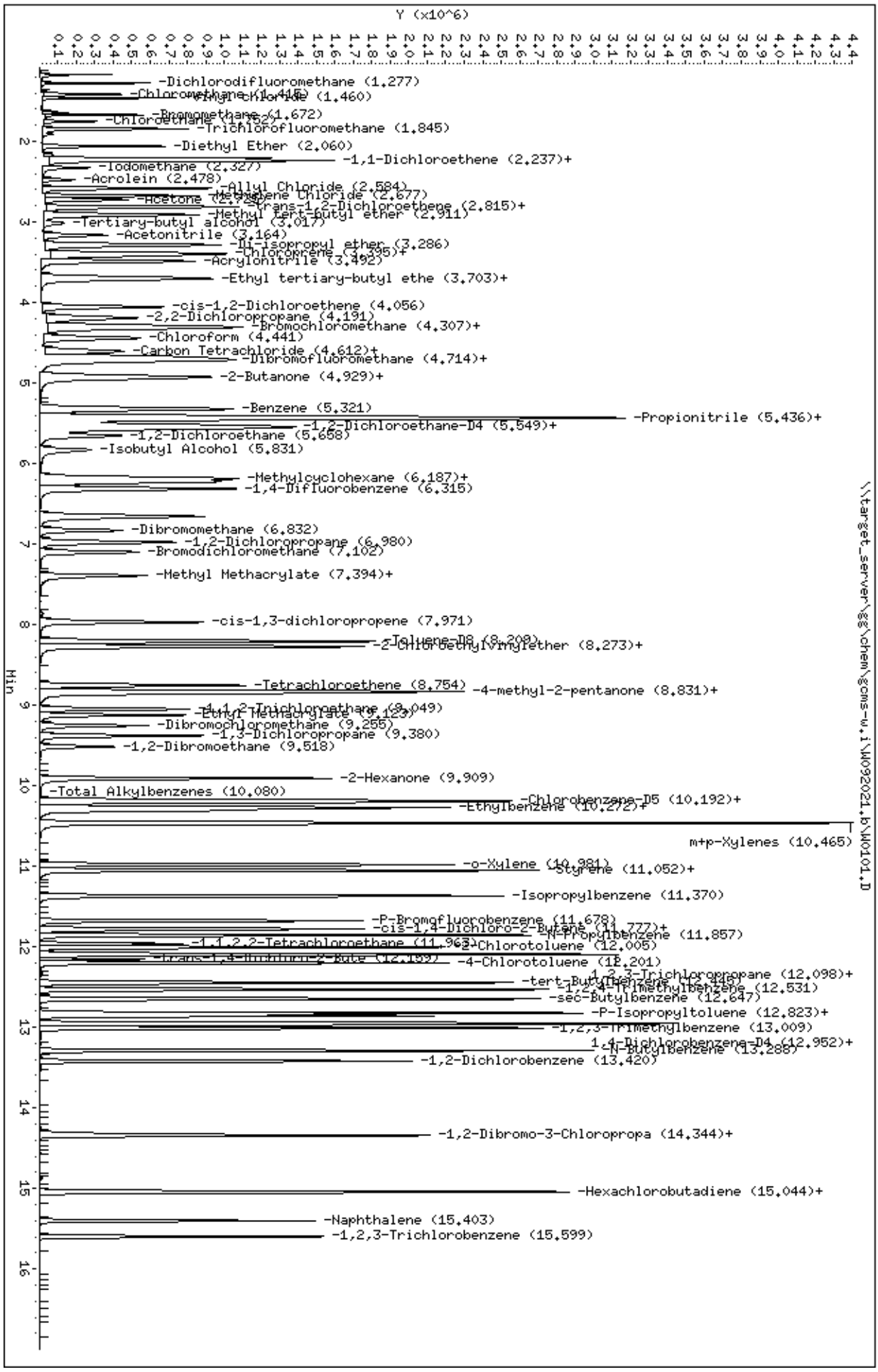
		Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)	REVIEW CODE
	25	Ethyl tertiary-butyl ether	59	3.693	3.694	(0.668)	1049702	50.0000	(a)	
	26	Vinyl Acetate	43	3.716	3.716	(0.588)	584923	50.0000	(a)	
	27	cis-1,2-Dichloroethene	96	4.056	4.056	(0.734)	398425	50.0000	(a)	
	28	2,2-Dichloropropane	77	4.191	4.191	(0.758)	503165	50.0000	(a)	
	29	Bromochloromethane	128	4.325	4.325	(0.783)	166025	50.0000	(a)	
	30	Cyclohexane	56	4.300	4.300	(0.778)	675020	50.0000	(a)	
	31	Chloroform	83	4.444	4.445	(0.804)	665424	50.0000	(a)	
	32	Carbon Tetrachloride	117	4.605	4.605	(0.729)	480526	50.0000	(a)	
	33	Tetrahydrofuran	42	4.672	4.673	(0.846)	702194	250.000	(a)	
$	34	Dibromofluoromethane	113	4.714	4.714	(0.853)	364394	50.0000	(a)	
	35	1,1,1-Trichloroethane	97	4.720	4.721	(0.854)	611716	50.0000	(a)	
	36	2-Butanone	43	4.938	4.939	(0.894)	896333	250.000	(a)	
	37	1,1-Dichloropropene	75	4.919	4.920	(0.779)	539559	50.0000	(a)	
	38	Benzene	78	5.320	5.321	(0.842)	1478418	50.0000	(a)	
	39	Propionitrile	54	5.410	5.411	(0.979)	529094	500.000	(a)	
	40	Methacrylonitrile	41	5.436	5.436	(0.984)	2381997	500.000	(a)	
*	41	Pentafluorobenzene	168	5.526	5.526	(1.000)	729574	50.0000		
$	42	1,2-Dichloroethane-D4	65	5.548	5.549	(1.004)	470451	50.0000	(a)	
	43	Tertiary-amyl methyl ether	73	5.561	5.561	(1.006)	848211	50.0000	(a)	
	44	1,2-Dichloroethane	62	5.657	5.658	(0.896)	518171	50.0000	(a)	
	45	Isobutyl Alcohol	43	5.834	5.834	(1.056)	286376	1000.00	(a)	
	46	Methylcyclohexane	83	6.183	6.184	(1.119)	685408	50.0000	(a)	
	47	Trichloroethene	95	6.225	6.226	(0.986)	363024	50.0000	(a)	
*	48	1,4-Difluorobenzene	114	6.315	6.315	(1.000)	1190635	50.0000		
	49	Dibromomethane	93	6.832	6.832	(1.082)	224397	50.0000	(a)	
	50	1,2-Dichloropropane	63	6.976	6.977	(1.105)	378474	50.0000	(a)	
	51	Bromodichloromethane	83	7.101	7.102	(1.124)	489296	50.0000	(a)	
	52	Methyl Methacrylate	41	7.390	7.390	(1.170)	345000	50.0000	(a)	
	53	Ethyl Methacrylate	69	9.123	9.123	(1.445)	458880	50.0000	(a)	
	54	1,4-Dioxane	88	7.406	7.407	(1.173)	91984	1000.00	(a)	
M	55	Total Alkylbenzenes	100				11722621	50.0000	(a)	
	56	2-Chloroethylvinylether	63	8.269	8.270	(1.309)	131057	50.0000	(a)	
	57	cis-1,3-dichloropropene	75	7.971	7.971	(1.262)	595248	50.0000	(a)	
$	58	Toluene-D8	98	8.208	8.209	(1.300)	1422202	50.0000	(a)	
	59	Toluene	92	8.272	8.273	(1.310)	919880	50.0000	(a)	
	60	Tetrachloroethene	164	8.754	8.754	(0.860)	321645	50.0000	(a)	
	61	4-methyl-2-pentanone	43	8.831	8.831	(1.398)	1781021	250.000	(a)	
	62	trans-1,3-Dichloropropene	75	8.856	8.857	(1.402)	537244	50.0000	(a)	
	63	1,1,2-Trichloroethane	83	9.049	9.049	(1.433)	264937	50.0000	(a)	
	64	Dibromochloromethane	129	9.254	9.255	(0.909)	366026	50.0000	(a)	
	65	1,3-Dichloropropane	76	9.379	9.380	(0.921)	590328	50.0000	(a)	
	66	1,2-Dibromoethane	107	9.517	9.518	(1.507)	321738	50.0000	(a)	
	67	2-Hexanone	43	9.906	9.906	(0.973)	1175340	250.000	(a)	
*	68	Chlorobenzene-D5	117	10.182	10.182	(1.000)	1160697	50.0000		
	69	Chlorobenzene	112	10.201	10.201	(1.002)	1025073	50.0000	(a)	
	70	Ethylbenzene	91	10.272	10.272	(1.009)	1783689	50.0000	(a)	
	71	1,1,1,2-Tetrachloroethane	131	10.304	10.304	(1.012)	346696	50.0000	(a)	
	72	m+p-Xylenes	91	10.464	10.465	(1.028)	2716278	100.000	(a)	
	73	o-Xylene	91	10.981	10.981	(1.078)	1391819	50.0000	(a)	
	74	Styrene	104	11.051	11.052	(1.085)	1128956	50.0000	(a)	
	75	Bromoform	173	11.051	11.052	(1.085)	243473	50.0000	(a)	
	76	Isopropylbenzene	105	11.369	11.370	(0.878)	1771950	50.0000	(a)	
$	77	P-Bromofluorobenzene	95	11.677	11.678	(1.849)	595758	50.0000	(a)	
	78	cis-1,4-Dichloro-2-Butene	53	11.789	11.790	(0.911)	125692	50.0000	(a)	

Data File: \\target_server\gg\chem\gcms-w.i\W092021.b\W0101.D
Report Date: 11-Oct-2021 15:21

			QUANT SIG					AMOUNTS		
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)	REVIEW CODE
	79	Bromobenzene	156	11.777	11.777	(0.910)	435342	50.0000	(a)	
	80	N-Propylbenzene	91	11.857	11.857	(0.916)	2154399	50.0000	(a)	
	81	1,1,2,2-Tetrachloroethane	83	11.963	11.963	(0.924)	408752	50.0000	(a)	
	82	2-Chlorotoluene	91	12.004	12.005	(0.927)	1247860	50.0000	(a)	
	83	1,2,3-Trichloropropane	75	12.088	12.088	(0.934)	362665	50.0000	(a)	
	84	1,3,5-Trimethylbenzene	105	12.097	12.098	(0.934)	1469089	50.0000	(a)	
	85	trans-1,4-Dichloro-2-Butene	53	12.158	12.159	(0.939)	125892	50.0000	(a)	
	86	4-Chlorotoluene	91	12.203	12.204	(0.943)	1302604	50.0000	(a)	
	87	tert-Butylbenzene	119	12.447	12.448	(0.961)	1315848	50.0000	(a)	
	89	1,2,4-Trimethylbenzene	105	12.531	12.531	(0.968)	1505266	50.0000	(a)	
	90	sec-Butylbenzene	105	12.646	12.647	(0.977)	1959448	50.0000	(a)	
	91	P-Isopropyltoluene	119	12.823	12.823	(0.990)	1695488	50.0000	(a)	
	92	1,3-Dichlorobenzene	146	12.858	12.858	(0.993)	855459	50.0000	(a)	
*	93	1,4-Dichlorobenzene-D4	152	12.948	12.948	(1.000)	643339	50.0000		
	94	1,4-Dichlorobenzene	146	12.964	12.964	(1.001)	877933	50.0000	(a)	
	95	1,2,3-Trimethylbenzene	105	13.012	13.012	(1.005)	1505992	50.0000	(a)	
	96	N-Butylbenzene	91	13.288	13.288	(1.026)	1623083	50.0000	(a)	
M	97	1,2-Dichloroethylene (total)	96				760472	50.0000	(a)	
	98	1,2-Dichlorobenzene	146	13.420	13.420	(1.036)	805063	50.0000	(a)	
	99	1,2-Dibromo-3-Chloropropane	157	14.315	14.315	(1.106)	79077	50.0000	(a)	
	100	1,3,5-Trichlorobenzene	180	14.344	14.344	(1.108)	654793	50.0000	(a)	
	101	Hexachlorobutadiene	225	15.037	15.037	(1.161)	303971	50.0000	(a)	
	102	1,2,4-Trichlorobenzene	180	15.050	15.050	(1.162)	542633	50.0000	(a)	
	103	Naphthalene	128	15.403	15.403	(1.190)	1060238	50.0000	(a)	
	104	1,2,3-Trichlorobenzene	180	15.598	15.599	(1.205)	452376	50.0000	(a)	
M	105	Xylenes (total)	106				4108097	150.000	(a)	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).


Data File: \\target_server\gg\chem\gcms-w.i\W092021.b\W0101.D
Date : 20-SEP-2021 09:27
Client ID:
Sample Info: W0306317-4
Purge Volume: 5.0
Column phase: RTX-VMS
Instrument: gcms-w.i
Operator: HG
Column diameter: 0.18
\\target_server\gg\chem\gcms-w.i\W092021.b\W0101.D
Y (x10^6)
Min
-Dichlorodifluoromethane (1.277)
-Chloromethane (1.416)
-Vinyl Chloride (1.460)
-Bromomethane (1.672)
-Chloroethane (1.762)
-Trichlorofluoromethane (1.845)
-Diethyl Ether (2.060)
-1,1-Dichloroethene (2.237)+
-Iodomethane (2.327)
-Acrolein (2.478)
-Allyl Chloride (2.584)
-Methylene Chloride (2.677)
-Acetone (2.7
-trans-1,2-Dichloroethene (2.815)+
-Methyl tert-butyl ether (2.911)
-Tertiary-butyl alcohol (3.017)
-Acetonitrile (3.164)
-Di-isopropyl ether (3.286)
-Chloroprene (3.395)+
-Acrylonitrile (3.492)
-Ethyl tertiary-butyl ethe (3.703)+
-cis-1,2-Dichloroethene (4.056)
-2,2-Dichloropropane (4.191)
-Bromochloromethane (4.307)+
-Chloroform (4.441)
-Carbon Tetrachloride (4.612)+
-Dibromofluoromethane (4.714)+
-2-Butanone (4.929)+
-Benzene (5.321)
-Propionitrile (5.436)+
-1,2-Dichloroethane-D4 (5.549)+
-1,2-Dichloroethane (5.658)
-Isobutyl Alcohol (5.831)
-Methylcyclohexane (6.187)+
-1,4-Difluorobenzene (6.315)
-Dibromomethane (6.832)
-1,2-Dichloropropane (6.980)
-Bromodichloromethane (7.102)
-Methyl Methacrylate (7.394)+
-cis-1,3-dichloropropene (7.971)
-Toluene-D8 (8.209)
-2-Chloroethylvinylether (8.273)+
-Tetrachloroethene (8.754)
-4-methyl-2-pentanone (8.831)+
-1,1,2-Trichloroethane (9.049)
-Ethyl Methacrylate (9.123)
-Dibromochloromethane (9.255)
-1,3-Dichloropropane (9.380)
-1,2-Dibromoethane (9.518)
-2-Hexanone (9.909)
-Total Alkylbenzenes (10.080)
-Chlorobenzene-D5 (10.192)+
-Ethylbenzene (10.272)+
m+p-Xylenes (10.465)
-o-Xylene (10.981)
-Styrene (11.052)+
-Isopropylbenzene (11.370)
-P-Bromofluorobenzene (11.678)
-cis-1,4-Dichloro-2-Butene (11.777)+
-N-Propylbenzene (11.857)
-1,1,2,2-Tetrachloroethane (11.963)
-2-Chlorotoluene (12.005)
-trans-1,4-Dichloro-2-Bute (12.199)
-4-Chlorotoluene (12.201)
-1,2,3-Trichloropropane (12.098)+
-tert-Butylbenzene (12.416)
-1,2,4-Trimethylbenzene (12.531)
-sec-Butylbenzene (12.647)
-P-Isopropyltoluene (12.823)+
-1,2,3-Trimethylbenzene (13.009)
-1,4-Dichlorobenzene-D4 (12.952)+
-N-Butylbenzene (13.288)
-1,2-Dichlorobenzene (13.420)
-1,2-Dibromo-3-Chloropropa (14.344)+
-Hexachlorobutadiene (15.044)+
-Naphthalene (15.403)
-1,2,3-Trichlorobenzene (15.599)

Data File: \\target_server\gg\chem\gcms-w.i\W092021.b\W0102.D
Report Date: 11-Oct-2021 15:21

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-w.i\W092021.b\W0102.D
Lab Smp Id: WG306317-3
Inj Date : 20-SEP-2021 09:58
Operator : HG   Inst ID: gcms-w.i
Smp Info : WG306317-3
Misc Info :
Comment   : SW846 5030
Method   : \\target_server\gg\chem\gcms-w.i\W092021.b\W8A05(08).m
Meth Date : 08-Oct-2021 09:43 hgould   Quant Type: ISTD
Cal Date : 20-SEP-2021 09:58   Cal File: W0102.D
Als bottle: 28   Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE   Compound Sublist: all.sub
Target Version: 4.12
Processing Host: ORGANICS2

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

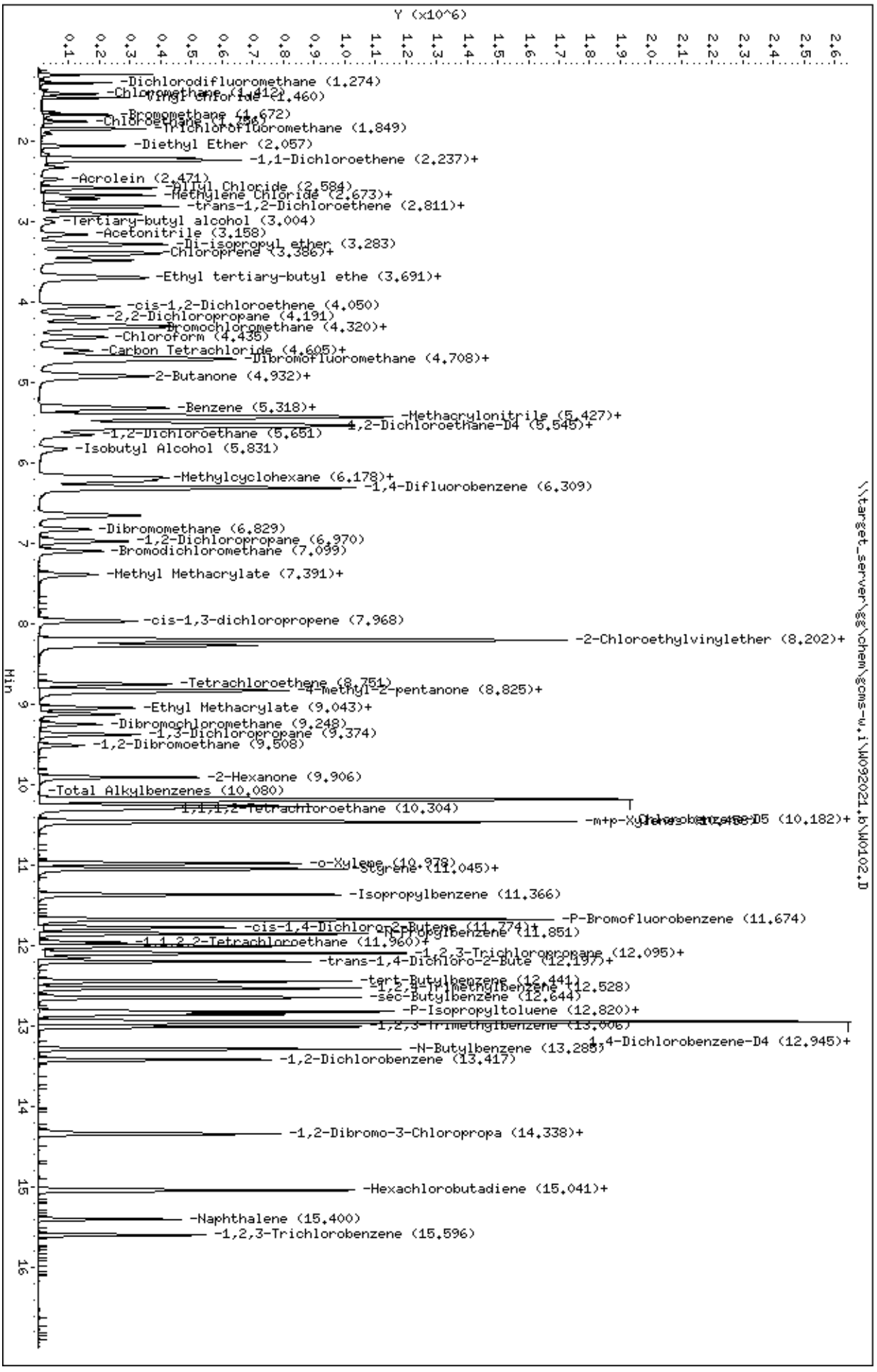
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)	REVIEW CODE
1	Dichlorodifluoromethane	85	1.274	1.277	(0.231)	107421	20.0000	20.0	
2	Chloromethane	50	1.412	1.412	(0.256)	169345	20.0000	20.7	
3	Vinyl chloride	62	1.460	1.460	(0.264)	156913	20.0000	21.1	
4	Bromomethane	94	1.672	1.672	(0.303)	69529	20.0000	19.3	
5	Chloroethane	64	1.755	1.752	(0.318)	90688	20.0000	20.4	
6	Trichlorofluoromethane	101	1.848	1.849	(0.335)	218128	20.0000	20.6	
7	Diethyl Ether	59	2.060	2.060	(0.373)	118745	20.0000	21.1	
8	1,1-Dichloroethene	96	2.211	2.211	(0.400)	139560	20.0000	20.8	
9	Freon-113	151	2.237	2.237	(0.405)	108110	20.0000	20.2	
10	Carbon Disulfide	76	2.240	2.240	(0.406)	346494	20.0000	20.8	
11	Iodomethane	142	2.326	2.327	(0.421)	94185	20.0000	15.5	
12	Acrolein	56	2.471	2.478	(0.447)	52034	100.000	103	
13	Allyl Chloride	41	2.583	2.584	(0.468)	229061	20.0000	21.5	
14	Methylene Chloride	84	2.673	2.677	(0.484)	152942	20.0000	22.1	
15	Acetone	43	2.718	2.725	(0.492)	222722	100.000	101	
16	trans-1,2-Dichloroethene	96	2.811	2.815	(0.509)	150030	20.0000	21.0	
17	Methyl Acetate	43	2.824	2.827	(0.511)	130244	20.0000	21.4	
18	Methyl tert-butyl ether	73	2.910	2.914	(0.527)	379133	20.0000	20.2	
19	Tertiary-butyl alcohol	59	3.003	3.017	(0.544)	60683	100.000	108	
20	Acetonitrile	41	3.157	3.164	(0.572)	188228	200.000	225	
21	Di-isopropyl ether	45	3.283	3.289	(0.594)	477509	20.0000	21.2	
22	Chloroprene	53	3.385	3.389	(0.613)	249539	20.0000	20.2	
23	1,1-Dichloroethane	63	3.417	3.418	(0.619)	284513	20.0000	20.6	

Data File: \\target_server\gg\chem\gcms-w.i\W092021.b\W0102.D
Report Date: 11-Oct-2021 15:21

			QUANT SIG					AMOUNTS		
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)	REVIEW CODE
	24	Acrylonitrile	52	3.482	3.488	(0.630)	221354	100.000	101	
	25	Ethyl tertiary-butyl ether	59	3.690	3.694	(0.668)	412824	20.0000	20.9	
	26	Vinyl Acetate	43	3.709	3.716	(0.588)	206421	20.0000	19.6	
	27	cis-1,2-Dichloroethene	96	4.050	4.056	(0.733)	157345	20.0000	20.3	
	28	2,2-Dichloropropane	77	4.191	4.191	(0.759)	175123	20.0000	18.3	
	29	Bromochloromethane	128	4.319	4.325	(0.782)	68253	20.0000	21.1	
	30	Cyclohexane	56	4.300	4.300	(0.779)	268407	20.0000	20.4	
	31	Chloroform	83	4.435	4.445	(0.803)	267598	20.0000	20.4	
	32	Carbon Tetrachloride	117	4.605	4.605	(0.730)	178781	20.0000	19.0	
	33	Tetrahydrofuran	42	4.675	4.673	(0.847)	248601	100.000	102	
$	34	Dibromofluoromethane	113	4.707	4.714	(0.852)	350359	50.0000	50.1	
	35	1,1,1-Trichloroethane	97	4.714	4.721	(0.854)	238530	20.0000	19.9	
	36	2-Butanone	43	4.932	4.939	(0.893)	318092	100.000	101	
	37	1,1-Dichloropropene	75	4.916	4.920	(0.779)	213817	20.0000	20.1	
	38	Benzene	78	5.317	5.321	(0.843)	592092	20.0000	20.6	
	39	Propionitrile	54	5.404	5.411	(0.979)	197481	200.000	207	
	40	Methacrylonitrile	41	5.426	5.436	(0.983)	883356	200.000	208	
*	41	Pentafluorobenzene	168	5.522	5.526	(1.000)	702183	50.0000		
$	42	1,2-Dichloroethane-D4	65	5.545	5.549	(1.004)	450293	50.0000	50.0	
	43	Tertiary-amyl methyl ether	73	5.558	5.561	(1.006)	304602	20.0000	19.3	
	44	1,2-Dichloroethane	62	5.651	5.658	(0.896)	200914	20.0000	19.9	
	45	Isobutyl Alcohol	43	5.830	5.834	(1.056)	96958	400.000	338	
	46	Methylcyclohexane	83	6.177	6.184	(1.119)	263936	20.0000	19.7	
	47	Trichloroethene	95	6.222	6.226	(0.986)	144768	20.0000	20.0	
*	48	1,4-Difluorobenzene	114	6.309	6.315	(1.000)	1157500	50.0000		
	49	Dibromomethane	93	6.828	6.832	(1.082)	85850	20.0000	19.9	
	50	1,2-Dichloropropane	63	6.973	6.977	(1.105)	148826	20.0000	19.9	
	51	Bromodichloromethane	83	7.098	7.102	(1.125)	188718	20.0000	19.7	
	52	Methyl Methacrylate	41	7.384	7.390	(1.170)	119454	20.0000	19.4	
	53	Ethyl Methacrylate	69	9.120	9.123	(1.446)	159187	20.0000	19.3	
	54	1,4-Dioxane	88	7.403	7.407	(1.173)	38163	400.000	374	
M	55	Total Alkylbenzenes	100				4630322	20.0000	145	
	56	2-Chloroethylvinylether	63	8.266	8.270	(1.310)	52518	20.0000	19.9	
	57	cis-1,3-dichloropropene	75	7.968	7.971	(1.263)	220985	20.0000	19.2	
$	58	Toluene-D8	98	8.202	8.209	(1.300)	1387579	50.0000	50.2	
	59	Toluene	92	8.266	8.273	(1.310)	365987	20.0000	20.2	
	60	Tetrachloroethene	164	8.751	8.754	(0.860)	125212	20.0000	19.8	
	61	4-methyl-2-pentanone	43	8.824	8.831	(1.399)	625419	100.000	102	
	62	trans-1,3-Dichloropropene	75	8.847	8.857	(1.402)	190237	20.0000	18.9	
	63	1,1,2-Trichloroethane	83	9.043	9.049	(1.433)	99523	20.0000	20.0	
	64	Dibromochloromethane	129	9.248	9.255	(0.909)	132434	20.0000	19.0	
	65	1,3-Dichloropropane	76	9.373	9.380	(0.921)	228666	20.0000	20.2	
	66	1,2-Dibromoethane	107	9.508	9.518	(1.507)	119031	20.0000	19.6	
	67	2-Hexanone	43	9.906	9.906	(0.973)	405130	100.000	100	
*	68	Chlorobenzene-D5	117	10.179	10.182	(1.000)	1125338	50.0000		
	69	Chlorobenzene	112	10.198	10.201	(1.002)	409155	20.0000	20.2	
	70	Ethylbenzene	91	10.268	10.272	(1.009)	711370	20.0000	20.5	
	71	1,1,1,2-Tetrachloroethane	131	10.304	10.304	(1.012)	132559	20.0000	19.5	
	72	m+p-Xylenes	91	10.458	10.465	(1.027)	1089516	40.0000	41.9	
	73	o-Xylene	91	10.978	10.981	(1.078)	547341	20.0000	20.2	
	74	Styrene	104	11.048	11.052	(1.085)	435257	20.0000	19.9	
	75	Bromoform	173	11.048	11.052	(1.085)	82508	20.0000	18.3	
	76	Isopropylbenzene	105	11.366	11.370	(0.878)	709297	20.0000	20.9	
$	77	P-Bromofluorobenzene	95	11.674	11.678	(1.850)	586292	50.0000	50.6	

Data File: \\target_server\gg\chem\gcms-w.i\W092021.b\W0102.D
Report Date: 11-Oct-2021 15:21

			QUANT SIG					AMOUNTS		
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)	REVIEW CODE
	78	cis-1,4-Dichloro-2-Butene	53	11.789	11.790	(0.911)	40551	20.0000	18.5	
	79	Bromobenzene	156	11.770	11.777	(0.909)	170452	20.0000	20.4	
	80	N-Propylbenzene	91	11.850	11.857	(0.916)	865046	20.0000	21.3	
	81	1,1,2,2-Tetrachloroethane	83	11.956	11.963	(0.924)	149612	20.0000	20.4	
	82	2-Chlorotoluene	91	12.001	12.005	(0.927)	500089	20.0000	20.8	
	83	1,2,3-Trichloropropane	75	12.081	12.088	(0.934)	134418	20.0000	20.5	
	84	1,3,5-Trimethylbenzene	105	12.094	12.098	(0.935)	583252	20.0000	20.6	
	85	trans-1,4-Dichloro-2-Butene	53	12.155	12.159	(0.939)	39885	20.0000	15.9	
	86	4-Chlorotoluene	91	12.197	12.204	(0.942)	521675	20.0000	20.7	
	87	tert-Butylbenzene	119	12.441	12.448	(0.961)	523276	20.0000	20.5	
	89	1,2,4-Trimethylbenzene	105	12.527	12.531	(0.968)	593836	20.0000	20.5	
	90	sec-Butylbenzene	105	12.643	12.647	(0.977)	778016	20.0000	20.9	
	91	P-Isopropyltoluene	119	12.820	12.823	(0.991)	661057	20.0000	20.5	
	92	1,3-Dichlorobenzene	146	12.855	12.858	(0.993)	330592	20.0000	20.1	
*	93	1,4-Dichlorobenzene-D4	152	12.941	12.948	(1.000)	621615	50.0000		
	94	1,4-Dichlorobenzene	146	12.957	12.964	(1.001)	340966	20.0000	20.3	
	95	1,2,3-Trimethylbenzene	105	13.009	13.012	(1.005)	598425	20.0000	20.6	
	96	N-Butylbenzene	91	13.285	13.288	(1.027)	625839	20.0000	20.5	
M	97	1,2-Dichloroethylene (total)	96				307375	20.0000	41.3	
	98	1,2-Dichlorobenzene	146	13.416	13.420	(1.037)	304981	20.0000	20.0	
	99	1,2-Dibromo-3-Chloropropane	157	14.308	14.315	(1.106)	25649	20.0000	18.8	
	100	1,3,5-Trichlorobenzene	180	14.337	14.344	(1.108)	242860	20.0000	19.5	
	101	Hexachlorobutadiene	225	15.034	15.037	(1.162)	112575	20.0000	19.2	
	102	1,2,4-Trichlorobenzene	180	15.046	15.050	(1.163)	187319	20.0000	17.6	
	103	Naphthalene	128	15.399	15.403	(1.190)	331739	20.0000	17.2	
	104	1,2,3-Trichlorobenzene	180	15.598	15.599	(1.205)	157341	20.0000	19.8	
M	105	Xylenes (total)	106				1636857	60.0000	62.1	


Data File: \\target_server\gg\chem\gcms-w.i\W092021.b\W0102.D
Date : 20-SEP-2021 09:58
Client ID:
Sample Info: WG306317-3
Purge Volume: 5.0
Column phase: RTX-VMS
Instrument: gcms-w.i
Operator: HG
Column diameter: 0.18
Y (x10^6)
Min
\\target_server\gg\chem\gcms-w.i\W092021.b\W0102.D
-Dichlorodifluoromethane (1.274)
-Chloromethane (1.412)
-Vinyl Chloride (1.460)
-Bromomethane (1.672)
-Chloroethane (1.756)
-Trichlorofluoromethane (1.849)
-Diethyl Ether (2.057)
-1,1-Dichloroethene (2.237)+
-Acrolein (2.471)
-Allyl Chloride (2.584)
-Methylene Chloride (2.673)+
-trans-1,2-Dichloroethene (2.811)+
-Tertiary-butyl alcohol (3.004)
-Acetonitrile (3.158)
-Di-isopropyl ether (3.283)
-Chloroprene (3.386)+
-Ethyl tertiary-butyl ethe (3.691)+
-cis-1,2-Dichloroethene (4.050)
-2,2-Dichloropropane (4.191)
-Bromochloromethane (4.320)+
-Chloroform (4.435)
-Carbon Tetrachloride (4.605)+
-Dibromofluoromethane (4.708)+
2-Butanone (4.932)+
-Benzene (5.318)+
-Methacrylonitrile (5.427)+
1,2-Dichloroethane-D4 (5.545)+
-1,2-Dichloroethane (5.651)
-Isobutyl Alcohol (5.831)
-Methylcyclohexane (6.178)+
-1,4-Difluorobenzene (6.309)
-Dibromomethane (6.829)
-1,2-Dichloropropane (6.970)
-Bromodichloromethane (7.099)
-Methyl Methacrylate (7.391)+
-cis-1,3-dichloropropene (7.968)
-2-Chloroethylvinylether (8.202)+
-Tetrachloroethene (8.751)
-4-methyl-2-pentanone (8.825)+
-Ethyl Methacrylate (9.043)+
-Dibromochloromethane (9.248)
-1,3-Dichloropropane (9.374)
-1,2-Dibromoethane (9.508)
-2-Hexanone (9.906)
-Total Alkylbenzenes (10.080)
-1,1,1,2-Tetrachloroethane (10.304)
-m+p-Xylene (10.182)+
-o-Xylene (10.978)
-Styrene (11.045)+
-Isopropylbenzene (11.366)
-P-Bromofluorobenzene (11.674)
-cis-1,4-Dichloro-2-Butene (11.774)+
-n-Propylbenzene (11.851)
-1,1,2,2-Tetrachloroethane (11.960)+
-1,2,3-Trichloropropane (12.095)+
-trans-1,4-Dichloro-2-Bute (12.197)+
-tert-Butylbenzene (12.441)
-1,2,4-Trimethylbenzene (12.528)
-sec-Butylbenzene (12.644)
-P-Isopropyltoluene (12.820)+
-1,2,3-Trimethylbenzene (13.006)
1,4-Dichlorobenzene-D4 (12.945)+
-N-Butylbenzene (13.285)
-1,2-Dichlorobenzene (13.417)
-1,2-Dibromo-3-Chloropropa (14.338)+
-Hexachlorobutadiene (15.041)+
-Naphthalene (15.400)
-1,2,3-Trichlorobenzene (15.596)

Data File: \\target_server\gg\chem\gcms-w.i\W092021.b\W0104.D
Report Date: 11-Oct-2021 15:21

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-w.i\W092021.b\W0104.D
Lab Smp Id: WG306317-2
Inj Date : 20-SEP-2021 10:59
Operator : HG Inst ID: gcms-w.i
Smp Info : WG306317-2
Misc Info :
Comment : SW846 5030
Method : \\target_server\gg\chem\gcms-w.i\W092021.b\W8A05(08).m
Meth Date : 08-Oct-2021 09:43 hgould Quant Type: ISTD
Cal Date : 20-SEP-2021 10:29 Cal File: W0103.D
Als bottle: 30 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.12

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

11:40 am, Oct 12, 2021

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)	REVIEW CODE
1	Dichlorodifluoromethane	85	1.277	1.277	(0.231)	23416	5.00000	4.5	
2	Chloromethane	50	1.409	1.412	(0.255)	40156	5.00000	5.1	
3	Vinyl chloride	62	1.460	1.460	(0.265)	34945	5.00000	4.9	
4	Bromomethane	94	1.672	1.672	(0.303)	18334	5.00000	6.2	
5	Chloroethane	64	1.758	1.752	(0.319)	21859	5.00000	6.0(M)	M9
6	Trichlorofluoromethane	101	1.851	1.849	(0.336)	48181	5.00000	4.7	
7	Diethyl Ether	59	2.060	2.060	(0.373)	28670	5.00000	5.3	
8	1,1-Dichloroethene	96	2.211	2.211	(0.401)	32516	5.00000	5.0	
9	Freon-113	151	2.243	2.237	(0.406)	23434	5.00000	4.5	
10	Carbon Disulfide	76	2.240	2.240	(0.406)	78523	5.00000	4.9	
11	Iodomethane	142	2.330	2.327	(0.422)	14394	5.00000	2.8	
12	Acrolein	56	2.474	2.478	(0.448)	13102	25.0000	27.4	
13	Allyl Chloride	41	2.586	2.584	(0.469)	47584	5.00000	4.6	
14	Methylene Chloride	84	2.676	2.677	(0.485)	40566	5.00000	5.8	
15	Acetone	43	2.724	2.725	(0.494)	54968	25.0000	25.9	
16	trans-1,2-Dichloroethene	96	2.808	2.815	(0.509)	34687	5.00000	5.0	
17	Methyl Acetate	43	2.833	2.827	(0.513)	30275	5.00000	5.2	
18	Methyl tert-butyl ether	73	2.914	2.914	(0.528)	87407	5.00000	4.8	
19	Tertiary-butyl alcohol	59	3.007	3.017	(0.545)	14547	25.0000	26.9	
20	Acetonitrile	41	3.161	3.164	(0.573)	44119	50.0000	54.7	
21	Di-isopropyl ether	45	3.289	3.289	(0.596)	112811	5.00000	5.2	
22	Chloroprene	53	3.385	3.389	(0.613)	59357	5.00000	5.0	
23	1,1-Dichloroethane	63	3.417	3.418	(0.619)	67923	5.00000	5.1	
24	Acrylonitrile	52	3.482	3.488	(0.631)	53283	25.0000	25.4	

Data File: \\target_server\gg\chem\gcms-w.i\W092021.b\W0104.D
Report Date: 11-Oct-2021 15:21

11:40 am, Oct 12, 2021

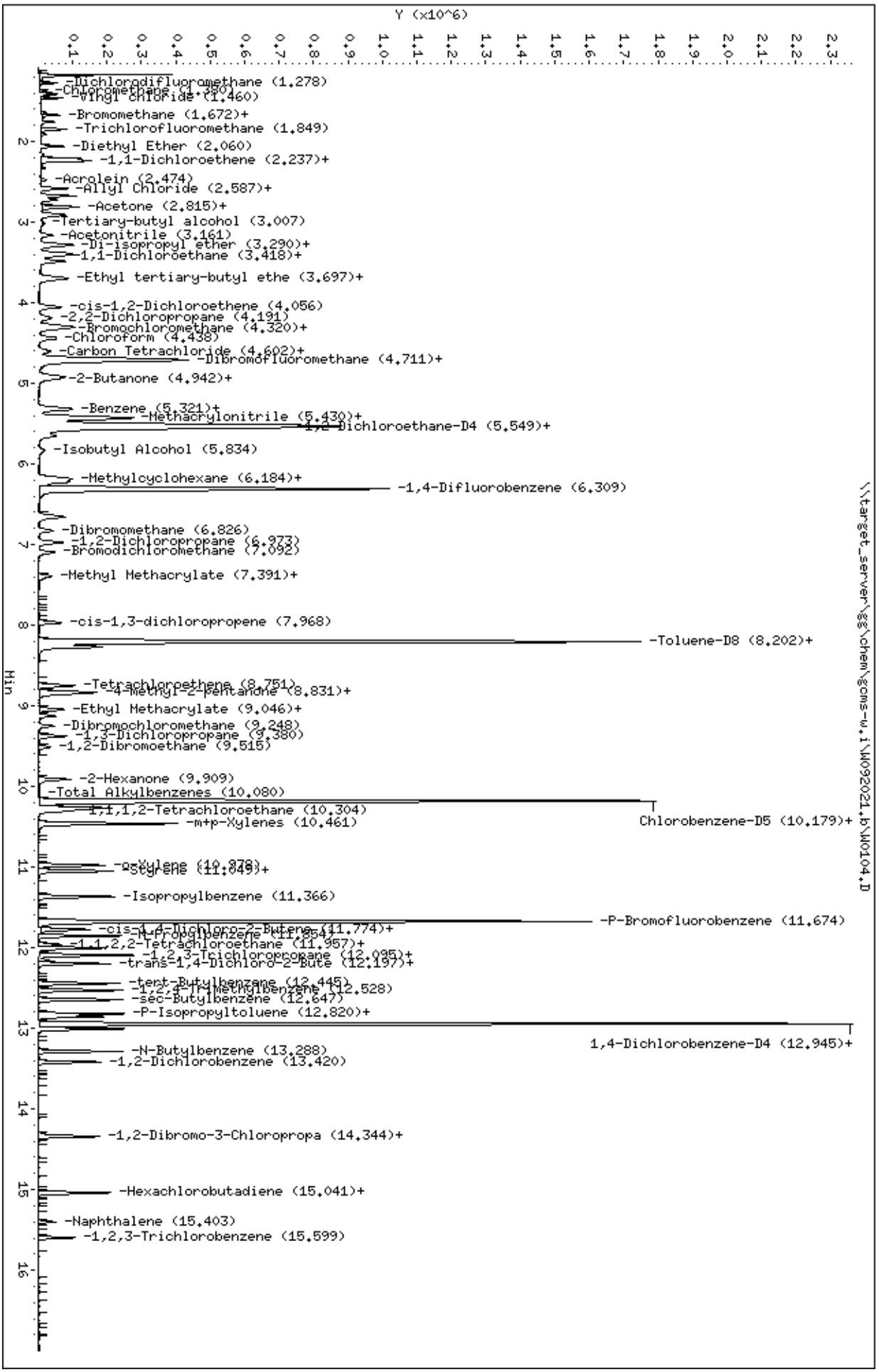
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)	REVIEW CODE
	25 Ethyl tertiary-butyl ether	59	3.697	3.694	(0.670)	92311	5.00000	4.9	
	26 Vinyl Acetate	43	3.716	3.716	(0.589)	43164	5.00000	4.2	
	27 cis-1,2-Dichloroethene	96	4.056	4.056	(0.735)	37090	5.00000	5.0	
	28 2,2-Dichloropropane	77	4.191	4.191	(0.759)	30984	5.00000	3.4	
	29 Bromochloromethane	128	4.319	4.325	(0.783)	15827	5.00000	5.1	
	30 Cyclohexane	56	4.297	4.300	(0.779)	57989	5.00000	4.6	
	31 Chloroform	83	4.438	4.445	(0.804)	63744	5.00000	5.1	
	32 Carbon Tetrachloride	117	4.601	4.605	(0.729)	34931	5.00000	3.8	
	33 Tetrahydrofuran	42	4.691	4.673	(0.850)	54429	25.0000	23.2	
$	34 Dibromofluoromethane	113	4.711	4.714	(0.853)	343306	50.0000	51.0	
	35 1,1,1-Trichloroethane	97	4.720	4.721	(0.855)	53006	5.00000	4.6	
	36 2-Butanone	43	4.942	4.939	(0.895)	71417	25.0000	23.5	
	37 1,1-Dichloropropene	75	4.913	4.920	(0.779)	47431	5.00000	4.6	
	38 Benzene	78	5.320	5.321	(0.843)	138856	5.00000	5.0	
	39 Propionitrile	54	5.404	5.411	(0.979)	47294	50.0000	51.5	
	40 Methacrylonitrile	41	5.429	5.436	(0.984)	207133	50.0000	50.6	
*	41 Pentafluorobenzene	168	5.519	5.526	(1.000)	675486	50.0000		
$	42 1,2-Dichloroethane-D4	65	5.548	5.549	(1.005)	449115	50.0000	51.8	
	43 Tertiary-amyl methyl ether	73	5.561	5.561	(1.008)	66040	5.00000	4.3	
	44 1,2-Dichloroethane	62	5.648	5.658	(0.895)	49153	5.00000	5.0	
	45 Isobutyl Alcohol	43	5.834	5.834	(1.057)	18507	100.000	79.6	
	46 Methylcyclohexane	83	6.183	6.184	(1.120)	54695	5.00000	4.2	
	47 Trichloroethene	95	6.222	6.226	(0.986)	32969	5.00000	4.7	
*	48 1,4-Difluorobenzene	114	6.309	6.315	(1.000)	1124682	50.0000		
	49 Dibromomethane	93	6.825	6.832	(1.082)	20610	5.00000	4.9	
	50 1,2-Dichloropropane	63	6.973	6.977	(1.105)	34441	5.00000	4.7	
	51 Bromodichloromethane	83	7.092	7.102	(1.124)	41517	5.00000	4.4	
	52 Methyl Methacrylate	41	7.387	7.390	(1.171)	25259	5.00000	4.2	
	53 Ethyl Methacrylate	69	9.123	9.123	(1.446)	31720	5.00000	4.0	
	54 1,4-Dioxane	88	7.406	7.407	(1.174)	7743	100.000	98.6	
M	55 Total Alkylbenzenes	100				1018621	5.00000	(a)	
	56 2-Chloroethylvinylether	63	8.266	8.270	(1.310)	12353	5.00000	4.8(M)	M6
	57 cis-1,3-dichloropropene	75	7.968	7.971	(1.263)	44594	5.00000	4.0	
$	58 Toluene-D8	98	8.202	8.209	(1.300)	1347234	50.0000	50.1	
	59 Toluene	92	8.269	8.273	(1.311)	86895	5.00000	4.9	
	60 Tetrachloroethene	164	8.754	8.754	(0.860)	28670	5.00000	4.6	
	61 4-methyl-2-pentanone	43	8.831	8.831	(1.400)	128056	25.0000	21.5	
	62 trans-1,3-Dichloropropene	75	8.850	8.857	(1.403)	36057	5.00000	3.7	
	63 1,1,2-Trichloroethane	83	9.049	9.049	(1.434)	22951	5.00000	4.7	
	64 Dibromochloromethane	129	9.248	9.255	(0.909)	28071	5.00000	4.1(T)	
	65 1,3-Dichloropropane	76	9.376	9.380	(0.921)	52127	5.00000	4.7	
	66 1,2-Dibromoethane	107	9.514	9.518	(1.508)	27351	5.00000	4.6(T)	
	67 2-Hexanone	43	9.909	9.906	(0.974)	80460	25.0000	20.3	
*	68 Chlorobenzene-D5	117	10.179	10.182	(1.000)	1099541	50.0000		
	69 Chlorobenzene	112	10.198	10.201	(1.002)	99924	5.00000	5.1	
	70 Ethylbenzene	91	10.268	10.272	(1.009)	166669	5.00000	4.9	
	71 1,1,1,2-Tetrachloroethane	131	10.304	10.304	(1.012)	28471	5.00000	4.3	
	72 m+p-Xylenes	91	10.458	10.465	(1.027)	248922	10.0000	9.8	
	73 o-Xylene	91	10.978	10.981	(1.078)	120828	5.00000	4.6	
	74 Styrene	104	11.048	11.052	(1.085)	96862	5.00000	4.5	
	75 Bromoform	173	11.045	11.052	(1.085)	16002	5.00000	3.6	
	76 Isopropylbenzene	105	11.366	11.370	(0.878)	156913	5.00000	4.9	
$	77 P-Bromofluorobenzene	95	11.671	11.678	(1.850)	560773	50.0000	49.8	
	78 cis-1,4-Dichloro-2-Butene	53	11.786	11.790	(0.911)	7187	5.00000	3.5	

Data File: \\target_server\gg\chem\gcms-w.i\W092021.b\W0104.D
Report Date: 11-Oct-2021 15:21

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)	REVIEW CODE
	79 Bromobenzene	156	11.773	11.777	(0.910)	38600	5.00000	4.9	
	80 N-Propylbenzene	91	11.854	11.857	(0.916)	194193	5.00000	5.1	
	81 1,1,2,2-Tetrachloroethane	83	11.956	11.963	(0.924)	34126	5.00000	5.0	
	82 2-Chlorotoluene	91	12.004	12.005	(0.927)	115702	5.00000	5.1	
	83 1,2,3-Trichloropropane	75	12.085	12.088	(0.934)	30939	5.00000	5.0	
	84 1,3,5-Trimethylbenzene	105	12.097	12.098	(0.935)	126400	5.00000	4.8	
	85 trans-1,4-Dichloro-2-Butene	53	12.158	12.159	(0.939)	7023	5.00000	3.4	
	86 4-Chlorotoluene	91	12.197	12.204	(0.942)	119095	5.00000	5.1	
	87 tert-Butylbenzene	119	12.444	12.448	(0.961)	115840	5.00000	4.8	
	89 1,2,4-Trimethylbenzene	105	12.527	12.531	(0.968)	133809	5.00000	4.9	
	90 sec-Butylbenzene	105	12.643	12.647	(0.977)	174600	5.00000	5.0	
	91 P-Isopropyltoluene	119	12.823	12.823	(0.991)	143299	5.00000	4.7	
	92 1,3-Dichlorobenzene	146	12.855	12.858	(0.993)	78202	5.00000	5.1	
*	93 1,4-Dichlorobenzene-D4	152	12.945	12.948	(1.000)	581819	50.0000		
	94 1,4-Dichlorobenzene	146	12.961	12.964	(1.001)	79242	5.00000	5.0	
	95 1,2,3-Trimethylbenzene	105	13.006	13.012	(1.005)	137323	5.00000	5.0	
	96 N-Butylbenzene	91	13.288	13.288	(1.027)	130480	5.00000	4.6	
M	97 1,2-Dichloroethylene (total)	96				71777	5.00000	(a)	
	98 1,2-Dichlorobenzene	146	13.416	13.420	(1.036)	70947	5.00000	5.0	
	99 1,2-Dibromo-3-Chloropropane	157	14.315	14.315	(1.106)	4411	5.00000	3.4	
	100 1,3,5-Trichlorobenzene	180	14.337	14.344	(1.108)	52982	5.00000	4.6	
	101 Hexachlorobutadiene	225	15.037	15.037	(1.162)	24436	5.00000	4.4	
	102 1,2,4-Trichlorobenzene	180	15.043	15.050	(1.162)	32627	5.00000	3.6	
	103 Naphthalene	128	15.403	15.403	(1.190)	36941	5.00000	2.3	
	104 1,2,3-Trichlorobenzene	180	15.598	15.599	(1.205)	29998	5.00000	4.0	
M	105 Xylenes (total)	106				369750	15.0000	(a)	

QC Flag Legend

T - Target compound detected outside RT window.
a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.


Data File: \\target_server\gg\chem\gcms-w.i\W092021.b\W0104.D
Date : 20-SEP-2021 10:59
Client ID:
Sample Info: WG306317-2
Purge Volume: 5.0
Column phase: RTX-VMS
Instrument: gcms-w.i
Operator: HG
Column diameter: 0.18
\\target_server\gg\chem\gcms-w.i\W092021.b\W0104.D
Y (x10^6)
Min
-Dichlorodifluoromethane (1.278)
-Chloromethane (1.390)
-Vinyl Chloride (1.460)
-Bromomethane (1.672)+
-Trichlorofluoromethane (1.849)
-Diethyl Ether (2.060)
-1,1-Dichloroethene (2.237)+
-Acrolein (2.474)
-Allyl Chloride (2.587)+
-Acetone (2.815)+
-Tertiary-butyl alcohol (3.007)
-Acetonitrile (3.161)
-Di-isopropyl ether (3.290)+
-1,1-Dichloroethane (3.418)+
-Ethyl tertiary-butyl ethe (3.697)+
-cis-1,2-Dichloroethene (4.056)
-2,2-Dichloropropane (4.191)
-Bromochloromethane (4.320)+
-Chloroform (4.438)
-Carbon Tetrachloride (4.602)+
-Dibromofluoromethane (4.711)+
-2-Butanone (4.942)+
-Benzene (5.321)+
-Methacrylonitrile (5.430)+
1,2-Dichloroethane-D4 (5.549)+
-Isobutyl Alcohol (5.834)
-Methylcyclohexane (6.184)+
-1,4-Difluorobenzene (6.309)
-Dibromomethane (6.826)
-1,2-Dichloropropane (6.973)
-Bromodichloromethane (7.092)
-Methyl Methacrylate (7.391)+
-cis-1,3-dichloropropene (7.968)
-Toluene-D8 (8.202)+
-Tetrachloroethene (8.751)
-4-Methyl-2-pentanone (8.831)+
-Ethyl Methacrylate (9.046)+
-Dibromochloromethane (9.248)
-1,3-Dichloropropane (9.380)
-1,2-Dibromoethane (9.515)
-2-Hexanone (9.909)
-Total Alkylbenzenes (10.080)
1,1,1,2-Tetrachloroethane (10.304)
Chlorobenzene-D5 (10.179)+
-m+p-Xylenes (10.461)
-o-Xylene (10.878)
-Styrene (11.049)+
-Isopropylbenzene (11.366)
-P-Bromofluorobenzene (11.674)
-cis-1,4-Dichloro-2-Butene (11.774)+
-n-Propylbenzene (11.854)
-1,1,2,2-Tetrachloroethane (11.957)+
-1,2,3-Trichloropropane (12.095)+
-trans-1,4-Dichloro-2-Bute (12.197)+
-tert-Butylbenzene (12.445)
-1,2,4-Trimethylbenzene (12.528)
-sec-Butylbenzene (12.647)
-P-Isopropyltoluene (12.820)+
1,4-Dichlorobenzene-D4 (12.945)+
-N-Butylbenzene (13.288)
-1,2-Dichlorobenzene (13.420)
-1,2-Dibromo-3-Chloropropa (14.344)+
-Hexachlorobutadiene (15.041)+
-Naphthalene (15.403)
-1,2,3-Trichlorobenzene (15.599)

Data File: \\target_server\gg\chem\gcms-w.i\W092021.b\W0105.D
Report Date: 11-Oct-2021 15:21

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-w.i\W092021.b\W0105.D
Lab Smp Id: WG306317-1
Inj Date : 20-SEP-2021 11:30
Operator : HG   Inst ID: gcms-w.i
Smp Info : WG306317-1
Misc Info :
Comment   : SW846 5030
Method   : \\target_server\gg\chem\gcms-w.i\W092021.b\W8A05(08).m
Meth Date : 08-Oct-2021 09:43 hgould   Quant Type: ISTD
Cal Date : 20-SEP-2021 11:30   Cal File: W0105.D
Als bottle: 31   Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE   Compound Sublist: all.sub
Target Version: 4.12
Processing Host: ORGANICS2

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)	REVIEW CODE
1	Dichlorodifluoromethane	85	1.277	1.277	(0.231)	6093	1.00000	1.2	
2	Chloromethane	50	1.412	1.412	(0.256)	10750	1.00000	1.3	
3	Vinyl chloride	62	1.460	1.460	(0.265)	9185	1.00000	1.3	
4	Bromomethane	94	1.672	1.672	(0.303)	6942	1.00000	2.0	
5	Chloroethane	64	1.758	1.752	(0.319)	6919	1.00000	1.7	
6	Trichlorofluoromethane	101	1.851	1.849	(0.336)	12295	1.00000	1.2	
7	Diethyl Ether	59	2.060	2.060	(0.373)	5640	1.00000	1.1	
8	1,1-Dichloroethene	96	2.214	2.211	(0.401)	8114	1.00000	1.3	
9	Freon-113	151	2.237	2.237	(0.405)	4897	1.00000	1.0	
10	Carbon Disulfide	76	2.237	2.240	(0.405)	21120	1.00000	1.3	
11	Iodomethane	142	2.330	2.327	(0.422)	3408	1.00000	0.77(a)	
12	Acrolein	56	2.480	2.478	(0.449)	2833	5.00000	5.9	
13	Allyl Chloride	41	2.583	2.584	(0.468)	9612	1.00000	0.99(a)	
14	Methylene Chloride	84	2.673	2.677	(0.484)	13268	1.00000	1.7(a)	
15	Acetone	43	2.721	2.725	(0.493)	18084	5.00000	8.1	
16	trans-1,2-Dichloroethene	96	2.804	2.815	(0.508)	8752	1.00000	1.3	
17	Methyl Acetate	43	2.827	2.827	(0.512)	6709	1.00000	1.2	
18	Methyl tert-butyl ether	73	2.917	2.914	(0.529)	20011	1.00000	1.1	
19	Tertiary-butyl alcohol	59	3.007	3.017	(0.545)	4481	5.00000	7.9	
20	Acetonitrile	41	3.167	3.164	(0.574)	11058	10.0000	13.4(a)	
21	Di-isopropyl ether	45	3.289	3.289	(0.596)	23408	1.00000	1.1	
22	Chloroprene	53	3.392	3.389	(0.615)	12546	1.00000	1.1	
23	1,1-Dichloroethane	63	3.411	3.418	(0.618)	15206	1.00000	1.2	

Data File: \\target_server\gg\chem\gcms-w.i\W092021.b\W0105.D
Report Date: 11-Oct-2021 15:21

11:40 am, Oct 12, 2021

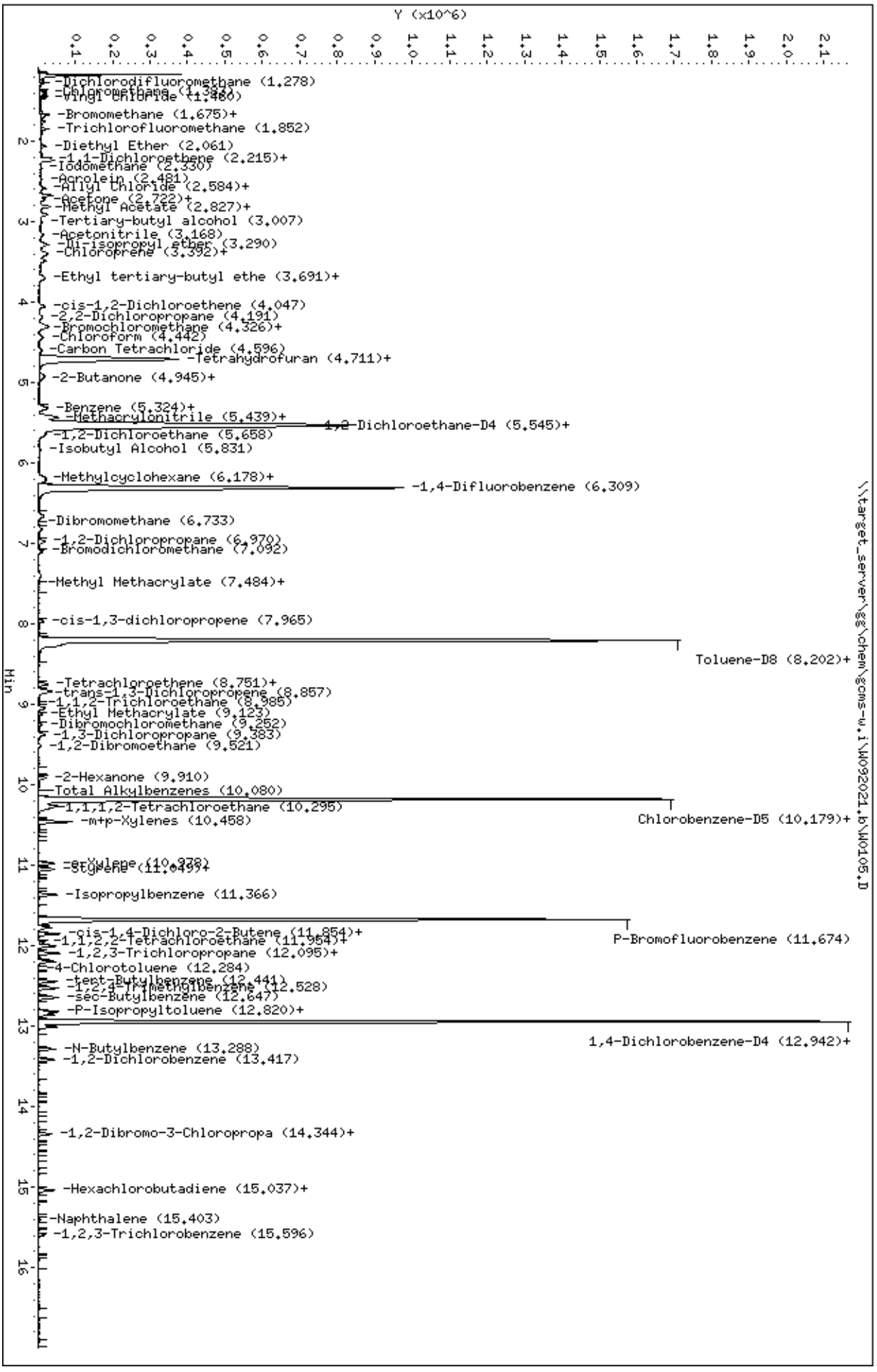
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)	REVIEW CODE
	24 Acrylonitrile	52	3.485	3.488	(0.631)	10454	5.00000	5.2	
	25 Ethyl tertiary-butyl ether	59	3.690	3.694	(0.669)	17096	1.00000	0.95(a)	
	26 Vinyl Acetate	43	3.706	3.716	(0.588)	7936	1.00000	0.83(a)	
	27 cis-1,2-Dichloroethene	96	4.046	4.056	(0.733)	8641	1.00000	1.2	
	28 2,2-Dichloropropane	77	4.191	4.191	(0.759)	6952	1.00000	0.85(a)	
	29 Bromochloromethane	128	4.326	4.325	(0.784)	3799	1.00000	1.2	
	30 Cyclohexane	56	4.297	4.300	(0.779)	13962	1.00000	1.1	
	31 Chloroform	83	4.441	4.445	(0.805)	14867	1.00000	1.2	
	32 Carbon Tetrachloride	117	4.595	4.605	(0.728)	7560	1.00000	0.88(a)	
	33 Tetrahydrofuran	42	4.685	4.673	(0.849)	13903	5.00000	6.1	
$	34 Dibromofluoromethane	113	4.707	4.714	(0.853)	336984	50.0000	51.8	
	35 1,1,1-Trichloroethane	97	4.720	4.721	(0.855)	12552	1.00000	1.1	
	36 2-Butanone	43	4.945	4.939	(0.896)	17490	5.00000	5.9	
	37 1,1-Dichloropropene	75	4.906	4.920	(0.778)	11257	1.00000	1.1	
	38 Benzene	78	5.323	5.321	(0.844)	31776	1.00000	1.1	
	39 Propionitrile	54	5.410	5.411	(0.980)	8881	10.0000	10.0	
	40 Methacrylonitrile	41	5.439	5.436	(0.985)	38876	10.0000	9.9(a)	
*	41 Pentafluorobenzene	168	5.519	5.526	(1.000)	646867	50.0000		
$	42 1,2-Dichloroethane-D4	65	5.545	5.549	(1.005)	445756	50.0000	53.0	
	43 Tertiary-amyl methyl ether	73	5.564	5.561	(1.008)	12631	1.00000	0.90(a)	
	44 1,2-Dichloroethane	62	5.657	5.658	(0.897)	13160	1.00000	1.3	
	45 Isobutyl Alcohol	43	5.840	5.834	(1.058)	4756	20.0000	21.7(M)	M9
	46 Methylcyclohexane	83	6.177	6.184	(1.119)	10959	1.00000	0.92(a)	
	47 Trichloroethene	95	6.216	6.226	(0.985)	8018	1.00000	1.1	
*	48 1,4-Difluorobenzene	114	6.309	6.315	(1.000)	1108460	50.0000		
	49 Dibromomethane	93	6.822	6.832	(1.081)	4878	1.00000	1.2	
	50 1,2-Dichloropropane	63	6.973	6.977	(1.105)	8285	1.00000	1.1(T)	
	51 Bromodichloromethane	83	7.092	7.102	(1.124)	9110	1.00000	1.0	
	52 Methyl Methacrylate	41	7.384	7.390	(1.170)	4251	1.00000	0.76(a)	
	53 Ethyl Methacrylate	69	9.123	9.123	(1.446)	5141	1.00000	0.70(a)	
	54 1,4-Dioxane	88	7.416	7.407	(1.175)	3292	20.0000	37.4	
M	55 Total Alkylbenzenes	100				215618	1.00000	7.5	
	56 2-Chloroethylvinylether	63	8.272	8.270	(1.311)	3050	1.00000	1.2(M)	
	57 cis-1,3-dichloropropene	75	7.961	7.971	(1.262)	9237	1.00000	0.88(a)	
$	58 Toluene-D8	98	8.202	8.209	(1.300)	1325766	50.0000	50.0	
	59 Toluene	92	8.269	8.273	(1.311)	20283	1.00000	1.1	
	60 Tetrachloroethene	164	8.747	8.754	(0.859)	7154	1.00000	1.2	
	61 4-methyl-2-pentanone	43	8.828	8.831	(1.399)	27032	5.00000	4.7(a)	
	62 trans-1,3-Dichloropropene	75	8.856	8.857	(1.404)	7751	1.00000	0.85(a)	
	63 1,1,2-Trichloroethane	83	9.039	9.049	(1.433)	5688	1.00000	1.2	
	64 Dibromochloromethane	129	9.248	9.255	(0.909)	5849	1.00000	0.92(Ta)	
	65 1,3-Dichloropropane	76	9.383	9.380	(0.922)	11794	1.00000	1.1	
	66 1,2-Dibromoethane	107	9.521	9.518	(1.509)	6301	1.00000	1.1(T)	
	67 2-Hexanone	43	9.909	9.906	(0.974)	18113	5.00000	4.9(a)	
*	68 Chlorobenzene-D5	117	10.179	10.182	(1.000)	1067670	50.0000		
	69 Chlorobenzene	112	10.201	10.201	(1.002)	24206	1.00000	1.2	
	70 Ethylbenzene	91	10.268	10.272	(1.009)	39151	1.00000	1.2	
	71 1,1,1,2-Tetrachloroethane	131	10.294	10.304	(1.011)	6511	1.00000	1.0	
	72 m+p-Xylenes	91	10.458	10.465	(1.027)	53945	2.00000	2.2	
	73 o-Xylene	91	10.978	10.981	(1.078)	26933	1.00000	1.0	
	74 Styrene	104	11.048	11.052	(1.085)	20077	1.00000	0.98(a)	
	75 Bromoform	173	11.051	11.052	(1.086)	3261	1.00000	0.81(Ta)	
	76 Isopropylbenzene	105	11.366	11.370	(0.878)	33560	1.00000	1.1	
$	77 P-Bromofluorobenzene	95	11.674	11.678	(1.850)	548759	50.0000	49.5	

Data File: \\target_server\gg\chem\gcms-w.i\W092021.b\W0105.D
Report Date: 11-Oct-2021 15:21

							AMOUNTS		
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)	REVIEW CODE
	78 cis-1,4-Dichloro-2-Butene	53	11.786	11.790	(0.911)	1318	1.00000	0.73(a)	
	79 Bromobenzene	156	11.770	11.777	(0.909)	8952	1.00000	1.2	
	80 N-Propylbenzene	91	11.857	11.857	(0.916)	42894	1.00000	1.2	
	81 1,1,2,2-Tetrachloroethane	83	11.960	11.963	(0.924)	7687	1.00000	1.1	
	82 2-Chlorotoluene	91	12.004	12.005	(0.927)	26285	1.00000	1.2	
	83 1,2,3-Trichloropropane	75	12.081	12.088	(0.933)	6784	1.00000	1.1	
	84 1,3,5-Trimethylbenzene	105	12.094	12.098	(0.934)	27087	1.00000	1.1	
	85 trans-1,4-Dichloro-2-Butene	53	12.162	12.159	(0.940)	1285	1.00000	0.72(a)	
	86 4-Chlorotoluene	91	12.197	12.204	(0.942)	26252	1.00000	1.1	
	87 tert-Butylbenzene	119	12.441	12.448	(0.961)	25348	1.00000	1.1	
	89 1,2,4-Trimethylbenzene	105	12.527	12.531	(0.968)	28119	1.00000	1.1	
	90 sec-Butylbenzene	105	12.646	12.647	(0.977)	37664	1.00000	1.1	
	91 P-Isopropyltoluene	119	12.819	12.823	(0.990)	30095	1.00000	1.0	
	92 1,3-Dichlorobenzene	146	12.858	12.858	(0.993)	17723	1.00000	1.2	
*	93 1,4-Dichlorobenzene-D4	152	12.945	12.948	(1.000)	556609	50.0000		
	94 1,4-Dichlorobenzene	146	12.961	12.964	(1.001)	19222	1.00000	1.2	
	95 1,2,3-Trimethylbenzene	105	13.009	13.012	(1.005)	26444	1.00000	1.0	
	96 N-Butylbenzene	91	13.288	13.288	(1.027)	24411	1.00000	0.92(a)	
M	97 1,2-Dichloroethylene (total)	96				17393	1.00000	2.4	
	98 1,2-Dichlorobenzene	146	13.416	13.420	(1.036)	16398	1.00000	1.2	
	99 1,2-Dibromo-3-Chloropropane	157	14.308	14.315	(1.105)	1354	1.00000	1.1	
	100 1,3,5-Trichlorobenzene	180	14.337	14.344	(1.108)	10323	1.00000	0.95(a)	
	101 Hexachlorobutadiene	225	15.034	15.037	(1.161)	6035	1.00000	1.1	
	102 1,2,4-Trichlorobenzene	180	15.046	15.050	(1.162)	5460	1.00000	0.68(a)	
	103 Naphthalene	128	15.399	15.403	(1.190)	4988	1.00000	0.38(a)	
	104 1,2,3-Trichlorobenzene	180	15.598	15.599	(1.205)	5338	1.00000	0.79(a)	
M	105 Xylenes (total)	106				80878	3.00000	3.2	

QC Flag Legend

T - Target compound detected outside RT window.
a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.


Data File: \\target_server\gg\chem\gcms-w.i\W092021.b\W0105.D
Date : 20-SEP-2021 11:30
Client ID:
Sample Info: WG306317-1
Purge Volume: 5.0
Column phase: RTX-VMS
Instrument: gcms-w.i
Operator: HG
Column diameter: 0.18
\\target_server\gg\chem\gcms-w.i\W092021.b\W0105.D
Y (x10^6)
Min
-Dichlorodifluoromethane (1.278)
-Chloromethane (1.390)
-Vinyl Chloride (1.480)
-Bromomethane (1.675)+
-Trichlorofluoromethane (1.852)
-Diethyl Ether (2.061)
-1,1-Dichloroethene (2.215)+
-Iodomethane (2.330)
-Acrolein (2.481)
-Allyl Chloride (2.584)+
-Acetone (2.722)+
-Methyl Acetate (2.827)+
-Tertiary-butyl alcohol (3.007)
-Acetonitrile (3.168)
-Di-isopropyl ether (3.290)
-Chloroprene (3.392)+
-Ethyl tertiary-butyl ethe (3.691)+
-cis-1,2-Dichloroethene (4.047)
-2,2-Dichloropropane (4.191)
-Bromochloromethane (4.326)+
-Chloroform (4.442)
-Carbon Tetrachloride (4.596)
-Tetrahydrofuran (4.711)+
-2-Butanone (4.945)+
-Benzene (5.324)+
-Methacrylonitrile (5.439)+
1,2-Dichloroethane-D4 (5.545)+
-1,2-Dichloroethane (5.658)
-Isobutyl Alcohol (5.831)
-Methylcyclohexane (6.178)+
-1,4-Difluorobenzene (6.309)
-Dibromomethane (6.733)
-1,2-Dichloropropane (6.970)
-Bromodichloromethane (7.092)
-Methyl Methacrylate (7.484)+
-cis-1,3-dichloropropene (7.965)
Toluene-D8 (8.202)+
-Tetrachloroethene (8.751)+
-trans-1,3-Dichloropropene (8.857)
-1,1,2-Trichloroethane (8.985)
-Ethyl Methacrylate (9.123)
-Dibromochloromethane (9.252)
-1,3-Dichloropropane (9.383)
-1,2-Dibromoethane (9.521)
-2-Hexanone (9.910)
-Total Alkylbenzenes (10.080)
-1,1,1,2-Tetrachloroethane (10.295)
-m+p-Xylenes (10.458)
Chlorobenzene-D5 (10.179)+
-o-Xylene (10.778)
-Styrene (11.049)+
-Isopropylbenzene (11.366)
-cis-1,4-Dichloro-2-Butene (11.854)+
-1,1,2,2-Tetrachloroethane (11.954)+
P-Bromofluorobenzene (11.674)
-1,2,3-Trichloropropane (12.095)+
-4-Chlorotoluene (12.284)
-tert-Butylbenzene (12.441)
-1,2,4-Trimethylbenzene (12.528)
-sec-Butylbenzene (12.647)
-P-Isopropyltoluene (12.820)+
1,4-Dichlorobenzene-D4 (12.942)+
-N-Butylbenzene (13.288)
-1,2-Dichlorobenzene (13.417)
-1,2-Dibromo-3-Chloropropa (14.344)+
-Hexachlorobutadiene (15.037)+
-Naphthalene (15.403)
-1,2,3-Trichlorobenzene (15.596)

Katahdin
ANALYTICAL SERVICES

Form 6
Initial Calibration Summary

Lab Name : Katahdin Analytical Services
SDG: SO6313
Project : Watervliet Arsenal LTM
Instrument ID: GCMS-W
Lab File IDs : W0215.D W0214.D W0212.D W0211.D W0209.D W0208.D W0210.D W0213.D
Calibration Date(s): 24-SEP-21 08:01 24-SEP-21 11:36

	1.0000 Level 1	5.0000 Level 2	20.0000 Level 3	50.0000 Level 4	100.0000 Level 5	150.0000 Level 6	75.0000 Level 7	10.0000 Level 8	Curve Type	b	m1	m2	%RSD	MAX %RSD	
Chloromethane	1.23166	0.90667	0.86402	0.84391	0.84154	0.81125	0.83111	0.87547	AVG		.9007		15.2	15	WO
Vinyl chloride	0.89495	0.76265	0.74858	0.73361	0.73883	0.71189	0.73223	0.72969	AVG		.7566		7.643	15	O
Bromomethane	4965	14402	53828	133386	292146	422636	212734	25849	LNR	0	.2505		.9985	.99	O
Chloroethane	0.48815	0.48979	0.44012	0.40988	0.40561	0.38000	0.40770	0.44167	AVG		.4329		9.21	15	O
Trichlorofluoromethane	1.11040	0.96676	0.98749	0.97634	1.01870	1.01191	0.99067	0.95863	AVG		1.003		4.805	15	O
1,1-Dichloroethene	0.65397	0.52595	0.53762	0.51697	0.53451	0.52984	0.53299	0.52671	AVG		.5448		8.178	15	O
Carbon Disulfide	1.62903	1.25867	1.28223	1.29352	1.33051	1.30872	1.31415	1.22825	AVG		1.331		9.385	15	O
Methylene Chloride	27046	53960	163456	348446	657691	954799	501190	86313	LNR	0	.577		.9961	.99	O
trans-1,2-Dichloroethene	0.64064	0.58992	0.55874	0.55137	0.57125	0.55440	0.56295	0.54576	AVG		.5719		5.416	15	O
1,1-Dichloroethane	1.27928	1.11619	1.08751	1.09173	1.12203	1.08937	1.10347	1.10509	AVG		1.124		5.678	15	O
cis-1,2-Dichloroethene	0.70598	0.56798	0.55998	0.55793	0.57608	0.55286	0.56965	0.53569	AVG		.5783		9.174	15	O
Chloroform	1.14488	1.02206	0.97722	0.99233	1.00311	0.98397	1.00363	0.97245	AVG		1.012		5.519	15	O
Carbon Tetrachloride	0.32353	0.34735	0.39715	0.42544	0.45724	0.46645	0.44113	0.36376	AVG		.4028		13.24	15	O
1,1,1-Trichloroethane	0.97401	0.84606	0.87732	0.89580	0.92947	0.92766	0.90573	0.84904	AVG		.9006		4.818	15	O
2-Butanone	0.27900	0.24046	0.23050	0.24766	0.22427	0.24098	0.22817	0.24215	AVG		.2416		7.067	15	O
Benzene	1.48694	1.31333	1.28148	1.29518	1.30569	1.27183	1.30398	1.26810	AVG		1.316		5.401	15	O
1,2-Dichloroethane	0.62347	0.49203	0.47606	0.47170	0.48495	0.48831	0.47486	0.47340	AVG		.4981		10.28	15	O
Trichloroethene	0.37976	0.32577	0.32010	0.32048	0.32952	0.34776	0.32900	0.31203	AVG		.333		6.467	15	O
1,2-Dichloropropane	0.38319	0.33630	0.33319	0.34077	0.34653	0.34350	0.34447	0.32228	AVG		.3438		5.158	15	O
Bromodichloromethane	0.44927	0.40051	0.42037	0.43555	0.45634	0.46508	0.45338	0.40632	AVG		.4358		5.568	15	O
cis-1,3-dichloropropene	0.41342	0.43735	0.47356	0.51165	0.55010	0.55744	0.53594	0.43722	AVG		.4896		11.56	15	O
Toluene	0.92679	0.80543	0.78991	0.80382	0.82193	0.81367	0.81417	0.77784	AVG		.8192		5.581	15	O
4-methyl-2-pentanone	0.26739	0.27706	0.28424	0.28953	0.27717	0.29692	0.26905	0.27879	AVG		.28		3.552	15	O
Tetrachloroethene	0.29815	0.25395	0.27325	0.27058	0.27936	0.27051	0.27116	0.26783	AVG		.2731		4.544	15	O
trans-1,3-Dichloropropene	0.33068	0.36080	0.40661	0.45220	0.48716	0.51005	0.47227	0.37812	AVG		.4247		15.32	15	WO
1,1,2-Trichloroethane	0.25869	0.22182	0.22144	0.22417	0.22743	0.23299	0.22438	0.22047	AVG		.2289		5.54	15	O
Dibromochloromethane	0.27508	0.26936	0.29127	0.31147	0.32607	0.33141	0.31727	0.28225	AVG		.3005		7.999	15	O
Chlorobenzene	1.08260	0.92411	0.89822	0.89991	0.91914	0.87757	0.90029	0.90826	AVG		.9263		6.99	15	O
Ethylbenzene	1.77153	1.57970	1.60838	1.61022	1.61488	1.52453	1.59792	1.59031	AVG		1.612		4.376	15	O
m+p-Xylenes	1.30028	1.21328	1.24282	1.23873	1.21883	1.10537	1.22018	1.23186	AVG		1.221		4.444	15	O
o-Xylene	1.16693	1.16039	1.23530	1.25213	1.28681	1.21794	1.25406	1.20440	AVG		1.222		3.589	15	O
Bromoform	0.14783	0.15887	0.17629	0.19544	0.20950	0.22412	0.19833	0.16117	AVG		.1839		14.7	15	O
1,1,2,2-Tetrachloroethane	0.68459	0.60891	0.59001	0.58668	0.56977	0.58287	0.55162	0.60377	AVG		.5973		6.641	15	O
Dibromofluoromethane	0.52243	0.50300	0.50314	0.48744	0.49986	0.51080	0.50476	0.50815	AVG		.505		1.966	15	
1,2-Dichloroethane-D4	0.72442	0.70270	0.68253	0.67909	0.68447	0.71120	0.68095	0.69344	AVG		.6948		2.375	15	
Toluene-D8	1.20326	1.21415	1.18346	1.19939	1.19432	1.22647	1.19120	1.18527	AVG		1.2		1.225	15	

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://katahdinlab.com
sales@katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Form 6
Initial Calibration Summary

Lab Name : Katahdin Analytical Services
SDG: SO6313
Project : Watervliet Arsenal LTM
Instrument ID: GCMS-W
Lab File IDs : W0215.D W0214.D W0212.D W0211.D W0209.D W0208.D W0210.D W0213.D
Calibration Date(s): 24-SEP-21 08:01 24-SEP-21 11:36

P-Bromofluorobenzene	0.51269	0.52574	0.52154	0.51907	0.52548	0.53320	0.52909	0.51848	AVG		.5232		1.249	15	

Legend: O = Kept Original Curve
Y = Failed Minimum RF
W = Failed %RSD Value

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://katahdinlab.com
sales@katahdinlab.com

Data File: \\target_server\gg\chem\gcms-w.i\W092421.b\W0217A.D
Report Date: 11-Oct-2021 14:40

Katahdin Analytical Services

RECOVERY REPORT

Client Name: Client SDG: SDGa02236
Sample Matrix: LIQUID Fraction: VOA
Lab Smp Id: WG306608-9
Level: LOW Operator: ES
Data Type: MS DATA SampleType: LCS
SpikeList File: IND_CHECK.spk Quant Type: ISTD
Sublist File: all.sub
Method File: \\target_server\gg\chem\gcms-w.i\W092421.b\W8A05(08A).m
Misc Info: WG306608,WG306317-4

	SPIKE	COMPOUND	CONC ADDED ug/l	CONC RECOVERED ug/l	% RECOVERED	LIMITS
	1	Dichlorodifluorome	50.0	55.0	110.04	80-120
	2	Chloromethane	50.0	42.6	85.22	80-120
	3	Vinyl chloride	50.0	51.0	102.10	80-120
	4	Bromomethane	50.0	48.1	96.22	80-120
	5	Chloroethane	50.0	50.6	101.11	80-120
	6	Trichlorofluoromet	50.0	51.9	103.84	80-120
	7	Diethyl Ether	50.0	51.1	102.22	80-120
	19	Tertiary-butyl alc	250	241	96.56	80-120
	8	1,1-Dichloroethene	50.0	47.3	94.53	80-120
	10	Carbon Disulfide	50.0	55.0	110.09	80-120
	9	Freon-113	50.0	54.9	109.75	80-120
	11	Iodomethane	50.0	50.0	100.10	80-120
	12	Acrolein	250	237	94.74	80-120
	14	Methylene Chloride	50.0	53.4	106.85	80-120
	15	Acetone	50.0	51.7	103.47	80-120
	45	Isobutyl Alcohol	1000	865	86.54	80-120
	16	trans-1,2-Dichloro	50.0	50.3	100.68	80-120
	13	Allyl Chloride	50.0	55.2	110.38	80-120
	18	Methyl tert-butyl	50.0	47.1	94.25	80-120
	20	Acetonitrile	500	499	99.87	80-120
	21	Di-isopropyl ether	50.0	51.8	103.56	80-120
	22	Chloroprene	50.0	53.4	106.90	80-120
	39	Propionitrile	500	471	94.26	80-120
	40	Methacrylonitrile	500	497	99.49	80-120
	23	1,1-Dichloroethane	50.0	50.6	101.27	80-120
	24	Acrylonitrile	250	243	97.35	80-120
	25	Ethyl tertiary-but	50.0	54.9	109.83	80-120
	26	Vinyl Acetate	50.0	78.3	156.55*	80-120
	27	cis-1,2-Dichloroet	50.0	49.7	99.33	80-120
M	97	1,2-Dichloroethyle	100	100	100.01	80-120
	52	Methyl Methacrylat	50.0	52.5	105.00	80-120
	28	2,2-Dichloropropan	50.0	45.9	91.73	80-120
	29	Bromochloromethane	50.0	54.5	108.95	80-120
	31	Chloroform	50.0	49.2	98.31	80-120
	32	Carbon Tetrachlori	50.0	54.4	108.78	80-120
	33	Tetrahydrofuran	50.0	39.6	79.25*	80-120
	35	1,1,1-Trichloroeth	50.0	50.7	101.48	80-120
	37	1,1-Dichloropropen	50.0	53.5	106.94	80-120
	36	2-Butanone	50.0	44.7	89.48	80-120
	38	Benzene	50.0	51.8	103.63	80-120

Data File: \\target_server\gg\chem\gcms-w.i\W092421.b\W0217A.D
Report Date: 11-Oct-2021 14:40

	SPIKE COMPOUND	CONC ADDED ug/l	CONC RECOVERED ug/l	% RECOVERED	LIMITS
	30 Cyclohexane	50.0	58.6	117.26	80-120
	53 Ethyl Methacrylate	50.0	47.2	94.40	80-120
	43 Tertiary-amyl meth	50.0	52.6	105.27	80-120
	44 1,2-Dichloroethane	50.0	49.4	98.74	80-120
	47 Trichloroethene	50.0	51.6	103.22	80-120
	49 Dibromomethane	50.0	47.4	94.83	80-120
	50 1,2-Dichloropropan	50.0	51.7	103.39	80-120
	51 Bromodichlorometha	50.0	52.0	104.00	80-120
	57 cis-1,3-dichloropr	50.0	55.8	111.63	80-120
	54 1,4-Dioxane	1000	833	83.31	80-120
	56 2-Chloroethylvinyl	50.0	0.00	0.00*	80-120
	59 Toluene	50.0	52.1	104.17	80-120
	61 4-methyl-2-pentano	50.0	48.3	96.55	80-120
	60 Tetrachloroethene	50.0	51.5	103.04	80-120
	62 trans-1,3-Dichloro	50.0	54.0	108.11	80-120
	63 1,1,2-Trichloroeth	50.0	50.4	100.80	80-120
	64 Dibromochlorometha	50.0	50.5	101.10	80-120
	65 1,3-Dichloropropan	50.0	49.2	98.46	80-120
	66 1,2-Dibromoethane	50.0	51.2	102.34	80-120
	67 2-Hexanone	50.0	45.5	91.00	80-120
	69 Chlorobenzene	50.0	50.8	101.50	80-120
	70 Ethylbenzene	50.0	52.1	104.19	80-120
	71 1,1,1,2-Tetrachlor	50.0	54.4	108.73	80-120
M	105 Xylenes (total)	150	160	106.80	80-120
	72 m+p-Xylenes	100	106	105.63	80-120
	73 o-Xylene	50.0	54.6	109.14	80-120
	74 Styrene	50.0	54.6	109.23	80-120
	75 Bromoform	50.0	51.6	103.31	80-120
	76 Isopropylbenzene	50.0	53.6	107.26	80-120
	78 cis-1,4-Dichloro-2	50.0	50.0	99.93	80-120
	85 trans-1,4-Dichloro	50.0	47.9	95.72	80-120
	79 Bromobenzene	50.0	51.8	103.55	80-120
	80 N-Propylbenzene	50.0	53.2	106.48	80-120
	81 1,1,2,2-Tetrachlor	50.0	50.5	101.09	80-120
	84 1,3,5-Trimethylben	50.0	53.7	107.40	80-120
	82 2-Chlorotoluene	50.0	51.9	103.81	80-120
	83 1,2,3-Trichloropro	50.0	48.2	96.42	80-120
	86 4-Chlorotoluene	50.0	51.7	103.48	80-120
	87 tert-Butylbenzene	50.0	53.0	105.97	80-120
	88 Pentachloroethane	50.0	0.00	*	80-120
	89 1,2,4-Trimethylben	50.0	52.6	105.19	80-120
	91 P-Isopropyltoluene	50.0	55.8	111.68	80-120
	92 1,3-Dichlorobenzen	50.0	51.2	102.39	80-120
	94 1,4-Dichlorobenzen	50.0	51.1	102.15	80-120
	96 N-Butylbenzene	50.0	56.3	112.69	80-120
	90 sec-Butylbenzene	50.0	55.3	110.60	80-120
	98 1,2-Dichlorobenzen	50.0	51.5	103.04	80-120
	99 1,2-Dibromo-3-Chlo	50.0	49.9	99.85	80-120
	100 1,3,5-Trichloroben	50.0	53.2	106.35	80-120
	101 Hexachlorobutadien	50.0	51.9	103.74	80-120
	102 1,2,4-Trichloroben	50.0	48.6	97.15	80-120
	95 1,2,3-Trimethylben	50.0	52.3	104.57	80-120
	103 Naphthalene	50.0	45.1	90.20	80-120
	104 1,2,3-Trichloroben	50.0	52.9	105.79	80-120

Data File: \\target_server\gg\chem\gcms-w.i\W092421.b\W0217A.D
Report Date: 11-Oct-2021 14:40

	SPIKE COMPOUND	CONC ADDED ug/l	CONC RECOVERED ug/l	% RECOVERED	LIMITS
	17 Methyl Acetate	50.0	36.9	73.84*	80-120
	46 Methylcyclohexane	50.0	56.9	113.82	80-120
M	55 Total Alkylbenzene	350	380	108.57	80-120

	SURROGATE COMPOUND	AMOUNT ADDED ug/l	AMOUNT RECOVERED ug/l	% RECOVERED	LIMITS
$	34 Dibromofluorometha	50.0	50.0	100.00	68-128
$	42 1,2-Dichloroethane	50.0	49.0	98.00	67-135
$	58 Toluene-D8	50.0	49.7	99.41	65-128
$	77 P-Bromofluorobenze	50.0	50.5	101.02	56-133

Data File: \\target_server\gg\chem\gcms-w.i\W092421.b\W0217A.D
Report Date: 11-Oct-2021 14:40

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-w.i\W092421.b\W0217A.D
Lab Smp Id: WG306608-9
Inj Date : 24-SEP-2021 13:34
Operator : ES   Inst ID: gcms-w.i
Smp Info : WG306608-9
Misc Info : WG306608,WG306317-4
Comment   : SW846 5030
Method   : \\target_server\gg\chem\gcms-w.i\W092421.b\W8A05(08A).m
Meth Date : 08-Oct-2021 09:51 gcms-w.i   Quant Type: ISTD
Cal Date : 24-SEP-2021 11:36   Cal File: W0215.D
Als bottle: 12   QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE   Compound Sublist: all.sub
Target Version: 4.12

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)	REVIEW CODE
1	Dichlorodifluoromethane	85	1.277	1.274	(0.231)	448110	55.0199	55.0	
2	Chloromethane	50	1.409	1.409	(0.255)	430523	42.6082	42.6	
3	Vinyl chloride	62	1.460	1.460	(0.265)	433258	51.0486	51.0	
4	Bromomethane	94	1.672	1.672	(0.303)	135189	48.1119	48.1	
5	Chloroethane	64	1.755	1.753	(0.318)	245491	50.5547	50.6	
6	Trichlorofluoromethane	101	1.848	1.849	(0.335)	583987	51.9215	51.9	
7	Diethyl Ether	59	2.060	2.057	(0.373)	265908	51.1124	51.1	
8	1,1-Dichloroethene	96	2.211	2.211	(0.401)	288867	47.2631	47.3	
9	Freon-113	151	2.237	2.234	(0.405)	244270	54.8740	54.9	
10	Carbon Disulfide	76	2.240	2.240	(0.406)	821669	55.0447	55.0	
11	Iodomethane	142	2.326	2.327	(0.422)	185545	50.0510	50.0	
12	Acrolein	56	2.477	2.474	(0.449)	106574	236.858	237	
13	Allyl Chloride	41	2.583	2.584	(0.468)	547879	55.1893	55.2	
14	Methylene Chloride	84	2.673	2.673	(0.484)	345793	53.4259	53.4	
15	Acetone	43	2.721	2.722	(0.493)	101420	51.7346	51.7	
16	trans-1,2-Dichloroethene	96	2.814	2.811	(0.510)	322951	50.3397	50.3	
17	Methyl Acetate	43	2.827	2.827	(0.512)	213436	36.9209	36.9(R)	
18	Methyl tert-butyl ether	73	2.907	2.911	(0.527)	713619	47.1233	47.1	
19	Tertiary-butyl alcohol	59	3.010	3.010	(0.545)	90378	241.390	241	
20	Acetonitrile	41	3.161	3.161	(0.573)	366975	499.364	499	
21	Di-isopropyl ether	45	3.280	3.283	(0.594)	1103459	51.7806	51.8	
22	Chloroprene	53	3.392	3.386	(0.615)	601436	53.4478	53.4	
23	1,1-Dichloroethane	63	3.418	3.415	(0.619)	638667	50.6357	50.6	
24	Acrylonitrile	52	3.485	3.485	(0.631)	445441	243.368	243	

Data File: \\target_server\gg\chem\gcms-w.i\W092421.b\W0217A.D
Report Date: 11-Oct-2021 14:40

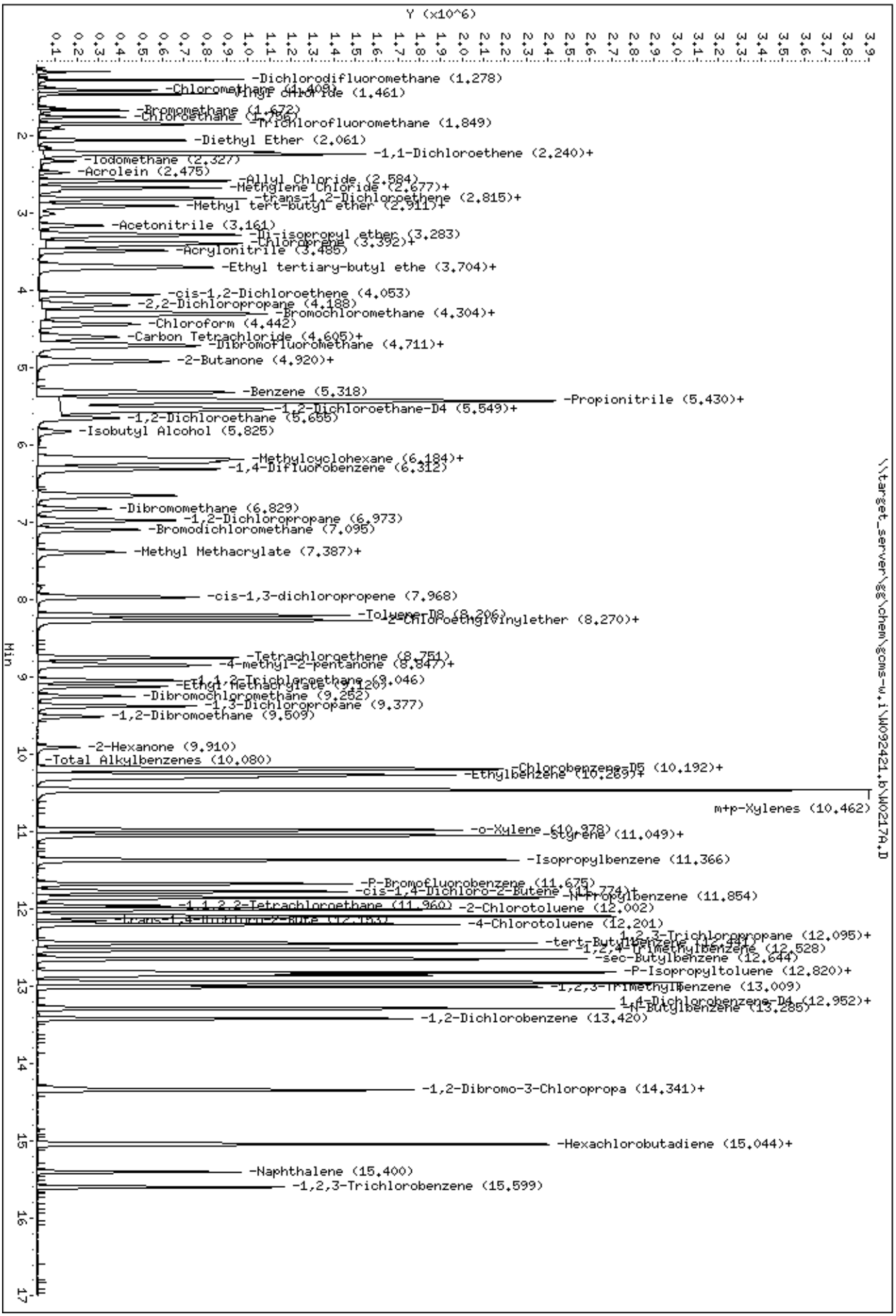
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)	REVIEW CODE
	25 Ethyl tertiary-butyl ether	59	3.690	3.691	(0.669)	829187	54.9140	54.9	
	26 Vinyl Acetate	43	3.713	3.710	(0.589)	704534	78.2773	78.3(R)	
	27 cis-1,2-Dichloroethene	96	4.056	4.050	(0.735)	322197	49.6671	49.7	
	28 2,2-Dichloropropane	77	4.191	4.191	(0.759)	387545	45.8663	45.9	
	29 Bromochloromethane	128	4.316	4.320	(0.782)	147622	54.4731	54.5	
	30 Cyclohexane	56	4.297	4.293	(0.779)	627565	58.6295	58.6	
	31 Chloroform	83	4.441	4.438	(0.805)	558310	49.1560	49.2	
	32 Carbon Tetrachloride	117	4.602	4.608	(0.729)	403323	54.3882	54.4	
	33 Tetrahydrofuran	42	4.688	4.669	(0.849)	83290	39.6263	39.6(R)	
$	34 Dibromofluoromethane	113	4.711	4.714	(0.854)	283223	49.9989	50.0	
	35 1,1,1-Trichloroethane	97	4.720	4.721	(0.855)	512654	50.7402	50.7	
	36 2-Butanone	43	4.942	4.936	(0.895)	121289	44.7422	44.7	
	37 1,1-Dichloropropene	75	4.916	4.916	(0.779)	469807	53.4723	53.5	
	38 Benzene	78	5.320	5.321	(0.843)	1255334	51.8151	51.8	
	39 Propionitrile	54	5.401	5.407	(0.978)	373749	471.303	471	
	40 Methacrylonitrile	41	5.433	5.430	(0.984)	1868329	497.455	497	
*	41 Pentafluorobenzene	168	5.519	5.520	(1.000)	560909	50.0000		
$	42 1,2-Dichloroethane-D4	65	5.548	5.549	(1.005)	381945	48.9990	49.0	
	43 Tertiary-amyl methyl ether	73	5.558	5.558	(1.007)	568373	52.6335	52.6	
	44 1,2-Dichloroethane	62	5.654	5.655	(0.896)	452773	49.3695	49.4	
	45 Isobutyl Alcohol	43	5.824	5.825	(1.055)	164679	865.380	865	
	46 Methylcyclohexane	83	6.184	6.181	(1.120)	583510	56.9098	56.9	
	47 Trichloroethene	95	6.222	6.226	(0.986)	316487	51.6103	51.6	
*	48 1,4-Difluorobenzene	114	6.309	6.312	(1.000)	920614	50.0000		
	49 Dibromomethane	93	6.825	6.826	(1.082)	175223	47.4134	47.4	
	50 1,2-Dichloropropane	63	6.970	6.973	(1.105)	327218	51.6952	51.7	
	51 Bromodichloromethane	83	7.095	7.099	(1.125)	417301	51.9999	52.0	
	52 Methyl Methacrylate	41	7.381	7.384	(1.170)	261607	52.4988	52.5	
	53 Ethyl Methacrylate	69	9.120	9.123	(1.446)	334294	47.2017	47.2	
	54 1,4-Dioxane	88	7.403	7.403	(1.173)	48213	833.113	833	
M	55 Total Alkylbenzenes	100				10461777	380.008	380	
	56 2-Chloroethylvinylether	63	8.273	8.270	(1.311)	123489		(aR)	
	57 cis-1,3-dichloropropene	75	7.968	7.968	(1.263)	503159	55.8174	55.8	
$	58 Toluene-D8	98	8.205	8.202	(1.301)	1097988	49.7075	49.7	
	59 Toluene	92	8.269	8.270	(1.311)	785576	52.0826	52.1	
	60 Tetrachloroethene	164	8.751	8.751	(0.860)	260295	51.5184	51.5	
	61 4-methyl-2-pentanone	43	8.831	8.825	(1.400)	248897	48.2756	48.3	
	62 trans-1,3-Dichloropropene	75	8.850	8.854	(1.403)	422727	54.0547	54.0	
	63 1,1,2-Trichloroethane	83	9.046	9.050	(1.434)	212433	50.3990	50.4	
	64 Dibromochloromethane	129	9.251	9.252	(0.909)	281039	50.5484	50.5	
	65 1,3-Dichloropropane	76	9.376	9.377	(0.921)	472355	49.2280	49.2	
	66 1,2-Dibromoethane	107	9.508	9.512	(1.507)	249192	51.1698	51.2	
	67 2-Hexanone	43	9.909	9.903	(0.974)	154279	45.4977	45.5	
*	68 Chlorobenzene-D5	117	10.179	10.182	(1.000)	925025	50.0000		
	69 Chlorobenzene	112	10.198	10.198	(1.002)	869690	50.7512	50.8	
	70 Ethylbenzene	91	10.269	10.269	(1.009)	1553836	52.0963	52.1	
	71 1,1,1,2-Tetrachloroethane	131	10.301	10.301	(1.012)	303384	54.3638	54.4	
	72 m+p-Xylenes	91	10.461	10.461	(1.028)	2387008	105.634	106	
	73 o-Xylene	91	10.978	10.978	(1.078)	1233957	54.5706	54.6	
	74 Styrene	104	11.048	11.049	(1.085)	974244	54.6131	54.6	
	75 Bromoform	173	11.048	11.049	(1.085)	175783	51.6545	51.6	
	76 Isopropylbenzene	105	11.366	11.366	(0.878)	1567915	53.6279	53.6	
$	77 P-Bromofluorobenzene	95	11.674	11.674	(1.850)	486538	50.5097	50.5	
	78 cis-1,4-Dichloro-2-Butene	53	11.790	11.790	(0.911)	77783	49.9626	50.0	

Data File: \\target_server\gg\chem\gcms-w.i\W092421.b\W0217A.D
Report Date: 11-Oct-2021 14:40

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)	REVIEW CODE
	79 Bromobenzene	156	11.774	11.774	(0.910)	360985	51.7773	51.8	
	80 N-Propylbenzene	91	11.854	11.854	(0.916)	1922194	53.2376	53.2	
	81 1,1,2,2-Tetrachloroethane	83	11.960	11.960	(0.924)	316064	50.5448	50.5	
	82 2-Chlorotoluene	91	12.001	12.005	(0.927)	1106451	51.9062	51.9	
	83 1,2,3-Trichloropropane	75	12.085	12.082	(0.934)	275524	48.2089	48.2	
	84 1,3,5-Trimethylbenzene	105	12.094	12.098	(0.934)	1304134	53.7000	53.7	
	85 trans-1,4-Dichloro-2-Butene	53	12.152	12.153	(0.939)	76650	47.8605	47.9	
	86 4-Chlorotoluene	91	12.200	12.198	(0.942)	1154131	51.7422	51.7	
	87 tert-Butylbenzene	119	12.441	12.445	(0.961)	1141771	52.9852	53.0	
	89 1,2,4-Trimethylbenzene	105	12.528	12.528	(0.968)	1318796	52.5952	52.6	
	90 sec-Butylbenzene	105	12.643	12.644	(0.977)	1781908	55.3010	55.3	
	91 P-Isopropyltoluene	119	12.820	12.820	(0.990)	1518701	55.8424	55.8	
	92 1,3-Dichlorobenzene	146	12.855	12.855	(0.993)	727336	51.1972	51.2	
*	93 1,4-Dichlorobenzene-D4	152	12.945	12.942	(1.000)	523470	50.0000		
	94 1,4-Dichlorobenzene	146	12.958	12.961	(1.001)	747390	51.0752	51.1	
	95 1,2,3-Trimethylbenzene	105	13.009	13.009	(1.005)	1298950	52.2843	52.3	
	96 N-Butylbenzene	91	13.285	13.285	(1.026)	1474273	56.3470	56.3	
M	97 1,2-Dichloroethylene (total)	96				645148	100.007	100	
	98 1,2-Dichlorobenzene	146	13.420	13.417	(1.037)	672622	51.5188	51.5	
	99 1,2-Dibromo-3-Chloropropane	157	14.312	14.312	(1.106)	50128	49.9246	49.9	
	100 1,3,5-Trichlorobenzene	180	14.341	14.341	(1.108)	517952	53.1771	53.2	
	101 Hexachlorobutadiene	225	15.034	15.037	(1.161)	247835	51.8675	51.9	
	102 1,2,4-Trichlorobenzene	180	15.047	15.047	(1.162)	416040	48.5767	48.6	
	103 Naphthalene	128	15.400	15.400	(1.190)	676277	45.0984	45.1	
	104 1,2,3-Trichlorobenzene	180	15.599	15.599	(1.205)	322862	52.8927	52.9	
M	105 Xylenes (total)	106				3620965	160.205	160	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.


Y (x10^6)
Min
Data File: \\target_server\gg\chem\gcms-w.i\W092421.b\W0217A.D
Date : 24-SEP-2021 13:34
Client ID:
Sample Info: WG306608-9
Instrument: gcms-w.i
\\target_server\gg\chem\gcms-w.i\W092421.b\W0217A.D
-Dichlorodifluoromethane (1.278)
-Chloromethane (1.408)
-Vinyl Chloride (1.461)
-Bromomethane (1.672)
-Chloroethane (1.756)
-Trichlorofluoromethane (1.849)
-Diethyl Ether (2.061)
-1,1-Dichloroethene (2.240)+
-Iodomethane (2.327)
-Acrolein (2.475)
-Allyl Chloride (2.584)
-Methylene Chloride (2.677)+
-trans-1,2-Dichloroethene (2.815)+
-Methyl tert-butyl ether (2.911)+
-Acetonitrile (3.161)
-Di-isopropyl ether (3.283)
-Chloroprene (3.392)+
-Acrylonitrile (3.485)
-Ethyl tertiary-butyl ethe (3.704)+
-cis-1,2-Dichloroethene (4.053)
-2,2-Dichloropropane (4.188)
-Bromochloromethane (4.304)+
-Chloroform (4.442)
-Carbon Tetrachloride (4.605)+
-Dibromofluoromethane (4.711)+
-2-Butanone (4.920)+
-Benzene (5.318)
-Propionitrile (5.430)+
-1,2-Dichloroethane-D4 (5.549)+
-1,2-Dichloroethane (5.655)
-Isobutyl Alcohol (5.825)
-Methylcyclohexane (6.184)+
-1,4-Difluorobenzene (6.312)
-Dibromomethane (6.829)
-1,2-Dichloropropane (6.973)
-Bromodichloromethane (7.095)
-Methyl Methacrylate (7.387)+
-cis-1,3-dichloropropene (7.968)
-Toluene-D8 (8.206)
-2-Chloroethylvinylether (8.270)+
-Tetrachloroethene (8.751)
-4-methyl-2-pentanone (8.847)+
-1,1,2-Trichloroethane (9.046)
-Ethyl Methacrylate (9.126)
-Dibromochloromethane (9.262)
-1,3-Dichloropropane (9.377)
-1,2-Dibromoethane (9.509)
-2-Hexanone (9.910)
-Total Alkylbenzenes (10.080)
-Chlorobenzene-D5 (10.192)+
-Ethylbenzene (10.269)+
m+p-Xylenes (10.462)
-o-Xylene (10.978)
-Styrene (11.049)+
-Isopropylbenzene (11.366)
-P-Bromofluorobenzene (11.675)
-cis-1,4-Dichloro-2-Butene (11.774)+
-N-Propylbenzene (11.854)
-1,1,2,2-Tetrachloroethane (11.960)
-2-Chlorotoluene (12.002)
-trans-1,4-Dichloro-2-Bute (12.053)
-4-Chlorotoluene (12.201)
-1,2,3-Trichloropropane (12.095)+
-tert-Butylbenzene (12.441)
-1,2,4-Trimethylbenzene (12.528)
-sec-Butylbenzene (12.644)
-P-Isopropyltoluene (12.820)+
-1,2,3-Trimethylbenzene (13.009)
-1,4-Dichlorobenzene-D4 (12.952)+
-N-Butylbenzene (13.285)
-1,2-Dichlorobenzene (13.420)
-1,2-Dibromo-3-Chloropropa (14.341)+
-Hexachlorobutadiene (15.044)+
-Naphthalene (15.400)
-1,2,3-Trichlorobenzene (15.599)

Data File: \\target_server\gg\chem\gcms-w.i\W092421.b\W0208.D
Report Date: 11-Oct-2021 14:14

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-w.i\W092421.b\W0208.D
Lab Smp Id: WG306608-6
Inj Date : 24-SEP-2021 08:01
Operator : ES   Inst ID: gcms-w.i
Smp Info : WG306608-6
Misc Info :
Comment   : SW846 5030
Method   : \\target_server\gg\chem\gcms-w.i\W092421.b\W8A05(08A).m
Meth Date : 08-Oct-2021 09:51 gcms-w.i   Quant Type: ISTD
Cal Date : 24-SEP-2021 08:01   Cal File: W0208.D
Als bottle: 3   Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE   Compound Sublist: all.sub
Target Version: 4.12

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)		REVIEW CODE
1	Dichlorodifluoromethane	85	1.274	1.274	(0.231)	1224248	150.000		(a)	
2	Chloromethane	50	1.409	1.409	(0.255)	1375057	150.000		(a)	
3	Vinyl chloride	62	1.460	1.460	(0.264)	1206643	150.000		(a)	
4	Bromomethane	94	1.669	1.672	(0.302)	422636	150.000		(a)	
5	Chloroethane	64	1.749	1.753	(0.317)	644101	150.000		(a)	
6	Trichlorofluoromethane	101	1.845	1.849	(0.334)	1715174	150.000		(a)	
7	Diethyl Ether	59	2.057	2.057	(0.372)	771392	150.000		(a)	
8	1,1-Dichloroethene	96	2.211	2.211	(0.400)	898072	150.000		(a)	
9	Freon-113	151	2.233	2.234	(0.404)	704963	150.000		(a)	
10	Carbon Disulfide	76	2.237	2.240	(0.405)	2218266	150.000		(a)	
11	Iodomethane	142	2.326	2.327	(0.421)	637894	150.000		(a)	
12	Acrolein	56	2.474	2.474	(0.448)	329651	750.000		(a)	
13	Allyl Chloride	41	2.583	2.584	(0.468)	1428181	150.000		(a)	
14	Methylene Chloride	84	2.673	2.673	(0.484)	954799	150.000		(a)	
15	Acetone	43	2.721	2.722	(0.492)	1481999	750.000		(a)	
16	trans-1,2-Dichloroethene	96	2.808	2.811	(0.508)	939696	150.000		(a)	
17	Methyl Acetate	43	2.824	2.827	(0.511)	867050	150.000		(a)	
18	Methyl tert-butyl ether	73	2.907	2.911	(0.526)	2338558	150.000		(a)	
19	Tertiary-butyl alcohol	59	3.010	3.010	(0.545)	316979	750.000		(a)	
20	Acetonitrile	41	3.161	3.161	(0.572)	1132993	1500.00		(a)	
21	Di-isopropyl ether	45	3.283	3.283	(0.594)	3101710	150.000		(a)	
22	Chloroprene	53	3.389	3.386	(0.613)	1691423	150.000		(a)	
23	1,1-Dichloroethane	63	3.414	3.415	(0.618)	1846464	150.000		(a)	
24	Acrylonitrile	52	3.488	3.485	(0.631)	1384106	750.000		(a)	

Data File: \\target_server\gg\chem\gcms-w.i\W092421.b\W0208.D
Report Date: 11-Oct-2021 14:14

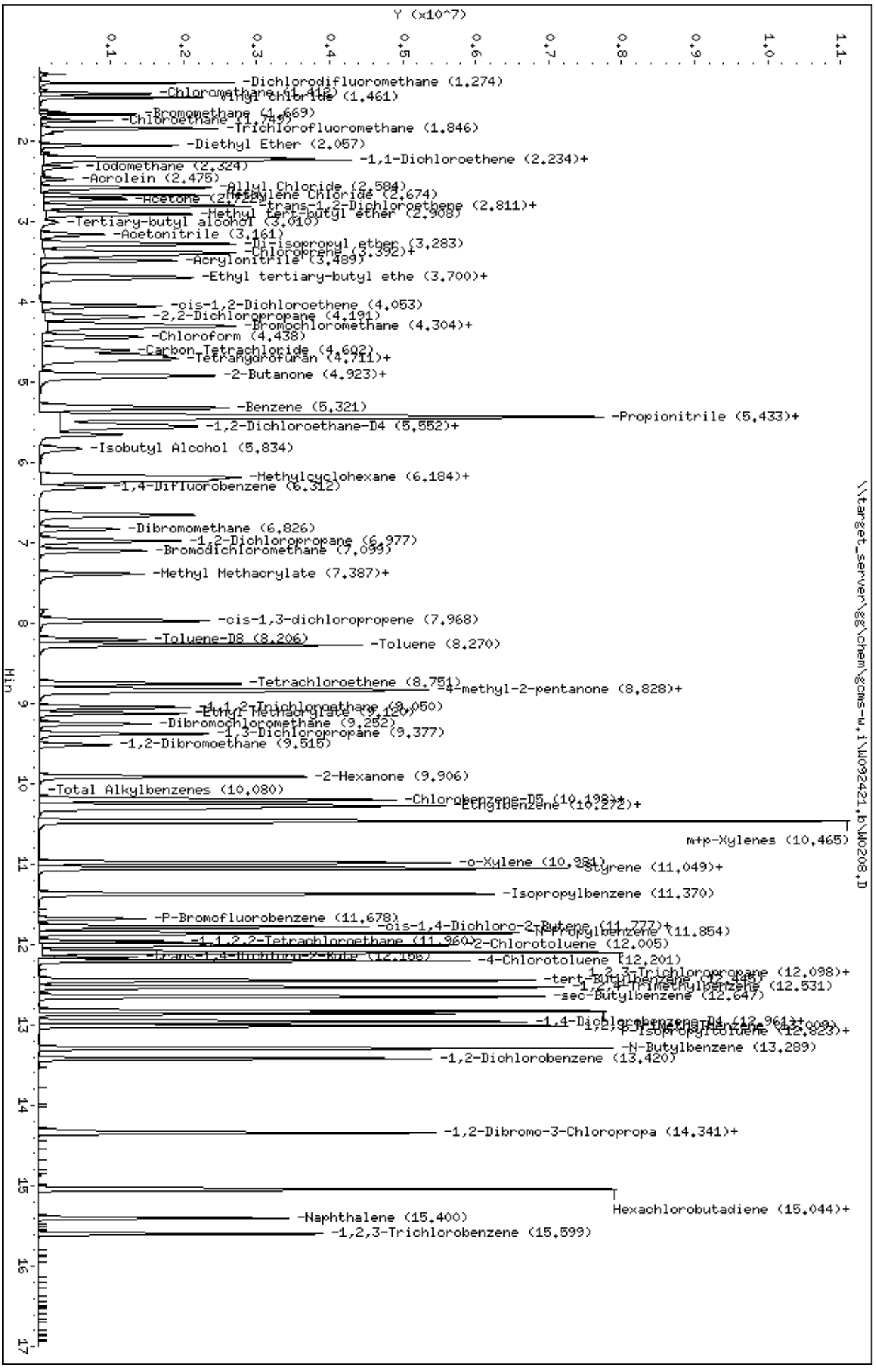
			QUANT SIG					AMOUNTS		
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)	REVIEW CODE
	25	Ethyl tertiary-butyl ether	59	3.690	3.691	(0.668)	2260428	150.000	(a)	
	26	Vinyl Acetate	43	3.713	3.710	(0.588)	1431470	150.000	(a)	
	27	cis-1,2-Dichloroethene	96	4.056	4.050	(0.734)	937083	150.000	(a)	
	28	2,2-Dichloropropane	77	4.191	4.191	(0.758)	1290278	150.000	(a)	
	29	Bromochloromethane	128	4.322	4.320	(0.782)	370767	150.000	(a)	
	30	Cyclohexane	56	4.294	4.293	(0.777)	1649904	150.000	(a)	
	31	Chloroform	83	4.438	4.438	(0.803)	1667818	150.000	(a)	
	32	Carbon Tetrachloride	117	4.602	4.608	(0.729)	1279421	150.000	(a)	
	33	Tetrahydrofuran	42	4.666	4.669	(0.844)	1579518	750.000	(a)	
$	34	Dibromofluoromethane	113	4.714	4.714	(0.853)	288602	50.0000	(a)	
	35	1,1,1-Trichloroethane	97	4.714	4.721	(0.853)	1572362	150.000	(a)	
	36	2-Butanone	43	4.935	4.936	(0.893)	2042259	750.000	(a)	
	37	1,1-Dichloropropene	75	4.916	4.916	(0.779)	1344694	150.000	(a)	
	38	Benzene	78	5.320	5.321	(0.843)	3488521	150.000	(a)	
	39	Propionitrile	54	5.413	5.407	(0.980)	1213351	1500.00	(a)	
	40	Methacrylonitrile	41	5.436	5.430	(0.984)	5679628	1500.00	(a)	
*	41	Pentafluorobenzene	168	5.526	5.520	(1.000)	564995	50.0000		
$	42	1,2-Dichloroethane-D4	65	5.551	5.549	(1.005)	401827	50.0000	(a)	
	43	Tertiary-amyl methyl ether	73	5.555	5.558	(1.005)	1827141	150.000	(a)	
	44	1,2-Dichloroethane	62	5.651	5.655	(0.895)	1339388	150.000	(a)	
	45	Isobutyl Alcohol	43	5.834	5.825	(1.056)	585345	3000.00	(a)	
	46	Methylcyclohexane	83	6.184	6.181	(1.119)	1669761	150.000	(a)	
	47	Trichloroethene	95	6.228	6.226	(0.987)	953878	150.000	(a)	
*	48	1,4-Difluorobenzene	114	6.312	6.312	(1.000)	914305	50.0000		
	49	Dibromomethane	93	6.829	6.826	(1.082)	554341	150.000	(a)	
	50	1,2-Dichloropropane	63	6.976	6.973	(1.105)	942201	150.000	(a)	
	51	Bromodichloromethane	83	7.098	7.099	(1.125)	1275683	150.000	(a)	
	52	Methyl Methacrylate	41	7.384	7.384	(1.170)	868629	150.000	(a)	
	53	Ethyl Methacrylate	69	9.120	9.123	(1.445)	1094546	150.000	(a)	
	54	1,4-Dioxane	88	7.406	7.403	(1.173)	147657	3000.00	(a)	
M	55	Total Alkylbenzenes	100				28536880	150.000	(a)	
	57	cis-1,3-dichloropropene	75	7.968	7.968	(1.262)	1529010	150.000	(a)	
$	58	Toluene-D8	98	8.202	8.202	(1.299)	1121366	50.0000	(a)	
	59	Toluene	92	8.269	8.270	(1.310)	2231829	150.000	(a)	
	60	Tetrachloroethene	164	8.754	8.751	(0.860)	760989	150.000	(a)	
	61	4-methyl-2-pentanone	43	8.828	8.825	(1.399)	4072133	750.000	(a)	
	62	trans-1,3-Dichloropropene	75	8.850	8.854	(1.402)	1399025	150.000	(a)	
	63	1,1,2-Trichloroethane	83	9.046	9.050	(1.433)	639075	150.000	(a)	
	64	Dibromochloromethane	129	9.254	9.252	(0.909)	932304	150.000	(a)	
	65	1,3-Dichloropropane	76	9.376	9.377	(0.921)	1454200	150.000	(a)	
	66	1,2-Dibromoethane	107	9.514	9.512	(1.507)	773817	150.000	(a)	
	67	2-Hexanone	43	9.906	9.903	(0.973)	2721240	750.000	(a)	
*	68	Chlorobenzene-D5	117	10.182	10.182	(1.000)	937723	50.0000		
	69	Chlorobenzene	112	10.201	10.198	(1.002)	2468749	150.000	(a)	
	70	Ethylbenzene	91	10.269	10.269	(1.009)	4288768	150.000	(a)	
	71	1,1,1,2-Tetrachloroethane	131	10.304	10.301	(1.012)	906435	150.000	(a)	
	72	m+p-Xylenes	91	10.464	10.461	(1.028)	6219175	300.000	(a)	
	73	o-Xylene	91	10.981	10.978	(1.078)	3426260	150.000	(a)	
	74	Styrene	104	11.051	11.049	(1.085)	2806468	150.000	(a)	
	75	Bromoform	173	11.048	11.049	(1.085)	630479	150.000	(a)	
	76	Isopropylbenzene	105	11.369	11.366	(0.878)	4274428	150.000	(a)	
$	77	P-Bromofluorobenzene	95	11.677	11.674	(1.850)	487507	50.0000	(a)	
	78	cis-1,4-Dichloro-2-Butene	53	11.790	11.790	(0.911)	299393	150.000	(a)	
	79	Bromobenzene	156	11.777	11.774	(0.910)	1053391	150.000	(a)	

Data File: \\target_server\gg\chem\gcms-w.i\W092421.b\W0208.D
Report Date: 11-Oct-2021 14:14

			QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)	REVIEW CODE
	80	N-Propylbenzene	91	11.854	11.854	(0.916)	5022677	150.000	(a)	
	81	1,1,2,2-Tetrachloroethane	83	11.960	11.960	(0.924)	959798	150.000	(a)	
	82	2-Chlorotoluene	91	12.005	12.005	(0.927)	3105147	150.000	(a)	
	83	1,2,3-Trichloropropane	75	12.085	12.082	(0.934)	900568	150.000	(a)	
	84	1,3,5-Trimethylbenzene	105	12.098	12.098	(0.935)	3667811	150.000	(a)	
	85	trans-1,4-Dichloro-2-Butene	53	12.155	12.153	(0.939)	305379	150.000	(a)	
	86	4-Chlorotoluene	91	12.200	12.198	(0.942)	3265111	150.000	(a)	
	87	tert-Butylbenzene	119	12.444	12.445	(0.961)	3290087	150.000	(a)	
	89	1,2,4-Trimethylbenzene	105	12.531	12.528	(0.968)	3729060	150.000	(a)	
	90	sec-Butylbenzene	105	12.646	12.644	(0.977)	4666767	150.000	(a)	
	91	P-Isopropyltoluene	119	12.823	12.820	(0.991)	4154109	150.000	(a)	
	92	1,3-Dichlorobenzene	146	12.858	12.855	(0.993)	2126396	150.000	(a)	
*	93	1,4-Dichlorobenzene-D4	152	12.945	12.942	(1.000)	548892	50.0000		
	94	1,4-Dichlorobenzene	146	12.961	12.961	(1.001)	2188449	150.000	(a)	
	95	1,2,3-Trimethylbenzene	105	13.009	13.009	(1.005)	3698306	150.000	(a)	
	96	N-Butylbenzene	91	13.288	13.285	(1.027)	4006369	150.000	(a)	
M	97	1,2-Dichloroethylene (total)	96				1876779	150.000	(a)	
	98	1,2-Dichlorobenzene	146	13.420	13.417	(1.037)	1987606	150.000	(a)	
	99	1,2-Dibromo-3-Chloropropane	157	14.312	14.312	(1.106)	180810	150.000	(a)	
	100	1,3,5-Trichlorobenzene	180	14.341	14.341	(1.108)	1577503	150.000	(a)	
	101	Hexachlorobutadiene	225	15.037	15.037	(1.162)	782307	150.000	(a)	
	102	1,2,4-Trichlorobenzene	180	15.047	15.047	(1.162)	1370036	150.000	(a)	
	103	Naphthalene	128	15.400	15.400	(1.190)	2407782	150.000	(a)	
	104	1,2,3-Trichlorobenzene	180	15.599	15.599	(1.205)	1050409	150.000	(a)	
M	105	Xylenes (total)	106				9645435	450.000	(a)	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).


Data File: \\target_server\gg\chem\gcms-w.i\W092421.b\W0208.D
Date : 24-SEP-2021 08:01
Client ID:
Sample Info: WG306608-6
Purge Volume: 5.0
Column phase: RTX-VMS
Instrument: gcms-w.i
Operator: ES
Column diameter: 0.18
\\target_server\gg\chem\gcms-w.i\W092421.b\W0208.D
Y (x10^7)
Min
-Dichlorodifluoromethane (1.274)
-Chloromethane (1.412)
-Vinyl Chloride (1.461)
-Bromomethane (1.669)
-Chloroethane (1.749)
-Trichlorofluoromethane (1.846)
-Diethyl Ether (2.057)
-1,1-Dichloroethene (2.234)+
-Iodomethane (2.324)
-Acrolein (2.475)
-Allyl Chloride (2.584)
-Methylene Chloride (2.674)
-Acetone (2.722)
-trans-1,2-Dichloroethene (2.811)+
-Methyl tert-butyl ether (2.908)
-Tertiary-butyl alcohol (3.010)
-Acetonitrile (3.161)
-Di-isopropyl ether (3.283)
-Chloroprene (3.392)+
-Acrylonitrile (3.489)
-Ethyl tertiary-butyl ethe (3.700)+
-cis-1,2-Dichloroethene (4.053)
-2,2-Dichloropropane (4.191)
-Bromochloromethane (4.304)+
-Chloroform (4.438)
-Carbon Tetrachloride (4.602)
-Tetrahydrofuran (4.711)+
-2-Butanone (4.923)+
-Benzene (5.321)
-Propionitrile (5.433)+
-1,2-Dichloroethane-D4 (5.552)+
-Isobutyl Alcohol (5.834)
-Methylcyclohexane (6.184)+
-1,4-Difluorobenzene (6.312)
-Dibromomethane (6.826)
-1,2-Dichloropropane (6.977)
-Bromodichloromethane (7.099)
-Methyl Methacrylate (7.387)+
-cis-1,3-dichloropropene (7.968)
-Toluene-D8 (8.206)
-Toluene (8.270)
-Tetrachloroethene (8.751)
-4-methyl-2-pentanone (8.828)+
-1,1,2-Trichloroethane (9.050)
-Ethyl Methacrylate (9.120)
-Dibromochloromethane (9.262)
-1,3-Dichloropropane (9.377)
-1,2-Dibromoethane (9.515)
-2-Hexanone (9.906)
-Total Alkylbenzenes (10.080)
-Chlorobenzene-D5 (10.198)+
-Ethylbenzene (10.272)+
m+p-Xylenes (10.465)
-o-Xylene (10.981)
-Styrene (11.049)+
-Isopropylbenzene (11.370)
-P-Bromofluorobenzene (11.678)
-cis-1,4-Dichloro-2-Butene (11.777)+
-N-Propylbenzene (11.854)
-1,1,2,2-Tetrachloroethane (11.960)
-2-Chlorotoluene (12.005)
-trans-1,4-Dichloro-2-Bute (12.196)
-4-Chlorotoluene (12.201)
-1,3,5-Trichlorobenzene (12.098)+
-tert-Butylbenzene (12.445)
-1,2,4-Trimethylbenzene (12.531)
-sec-Butylbenzene (12.647)
-1,4-Dichlorobenzene-D4 (12.961)+
-P-Isopropyltoluene (12.823)+
-N-Butylbenzene (13.289)
-1,2-Dichlorobenzene (13.420)
-1,2-Dibromo-3-Chloropropa (14.341)+
Hexachlorobutadiene (15.044)+
-Naphthalene (15.400)
-1,2,3-Trichlorobenzene (15.599)

Data File: \\target_server\gg\chem\gcms-w.i\W092421.b\W0209.D
Report Date: 11-Oct-2021 14:14

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-w.i\W092421.b\W0209.D
Lab Smp Id: WG306608-5
Inj Date : 24-SEP-2021 08:31
Operator : ES   Inst ID: gcms-w.i
Smp Info : WG306608-5
Misc Info :
Comment   : SW846 5030
Method   : \\target_server\gg\chem\gcms-w.i\W092421.b\W8A05(08A).m
Meth Date : 08-Oct-2021 09:51 gcms-w.i   Quant Type: ISTD
Cal Date : 24-SEP-2021 08:31   Cal File: W0209.D
Als bottle: 4   Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE   Compound Sublist: all.sub
Target Version: 4.12

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)	REVIEW CODE
1	Dichlorodifluoromethane	85	1.274	1.274	(0.231)	826902	100.000	102	
2	Chloromethane	50	1.409	1.409	(0.255)	949149	100.000	104	
3	Vinyl chloride	62	1.460	1.460	(0.264)	833314	100.000	104	
4	Bromomethane	94	1.672	1.672	(0.303)	292146	100.000	104	
5	Chloroethane	64	1.752	1.753	(0.317)	457476	100.000	107	
6	Trichlorofluoromethane	101	1.848	1.849	(0.335)	1148967	100.000	101	
7	Diethyl Ether	59	2.057	2.057	(0.373)	510412	100.000	99.4	
8	1,1-Dichloroethene	96	2.211	2.211	(0.400)	602856	100.000	101	
9	Freon-113	151	2.237	2.234	(0.405)	463266	100.000	98.8	
10	Carbon Disulfide	76	2.240	2.240	(0.406)	1500647	100.000	102	
11	Iodomethane	142	2.326	2.327	(0.421)	413316	100.000	97.4	
12	Acrolein	56	2.474	2.474	(0.448)	202010	500.000	460	
13	Allyl Chloride	41	2.583	2.584	(0.468)	1076802	100.000	113	
14	Methylene Chloride	84	2.673	2.673	(0.484)	657691	100.000	104	
15	Acetone	43	2.721	2.722	(0.493)	921852	500.000	467	
16	trans-1,2-Dichloroethene	96	2.811	2.811	(0.509)	644300	100.000	103	
17	Methyl Acetate	43	2.824	2.827	(0.511)	535416	100.000	92.8	
18	Methyl tert-butyl ether	73	2.907	2.911	(0.526)	1515676	100.000	97.4	
19	Tertiary-butyl alcohol	59	3.010	3.010	(0.545)	188382	500.000	446	
20	Acetonitrile	41	3.158	3.161	(0.572)	712344	1000.00	945	
21	Di-isopropyl ether	45	3.283	3.283	(0.594)	2121527	100.000	103	
22	Chloroprene	53	3.389	3.386	(0.614)	1148133	100.000	102	
23	1,1-Dichloroethane	63	3.414	3.415	(0.618)	1265509	100.000	103	
24	Acrylonitrile	52	3.485	3.485	(0.631)	859287	500.000	466	

Data File: \\target_server\gg\chem\gcms-w.i\W092421.b\W0209.D
Report Date: 11-Oct-2021 14:14

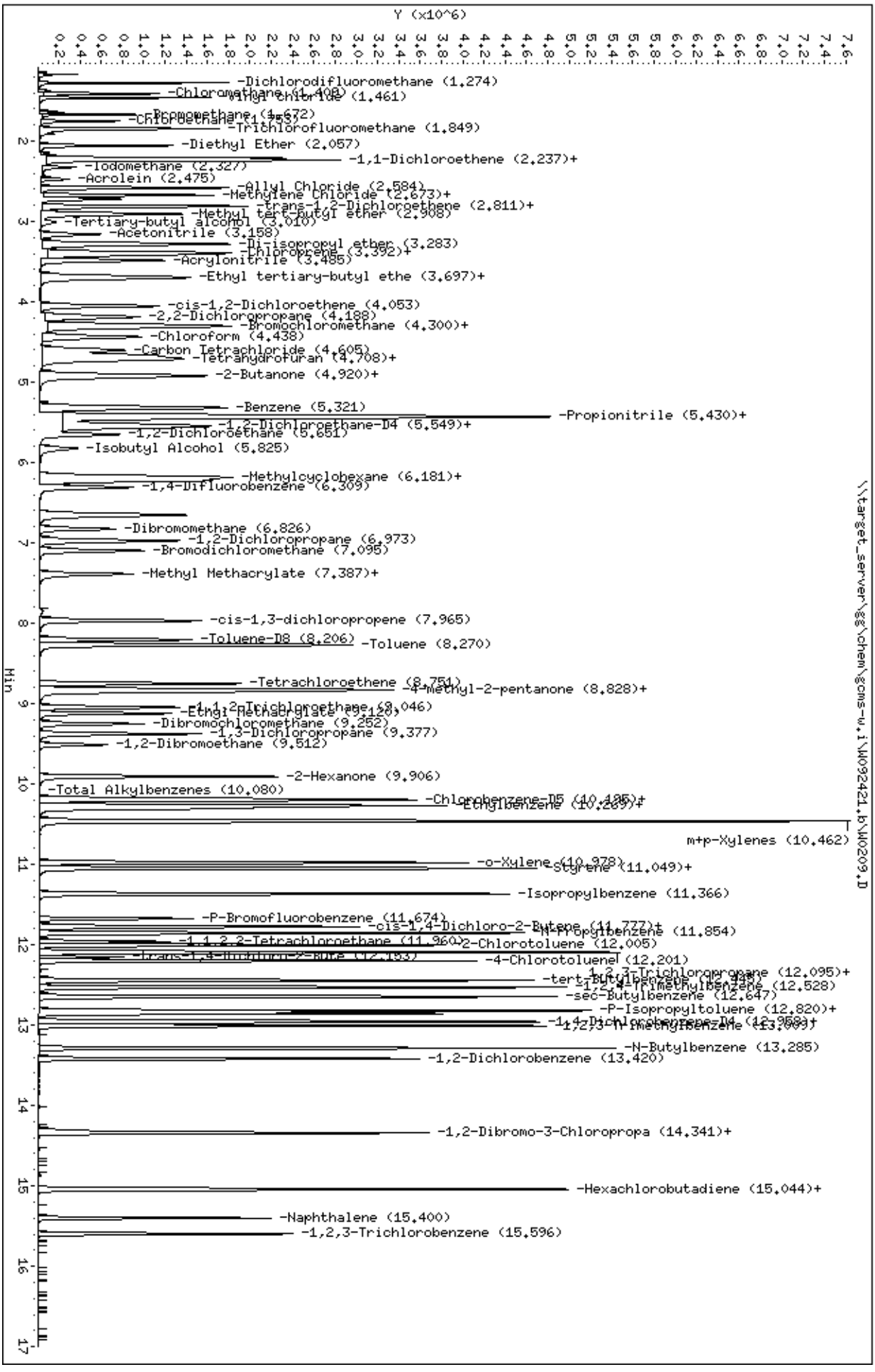
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)	REVIEW CODE
	25 Ethyl tertiary-butyl ether	59	3.690	3.691	(0.668)	1534565	100.000	102	
	26 Vinyl Acetate	43	3.713	3.710	(0.589)	942655	100.000	97.2	
	27 cis-1,2-Dichloroethene	96	4.050	4.050	(0.733)	649747	100.000	104	
	28 2,2-Dichloropropane	77	4.188	4.191	(0.758)	868514	100.000	101	
	29 Bromochloromethane	128	4.319	4.320	(0.782)	254587	100.000	103	
	30 Cyclohexane	56	4.290	4.293	(0.777)	1123995	100.000	102	
	31 Chloroform	83	4.438	4.438	(0.804)	1131389	100.000	102	
	32 Carbon Tetrachloride	117	4.605	4.608	(0.730)	849707	100.000	98.0	
	33 Tetrahydrofuran	42	4.666	4.669	(0.845)	985403	500.000	469	
$	34 Dibromofluoromethane	113	4.707	4.714	(0.852)	281890	50.0000	48.9	
	35 1,1,1-Trichloroethane	97	4.714	4.721	(0.854)	1048328	100.000	100	
	36 2-Butanone	43	4.935	4.936	(0.894)	1264765	500.000	465	
	37 1,1-Dichloropropene	75	4.916	4.916	(0.779)	917792	100.000	101	
	38 Benzene	78	5.320	5.321	(0.843)	2426435	100.000	103	
	39 Propionitrile	54	5.407	5.407	(0.979)	751714	1000.00	931(T)	
	40 Methacrylonitrile	41	5.433	5.430	(0.984)	3611598	1000.00	956	
*	41 Pentafluorobenzene	168	5.523	5.520	(1.000)	563938	50.0000		
$	42 1,2-Dichloroethane-D4	65	5.548	5.549	(1.005)	385998	50.0000	48.1	
	43 Tertiary-amyl methyl ether	73	5.555	5.558	(1.006)	1185996	100.000	97.5	
	44 1,2-Dichloroethane	62	5.651	5.655	(0.896)	901204	100.000	99.3	
	45 Isobutyl Alcohol	43	5.831	5.825	(1.056)	368511	2000.00	1890	
	46 Methylcyclohexane	83	6.184	6.181	(1.120)	1109425	100.000	99.8	
	47 Trichloroethene	95	6.225	6.226	(0.987)	612363	100.000	94.8	
*	48 1,4-Difluorobenzene	114	6.309	6.312	(1.000)	929179	50.0000		
	49 Dibromomethane	93	6.825	6.826	(1.082)	362921	100.000	96.6	
	50 1,2-Dichloropropane	63	6.973	6.973	(1.105)	643981	100.000	101	
	51 Bromodichloromethane	83	7.095	7.099	(1.125)	848045	100.000	98.1	
	52 Methyl Methacrylate	41	7.387	7.384	(1.171)	536701	100.000	91.2	
	53 Ethyl Methacrylate	69	9.120	9.123	(1.446)	684977	100.000	92.4	
	54 1,4-Dioxane	88	7.403	7.403	(1.173)	103504	2000.00	2070	
M	55 Total Alkylbenzenes	100				20048869	100.000	(a)	
	57 cis-1,3-dichloropropene	75	7.968	7.968	(1.263)	1022277	100.000	98.7	
$	58 Toluene-D8	98	8.205	8.202	(1.301)	1109734	50.0000	48.7	
	59 Toluene	92	8.266	8.270	(1.310)	1527445	100.000	101	
	60 Tetrachloroethene	164	8.751	8.751	(0.859)	517246	100.000	103	
	61 4-methyl-2-pentanone	43	8.824	8.825	(1.399)	2575377	500.000	467	
	62 trans-1,3-Dichloropropene	75	8.850	8.854	(1.403)	905311	100.000	95.5	
	63 1,1,2-Trichloroethane	83	9.046	9.050	(1.434)	422655	100.000	97.6	
	64 Dibromochloromethane	129	9.248	9.252	(0.908)	603734	100.000	98.4	
	65 1,3-Dichloropropane	76	9.376	9.377	(0.921)	960889	100.000	100	
	66 1,2-Dibromoethane	107	9.511	9.512	(1.508)	501614	100.000	95.7	
	67 2-Hexanone	43	9.906	9.903	(0.973)	1688573	500.000	471	
*	68 Chlorobenzene-D5	117	10.182	10.182	(1.000)	925781	50.0000		
	69 Chlorobenzene	112	10.198	10.198	(1.002)	1701853	100.000	105	
	70 Ethylbenzene	91	10.268	10.269	(1.009)	2990046	100.000	106	
	71 1,1,1,2-Tetrachloroethane	131	10.301	10.301	(1.012)	599098	100.000	100	
	72 m+p-Xylenes	91	10.461	10.461	(1.027)	4513486	200.000	220	
	73 o-Xylene	91	10.978	10.978	(1.078)	2382604	100.000	106	
	74 Styrene	104	11.048	11.049	(1.085)	1922230	100.000	104	
	75 Bromoform	173	11.048	11.049	(1.085)	387906	100.000	93.5	
	76 Isopropylbenzene	105	11.366	11.366	(0.878)	3001109	100.000	108	
$	77 P-Bromofluorobenzene	95	11.674	11.674	(1.850)	488263	50.0000	49.3	
	78 cis-1,4-Dichloro-2-Butene	53	11.790	11.790	(0.911)	171219	100.000	88.0	
	79 Bromobenzene	156	11.773	11.774	(0.910)	716372	100.000	105	

Data File: \\target_server\gg\chem\gcms-w.i\W092421.b\W0209.D
Report Date: 11-Oct-2021 14:14

			QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)	REVIEW CODE
	80	N-Propylbenzene	91	11.854	11.854	(0.916)	3603578	100.000	110	
	81	1,1,2,2-Tetrachloroethane	83	11.960	11.960	(0.924)	609632	100.000	97.8	
	82	2-Chlorotoluene	91	12.005	12.005	(0.927)	2153129	100.000	107	
	83	1,2,3-Trichloropropane	75	12.085	12.082	(0.934)	573340	100.000	98.0	
	84	1,3,5-Trimethylbenzene	105	12.094	12.098	(0.934)	2542986	100.000	107	
	85	trans-1,4-Dichloro-2-Butene	53	12.152	12.153	(0.939)	174481	100.000	87.9	
	86	4-Chlorotoluene	91	12.200	12.198	(0.942)	2257639	100.000	106	
	87	tert-Butylbenzene	119	12.444	12.445	(0.961)	2261989	100.000	106	
	89	1,2,4-Trimethylbenzene	105	12.528	12.528	(0.968)	2595692	100.000	107	
	90	sec-Butylbenzene	105	12.646	12.644	(0.977)	3335412	100.000	110	
	91	P-Isopropyltoluene	119	12.820	12.820	(0.990)	2881651	100.000	107	
	92	1,3-Dichlorobenzene	146	12.855	12.855	(0.993)	1444688	100.000	104	
*	93	1,4-Dichlorobenzene-D4	152	12.945	12.942	(1.000)	534977	50.0000		
	94	1,4-Dichlorobenzene	146	12.961	12.961	(1.001)	1493032	100.000	105	
	95	1,2,3-Trimethylbenzene	105	13.009	13.009	(1.005)	2536140	100.000	106	
	96	N-Butylbenzene	91	13.285	13.285	(1.026)	2827561	100.000	109	
M	97	1,2-Dichloroethylene (total)	96				1294047	100.000	(a)	
	98	1,2-Dichlorobenzene	146	13.420	13.417	(1.037)	1339601	100.000	104	
	99	1,2-Dibromo-3-Chloropropane	157	14.312	14.312	(1.106)	110058	100.000	93.7	
	100	1,3,5-Trichlorobenzene	180	14.341	14.341	(1.108)	1039518	100.000	101	
	101	Hexachlorobutadiene	225	15.034	15.037	(1.161)	506917	100.000	99.7	
	102	1,2,4-Trichlorobenzene	180	15.050	15.047	(1.163)	876389	100.000	98.4	
	103	Naphthalene	128	15.400	15.400	(1.190)	1531218	100.000	97.9	
	104	1,2,3-Trichlorobenzene	180	15.595	15.599	(1.205)	676850	100.000	99.2	
M	105	Xylenes (total)	106				6896090	300.000	(a)	

QC Flag Legend

T - Target compound detected outside RT window.
a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).


Data File: \\target_server\gg\chem\gcms-w.i\W092421.b\W0209.D
Date : 24-SEP-2021 08:31
Client ID:
Sample Info: WG306608-5
Purge Volume: 5.0
Column phase: RTX-VMS
Instrument: gcms-w.i
Operator: ES
Column diameter: 0.18
\\target_server\gg\chem\gcms-w.i\W092421.b\W0209.D
Y (x10^6)
Min
-Dichlorodifluoromethane (1.274)
-Chloromethane (1.408)
-Vinyl chloride (1.461)
-Bromomethane (1.672)
-Chloroethane (1.553)
-Trichlorofluoromethane (1.849)
-Diethyl Ether (2.057)
-1,1-Dichloroethene (2.237)+
-Iodomethane (2.327)
-Acrolein (2.475)
-Allyl Chloride (2.584)
-Methylene Chloride (2.673)+
-trans-1,2-Dichloroethene (2.811)+
-Methyl tert-butyl ether (2.908)
-Tertiary-butyl alcohol (3.010)
-Acetonitrile (3.158)
-Di-isopropyl ether (3.283)
-Chloroprene (3.392)+
-Acrylonitrile (3.485)
-Ethyl tertiary-butyl ethe (3.697)+
-cis-1,2-Dichloroethene (4.053)
-2,2-Dichloropropane (4.188)
-Bromochloromethane (4.300)+
-Chloroform (4.438)
-Carbon Tetrachloride (4.605)
-Tetrahydrofuran (4.708)+
-2-Butanone (4.920)+
-Benzene (5.321)
-Propionitrile (5.430)+
-1,2-Dichloroethane-D4 (5.549)+
-1,2-Dichloroethane (5.651)
-Isobutyl Alcohol (5.825)
-Methylcyclohexane (6.181)+
-1,4-Difluorobenzene (6.309)
-Dibromomethane (6.826)
-1,2-Dichloropropane (6.973)
-Bromodichloromethane (7.095)
-Methyl Methacrylate (7.387)+
-cis-1,3-dichloropropene (7.965)
-Toluene-D8 (8.206)
-Toluene (8.270)
-Tetrachloroethene (8.751)
-4-Methyl-2-pentanone (8.828)+
-1,1,2-Trichloroethane (9.046)
-Ethyl Methacrylate (9.120)
-Dibromochloromethane (9.252)
-1,3-Dichloropropane (9.377)
-1,2-Dibromoethane (9.512)
-2-Hexanone (9.906)
-Total Alkylbenzenes (10.080)
-Chlorobenzene-D5 (10.185)+
-Ethylbenzene (10.269)+
m+p-Xylenes (10.462)
-o-Xylene (10.978)
-Styrene (11.049)+
-Isopropylbenzene (11.366)
-P-Bromofluorobenzene (11.674)
-cis-1,4-Dichloro-2-Butene (11.777)+
-N-Propylbenzene (11.854)
-1,1,2,2-Tetrachloroethane (11.960)
-2-Chlorotoluene (12.005)
-trans-1,4-Dichloro-2-Bute (12.153)
-4-Chlorotoluene (12.201)
-1,2,3-Trichloropropane (12.095)+
-tert-Butylbenzene (12.448)
-1,2,4-Trimethylbenzene (12.528)
-sec-Butylbenzene (12.647)
-P-Isopropyltoluene (12.820)+
-1,4-Dichlorobenzene-D4 (12.958)+
-1,3,5-Trimethylbenzene (13.009)
-N-Butylbenzene (13.285)
-1,2-Dichlorobenzene (13.420)
-1,2-Dibromo-3-Chloropropa (14.341)+
-Hexachlorobutadiene (15.044)+
-Naphthalene (15.400)
-1,2,3-Trichlorobenzene (15.596)

Data File: \\target_server\gg\chem\gcms-w.i\W092421.b\W0210.D
Report Date: 11-Oct-2021 14:14

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-w.i\W092421.b\W0210.D
Lab Smp Id: WG306608-7
Inj Date : 24-SEP-2021 09:02
Operator : ES   Inst ID: gcms-w.i
Smp Info : WG306608-7
Misc Info :
Comment   : SW846 5030
Method   : \\target_server\gg\chem\gcms-w.i\W092421.b\W8A05(08A).m
Meth Date : 08-Oct-2021 09:51 gcms-w.i   Quant Type: ISTD
Cal Date : 24-SEP-2021 09:02   Cal File: W0210.D
Als bottle: 5   Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE   Compound Sublist: all.sub
Target Version: 4.12

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)	REVIEW CODE
1	Dichlorodifluoromethane	85	1.277	1.274	(0.231)	625040	75.0000	75.2	
2	Chloromethane	50	1.409	1.409	(0.255)	712203	75.0000	75.4	
3	Vinyl chloride	62	1.460	1.460	(0.264)	627472	75.0000	75.7	
4	Bromomethane	94	1.672	1.672	(0.303)	212734	75.0000	73.8	
5	Chloroethane	64	1.755	1.753	(0.318)	349370	75.0000	77.8	
6	Trichlorofluoromethane	101	1.848	1.849	(0.335)	848933	75.0000	73.2	
7	Diethyl Ether	59	2.060	2.057	(0.373)	381728	75.0000	73.6	
8	1,1-Dichloroethene	96	2.211	2.211	(0.400)	456737	75.0000	75.1	
9	Freon-113	151	2.237	2.234	(0.405)	347341	75.0000	73.5	
10	Carbon Disulfide	76	2.240	2.240	(0.405)	1126132	75.0000	74.7	
11	Iodomethane	142	2.326	2.327	(0.421)	302477	75.0000	70.9	
12	Acrolein	56	2.474	2.474	(0.448)	150773	375.000	353	
13	Allyl Chloride	41	2.583	2.584	(0.468)	800275	75.0000	77.9	
14	Methylene Chloride	84	2.673	2.673	(0.484)	501190	75.0000	77.0	
15	Acetone	43	2.721	2.722	(0.492)	785033	375.000	400	
16	trans-1,2-Dichloroethene	96	2.811	2.811	(0.509)	482408	75.0000	75.0	
17	Methyl Acetate	43	2.827	2.827	(0.512)	404957	75.0000	71.9	
18	Methyl tert-butyl ether	73	2.907	2.911	(0.526)	1115874	75.0000	71.7	
19	Tertiary-butyl alcohol	59	3.010	3.010	(0.545)	138607	375.000	334	
20	Acetonitrile	41	3.161	3.161	(0.572)	531512	750.000	707	
21	Di-isopropyl ether	45	3.283	3.283	(0.594)	1598002	75.0000	75.4	
22	Chloroprene	53	3.389	3.386	(0.613)	842034	75.0000	73.1	
23	1,1-Dichloroethane	63	3.417	3.415	(0.618)	945597	75.0000	74.8	
24	Acrylonitrile	52	3.485	3.485	(0.631)	644130	375.000	357	

Data File: \\target_server\gg\chem\gcms-w.i\W092421.b\W0210.D
Report Date: 11-Oct-2021 14:14

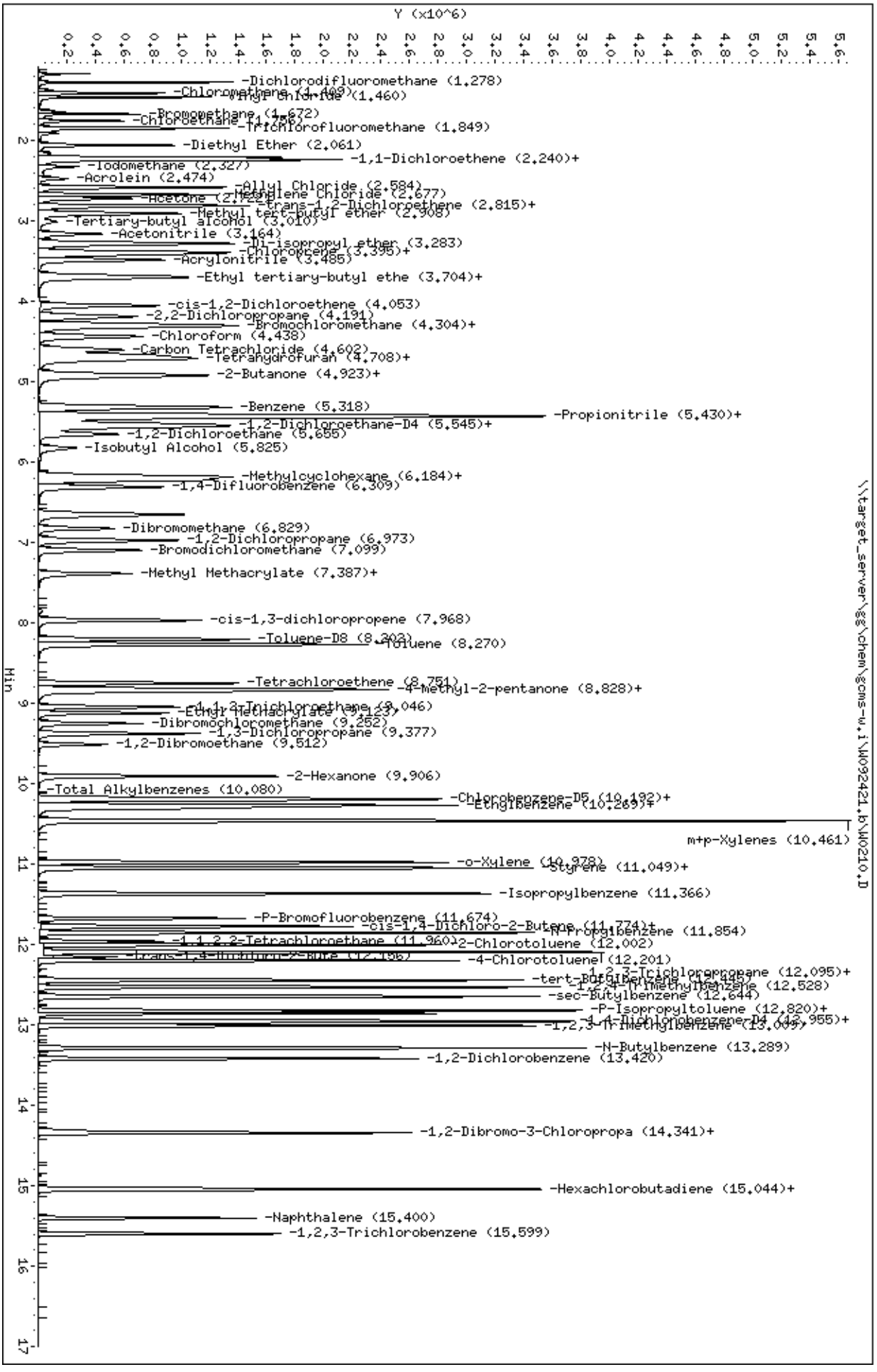
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)	REVIEW CODE
	25 Ethyl tertiary-butyl ether	59	3.693	3.691	(0.668)	1162933	75.0000	75.6	
	26 Vinyl Acetate	43	3.709	3.710	(0.588)	686869	75.0000	71.2	
	27 cis-1,2-Dichloroethene	96	4.056	4.050	(0.734)	488153	75.0000	75.7	
	28 2,2-Dichloropropane	77	4.191	4.191	(0.758)	619496	75.0000	71.0	
	29 Bromochloromethane	128	4.322	4.320	(0.782)	195235	75.0000	76.9	
	30 Cyclohexane	56	4.293	4.293	(0.777)	840007	75.0000	74.6	
	31 Chloroform	83	4.438	4.438	(0.803)	860034	75.0000	75.8	
	32 Carbon Tetrachloride	117	4.602	4.608	(0.729)	619855	75.0000	71.6	
	33 Tetrahydrofuran	42	4.669	4.669	(0.845)	727414	375.000	353	
$	34 Dibromofluoromethane	113	4.711	4.714	(0.853)	288361	50.0000	49.9	
	35 1,1,1-Trichloroethane	97	4.720	4.721	(0.854)	776147	75.0000	73.2	
	36 2-Butanone	43	4.935	4.936	(0.893)	977607	375.000	368	
	37 1,1-Dichloropropene	75	4.916	4.916	(0.779)	683622	75.0000	74.2	
	38 Benzene	78	5.317	5.321	(0.842)	1832287	75.0000	75.9	
	39 Propionitrile	54	5.410	5.407	(0.979)	549802	750.000	696	
	40 Methacrylonitrile	41	5.429	5.430	(0.983)	2708945	750.000	724	
*	41 Pentafluorobenzene	168	5.526	5.520	(1.000)	571285	50.0000		
$	42 1,2-Dichloroethane-D4	65	5.545	5.549	(1.003)	389019	50.0000	48.8	
	43 Tertiary-amyl methyl ether	73	5.558	5.558	(1.006)	879377	75.0000	72.3	
	44 1,2-Dichloroethane	62	5.654	5.655	(0.896)	667257	75.0000	73.2	
	45 Isobutyl Alcohol	43	5.824	5.825	(1.054)	270572	1500.00	1410	
	46 Methylcyclohexane	83	6.180	6.181	(1.118)	828521	75.0000	73.7	
	47 Trichloroethene	95	6.222	6.226	(0.986)	462297	75.0000	72.9	
*	48 1,4-Difluorobenzene	114	6.312	6.312	(1.000)	936768	50.0000		
	49 Dibromomethane	93	6.828	6.826	(1.082)	270056	75.0000	72.5	
	50 1,2-Dichloropropane	63	6.973	6.973	(1.105)	484027	75.0000	74.9	
	51 Bromodichloromethane	83	7.098	7.099	(1.125)	637061	75.0000	73.8	
	52 Methyl Methacrylate	41	7.384	7.384	(1.170)	389969	75.0000	68.8	
	53 Ethyl Methacrylate	69	9.120	9.123	(1.445)	510533	75.0000	69.8	
	54 1,4-Dioxane	88	7.403	7.403	(1.173)	79131	1500.00	1550	
M	55 Total Alkylbenzenes	100				14935375	75.0000	(a)	
	57 cis-1,3-dichloropropene	75	7.968	7.968	(1.262)	753074	75.0000	72.6	
$	58 Toluene-D8	98	8.202	8.202	(1.299)	1115877	50.0000	49.2	
	59 Toluene	92	8.269	8.270	(1.310)	1144035	75.0000	74.7	
	60 Tetrachloroethene	164	8.751	8.751	(0.860)	383421	75.0000	74.0	
	61 4-methyl-2-pentanone	43	8.824	8.825	(1.398)	1890258	375.000	351	
	62 trans-1,3-Dichloropropene	75	8.850	8.854	(1.402)	663614	75.0000	71.0	
	63 1,1,2-Trichloroethane	83	9.043	9.050	(1.433)	315295	75.0000	73.1	
	64 Dibromochloromethane	129	9.254	9.252	(0.909)	448619	75.0000	72.4	
	65 1,3-Dichloropropane	76	9.376	9.377	(0.921)	717098	75.0000	73.4	
	66 1,2-Dibromoethane	107	9.511	9.512	(1.507)	375014	75.0000	72.5	
	67 2-Hexanone	43	9.906	9.903	(0.973)	1273291	375.000	359	
*	68 Chlorobenzene-D5	117	10.179	10.182	(1.000)	942652	50.0000		
	69 Chlorobenzene	112	10.201	10.198	(1.002)	1272987	75.0000	75.2	
	70 Ethylbenzene	91	10.268	10.269	(1.009)	2259427	75.0000	76.3	
	71 1,1,1,2-Tetrachloroethane	131	10.301	10.301	(1.012)	442881	75.0000	72.8	
	72 m+p-Xylenes	91	10.461	10.461	(1.028)	3450618	150.000	157	
	73 o-Xylene	91	10.978	10.978	(1.078)	1773215	75.0000	75.1	
	74 Styrene	104	11.048	11.049	(1.085)	1430554	75.0000	74.5	
	75 Bromoform	173	11.048	11.049	(1.085)	280439	75.0000	68.6	
	76 Isopropylbenzene	105	11.366	11.366	(0.878)	2244666	75.0000	76.8	
$	77 P-Bromofluorobenzene	95	11.677	11.674	(1.850)	495634	50.0000	50.0	
	78 cis-1,4-Dichloro-2-Butene	53	11.786	11.790	(0.911)	123211	75.0000	64.8	
	79 Bromobenzene	156	11.773	11.774	(0.910)	530525	75.0000	74.9	

Data File: \\target_server\gg\chem\gcms-w.i\W092421.b\W0210.D
Report Date: 11-Oct-2021 14:14

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)	REVIEW CODE
	80 N-Propylbenzene	91	11.854	11.854	(0.916)	2733783	75.0000	78.8	
	81 1,1,2,2-Tetrachloroethane	83	11.960	11.960	(0.924)	447458	75.0000	71.8	
	82 2-Chlorotoluene	91	12.004	12.005	(0.927)	1603266	75.0000	76.0	
	83 1,2,3-Trichloropropane	75	12.085	12.082	(0.934)	404613	75.0000	69.1	
	84 1,3,5-Trimethylbenzene	105	12.094	12.098	(0.934)	1877592	75.0000	75.4	
	85 trans-1,4-Dichloro-2-Butene	53	12.155	12.153	(0.939)	126006	75.0000	65.0	
	86 4-Chlorotoluene	91	12.200	12.198	(0.942)	1690770	75.0000	76.4	
	87 tert-Butylbenzene	119	12.441	12.445	(0.961)	1678431	75.0000	75.5	
	89 1,2,4-Trimethylbenzene	105	12.528	12.528	(0.968)	1935356	75.0000	76.3	
	90 sec-Butylbenzene	105	12.643	12.644	(0.977)	2474727	75.0000	76.9	
	91 P-Isopropyltoluene	119	12.820	12.820	(0.990)	2144315	75.0000	76.0	
	92 1,3-Dichlorobenzene	146	12.855	12.855	(0.993)	1065151	75.0000	74.6	
*	93 1,4-Dichlorobenzene-D4	152	12.945	12.942	(1.000)	540779	50.0000		
	94 1,4-Dichlorobenzene	146	12.961	12.961	(1.001)	1093586	75.0000	74.2	
	95 1,2,3-Trimethylbenzene	105	13.009	13.009	(1.005)	1896195	75.0000	76.0	
	96 N-Butylbenzene	91	13.288	13.285	(1.027)	2091171	75.0000	76.2	
M	97 1,2-Dichloroethylene (total)	96				970561	75.0000	(a)	
	98 1,2-Dichlorobenzene	146	13.420	13.417	(1.037)	986345	75.0000	74.2	
	99 1,2-Dibromo-3-Chloropropane	157	14.308	14.312	(1.105)	76022	75.0000	66.1	
	100 1,3,5-Trichlorobenzene	180	14.341	14.341	(1.108)	760161	75.0000	72.8	
	101 Hexachlorobutadiene	225	15.037	15.037	(1.162)	358438	75.0000	69.8	
	102 1,2,4-Trichlorobenzene	180	15.050	15.047	(1.163)	633115	75.0000	70.7	
	103 Naphthalene	128	15.399	15.400	(1.190)	1070794	75.0000	68.1	
	104 1,2,3-Trichlorobenzene	180	15.598	15.599	(1.205)	482735	75.0000	70.3	
M	105 Xylenes (total)	106				5223833	225.000	(a)	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).


Data File: \\target_server\gg\chem\gcms-w.i\W092421.b\W0210.D
Date : 24-SEP-2021 09:02
Client ID:
Sample Info: WG306608-7
Purge Volume: 5.0
Column phase: RTX-VMS
Instrument: gcms-w.i
Operator: ES
Column diameter: 0.18
\\target_server\gg\chem\gcms-w.i\W092421.b\W0210.D
Y (x10^6)
Min
-Dichlorodifluoromethane (1.278)
-Chloromethane (1.402)
-Vinyl Chloride (1.460)
-Bromomethane (1.672)
-Chloroethane (1.760)
-Trichlorofluoromethane (1.849)
-Diethyl Ether (2.061)
-1,1-Dichloroethene (2.240)+
-Iodomethane (2.327)
-Acrolein (2.474)
-Allyl Chloride (2.584)
-Methylene Chloride (2.677)
-Acetone (2.722)
-trans-1,2-Dichloroethene (2.815)+
-Methyl tert-butyl ether (2.908)
-Tertiary-butyl alcohol (3.010)
-Acetonitrile (3.164)
-Di-isopropyl ether (3.283)
-Chloroprene (3.395)+
-Acrylonitrile (3.485)
-Ethyl tertiary-butyl ethe (3.704)+
-cis-1,2-Dichloroethene (4.053)
-2,2-Dichloropropane (4.191)
-Bromochloromethane (4.304)+
-Chloroform (4.438)
-Carbon Tetrachloride (4.602)
-Tetrahydrofuran (4.708)+
-2-Butanone (4.923)+
-Benzene (5.318)
-Propionitrile (5.430)+
-1,2-Dichloroethane-D4 (5.545)+
-1,2-Dichloroethane (5.655)
-Isobutyl Alcohol (5.825)
-Methylcyclohexane (6.184)+
-1,4-Difluorobenzene (6.309)
-Dibromomethane (6.829)
-1,2-Dichloropropane (6.973)
-Bromodichloromethane (7.099)
-Methyl Methacrylate (7.387)+
-cis-1,3-dichloropropene (7.968)
-Toluene-D8 (8.202)
-Toluene (8.270)
-Tetrachloroethene (8.751)
-4-Methyl-2-pentanone (8.828)+
-1,1,2-Trichloroethane (9.046)
-Ethyl Methacrylate (9.123)
-Dibromochloromethane (9.252)
-1,3-Dichloropropane (9.377)
-1,2-Dibromoethane (9.512)
-2-Hexanone (9.906)
-Total Alkylbenzenes (10.080)
-Chlorobenzene-D5 (10.192)+
-Ethylbenzene (10.269)+
m+p-Xylenes (10.461)
-o-Xylene (10.978)
-Styrene (11.049)+
-Isopropylbenzene (11.366)
-P-Bromofluorobenzene (11.674)
-cis-1,4-Dichloro-2-Butene (11.774)+
-N-Propylbenzene (11.854)
-1,1,2,2-Tetrachloroethane (11.960)
-2-Chlorotoluene (12.002)
-trans-1,4-Dichloro-2-Bute (12.106)
-4-Chlorotoluene (12.201)
-1,2,3-Trichloropropane (12.095)+
-tert-Butylbenzene (12.445)
-1,2,4-Trimethylbenzene (12.528)
-sec-Butylbenzene (12.644)
-P-Isopropyltoluene (12.820)+
-1,4-Dichlorobenzene-D4 (12.955)+
-1,3-Dichlorobenzene (13.009)
-1,2,3-Trimethylbenzene (13.009)
-N-Butylbenzene (13.289)
-1,2-Dichlorobenzene (13.420)
-1,2-Dibromo-3-Chloropropa (14.341)+
-Hexachlorobutadiene (15.044)+
-Naphthalene (15.400)
-1,2,3-Trichlorobenzene (15.599)

Data File: \\target_server\gg\chem\gcms-w.i\W092421.b\W0211.D
Report Date: 11-Oct-2021 14:14

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-w.i\W092421.b\W0211.D
Lab Smp Id: WG306608-4
Inj Date : 24-SEP-2021 09:33
Operator : ES   Inst ID: gcms-w.i
Smp Info : WG306608-4
Misc Info :
Comment   : SW846 5030
Method   : \\target_server\gg\chem\gcms-w.i\W092421.b\W8A05(08A).m
Meth Date : 08-Oct-2021 09:51 gcms-w.i   Quant Type: ISTD
Cal Date : 24-SEP-2021 09:33   Cal File: W0211.D
Als bottle: 6   Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE   Compound Sublist: all.sub
Target Version: 4.12

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)	REVIEW CODE
1	Dichlorodifluoromethane	85	1.274	1.274	(0.231)	415076	50.0000	49.5	
2	Chloromethane	50	1.409	1.409	(0.255)	485673	50.0000	51.0	
3	Vinyl chloride	62	1.460	1.460	(0.265)	422194	50.0000	50.4	
4	Bromomethane	94	1.672	1.672	(0.303)	133386	50.0000	46.0	
5	Chloroethane	64	1.752	1.753	(0.317)	235887	50.0000	51.5	
6	Trichlorofluoromethane	101	1.848	1.849	(0.335)	561884	50.0000	48.5	
7	Diethyl Ether	59	2.057	2.057	(0.373)	256654	50.0000	49.4	
8	1,1-Dichloroethene	96	2.211	2.211	(0.401)	297515	50.0000	48.5	
9	Freon-113	151	2.233	2.234	(0.405)	234327	50.0000	49.6	
10	Carbon Disulfide	76	2.240	2.240	(0.406)	744427	50.0000	49.1	
11	Iodomethane	142	2.326	2.327	(0.422)	172782	50.0000	42.9	
12	Acrolein	56	2.474	2.474	(0.448)	109894	250.000	261	
13	Allyl Chloride	41	2.583	2.584	(0.468)	523641	50.0000	50.0	
14	Methylene Chloride	84	2.673	2.673	(0.484)	348446	50.0000	52.9	
15	Acetone	43	2.721	2.722	(0.493)	553852	250.000	278	
16	trans-1,2-Dichloroethene	96	2.811	2.811	(0.509)	317313	50.0000	49.0	
17	Methyl Acetate	43	2.827	2.827	(0.512)	284180	50.0000	50.8	
18	Methyl tert-butyl ether	73	2.910	2.911	(0.527)	758342	50.0000	49.1	
19	Tertiary-butyl alcohol	59	3.010	3.010	(0.545)	106855	250.000	296	
20	Acetonitrile	41	3.161	3.161	(0.573)	394373	500.000	525	
21	Di-isopropyl ether	45	3.283	3.283	(0.595)	1069656	50.0000	50.0	
22	Chloroprene	53	3.385	3.386	(0.613)	569636	50.0000	49.5	
23	1,1-Dichloroethane	63	3.414	3.415	(0.619)	628292	50.0000	49.4	
24	Acrylonitrile	52	3.485	3.485	(0.631)	465927	250.000	260	

Data File: \\target_server\gg\chem\gcms-w.i\W092421.b\W0211.D
Report Date: 11-Oct-2021 14:14

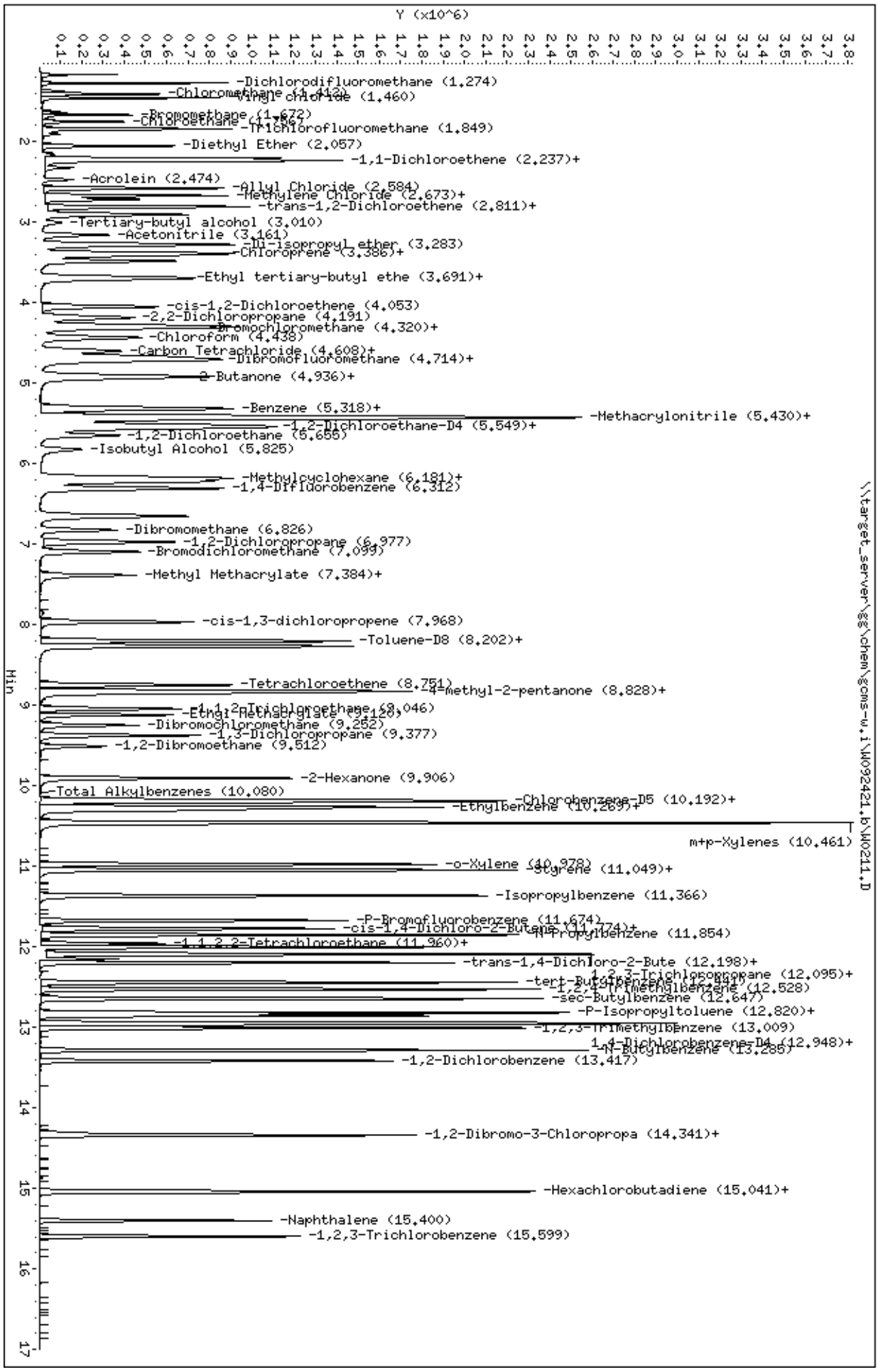
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)	REVIEW CODE
	25 Ethyl tertiary-butyl ether	59	3.690	3.691	(0.669)	786907	50.0000	50.6	
	26 Vinyl Acetate	43	3.709	3.710	(0.588)	471530	50.0000	49.3	
	27 cis-1,2-Dichloroethene	96	4.050	4.050	(0.734)	321092	50.0000	49.3	
	28 2,2-Dichloropropane	77	4.191	4.191	(0.759)	401720	50.0000	46.0	
	29 Bromochloromethane	128	4.319	4.320	(0.783)	132965	50.0000	51.5	
	30 Cyclohexane	56	4.293	4.293	(0.778)	556970	50.0000	49.2	
	31 Chloroform	83	4.438	4.438	(0.804)	571088	50.0000	49.8	
	32 Carbon Tetrachloride	117	4.608	4.608	(0.730)	402347	50.0000	46.8	
	33 Tetrahydrofuran	42	4.669	4.669	(0.846)	527465	250.000	259	
$	34 Dibromofluoromethane	113	4.714	4.714	(0.854)	280522	50.0000	48.2	
	35 1,1,1-Trichloroethane	97	4.720	4.721	(0.855)	515534	50.0000	48.6	
	36 2-Butanone	43	4.935	4.936	(0.894)	712640	250.000	268	
	37 1,1-Dichloropropene	75	4.916	4.916	(0.779)	454272	50.0000	49.0	
	38 Benzene	78	5.320	5.321	(0.843)	1224876	50.0000	50.0	
	39 Propionitrile	54	5.407	5.407	(0.980)	405699	500.000	522	
	40 Methacrylonitrile	41	5.429	5.430	(0.984)	1931072	500.000	518	
*	41 Pentafluorobenzene	168	5.519	5.520	(1.000)	575503	50.0000		
$	42 1,2-Dichloroethane-D4	65	5.548	5.549	(1.005)	390818	50.0000	49.0	
	43 Tertiary-amyl methyl ether	73	5.558	5.558	(1.007)	585545	50.0000	48.4	
	44 1,2-Dichloroethane	62	5.654	5.655	(0.896)	446098	50.0000	48.9	
	45 Isobutyl Alcohol	43	5.824	5.825	(1.055)	204534	1000.00	1080	
	46 Methylcyclohexane	83	6.180	6.181	(1.120)	559612	50.0000	49.7	
	47 Trichloroethene	95	6.225	6.226	(0.986)	303084	50.0000	47.8	
*	48 1,4-Difluorobenzene	114	6.312	6.312	(1.000)	945716	50.0000		
	49 Dibromomethane	93	6.825	6.826	(1.081)	180740	50.0000	48.6	
	50 1,2-Dichloropropane	63	6.973	6.973	(1.105)	322270	50.0000	49.4	
	51 Bromodichloromethane	83	7.098	7.099	(1.125)	411905	50.0000	47.5	
	52 Methyl Methacrylate	41	7.384	7.384	(1.170)	271567	50.0000	48.8	
	53 Ethyl Methacrylate	69	9.123	9.123	(1.445)	346467	50.0000	47.4	
	54 1,4-Dioxane	88	7.403	7.403	(1.173)	62985	1000.00	1160	
M	55 Total Alkylbenzenes	100				9928460	50.0000	(a)	
	57 cis-1,3-dichloropropene	75	7.968	7.968	(1.262)	483877	50.0000	46.7	
$	58 Toluene-D8	98	8.202	8.202	(1.299)	1134280	50.0000	49.8	
	59 Toluene	92	8.269	8.270	(1.310)	760187	50.0000	49.2	
	60 Tetrachloroethene	164	8.751	8.751	(0.859)	253031	50.0000	49.4	
	61 4-methyl-2-pentanone	43	8.824	8.825	(1.398)	1369078	250.000	258	
	62 trans-1,3-Dichloropropene	75	8.853	8.854	(1.403)	427649	50.0000	46.2	
	63 1,1,2-Trichloroethane	83	9.049	9.050	(1.434)	211997	50.0000	49.1	
	64 Dibromochloromethane	129	9.251	9.252	(0.909)	291265	50.0000	47.9	
	65 1,3-Dichloropropane	76	9.376	9.377	(0.921)	479486	50.0000	49.8	
	66 1,2-Dibromoethane	107	9.511	9.512	(1.507)	251961	50.0000	48.8	
	67 2-Hexanone	43	9.903	9.903	(0.973)	915409	250.000	264	
*	68 Chlorobenzene-D5	117	10.182	10.182	(1.000)	935138	50.0000		
	69 Chlorobenzene	112	10.198	10.198	(1.002)	841542	50.0000	50.0	
	70 Ethylbenzene	91	10.268	10.269	(1.009)	1505782	50.0000	51.0	
	71 1,1,1,2-Tetrachloroethane	131	10.301	10.301	(1.012)	282373	50.0000	47.2	
	72 m+p-Xylenes	91	10.461	10.461	(1.027)	2316771	100.000	105	
	73 o-Xylene	91	10.978	10.978	(1.078)	1170913	50.0000	50.0	
	74 Styrene	104	11.048	11.049	(1.085)	940065	50.0000	49.5	
	75 Bromoform	173	11.048	11.049	(1.085)	182764	50.0000	46.4	
	76 Isopropylbenzene	105	11.366	11.366	(0.878)	1501255	50.0000	52.6	
$	77 P-Bromofluorobenzene	95	11.674	11.674	(1.849)	490891	50.0000	49.0	
	78 cis-1,4-Dichloro-2-Butene	53	11.789	11.790	(0.911)	82682	50.0000	53.7	
	79 Bromobenzene	156	11.773	11.774	(0.910)	344006	50.0000	50.2	

Data File: \\target_server\gg\chem\gcms-w.i\W092421.b\W0211.D
Report Date: 11-Oct-2021 14:14

			QUANT SIG					AMOUNTS		
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)	REVIEW CODE
	80	N-Propylbenzene	91	11.854	11.854	(0.916)	1840666	50.0000	53.9	
	81	1,1,2,2-Tetrachloroethane	83	11.960	11.960	(0.924)	307233	50.0000	51.6	
	82	2-Chlorotoluene	91	12.004	12.005	(0.928)	1057007	50.0000	51.5	
	83	1,2,3-Trichloropropane	75	12.081	12.082	(0.934)	282148	50.0000	51.1	
	84	1,3,5-Trimethylbenzene	105	12.098	12.098	(0.935)	1242530	50.0000	51.4	
	85	trans-1,4-Dichloro-2-Butene	53	12.152	12.153	(0.939)	87181	50.0000	55.3	
	86	4-Chlorotoluene	91	12.197	12.198	(0.942)	1113455	50.0000	51.6	
	87	tert-Butylbenzene	119	12.444	12.445	(0.962)	1102769	50.0000	51.1	
	89	1,2,4-Trimethylbenzene	105	12.528	12.528	(0.968)	1279328	50.0000	51.8	
	90	sec-Butylbenzene	105	12.643	12.644	(0.977)	1661948	50.0000	52.9	
	91	P-Isopropyltoluene	119	12.820	12.820	(0.991)	1411957	50.0000	51.4	
	92	1,3-Dichlorobenzene	146	12.855	12.855	(0.993)	695758	50.0000	50.4	
*	93	1,4-Dichlorobenzene-D4	152	12.941	12.942	(1.000)	523681	50.0000		
	94	1,4-Dichlorobenzene	146	12.961	12.961	(1.001)	714009	50.0000	50.2	
	95	1,2,3-Trimethylbenzene	105	13.009	13.009	(1.005)	1253458	50.0000	51.6	
	96	N-Butylbenzene	91	13.285	13.285	(1.027)	1389262	50.0000	52.0	
M	97	1,2-Dichloroethylene (total)	96				638405	50.0000	(a)	
	98	1,2-Dichlorobenzene	146	13.416	13.417	(1.037)	643010	50.0000	50.1	
	99	1,2-Dibromo-3-Chloropropane	157	14.312	14.312	(1.106)	54635	50.0000	51.1	
	100	1,3,5-Trichlorobenzene	180	14.341	14.341	(1.108)	509134	50.0000	50.9	
	101	Hexachlorobutadiene	225	15.037	15.037	(1.162)	238539	50.0000	49.1	
	102	1,2,4-Trichlorobenzene	180	15.047	15.047	(1.163)	410834	50.0000	47.8	
	103	Naphthalene	128	15.400	15.400	(1.190)	748219	50.0000	49.8	
	104	1,2,3-Trichlorobenzene	180	15.598	15.599	(1.205)	334425	50.0000	51.3	
M	105	Xylenes (total)	106				3487684	150.000	(a)	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).


Data File: \\target_server\gg\chem\gcms-w.i\W092421.b\W0211.D
Date : 24-SEP-2021 09:33
Client ID:
Sample Info: WG306608-4
Purge Volume: 5.0
Column phase: RTX-VMS
Instrument: gcms-w.i
Operator: ES
Column diameter: 0.18
Y (x10^6)
Min
\\target_server\gg\chem\gcms-w.i\W092421.b\W0211.D
-Dichlorodifluoromethane (1.274)
-Chloromethane (1.412)
-Vinyl chloride (1.460)
-Bromomethane (1.672)
-Chloroethane (1.761)
-Trichlorofluoromethane (1.849)
-Diethyl Ether (2.057)
-1,1-Dichloroethene (2.237)+
-Acrolein (2.474)
-Allyl Chloride (2.584)
-Methylene Chloride (2.673)+
-trans-1,2-Dichloroethene (2.811)+
-Tertiary-butyl alcohol (3.010)
-Acetonitrile (3.161)
-Di-isopropyl ether (3.283)
-Chloroprene (3.386)+
-Ethyl tertiary-butyl ethe (3.691)+
-cis-1,2-Dichloroethene (4.053)
-2,2-Dichloropropane (4.191)
-Bromochloromethane (4.320)+
-Chloroform (4.438)
-Carbon Tetrachloride (4.608)+
-Dibromofluoromethane (4.714)+
-2-Butanone (4.936)+
-Benzene (5.318)+
-Methacrylonitrile (5.430)+
-1,2-Dichloroethane-D4 (5.549)+
-1,2-Dichloroethane (5.655)
-Isobutyl Alcohol (5.825)
-Methylcyclohexane (6.181)+
-1,4-Difldorobenzene (6.312)
-Dibromomethane (6.826)
-1,2-Dichloropropane (6.977)
-Bromodichloromethane (7.099)
-Methyl Methacrylate (7.384)+
-cis-1,3-dichloropropene (7.968)
-Toluene-D8 (8.202)+
-Tetrachloroethene (8.751)
-4-methyl-2-pentanone (8.828)+
-1,1,2-Trichloroethane (9.046)
-Ethyl Methacrylate (9.126)
-Dibromochloromethane (9.252)
-1,3-Dichloropropane (9.377)
-1,2-Dibromoethane (9.512)
-2-Hexanone (9.906)
-Total Alkylbenzenes (10.080)
-Chlorobenzene-D5 (10.192)+
-Ethylbenzene (10.269)+
m+p-Xylenes (10.461)
-o-Xylene (10.978)
-Styrene (11.049)+
-Isopropylbenzene (11.366)
-P-Bromofluorobenzene (11.674)
-cis-1,4-Dichloro-2-Butene (11.774)+
-N-Propylbenzene (11.854)
-1,1,2,2-Tetrachloroethane (11.960)+
-trans-1,4-Dichloro-2-Bute (12.198)+
-1,2,3-Trichloropropane (12.095)+
-tert-Butylbenzene (12.341)
-1,2,4-Trimethylbenzene (12.528)
-sec-Butylbenzene (12.647)
-P-Isopropyltoluene (12.820)+
-1,2,3-Trimethylbenzene (13.009)
-1,4-Dichlorobenzene-D4 (12.948)+
-N-Butylbenzene (13.285)
-1,2-Dichlorobenzene (13.417)
-1,2-Dibromo-3-Chloropropa (14.341)+
-Hexachlorobutadiene (15.041)+
-Naphthalene (15.400)
-1,2,3-Trichlorobenzene (15.599)

Data File: \\target_server\gg\chem\gcms-w.i\W092421.b\W0212.D
Report Date: 11-Oct-2021 14:14

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-w.i\W092421.b\W0212.D
Lab Smp Id: WG306608-3
Inj Date : 24-SEP-2021 10:03
Operator : ES   Inst ID: gcms-w.i
Smp Info : WG306608-3
Misc Info :
Comment   : SW846 5030
Method   : \\target_server\gg\chem\gcms-w.i\W092421.b\W8A05(08A).m
Meth Date : 08-Oct-2021 09:51 gcms-w.i   Quant Type: ISTD
Cal Date : 24-SEP-2021 10:03   Cal File: W0212.D
Als bottle: 7   Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE   Compound Sublist: all.sub
Target Version: 4.12

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)	REVIEW CODE
1	Dichlorodifluoromethane	85	1.277	1.274	(0.231)	168077	20.0000	20.0	
2	Chloromethane	50	1.412	1.409	(0.256)	199356	20.0000	20.8	
3	Vinyl chloride	62	1.460	1.460	(0.264)	172719	20.0000	20.5	
4	Bromomethane	94	1.672	1.672	(0.303)	53828	20.0000	18.6	
5	Chloroethane	64	1.758	1.753	(0.318)	101549	20.0000	22.0	
6	Trichlorofluoromethane	101	1.848	1.849	(0.335)	227843	20.0000	19.8	
7	Diethyl Ether	59	2.060	2.057	(0.373)	102127	20.0000	19.7	
8	1,1-Dichloroethene	96	2.214	2.211	(0.401)	124044	20.0000	20.3	
9	Freon-113	151	2.237	2.234	(0.405)	91809	20.0000	19.4	
10	Carbon Disulfide	76	2.240	2.240	(0.406)	295850	20.0000	19.6	
11	Iodomethane	142	2.330	2.327	(0.422)	53796	20.0000	14.3	
12	Acrolein	56	2.480	2.474	(0.449)	43793	100.000	102	
13	Allyl Chloride	41	2.583	2.584	(0.468)	201804	20.0000	19.2	
14	Methylene Chloride	84	2.676	2.673	(0.485)	163456	20.0000	24.7	
15	Acetone	43	2.724	2.722	(0.493)	193824	100.000	96.2	
16	trans-1,2-Dichloroethene	96	2.811	2.811	(0.509)	128919	20.0000	20.0	
17	Methyl Acetate	43	2.827	2.827	(0.512)	111774	20.0000	19.8	
18	Methyl tert-butyl ether	73	2.907	2.911	(0.526)	301728	20.0000	19.6	
19	Tertiary-butyl alcohol	59	3.007	3.010	(0.544)	45721	100.000	124	
20	Acetonitrile	41	3.161	3.161	(0.572)	158857	200.000	210	
21	Di-isopropyl ether	45	3.283	3.283	(0.594)	425194	20.0000	19.8	
22	Chloroprene	53	3.385	3.386	(0.613)	228468	20.0000	19.9	
23	1,1-Dichloroethane	63	3.417	3.415	(0.619)	250921	20.0000	19.7	
24	Acrylonitrile	52	3.485	3.485	(0.631)	186192	100.000	103	

Data File: \\target_server\gg\chem\gcms-w.i\W092421.b\W0212.D
Report Date: 11-Oct-2021 14:14

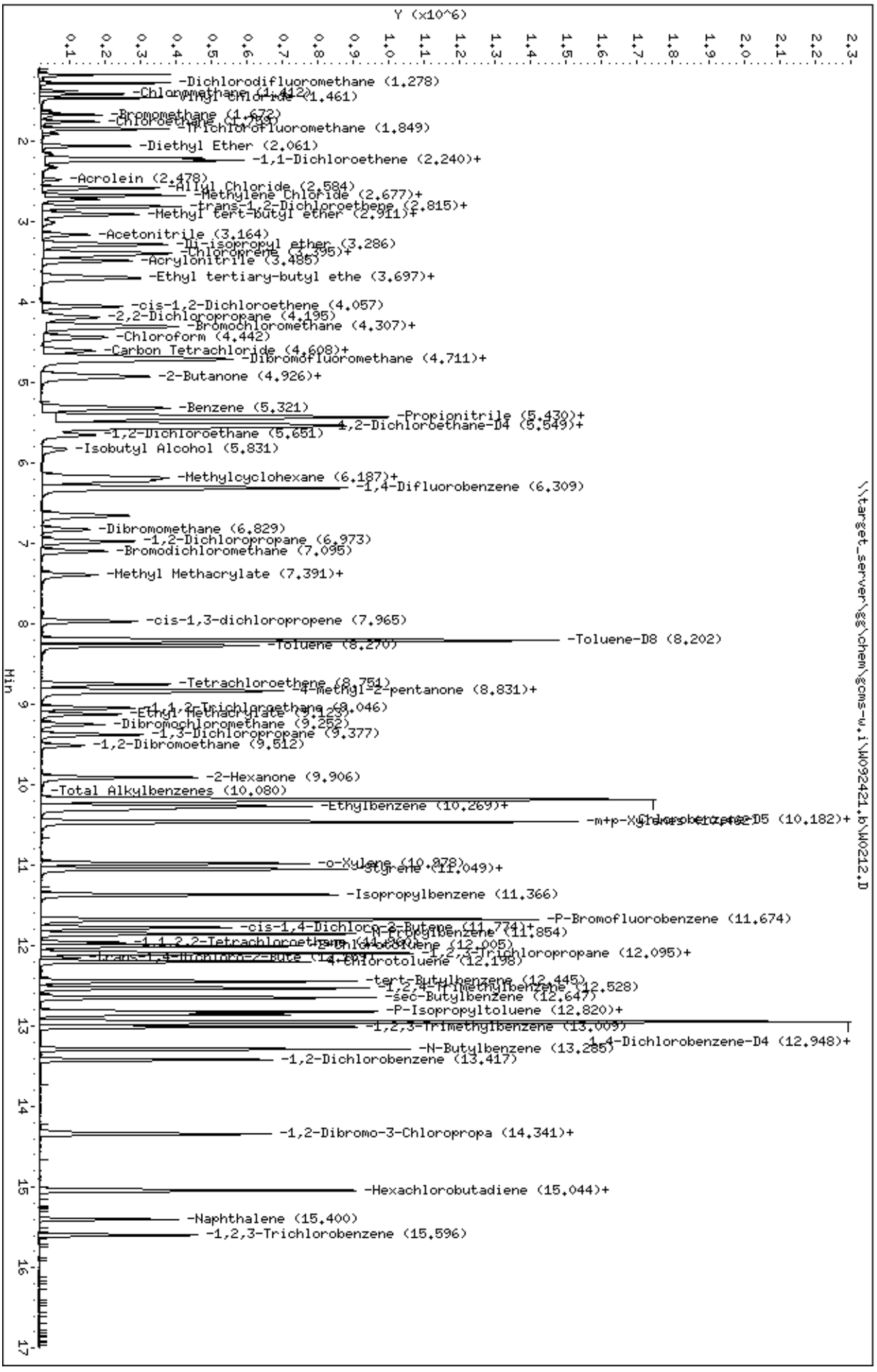
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)	REVIEW CODE
	25 Ethyl tertiary-butyl ether	59	3.690	3.691	(0.668)	303435	20.0000	19.4	
	26 Vinyl Acetate	43	3.713	3.710	(0.589)	181803	20.0000	19.0	
	27 cis-1,2-Dichloroethene	96	4.053	4.050	(0.734)	129205	20.0000	19.8	
	28 2,2-Dichloropropane	77	4.194	4.191	(0.759)	142470	20.0000	16.4	
	29 Bromochloromethane	128	4.319	4.320	(0.782)	54505	20.0000	20.9	
	30 Cyclohexane	56	4.293	4.293	(0.777)	220988	20.0000	19.6	
	31 Chloroform	83	4.441	4.438	(0.804)	225473	20.0000	19.6	
	32 Carbon Tetrachloride	117	4.608	4.608	(0.730)	150983	20.0000	17.7	
	33 Tetrahydrofuran	42	4.675	4.669	(0.847)	208656	100.000	101	
$	34 Dibromofluoromethane	113	4.711	4.714	(0.853)	290223	50.0000	50.2	
	35 1,1,1-Trichloroethane	97	4.714	4.721	(0.854)	202424	20.0000	19.2	
	36 2-Butanone	43	4.935	4.936	(0.894)	265914	100.000	98.0	
	37 1,1-Dichloropropene	75	4.916	4.916	(0.779)	179635	20.0000	19.4	
	38 Benzene	78	5.317	5.321	(0.843)	487174	20.0000	19.8	
	39 Propionitrile	54	5.410	5.407	(0.980)	160251	200.000	204	
	40 Methacrylonitrile	41	5.433	5.430	(0.984)	764574	200.000	203	
*	41 Pentafluorobenzene	168	5.522	5.520	(1.000)	576825	50.0000		
$	42 1,2-Dichloroethane-D4	65	5.548	5.549	(1.005)	393700	50.0000	49.5	
	43 Tertiary-amyl methyl ether	73	5.558	5.558	(1.006)	212304	20.0000	17.6	
	44 1,2-Dichloroethane	62	5.651	5.655	(0.896)	180981	20.0000	19.8	
	45 Isobutyl Alcohol	43	5.831	5.825	(1.056)	81210	400.000	419	
	46 Methylcyclohexane	83	6.180	6.181	(1.119)	214360	20.0000	19.0	
	47 Trichloroethene	95	6.225	6.226	(0.987)	121690	20.0000	19.3	
*	48 1,4-Difluorobenzene	114	6.309	6.312	(1.000)	950414	50.0000		
	49 Dibromomethane	93	6.822	6.826	(1.081)	72595	20.0000	19.6	
	50 1,2-Dichloropropane	63	6.970	6.973	(1.105)	126668	20.0000	19.4	
	51 Bromodichloromethane	83	7.095	7.099	(1.125)	159811	20.0000	18.6	
	52 Methyl Methacrylate	41	7.387	7.384	(1.171)	100715	20.0000	18.1	
	53 Ethyl Methacrylate	69	9.123	9.123	(1.446)	127528	20.0000	17.4	
	54 1,4-Dioxane	88	7.400	7.403	(1.173)	27616	400.000	457	
M	55 Total Alkylbenzenes	100				3901870	20.0000	(a)	
	57 cis-1,3-dichloropropene	75	7.964	7.968	(1.262)	180033	20.0000	17.6	
$	58 Toluene-D8	98	8.202	8.202	(1.300)	1124777	50.0000	49.2	
	59 Toluene	92	8.269	8.270	(1.311)	300297	20.0000	19.4	
	60 Tetrachloroethene	164	8.754	8.751	(0.860)	102115	20.0000	20.0	
	61 4-methyl-2-pentanone	43	8.828	8.825	(1.399)	540291	100.000	100	
	62 trans-1,3-Dichloropropene	75	8.850	8.854	(1.403)	154580	20.0000	16.9	
	63 1,1,2-Trichloroethane	83	9.046	9.050	(1.434)	84185	20.0000	19.5	
	64 Dibromochloromethane	129	9.251	9.252	(0.909)	108848	20.0000	18.1	
	65 1,3-Dichloropropane	76	9.373	9.377	(0.921)	188103	20.0000	19.6	
	66 1,2-Dibromoethane	107	9.511	9.512	(1.508)	97975	20.0000	19.0	
	67 2-Hexanone	43	9.906	9.903	(0.973)	352588	100.000	100	
*	68 Chlorobenzene-D5	117	10.179	10.182	(1.000)	934248	50.0000		
	69 Chlorobenzene	112	10.201	10.198	(1.002)	335665	20.0000	20.0	
	70 Ethylbenzene	91	10.268	10.269	(1.009)	601051	20.0000	20.3	
	71 1,1,1,2-Tetrachloroethane	131	10.301	10.301	(1.012)	108525	20.0000	18.4	
	72 m+p-Xylenes	91	10.461	10.461	(1.028)	928880	40.0000	41.6	
	73 o-Xylene	91	10.978	10.978	(1.078)	461629	20.0000	19.7	
	74 Styrene	104	11.048	11.049	(1.085)	363321	20.0000	19.2	
	75 Bromoform	173	11.048	11.049	(1.085)	65878	20.0000	17.0	
	76 Isopropylbenzene	105	11.366	11.366	(0.878)	589148	20.0000	20.6	
$	77 P-Bromofluorobenzene	95	11.674	11.674	(1.850)	495675	50.0000	49.5	
	78 cis-1,4-Dichloro-2-Butene	53	11.786	11.790	(0.911)	28658	20.0000	19.3	
	79 Bromobenzene	156	11.773	11.774	(0.910)	135475	20.0000	19.9	

Data File: \\target_server\gg\chem\gcms-w.i\W092421.b\W0212.D
Report Date: 11-Oct-2021 14:14

								AMOUNTS		
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)		REVIEW CODE
	80 N-Propylbenzene	91	11.854	11.854	(0.916)	731287	20.0000	21.2		
	81 1,1,2,2-Tetrachloroethane	83	11.956	11.960	(0.924)	122493	20.0000	20.6		
	82 2-Chlorotoluene	91	12.004	12.005	(0.927)	420162	20.0000	20.5		
	83 1,2,3-Trichloropropane	75	12.085	12.082	(0.934)	111019	20.0000	20.2		
	84 1,3,5-Trimethylbenzene	105	12.094	12.098	(0.934)	485886	20.0000	20.2		
	85 trans-1,4-Dichloro-2-Butene	53	12.152	12.153	(0.939)	30187	20.0000	19.7		
	86 4-Chlorotoluene	91	12.200	12.198	(0.942)	444212	20.0000	20.6		
	87 tert-Butylbenzene	119	12.444	12.445	(0.961)	429872	20.0000	20.0		
	89 1,2,4-Trimethylbenzene	105	12.528	12.528	(0.968)	497565	20.0000	20.1		
	90 sec-Butylbenzene	105	12.646	12.644	(0.977)	661254	20.0000	20.9		
	91 P-Isopropyltoluene	119	12.820	12.820	(0.990)	549392	20.0000	20.0		
	92 1,3-Dichlorobenzene	146	12.855	12.855	(0.993)	273844	20.0000	20.0		
*	93 1,4-Dichlorobenzene-D4	152	12.945	12.942	(1.000)	519030	50.0000			
	94 1,4-Dichlorobenzene	146	12.958	12.961	(1.001)	280723	20.0000	19.9		
	95 1,2,3-Trimethylbenzene	105	13.009	13.009	(1.005)	489073	20.0000	20.2		
	96 N-Butylbenzene	91	13.285	13.285	(1.026)	546614	20.0000	20.4		
M	97 1,2-Dichloroethylene (total)	96				258124	20.0000		(a)	
	98 1,2-Dichlorobenzene	146	13.416	13.417	(1.036)	255172	20.0000	20.0		
	99 1,2-Dibromo-3-Chloropropane	157	14.312	14.312	(1.106)	19067	20.0000	17.9		
	100 1,3,5-Trichlorobenzene	180	14.341	14.341	(1.108)	192896	20.0000	19.4		
	101 Hexachlorobutadiene	225	15.037	15.037	(1.162)	88455	20.0000	18.5		
	102 1,2,4-Trichlorobenzene	180	15.047	15.047	(1.162)	152524	20.0000	17.9		
	103 Naphthalene	128	15.400	15.400	(1.190)	271038	20.0000	18.2		
	104 1,2,3-Trichlorobenzene	180	15.595	15.599	(1.205)	128017	20.0000	19.7		
M	105 Xylenes (total)	106				1390509	60.0000		(a)	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).


Data File: \\target_server\gg\chem\gcms-w.i\W092421.b\W0212.D
Date : 24-SEP-2021 10:03
Client ID:
Sample Info: WG306608-3
Purge Volume: 5.0
Column phase: RTX-VMS
Instrument: gcms-w.i
Operator: ES
Column diameter: 0.18
\\target_server\gg\chem\gcms-w.i\W092421.b\W0212.D
Y (x10^6)
Min
-Dichlorodifluoromethane (1.278)
-Chloromethane (1.412)
-Vinyl Chloride (1.461)
-Bromomethane (1.672)
-Chloroethane (1.760)
-Trichlorofluoromethane (1.849)
-Diethyl Ether (2.061)
-1,1-Dichloroethene (2.240)+
-Acrolein (2.478)
-Allyl Chloride (2.584)
-Methylene Chloride (2.677)+
-trans-1,2-Dichloroethene (2.815)+
-Methyl tert-butyl ether (2.911)+
-Acetonitrile (3.164)
-Di-isopropyl ether (3.286)
-Chloroprene (3.395)+
-Acrylonitrile (3.485)
-Ethyl tertiary-butyl ethe (3.697)+
-cis-1,2-Dichloroethene (4.057)
-2,2-Dichloropropane (4.195)
-Bromochloromethane (4.307)+
-Chloroform (4.442)
-Carbon Tetrachloride (4.608)+
-Dibromofluoromethane (4.711)+
-2-Butanone (4.926)+
-Benzene (5.321)
-Propionitrile (5.430)+
4,2-Dichlorobethane-D4 (5.549)+
-1,2-Dichloroethane (5.651)
-Isobutyl Alcohol (5.831)
-Methylcyclohexane (6.187)+
-1,4-Difluorobenzene (6.309)
-Dibromomethane (6.829)
-1,2-Dichloropropane (6.973)
-Bromodichloromethane (7.095)
-Methyl Methacrylate (7.391)+
-cis-1,3-dichloropropene (7.965)
-Toluene-D8 (8.202)
-Toluene (8.270)
-Tetrachloroethene (8.754)
-4-methyl-2-pentanone (8.831)+
-1,1,2-Trichloroethane (9.046)
-Ethyl Methacrylate (9.123)
-Dibromochloromethane (9.252)
-1,3-Dichloropropane (9.377)
-1,2-Dibromoethane (9.512)
-2-Hexanone (9.906)
-Total Alkylbenzenes (10.080)
-Ethylbenzene (10.269)+
-m+p-Xylenes (10.182)+
-o-Xylene (10.878)
-Styrene (11.049)+
-Isopropylbenzene (11.366)
-P-Bromofluorobenzene (11.674)
-cis-1,4-Dichloro-2-Butene (11.774)+
-N-Propylbenzene (11.854)
-1,1,2,2-Tetrachloroethane (11.962)
-2-Chlorotoluene (12.005)
-1,2,4-Trichloropropane (12.095)+
-trans-1,4-Dichloro-2-Bute (12.141)+
-4-Chlorotoluene (12.198)
-tert-Butylbenzene (12.445)
-1,2,4-Trimethylbenzene (12.528)
-sec-Butylbenzene (12.647)
-P-Isopropyltoluene (12.820)+
-1,2,3-Trimethylbenzene (13.009)
1,4-Dichlorobenzene-D4 (12.948)+
-N-Butylbenzene (13.285)
-1,2-Dichlorobenzene (13.417)
-1,2-Dibromo-3-Chloropropa (14.341)+
-Hexachlorobutadiene (15.044)+
-Naphthalene (15.400)
-1,2,3-Trichlorobenzene (15.596)

Data File: \\target_server\gg\chem\gcms-w.i\W092421.b\W0213.D
Report Date: 11-Oct-2021 14:14

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-w.i\W092421.b\W0213.D
Lab Smp Id: WG306608-8
Inj Date : 24-SEP-2021 10:34
Operator : ES   Inst ID: gcms-w.i
Smp Info : WG306608-8
Misc Info :
Comment   : SW846 5030
Method   : \\target_server\gg\chem\gcms-w.i\W092421.b\W8A05(08A).m
Meth Date : 08-Oct-2021 09:51 gcms-w.i   Quant Type: ISTD
Cal Date : 24-SEP-2021 10:34   Cal File: W0213.D
Als bottle: 8   Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: HP RTE   Compound Sublist: all.sub
Target Version: 4.12

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)	REVIEW CODE
1	Dichlorodifluoromethane	85	1.277	1.274	(0.231)	77806	10.0000	9.5	
2	Chloromethane	50	1.412	1.409	(0.256)	98344	10.0000	10.4	
3	Vinyl chloride	62	1.460	1.460	(0.264)	81969	10.0000	10	
4	Bromomethane	94	1.672	1.672	(0.303)	25849	10.0000	9.2	
5	Chloroethane	64	1.758	1.753	(0.318)	49614	10.0000	10.8	
6	Trichlorofluoromethane	101	1.848	1.849	(0.335)	107686	10.0000	9.6	
7	Diethyl Ether	59	2.060	2.057	(0.373)	51354	10.0000	10.2	
8	1,1-Dichloroethene	96	2.211	2.211	(0.400)	59167	10.0000	9.9	
9	Freon-113	151	2.237	2.234	(0.405)	44769	10.0000	9.8	
10	Carbon Disulfide	76	2.240	2.240	(0.405)	137973	10.0000	9.4	
11	Iodomethane	142	2.333	2.327	(0.422)	16917	10.0000	4.8	
12	Acrolein	56	2.477	2.474	(0.448)	22928	50.0000	54.8	
13	Allyl Chloride	41	2.583	2.584	(0.468)	95645	10.0000	9.4	
14	Methylene Chloride	84	2.673	2.673	(0.484)	86313	10.0000	13.3	
15	Acetone	43	2.721	2.722	(0.492)	121026	50.0000	61.7	
16	trans-1,2-Dichloroethene	96	2.814	2.811	(0.509)	61307	10.0000	9.8	
17	Methyl Acetate	43	2.827	2.827	(0.512)	57819	10.0000	10.6	
18	Methyl tert-butyl ether	73	2.910	2.911	(0.527)	143777	10.0000	9.6	
19	Tertiary-butyl alcohol	59	3.013	3.010	(0.545)	22966	50.0000	63.6	
20	Acetonitrile	41	3.161	3.161	(0.572)	81766	100.000	111	
21	Di-isopropyl ether	45	3.283	3.283	(0.594)	206937	10.0000	9.9	
22	Chloroprene	53	3.392	3.386	(0.614)	110364	10.0000	9.9	
23	1,1-Dichloroethane	63	3.417	3.415	(0.619)	124139	10.0000	10.0	
24	Acrylonitrile	52	3.485	3.485	(0.631)	90820	50.0000	51.2	

Data File: \\target_server\gg\chem\gcms-w.i\W092421.b\W0213.D
Report Date: 11-Oct-2021 14:14

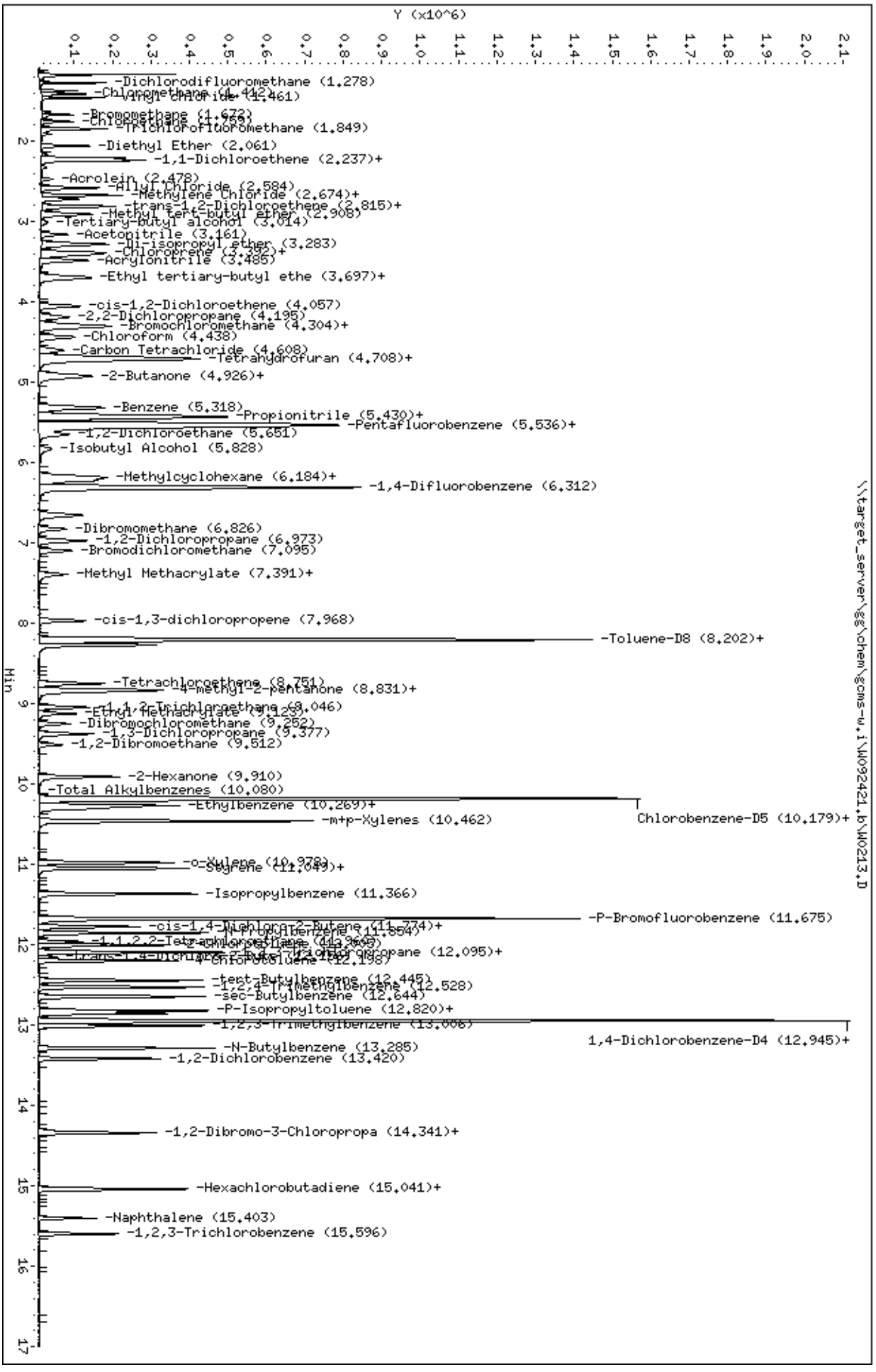
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)	REVIEW CODE
	25 Ethyl tertiary-butyl ether	59	3.687	3.691	(0.667)	143340	10.0000	9.5	
	26 Vinyl Acetate	43	3.716	3.710	(0.589)	83541	10.0000	9.1	
	27 cis-1,2-Dichloroethene	96	4.056	4.050	(0.734)	60176	10.0000	9.5	
	28 2,2-Dichloropropane	77	4.194	4.191	(0.759)	61100	10.0000	7.2	
	29 Bromochloromethane	128	4.316	4.320	(0.781)	27581	10.0000	10.8	
	30 Cyclohexane	56	4.297	4.293	(0.778)	104602	10.0000	9.5	
	31 Chloroform	83	4.438	4.438	(0.803)	109239	10.0000	9.8	
	32 Carbon Tetrachloride	117	4.605	4.608	(0.730)	67173	10.0000	8.3	
	33 Tetrahydrofuran	42	4.682	4.669	(0.847)	104764	50.0000	52.1	
$	34 Dibromofluoromethane	113	4.711	4.714	(0.853)	285411	50.0000	50.7	
	35 1,1,1-Trichloroethane	97	4.724	4.721	(0.855)	95376	10.0000	9.4	
	36 2-Butanone	43	4.939	4.936	(0.894)	136006	50.0000	51.7	
	37 1,1-Dichloropropene	75	4.916	4.916	(0.779)	83436	10.0000	9.3	
	38 Benzene	78	5.324	5.321	(0.843)	234175	10.0000	9.8	
	39 Propionitrile	54	5.407	5.407	(0.979)	78949	100.000	103	
	40 Methacrylonitrile	41	5.429	5.430	(0.983)	383669	100.000	104	
*	41 Pentafluorobenzene	168	5.526	5.520	(1.000)	561667	50.0000		
$	42 1,2-Dichloroethane-D4	65	5.545	5.549	(1.003)	389480	50.0000	50.4	
	43 Tertiary-amyl methyl ether	73	5.564	5.558	(1.007)	101024	10.0000	8.8	
	44 1,2-Dichloroethane	62	5.651	5.655	(0.895)	87421	10.0000	9.9	
	45 Isobutyl Alcohol	43	5.827	5.825	(1.055)	37403	200.000	196	
	46 Methylcyclohexane	83	6.180	6.181	(1.118)	99211	10.0000	9.1	
	47 Trichloroethene	95	6.228	6.226	(0.987)	57622	10.0000	9.5	
*	48 1,4-Difluorobenzene	114	6.312	6.312	(1.000)	923327	50.0000		
	49 Dibromomethane	93	6.822	6.826	(1.081)	35411	10.0000	9.9	
	50 1,2-Dichloropropane	63	6.973	6.973	(1.105)	59514	10.0000	9.4	
	51 Bromodichloromethane	83	7.101	7.099	(1.125)	75034	10.0000	9.1	
	52 Methyl Methacrylate	41	7.390	7.384	(1.171)	48043	10.0000	9.1	
	53 Ethyl Methacrylate	69	9.123	9.123	(1.445)	55761	10.0000	7.8	
	54 1,4-Dioxane	88	7.416	7.403	(1.175)	15854	200.000	261	
M	55 Total Alkylbenzenes	100				1811218	10.0000	(a)	
	57 cis-1,3-dichloropropene	75	7.968	7.968	(1.262)	80739	10.0000	8.3	
$	58 Toluene-D8	98	8.202	8.202	(1.299)	1094388	50.0000	49.4	
	59 Toluene	92	8.269	8.270	(1.310)	143641	10.0000	9.6	
	60 Tetrachloroethene	164	8.747	8.751	(0.859)	47836	10.0000	9.8	
	61 4-methyl-2-pentanone	43	8.831	8.825	(1.399)	257412	50.0000	49.2	
	62 trans-1,3-Dichloropropene	75	8.850	8.854	(1.402)	69826	10.0000	8.1	
	63 1,1,2-Trichloroethane	83	9.046	9.050	(1.433)	40714	10.0000	9.8	
	64 Dibromochloromethane	129	9.251	9.252	(0.909)	50411	10.0000	8.9	
	65 1,3-Dichloropropane	76	9.376	9.377	(0.921)	91606	10.0000	10.0	
	66 1,2-Dibromoethane	107	9.511	9.512	(1.507)	45799	10.0000	9.2	
	67 2-Hexanone	43	9.909	9.903	(0.973)	170395	50.0000	50.7	
*	68 Chlorobenzene-D5	117	10.182	10.182	(1.000)	893033	50.0000		
	69 Chlorobenzene	112	10.201	10.198	(1.002)	162221	10.0000	10.1	
	70 Ethylbenzene	91	10.269	10.269	(1.009)	284040	10.0000	10	
	71 1,1,1,2-Tetrachloroethane	131	10.304	10.301	(1.012)	49782	10.0000	9.0	
	72 m+p-Xylenes	91	10.461	10.461	(1.027)	440037	20.0000	20.4	
	73 o-Xylene	91	10.978	10.978	(1.078)	215114	10.0000	9.6	
	74 Styrene	104	11.048	11.049	(1.085)	168393	10.0000	9.4	
	75 Bromoform	173	11.048	11.049	(1.085)	28786	10.0000	8.0	
	76 Isopropylbenzene	105	11.366	11.366	(0.878)	279105	10.0000	10.2	
$	77 P-Bromofluorobenzene	95	11.674	11.674	(1.849)	478728	50.0000	49.3	
	78 cis-1,4-Dichloro-2-Butene	53	11.790	11.790	(0.911)	12554	10.0000	9.0	
	79 Bromobenzene	156	11.770	11.774	(0.909)	64581	10.0000	10.0	

Data File: \\target_server\gg\chem\gcms-w.i\W092421.b\W0213.D
Report Date: 11-Oct-2021 14:14

			QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)	REVIEW CODE
	80	N-Propylbenzene	91	11.851	11.854	(0.915)	346800	10.0000	10.5	
	81	1,1,2,2-Tetrachloroethane	83	11.963	11.960	(0.924)	59458	10.0000	10.5	
	82	2-Chlorotoluene	91	12.005	12.005	(0.927)	199018	10.0000	10.2	
	83	1,2,3-Trichloropropane	75	12.082	12.082	(0.933)	53528	10.0000	10.2	
	84	1,3,5-Trimethylbenzene	105	12.098	12.098	(0.935)	227748	10.0000	9.9	
	85	trans-1,4-Dichloro-2-Butene	53	12.155	12.153	(0.939)	13161	10.0000	9.2	
	86	4-Chlorotoluene	91	12.197	12.198	(0.942)	207946	10.0000	10.1	
	87	tert-Butylbenzene	119	12.444	12.445	(0.961)	198633	10.0000	9.7	
	89	1,2,4-Trimethylbenzene	105	12.531	12.528	(0.968)	233327	10.0000	9.9	
	90	sec-Butylbenzene	105	12.646	12.644	(0.977)	305780	10.0000	10.1	
	91	P-Isopropyltoluene	119	12.823	12.820	(0.991)	252565	10.0000	9.7	
	92	1,3-Dichlorobenzene	146	12.855	12.855	(0.993)	129436	10.0000	10	
*	93	1,4-Dichlorobenzene-D4	152	12.945	12.942	(1.000)	492388	50.0000		
	94	1,4-Dichlorobenzene	146	12.961	12.961	(1.001)	133765	10.0000	10.0	
	95	1,2,3-Trimethylbenzene	105	13.006	13.009	(1.005)	232586	10.0000	10.1	
	96	N-Butylbenzene	91	13.285	13.285	(1.026)	246365	10.0000	9.7	
M	97	1,2-Dichloroethylene (total)	96				121483	10.0000	(a)	
	98	1,2-Dichlorobenzene	146	13.420	13.417	(1.037)	120444	10.0000	10	
	99	1,2-Dibromo-3-Chloropropane	157	14.309	14.312	(1.105)	8964	10.0000	9.0	
	100	1,3,5-Trichlorobenzene	180	14.341	14.341	(1.108)	88426	10.0000	9.4	
	101	Hexachlorobutadiene	225	15.034	15.037	(1.161)	41990	10.0000	9.4	
	102	1,2,4-Trichlorobenzene	180	15.047	15.047	(1.162)	64894	10.0000	8.0	
	103	Naphthalene	128	15.403	15.400	(1.190)	103470	10.0000	7.3	
	104	1,2,3-Trichlorobenzene	180	15.595	15.599	(1.205)	56891	10.0000	9.2	
M	105	Xylenes (total)	106				655151	10.0000	(a)	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).


Data File: \\target_server\gg\chem\gcms-w.i\W092421.b\W0213.D
Date : 24-SEP-2021 10:34
Client ID:
Sample Info: WG306608-8
Purge Volume: 5.0
Column phase: RTX-VMS
Instrument: gcms-w.i
Operator: ES
Column diameter: 0.18
\\target_server\gg\chem\gcms-w.i\W092421.b\W0213.D
Y (x10^6)
Min
-Dichlorodifluoromethane (1.278)
-Chloromethane (1.442)
-Vinyl Chloride (1.461)
-Bromomethane (1.676)
-Chloroethane (1.764)
-Trichlorofluoromethane (1.849)
-Diethyl Ether (2.061)
-1,1-Dichloroethene (2.237)+
-Acrolein (2.478)
-Allyl Chloride (2.584)
-Methylene Chloride (2.674)+
-trans-1,2-Dichloroethene (2.815)+
-Methyl tert-butyl ether (2.908)
-Tertiary-butyl alcohol (3.014)
-Acetonitrile (3.161)
-Di-isopropyl ether (3.283)
-Chloroprene (3.332)+
-Acrylonitrile (3.485)
-Ethyl tertiary-butyl ethe (3.697)+
-cis-1,2-Dichloroethene (4.057)
-2,2-Dichloropropane (4.195)
-Bromochloromethane (4.304)+
-Chloroform (4.438)
-Carbon Tetrachloride (4.608)
-Tetrahydrofuran (4.708)+
-2-Butanone (4.926)+
-Benzene (5.318)
-Propionitrile (5.430)+
-Pentafluorobenzene (5.536)+
-1,2-Dichloroethane (5.651)
-Isobutyl Alcohol (5.828)
-Methylcyclohexane (6.184)+
-1,4-Difluorobenzene (6.312)
-Dibromomethane (6.826)
-1,2-Dichloropropane (6.973)
-Bromodichloromethane (7.095)
-Methyl Methacrylate (7.391)+
-cis-1,3-dichloropropene (7.968)
-Toluene-D8 (8.202)+
-Tetrachloroethene (8.751)
-4-methyl-2-pentanone (8.831)+
-1,1,2-Trichloroethane (9.046)
-Ethyl Methacrylate (9.125)
-Dibromochloromethane (9.252)
-1,3-Dichloropropane (9.377)
-1,2-Dibromoethane (9.512)
-2-Hexanone (9.910)
-Total Alkylbenzenes (10.080)
-Ethylbenzene (10.269)+
-m+p-Xylenes (10.462)
Chlorobenzene-D5 (10.179)+
-o-Xylene (10.978)
-Styrene (11.049)+
-Isopropylbenzene (11.366)
-P-Bromofluorobenzene (11.675)
-cis-1,4-Dichloro-2-Butene (11.774)+
-n-Propylbenzene (11.854)
-1,1,2,2-Tetrachloroethane (11.969)
-2-Chlorotoluene (12.069)
-1,2,4-Trimethylbenzene (12.095)+
-trans-1,4-Dichloro-2-Butene (12.172)+
-4-Chlorotoluene (12.198)
-tert-Butylbenzene (12.445)
-1,2,4-Trimethylbenzene (12.528)
-sec-Butylbenzene (12.644)
-P-Isopropyltoluene (12.820)+
-1,2,3-Trimethylbenzene (13.006)
1,4-Dichlorobenzene-D4 (12.945)+
-N-Butylbenzene (13.285)
-1,2-Dichlorobenzene (13.420)
-1,2-Dibromo-3-Chloropropa (14.341)+
-Hexachlorobutadiene (15.041)+
-Naphthalene (15.403)
-1,2,3-Trichlorobenzene (15.596)

Data File: \\target_server\gg\chem\gcms-w.i\W092421.b\W0214.D
Report Date: 11-Oct-2021 14:14

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-w.i\W092421.b\W0214.D
Lab Smp Id: WG306608-2
Inj Date : 24-SEP-2021 11:05
Operator : ES   Inst ID: gcms-w.i
Smp Info : WG306608-2
Misc Info :
Comment   : SW846 5030
Method   : \\target_server\gg\chem\gcms-w.i\W092421.b\W8A05(08A).m
Meth Date : 08-Oct-2021 09:51 gcms-w.i   Quant Type: ISTD
Cal Date : 24-SEP-2021 11:05   Cal File: W0214.D
Als bottle: 9   Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE   Compound Sublist: all.sub
Target Version: 4.12

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)	REVIEW CODE
1	Dichlorodifluoromethane	85	1.277	1.274	(0.231)	36758	5.00000	4.7	
2	Chloromethane	50	1.412	1.409	(0.256)	48759	5.00000	5.4	
3	Vinyl chloride	62	1.460	1.460	(0.264)	41014	5.00000	5.2	
4	Bromomethane	94	1.675	1.672	(0.303)	14402	5.00000	5.3	
5	Chloroethane	64	1.759	1.753	(0.318)	26340	5.00000	5.9	
6	Trichlorofluoromethane	101	1.852	1.849	(0.335)	51991	5.00000	4.9	
7	Diethyl Ether	59	2.060	2.057	(0.373)	25759	5.00000	5.3	
8	1,1-Dichloroethene	96	2.211	2.211	(0.400)	28285	5.00000	5.0	
9	Freon-113	151	2.240	2.234	(0.405)	19241	5.00000	4.4	
10	Carbon Disulfide	76	2.243	2.240	(0.406)	67689	5.00000	4.9	
11	Iodomethane	142	2.330	2.327	(0.422)	7076	5.00000	2.1	
12	Acrolein	56	2.474	2.474	(0.448)	11341	25.0000	27.9	
13	Allyl Chloride	41	2.583	2.584	(0.468)	45485	5.00000	4.7	
14	Methylene Chloride	84	2.673	2.673	(0.484)	53960	5.00000	8.7	
15	Acetone	43	2.724	2.722	(0.493)	58964	25.0000	31.4	
16	trans-1,2-Dichloroethene	96	2.814	2.811	(0.509)	31725	5.00000	5.3	
17	Methyl Acetate	43	2.827	2.827	(0.512)	28125	5.00000	5.3	
18	Methyl tert-butyl ether	73	2.917	2.911	(0.528)	70669	5.00000	5.0	
19	Tertiary-butyl alcohol	59	3.020	3.010	(0.546)	11466	25.0000	33.1	
20	Acetonitrile	41	3.164	3.161	(0.573)	42322	50.0000	60.1	
21	Di-isopropyl ether	45	3.283	3.283	(0.594)	104460	5.00000	5.2	
22	Chloroprene	53	3.392	3.386	(0.614)	52369	5.00000	4.9	
23	1,1-Dichloroethane	63	3.421	3.415	(0.619)	60027	5.00000	5.1	
24	Acrylonitrile	52	3.485	3.485	(0.631)	46994	25.0000	27.6	

Data File: \\target_server\gg\chem\gcms-w.i\W092421.b\W0214.D
Report Date: 11-Oct-2021 14:14

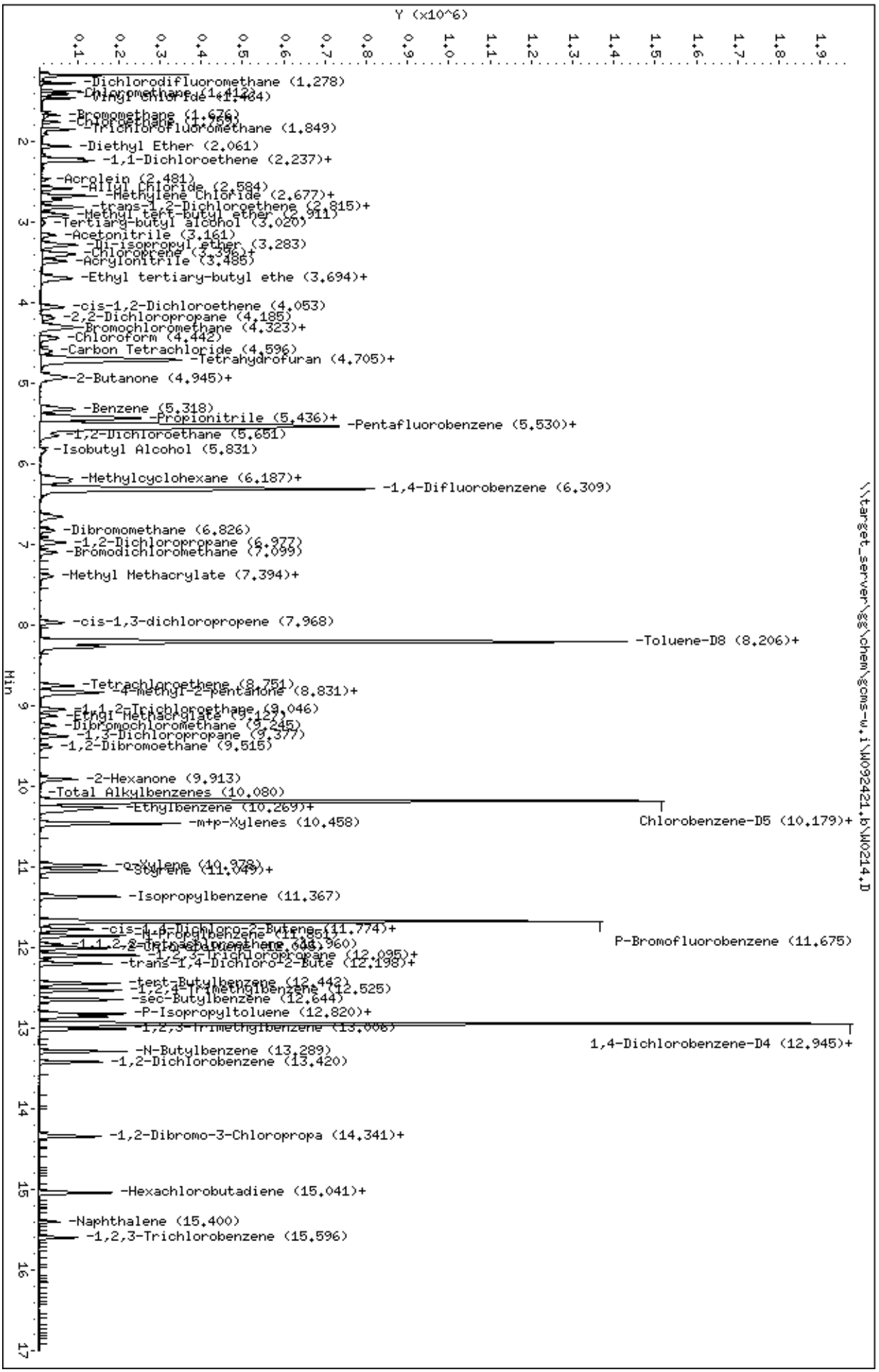
								AMOUNTS		
			QUANT SIG					CAL-AMT	ON-COL	
	Compounds		MASS	RT	EXP RT	REL RT	RESPONSE	(ug/l)	(ug/l)	REVIEW CODE
	25	Ethyl tertiary-butyl ether	59	3.697	3.691	(0.669)	79729	5.00000	5.6	
	26	Vinyl Acetate	43	3.713	3.710	(0.589)	45739	5.00000	5.3	
	27	cis-1,2-Dichloroethene	96	4.053	4.050	(0.733)	30545	5.00000	5.1	
	28	2,2-Dichloropropane	77	4.194	4.191	(0.759)	27591	5.00000	3.4	
	29	Bromochloromethane	128	4.322	4.320	(0.782)	13082	5.00000	5.3	
	30	Cyclohexane	56	4.300	4.293	(0.778)	46849	5.00000	4.5	
	31	Chloroform	83	4.438	4.438	(0.803)	54965	5.00000	5.2	
	32	Carbon Tetrachloride	117	4.608	4.608	(0.730)	30705	5.00000	4.1	
	33	Tetrahydrofuran	42	4.685	4.669	(0.848)	51929	25.0000	26.8	
$	34	Dibromofluoromethane	113	4.711	4.714	(0.853)	270504	50.0000	50.1	
	35	1,1,1-Trichloroethane	97	4.717	4.721	(0.854)	45500	5.00000	4.7	
	36	2-Butanone	43	4.945	4.936	(0.895)	64657	25.0000	25.5	
	37	1,1-Dichloropropene	75	4.916	4.916	(0.779)	39458	5.00000	4.6	
	38	Benzene	78	5.317	5.321	(0.843)	116095	5.00000	5.1	
	39	Propionitrile	54	5.417	5.407	(0.980)	40043	50.0000	54.1	
	40	Methacrylonitrile	41	5.433	5.430	(0.983)	190781	50.0000	53.8	
*	41	Pentafluorobenzene	168	5.526	5.520	(1.000)	537784	50.0000		
$	42	1,2-Dichloroethane-D4	65	5.548	5.549	(1.004)	377899	50.0000	51.0	
	43	Tertiary-amyl methyl ether	73	5.558	5.558	(1.006)	46806	5.00000	4.4	
	44	1,2-Dichloroethane	62	5.651	5.655	(0.896)	43494	5.00000	5.1	
	45	Isobutyl Alcohol	43	5.831	5.825	(1.055)	16058	100.000	88.3	
	46	Methylcyclohexane	83	6.184	6.181	(1.119)	41585	5.00000	4.0	
	47	Trichloroethene	95	6.222	6.226	(0.986)	28797	5.00000	5.0	
*	48	1,4-Difluorobenzene	114	6.309	6.312	(1.000)	883976	50.0000		
	49	Dibromomethane	93	6.825	6.826	(1.082)	18452	5.00000	5.4	
	50	1,2-Dichloropropane	63	6.979	6.973	(1.106)	29728	5.00000	5.0	
	51	Bromodichloromethane	83	7.098	7.099	(1.125)	35404	5.00000	4.6	
	52	Methyl Methacrylate	41	7.390	7.384	(1.171)	21708	5.00000	4.3	
	53	Ethyl Methacrylate	69	9.126	9.123	(1.447)	26690	5.00000	3.9	
	54	1,4-Dioxane	88	7.422	7.403	(1.176)	6561	100.000	109	
M	55	Total Alkylbenzenes	100				846901	5.00000	(a)	
	57	cis-1,3-dichloropropene	75	7.968	7.968	(1.263)	38661	5.00000	4.3	
$	58	Toluene-D8	98	8.205	8.202	(1.301)	1073279	50.0000	50.7	
	59	Toluene	92	8.273	8.270	(1.311)	71198	5.00000	5.0	
	60	Tetrachloroethene	164	8.751	8.751	(0.860)	22206	5.00000	4.7	
	61	4-methyl-2-pentanone	43	8.831	8.825	(1.400)	122455	25.0000	24.5	
	62	trans-1,3-Dichloropropene	75	8.853	8.854	(1.403)	31894	5.00000	4.0	
	63	1,1,2-Trichloroethane	83	9.046	9.050	(1.434)	19608	5.00000	4.9	
	64	Dibromochloromethane	129	9.255	9.252	(0.909)	23554	5.00000	4.3	
	65	1,3-Dichloropropane	76	9.373	9.377	(0.921)	45942	5.00000	5.1	
	66	1,2-Dibromoethane	107	9.511	9.512	(1.508)	22619	5.00000	4.8	
	67	2-Hexanone	43	9.909	9.903	(0.974)	73601	25.0000	22.3	
*	68	Chlorobenzene-D5	117	10.179	10.182	(1.000)	874437	50.0000		
	69	Chlorobenzene	112	10.201	10.198	(1.002)	80808	5.00000	5.1	
	70	Ethylbenzene	91	10.269	10.269	(1.009)	138135	5.00000	5.0	
	71	1,1,1,2-Tetrachloroethane	131	10.297	10.301	(1.012)	24367	5.00000	4.6	
	72	m+p-Xylenes	91	10.461	10.461	(1.028)	212187	10.0000	10.0	
	73	o-Xylene	91	10.978	10.978	(1.078)	101469	5.00000	4.7	
	74	Styrene	104	11.048	11.049	(1.085)	78642	5.00000	4.5	
	75	Bromoform	173	11.048	11.049	(1.085)	13892	5.00000	4.1	
	76	Isopropylbenzene	105	11.366	11.366	(0.878)	129193	5.00000	4.9	
$	77	P-Bromofluorobenzene	95	11.674	11.674	(1.850)	464739	50.0000	50.1	
	78	cis-1,4-Dichloro-2-Butene	53	11.786	11.790	(0.911)	5816	5.00000	4.4	
	79	Bromobenzene	156	11.770	11.774	(0.910)	32426	5.00000	5.2	

Data File: \\target_server\gg\chem\gcms-w.i\W092421.b\W0214.D
Report Date: 11-Oct-2021 14:14

								AMOUNTS		
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)		REVIEW CODE
	80 N-Propylbenzene	91	11.851	11.854	(0.916)	165409	5.00000	5.1		
	81 1,1,2,2-Tetrachloroethane	83	11.960	11.960	(0.924)	28936	5.00000	5.2		
	82 2-Chlorotoluene	91	12.005	12.005	(0.928)	97546	5.00000	5.2		
	83 1,2,3-Trichloropropane	75	12.085	12.082	(0.934)	26521	5.00000	5.2		
	84 1,3,5-Trimethylbenzene	105	12.094	12.098	(0.935)	107533	5.00000	4.9		
	85 trans-1,4-Dichloro-2-Butene	53	12.152	12.153	(0.939)	6030	5.00000	4.4		
	86 4-Chlorotoluene	91	12.197	12.198	(0.942)	101022	5.00000	5.1		
	87 tert-Butylbenzene	119	12.441	12.445	(0.961)	92399	5.00000	4.7		
	89 1,2,4-Trimethylbenzene	105	12.531	12.528	(0.968)	111536	5.00000	4.9		
	90 sec-Butylbenzene	105	12.643	12.644	(0.977)	142783	5.00000	4.9		
	91 P-Isopropyltoluene	119	12.820	12.820	(0.991)	115695	5.00000	4.6		
	92 1,3-Dichlorobenzene	146	12.855	12.855	(0.993)	63332	5.00000	5.0		
*	93 1,4-Dichlorobenzene-D4	152	12.942	12.942	(1.000)	475209	50.0000			
	94 1,4-Dichlorobenzene	146	12.958	12.961	(1.001)	66082	5.00000	5.1		
	95 1,2,3-Trimethylbenzene	105	13.006	13.009	(1.005)	113268	5.00000	5.1		
	96 N-Butylbenzene	91	13.288	13.285	(1.027)	111546	5.00000	4.6		
M	97 1,2-Dichloroethylene (total)	96				62270	5.00000		(a)	
	98 1,2-Dichlorobenzene	146	13.420	13.417	(1.037)	58509	5.00000	5.0		
	99 1,2-Dibromo-3-Chloropropane	157	14.315	14.312	(1.106)	3993	5.00000	4.2		
	100 1,3,5-Trichlorobenzene	180	14.341	14.341	(1.108)	43804	5.00000	4.9		
	101 Hexachlorobutadiene	225	15.031	15.037	(1.161)	19892	5.00000	4.6		
	102 1,2,4-Trichlorobenzene	180	15.050	15.047	(1.163)	27191	5.00000	3.5		
	103 Naphthalene	128	15.400	15.400	(1.190)	36874	5.00000	2.7		
	104 1,2,3-Trichlorobenzene	180	15.599	15.599	(1.205)	24747	5.00000	4.2		
M	105 Xylenes (total)	106				313656	15.0000		(a)	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).


Data File: \\target_server\gg\chem\gcms-w.i\W092421.b\W0214.D
Date : 24-SEP-2021 11:05
Client ID:
Sample Info: WG306608-2
Purge Volume: 5.0
Column phase: RTX-VMS
Instrument: gcms-w.i
Operator: ES
Column diameter: 0.18
\\target_server\gg\chem\gcms-w.i\W092421.b\W0214.D
Y (x10^6)
Min
-Dichlorodifluoromethane (1.278)
-Chloromethane (1.412)
-Vinyl Chloride (1.484)
-Bromomethane (1.676)
-Chloroethane (1.732)
-Trichlorofluoromethane (1.849)
-Diethyl Ether (2.061)
-1,1-Dichloroethene (2.237)+
-Acrolein (2.481)
-Allyl Chloride (2.584)
-Methylene Chloride (2.677)+
-trans-1,2-Dichloroethene (2.815)+
-Methyl tert-butyl ether (2.911)
-Tertiary-butyl alcohol (3.020)
-Acetonitrile (3.161)
-Di-isopropyl ether (3.283)
-Chloroprene (3.396)+
-Acrylonitrile (3.485)
-Ethyl tertiary-butyl ethe (3.694)+
-cis-1,2-Dichloroethene (4.053)
-2,2-Dichloropropane (4.185)
-Bromochloromethane (4.323)+
-Chloroform (4.442)
-Carbon Tetrachloride (4.596)
-Tetrahydrofuran (4.705)+
-2-Butanone (4.945)+
-Benzene (5.318)
-Propionitrile (5.436)+
-Pentafluorobenzene (5.530)+
-1,2-Dichloroethane (5.651)
-Isobutyl Alcohol (5.831)
-Methylcyclohexane (6.187)+
-1,4-Difluorobenzene (6.309)
-Dibromomethane (6.826)
-1,2-Dichloropropane (6.977)
-Bromodichloromethane (7.099)
-Methyl Methacrylate (7.394)+
-cis-1,3-dichloropropene (7.968)
-Toluene-D8 (8.206)+
-Tetrachloroethene (8.751)
-4-methyl-2-pentanone (8.831)+
-1,1,2-Trichloroethane (9.046)
-Ethyl Methacrylate (9.122)
-Dibromochloromethane (9.245)
-1,3-Dichloropropane (9.377)
-1,2-Dibromoethane (9.515)
-2-Hexanone (9.913)
-Total Alkylbenzenes (10.080)
-Ethylbenzene (10.269)+
-m+p-Xylenes (10.458)
Chlorobenzene-D5 (10.179)+
-o-Xylene (10.978)
-Styrene (11.049)+
-Isopropylbenzene (11.367)
-cis-1,4-Dichloro-2-Butene (11.774)+
-n-Propylbenzene (11.851)
-1,1,2,2-Tetrachloroethane (11.960)
-1,2,3-Trichloropropane (12.095)+
-trans-1,4-Dichloro-2-Bute (12.198)+
P-Bromofluorobenzene (11.675)
-tert-Butylbenzene (12.442)
-1,2,4-Trimethylbenzene (12.525)
-sec-Butylbenzene (12.644)
-P-Isopropyltoluene (12.820)+
-1,2,3-Trimethylbenzene (13.006)
1,4-Dichlorobenzene-D4 (12.945)+
-N-Butylbenzene (13.289)
-1,2-Dichlorobenzene (13.420)
-1,2-Dibromo-3-Chloropropa (14.341)+
-Hexachlorobutadiene (15.041)+
-Naphthalene (15.400)
-1,2,3-Trichlorobenzene (15.596)

Data File: \\target_server\gg\chem\gcms-w.i\W092421.b\W0215.D
Report Date: 11-Oct-2021 14:14

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-w.i\W092421.b\W0215.D
Lab Smp Id: WG306608-1
Inj Date : 24-SEP-2021 11:36
Operator : ES   Inst ID: gcms-w.i
Smp Info : WG306608-1
Misc Info :
Comment   : SW846 5030
Method   : \\target_server\gg\chem\gcms-w.i\W092421.b\W8A05(08A).m
Meth Date : 08-Oct-2021 09:51 gcms-w.i   Quant Type: ISTD
Cal Date : 24-SEP-2021 11:36   Cal File: W0215.D
Als bottle: 10   Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE   Compound Sublist: all.sub
Target Version: 4.12

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)	REVIEW CODE
1	Dichlorodifluoromethane	85	1.277	1.274	(0.231)	8372	1.00000	1.1	
2	Chloromethane	50	1.409	1.409	(0.255)	12931	1.00000	1.4	
3	Vinyl chloride	62	1.460	1.460	(0.265)	9396	1.00000	1.2	
4	Bromomethane	94	1.675	1.672	(0.304)	4965	1.00000	1.9	
5	Chloroethane	64	1.762	1.753	(0.319)	5125	1.00000	1.1	
6	Trichlorofluoromethane	101	1.851	1.849	(0.336)	11658	1.00000	1.1	
7	Diethyl Ether	59	2.057	2.057	(0.373)	5587	1.00000	1.2	
8	1,1-Dichloroethene	96	2.214	2.211	(0.401)	6866	1.00000	1.2	
9	Freon-113	151	2.243	2.234	(0.406)	4001	1.00000	0.95(a)	
10	Carbon Disulfide	76	2.243	2.240	(0.406)	17103	1.00000	1.3	
11	Iodomethane	142	2.333	2.327	(0.423)	1609	1.00000	0.49(a)	
12	Acrolein	56	2.484	2.474	(0.450)	2720	5.00000	6.7	
13	Allyl Chloride	41	2.583	2.584	(0.468)	9097	1.00000	0.98(a)	
14	Methylene Chloride	84	2.679	2.673	(0.485)	27046	1.00000	4.5(a)	
15	Acetone	43	2.721	2.722	(0.493)	18065	5.00000	9.8	
16	trans-1,2-Dichloroethene	96	2.811	2.811	(0.509)	6726	1.00000	1.1	
17	Methyl Acetate	43	2.830	2.827	(0.513)	6801	1.00000	1.3	
18	Methyl tert-butyl ether	73	2.914	2.911	(0.528)	16318	1.00000	1.2	
19	Tertiary-butyl alcohol	59	3.013	3.010	(0.546)	3337	5.00000	9.9	
20	Acetonitrile	41	3.167	3.161	(0.574)	10191	10.0000	14.8(a)	
21	Di-isopropyl ether	45	3.292	3.283	(0.597)	22417	1.00000	1.1	
22	Chloroprene	53	3.385	3.386	(0.613)	11443	1.00000	1.1	
23	1,1-Dichloroethane	63	3.421	3.415	(0.620)	13431	1.00000	1.2	
24	Acrylonitrile	52	3.491	3.485	(0.633)	9420	5.00000	5.6	

Data File: \\target_server\gg\chem\gcms-w.i\W092421.b\W0215.D
Report Date: 11-Oct-2021 14:14

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)	REVIEW CODE
	25 Ethyl tertiary-butyl ether	59	3.693	3.691	(0.669)	13394	1.00000	0.94(a)	
	26 Vinyl Acetate	43	3.716	3.710	(0.589)	7925	1.00000	0.90(Ta)	
	27 cis-1,2-Dichloroethene	96	4.059	4.050	(0.735)	7412	1.00000	1.3	
	28 2,2-Dichloropropane	77	4.191	4.191	(0.759)	4903	1.00000	0.62(a)	
	29 Bromochloromethane	128	4.319	4.320	(0.783)	3194	1.00000	1.3	
	30 Cyclohexane	56	4.293	4.293	(0.778)	10028	1.00000	1.0	
	31 Chloroform	83	4.441	4.438	(0.805)	12020	1.00000	1.2	
	32 Carbon Tetrachloride	117	4.614	4.608	(0.731)	5748	1.00000	0.78(a)	
	33 Tetrahydrofuran	42	4.701	4.669	(0.852)	11770	5.00000	6.2	
$	34 Dibromofluoromethane	113	4.707	4.714	(0.853)	274245	50.0000	52.0	
	35 1,1,1-Trichloroethane	97	4.717	4.721	(0.855)	10226	1.00000	1.1	
	36 2-Butanone	43	4.951	4.936	(0.897)	14646	5.00000	5.9	
	37 1,1-Dichloropropene	75	4.913	4.916	(0.778)	8808	1.00000	1.0	
	38 Benzene	78	5.314	5.321	(0.842)	26418	1.00000	1.2	
	39 Propionitrile	54	5.410	5.407	(0.980)	8235	10.0000	11.3	
	40 Methacrylonitrile	41	5.429	5.430	(0.984)	36086	10.0000	10.3	
*	41 Pentafluorobenzene	168	5.519	5.520	(1.000)	524944	50.0000		
$	42 1,2-Dichloroethane-D4	65	5.548	5.549	(1.005)	380280	50.0000	52.4	
	43 Tertiary-amyl methyl ether	73	5.561	5.558	(1.008)	8797	1.00000	0.85(a)	
	44 1,2-Dichloroethane	62	5.657	5.655	(0.896)	11077	1.00000	1.3	
	45 Isobutyl Alcohol	43	5.843	5.825	(1.059)	4067	20.0000	23.3	
	46 Methylcyclohexane	83	6.183	6.181	(1.120)	8592	1.00000	0.88(a)	
	47 Trichloroethene	95	6.222	6.226	(0.986)	6747	1.00000	1.2	
*	48 1,4-Difluorobenzene	114	6.312	6.312	(1.000)	888332	50.0000		
	49 Dibromomethane	93	6.832	6.826	(1.082)	4150	1.00000	1.2	
	50 1,2-Dichloropropane	63	6.973	6.973	(1.105)	6808	1.00000	1.1(T)	
	51 Bromodichloromethane	83	7.098	7.099	(1.125)	7982	1.00000	1.0(T)	
	52 Methyl Methacrylate	41	7.396	7.384	(1.172)	3985	1.00000	0.81(a)	
	53 Ethyl Methacrylate	69	9.123	9.123	(1.445)	4191	1.00000	0.61(a)	
	54 1,4-Dioxane	88	7.406	7.403	(1.173)	1577	20.0000	25.9	
M	55 Total Alkylbenzenes	100				171476	1.00000	(a)	
	57 cis-1,3-dichloropropene	75	7.971	7.968	(1.263)	7345	1.00000	0.83(a)	
$	58 Toluene-D8	98	8.205	8.202	(1.300)	1068892	50.0000	50.2	
	59 Toluene	92	8.269	8.270	(1.310)	16466	1.00000	1.2	
	60 Tetrachloroethene	164	8.754	8.751	(0.860)	5169	1.00000	1.1	
	61 4-methyl-2-pentanone	43	8.831	8.825	(1.399)	23753	5.00000	4.7(a)	
	62 trans-1,3-Dichloropropene	75	8.850	8.854	(1.402)	5875	1.00000	0.75(a)	
	63 1,1,2-Trichloroethane	83	9.046	9.050	(1.433)	4596	1.00000	1.2	
	64 Dibromochloromethane	129	9.251	9.252	(0.909)	4769	1.00000	0.90(Ta)	
	65 1,3-Dichloropropane	76	9.376	9.377	(0.921)	9566	1.00000	1.1	
	66 1,2-Dibromoethane	107	9.505	9.512	(1.506)	4779	1.00000	1.0(T)	
	67 2-Hexanone	43	9.912	9.903	(0.974)	14452	5.00000	4.5(a)	
*	68 Chlorobenzene-D5	117	10.182	10.182	(1.000)	866850	50.0000		
	69 Chlorobenzene	112	10.201	10.198	(1.002)	18769	1.00000	1.2	
	70 Ethylbenzene	91	10.268	10.269	(1.009)	30713	1.00000	1.1	
	71 1,1,1,2-Tetrachloroethane	131	10.300	10.301	(1.012)	5278	1.00000	1.0	
	72 m+p-Xylenes	91	10.464	10.461	(1.028)	45086	2.00000	2.1	
	73 o-Xylene	91	10.978	10.978	(1.078)	20231	1.00000	0.95(a)	
	74 Styrene	104	11.045	11.049	(1.085)	14681	1.00000	0.86(a)	
	75 Bromoform	173	11.051	11.049	(1.085)	2563	1.00000	0.78(Ta)	
	76 Isopropylbenzene	105	11.369	11.366	(0.878)	26704	1.00000	1.0	
$	77 P-Bromofluorobenzene	95	11.677	11.674	(1.850)	455438	50.0000	48.8	
	78 cis-1,4-Dichloro-2-Butene	53	11.789	11.790	(0.911)	1003	1.00000	0.78(a)	
	79 Bromobenzene	156	11.773	11.774	(0.910)	6563	1.00000	1.1	

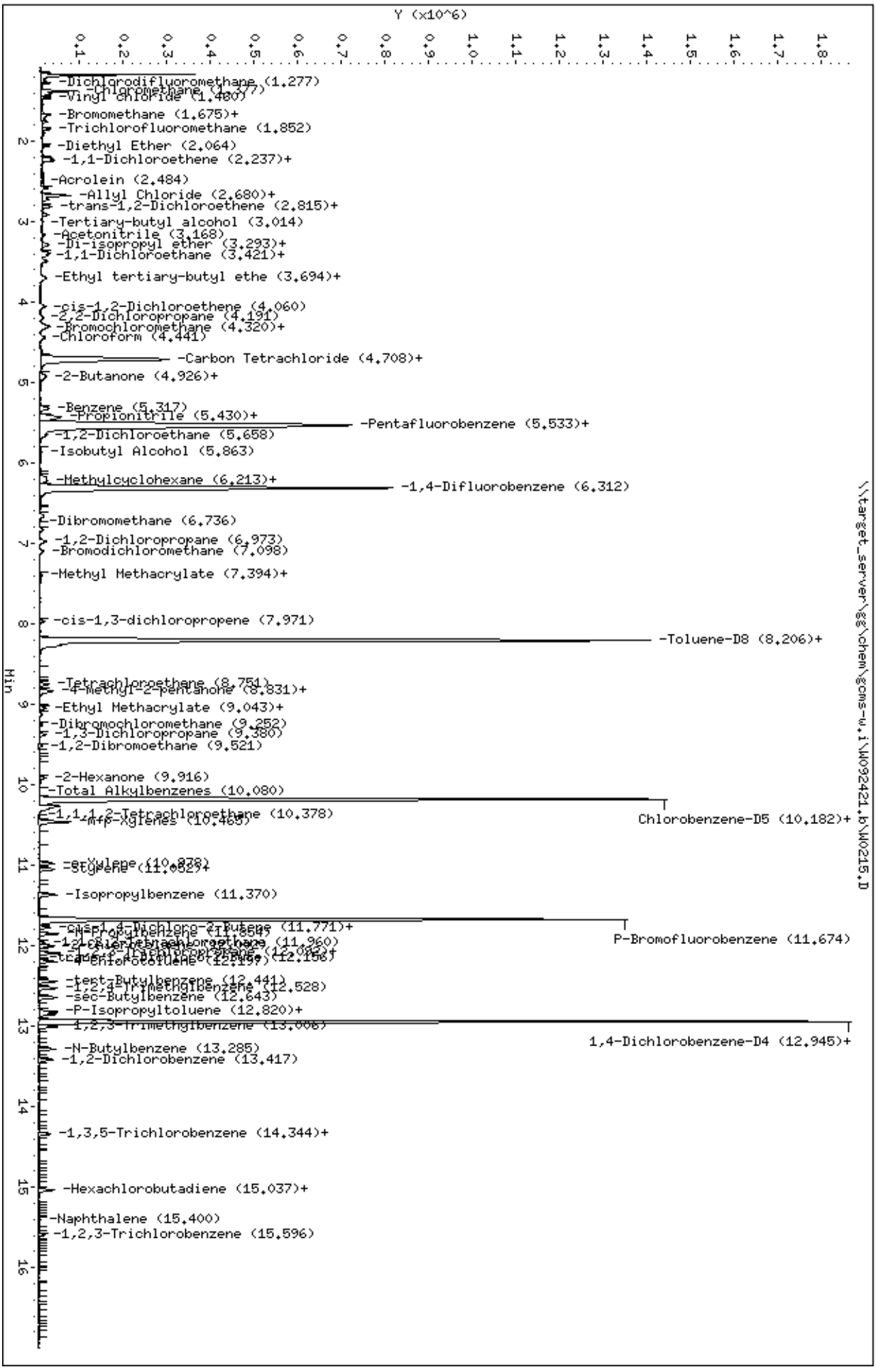
Data File: \\target_server\gg\chem\gcms-w.i\W092421.b\W0215.D
Report Date: 11-Oct-2021 14:14

11:41 am, Oct 12, 2021

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)	REVIEW CODE
	80 N-Propylbenzene	91	11.854	11.854	(0.916)	34453	1.00000	1.1	
	81 1,1,2,2-Tetrachloroethane	83	11.956	11.960	(0.924)	6270	1.00000	1.2	
	82 2-Chlorotoluene	91	12.004	12.005	(0.927)	21048	1.00000	1.1	
	83 1,2,3-Trichloropropane	75	12.078	12.082	(0.933)	5591	1.00000	1.1	
	84 1,3,5-Trimethylbenzene	105	12.097	12.098	(0.935)	21523	1.00000	1.0	
	85 trans-1,4-Dichloro-2-Butene	53	12.146	12.153	(0.938)	914	1.00000	0.69(a)	
	86 4-Chlorotoluene	91	12.197	12.198	(0.942)	21649	1.00000	1.1	
	87 tert-Butylbenzene	119	12.444	12.445	(0.961)	19665	1.00000	1.0	
	89 1,2,4-Trimethylbenzene	105	12.527	12.528	(0.968)	23151	1.00000	1.1	
	90 sec-Butylbenzene	105	12.643	12.644	(0.977)	28862	1.00000	1.0	
	91 P-Isopropyltoluene	119	12.816	12.820	(0.990)	23632	1.00000	0.99(a)	
	92 1,3-Dichlorobenzene	146	12.852	12.855	(0.993)	14712	1.00000	1.2	
*	93 1,4-Dichlorobenzene-D4	152	12.945	12.942	(1.000)	457940	50.0000		
	94 1,4-Dichlorobenzene	146	12.954	12.961	(1.001)	15062	1.00000	1.2	
	95 1,2,3-Trimethylbenzene	105	13.006	13.009	(1.005)	23223	1.00000	1.1	
	96 N-Butylbenzene	91	13.288	13.285	(1.027)	20190	1.00000	0.87(a)	
M	97 1,2-Dichloroethylene (total)	96				14138	1.00000	(a)	
	98 1,2-Dichlorobenzene	146	13.416	13.417	(1.036)	12732	1.00000	1.1	
	99 1,2-Dibromo-3-Chloropropane	157	14.308	14.312	(1.105)	821	1.00000	0.93(aM)	M6
	100 1,3,5-Trichlorobenzene	180	14.337	14.341	(1.108)	7831	1.00000	0.91(a)	
	101 Hexachlorobutadiene	225	15.034	15.037	(1.161)	4890	1.00000	1.2	
	102 1,2,4-Trichlorobenzene	180	15.046	15.047	(1.162)	4270	1.00000	0.57(a)	
	103 Naphthalene	128	15.399	15.400	(1.190)	3581	1.00000	0.27(a)	
	104 1,2,3-Trichlorobenzene	180	15.595	15.599	(1.205)	4076	1.00000	0.74(a)	
M	105 Xylenes (total)	106				65317	3.00000	(a)	

QC Flag Legend

T - Target compound detected outside RT window.
a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.


Data File: \\target_server\gg\chem\gcms-w.i\W092421.b\W0215.D
Date : 24-SEP-2021 11:36
Client ID:
Sample Info: WG306608-1
Purge Volume: 5.0
Column phase: RTX-VMS
Instrument: gcms-w.i
Operator: ES
Column diameter: 0.18
\\target_server\gg\chem\gcms-w.i\W092421.b\W0215.D
Y (x10^6)
Min
-Dichlorodifluoromethane (1.277)
-Chloromethane (1.377)
-Vinyl chloride (1.480)
-Bromomethane (1.675)+
-Trichlorofluoromethane (1.852)
-Diethyl Ether (2.064)
-1,1-Dichloroethene (2.237)+
-Acrolein (2.484)
-Allyl Chloride (2.680)+
-trans-1,2-Dichloroethene (2.815)+
-Tertiary-butyl alcohol (3.014)
-Acetonitrile (3.168)
-Di-isopropyl ether (3.293)+
-1,1-Dichloroethane (3.421)+
-Ethyl tertiary-butyl ethe (3.694)+
-cis-1,2-Dichloroethene (4.060)
-2,2-Dichloropropane (4.191)
-Bromochloromethane (4.320)+
-Chloroform (4.441)
-Carbon Tetrachloride (4.708)+
-2-Butanone (4.926)+
-Benzene (5.317)
-Propionitrile (5.430)+
-Pentafluorobenzene (5.533)+
-1,2-Dichloroethane (5.658)
-Isobutyl Alcohol (5.863)
-Methylcyclohexane (6.213)+
-1,4-Difluorobenzene (6.312)
-Dibromomethane (6.736)
-1,2-Dichloropropane (6.973)
-Bromodichloromethane (7.098)
-Methyl Methacrylate (7.394)+
-cis-1,3-dichloropropene (7.971)
-Toluene-D8 (8.206)+
-Tetrachloroethane (8.751)
-4-Methyl-2-pentanone (8.831)+
-Ethyl Methacrylate (9.043)+
-Dibromochloromethane (9.252)
-1,3-Dichloropropane (9.380)
-1,2-Dibromoethane (9.521)
-2-Hexanone (9.916)
-Total Alkylbenzenes (10.080)
-1,1,1,2-Tetrachloroethane (10.378)
Chlorobenzene-D5 (10.182)+
-Isopropylbenzene (11.370)
-cis-1,4-Dichloro-2-Butene (11.771)+
P-Bromofluorobenzene (11.674)
-1,2,3-Trichloropropane (11.960)
-N-Propylbenzene (12.067)
-test-Butylbenzene (12.441)
-1,2,4-Trimethylbenzene (12.528)
-sec-Butylbenzene (12.643)
-P-Isopropyltoluene (12.820)+
1,4-Dichlorobenzene-D4 (12.945)+
-N-Butylbenzene (13.285)
-1,2-Dichlorobenzene (13.417)
-1,3,5-Trichlorobenzene (14.344)+
-Hexachlorobutadiene (15.037)+
-Naphthalene (15.400)
-1,2,3-Trichlorobenzene (15.596)

Katahdin
ANALYTICAL SERVICES

Form 6
Initial Calibration Summary

Lab Name : Katahdin Analytical Services
SDG: SO6313
Project : Watervliet Arsenal LTM
Instrument ID: GCMS-W
Lab File IDs : W0268.D W0267.D W0265.D W0264.D W0270.D W0269.D W0271.D W0266.D
Calibration Date(s): 28-SEP-21 10:29, 28-SEP-21 14:09

	1.0000 Level 1	5.0000 Level 2	20.0000 Level 3	50.0000 Level 4	100.0000 Level 5	150.0000 Level 6	75.0000 Level 7	10.0000 Level 8	Curve Type	b	m1	m2	%RSD	MAX %RSD	
Chloromethane	1.13874	0.89664	0.87853	0.83243	0.85109	0.85934	0.84655	0.83867	AVG		.8928		11.38	15	O
Vinyl chloride	0.82953	0.73510	0.78779	0.74386	0.74967	0.75201	0.73963	0.72210	AVG		.7575		4.589	15	O
Bromomethane	2820	7729	33109	82321	229028	336034	167416	14744	QUA	0	5.926	-1.948	.9951	.99	O
Chloroethane	7612	23272	97630	223643	440379	645295	341471	47799	LNR	0	.3999		.9993	.99	O
Trichlorofluoromethane	1.12188	0.99813	1.05301	1.00982	1.00373	1.03998	0.97075	0.98121	AVG		1.022		4.764	15	O
1,1-Dichloroethene	0.61608	0.53377	0.55706	0.53966	0.54646	0.54970	0.52917	0.52567	AVG		.5497		5.248	15	O
Carbon Disulfide	1.88256	1.33337	1.38435	1.33700	1.34936	1.35107	1.31672	1.27217	AVG		1.403		13.99	15	O
Methylene Chloride	14311	39348	138109	324321	654696	938239	492561	70320	LNR	0	.5838		.9994	.99	O
trans-1,2-Dichloroethene	0.65091	0.57330	0.59464	0.56851	0.57550	0.58066	0.56209	0.54407	AVG		.5812		5.457	15	O
1,1-Dichloroethane	1.21429	1.05605	1.13547	1.06033	1.11101	1.10910	1.07737	1.09264	AVG		1.107		4.606	15	O
cis-1,2-Dichloroethene	0.73266	0.59374	0.59445	0.57719	0.60090	0.60020	0.59425	0.56682	AVG		.6075		8.546	15	O
Chloroform	1.13102	1.02493	1.02744	1.00646	1.02483	1.04716	1.00440	0.97402	AVG		1.03		4.479	15	O
Carbon Tetrachloride	0.42391	0.40572	0.42844	0.44218	0.45699	0.46870	0.45002	0.37907	AVG		.4319		6.762	15	O
1,1,1-Trichloroethane	0.93453	0.86850	0.89633	0.90638	0.93945	0.96396	0.91007	0.83652	AVG		.907		4.494	15	O
2-Butanone	0.30634	0.28187	0.27755	0.29140	0.25598	0.21655	0.22741	0.30055	AVG		.2697		12.36	15	O
Benzene	1.43958	1.29676	1.35856	1.31713	1.34795	1.33029	1.32329	1.23841	AVG		1.332		4.289	15	O
1,2-Dichloroethane	0.59356	0.51409	0.49889	0.49579	0.49351	0.49011	0.47895	0.48049	AVG		.5057		7.353	15	O
Trichloroethene	0.38550	0.32921	0.33823	0.32939	0.34382	0.34623	0.33641	0.30673	AVG		.3394		6.562	15	O
1,2-Dichloropropane	0.37433	0.34382	0.35102	0.34649	0.35988	0.36103	0.35317	0.33003	AVG		.3525		3.75	15	O
Bromodichloromethane	0.42373	0.41382	0.44035	0.45093	0.46754	0.47610	0.45390	0.40064	AVG		.4409		5.981	15	O
cis-1,3-dichloropropene	0.43279	0.44125	0.51149	0.53626	0.56528	0.57322	0.54453	0.45262	AVG		.5072		11.26	15	O
Toluene	0.90943	0.80207	0.84549	0.81500	0.84700	0.84491	0.82911	0.78834	AVG		.8352		4.431	15	O
4-methyl-2-pentanone	0.30146	0.30219	0.32854	0.32441	0.29554	0.25131	0.26852	0.31781	AVG		.2987		9.039	15	O
Tetrachloroethene	0.28343	0.26149	0.27927	0.27746	0.28144	0.27516	0.27308	0.25083	AVG		.2728		4.08	15	O
trans-1,3-Dichloropropene	0.38568	0.37589	0.44516	0.47661	0.50852	0.50378	0.47268	0.39547	AVG		.4455		12	15	O
1,1,2-Trichloroethane	0.28736	0.24166	0.23642	0.23284	0.24024	0.23277	0.22713	0.22862	AVG		.2409		8.079	15	O
Dibromochloromethane	0.26579	0.28206	0.31287	0.32742	0.33335	0.31823	0.31592	0.29366	AVG		.3062		7.655	15	O
Chlorobenzene	1.00224	0.91511	0.92301	0.91822	0.92736	0.89315	0.91050	0.87022	AVG		.92		4.138	15	O
Ethylbenzene	1.71080	1.54394	1.65539	1.60955	1.60587	1.51662	1.58515	1.52484	AVG		1.594		4.185	15	O
m+p-Xylenes	1.21427	1.20599	1.27555	1.24582	1.19830	1.10563	1.20538	1.18209	AVG		1.204		4.113	15	O
o-Xylene	1.15080	1.17175	1.26333	1.26243	1.27750	1.22424	1.24580	1.16477	AVG		1.22		4.137	15	O
Bromoform	0.15703	0.16485	0.19540	0.21259	0.21735	0.20705	0.20119	0.17593	AVG		.1914		11.85	15	O
1,1,2,2-Tetrachloroethane	0.66234	0.64275	0.63878	0.62928	0.57780	0.51569	0.54038	0.62080	AVG		.6035		8.76	15	O
Dibromofluoromethane	0.51835	0.49829	0.49891	0.50209	0.50025	0.53121	0.50273	0.49783	AVG		.5062		2.388	15	
1,2-Dichloroethane-D4	0.72247	0.69320	0.66424	0.66737	0.66405	0.69849	0.65713	0.69322	AVG		.6825		3.336	15	
Toluene-D8	1.22044	1.20632	1.19893	1.19101	1.19486	1.21498	1.19578	1.18424	AVG		1.201		1.021	15	

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://katahdinlab.com
sales@katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Form 6
Initial Calibration Summary

Lab Name : Katahdin Analytical Services
Project : Watervliet Arsenal LTM
Lab File IDs : W0268.D W0267.D W0265.D W0264.D W0270.D W0269.D W0271.D W0266.D

SDG: SO6313
Instrument ID: GCMS-W
Calibration Date(s): 28-SEP-21 10:29 28-SEP-21 14:09

P-Bromofluorobenzene	0.53526	0.53647	0.54131	0.53157	0.54154	0.55961	0.54102	0.53057	AVG		.5397		1.692	15	

Legend: O = Kept Original Curve
Y = Failed Minimum RF
W = Failed %RSD Value

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://katahdinlab.com
sales@katahdinlab.com

Data File: \\target_server\gg\chem\gcms-w.i\W092821B.b\W0273a.D
Report Date: 11-Oct-2021 15:23

Katahdin Analytical Services

RECOVERY REPORT

Client Name: Client SDG: SDGa02236
Sample Matrix: LIQUID Fraction: VOA
Lab Smp Id: WG306817-9
Level: LOW Operator: ES
Data Type: MS DATA SampleType: LCSD
SpikeList File: IND_CHECK.spk Quant Type: ISTD
Sublist File: all.sub
Method File: \\target_server\gg\chem\gcms-w.i\W092821B.b\W8A05(09).m
Misc Info: WG306817,WG306317-4

	SPIKE	COMPOUND	CONC ADDED ug/l	CONC RECOVERED ug/l	% RECOVERED	LIMITS
	1	Dichlorodifluorome	50.0	39.7	79.35*	80-120
	2	Chloromethane	50.0	38.0	75.91*	80-120
	3	Vinyl chloride	50.0	44.4	88.91	80-120
	4	Bromomethane	50.0	47.6	95.22	80-120
	5	Chloroethane	50.0	48.0	96.09	80-120
	6	Trichlorofluoromet	50.0	43.9	87.79	80-120
	7	Diethyl Ether	50.0	48.9	97.85	80-120
	19	Tertiary-butyl alc	250	204	81.49	80-120
	8	1,1-Dichloroethene	50.0	42.2	84.48	80-120
	10	Carbon Disulfide	50.0	46.2	92.39	80-120
	9	Freon-113	50.0	49.7	99.47	80-120
	11	Iodomethane	50.0	50.9	101.87	80-120
	12	Acrolein	250	245	98.19	80-120
	14	Methylene Chloride	50.0	46.9	93.81	80-120
	15	Acetone	50.0	41.3	82.58	80-120
	45	Isobutyl Alcohol	1000	948	94.83	80-120
	16	trans-1,2-Dichloro	50.0	45.6	91.20	80-120
	13	Allyl Chloride	50.0	50.3	100.66	80-120
	18	Methyl tert-butyl	50.0	51.2	102.51	80-120
	20	Acetonitrile	500	453	90.58	80-120
	21	Di-isopropyl ether	50.0	49.4	98.76	80-120
	22	Chloroprene	50.0	49.2	98.42	80-120
	39	Propionitrile	500	471	94.24	80-120
	40	Methacrylonitrile	500	492	98.46	80-120
	23	1,1-Dichloroethane	50.0	46.4	92.74	80-120
	24	Acrylonitrile	250	242	96.99	80-120
	25	Ethyl tertiary-but	50.0	53.1	106.16	80-120
	26	Vinyl Acetate	50.0	81.5	162.92*	80-120
	27	cis-1,2-Dichloroet	50.0	45.5	90.99	80-120
M	97	1,2-Dichloroethyle	100	91.1	91.10	80-120
	52	Methyl Methacrylat	50.0	54.0	107.97	80-120
	28	2,2-Dichloropropan	50.0	51.1	102.23	80-120
	29	Bromochloromethane	50.0	51.7	103.33	80-120
	31	Chloroform	50.0	45.9	91.86	80-120
	32	Carbon Tetrachlori	50.0	46.2	92.41	80-120
	33	Tetrahydrofuran	50.0	40.6	81.18	80-120
	35	1,1,1-Trichloroeth	50.0	47.0	94.05	80-120
	37	1,1-Dichloropropen	50.0	48.1	96.29	80-120
	36	2-Butanone	50.0	46.8	93.54	80-120
	38	Benzene	50.0	48.9	97.73	80-120

Data File: \\target_server\gg\chem\gcms-w.i\W092821B.b\W0273a.D
Report Date: 11-Oct-2021 15:23

	SPIKE COMPOUND	CONC ADDED ug/l	CONC RECOVERED ug/l	% RECOVERED	LIMITS
	30 Cyclohexane	50.0	52.4	104.87	80-120
	53 Ethyl Methacrylate	50.0	54.6	109.22	80-120
	43 Tertiary-amyl meth	50.0	53.5	107.08	80-120
	44 1,2-Dichloroethane	50.0	46.8	93.57	80-120
	47 Trichloroethene	50.0	47.7	95.37	80-120
	49 Dibromomethane	50.0	45.7	91.45	80-120
	50 1,2-Dichloropropan	50.0	49.2	98.35	80-120
	51 Bromodichlorometha	50.0	48.6	97.25	80-120
	57 cis-1,3-dichloropr	50.0	52.0	104.09	80-120
	54 1,4-Dioxane	1000	928	92.76	80-120
	56 2-Chloroethylviny	50.0	0.00	*	80-120
	59 Toluene	50.0	49.1	98.14	80-120
	61 4-methyl-2-pentano	50.0	49.5	99.03	80-120
	60 Tetrachloroethene	50.0	48.4	96.90	80-120
	62 trans-1,3-Dichloro	50.0	52.0	104.01	80-120
	63 1,1,2-Trichloroeth	50.0	48.1	96.28	80-120
	64 Dibromochlorometha	50.0	48.8	97.64	80-120
	65 1,3-Dichloropropan	50.0	48.1	96.26	80-120
	66 1,2-Dibromoethane	50.0	50.3	100.62	80-120
	67 2-Hexanone	50.0	49.3	98.66	80-120
	69 Chlorobenzene	50.0	49.3	98.56	80-120
	70 Ethylbenzene	50.0	49.9	99.84	80-120
	71 1,1,1,2-Tetrachlor	50.0	52.2	104.41	80-120
M	105 Xylenes (total)	150	153	102.24	80-120
	72 m+p-Xylenes	100	102	101.81	80-120
	73 o-Xylene	50.0	51.6	103.10	80-120
	74 Styrene	50.0	52.0	103.91	80-120
	75 Bromoform	50.0	50.6	101.27	80-120
	76 Isopropylbenzene	50.0	50.4	100.83	80-120
	78 cis-1,4-Dichloro-2	50.0	49.7	99.47	80-120
	85 trans-1,4-Dichloro	50.0	49.8	99.57	80-120
	79 Bromobenzene	50.0	49.0	98.04	80-120
	80 N-Propylbenzene	50.0	49.4	98.85	80-120
	81 1,1,2,2-Tetrachlor	50.0	49.1	98.30	80-120
	84 1,3,5-Trimethylben	50.0	50.3	100.55	80-120
	82 2-Chlorotoluene	50.0	48.6	97.10	80-120
	83 1,2,3-Trichloropro	50.0	46.1	92.27	80-120
	86 4-Chlorotoluene	50.0	48.6	97.23	80-120
	87 tert-Butylbenzene	50.0	49.7	99.40	80-120
	88 Pentachloroethane	50.0	0.00	*	80-120
	89 1,2,4-Trimethylben	50.0	49.4	98.76	80-120
	91 P-Isopropyltoluene	50.0	51.4	102.77	80-120
	92 1,3-Dichlorobenzen	50.0	49.0	97.98	80-120
	94 1,4-Dichlorobenzen	50.0	47.8	95.55	80-120
	96 N-Butylbenzene	50.0	51.4	102.80	80-120
	90 sec-Butylbenzene	50.0	51.4	102.86	80-120
	98 1,2-Dichlorobenzen	50.0	48.5	97.05	80-120
	99 1,2-Dibromo-3-Chlo	50.0	50.9	101.85	80-120
	100 1,3,5-Trichloroben	50.0	50.7	101.47	80-120
	101 Hexachlorobutadien	50.0	46.8	93.60	80-120
	102 1,2,4-Trichloroben	50.0	52.6	105.26	80-120
	95 1,2,3-Trimethylben	50.0	49.9	99.89	80-120
	103 Naphthalene	50.0	46.7	93.43	80-120
	104 1,2,3-Trichloroben	50.0	51.1	102.19	80-120

Data File: \\target_server\gg\chem\gcms-w.i\W092821B.b\W0273a.D
Report Date: 11-Oct-2021 15:23

SPIKE COMPOUND	CONC ADDED ug/l	CONC RECOVERED ug/l	% RECOVERED	LIMITS
17 Methyl Acetate	50.0	35.8	71.66*	80-120
46 Methylcyclohexane	50.0	52.8	105.53	80-120
M 55 Total Alkylbenzene	350	353	100.85	80-120

SURROGATE COMPOUND	AMOUNT ADDED ug/l	AMOUNT RECOVERED ug/l	% RECOVERED	LIMITS
$ 34 Dibromofluorometha	50.0	49.1	98.13	68-128
$ 42 1,2-Dichloroethane	50.0	47.8	95.70	67-135
$ 58 Toluene-D8	50.0	49.7	99.36	65-128
$ 77 P-Bromofluorobenze	50.0	49.6	99.27	56-133

Data File: \\target_server\gg\chem\gcms-w.i\W092821B.b\W0273a.D
Report Date: 11-Oct-2021 15:23

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-w.i\W092821B.b\W0273a.D
Lab Smp Id: WG306817-9
Inj Date : 28-SEP-2021 15:09
Operator : ES Inst ID: gcms-w.i
Smp Info : WG306817-9
Misc Info : WG306817,WG306317-4
Comment   : SW846 5030
Method   : \\target_server\gg\chem\gcms-w.i\W092821B.b\W8A05(09).m
Meth Date : 01-Oct-2021 17:40 HGOULD Quant Type: ISTD
Cal Date : 28-SEP-2021 12:38 Cal File: W0268.D
Als bottle: 10 QC Sample: LCSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.12
Processing Host: ORGANICS2

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)	REVIEW CODE
1	Dichlorodifluoromethane	85	1.277	1.278	(0.231)	340500	39.6743	39.7(R)	
2	Chloromethane	50	1.412	1.415	(0.256)	387855	37.9525	38.0(R)	
3	Vinyl chloride	62	1.460	1.460	(0.264)	385480	44.4572	44.4	
4	Bromomethane	94	1.672	1.672	(0.303)	97408	47.6100	47.6	
5	Chloroethane	64	1.755	1.755	(0.318)	219941	48.0452	48.0	
6	Trichlorofluoromethane	101	1.848	1.849	(0.335)	513672	43.8937	43.9	
7	Diethyl Ether	59	2.060	2.057	(0.373)	280611	48.9239	48.9	
8	1,1-Dichloroethene	96	2.211	2.211	(0.400)	265806	42.2419	42.2	
9	Freon-113	151	2.236	2.231	(0.405)	231936	49.7349	49.7	
10	Carbon Disulfide	76	2.240	2.240	(0.406)	742080	46.1948	46.2	
11	Iodomethane	142	2.326	2.327	(0.421)	136402	50.9349	50.9	
12	Acrolein	56	2.477	2.478	(0.449)	193317	245.463	245	
13	Allyl Chloride	41	2.583	2.584	(0.468)	510232	50.3300	50.3	
14	Methylene Chloride	84	2.676	2.677	(0.485)	313444	46.9069	46.9	
15	Acetone	43	2.724	2.724	(0.493)	113334	41.2883	41.3	
16	trans-1,2-Dichloroethene	96	2.814	2.811	(0.510)	303397	45.6015	45.6	
17	Methyl Acetate	43	2.830	2.833	(0.513)	240361	35.8282	35.8(R)	
18	Methyl tert-butyl ether	73	2.910	2.907	(0.527)	683043	51.2547	51.2	
19	Tertiary-butyl alcohol	59	3.013	3.010	(0.546)	83336	203.727	204	
20	Acetonitrile	41	3.164	3.164	(0.573)	392282	452.892	453	
21	Di-isopropyl ether	45	3.283	3.286	(0.594)	1088692	49.3797	49.4	
22	Chloroprene	53	3.388	3.385	(0.614)	546684	49.2095	49.2	
23	1,1-Dichloroethane	63	3.414	3.421	(0.618)	587651	46.3724	46.4	

Data File: \\target_server\gg\chem\gcms-w.i\W092821B.b\W0273a.D
Report Date: 11-Oct-2021 15:23

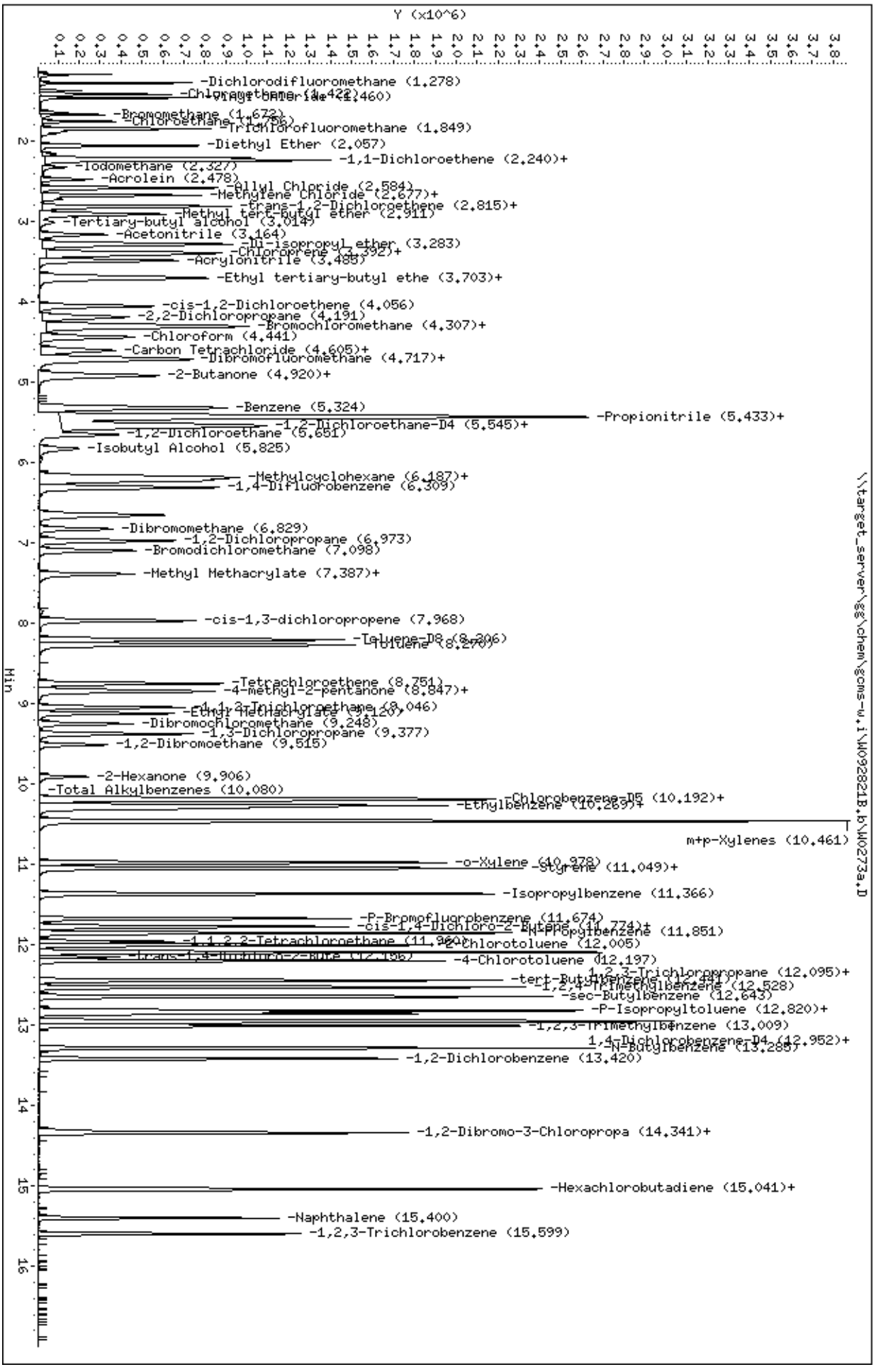
		Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)	REVIEW CODE
	24	Acrylonitrile	52	3.485	3.491	(0.631)	493724	242.484	242	
	25	Ethyl tertiary-butyl ether	59	3.693	3.700	(0.669)	752643	53.0777	53.1	
	26	Vinyl Acetate	43	3.716	3.719	(0.589)	775954	81.4621	81.5(R)	
	27	cis-1,2-Dichloroethene	96	4.056	4.053	(0.734)	316399	45.4958	45.5	
	28	2,2-Dichloropropane	77	4.191	4.188	(0.759)	389643	51.1157	51.1	
	29	Bromochloromethane	128	4.316	4.326	(0.782)	143868	51.6636	51.7	
	30	Cyclohexane	56	4.297	4.290	(0.778)	594214	52.4349	52.4	
	31	Chloroform	83	4.441	4.435	(0.804)	541533	45.9277	45.9	
	32	Carbon Tetrachloride	117	4.605	4.614	(0.730)	377171	46.2055	46.2	
	33	Tetrahydrofuran	42	4.685	4.698	(0.848)	94133	40.5903	40.6	
$	34	Dibromofluoromethane	113	4.717	4.711	(0.854)	284311	49.0641	49.1	
	35	1,1,1-Trichloroethane	97	4.720	4.717	(0.855)	488225	47.0250	47.0	
	36	2-Butanone	43	4.948	4.945	(0.896)	144402	46.7714	46.8	
	37	1,1-Dichloropropene	75	4.916	4.922	(0.779)	443594	48.1427	48.1	
	38	Benzene	78	5.320	5.311	(0.843)	1229766	48.8652	48.9	
	39	Propionitrile	54	5.407	5.413	(0.979)	412751	471.189	471	
	40	Methacrylonitrile	41	5.433	5.446	(0.984)	2014657	492.288	492	
*	41	Pentafluorobenzene	168	5.522	5.529	(1.000)	572360	50.0000		
$	42	1,2-Dichloroethane-D4	65	5.545	5.545	(1.004)	373838	47.8485	47.8	
	43	Tertiary-amyl methyl ether	73	5.561	5.567	(1.007)	568661	53.5377	53.5	
	44	1,2-Dichloroethane	62	5.651	5.651	(0.895)	447176	46.7871	46.8	
	45	Isobutyl Alcohol	43	5.830	5.837	(1.056)	192164	948.346	948	
	46	Methylcyclohexane	83	6.183	6.184	(1.120)	596756	52.7660	52.8	
	47	Trichloroethene	95	6.222	6.232	(0.986)	305938	47.6858	47.7	
*	48	1,4-Difluorobenzene	114	6.312	6.315	(1.000)	945044	50.0000		
	49	Dibromomethane	93	6.825	6.822	(1.081)	178051	45.7233	45.7	
	50	1,2-Dichloropropane	63	6.973	6.976	(1.105)	327620	49.1773	49.2	
	51	Bromodichloromethane	83	7.098	7.095	(1.125)	405202	48.6265	48.6	
	52	Methyl Methacrylate	41	7.387	7.393	(1.170)	287256	53.9826	54.0	
	53	Ethyl Methacrylate	69	9.123	9.113	(1.445)	364629	54.6079	54.6	
	54	1,4-Dioxane	88	7.400	7.403	(1.172)	59870	927.597	928	
M	55	Total Alkylbenzenes	100				10117386	352.991	353	
	57	cis-1,3-dichloropropene	75	7.968	7.965	(1.262)	498901	52.0440	52.0	
$	58	Toluene-D8	98	8.202	8.205	(1.299)	1127545	49.6791	49.7	
	59	Toluene	92	8.269	8.269	(1.310)	774602	49.0707	49.1	
	60	Tetrachloroethene	164	8.751	8.747	(0.860)	252209	48.4514	48.4	
	61	4-methyl-2-pentanone	43	8.828	8.834	(1.399)	279555	49.5129	49.5	
	62	trans-1,3-Dichloropropene	75	8.847	8.850	(1.402)	437888	52.0066	52.0	
	63	1,1,2-Trichloroethane	83	9.046	9.049	(1.433)	219174	48.1400	48.1	
	64	Dibromochloromethane	129	9.248	9.251	(0.909)	285245	48.8211	48.8	
	65	1,3-Dichloropropane	76	9.376	9.380	(0.921)	483951	48.1302	48.1	
	66	1,2-Dibromoethane	107	9.514	9.511	(1.507)	263193	50.3102	50.3	
	67	2-Hexanone	43	9.909	9.912	(0.974)	184679	49.3312	49.3	
*	68	Chlorobenzene-D5	117	10.179	10.182	(1.000)	954174	50.0000		
	69	Chlorobenzene	112	10.198	10.198	(1.002)	865156	49.2788	49.3	
	70	Ethylbenzene	91	10.268	10.269	(1.009)	1518524	49.9196	49.9	
	71	1,1,1,2-Tetrachloroethane	131	10.304	10.304	(1.012)	298238	52.2037	52.2	
	72	m+p-Xylenes	91	10.461	10.461	(1.028)	2339576	101.814	102	
	73	o-Xylene	91	10.974	10.981	(1.078)	1200288	51.5515	51.6	
	74	Styrene	104	11.048	11.048	(1.085)	964153	51.9528	52.0	
	75	Bromoform	173	11.048	11.055	(1.085)	184976	50.6366	50.6	
	76	Isopropylbenzene	105	11.366	11.366	(0.878)	1513255	50.4166	50.4	
$	77	P-Bromofluorobenzene	95	11.674	11.677	(1.849)	506313	49.6374	49.6	
	78	cis-1,4-Dichloro-2-Butene	53	11.786	11.793	(0.911)	89945	49.7375	49.7	

Data File: \\target_server\gg\chem\gcms-w.i\W092821B.b\W0273a.D
Report Date: 11-Oct-2021 15:23

			QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)	REVIEW CODE
	79	Bromobenzene	156	11.773	11.773	(0.910)	364557	49.0204	49.0	
	80	N-Propylbenzene	91	11.850	11.854	(0.915)	1849753	49.4252	49.4	
	81	1,1,2,2-Tetrachloroethane	83	11.959	11.960	(0.924)	330590	49.1480	49.1	
	82	2-Chlorotoluene	91	12.004	12.001	(0.927)	1066105	48.5512	48.6	
	83	1,2,3-Trichloropropane	75	12.085	12.085	(0.934)	292710	46.1327	46.1	
	84	1,3,5-Trimethylbenzene	105	12.094	12.098	(0.934)	1260229	50.2735	50.3	
	85	trans-1,4-Dichloro-2-Butene	53	12.155	12.155	(0.939)	90605	49.7868	49.8	
	86	4-Chlorotoluene	91	12.197	12.200	(0.942)	1120791	48.6139	48.6	
	87	tert-Butylbenzene	119	12.441	12.441	(0.961)	1109553	49.7000	49.7	
	89	1,2,4-Trimethylbenzene	105	12.527	12.531	(0.968)	1286975	49.3813	49.4	
	90	sec-Butylbenzene	105	12.643	12.646	(0.977)	1723126	51.4281	51.4	
	91	P-Isopropyltoluene	119	12.819	12.816	(0.990)	1461897	51.3845	51.4	
	92	1,3-Dichlorobenzene	146	12.855	12.858	(0.993)	721409	48.9880	49.0	
*	93	1,4-Dichlorobenzene-D4	152	12.945	12.942	(1.000)	557304	50.0000		
	94	1,4-Dichlorobenzene	146	12.961	12.961	(1.001)	741199	47.7740	47.8	
	95	1,2,3-Trimethylbenzene	105	13.009	13.006	(1.005)	1273069	49.9460	49.9	
	96	N-Butylbenzene	91	13.288	13.285	(1.027)	1425853	51.3986	51.4	
M	97	1,2-Dichloroethylene (total)	96				619796	91.0972	91.1	
	98	1,2-Dichlorobenzene	146	13.420	13.420	(1.037)	673223	48.5274	48.5	
	99	1,2-Dibromo-3-Chloropropane	157	14.312	14.315	(1.106)	57779	50.9241	50.9	
	100	1,3,5-Trichlorobenzene	180	14.340	14.341	(1.108)	524209	50.7333	50.7	
	101	Hexachlorobutadiene	225	15.034	15.034	(1.161)	238345	46.8001	46.8	
	102	1,2,4-Trichlorobenzene	180	15.046	15.056	(1.162)	435043	52.6282	52.6	
	103	Naphthalene	128	15.399	15.403	(1.190)	794119	46.7130	46.7	
	104	1,2,3-Trichlorobenzene	180	15.598	15.595	(1.205)	348767	51.0950	51.1	
M	105	Xylenes (total)	106				3539864	153.365	153	

QC Flag Legend

R - Spike/Surrogate failed recovery limits.


Data File: \\target_server\gg\chem\gcms-w.i\W092821B.b\W0273a.D
Date : 28-SEP-2021 15:09
Client ID:
Sample Info: WG306817-9
Purge Volume: 5.0
Column phase: RTX-VMS
Instrument: gcms-w.i
Operator: ES
Column diameter: 0.18
\\target_server\gg\chem\gcms-w.i\W092821B.b\W0273a.D
Y (x10^6)
Min
-Dichlorodifluoromethane (1.278)
-Chloromethane (1.422)
-Vinyl Chloride (1.460)
-Bromomethane (1.672)
-Chloroethane (1.758)
-Trichlorofluoromethane (1.849)
-Diethyl Ether (2.057)
-1,1-Dichloroethene (2.240)+
-Iodomethane (2.327)
-Acrolein (2.478)
-Allyl Chloride (2.584)
-Methylene Chloride (2.677)+
-trans-1,2-Dichloroethene (2.815)+
-Methyl tert-butyl ether (2.911)
-Tertiary-butyl alcohol (3.014)
-Acetonitrile (3.164)
-Di-isopropyl ether (3.283)
-Chloroprene (3.392)+
-Acrylonitrile (3.485)
-Ethyl tertiary-butyl ethe (3.703)+
-cis-1,2-Dichloroethene (4.056)
-2,2-Dichloropropane (4.191)
-Bromochloromethane (4.307)+
-Chloroform (4.441)
-Carbon Tetrachloride (4.605)+
-Dibromofluoromethane (4.717)+
-2-Butanone (4.920)+
-Benzene (5.324)
-Propionitrile (5.433)+
-1,2-Dichloroethane-D4 (5.545)+
-1,2-Dichloroethane (5.651)
-Isobutyl Alcohol (5.825)
-Methylcyclohexane (6.187)+
-1,4-Difluorobenzene (6.309)
-Dibromomethane (6.829)
-1,2-Dichloropropane (6.973)
-Bromodichloromethane (7.098)
-Methyl Methacrylate (7.387)+
-cis-1,3-dichloropropene (7.968)
-Toluene-D8 (8.206)
-Toluene (8.270)
-Tetrachloroethene (8.751)
-4-methyl-2-pentanone (8.847)+
-1,1,2-Trichloroethane (9.046)
-Ethyl Methacrylate (9.120)
-Dibromochloromethane (9.248)
-1,3-Dichloropropane (9.377)
-1,2-Dibromoethane (9.515)
-2-Hexanone (9.906)
-Total Alkylbenzenes (10.080)
-Chlorobenzene-D5 (10.192)+
-Ethylbenzene (10.269)+
m+p-Xylenes (10.461)
-o-Xylene (10.978)
-Styrene (11.049)+
-Isopropylbenzene (11.366)
-P-Bromofluorobenzene (11.674)
-cis-1,4-Dichloro-2-Butene (11.774)+
-n-Propylbenzene (11.851)
-1,1,2,2-Tetrachloroethane (11.960)
-2-Chlorotoluene (12.005)
-trans-1,4-Dichloro-2-Bute (12.196)
-4-Chlorotoluene (12.197)
-1,2,3-Trichloropropane (12.095)+
-tert-Butylbenzene (12.441)
-1,2,4-Trimethylbenzene (12.528)
-sec-Butylbenzene (12.643)
-P-Isopropyltoluene (12.820)+
-1,2,3-Trimethylbenzene (13.009)
-1,4-Dichlorobenzene-D4 (12.952)+
-N-Butylbenzene (13.288)
-1,2-Dichlorobenzene (13.420)
-1,2-Dibromo-3-Chloropropa (14.341)+
-Hexachlorobutadiene (15.041)+
-Naphthalene (15.400)
-1,2,3-Trichlorobenzene (15.599)

Data File: \\target_server\gg\chem\gcms-w.i\W092821B.b\W0264.D
Report Date: 11-Oct-2021 15:06

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-w.i\W092821B.b\W0264.D
Lab Smp Id: WG306817-4
Inj Date : 28-SEP-2021 10:29
Operator : ES   Inst ID: gcms-w.i
Smp Info : WG306817-4
Misc Info :
Comment   : SW846 5030
Method   : \\target_server\gg\chem\gcms-w.i\W092821B.b\W8A05(09).m
Meth Date : 01-Oct-2021 17:40 HGOULD   Quant Type: ISTD
Cal Date : 28-SEP-2021 10:29   Cal File: W0264.D
Als bottle: 1   Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE   Compound Sublist: all.sub
Target Version: 4.12

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)	REVIEW CODE
1	Dichlorodifluoromethane	85	1.277	1.278	(0.231)	412622	50.0000	49.4	
2	Chloromethane	50	1.412	1.415	(0.255)	460992	50.0000	46.3	
3	Vinyl chloride	62	1.460	1.460	(0.264)	411945	50.0000	48.9	
4	Bromomethane	94	1.672	1.672	(0.302)	82321	50.0000	43.2	
5	Chloroethane	64	1.752	1.755	(0.317)	223643	50.0000	50.4	
6	Trichlorofluoromethane	101	1.848	1.849	(0.334)	559233	50.0000	49.0	
7	Diethyl Ether	59	2.060	2.057	(0.373)	275393	50.0000	49.2	
8	1,1-Dichloroethene	96	2.211	2.211	(0.400)	298859	50.0000	48.8	
9	Freon-113	151	2.237	2.231	(0.405)	228052	50.0000	50.4	
10	Carbon Disulfide	76	2.240	2.240	(0.405)	740420	50.0000	49.5	
11	Iodomethane	142	2.326	2.327	(0.421)	124510	50.0000	53.8	
12	Acrolein	56	2.477	2.478	(0.448)	193719	250.000	250	
13	Allyl Chloride	41	2.583	2.584	(0.467)	491880	50.0000	50.2	
14	Methylene Chloride	84	2.676	2.677	(0.484)	324321	50.0000	50.0	
15	Acetone	43	2.724	2.724	(0.493)	665318	250.000	261	
16	trans-1,2-Dichloroethene	96	2.811	2.811	(0.508)	314835	50.0000	48.7	
17	Methyl Acetate	43	2.830	2.833	(0.512)	325660	50.0000	49.0	
18	Methyl tert-butyl ether	73	2.914	2.907	(0.527)	682565	50.0000	47.8	
19	Tertiary-butyl alcohol	59	3.013	3.010	(0.545)	90144	250.000	266	
20	Acetonitrile	41	3.167	3.164	(0.573)	457239	500.000	516	
21	Di-isopropyl ether	45	3.289	3.286	(0.595)	1051702	50.0000	48.8	
22	Chloroprene	53	3.392	3.385	(0.614)	517462	50.0000	48.1	
23	1,1-Dichloroethane	63	3.421	3.421	(0.619)	587205	50.0000	47.7	
24	Acrylonitrile	52	3.491	3.491	(0.631)	509791	250.000	255	

Data File: \\target_server\gg\chem\gcms-w.i\W092821B.b\W0264.D
Report Date: 11-Oct-2021 15:06

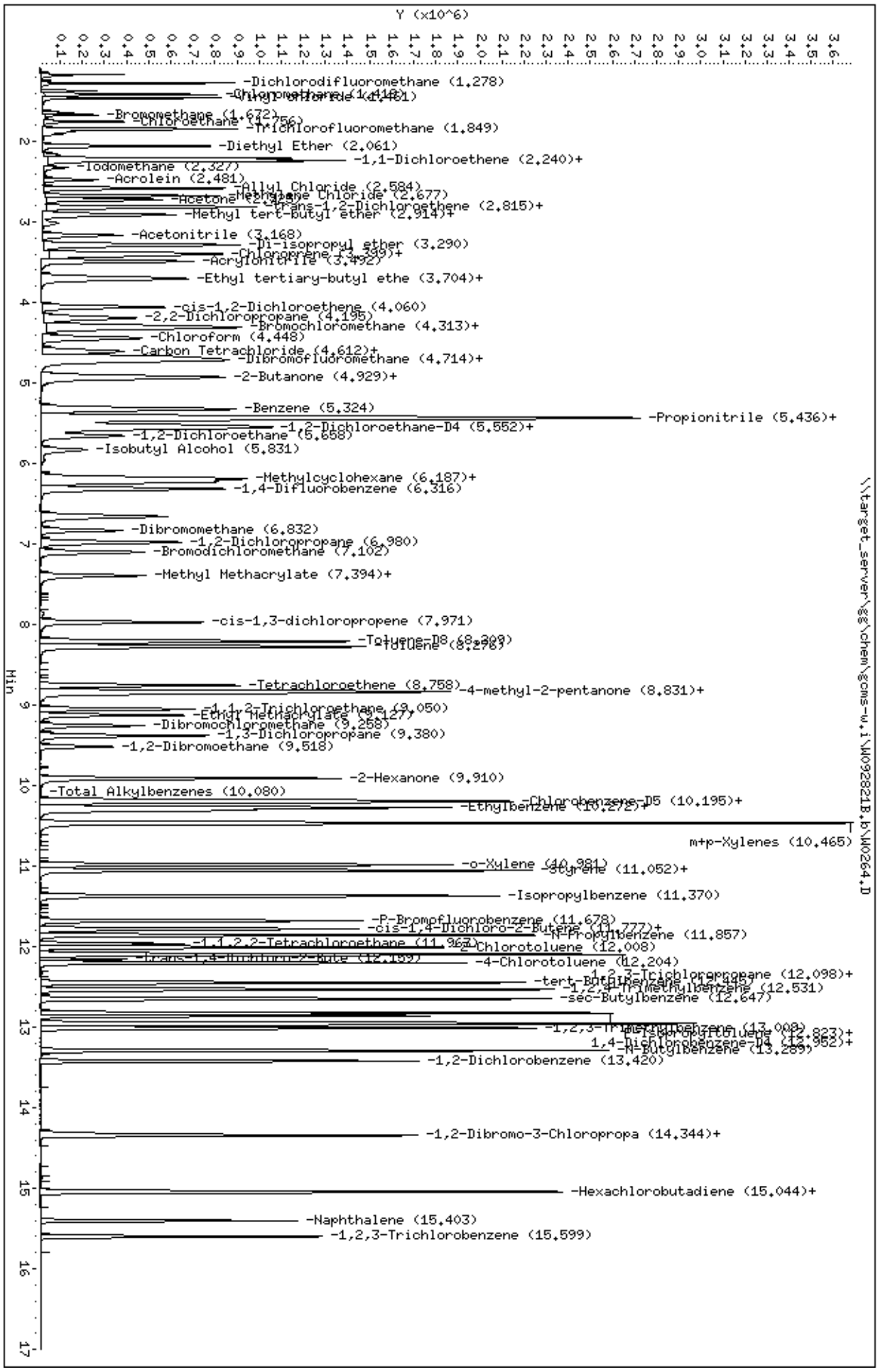
			QUANT SIG					AMOUNTS		
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)	REVIEW CODE
	25	Ethyl tertiary-butyl ether	59	3.697	3.700	(0.669)	683060	50.0000	49.5	
	26	Vinyl Acetate	43	3.719	3.719	(0.589)	502087	50.0000	54.3	
	27	cis-1,2-Dichloroethene	96	4.059	4.053	(0.734)	319642	50.0000	47.7	
	28	2,2-Dichloropropane	77	4.194	4.188	(0.759)	380116	50.0000	51.4	
	29	Bromochloromethane	128	4.319	4.326	(0.781)	131559	50.0000	48.0	
	30	Cyclohexane	56	4.303	4.290	(0.778)	546391	50.0000	49.9	
	31	Chloroform	83	4.448	4.435	(0.804)	557369	50.0000	48.7	
	32	Carbon Tetrachloride	117	4.605	4.614	(0.729)	402360	50.0000	51.5	
	33	Tetrahydrofuran	42	4.675	4.698	(0.846)	600509	250.000	262	
$	34	Dibromofluoromethane	113	4.714	4.711	(0.853)	278056	50.0000	49.6	
	35	1,1,1-Trichloroethane	97	4.724	4.717	(0.854)	501947	50.0000	50.4	
	36	2-Butanone	43	4.942	4.945	(0.894)	806888	250.000	264	
	37	1,1-Dichloropropene	75	4.916	4.922	(0.778)	440548	50.0000	49.7	
	38	Benzene	78	5.324	5.311	(0.843)	1198509	50.0000	49.4	
	39	Propionitrile	54	5.413	5.413	(0.979)	444040	500.000	514(T)	
	40	Methacrylonitrile	41	5.436	5.446	(0.983)	2062201	500.000	513	
*	41	Pentafluorobenzene	168	5.529	5.529	(1.000)	553792	50.0000		
$	42	1,2-Dichloroethane-D4	65	5.551	5.545	(1.004)	369583	50.0000	48.7	
	43	Tertiary-amyl methyl ether	73	5.564	5.567	(1.006)	529207	50.0000	51.3	
	44	1,2-Dichloroethane	62	5.657	5.651	(0.895)	451136	50.0000	48.4	
	45	Isobutyl Alcohol	43	5.831	5.837	(1.055)	213869	1000.00	1160	
	46	Methylcyclohexane	83	6.187	6.184	(1.119)	567807	50.0000	52.2	
	47	Trichloroethene	95	6.232	6.232	(0.986)	299720	50.0000	48.7	
*	48	1,4-Difluorobenzene	114	6.318	6.315	(1.000)	909938	50.0000		
	49	Dibromomethane	93	6.829	6.822	(1.081)	184022	50.0000	48.8	
	50	1,2-Dichloropropane	63	6.979	6.976	(1.105)	315286	50.0000	49.2	
	51	Bromodichloromethane	83	7.101	7.095	(1.124)	410315	50.0000	51.4	
	52	Methyl Methacrylate	41	7.390	7.393	(1.170)	289616	50.0000	56.6	
	53	Ethyl Methacrylate	69	9.126	9.113	(1.444)	364625	50.0000	57.1	
	54	1,4-Dioxane	88	7.409	7.403	(1.173)	62026	1000.00	1270	
M	55	Total Alkylbenzenes	100				9777618	50.0000	360	
	57	cis-1,3-dichloropropene	75	7.974	7.965	(1.262)	487959	50.0000	53.5	
$	58	Toluene-D8	98	8.208	8.205	(1.299)	1083743	50.0000	49.6	
	59	Toluene	92	8.276	8.269	(1.310)	741603	50.0000	48.7	
	60	Tetrachloroethene	164	8.757	8.747	(0.860)	253043	50.0000	50.8	
	61	4-methyl-2-pentanone	43	8.828	8.834	(1.397)	1475977	250.000	268	
	62	trans-1,3-Dichloropropene	75	8.857	8.850	(1.402)	433686	50.0000	54.0	
	63	1,1,2-Trichloroethane	83	9.049	9.049	(1.432)	211869	50.0000	47.9	
	64	Dibromochloromethane	129	9.258	9.251	(0.909)	298609	50.0000	53.7	
	65	1,3-Dichloropropane	76	9.380	9.380	(0.921)	491788	50.0000	51.0	
	66	1,2-Dibromoethane	107	9.518	9.511	(1.506)	261264	50.0000	51.7	
	67	2-Hexanone	43	9.909	9.912	(0.973)	1030859	250.000	284	
*	68	Chlorobenzene-D5	117	10.182	10.182	(1.000)	911995	50.0000		
	69	Chlorobenzene	112	10.204	10.198	(1.002)	837416	50.0000	49.8	
	70	Ethylbenzene	91	10.272	10.269	(1.009)	1467899	50.0000	50.4	
	71	1,1,1,2-Tetrachloroethane	131	10.307	10.304	(1.012)	287420	50.0000	53.1	
	72	m+p-Xylenes	91	10.464	10.461	(1.028)	2272362	100.000	103	
	73	o-Xylene	91	10.981	10.981	(1.078)	1151326	50.0000	51.8	
	74	Styrene	104	11.052	11.048	(1.085)	919383	50.0000	52.2	
	75	Bromoform	173	11.048	11.055	(1.085)	193880	50.0000	55.9	
	76	Isopropylbenzene	105	11.369	11.366	(0.878)	1460019	50.0000	51.4	
$	77	P-Bromofluorobenzene	95	11.677	11.677	(1.848)	483695	50.0000	49.3	
	78	cis-1,4-Dichloro-2-Butene	53	11.790	11.793	(0.911)	91058	50.0000	53.8	
	79	Bromobenzene	156	11.777	11.773	(0.910)	343378	50.0000	48.6	

Data File: \\target_server\gg\chem\gcms-w.i\W092821B.b\W0264.D
Report Date: 11-Oct-2021 15:06

			QUANT SIG					AMOUNTS		
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)	REVIEW CODE
	80	N-Propylbenzene	91	11.857	11.854	(0.916)	1792549	50.0000	50.3	
	81	1,1,2,2-Tetrachloroethane	83	11.960	11.960	(0.924)	332779	50.0000	51.4	
	82	2-Chlorotoluene	91	12.008	12.001	(0.927)	1043821	50.0000	49.9	
	83	1,2,3-Trichloropropane	75	12.088	12.085	(0.934)	300714	50.0000	49.2	
	84	1,3,5-Trimethylbenzene	105	12.098	12.098	(0.934)	1222747	50.0000	51.5	
	85	trans-1,4-Dichloro-2-Butene	53	12.159	12.155	(0.939)	93144	50.0000	56.2	
	86	4-Chlorotoluene	91	12.200	12.200	(0.942)	1100263	50.0000	50.2	
	87	tert-Butylbenzene	119	12.444	12.441	(0.961)	1077499	50.0000	51.0	
	89	1,2,4-Trimethylbenzene	105	12.531	12.531	(0.968)	1259175	50.0000	50.9	
	90	sec-Butylbenzene	105	12.646	12.646	(0.977)	1630812	50.0000	51.3	
	91	P-Isopropyltoluene	119	12.823	12.816	(0.990)	1405913	50.0000	52.2	
	92	1,3-Dichlorobenzene	146	12.858	12.858	(0.993)	697849	50.0000	49.8	
*	93	1,4-Dichlorobenzene-D4	152	12.948	12.942	(1.000)	528823	50.0000		
	94	1,4-Dichlorobenzene	146	12.964	12.961	(1.001)	714281	50.0000	48.3	
	95	1,2,3-Trimethylbenzene	105	13.009	13.006	(1.005)	1235185	50.0000	51.0	
	96	N-Butylbenzene	91	13.291	13.285	(1.027)	1388923	50.0000	52.8	
M	97	1,2-Dichloroethylene (total)	96				634477	50.0000	96.4	
	98	1,2-Dichlorobenzene	146	13.423	13.420	(1.037)	647106	50.0000	48.9	
	99	1,2-Dibromo-3-Chloropropane	157	14.315	14.315	(1.106)	60055	50.0000	55.1	
	100	1,3,5-Trichlorobenzene	180	14.344	14.341	(1.108)	507359	50.0000	51.7	
	101	Hexachlorobutadiene	225	15.037	15.034	(1.161)	240704	50.0000	49.4	
	102	1,2,4-Trichlorobenzene	180	15.050	15.056	(1.162)	428950	50.0000	55.0	
	103	Naphthalene	128	15.403	15.403	(1.190)	813775	50.0000	47.5	
	104	1,2,3-Trichlorobenzene	180	15.599	15.595	(1.205)	345588	50.0000	53.2	
M	105	Xylenes (total)	106				3423688	150.000	155	

QC Flag Legend

T - Target compound detected outside RT window.



Data File: \\target_server\gg\chem\gcms-w.i\W092821B.b\W0264.D
Date : 28-SEP-2021 10:29
Client ID:
Sample Info: WG306817-4
Purge Volume: 5.0
Column phase: RTX-VMS

Instrument: gcms-w.i
Operator: ES
Column diameter: 0.18

Data File: \\target_server\gg\chem\gcms-w.i\W092821B.b\W0265.D
Report Date: 11-Oct-2021 15:06

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-w.i\W092821B.b\W0265.D
Lab Smp Id: WG306817-3
Inj Date : 28-SEP-2021 11:07
Operator : ES Inst ID: gcms-w.i
Smp Info : WG306817-3
Misc Info :
Comment : SW846 5030
Method : \\target_server\gg\chem\gcms-w.i\W092821B.b\W8A05(09).m
Meth Date : 01-Oct-2021 17:40 HGOULD Quant Type: ISTD
Cal Date : 28-SEP-2021 11:07 Cal File: W0265.D
Als bottle: 2 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.12

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)	REVIEW CODE
1	Dichlorodifluoromethane	85	1.277	1.278	(0.231)	168100	20.0000	20.4	
2	Chloromethane	50	1.412	1.415	(0.255)	191661	20.0000	19.5	
3	Vinyl chloride	62	1.460	1.460	(0.264)	171865	20.0000	20.7	
4	Bromomethane	94	1.672	1.672	(0.302)	33109	20.0000	18.3	
5	Chloroethane	64	1.755	1.755	(0.318)	97630	20.0000	22.3	
6	Trichlorofluoromethane	101	1.852	1.849	(0.335)	229724	20.0000	20.4	
7	Diethyl Ether	59	2.060	2.057	(0.373)	111257	20.0000	20.2	
8	1,1-Dichloroethene	96	2.214	2.211	(0.401)	121528	20.0000	20.2	
9	Freon-113	151	2.237	2.231	(0.405)	92415	20.0000	20.7	
10	Carbon Disulfide	76	2.243	2.240	(0.406)	302009	20.0000	20.5	
11	Iodomethane	142	2.327	2.327	(0.421)	34817	20.0000	15.3	
12	Acrolein	56	2.481	2.478	(0.449)	77831	100.000	102	
13	Allyl Chloride	41	2.586	2.584	(0.468)	202681	20.0000	21.0	
14	Methylene Chloride	84	2.676	2.677	(0.484)	138109	20.0000	21.6	
15	Acetone	43	2.724	2.724	(0.493)	249435	100.000	80.6	
16	trans-1,2-Dichloroethene	96	2.814	2.811	(0.509)	129727	20.0000	20.4	
17	Methyl Acetate	43	2.830	2.833	(0.512)	131810	20.0000	20.1	
18	Methyl tert-butyl ether	73	2.914	2.907	(0.527)	299310	20.0000	21.3	
19	Tertiary-butyl alcohol	59	3.016	3.010	(0.546)	48394	100.000	105	
20	Acetonitrile	41	3.164	3.164	(0.572)	175113	200.000	168	
21	Di-isopropyl ether	45	3.286	3.286	(0.594)	426793	20.0000	20.1	
22	Chloroprene	53	3.389	3.385	(0.613)	224255	20.0000	21.2	
23	1,1-Dichloroethane	63	3.421	3.421	(0.619)	247715	20.0000	20.4	
24	Acrylonitrile	52	3.491	3.491	(0.631)	203405	100.000	103	

Data File: \\target_server\gg\chem\gcms-w.i\W092821B.b\W0265.D
Report Date: 11-Oct-2021 15:06

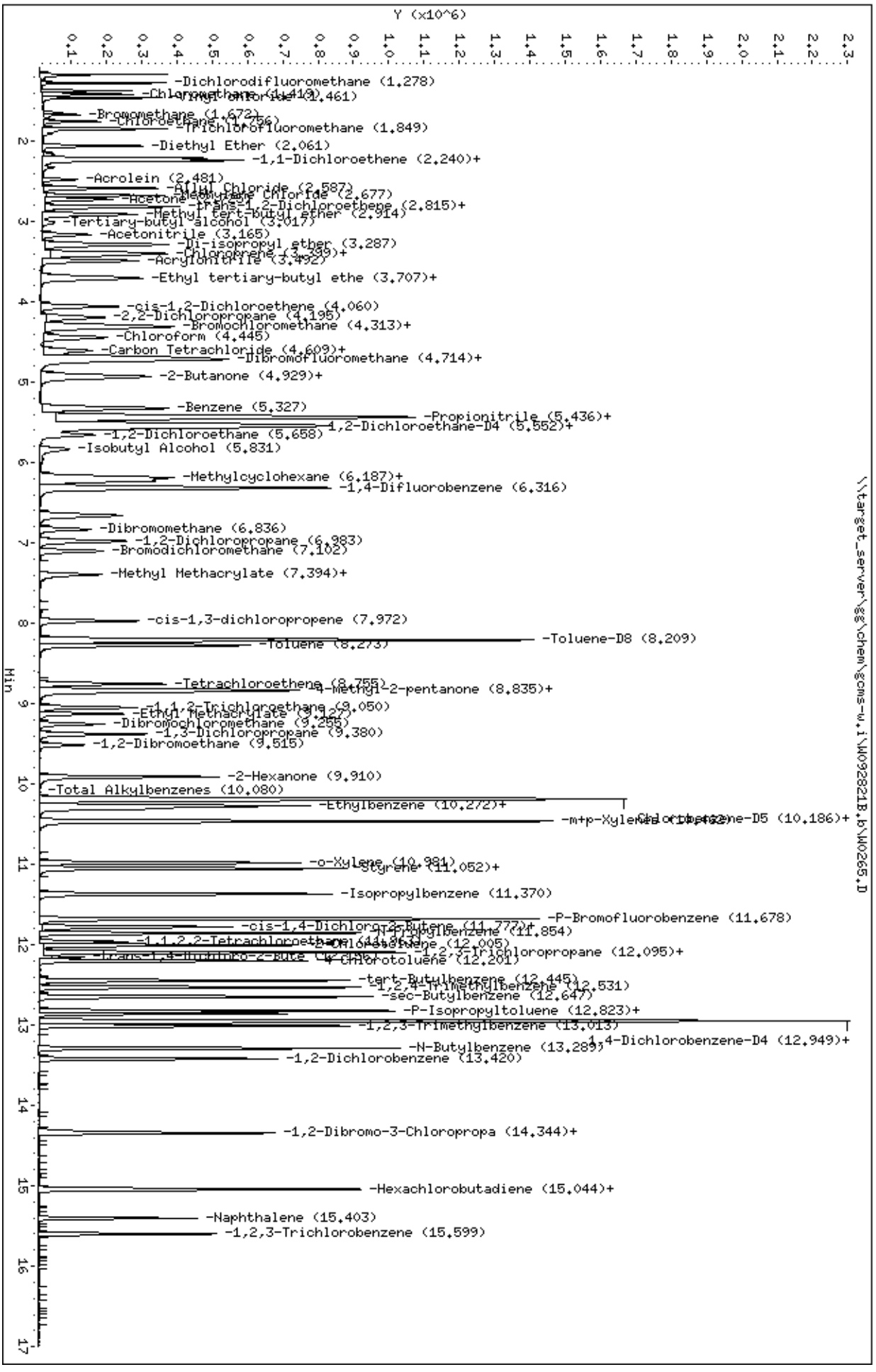
			QUANT SIG					AMOUNTS		
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)	REVIEW CODE
	25	Ethyl tertiary-butyl ether	59	3.700	3.700	(0.669)	295436	20.0000	21.7	
	26	Vinyl Acetate	43	3.716	3.719	(0.588)	194527	20.0000	21.5	
	27	cis-1,2-Dichloroethene	96	4.059	4.053	(0.734)	129685	20.0000	19.7	
	28	2,2-Dichloropropane	77	4.194	4.188	(0.759)	152601	20.0000	21.0	
	29	Bromochloromethane	128	4.323	4.326	(0.782)	55179	20.0000	20.4	
	30	Cyclohexane	56	4.300	4.290	(0.778)	221466	20.0000	20.6	
	31	Chloroform	83	4.448	4.435	(0.804)	224146	20.0000	19.9	
	32	Carbon Tetrachloride	117	4.611	4.614	(0.730)	152983	20.0000	20.0	
	33	Tetrahydrofuran	42	4.682	4.698	(0.847)	232992	100.000	103	
$	34	Dibromofluoromethane	113	4.714	4.711	(0.853)	272107	50.0000	49.2	
	35	1,1,1-Trichloroethane	97	4.720	4.717	(0.854)	195544	20.0000	19.9	
	36	2-Butanone	43	4.948	4.945	(0.895)	302750	100.000	101	
	37	1,1-Dichloropropene	75	4.919	4.922	(0.779)	176304	20.0000	20.3	
	38	Benzene	78	5.327	5.311	(0.843)	485105	20.0000	20.4	
	39	Propionitrile	54	5.414	5.413	(0.979)	179386	200.000	211(T)	
	40	Methacrylonitrile	41	5.436	5.446	(0.983)	825876	200.000	208	
*	41	Pentafluorobenzene	168	5.529	5.529	(1.000)	545400	50.0000		
$	42	1,2-Dichloroethane-D4	65	5.552	5.545	(1.004)	362278	50.0000	48.4	
	43	Tertiary-amyl methyl ether	73	5.571	5.567	(1.008)	216213	20.0000	21.3	
	44	1,2-Dichloroethane	62	5.657	5.651	(0.895)	178139	20.0000	19.5	
	45	Isobutyl Alcohol	43	5.837	5.837	(1.056)	88330	400.000	465	
	46	Methylcyclohexane	83	6.190	6.184	(1.120)	223544	20.0000	20.9	
	47	Trichloroethene	95	6.229	6.232	(0.986)	120772	20.0000	20.0	
*	48	1,4-Difluorobenzene	114	6.318	6.315	(1.000)	892682	50.0000		
	49	Dibromomethane	93	6.832	6.822	(1.081)	72436	20.0000	19.6	
	50	1,2-Dichloropropane	63	6.979	6.976	(1.105)	125340	20.0000	19.9	
	51	Bromodichloromethane	83	7.101	7.095	(1.124)	157236	20.0000	20.1	
	52	Methyl Methacrylate	41	7.390	7.393	(1.170)	106945	20.0000	21.3	
	53	Ethyl Methacrylate	69	9.126	9.113	(1.444)	134817	20.0000	21.5	
	54	1,4-Dioxane	88	7.416	7.403	(1.174)	32026	400.000	671	
M	55	Total Alkylbenzenes	100				3896894	20.0000	148	
	57	cis-1,3-dichloropropene	75	7.974	7.965	(1.262)	182638	20.0000	20.4	
$	58	Toluene-D8	98	8.208	8.205	(1.299)	1070266	50.0000	49.9	
	59	Toluene	92	8.273	8.269	(1.309)	301900	20.0000	20.2	
	60	Tetrachloroethene	164	8.754	8.747	(0.860)	100291	20.0000	20.4	
	61	4-methyl-2-pentanone	43	8.828	8.834	(1.397)	586557	100.000	109	
	62	trans-1,3-Dichloropropene	75	8.853	8.850	(1.401)	158953	20.0000	20.2	
	63	1,1,2-Trichloroethane	83	9.049	9.049	(1.432)	84419	20.0000	19.5	
	64	Dibromochloromethane	129	9.255	9.251	(0.909)	112359	20.0000	20.5	
	65	1,3-Dichloropropane	76	9.380	9.380	(0.921)	195093	20.0000	20.5	
	66	1,2-Dibromoethane	107	9.515	9.511	(1.506)	98313	20.0000	19.8	
	67	2-Hexanone	43	9.909	9.912	(0.973)	401142	100.000	112	
*	68	Chlorobenzene-D5	117	10.182	10.182	(1.000)	897800	50.0000		
	69	Chlorobenzene	112	10.204	10.198	(1.002)	331473	20.0000	20.0	
	70	Ethylbenzene	91	10.272	10.269	(1.009)	594483	20.0000	20.8	
	71	1,1,1,2-Tetrachloroethane	131	10.301	10.304	(1.012)	109450	20.0000	20.5	
	72	m+p-Xylenes	91	10.464	10.461	(1.028)	916153	40.0000	42.4	
	73	o-Xylene	91	10.981	10.981	(1.078)	453686	20.0000	20.7	
	74	Styrene	104	11.052	11.048	(1.085)	358171	20.0000	20.6	
	75	Bromoform	173	11.052	11.055	(1.085)	70173	20.0000	20.6	
	76	Isopropylbenzene	105	11.369	11.366	(0.878)	586137	20.0000	21.3	
$	77	P-Bromofluorobenzene	95	11.674	11.677	(1.848)	483220	50.0000	50.2	
	78	cis-1,4-Dichloro-2-Butene	53	11.790	11.793	(0.911)	32819	20.0000	20.0	
	79	Bromobenzene	156	11.777	11.773	(0.910)	134765	20.0000	19.7	

Data File: \\target_server\gg\chem\gcms-w.i\W092821B.b\W0265.D
Report Date: 11-Oct-2021 15:06

			QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)	REVIEW CODE
	80	N-Propylbenzene	91	11.854	11.854	(0.916)	729429	20.0000	21.2	
	81	1,1,2,2-Tetrachloroethane	83	11.963	11.960	(0.924)	130774	20.0000	20.8	
	82	2-Chlorotoluene	91	12.005	12.001	(0.927)	417683	20.0000	20.6	
	83	1,2,3-Trichloropropane	75	12.085	12.085	(0.934)	116976	20.0000	19.8	
	84	1,3,5-Trimethylbenzene	105	12.098	12.098	(0.935)	479972	20.0000	20.9	
	85	trans-1,4-Dichloro-2-Butene	53	12.155	12.155	(0.939)	30562	20.0000	19.0	
	86	4-Chlorotoluene	91	12.200	12.200	(0.942)	438455	20.0000	20.7	
	87	tert-Butylbenzene	119	12.447	12.441	(0.962)	425609	20.0000	20.8	
	89	1,2,4-Trimethylbenzene	105	12.531	12.531	(0.968)	501009	20.0000	20.9	
	90	sec-Butylbenzene	105	12.646	12.646	(0.977)	654508	20.0000	21.3	
	91	P-Isopropyltoluene	119	12.823	12.816	(0.991)	556494	20.0000	21.3	
	92	1,3-Dichlorobenzene	146	12.855	12.858	(0.993)	276665	20.0000	20.4	
*	93	1,4-Dichlorobenzene-D4	152	12.945	12.942	(1.000)	511812	50.0000		
	94	1,4-Dichlorobenzene	146	12.961	12.961	(1.001)	286674	20.0000	20.0	
	95	1,2,3-Trimethylbenzene	105	13.009	13.006	(1.005)	493945	20.0000	21.1	
	96	N-Butylbenzene	91	13.288	13.285	(1.027)	549873	20.0000	21.6	
M	97	1,2-Dichloroethylene (total)	96				259412	20.0000	40.0	
	98	1,2-Dichlorobenzene	146	13.420	13.420	(1.037)	256616	20.0000	20.0	
	99	1,2-Dibromo-3-Chloropropane	157	14.312	14.315	(1.106)	22000	20.0000	20.8	
	100	1,3,5-Trichlorobenzene	180	14.344	14.341	(1.108)	196361	20.0000	20.7	
	101	Hexachlorobutadiene	225	15.037	15.034	(1.162)	96004	20.0000	20.4	
	102	1,2,4-Trichlorobenzene	180	15.050	15.056	(1.163)	160187	20.0000	21.2	
	103	Naphthalene	128	15.403	15.403	(1.190)	319521	20.0000	16.8	
	104	1,2,3-Trichlorobenzene	180	15.599	15.595	(1.205)	139210	20.0000	22.1	
M	105	Xylenes (total)	106				1369839	60.0000	63.1	

QC Flag Legend

T - Target compound detected outside RT window.


Data File: \\target_server\gg\chem\gcms-w.i\W092821B.b\W0265.D
Date : 28-SEP-2021 11:07
Client ID:
Sample Info: WG306817-3
Purge Volume: 5.0
Column phase: RTX-VMS
Instrument: gcms-w.i
Operator: ES
Column diameter: 0.18
Y (x10^6)
Min
\\target_server\gg\chem\gcms-w.i\W092821B.b\W0265.D
-Dichlorodifluoromethane (1.278)
-Chloromethane (1.410)
-Vinyl chloride (1.461)
-Bromomethane (1.672)
-Chloroethane (1.756)
-Trichlorofluoromethane (1.849)
-Diethyl Ether (2.061)
-1,1-Dichloroethene (2.240)+
-Acrolein (2.481)
-Allyl Chloride (2.587)
-Methylene Chloride (2.677)
-Acetone (2.706)
-trans-1,2-Dichloroethene (2.815)+
-Methyl tert-butyl ether (2.914)
-Tertiary-butyl alcohol (3.017)
-Acetonitrile (3.165)
-Di-isopropyl ether (3.287)
-Chloroprene (3.299)+
-Acrylonitrile (3.492)
-Ethyl tertiary-butyl ethe (3.707)+
-cis-1,2-Dichloroethene (4.060)
-2,2-Dichloropropane (4.195)
-Bromochloromethane (4.313)+
-Chloroform (4.445)
-Carbon Tetrachloride (4.609)+
-Dibromofluoromethane (4.714)+
-2-Butanone (4.929)+
-Benzene (5.327)
-Propionitrile (5.436)+
1,2-Dichloroethane-D4 (5.552)+
-1,2-Dichloroethane (5.658)
-Isobutyl Alcohol (5.831)
-Methylcyclohexane (6.187)+
-1,4-Difluorobenzene (6.316)
-Dibromomethane (6.836)
-1,2-Dichloropropane (6.983)
-Bromodichloromethane (7.102)
-Methyl Methacrylate (7.394)+
-cis-1,3-dichloropropene (7.972)
-Toluene-D8 (8.209)
-Toluene (8.273)
-Tetrachloroethene (8.755)
4-Methyl-2-pentanone (8.835)+
-1,1,2-Trichloroethane (9.050)
-Ethyl Methacrylate (9.127)
-Dibromochloromethane (9.255)
-1,3-Dichloropropane (9.380)
-1,2-Dibromoethane (9.515)
-2-Hexanone (9.910)
-Total Alkylbenzenes (10.080)
-Ethylbenzene (10.272)+
-m+p-Xylenes (10.392)+
Chlorobenzene-D5 (10.186)+
-o-Xylene (10.981)
Styrene (11.052)+
-Isopropylbenzene (11.370)
-P-Bromofluorobenzene (11.678)
-cis-1,4-Dichloro-2-Butene (11.777)+
-n-Propylbenzene (11.854)
-1,1,2,2-Tetrachloroethane (11.963)+
2-Chlorotoluene (12.005)
-1,2,3-Trichloropropane (12.095)+
-trans-1,4-Dichloro-2-Bute (12.146)+
4-Chlorotoluene (12.201)
-tert-Butylbenzene (12.445)
-1,2,4-Trimethylbenzene (12.531)
-sec-Butylbenzene (12.647)
-P-Isopropyltoluene (12.823)+
-1,2,3-Trimethylbenzene (13.013)
1,4-Dichlorobenzene-D4 (12.949)+
-N-Butylbenzene (13.289)
-1,2-Dichlorobenzene (13.420)
-1,2-Dibromo-3-Chloropropa (14.344)+
-Hexachlorobutadiene (15.044)+
-Naphthalene (15.403)
-1,2,3-Trichlorobenzene (15.599)

Data File: \\target_server\gg\chem\gcms-w.i\W092821B.b\W0266.D
Report Date: 11-Oct-2021 15:06

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-w.i\W092821B.b\W0266.D
Lab Smp Id: WG306817-8
Inj Date : 28-SEP-2021 11:37
Operator : ES   Inst ID: gcms-w.i
Smp Info : WG306817-8
Misc Info :
Comment   : SW846 5030
Method   : \\target_server\gg\chem\gcms-w.i\W092821B.b\W8A05(09).m
Meth Date : 01-Oct-2021 17:40 HGOULD   Quant Type: ISTD
Cal Date : 28-SEP-2021 11:37   Cal File: W0266.D
Als bottle: 3   Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: HP RTE   Compound Sublist: all.sub
Target Version: 4.12

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

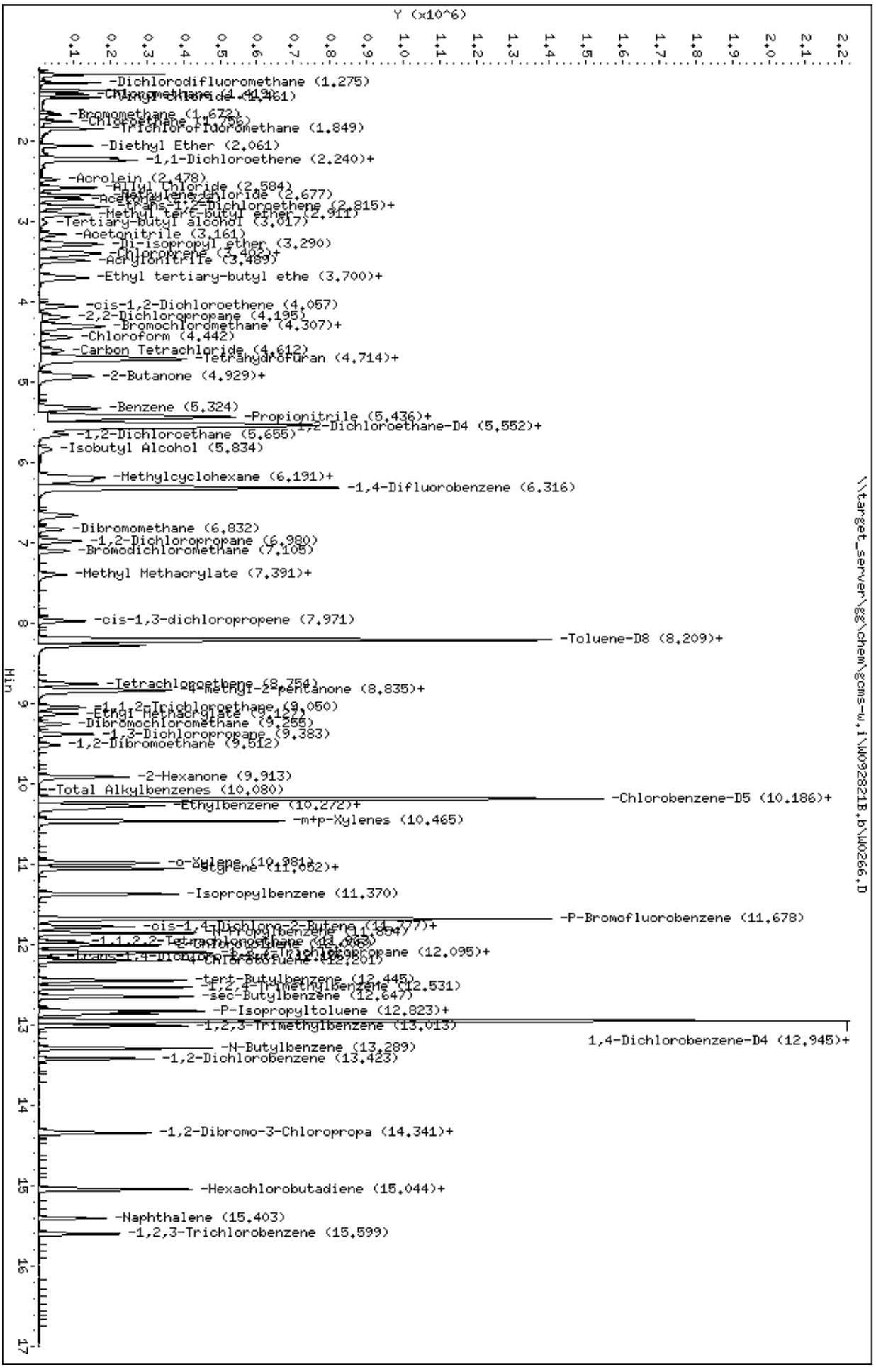
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)	REVIEW CODE
1	Dichlorodifluoromethane	85	1.274	1.278	(0.231)	77185	10.0000	9.5	
2	Chloromethane	50	1.412	1.415	(0.256)	90758	10.0000	9.3	
3	Vinyl chloride	62	1.460	1.460	(0.264)	78143	10.0000	9.5	
4	Bromomethane	94	1.672	1.672	(0.303)	14744	10.0000	8.3	
5	Chloroethane	64	1.755	1.755	(0.318)	47799	10.0000	11.0	
6	Trichlorofluoromethane	101	1.848	1.849	(0.335)	106183	10.0000	9.5	
7	Diethyl Ether	59	2.063	2.057	(0.373)	53268	10.0000	9.7	
8	1,1-Dichloroethene	96	2.214	2.211	(0.401)	56886	10.0000	9.5	
9	Freon-113	151	2.240	2.231	(0.405)	43109	10.0000	9.7	
10	Carbon Disulfide	76	2.240	2.240	(0.405)	137670	10.0000	9.4	
11	Iodomethane	142	2.330	2.327	(0.422)	12270	10.0000	5.4	
12	Acrolein	56	2.477	2.478	(0.448)	38360	50.0000	50.7	
13	Allyl Chloride	41	2.583	2.584	(0.468)	92158	10.0000	9.6	
14	Methylene Chloride	84	2.676	2.677	(0.484)	70320	10.0000	11.1	
15	Acetone	43	2.724	2.724	(0.493)	139257	50.0000	42.5	
16	trans-1,2-Dichloroethene	96	2.814	2.811	(0.509)	58877	10.0000	9.3	
17	Methyl Acetate	43	2.830	2.833	(0.512)	67764	10.0000	10.4	
18	Methyl tert-butyl ether	73	2.914	2.907	(0.527)	145582	10.0000	10.4	
19	Tertiary-butyl alcohol	59	3.016	3.010	(0.546)	22477	50.0000	37.4	
20	Acetonitrile	41	3.161	3.164	(0.572)	86797	100.000	79.1	
21	Di-isopropyl ether	45	3.286	3.286	(0.595)	199956	10.0000	9.5	
22	Chloroprene	53	3.389	3.385	(0.613)	104383	10.0000	9.9	
23	1,1-Dichloroethane	63	3.418	3.421	(0.619)	118242	10.0000	9.8	
24	Acrylonitrile	52	3.488	3.491	(0.631)	99224	50.0000	50.8	

Data File: \\target_server\gg\chem\gcms-w.i\W092821B.b\W0266.D
Report Date: 11-Oct-2021 15:06

			QUANT SIG					AMOUNTS		
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)	REVIEW CODE
	25	Ethyl tertiary-butyl ether	59	3.703	3.700	(0.670)	136728	10.0000	10.1	
	26	Vinyl Acetate	43	3.719	3.719	(0.589)	90312	10.0000	9.8	
	27	cis-1,2-Dichloroethene	96	4.059	4.053	(0.735)	61339	10.0000	9.4	
	28	2,2-Dichloropropane	77	4.194	4.188	(0.759)	66340	10.0000	9.2	
	29	Bromochloromethane	128	4.319	4.326	(0.782)	26179	10.0000	9.8	
	30	Cyclohexane	56	4.300	4.290	(0.778)	99940	10.0000	9.3	
	31	Chloroform	83	4.438	4.435	(0.803)	105405	10.0000	9.4	
	32	Carbon Tetrachloride	117	4.608	4.614	(0.729)	68508	10.0000	8.8	
	33	Tetrahydrofuran	42	4.682	4.698	(0.847)	117316	50.0000	52.5	
$	34	Dibromofluoromethane	113	4.717	4.711	(0.854)	269369	50.0000	49.1	
	35	1,1,1-Trichloroethane	97	4.727	4.717	(0.855)	90525	10.0000	9.3	
	36	2-Butanone	43	4.948	4.945	(0.895)	162623	50.0000	54.5	
	37	1,1-Dichloropropene	75	4.923	4.922	(0.779)	81110	10.0000	9.2	
	38	Benzene	78	5.327	5.311	(0.843)	223817	10.0000	9.3	
	39	Propionitrile	54	5.410	5.413	(0.979)	90842	100.000	108	
	40	Methacrylonitrile	41	5.436	5.446	(0.984)	412434	100.000	105	
*	41	Pentafluorobenzene	168	5.526	5.529	(1.000)	541083	50.0000		
$	42	1,2-Dichloroethane-D4	65	5.551	5.545	(1.005)	375090	50.0000	50.6	
	43	Tertiary-amyl methyl ether	73	5.558	5.567	(1.006)	98724	10.0000	9.8	
	44	1,2-Dichloroethane	62	5.654	5.651	(0.895)	86839	10.0000	9.4	
	45	Isobutyl Alcohol	43	5.834	5.837	(1.056)	40097	200.000	209	
	46	Methylcyclohexane	83	6.190	6.184	(1.120)	102885	10.0000	9.7	
	47	Trichloroethene	95	6.225	6.232	(0.985)	55435	10.0000	9.1	
*	48	1,4-Difluorobenzene	114	6.318	6.315	(1.000)	903643	50.0000		
	49	Dibromomethane	93	6.829	6.822	(1.081)	34796	10.0000	9.3	
	50	1,2-Dichloropropane	63	6.983	6.976	(1.105)	59645	10.0000	9.4	
	51	Bromodichloromethane	83	7.098	7.095	(1.123)	72407	10.0000	9.1	
	52	Methyl Methacrylate	41	7.390	7.393	(1.170)	49287	10.0000	9.7	
	53	Ethyl Methacrylate	69	9.126	9.113	(1.444)	59362	10.0000	9.4	
	54	1,4-Dioxane	88	7.416	7.403	(1.174)	15636	200.000	325	
M	55	Total Alkylbenzenes	100				1772448	10.0000	68.2	
	57	cis-1,3-dichloropropene	75	7.974	7.965	(1.262)	81802	10.0000	9.0	
$	58	Toluene-D8	98	8.208	8.205	(1.299)	1070129	50.0000	49.3	
	59	Toluene	92	8.269	8.269	(1.309)	142475	10.0000	9.4	
	60	Tetrachloroethene	164	8.757	8.747	(0.860)	45064	10.0000	9.2	
	61	4-methyl-2-pentanone	43	8.834	8.834	(1.398)	287189	50.0000	52.6	
	62	trans-1,3-Dichloropropene	75	8.853	8.850	(1.401)	71473	10.0000	9.0	
	63	1,1,2-Trichloroethane	83	9.046	9.049	(1.432)	41319	10.0000	9.4	
	64	Dibromochloromethane	129	9.255	9.251	(0.909)	52758	10.0000	9.6	
	65	1,3-Dichloropropane	76	9.383	9.380	(0.922)	92433	10.0000	9.7	
	66	1,2-Dibromoethane	107	9.514	9.511	(1.506)	48545	10.0000	9.7	
	67	2-Hexanone	43	9.912	9.912	(0.974)	193200	50.0000	54.0	
*	68	Chlorobenzene-D5	117	10.182	10.182	(1.000)	898284	50.0000		
	69	Chlorobenzene	112	10.201	10.198	(1.002)	156341	10.0000	9.4	
	70	Ethylbenzene	91	10.272	10.269	(1.009)	273947	10.0000	9.6	
	71	1,1,1,2-Tetrachloroethane	131	10.307	10.304	(1.012)	49945	10.0000	9.4	
	72	m+p-Xylenes	91	10.464	10.461	(1.028)	424740	20.0000	19.6	
	73	o-Xylene	91	10.981	10.981	(1.078)	209258	10.0000	9.6	
	74	Styrene	104	11.052	11.048	(1.085)	164545	10.0000	9.5	
	75	Bromoform	173	11.048	11.055	(1.085)	31607	10.0000	9.2	
	76	Isopropylbenzene	105	11.369	11.366	(0.878)	266581	10.0000	9.8	
$	77	P-Bromofluorobenzene	95	11.677	11.677	(1.848)	479450	50.0000	49.2	
	78	cis-1,4-Dichloro-2-Butene	53	11.790	11.793	(0.911)	15076	10.0000	9.3	
	79	Bromobenzene	156	11.777	11.773	(0.910)	62504	10.0000	9.2	

Data File: \\target_server\gg\chem\gcms-w.i\W092821B.b\W0266.D
Report Date: 11-Oct-2021 15:06

			QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)	REVIEW CODE
	80	N-Propylbenzene	91	11.854	11.854	(0.916)	335538	10.0000	9.9	
	81	1,1,2,2-Tetrachloroethane	83	11.960	11.960	(0.924)	62715	10.0000	10.1	
	82	2-Chlorotoluene	91	12.008	12.001	(0.928)	192359	10.0000	9.6	
	83	1,2,3-Trichloropropane	75	12.085	12.085	(0.934)	58242	10.0000	10	
	84	1,3,5-Trimethylbenzene	105	12.101	12.098	(0.935)	217864	10.0000	9.6	
	85	trans-1,4-Dichloro-2-Butene	53	12.155	12.155	(0.939)	13181	10.0000	8.3	
	86	4-Chlorotoluene	91	12.200	12.200	(0.942)	203304	10.0000	9.7	
	87	tert-Butylbenzene	119	12.444	12.441	(0.961)	194156	10.0000	9.6	
	89	1,2,4-Trimethylbenzene	105	12.528	12.531	(0.968)	230101	10.0000	9.7	
	90	sec-Butylbenzene	105	12.646	12.646	(0.977)	298661	10.0000	9.8	
	91	P-Isopropyltoluene	119	12.823	12.816	(0.991)	248265	10.0000	9.6	
	92	1,3-Dichlorobenzene	146	12.858	12.858	(0.993)	126647	10.0000	9.5	
*	93	1,4-Dichlorobenzene-D4	152	12.945	12.942	(1.000)	505115	50.0000		
	94	1,4-Dichlorobenzene	146	12.961	12.961	(1.001)	135000	10.0000	9.6	
	95	1,2,3-Trimethylbenzene	105	13.012	13.006	(1.005)	223960	10.0000	9.7	
	96	N-Butylbenzene	91	13.288	13.285	(1.027)	247863	10.0000	9.9	
M	97	1,2-Dichloroethylene (total)	96				120216	10.0000	18.7	
	98	1,2-Dichlorobenzene	146	13.420	13.420	(1.037)	120924	10.0000	9.6	
	99	1,2-Dibromo-3-Chloropropane	157	14.312	14.315	(1.106)	10445	10.0000	10.0	
	100	1,3,5-Trichlorobenzene	180	14.341	14.341	(1.108)	90434	10.0000	9.6	
	101	Hexachlorobutadiene	225	15.037	15.034	(1.162)	42812	10.0000	9.2	
	102	1,2,4-Trichlorobenzene	180	15.047	15.056	(1.162)	71374	10.0000	9.6	
	103	Naphthalene	128	15.403	15.403	(1.190)	132054	10.0000	6.6	
	104	1,2,3-Trichlorobenzene	180	15.599	15.595	(1.205)	62839	10.0000	10.1	
M	105	Xylenes (total)	106				633998	10.0000	29.2	


Data File: \\target_server\gg\chem\gcms-w.i\W092821B.b\W0266.D
Date : 28-SEP-2021 11:37
Client ID:
Sample Info: WG306817-8
Purge Volume: 5.0
Column phase: RTX-VMS
Instrument: gcms-w.i
Operator: ES
Column diameter: 0.18
\\target_server\gg\chem\gcms-w.i\W092821B.b\W0266.D
Y (x10^6)
Min
-Dichlorodifluoromethane (1.275)
-Chloromethane (1.403)
-Vinyl Chloride (1.461)
-Bromomethane (1.672)
-Chloroethane (1.796)
-Trichlorofluoromethane (1.849)
-Diethyl Ether (2.061)
-1,1-Dichloroethene (2.240)+
-Acrolein (2.478)
-Allyl Chloride (2.584)
-Methylene chloride (2.677)
-trans-1,2-Dichloroethene (2.815)+
-Methyl tert-butyl ether (2.911)
-Tertiary-butyl alcohol (3.017)
-Acetonitrile (3.161)
-Di-isopropyl ether (3.290)
-Chloroprene (3.402)+
-Acrylonitrile (3.489)
-Ethyl tertiary-butyl ethe (3.700)+
-cis-1,2-Dichloroethene (4.057)
-2,2-Dichloropropane (4.195)
-Bromochloromethane (4.307)+
-Chloroform (4.442)
-Carbon Tetrachloride (4.612)
-Tetrahydrofuran (4.714)+
-2-Butanone (4.929)+
-Benzene (5.324)
-Propionitrile (5.436)+
-1,2-Dichloroethane-D4 (5.552)+
-1,2-Dichloroethane (5.655)
-Isobutyl Alcohol (5.834)
-Methylcyclohexane (6.191)+
-1,4-Difluorobenzene (6.316)
-Dibromomethane (6.832)
-1,2-Dichloropropane (6.980)
-Bromodichloromethane (7.105)
-Methyl Methacrylate (7.391)+
-cis-1,3-dichloropropene (7.971)
-Toluene-D8 (8.209)+
-Tetrachloroethene (8.754)
-4-methyl-2-pentanone (8.835)+
-1,1,2-Trichloroethane (9.050)
-Ethyl Methacrylate (9.127)
-Dibromochloromethane (9.255)
-1,3-Dichloropropane (9.383)
-1,2-Dibromoethane (9.512)
-2-Hexanone (9.913)
-Total Alkylbenzenes (10.080)
-Chlorobenzene-D5 (10.186)+
-Ethylbenzene (10.272)+
-m+p-Xylenes (10.465)
-o-Xylene (10.981)
-Styrene (11.052)+
-Isopropylbenzene (11.370)
-P-Bromofluorobenzene (11.678)
-cis-1,4-Dichloro-2-Butene (11.777)+
-n-Propylbenzene (11.864)
-1,1,2,2-Tetrachloroethane (11.963)
-2-Chlorotoluene (12.006)
-1,3,5-Trimethylbenzene (12.095)+
-trans-1,4-Dichloro-2-Butene (12.201)
-4-Chlorotoluene (12.201)
-tert-Butylbenzene (12.445)
-1,2,4-Trimethylbenzene (12.531)
-sec-Butylbenzene (12.647)
-P-Isopropyltoluene (12.823)+
-1,2,3-Trimethylbenzene (13.013)
1,4-Dichlorobenzene-D4 (12.945)+
-N-Butylbenzene (13.289)
-1,2-Dichlorobenzene (13.423)
-1,2-Dibromo-3-Chloropropa (14.341)+
-Hexachlorobutadiene (15.044)+
-Naphthalene (15.403)
-1,2,3-Trichlorobenzene (15.599)

Data File: \\target_server\gg\chem\gcms-w.i\W092821B.b\W0267.D
Report Date: 11-Oct-2021 15:06

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-w.i\W092821B.b\W0267.D
Lab Smp Id: WG306817-2
Inj Date : 28-SEP-2021 12:08
Operator : ES Inst ID: gcms-w.i
Smp Info : WG306817-2
Misc Info :
Comment : SW846 5030
Method : \\target_server\gg\chem\gcms-w.i\W092821B.b\W8A05(09).m
Meth Date : 01-Oct-2021 17:40 HGOULD Quant Type: ISTD
Cal Date : 28-SEP-2021 12:08 Cal File: W0267.D
Als bottle: 4 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.12
Processing Host: T7-O360

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)	REVIEW CODE
1	Dichlorodifluoromethane	85	1.277	1.278	(0.231)	38917	5.00000	4.9	
2	Chloromethane	50	1.412	1.415	(0.255)	46904	5.00000	5.0	
3	Vinyl chloride	62	1.460	1.460	(0.264)	38454	5.00000	4.8	
4	Bromomethane	94	1.672	1.672	(0.302)	7729	5.00000	4.5	
5	Chloroethane	64	1.758	1.755	(0.318)	23272	5.00000	5.6	
6	Trichlorofluoromethane	101	1.848	1.849	(0.334)	52213	5.00000	4.8	
7	Diethyl Ether	59	2.060	2.057	(0.373)	26856	5.00000	5.1	
8	1,1-Dichloroethene	96	2.211	2.211	(0.400)	27922	5.00000	4.8	
9	Freon-113	151	2.240	2.231	(0.405)	21150	5.00000	4.9	
10	Carbon Disulfide	76	2.240	2.240	(0.405)	69750	5.00000	4.9	
11	Iodomethane	142	2.330	2.327	(0.421)	4115	5.00000	1.9	
12	Acrolein	56	2.474	2.478	(0.448)	19481	25.0000	26.6	
13	Allyl Chloride	41	2.583	2.584	(0.467)	44547	5.00000	4.8	
14	Methylene Chloride	84	2.673	2.677	(0.483)	39348	5.00000	6.4	
15	Acetone	43	2.724	2.724	(0.493)	71208	25.0000	21.6	
16	trans-1,2-Dichloroethene	96	2.814	2.811	(0.509)	29990	5.00000	4.9	
17	Methyl Acetate	43	2.830	2.833	(0.512)	32350	5.00000	5.2	
18	Methyl tert-butyl ether	73	2.917	2.907	(0.528)	73352	5.00000	5.4	
19	Tertiary-butyl alcohol	59	3.023	3.010	(0.547)	11489	25.0000	17.2	
20	Acetonitrile	41	3.167	3.164	(0.573)	42088	50.0000	38.4	
21	Di-isopropyl ether	45	3.286	3.286	(0.594)	99800	5.00000	4.9	
22	Chloroprene	53	3.388	3.385	(0.613)	46614	5.00000	4.6	
23	1,1-Dichloroethane	63	3.421	3.421	(0.619)	55243	5.00000	4.8	

Data File: \\target_server\gg\chem\gcms-w.i\W092821B.b\W0267.D
Report Date: 11-Oct-2021 15:06

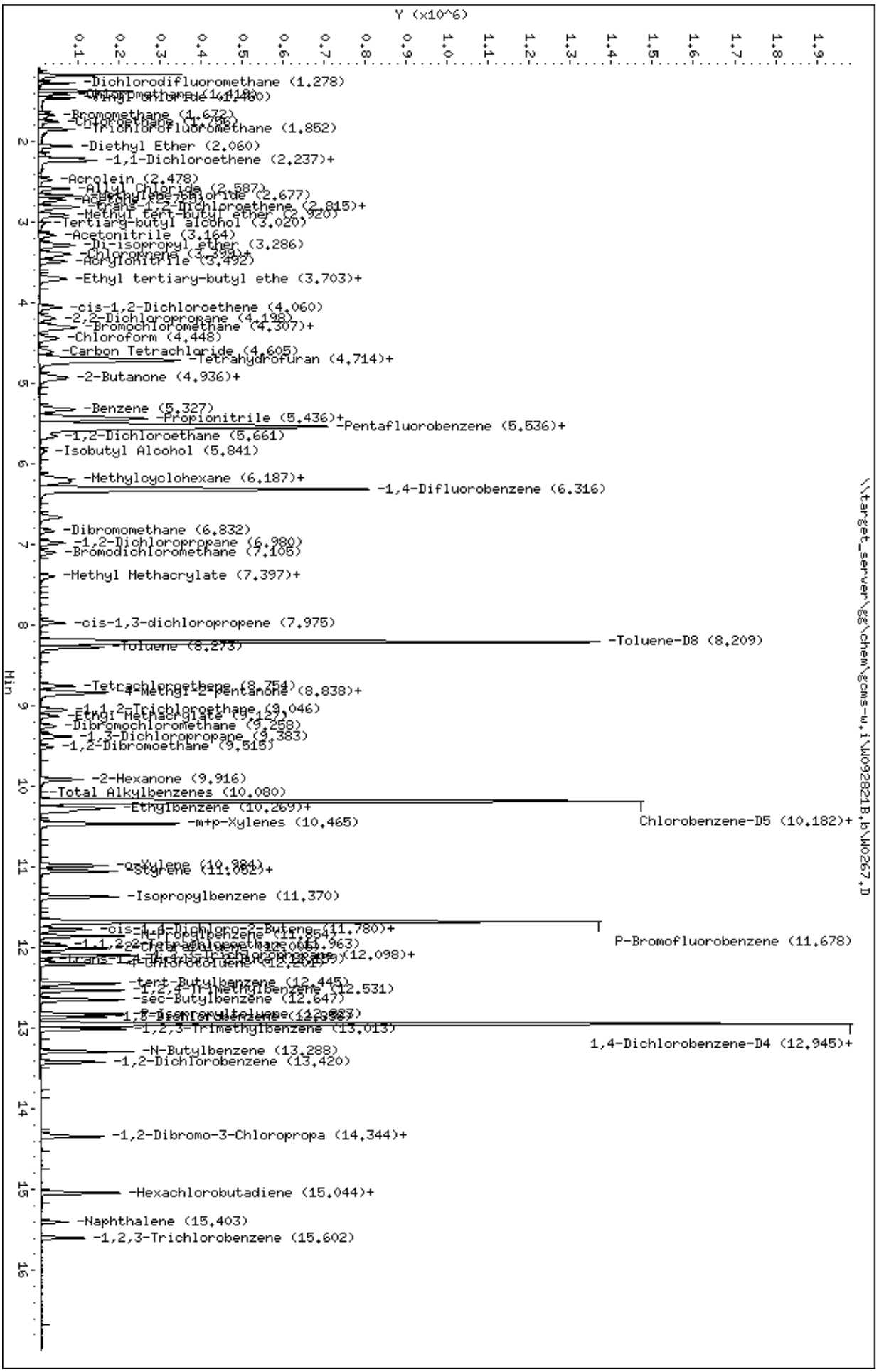
		Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)	REVIEW CODE
	24	Acrylonitrile	52	3.491	3.491	(0.631)	49194	25.0000	26.0	
	25	Ethyl tertiary-butyl ether	59	3.703	3.700	(0.670)	66233	5.00000	5.1	
	26	Vinyl Acetate	43	3.719	3.719	(0.589)	41830	5.00000	4.8	
	27	cis-1,2-Dichloroethene	96	4.059	4.053	(0.734)	31059	5.00000	4.9	
	28	2,2-Dichloropropane	77	4.197	4.188	(0.759)	29889	5.00000	4.3	
	29	Bromochloromethane	128	4.319	4.326	(0.781)	13004	5.00000	5.0	
	30	Cyclohexane	56	4.303	4.290	(0.778)	48156	5.00000	4.6	
	31	Chloroform	83	4.444	4.435	(0.804)	53615	5.00000	5.0	
	32	Carbon Tetrachloride	117	4.608	4.614	(0.730)	34984	5.00000	4.7	
	33	Tetrahydrofuran	42	4.695	4.698	(0.849)	55227	25.0000	25.5	
$	34	Dibromofluoromethane	113	4.717	4.711	(0.853)	260662	50.0000	49.2	
	35	1,1,1-Trichloroethane	97	4.717	4.717	(0.853)	45432	5.00000	4.8	
	36	2-Butanone	43	4.945	4.945	(0.894)	73725	25.0000	25.6	
	37	1,1-Dichloropropene	75	4.922	4.922	(0.779)	39486	5.00000	4.7	
	38	Benzene	78	5.327	5.311	(0.844)	111817	5.00000	4.9	
	39	Propionitrile	54	5.417	5.413	(0.980)	42258	50.0000	51.7	
	40	Methacrylonitrile	41	5.436	5.446	(0.983)	203613	50.0000	53.6	
*	41	Pentafluorobenzene	168	5.529	5.529	(1.000)	523110	50.0000		
$	42	1,2-Dichloroethane-D4	65	5.551	5.545	(1.004)	362618	50.0000	50.6	
	43	Tertiary-amyl methyl ether	73	5.567	5.567	(1.007)	47508	5.00000	4.9	
	44	1,2-Dichloroethane	62	5.660	5.651	(0.896)	44329	5.00000	5.0	
	45	Isobutyl Alcohol	43	5.840	5.837	(1.056)	17926	100.000	96.0	
	46	Methylcyclohexane	83	6.187	6.184	(1.119)	46665	5.00000	4.5	
	47	Trichloroethene	95	6.225	6.232	(0.986)	28387	5.00000	4.9	
*	48	1,4-Difluorobenzene	114	6.315	6.315	(1.000)	862278	50.0000		
	49	Dibromomethane	93	6.835	6.822	(1.082)	17622	5.00000	4.9	
	50	1,2-Dichloropropane	63	6.976	6.976	(1.105)	29647	5.00000	4.9	
	51	Bromodichloromethane	83	7.104	7.095	(1.125)	35683	5.00000	4.7	
	52	Methyl Methacrylate	41	7.393	7.393	(1.171)	22708	5.00000	4.7	
	53	Ethyl Methacrylate	69	9.123	9.113	(1.445)	27345	5.00000	4.5	
	54	1,4-Dioxane	88	7.412	7.403	(1.174)	6746	100.000	147	
M	55	Total Alkylbenzenes	100				853921	5.00000	34.4	
	57	cis-1,3-dichloropropene	75	7.974	7.965	(1.263)	38048	5.00000	4.4	
$	58	Toluene-D8	98	8.208	8.205	(1.300)	1040183	50.0000	50.2	
	59	Toluene	92	8.272	8.269	(1.310)	69161	5.00000	4.8	
	60	Tetrachloroethene	164	8.751	8.747	(0.859)	22633	5.00000	4.8	
	61	4-methyl-2-pentanone	43	8.834	8.834	(1.399)	130286	25.0000	25.0	
	62	trans-1,3-Dichloropropene	75	8.856	8.850	(1.402)	32412	5.00000	4.2	
	63	1,1,2-Trichloroethane	83	9.046	9.049	(1.432)	20838	5.00000	5.0	
	64	Dibromochloromethane	129	9.251	9.251	(0.909)	24413	5.00000	4.6(T)	
	65	1,3-Dichloropropane	76	9.383	9.380	(0.922)	46483	5.00000	5.1	
	66	1,2-Dibromoethane	107	9.511	9.511	(1.506)	23013	5.00000	4.8	
	67	2-Hexanone	43	9.915	9.912	(0.974)	86289	25.0000	25.0	
*	68	Chlorobenzene-D5	117	10.182	10.182	(1.000)	865528	50.0000		
	69	Chlorobenzene	112	10.201	10.198	(1.002)	79205	5.00000	5.0	
	70	Ethylbenzene	91	10.268	10.269	(1.009)	133632	5.00000	4.8	
	71	1,1,1,2-Tetrachloroethane	131	10.304	10.304	(1.012)	23460	5.00000	4.6	
	72	m+p-Xylenes	91	10.464	10.461	(1.028)	208764	10.0000	10.0	
	73	o-Xylene	91	10.981	10.981	(1.078)	101418	5.00000	4.8	
	74	Styrene	104	11.051	11.048	(1.085)	78831	5.00000	4.7	
	75	Bromoform	173	11.048	11.055	(1.085)	14268	5.00000	4.3	
	76	Isopropylbenzene	105	11.369	11.366	(0.878)	128107	5.00000	4.9	
$	77	P-Bromofluorobenzene	95	11.677	11.677	(1.849)	462584	50.0000	49.7	
	78	cis-1,4-Dichloro-2-Butene	53	11.793	11.793	(0.911)	6880	5.00000	4.4	

Data File: \\target_server\gg\chem\gcms-w.i\W092821B.b\W0267.D
Report Date: 11-Oct-2021 15:06

			QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)	REVIEW CODE
	79	Bromobenzene	156	11.773	11.773	(0.909)	32805	5.00000	5.1	
	80	N-Propylbenzene	91	11.857	11.854	(0.916)	163114	5.00000	5.0	
	81	1,1,2,2-Tetrachloroethane	83	11.963	11.960	(0.924)	31033	5.00000	5.2	
	82	2-Chlorotoluene	91	12.004	12.001	(0.927)	96751	5.00000	5.1	
	83	1,2,3-Trichloropropane	75	12.085	12.085	(0.933)	29288	5.00000	5.2	
	84	1,3,5-Trimethylbenzene	105	12.097	12.098	(0.934)	106217	5.00000	4.9	
	85	trans-1,4-Dichloro-2-Butene	53	12.152	12.155	(0.939)	5851	5.00000	3.9	
	86	4-Chlorotoluene	91	12.200	12.200	(0.942)	98755	5.00000	4.9	
	87	tert-Butylbenzene	119	12.447	12.441	(0.961)	95054	5.00000	4.9	
	89	1,2,4-Trimethylbenzene	105	12.527	12.531	(0.968)	110184	5.00000	4.9	
	90	sec-Butylbenzene	105	12.646	12.646	(0.977)	144036	5.00000	5.0	
	91	P-Isopropyltoluene	119	12.823	12.816	(0.990)	117821	5.00000	4.8	
	92	1,3-Dichlorobenzene	146	12.858	12.858	(0.993)	63243	5.00000	4.9	
*	93	1,4-Dichlorobenzene-D4	152	12.948	12.942	(1.000)	482813	50.0000		
	94	1,4-Dichlorobenzene	146	12.964	12.961	(1.001)	66113	5.00000	4.9	
	95	1,2,3-Trimethylbenzene	105	13.012	13.006	(1.005)	112509	5.00000	5.1	
	96	N-Butylbenzene	91	13.288	13.285	(1.026)	117495	5.00000	4.9	
M	97	1,2-Dichloroethylene (total)	96				61049	5.00000	9.8	
	98	1,2-Dichlorobenzene	146	13.416	13.420	(1.036)	59587	5.00000	4.9	
	99	1,2-Dibromo-3-Chloropropane	157	14.312	14.315	(1.105)	4598	5.00000	4.6	
	100	1,3,5-Trichlorobenzene	180	14.344	14.341	(1.108)	44165	5.00000	4.9	
	101	Hexachlorobutadiene	225	15.037	15.034	(1.161)	20875	5.00000	4.7	
	102	1,2,4-Trichlorobenzene	180	15.053	15.056	(1.163)	32485	5.00000	4.6	
	103	Naphthalene	128	15.403	15.403	(1.190)	47128	5.00000	2.4	
	104	1,2,3-Trichlorobenzene	180	15.602	15.595	(1.205)	28772	5.00000	4.8	
M	105	Xylenes (total)	106				310182	15.0000	14.8	

QC Flag Legend

T - Target compound detected outside RT window.


Y (x10^6)
0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 1.0 1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8 1.9
Min
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
-Dichlorodifluoromethane (1.278)
-Vinyl Chloride (1.418)
-Bromomethane (1.672)
-Chloroethane (1.758)
-Trichlorofluoromethane (1.852)
-Diethyl Ether (2.060)
-1,1-Dichloroethene (2.237)+
-Acrolein (2.478)
-Allyl Chloride (2.587)
-Methylene Chloride (2.677)
-trans-1,2-Dichloroethene (2.815)+
-Methyl tert-butyl ether (2.920)
-Tertiary-butyl alcohol (3.020)
-Acetonitrile (3.164)
-Di-isopropyl ether (3.286)
-Chloroprene (3.398)+
-Acrylonitrile (3.492)
-Ethyl tertiary-butyl ethe (3.703)+
-cis-1,2-Dichloroethene (4.060)
-2,2-Dichloropropane (4.198)
-Bromochloromethane (4.307)+
-Chloroform (4.448)
-Carbon Tetrachloride (4.605)
-Tetrahydrofuran (4.714)+
-2-Butanone (4.936)+
-Benzene (5.327)
-Propionitrile (5.436)+
-Pentafluorobenzene (5.536)+
-1,2-Dichloroethane (5.661)
-Isobutyl Alcohol (5.841)
-Methylcyclohexane (6.187)+
-1,4-Difluorobenzene (6.316)
-Dibromomethane (6.832)
-1,2-Dichloropropane (6.980)
-Bromodichloromethane (7.105)
-Methyl Methacrylate (7.397)+
-cis-1,3-dichloropropene (7.975)
-Toluene-D8 (8.209)
-Toluene (8.273)
-Tetrachloroethene (8.754)
-4-Methyl-2-pentanone (8.838)+
-1,1,2-Trichloroethane (9.046)
-Ethyl Methacrylate (9.129)
-Dibromochloromethane (9.258)
-1,3-Dichloropropane (9.383)
-1,2-Dibromoethane (9.515)
-2-Hexanone (9.916)
-Total Alkylbenzenes (10.080)
-Ethylbenzene (10.269)+
-m+p-Xylenes (10.465)
Chlorobenzene-D5 (10.182)+
-o-Xylene (10.984)
-Styrene (11.062)+
-Isopropylbenzene (11.370)
-cis-1,4-Dichloro-2-Butene (11.780)+
P-Bromofluorobenzene (11.678)
-1,1,2,2-Tetrachloroethane (11.963)
-Chlorobenzene (12.098)+
-trans-1,4-Dichloro-2-Butene (12.259)
-4-Chlorotoluene (12.261)
-tert-Butylbenzene (12.445)
-1,2,4-Trimethylbenzene (12.531)
-sec-Butylbenzene (12.647)
-1,3-Dichlorobenzene (12.827)
-p-Isopropyltoluene (12.887)
-1,2,3-Trimethylbenzene (13.013)
1,4-Dichlorobenzene-D4 (12.945)+
-N-Butylbenzene (13.288)
-1,2-Dichlorobenzene (13.420)
-1,2-Dibromo-3-Chloropropa (14.344)+
-Hexachlorobutadiene (15.044)+
-Naphthalene (15.403)
-1,2,3-Trichlorobenzene (15.602)
\\target_server\gg\chem\gcms-w.i\W092821B.b\W0267.D
\\target_server\gg\chem\gcms-w.i\W092821B.b\W0267.D
Data File: \\target_server\gg\chem\gcms-w.i\W092821B.b\W0267.D
Date : 28-SEP-2021 12:08
Client ID:
Sample Info: WG306817-2
Purge Volume: 5.0
Column phase: RTX-VMS
Instrument: gcms-w.i
Operator: ES
Column diameter: 0.18

Data File: \\target_server\gg\chem\gcms-w.i\W092821B.b\W0268.D
Report Date: 11-Oct-2021 15:07

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-w.i\W092821B.b\W0268.D
Lab Smp Id: WG306817-1
Inj Date : 28-SEP-2021 12:38
Operator : ES Inst ID: gcms-w.i
Smp Info : WG306817-1
Misc Info :
Comment : SW846 5030
Method : \\target_server\gg\chem\gcms-w.i\W092821B.b\W8A05(09).m
Meth Date : 01-Oct-2021 17:40 HGOULD Quant Type: ISTD
Cal Date : 28-SEP-2021 12:38 Cal File: W0268.D
Als bottle: 5 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.12

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

11:42 am, Oct 12, 2021

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)	REVIEW CODE
1	Dichlorodifluoromethane	85	1.277	1.278	(0.231)	8138	1.00000	1.1	
2	Chloromethane	50	1.415	1.415	(0.256)	11214	1.00000	1.3	
3	Vinyl chloride	62	1.460	1.460	(0.264)	8169	1.00000	1.1	
4	Bromomethane	94	1.672	1.672	(0.302)	2820	1.00000	1.7	
5	Chloroethane	64	1.755	1.755	(0.318)	7612	1.00000	1.9	
6	Trichlorofluoromethane	101	1.848	1.849	(0.334)	11048	1.00000	1.1	
7	Diethyl Ether	59	2.057	2.057	(0.372)	5500	1.00000	1.1	
8	1,1-Dichloroethene	96	2.211	2.211	(0.400)	6067	1.00000	1.1	
9	Freon-113	151	2.230	2.231	(0.403)	3867	1.00000	0.96(a)	
10	Carbon Disulfide	76	2.240	2.240	(0.405)	18539	1.00000	1.3	
11	Iodomethane	142	2.326	2.327	(0.421)	658	1.00000	0.34(aM)	M6
12	Acrolein	56	2.477	2.478	(0.448)	4180	5.00000	6.2	
13	Allyl Chloride	41	2.583	2.584	(0.467)	8496	1.00000	0.97(a)	
14	Methylene Chloride	84	2.676	2.677	(0.484)	14311	1.00000	2.5(a)	
15	Acetone	43	2.724	2.724	(0.493)	18615	5.00000	7.9	
16	trans-1,2-Dichloroethene	96	2.811	2.811	(0.508)	6410	1.00000	1.1	
17	Methyl Acetate	43	2.833	2.833	(0.513)	7344	1.00000	1.3	
18	Methyl tert-butyl ether	73	2.907	2.907	(0.526)	15159	1.00000	0.85(a)	
19	Tertiary-butyl alcohol	59	3.010	3.010	(0.544)	2823	5.00000	8.0	
20	Acetonitrile	41	3.164	3.164	(0.572)	10293	10.0000	11.8(a)	
21	Di-isopropyl ether	45	3.286	3.286	(0.594)	20175	1.00000	1.1	
22	Chloroprene	53	3.385	3.385	(0.612)	9935	1.00000	1.0	
23	1,1-Dichloroethane	63	3.421	3.421	(0.619)	11958	1.00000	1.1	
24	Acrylonitrile	52	3.491	3.491	(0.631)	9950	5.00000	5.7	

Data File: \\target_server\gg\chem\gcms-w.i\W092821B.b\W0268.D
Report Date: 11-Oct-2021 15:07

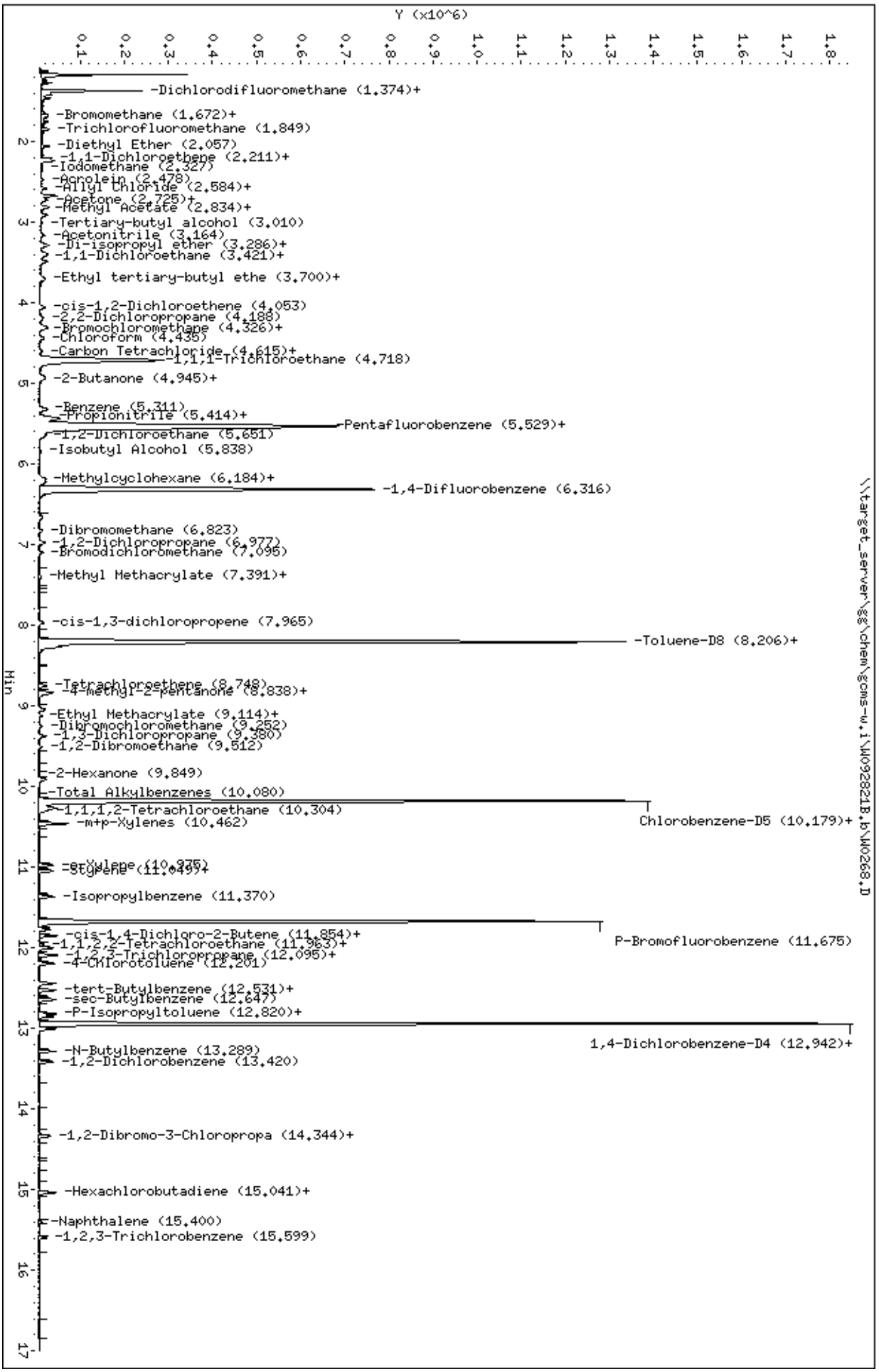
							AMOUNTS		
		QUANT SIG					CAL-AMT	ON-COL	
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/l)	(ug/l)	REVIEW CODE
	25 Ethyl tertiary-butyl ether	59	3.700	3.700	(0.669)	12598	1.00000	1.0	
	26 Vinyl Acetate	43	3.719	3.719	(0.589)	8297	1.00000	0.99(a)	
	27 cis-1,2-Dichloroethene	96	4.053	4.053	(0.733)	7215	1.00000	1.2	
	28 2,2-Dichloropropane	77	4.188	4.188	(0.757)	6322	1.00000	0.96(a)	
	29 Bromochloromethane	128	4.326	4.326	(0.782)	2693	1.00000	1.1	
	30 Cyclohexane	56	4.290	4.290	(0.776)	9977	1.00000	1.0	
	31 Chloroform	83	4.435	4.435	(0.802)	11138	1.00000	1.1	
	32 Carbon Tetrachloride	117	4.614	4.614	(0.731)	7019	1.00000	0.98(a)	
	33 Tetrahydrofuran	42	4.698	4.698	(0.850)	11315	5.00000	5.7	
$	34 Dibromofluoromethane	113	4.711	4.711	(0.852)	255230	50.0000	51.2	
	35 1,1,1-Trichloroethane	97	4.717	4.717	(0.853)	9203	1.00000	1.0	
	36 2-Butanone	43	4.945	4.945	(0.894)	15084	5.00000	5.7	
	37 1,1-Dichloropropene	75	4.922	4.922	(0.779)	8679	1.00000	1.1	
	38 Benzene	78	5.311	5.311	(0.841)	23836	1.00000	1.1	
	39 Propionitrile	54	5.413	5.413	(0.979)	8239	10.0000	10.9	
	40 Methacrylonitrile	41	5.446	5.446	(0.985)	35211	10.0000	10.0	
*	41 Pentafluorobenzene	168	5.529	5.529	(1.000)	492387	50.0000		
$	42 1,2-Dichloroethane-D4	65	5.545	5.545	(1.003)	355737	50.0000	52.9	
	43 Tertiary-amyl methyl ether	73	5.567	5.567	(1.007)	8405	1.00000	0.92(a)	
	44 1,2-Dichloroethane	62	5.651	5.651	(0.895)	9828	1.00000	1.2	
	45 Isobutyl Alcohol	43	5.837	5.837	(1.056)	4190	20.0000	25.6	
	46 Methylcyclohexane	83	6.184	6.184	(1.118)	8109	1.00000	0.83(a)	
	47 Trichloroethene	95	6.232	6.232	(0.987)	6383	1.00000	1.1	
*	48 1,4-Difluorobenzene	114	6.315	6.315	(1.000)	827880	50.0000		
	49 Dibromomethane	93	6.822	6.822	(1.080)	4068	1.00000	1.2	
	50 1,2-Dichloropropane	63	6.976	6.976	(1.105)	6198	1.00000	1.1(T)	
	51 Bromodichloromethane	83	7.095	7.095	(1.123)	7016	1.00000	0.96(Ta)	
	52 Methyl Methacrylate	41	7.393	7.393	(1.171)	3648	1.00000	0.78(a)	
	53 Ethyl Methacrylate	69	9.113	9.113	(1.443)	4453	1.00000	0.76(a)	
	54 1,4-Dioxane	88	7.403	7.403	(1.172)	893	20.0000	15.6(Ta)	
M	55 Total Alkylbenzenes	100				161708	1.00000	6.9(a)	
	57 cis-1,3-dichloropropene	75	7.965	7.965	(1.261)	7166	1.00000	0.85(a)	
$	58 Toluene-D8	98	8.205	8.205	(1.299)	1010377	50.0000	50.8	
	59 Toluene	92	8.269	8.269	(1.309)	15058	1.00000	1.1	
	60 Tetrachloroethene	164	8.747	8.747	(0.859)	4756	1.00000	1.0	
	61 4-methyl-2-pentanone	43	8.834	8.834	(1.399)	24957	5.00000	5.0	
	62 trans-1,3-Dichloropropene	75	8.850	8.850	(1.401)	6386	1.00000	0.86(a)	
	63 1,1,2-Trichloroethane	83	9.049	9.049	(1.433)	4758	1.00000	1.2	
	64 Dibromochloromethane	129	9.251	9.251	(0.909)	4460	1.00000	0.87(Ta)	
	65 1,3-Dichloropropane	76	9.380	9.380	(0.921)	9080	1.00000	1.0	
	66 1,2-Dibromoethane	107	9.511	9.511	(1.506)	4658	1.00000	1.0(T)	
	67 2-Hexanone	43	9.912	9.912	(0.974)	15441	5.00000	4.7(a)	
*	68 Chlorobenzene-D5	117	10.182	10.182	(1.000)	839022	50.0000		
	69 Chlorobenzene	112	10.198	10.198	(1.002)	16818	1.00000	1.1	
	70 Ethylbenzene	91	10.269	10.269	(1.009)	28708	1.00000	1.1	
	71 1,1,1,2-Tetrachloroethane	131	10.304	10.304	(1.012)	4492	1.00000	0.89(a)	
	72 m+p-Xylenes	91	10.461	10.461	(1.027)	40752	2.00000	2.0	
	73 o-Xylene	91	10.981	10.981	(1.078)	19311	1.00000	0.94(a)	
	74 Styrene	104	11.048	11.048	(1.085)	14781	1.00000	0.90(a)	
	75 Bromoform	173	11.055	11.055	(1.086)	2635	1.00000	0.82(a)	
	76 Isopropylbenzene	105	11.366	11.366	(0.878)	23178	1.00000	0.95(a)	
$	77 P-Bromofluorobenzene	95	11.677	11.677	(1.849)	443130	50.0000	49.6	
	78 cis-1,4-Dichloro-2-Butene	53	11.793	11.793	(0.911)	914	1.00000	0.61(a)	
	79 Bromobenzene	156	11.773	11.773	(0.910)	6762	1.00000	1.1	

Data File: \\target_server\gg\chem\gcms-w.i\W092821B.b\W0268.D
Report Date: 11-Oct-2021 15:07

			QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)	REVIEW CODE
	80	N-Propylbenzene	91	11.854	11.854	(0.916)	32790	1.00000	1.1	
	81	1,1,2,2-Tetrachloroethane	83	11.960	11.960	(0.924)	5974	1.00000	1.1	
	82	2-Chlorotoluene	91	12.001	12.001	(0.927)	18727	1.00000	1.0	
	83	1,2,3-Trichloropropane	75	12.085	12.085	(0.934)	6373	1.00000	1.2	
	84	1,3,5-Trimethylbenzene	105	12.098	12.098	(0.935)	19760	1.00000	0.97(a)	
	85	trans-1,4-Dichloro-2-Butene	53	12.155	12.155	(0.939)	668	1.00000	0.44(a)	
	86	4-Chlorotoluene	91	12.200	12.200	(0.943)	19829	1.00000	1.1	
	87	tert-Butylbenzene	119	12.441	12.441	(0.961)	17451	1.00000	0.96(a)	
	89	1,2,4-Trimethylbenzene	105	12.531	12.531	(0.968)	21429	1.00000	1.0	
	90	sec-Butylbenzene	105	12.646	12.646	(0.977)	27001	1.00000	1.00	
	91	P-Isopropyltoluene	119	12.816	12.816	(0.990)	22226	1.00000	0.96(a)	
	92	1,3-Dichlorobenzene	146	12.858	12.858	(0.994)	12640	1.00000	1.1	
*	93	1,4-Dichlorobenzene-D4	152	12.942	12.942	(1.000)	450980	50.0000		
	94	1,4-Dichlorobenzene	146	12.961	12.961	(1.001)	14674	1.00000	1.2	
	95	1,2,3-Trimethylbenzene	105	13.006	13.006	(1.005)	19994	1.00000	0.97(a)	
	96	N-Butylbenzene	91	13.285	13.285	(1.027)	21051	1.00000	0.94(a)	
M	97	1,2-Dichloroethylene (total)	96				13625	1.00000	2.3	
	98	1,2-Dichlorobenzene	146	13.420	13.420	(1.037)	12745	1.00000	1.1	
	99	1,2-Dibromo-3-Chloropropane	157	14.315	14.315	(1.106)	983	1.00000	1.1	
	100	1,3,5-Trichlorobenzene	180	14.341	14.341	(1.108)	7939	1.00000	0.95(a)	
	101	Hexachlorobutadiene	225	15.034	15.034	(1.162)	4854	1.00000	1.2	
	102	1,2,4-Trichlorobenzene	180	15.056	15.056	(1.163)	5312	1.00000	0.79(a)	
	103	Naphthalene	128	15.403	15.403	(1.190)	4956	1.00000	0.31(a)	
	104	1,2,3-Trichlorobenzene	180	15.595	15.595	(1.205)	4959	1.00000	0.90(a)	
M	105	Xylenes (total)	106				60063	3.00000	3.0	

QC Flag Legend

T - Target compound detected outside RT window.
a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.


Data File: \\target_server\gg\chem\gcms-w.i\W092821B.b\W0268.D
Date : 28-SEP-2021 12:38
Client ID:
Sample Info: WG306817-1
Purge Volume: 5.0
Column phase: RTX-VMS
Instrument: gcms-w.i
Operator: ES
Column diameter: 0.18
\\target_server\gg\chem\gcms-w.i\W092821B.b\W0268.D
Y (x10^6)
Min
-Dichlorodifluoromethane (1.374)+
-Bromomethane (1.672)+
-Trichlorofluoromethane (1.849)
-Diethyl Ether (2.057)
-1,1-Dichloroethene (2.211)+
-Iodomethane (2.327)
-Acrolein (2.478)
-Allyl Chloride (2.584)+
-Acetone (2.725)+
-Methyl Acetate (2.834)+
-Tertiary-butyl alcohol (3.010)
-Acetonitrile (3.164)
-Di-isopropyl ether (3.286)+
-1,1-Dichloroethane (3.421)+
-Ethyl tertiary-butyl ethe (3.700)+
-cis-1,2-Dichloroethene (4.053)
-2,2-Dichloropropane (4.188)
-Bromochloromethane (4.326)+
-Chloroform (4.435)
-Carbon Tetrachloride (4.615)+
-1,1,1-Trichloroethane (4.718)
-2-Butanone (4.945)+
-Benzene (5.311)
-Propionitrile (5.414)+
Pentafluorobenzene (5.529)+
-1,2-Dichloroethane (5.651)
-Isobutyl Alcohol (5.838)
-Methylcyclohexane (6.184)+
-1,4-Difluorobenzene (6.316)
-Dibromomethane (6.823)
-1,2-Dichloropropane (6.977)
-Bromodichloromethane (7.095)
-Methyl Methacrylate (7.391)+
-cis-1,3-dichloropropene (7.965)
-Toluene-D8 (8.206)+
-Tetrachloroethene (8.748)
-4-methyl-2-pentanone (8.838)+
-Ethyl Methacrylate (9.114)+
-Dibromochloromethane (9.252)
-1,3-Dichloropropane (9.380)
-1,2-Dibromoethane (9.512)
-2-Hexanone (9.849)
-Total Alkylbenzenes (10.080)
-1,1,1,2-Tetrachloroethane (10.304)
-m+p-Xylenes (10.462)
Chlorobenzene-D5 (10.179)+
-o-Xylene (10.975)
-Styrene (11.049)+
-Isopropylbenzene (11.370)
-cis-1,4-Dichloro-2-Butene (11.854)+
-1,1,2,2-Tetrachloroethane (11.963)+
P-Bromofluorobenzene (11.675)
-1,2,3-Trichloropropane (12.095)+
-4-Chlorotoluene (12.201)
-tert-Butylbenzene (12.531)+
-sec-Butylbenzene (12.647)
-P-Isopropyltoluene (12.820)+
1,4-Dichlorobenzene-D4 (12.942)+
-N-Butylbenzene (13.289)
-1,2-Dichlorobenzene (13.420)
-1,2-Dibromo-3-Chloropropa (14.344)+
-Hexachlorobutadiene (15.041)+
-Naphthalene (15.400)
-1,2,3-Trichlorobenzene (15.599)

Data File: \\target_server\gg\chem\gcms-w.i\W092821B.b\W0269.D
Report Date: 11-Oct-2021 15:07

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-w.i\W092821B.b\W0269.D
Lab Smp Id: WG306817-6
Inj Date : 28-SEP-2021 13:08
Operator : ES Inst ID: gcms-w.i
Smp Info : WG306817-6
Misc Info :
Comment : SW846 5030
Method : \\target_server\gg\chem\gcms-w.i\W092821B.b\W8A05(09).m
Meth Date : 01-Oct-2021 17:40 HGOULD Quant Type: ISTD
Cal Date : 28-SEP-2021 13:08 Cal File: W0269.D
Als bottle: 6 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.12
Processing Host: T7-O360

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)	REVIEW CODE
1	Dichlorodifluoromethane	85	1.274	1.278	(0.230)	1197531	150.000	149	
2	Chloromethane	50	1.405	1.415	(0.254)	1376442	150.000	143	
3	Vinyl chloride	62	1.460	1.460	(0.264)	1204527	150.000	148	
4	Bromomethane	94	1.672	1.672	(0.302)	336034	150.000	148	
5	Chloroethane	64	1.752	1.755	(0.317)	645295	150.000	151(A)	
6	Trichlorofluoromethane	101	1.848	1.849	(0.334)	1665776	150.000	151(A)	
7	Diethyl Ether	59	2.057	2.057	(0.372)	762526	150.000	141	
8	1,1-Dichloroethene	96	2.211	2.211	(0.400)	880484	150.000	149	
9	Freon-113	151	2.237	2.231	(0.405)	667881	150.000	153(A)	
10	Carbon Disulfide	76	2.240	2.240	(0.405)	2164066	150.000	150(A)	
11	Iodomethane	142	2.326	2.327	(0.421)	514576	150.000	231(A)	
12	Acrolein	56	2.474	2.478	(0.448)	458839	750.000	611	
13	Allyl Chloride	41	2.583	2.584	(0.467)	1405332	150.000	149	
14	Methylene Chloride	84	2.673	2.677	(0.484)	938239	150.000	150	
15	Acetone	43	2.724	2.724	(0.493)	1360510	750.000	745	
16	trans-1,2-Dichloroethene	96	2.811	2.811	(0.508)	930077	150.000	149	
17	Methyl Acetate	43	2.827	2.833	(0.511)	772641	150.000	121	
18	Methyl tert-butyl ether	73	2.910	2.907	(0.526)	1530167	150.000	111	
19	Tertiary-butyl alcohol	59	3.010	3.010	(0.544)	143258	750.000	609	
20	Acetonitrile	41	3.161	3.164	(0.572)	967266	1500.00	1490	
21	Di-isopropyl ether	45	3.283	3.286	(0.594)	3072370	150.000	149	
22	Chloroprene	53	3.389	3.385	(0.613)	1568008	150.000	151(A)	
23	1,1-Dichloroethane	63	3.417	3.421	(0.618)	1776494	150.000	150	

Data File: \\target_server\gg\chem\gcms-w.i\W092821B.b\W0269.D
Report Date: 11-Oct-2021 15:07

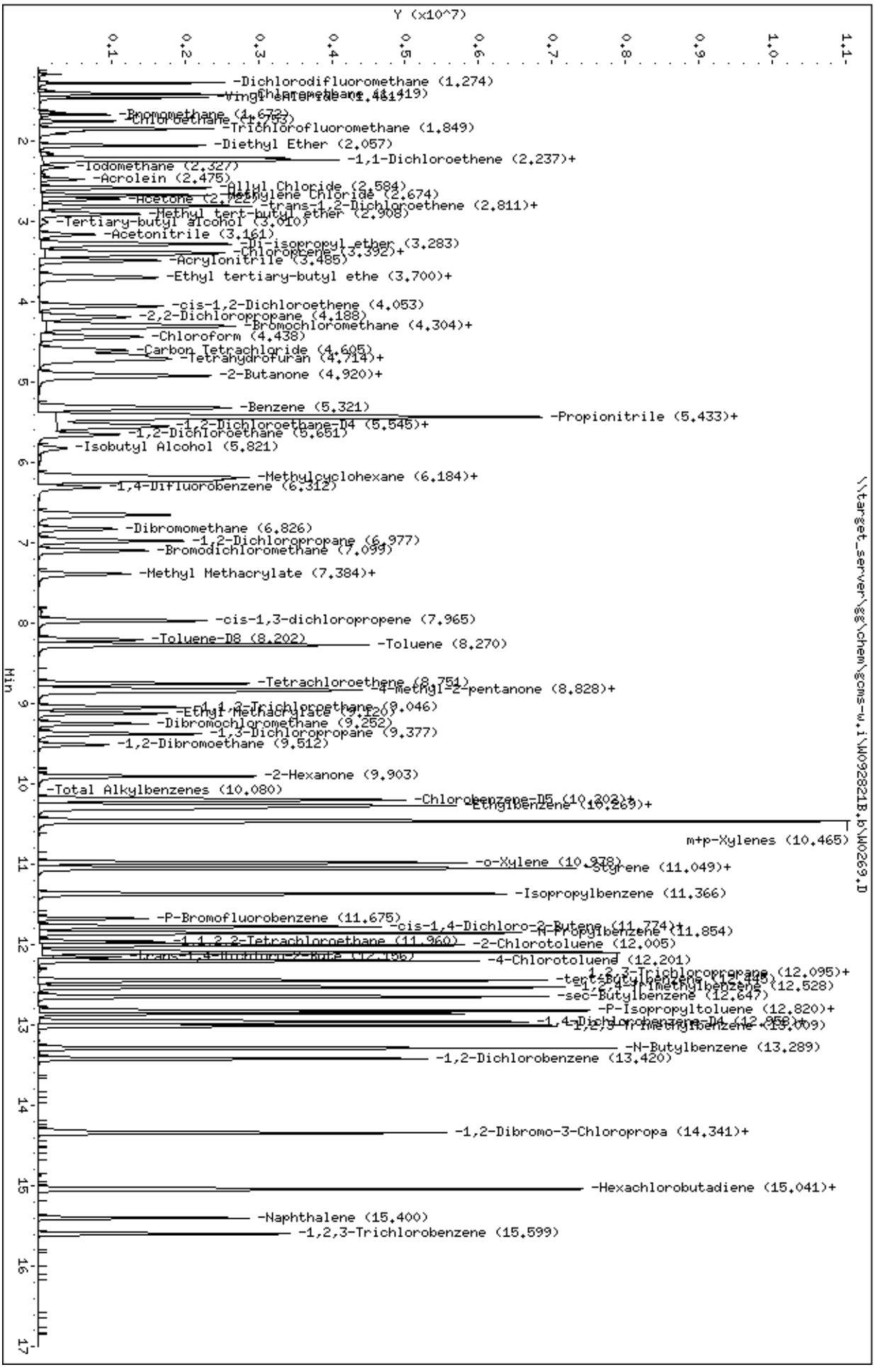
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)	REVIEW CODE
	24 Acrylonitrile	52	3.488	3.491	(0.631)	1224774	750.000	634	
	25 Ethyl tertiary-butyl ether	59	3.690	3.700	(0.667)	1697033	150.000	127	
	26 Vinyl Acetate	43	3.716	3.719	(0.589)	1280072	150.000	140	
	27 cis-1,2-Dichloroethene	96	4.050	4.053	(0.732)	961373	150.000	148	
	28 2,2-Dichloropropane	77	4.191	4.188	(0.758)	1153135	150.000	162(A)	
	29 Bromochloromethane	128	4.322	4.326	(0.782)	369031	150.000	141	
	30 Cyclohexane	56	4.297	4.290	(0.777)	1667464	150.000	158(A)	
	31 Chloroform	83	4.438	4.435	(0.803)	1677286	150.000	152(A)	
	32 Carbon Tetrachloride	117	4.605	4.614	(0.730)	1258833	150.000	164(A)	
	33 Tetrahydrofuran	42	4.663	4.698	(0.843)	1339437	750.000	607	
$	34 Dibromofluoromethane	113	4.707	4.711	(0.851)	283623	50.0000	52.4	
	35 1,1,1-Trichloroethane	97	4.714	4.717	(0.853)	1544024	150.000	160(A)	
	36 2-Butanone	43	4.935	4.945	(0.893)	1734327	750.000	589	
	37 1,1-Dichloropropene	75	4.916	4.922	(0.779)	1344839	150.000	154(A)	
	38 Benzene	78	5.320	5.311	(0.843)	3572867	150.000	150	
	39 Propionitrile	54	5.410	5.413	(0.979)	1024840	1500.00	1230	
	40 Methacrylonitrile	41	5.433	5.446	(0.983)	5037527	1500.00	1300	
*	41 Pentafluorobenzene	168	5.529	5.529	(1.000)	533915	50.0000		
$	42 1,2-Dichloroethane-D4	65	5.545	5.545	(1.003)	372935	50.0000	50.9	
	43 Tertiary-amyl methyl ether	73	5.558	5.567	(1.005)	1404063	150.000	141	
	44 1,2-Dichloroethane	62	5.651	5.651	(0.895)	1316338	150.000	144	
	45 Isobutyl Alcohol	43	5.821	5.837	(1.053)	388626	3000.00	2310	
	46 Methylcyclohexane	83	6.184	6.184	(1.118)	1740069	150.000	166(A)	
	47 Trichloroethene	95	6.225	6.232	(0.986)	929907	150.000	153(A)	
*	48 1,4-Difluorobenzene	114	6.312	6.315	(1.000)	895263	50.0000		
	49 Dibromomethane	93	6.825	6.822	(1.081)	532510	150.000	143	
	50 1,2-Dichloropropane	63	6.976	6.976	(1.105)	969663	150.000	154(A)	
	51 Bromodichloromethane	83	7.098	7.095	(1.125)	1278707	150.000	163(A)	
	52 Methyl Methacrylate	41	7.384	7.393	(1.170)	758692	150.000	151(A)	
	53 Ethyl Methacrylate	69	9.120	9.113	(1.445)	970112	150.000	154(A)	
	54 1,4-Dioxane	88	7.400	7.403	(1.172)	101054	3000.00	2080	
M	55 Total Alkylbenzenes	100				28934916	150.000	1010	
	57 cis-1,3-dichloropropene	75	7.964	7.965	(1.262)	1539536	150.000	171(A)	
$	58 Toluene-D8	98	8.202	8.205	(1.299)	1087729	50.0000	50.6	
	59 Toluene	92	8.269	8.269	(1.310)	2269260	150.000	152(A)	
	60 Tetrachloroethene	164	8.751	8.747	(0.859)	788491	150.000	151(A)	
	61 4-methyl-2-pentanone	43	8.824	8.834	(1.398)	3374781	750.000	622	
	62 trans-1,3-Dichloropropene	75	8.850	8.850	(1.402)	1353054	150.000	171(A)	
	63 1,1,2-Trichloroethane	83	9.046	9.049	(1.433)	625159	150.000	144	
	64 Dibromochloromethane	129	9.251	9.251	(0.909)	911913	150.000	157(A)	
	65 1,3-Dichloropropane	76	9.380	9.380	(0.921)	1423122	150.000	141	
	66 1,2-Dibromoethane	107	9.511	9.511	(1.507)	742682	150.000	149	
	67 2-Hexanone	43	9.903	9.912	(0.973)	2203504	750.000	578	
*	68 Chlorobenzene-D5	117	10.182	10.182	(1.000)	955181	50.0000		
	69 Chlorobenzene	112	10.201	10.198	(1.002)	2559360	150.000	145	
	70 Ethylbenzene	91	10.268	10.269	(1.009)	4345941	150.000	143	
	71 1,1,1,2-Tetrachloroethane	131	10.304	10.304	(1.012)	922841	150.000	162(A)	
	72 m+p-Xylenes	91	10.464	10.461	(1.028)	6336478	300.000	276	
	73 o-Xylene	91	10.978	10.981	(1.078)	3508117	150.000	151(A)	
	74 Styrene	104	11.048	11.048	(1.085)	2895051	150.000	157(A)	
	75 Bromoform	173	11.048	11.055	(1.085)	593304	150.000	163(A)	
	76 Isopropylbenzene	105	11.366	11.366	(0.878)	4384317	150.000	145	
$	77 P-Bromofluorobenzene	95	11.674	11.677	(1.849)	501001	50.0000	51.9	
	78 cis-1,4-Dichloro-2-Butene	53	11.786	11.793	(0.911)	260905	150.000	145	

Data File: \\target_server\gg\chem\gcms-w.i\W092821B.b\W0269.D
Report Date: 11-Oct-2021 15:07

			QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)	REVIEW CODE
	79	Bromobenzene	156	11.773	11.773	(0.910)	1095512	150.000	146	
	80	N-Propylbenzene	91	11.854	11.854	(0.916)	5121153	150.000	135	
	81	1,1,2,2-Tetrachloroethane	83	11.960	11.960	(0.924)	869178	150.000	126	
	82	2-Chlorotoluene	91	12.005	12.001	(0.927)	3167743	150.000	143	
	83	1,2,3-Trichloropropane	75	12.085	12.085	(0.934)	818962	150.000	126	
	84	1,3,5-Trimethylbenzene	105	12.098	12.098	(0.935)	3726416	150.000	148	
	85	trans-1,4-Dichloro-2-Butene	53	12.155	12.155	(0.939)	254554	150.000	144	
	86	4-Chlorotoluene	91	12.200	12.200	(0.942)	3315505	150.000	142	
	87	tert-Butylbenzene	119	12.444	12.441	(0.961)	3361293	150.000	150	
	89	1,2,4-Trimethylbenzene	105	12.528	12.531	(0.968)	3790709	150.000	144	
	90	sec-Butylbenzene	105	12.646	12.646	(0.977)	4770074	150.000	141	
	91	P-Isopropyltoluene	119	12.823	12.816	(0.991)	4181269	150.000	146	
	92	1,3-Dichlorobenzene	146	12.855	12.858	(0.993)	2182567	150.000	147	
*	93	1,4-Dichlorobenzene-D4	152	12.945	12.942	(1.000)	561818	50.0000		
	94	1,4-Dichlorobenzene	146	12.961	12.961	(1.001)	2243993	150.000	143	
	95	1,2,3-Trimethylbenzene	105	13.009	13.006	(1.005)	3697086	150.000	144	
	96	N-Butylbenzene	91	13.288	13.285	(1.027)	3984002	150.000	142	
M	97	1,2-Dichloroethylene (total)	96				1891450	150.000	297	
	98	1,2-Dichlorobenzene	146	13.420	13.420	(1.037)	2002368	150.000	142	
	99	1,2-Dibromo-3-Chloropropane	157	14.312	14.315	(1.106)	151038	150.000	130	
	100	1,3,5-Trichlorobenzene	180	14.341	14.341	(1.108)	1570668	150.000	150(A)	
	101	Hexachlorobutadiene	225	15.034	15.034	(1.161)	757982	150.000	146	
	102	1,2,4-Trichlorobenzene	180	15.047	15.056	(1.162)	1322715	150.000	160(A)	
	103	Naphthalene	128	15.400	15.403	(1.190)	2028251	150.000	144	
	104	1,2,3-Trichlorobenzene	180	15.598	15.595	(1.205)	955833	150.000	138	
M	105	Xylenes (total)	106				9844595	450.000	426	

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.


Data File: \\target_server\gg\chem\gcms-w.i\W092821B.b\W0269.D
Date : 28-SEP-2021 13:08
Client ID:
Sample Info: WG306817-6
Purge Volume: 5.0
Column phase: RTX-VMS
Instrument: gcms-w.i
Operator: ES
Column diameter: 0.18
\\target_server\gg\chem\gcms-w.i\W092821B.b\W0269.D
Y (x10^7)
Min
-Dichlorodifluoromethane (1.274)
-Chloromethane (1.419)
-Vinyl Chloride (1.441)
-Bromomethane (1.672)
-Chloroethane (1.772)
-Trichlorofluoromethane (1.849)
-Diethyl Ether (2.057)
-1,1-Dichloroethene (2.237)+
-Iodomethane (2.327)
-Acrolein (2.475)
-Allyl Chloride (2.584)
-Methylene Chloride (2.674)
-Acetone (2.722)
-trans-1,2-Dichloroethene (2.811)+
-Methyl tert-butyl ether (2.908)
-Tertiary-butyl alcohol (3.010)
-Acetonitrile (3.161)
-Di-isopropyl ether (3.283)
-Chloroprene (3.392)+
-Acrylonitrile (3.485)
-Ethyl tertiary-butyl ethe (3.700)+
-cis-1,2-Dichloroethene (4.053)
-2,2-Dichloropropane (4.188)
-Bromochloromethane (4.304)+
-Chloroform (4.438)
-Carbon Tetrachloride (4.605)
-Tetrahydrofuran (4.714)+
-2-Butanone (4.920)+
-Benzene (5.321)
-Propionitrile (5.433)+
-1,2-Dichloroethane-D4 (5.545)+
-1,2-Dichloroethane (5.651)
-Isobutyl Alcohol (5.821)
-Methylcyclohexane (6.184)+
-1,4-Difluorobenzene (6.312)
-Dibromomethane (6.826)
-1,2-Dichloropropane (6.977)
-Bromodichloromethane (7.099)
-Methyl Methacrylate (7.384)+
-cis-1,3-dichloropropene (7.965)
-Toluene-D8 (8.202)
-Toluene (8.270)
-Tetrachloroethene (8.754)
-4-Methyl-2-pentanone (8.828)+
-1,1,2-Trichloroethane (9.046)
-Ethyl Methacrylate (9.120)
-Dibromochloromethane (9.252)
-1,3-Dichloropropane (9.377)
-1,2-Dibromoethane (9.512)
-2-Hexanone (9.903)
-Total Alkylbenzenes (10.080)
-Chlorobenzene-D5 (10.202)+
-Ethylbenzene (10.269)+
m+p-Xylenes (10.465)
-o-Xylene (10.978)
-Styrene (11.049)+
-Isopropylbenzene (11.366)
-P-Bromofluorobenzene (11.675)
-cis-1,4-Dichloro-2-Butene (11.774)+
-n-Propylbenzene (11.854)
-1,1,2,2-Tetrachloroethane (11.960)
-2-Chlorotoluene (12.005)
-trans-1,4-Dichloro-2-Bute (12.196)
-4-Chlorotoluene (12.201)
-1,2,3-Trichloropropane (12.095)+
-tert-Butylbenzene (12.445)
-1,2,4-Trimethylbenzene (12.528)
-sec-Butylbenzene (12.647)
-P-Isopropyltoluene (12.820)+
-1,4-Dichlorobenzene-D4 (12.958)+
-1,2,3-Trimethylbenzene (13.009)
-N-Butylbenzene (13.289)
-1,2-Dichlorobenzene (13.420)
-1,2-Dibromo-3-Chloropropa (14.341)+
-Hexachlorobutadiene (15.041)+
-Naphthalene (15.400)
-1,2,3-Trichlorobenzene (15.599)

Data File: \\target_server\gg\chem\gcms-w.i\W092821B.b\W0270.D
Report Date: 11-Oct-2021 15:07

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-w.i\W092821B.b\W0270.D
Lab Smp Id: WG306817-5
Inj Date : 28-SEP-2021 13:38
Operator : ES Inst ID: gcms-w.i
Smp Info : WG306817-5
Misc Info :
Comment : SW846 5030
Method : \\target_server\gg\chem\gcms-w.i\W092821B.b\W8A05(09).m
Meth Date : 01-Oct-2021 17:40 HGOULD Quant Type: ISTD
Cal Date : 28-SEP-2021 13:38 Cal File: W0270.D
Als bottle: 7 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.12
Processing Host: T7-O360

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)	REVIEW CODE
1	Dichlorodifluoromethane	85	1.274	1.278	(0.231)	818607	100.000	96.7	
2	Chloromethane	50	1.409	1.415	(0.255)	955645	100.000	94.6	
3	Vinyl chloride	62	1.460	1.460	(0.265)	841763	100.000	98.6	
4	Bromomethane	94	1.672	1.672	(0.303)	229028	100.000	106	
5	Chloroethane	64	1.752	1.755	(0.318)	440379	100.000	97.9	
6	Trichlorofluoromethane	101	1.848	1.849	(0.335)	1127033	100.000	97.5	
7	Diethyl Ether	59	2.057	2.057	(0.373)	555237	100.000	97.7	
8	1,1-Dichloroethene	96	2.208	2.211	(0.400)	613584	100.000	98.9	
9	Freon-113	151	2.233	2.231	(0.405)	465334	100.000	101	
10	Carbon Disulfide	76	2.237	2.240	(0.405)	1515120	100.000	100	
11	Iodomethane	142	2.327	2.327	(0.422)	399629	100.000	170(A)	
12	Acrolein	56	2.474	2.478	(0.448)	356668	500.000	452	
13	Allyl Chloride	41	2.580	2.584	(0.467)	1041584	100.000	105	
14	Methylene Chloride	84	2.673	2.677	(0.484)	654696	100.000	99.5	
15	Acetone	43	2.721	2.724	(0.493)	1093239	500.000	505	
16	trans-1,2-Dichloroethene	96	2.808	2.811	(0.509)	646193	100.000	98.6	
17	Methyl Acetate	43	2.824	2.833	(0.512)	599995	100.000	89.1	
18	Methyl tert-butyl ether	73	2.911	2.907	(0.527)	1321987	100.000	91.3	
19	Tertiary-butyl alcohol	59	3.007	3.010	(0.545)	153635	500.000	630	
20	Acetonitrile	41	3.161	3.164	(0.573)	774386	1000.00	1010	
21	Di-isopropyl ether	45	3.280	3.286	(0.594)	2193662	100.000	101	
22	Chloroprene	53	3.389	3.385	(0.614)	1110973	100.000	102	
23	1,1-Dichloroethane	63	3.414	3.421	(0.619)	1247494	100.000	100	

Data File: \\target_server\gg\chem\gcms-w.i\W092821B.b\W0270.D
Report Date: 11-Oct-2021 15:07

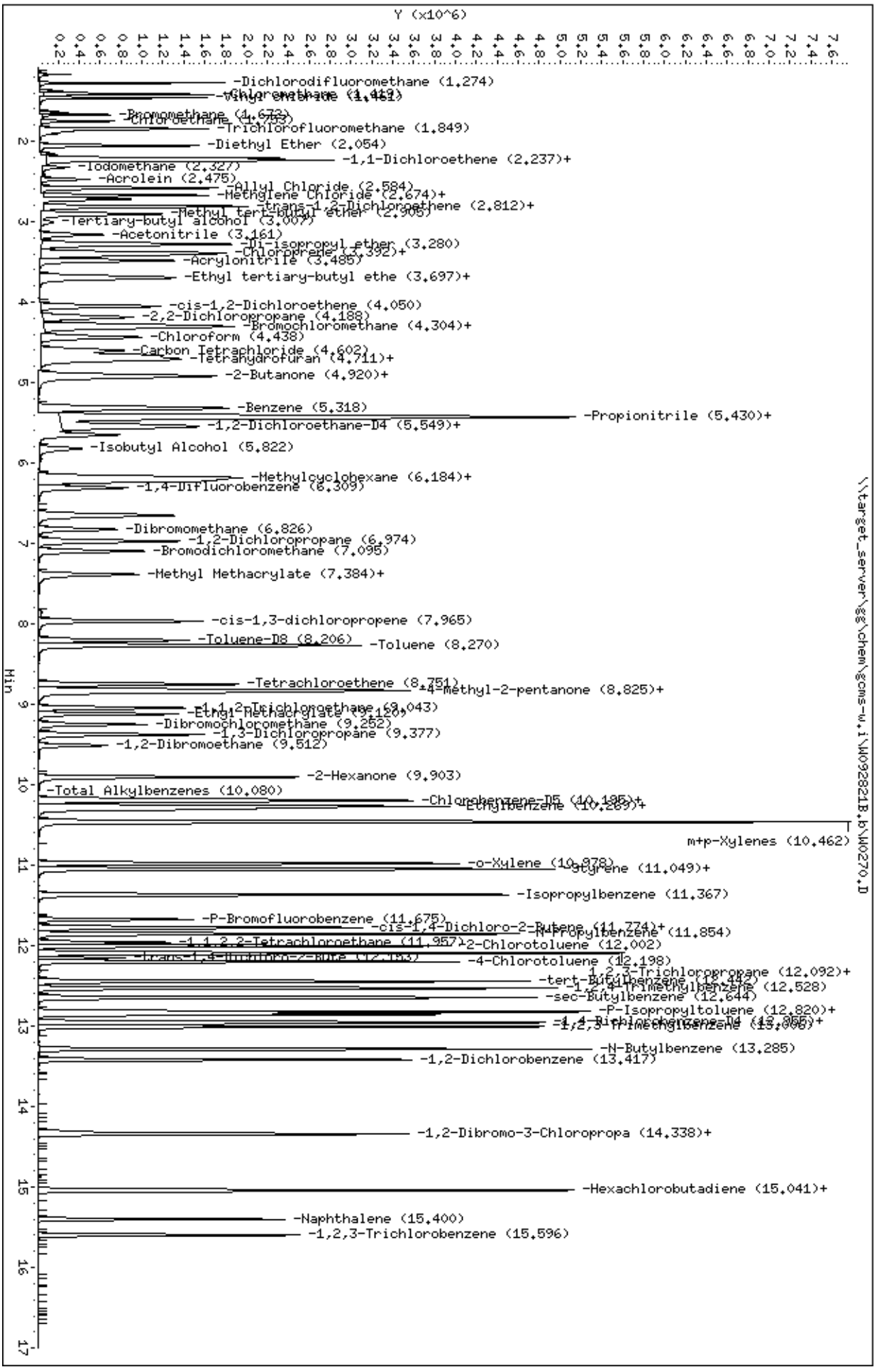
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)	REVIEW CODE
	24 Acrylonitrile	52	3.485	3.491	(0.631)	945399	500.000	466	
	25 Ethyl tertiary-butyl ether	59	3.690	3.700	(0.669)	1428104	100.000	102	
	26 Vinyl Acetate	43	3.710	3.719	(0.588)	932876	100.000	98.4	
	27 cis-1,2-Dichloroethene	96	4.050	4.053	(0.734)	674722	100.000	98.6	
	28 2,2-Dichloropropane	77	4.188	4.188	(0.759)	830703	100.000	111	
	29 Bromochloromethane	128	4.319	4.326	(0.783)	260754	100.000	94.7	
	30 Cyclohexane	56	4.294	4.290	(0.778)	1141249	100.000	103	
	31 Chloroform	83	4.438	4.435	(0.804)	1150727	100.000	99.1	
	32 Carbon Tetrachloride	117	4.602	4.614	(0.729)	851626	100.000	106	
	33 Tetrahydrofuran	42	4.666	4.698	(0.845)	1072883	500.000	462	
$	34 Dibromofluoromethane	113	4.711	4.711	(0.854)	280852	50.0000	49.4	
	35 1,1,1-Trichloroethane	97	4.714	4.717	(0.854)	1054858	100.000	104	
	36 2-Butanone	43	4.932	4.945	(0.894)	1437102	500.000	464	
	37 1,1-Dichloropropene	75	4.913	4.922	(0.779)	934177	100.000	103	
	38 Benzene	78	5.317	5.311	(0.843)	2511975	100.000	101	
	39 Propionitrile	54	5.407	5.413	(0.980)	812298	1000.00	926	
	40 Methacrylonitrile	41	5.430	5.446	(0.984)	3883324	1000.00	953	
*	41 Pentafluorobenzene	168	5.519	5.529	(1.000)	561422	50.0000		
$	42 1,2-Dichloroethane-D4	65	5.548	5.545	(1.005)	372813	50.0000	48.4	
	43 Tertiary-amyl methyl ether	73	5.555	5.567	(1.006)	1140529	100.000	109	
	44 1,2-Dichloroethane	62	5.648	5.651	(0.895)	919674	100.000	96.9	
	45 Isobutyl Alcohol	43	5.821	5.837	(1.055)	443986	2000.00	2540	
	46 Methylcyclohexane	83	6.184	6.184	(1.120)	1201265	100.000	109	
	47 Trichloroethene	95	6.225	6.232	(0.987)	640726	100.000	101	
*	48 1,4-Difluorobenzene	114	6.309	6.315	(1.000)	931776	50.0000		
	49 Dibromomethane	93	6.829	6.822	(1.082)	384399	100.000	99.4	
	50 1,2-Dichloropropane	63	6.973	6.976	(1.105)	670648	100.000	102	
	51 Bromodichloromethane	83	7.095	7.095	(1.125)	871289	100.000	106	
	52 Methyl Methacrylate	41	7.381	7.393	(1.170)	577507	100.000	110	
	53 Ethyl Methacrylate	69	9.120	9.113	(1.446)	747865	100.000	114	
	54 1,4-Dioxane	88	7.397	7.403	(1.172)	128276	2000.00	2530	
M	55 Total Alkylbenzenes	100				20379675	100.000	706	
	57 cis-1,3-dichloropropene	75	7.965	7.965	(1.262)	1053434	100.000	113	
$	58 Toluene-D8	98	8.202	8.205	(1.300)	1113338	50.0000	49.7	
	59 Toluene	92	8.269	8.269	(1.311)	1578425	100.000	101	
	60 Tetrachloroethene	164	8.751	8.747	(0.859)	539119	100.000	103	
	61 4-methyl-2-pentanone	43	8.825	8.834	(1.399)	2753762	500.000	488	
	62 trans-1,3-Dichloropropene	75	8.850	8.850	(1.403)	947652	100.000	115	
	63 1,1,2-Trichloroethane	83	9.046	9.049	(1.434)	447693	100.000	98.9	
	64 Dibromochloromethane	129	9.251	9.251	(0.909)	638567	100.000	109	
	65 1,3-Dichloropropane	76	9.376	9.380	(0.921)	1018205	100.000	100	
	66 1,2-Dibromoethane	107	9.511	9.511	(1.508)	536010	100.000	104	
	67 2-Hexanone	43	9.903	9.912	(0.973)	1864390	500.000	488	
*	68 Chlorobenzene-D5	117	10.182	10.182	(1.000)	957789	50.0000		
	69 Chlorobenzene	112	10.198	10.198	(1.002)	1776428	100.000	101	
	70 Ethylbenzene	91	10.269	10.269	(1.009)	3076160	100.000	101	
	71 1,1,1,2-Tetrachloroethane	131	10.297	10.304	(1.011)	621777	100.000	109	
	72 m+p-Xylenes	91	10.461	10.461	(1.027)	4590883	200.000	199	
	73 o-Xylene	91	10.978	10.981	(1.078)	2447147	100.000	105	
	74 Styrene	104	11.048	11.048	(1.085)	1991779	100.000	108	
	75 Bromoform	173	11.045	11.055	(1.085)	416349	100.000	114	
	76 Isopropylbenzene	105	11.366	11.366	(0.878)	3072005	100.000	101	
$	77 P-Bromofluorobenzene	95	11.674	11.677	(1.850)	504592	50.0000	50.2	
	78 cis-1,4-Dichloro-2-Butene	53	11.786	11.793	(0.911)	189365	100.000	105	

Data File: \\target_server\gg\chem\gcms-w.i\W092821B.b\W0270.D
Report Date: 11-Oct-2021 15:07

			QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)	REVIEW CODE
	79	Bromobenzene	156	11.774	11.773	(0.910)	757394	100.000	100	
	80	N-Propylbenzene	91	11.854	11.854	(0.916)	3660064	100.000	96.4	
	81	1,1,2,2-Tetrachloroethane	83	11.956	11.960	(0.924)	651132	100.000	94.3	
	82	2-Chlorotoluene	91	12.001	12.001	(0.927)	2201225	100.000	98.8	
	83	1,2,3-Trichloropropane	75	12.082	12.085	(0.933)	606186	100.000	92.9	
	84	1,3,5-Trimethylbenzene	105	12.094	12.098	(0.934)	2593562	100.000	102	
	85	trans-1,4-Dichloro-2-Butene	53	12.152	12.155	(0.939)	184752	100.000	104	
	86	4-Chlorotoluene	91	12.197	12.200	(0.942)	2316228	100.000	99.2	
	87	tert-Butylbenzene	119	12.441	12.441	(0.961)	2310550	100.000	103	
	89	1,2,4-Trimethylbenzene	105	12.528	12.531	(0.968)	2657942	100.000	101	
	90	sec-Butylbenzene	105	12.643	12.646	(0.977)	3381212	100.000	99.8	
	91	P-Isopropyltoluene	119	12.820	12.816	(0.990)	2939166	100.000	102	
	92	1,3-Dichlorobenzene	146	12.855	12.858	(0.993)	1503582	100.000	101	
*	93	1,4-Dichlorobenzene-D4	152	12.945	12.942	(1.000)	563459	50.0000		
	94	1,4-Dichlorobenzene	146	12.961	12.961	(1.001)	1546477	100.000	98.1	
	95	1,2,3-Trimethylbenzene	105	13.006	13.006	(1.005)	2597917	100.000	101	
	96	N-Butylbenzene	91	13.285	13.285	(1.026)	2837179	100.000	101	
M	97	1,2-Dichloroethylene (total)	96				1320915	100.000	197	
	98	1,2-Dichlorobenzene	146	13.417	13.420	(1.036)	1400887	100.000	99.4	
	99	1,2-Dibromo-3-Chloropropane	157	14.309	14.315	(1.105)	116538	100.000	100	
	100	1,3,5-Trichlorobenzene	180	14.341	14.341	(1.108)	1078683	100.000	103	
	101	Hexachlorobutadiene	225	15.034	15.034	(1.161)	510577	100.000	98.4	
	102	1,2,4-Trichlorobenzene	180	15.047	15.056	(1.162)	921751	100.000	111	
	103	Naphthalene	128	15.400	15.403	(1.190)	1656199	100.000	109	
	104	1,2,3-Trichlorobenzene	180	15.599	15.595	(1.205)	715571	100.000	103	
M	105	Xylenes (total)	106				7038030	300.000	304	

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.


Data File: \\target_server\gg\chem\gcms-w.i\W092821B.b\W0270.D
Date : 28-SEP-2021 13:38
Client ID:
Sample Info: WG306817-5
Purge Volume: 5.0
Column phase: RTX-VMS
Instrument: gcms-w.i
Operator: ES
Column diameter: 0.18
\\target_server\gg\chem\gcms-w.i\W092821B.b\W0270.D
Y (x10^6)
Min
-Dichlorodifluoromethane (1.274)
-Chloromethane (1.417)
-Vinyl chloride (1.481)
-Bromomethane (1.672)
-Chloroethane (1.763)
-Trichlorofluoromethane (1.849)
-Diethyl Ether (2.054)
-1,1-Dichloroethene (2.237)+
-Iodomethane (2.327)
-Acrolein (2.475)
-Allyl Chloride (2.584)
-Methylene Chloride (2.674)+
-trans-1,2-Dichloroethene (2.812)+
-Methyl tert-butyl ether (2.905)
-Tertiary-butyl alcohol (3.007)
-Acetonitrile (3.161)
-Di-isopropyl ether (3.280)
-Chloroprene (3.392)+
-Acrylonitrile (3.485)
-Ethyl tertiary-butyl ethe (3.697)+
-cis-1,2-Dichloroethene (4.050)
-2,2-Dichloropropane (4.188)
-Bromochloromethane (4.304)+
-Chloroform (4.438)
-Carbon Tetrachloride (4.602)
-Tetrahydrofuran (4.711)+
-2-Butanone (4.920)+
-Benzene (5.318)
-Propionitrile (5.430)+
-1,2-Dichloroethane-D4 (5.549)+
-Isobutyl Alcohol (5.822)
-Methylcyclohexane (6.184)+
-1,4-Difluorobenzene (6.309)
-Dibromomethane (6.826)
-1,2-Dichloropropane (6.974)
-Bromodichloromethane (7.095)
-Methyl Methacrylate (7.384)+
-cis-1,3-dichloropropene (7.965)
-Toluene-D8 (8.206)
-Toluene (8.270)
-Tetrachloroethene (8.751)
-4-methyl-2-pentanone (8.825)+
-1,1,2-Trichloroethane (9.043)
-Ethyl Methacrylate (9.120)+
-Dibromochloromethane (9.252)
-1,3-Dichloropropane (9.377)
-1,2-Dibromoethane (9.512)
-2-Hexanone (9.903)
-Total Alkylbenzenes (10.080)
-Chlorobenzene-D5 (10.185)+
-Ethylbenzene (10.269)+
m+p-Xylenes (10.462)
-o-Xylene (10.878)
-Styrene (11.049)+
-Isopropylbenzene (11.367)
-P-Bromofluorobenzene (11.675)
-cis-1,4-Dichloro-2-Butene (11.774)+
-N-Propylbenzene (11.854)
-1,1,2,2-Tetrachloroethane (11.957)+
-2-Chlorotoluene (12.002)
-trans-1,4-Dichloro-2-Bute (12.193)
-4-Chlorotoluene (12.198)
-1,2,3-Trichloropropane (12.092)+
-tert-Butylbenzene (12.442)
-1,2,4-Trimethylbenzene (12.528)
-sec-Butylbenzene (12.644)
-P-Isopropyltoluene (12.820)+
-1,3-Dichlorobenzene-D4 (12.955)+
-1,2,3-Trimethylbenzene (13.006)+
-N-Butylbenzene (13.285)
-1,2-Dichlorobenzene (13.417)
-1,2-Dibromo-3-Chloropropa (14.338)+
-Hexachlorobutadiene (15.041)+
-Naphthalene (15.400)
-1,2,3-Trichlorobenzene (15.596)

Data File: \\target_server\gg\chem\gcms-w.i\W092821B.b\W0271.D
Report Date: 11-Oct-2021 15:07

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-w.i\W092821B.b\W0271.D
Lab Smp Id: WG306817-7
Inj Date : 28-SEP-2021 14:09
Operator : ES   Inst ID: gcms-w.i
Smp Info : WG306817-7
Misc Info :
Comment   : SW846 5030
Method   : \\target_server\gg\chem\gcms-w.i\W092821B.b\W8A05(09).m
Meth Date : 01-Oct-2021 17:40 HGOULD   Quant Type: ISTD
Cal Date : 28-SEP-2021 14:09   Cal File: W0271.D
Als bottle: 8   Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE   Compound Sublist: all.sub
Target Version: 4.12
Processing Host: T7-O360

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

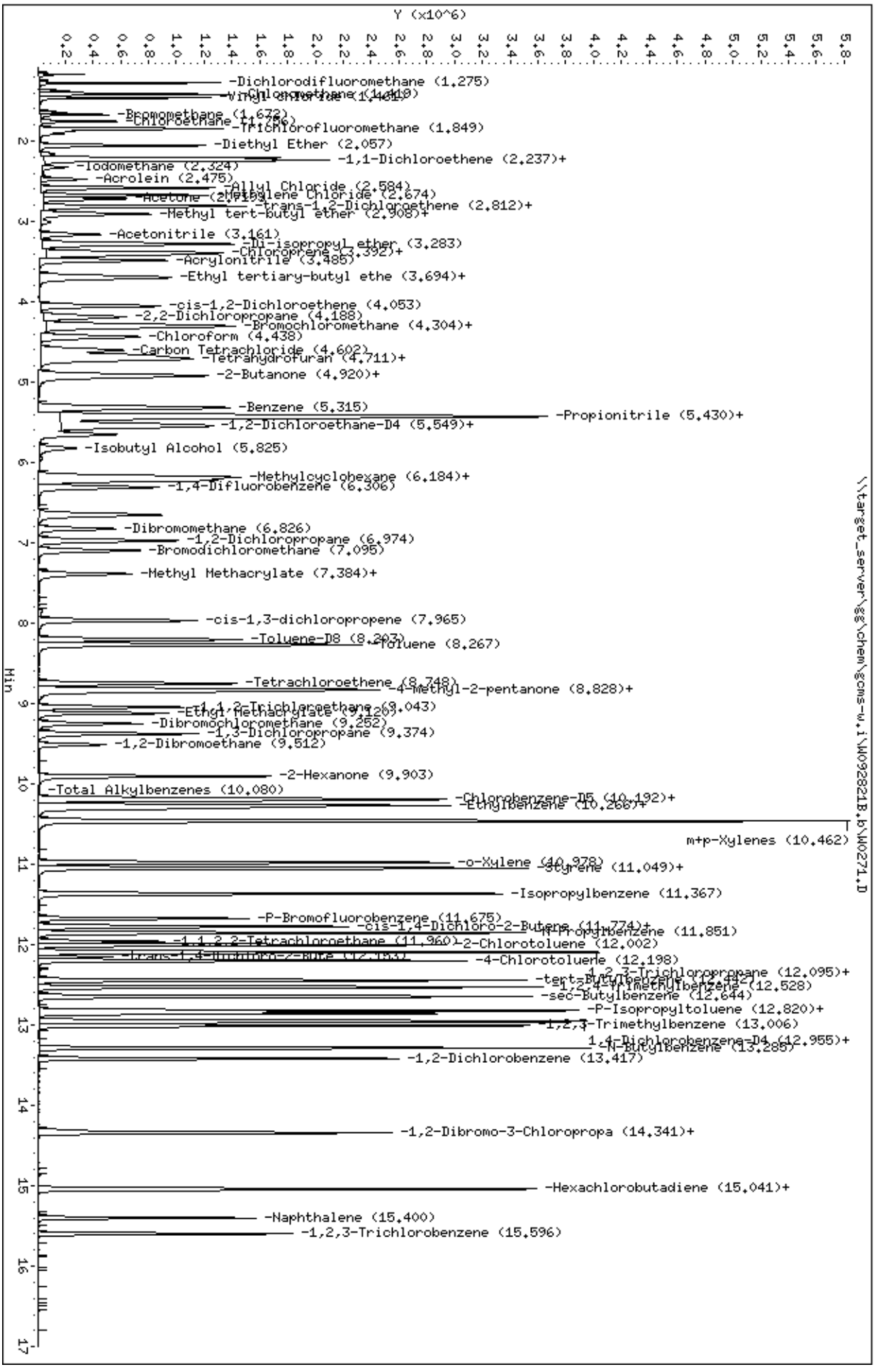
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)	REVIEW CODE
1	Dichlorodifluoromethane	85	1.274	1.278	(0.231)	624799	75.0000	72.2	
2	Chloromethane	50	1.409	1.415	(0.255)	732581	75.0000	71.1	
3	Vinyl chloride	62	1.460	1.460	(0.264)	640050	75.0000	73.2	
4	Bromomethane	94	1.672	1.672	(0.303)	167416	75.0000	77.8	
5	Chloroethane	64	1.752	1.755	(0.317)	341471	75.0000	74.0	
6	Trichlorofluoromethane	101	1.848	1.849	(0.335)	840060	75.0000	71.2	
7	Diethyl Ether	59	2.057	2.057	(0.373)	403678	75.0000	69.8	
8	1,1-Dichloroethene	96	2.211	2.211	(0.400)	457926	75.0000	72.2	
9	Freon-113	151	2.233	2.231	(0.404)	343501	75.0000	73.1	
10	Carbon Disulfide	76	2.240	2.240	(0.406)	1139452	75.0000	73.4	
11	Iodomethane	142	2.323	2.327	(0.421)	246632	75.0000	97.2	
12	Acrolein	56	2.474	2.478	(0.448)	250920	375.000	316	
13	Allyl Chloride	41	2.583	2.584	(0.468)	775958	75.0000	75.9	
14	Methylene Chloride	84	2.673	2.677	(0.484)	492561	75.0000	73.1	
15	Acetone	43	2.721	2.724	(0.493)	757153	375.000	321	
16	trans-1,2-Dichloroethene	96	2.811	2.811	(0.509)	486417	75.0000	72.5	
17	Methyl Acetate	43	2.827	2.833	(0.512)	423274	75.0000	62.6	
18	Methyl tert-butyl ether	73	2.911	2.907	(0.527)	886521	75.0000	61.2	
19	Tertiary-butyl alcohol	59	3.007	3.010	(0.544)	90435	375.000	290	
20	Acetonitrile	41	3.161	3.164	(0.572)	545528	750.000	660	
21	Di-isopropyl ether	45	3.283	3.286	(0.594)	1623912	75.0000	73.1	
22	Chloroprene	53	3.385	3.385	(0.613)	838236	75.0000	74.8	
23	1,1-Dichloroethane	63	3.418	3.421	(0.619)	932321	75.0000	73.0	

Data File: \\target_server\gg\chem\gcms-w.i\W092821B.b\W0271.D
Report Date: 11-Oct-2021 15:07

			QUANT SIG					AMOUNTS		
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)	REVIEW CODE
	24	Acrylonitrile	52	3.485	3.491	(0.631)	681521	375.000	332	
	25	Ethyl tertiary-butyl ether	59	3.694	3.700	(0.669)	1022857	75.0000	71.6	
	26	Vinyl Acetate	43	3.713	3.719	(0.589)	672143	75.0000	70.2	
	27	cis-1,2-Dichloroethene	96	4.053	4.053	(0.734)	514247	75.0000	73.4	
	28	2,2-Dichloropropane	77	4.188	4.188	(0.758)	567036	75.0000	73.8	
	29	Bromochloromethane	128	4.319	4.326	(0.782)	198211	75.0000	70.6	
	30	Cyclohexane	56	4.297	4.290	(0.778)	868270	75.0000	76.0	
	31	Chloroform	83	4.435	4.435	(0.803)	869174	75.0000	73.1	
	32	Carbon Tetrachloride	117	4.602	4.614	(0.730)	640824	75.0000	78.2	
	33	Tetrahydrofuran	42	4.666	4.698	(0.845)	753499	375.000	322	
$	34	Dibromofluoromethane	113	4.711	4.711	(0.853)	290031	50.0000	49.6	
	35	1,1,1-Trichloroethane	97	4.714	4.717	(0.854)	787546	75.0000	75.2	
	36	2-Butanone	43	4.935	4.945	(0.894)	983984	375.000	316	
	37	1,1-Dichloropropene	75	4.916	4.922	(0.780)	696589	75.0000	75.2	
	38	Benzene	78	5.317	5.311	(0.843)	1884339	75.0000	74.5	
	39	Propionitrile	54	5.404	5.413	(0.979)	563027	750.000	638	
	40	Methacrylonitrile	41	5.430	5.446	(0.983)	2776471	750.000	673	
*	41	Pentafluorobenzene	168	5.523	5.529	(1.000)	576913	50.0000		
$	42	1,2-Dichloroethane-D4	65	5.548	5.545	(1.005)	379104	50.0000	48.1	
	43	Tertiary-amyl methyl ether	73	5.558	5.567	(1.006)	787580	75.0000	73.6	
	44	1,2-Dichloroethane	62	5.648	5.651	(0.896)	682008	75.0000	71.0	
	45	Isobutyl Alcohol	43	5.824	5.837	(1.055)	285848	1500.00	1510	
	46	Methylcyclohexane	83	6.184	6.184	(1.120)	892486	75.0000	78.3	
	47	Trichloroethene	95	6.222	6.232	(0.987)	479038	75.0000	74.3	
*	48	1,4-Difluorobenzene	114	6.306	6.315	(1.000)	949317	50.0000		
	49	Dibromomethane	93	6.822	6.822	(1.082)	279095	75.0000	71.3	
	50	1,2-Dichloropropane	63	6.973	6.976	(1.106)	502909	75.0000	75.1	
	51	Bromodichloromethane	83	7.095	7.095	(1.125)	646337	75.0000	77.2	
	52	Methyl Methacrylate	41	7.384	7.393	(1.171)	406878	75.0000	76.1	
	53	Ethyl Methacrylate	69	9.120	9.113	(1.446)	528137	75.0000	78.7	
	54	1,4-Dioxane	88	7.400	7.403	(1.174)	87943	1500.00	1660	
M	55	Total Alkylbenzenes	100				15203141	75.0000	527	
	57	cis-1,3-dichloropropene	75	7.965	7.965	(1.263)	775394	75.0000	80.5	
$	58	Toluene-D8	98	8.202	8.205	(1.301)	1135179	50.0000	49.8	
	59	Toluene	92	8.266	8.269	(1.311)	1180637	75.0000	74.4	
	60	Tetrachloroethene	164	8.748	8.747	(0.859)	398866	75.0000	75.1	
	61	4-methyl-2-pentanone	43	8.825	8.834	(1.399)	1911838	375.000	337	
	62	trans-1,3-Dichloropropene	75	8.850	8.850	(1.404)	673091	75.0000	79.6	
	63	1,1,2-Trichloroethane	83	9.043	9.049	(1.434)	323434	75.0000	70.7	
	64	Dibromochloromethane	129	9.251	9.251	(0.909)	461440	75.0000	77.4	
	65	1,3-Dichloropropane	76	9.377	9.380	(0.921)	747647	75.0000	72.8	
	66	1,2-Dibromoethane	107	9.511	9.511	(1.508)	385652	75.0000	73.4	
	67	2-Hexanone	43	9.903	9.912	(0.973)	1263167	375.000	331	
*	68	Chlorobenzene-D5	117	10.179	10.182	(1.000)	973760	50.0000		
	69	Chlorobenzene	112	10.198	10.198	(1.002)	1329919	75.0000	74.2	
	70	Ethylbenzene	91	10.265	10.269	(1.009)	2315327	75.0000	74.6	
	71	1,1,1,2-Tetrachloroethane	131	10.301	10.304	(1.012)	455177	75.0000	78.1	
	72	m+p-Xylenes	91	10.458	10.461	(1.027)	3521259	150.000	150	
	73	o-Xylene	91	10.978	10.981	(1.078)	1819666	75.0000	76.6	
	74	Styrene	104	11.048	11.048	(1.085)	1485136	75.0000	78.4	
	75	Bromoform	173	11.048	11.055	(1.085)	293861	75.0000	78.8	
	76	Isopropylbenzene	105	11.366	11.366	(0.878)	2302366	75.0000	76.0	
$	77	P-Bromofluorobenzene	95	11.674	11.677	(1.851)	513604	50.0000	50.1	
	78	cis-1,4-Dichloro-2-Butene	53	11.786	11.793	(0.911)	123328	75.0000	69.3	

Data File: \\target_server\gg\chem\gcms-w.i\W092821B.b\W0271.D
Report Date: 11-Oct-2021 15:07

			QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)	REVIEW CODE
	79	Bromobenzene	156	11.770	11.773	(0.909)	556800	75.0000	74.2	
	80	N-Propylbenzene	91	11.851	11.854	(0.915)	2772661	75.0000	73.4	
	81	1,1,2,2-Tetrachloroethane	83	11.960	11.960	(0.924)	455757	75.0000	67.2	
	82	2-Chlorotoluene	91	12.001	12.001	(0.927)	1627167	75.0000	73.4	
	83	1,2,3-Trichloropropane	75	12.082	12.085	(0.933)	422104	75.0000	65.9	
	84	1,3,5-Trimethylbenzene	105	12.094	12.098	(0.934)	1919196	75.0000	75.9	
	85	trans-1,4-Dichloro-2-Butene	53	12.152	12.155	(0.939)	125207	75.0000	71.5	
	86	4-Chlorotoluene	91	12.197	12.200	(0.942)	1725948	75.0000	74.2	
	87	tert-Butylbenzene	119	12.441	12.441	(0.961)	1718039	75.0000	76.3	
	89	1,2,4-Trimethylbenzene	105	12.528	12.531	(0.968)	1968566	75.0000	74.9	
	90	sec-Butylbenzene	105	12.643	12.646	(0.977)	2533257	75.0000	74.9	
	91	P-Isopropyltoluene	119	12.820	12.816	(0.990)	2186158	75.0000	76.2	
	92	1,3-Dichlorobenzene	146	12.855	12.858	(0.993)	1100210	75.0000	74.0	
*	93	1,4-Dichlorobenzene-D4	152	12.945	12.942	(1.000)	562263	50.0000		
	94	1,4-Dichlorobenzene	146	12.958	12.961	(1.001)	1137135	75.0000	72.6	
	95	1,2,3-Trimethylbenzene	105	13.006	13.006	(1.005)	1925638	75.0000	74.9	
	96	N-Butylbenzene	91	13.285	13.285	(1.026)	2105264	75.0000	75.2	
M	97	1,2-Dichloroethylene (total)	96				1000664	75.0000	146	
	98	1,2-Dichlorobenzene	146	13.417	13.420	(1.036)	1016114	75.0000	72.6	
	99	1,2-Dibromo-3-Chloropropane	157	14.309	14.315	(1.105)	78179	75.0000	68.3	
	100	1,3,5-Trichlorobenzene	180	14.341	14.341	(1.108)	774560	75.0000	74.3	
	101	Hexachlorobutadiene	225	15.034	15.034	(1.161)	366134	75.0000	71.2	
	102	1,2,4-Trichlorobenzene	180	15.047	15.056	(1.162)	648149	75.0000	77.7	
	103	Naphthalene	128	15.400	15.403	(1.190)	1117043	75.0000	68.8	
	104	1,2,3-Trichlorobenzene	180	15.599	15.595	(1.205)	502552	75.0000	73.0	
M	105	Xylenes (total)	106				5340925	225.000	227	


Data File: \\target_server\gg\chem\gcms-w.i\W092821B.b\W0271.D
Date : 28-SEP-2021 14:09
Client ID:
Sample Info: WG306817-7
Purge Volume: 5.0
Column phase: RTX-VMS
Instrument: gcms-w.i
Operator: ES
Column diameter: 0.18
\\target_server\gg\chem\gcms-w.i\W092821B.b\W0271.D
Y (x10^6)
Min
-Dichlorodifluoromethane (1.275)
-Chloromethane (1.410)
-Vinyl chloride (1.481)
-Bromomethane (1.672)
-Chloroethane (1.766)
-Trichlorofluoromethane (1.849)
-Diethyl Ether (2.057)
-1,1-Dichloroethene (2.237)+
-Iodomethane (2.324)
-Acrolein (2.475)
-Allyl Chloride (2.584)
-Methylene Chloride (2.674)
-Acetone (2.731)
-trans-1,2-Dichloroethene (2.812)+
-Methyl tert-butyl ether (2.908)+
-Acetonitrile (3.161)
-Di-isopropyl ether (3.283)
-Chloroprene (3.392)+
-Acrylonitrile (3.485)
-Ethyl tertiary-butyl ethe (3.694)+
-cis-1,2-Dichloroethene (4.053)
-2,2-Dichloropropane (4.188)
-Bromochloromethane (4.304)+
-Chloroform (4.438)
-Carbon Tetrachloride (4.602)
-Tetrahydrofuran (4.711)+
-2-Butanone (4.920)+
-Benzene (5.315)
-Propionitrile (5.430)+
-1,2-Dichloroethane-D4 (5.549)+
-Isobutyl Alcohol (5.825)
-Methylcyclohexane (6.184)+
-1,4-Difluorobenzene (6.306)
-Dibromomethane (6.826)
-1,2-Dichloropropane (6.974)
-Bromodichloromethane (7.095)
-Methyl Methacrylate (7.384)+
-cis-1,3-dichloropropene (7.965)
-Toluene-D8 (8.203)
-Toluene (8.267)
-Tetrachloroethene (8.748)
-4-Methyl-2-pentanone (8.828)+
-1,1,2-Trichloroethane (9.043)
-Ethyl Methacrylate (9.126)
-Dibromochloromethane (9.252)
-1,3-Dichloropropane (9.374)
-1,2-Dibromoethane (9.512)
-2-Hexanone (9.903)
-Total Alkylbenzenes (10.080)
-Chlorobenzene-D5 (10.192)+
-Ethylbenzene (10.266)+
m+p-Xylenes (10.462)
-o-Xylene (10.978)
-Styrene (11.049)+
-Isopropylbenzene (11.367)
-P-Bromofluorobenzene (11.675)
-cis-1,4-Dichloro-2-Butene (11.774)+
-n-Propylbenzene (11.851)
-1,1,2,2-Tetrachloroethane (11.960)
-2-Chlorotoluene (12.002)
-trans-1,4-Dichloro-2-Bute (12.053)
-4-Chlorotoluene (12.198)
-1,2,3-Trichloropropane (12.095)+
-tert-Butylbenzene (12.442)
-1,2,4-Trimethylbenzene (12.528)
-sec-Butylbenzene (12.644)
-P-Isopropyltoluene (12.820)+
-1,3,5-Trimethylbenzene (13.006)
-1,4-Dichlorobenzene-D4 (12.955)+
-n-Butylbenzene (13.285)
-1,2-Dichlorobenzene (13.417)
-1,2-Dibromo-3-Chloropropa (14.341)+
-Hexachlorobutadiene (15.041)+
-Naphthalene (15.400)
-1,2,3-Trichlorobenzene (15.596)

Katahdin
ANALYTICAL SERVICES

Form 7
Calibration Verification Summary

Lab Name : Katahdin Analytical Services
Project : Watervliet Arsenal LTM **SDG:** SO6313
Lab ID : WG306383-4 **Analytical Date:** 09/21/21 07:08
Lab File ID : W0123.D **Instrument ID:** GCMS-W
Initial Calibration Date(s): 09/20/21 07:56 09/20/21 11:30 **Column ID:**

	Compound	$\overline{\text{RRF}}$/Amount	RF50	CCAL RRF50	Min	%D/ %Drift	Max %D/ %Drift	Curve Type	
2	Chloromethane	0.61725	0.51960	0.51960	0.100	-15.82109	20.00000	Averaged	
3	Vinyl chloride	0.54944	0.49677	0.49677	0.100	-9.58446	20.00000	Averaged	
4	Bromomethane	50.00000	29.89992	0.14826	0.100	-40.20016	20.00000	Quadratic	*
5	Chloroethane	50.00000	60.53766	0.31466	0.100	21.07533	20.00000	Quadratic	*
6	Trichlorofluoromethane	0.77431	0.80403	0.80403	0.100	3.83782	20.00000	Averaged	
8	1,1-Dichloroethene	0.49863	0.49306	0.49306	0.100	-1.11737	20.00000	Averaged	
10	Carbon Disulfide	1.24298	1.25667	1.25667	0.100	1.10204	20.00000	Averaged	
14	Methylene Chloride	50.00000	52.95379	0.52192	0.100	5.90759	20.00000	Linear	
16	trans-1,2-Dichloroethene	0.52949	0.52023	0.52023	0.100	-1.75019	20.00000	Averaged	
23	1,1-Dichloroethane	1.00891	0.99836	0.99836	0.200	-1.04565	20.00000	Averaged	
27	cis-1,2-Dichloroethene	0.56393	0.54997	0.54997	0.100	-2.47627	20.00000	Averaged	
31	Chloroform	0.96150	0.93575	0.93575	0.200	-2.67823	20.00000	Averaged	
32	Carbon Tetrachloride	0.39028	0.42102	0.42102	0.100	7.87682	20.00000	Averaged	
35	1,1,1-Trichloroethane	0.86055	0.85669	0.85669	0.100	-0.44917	20.00000	Averaged	
36	2-Butanone	0.23721	0.22999	0.22999	0.100	-3.04591	20.00000	Averaged	
38	Benzene	1.26997	1.22711	1.22711	0.500	-3.37480	20.00000	Averaged	
44	1,2-Dichloroethane	0.45942	0.44435	0.44435	0.100	-3.27922	20.00000	Averaged	
47	Trichloroethene	0.31727	0.30190	0.30190	0.200	-4.84396	20.00000	Averaged	
50	1,2-Dichloropropane	0.32813	0.32096	0.32096	0.100	-2.18550	20.00000	Averaged	
51	Bromodichloromethane	0.41202	0.42030	0.42030	0.200	2.00894	20.00000	Averaged	
57	cis-1,3-dichloropropene	0.48168	0.49575	0.49575	0.200	2.92032	20.00000	Averaged	
59	Toluene	0.79921	0.75475	0.75475	0.400	-5.56329	20.00000	Averaged	
60	Tetrachloroethene	0.28734	0.26726	0.26726	0.200	-6.98675	20.00000	Averaged	
61	4-methyl-2-pentanone	0.26701	0.27276	0.27276	0.100	2.15311	20.00000	Averaged	
62	trans-1,3-Dichloropropene	0.42180	0.44623	0.44623	0.100	5.79007	20.00000	Averaged	
63	1,1,2-Trichloroethane	0.22322	0.21726	0.21726	0.100	-2.66767	20.00000	Averaged	
64	Dibromochloromethane	0.30401	0.31953	0.31953	0.100	5.10492	20.00000	Averaged	
69	Chlorobenzene	0.93039	0.87844	0.87844	0.500	-5.58336	20.00000	Averaged	
70	Ethylbenzene	1.57324	1.53705	1.53705	0.100	-2.30056	20.00000	Averaged	
72	m+p-Xylenes	1.15872	1.18256	1.18256	0.100	2.05752	20.00000	Averaged	
73	o-Xylene	1.19804	1.20526	1.20526	0.300	0.60299	20.00000	Averaged	
75	Bromoform	50.00000	50.12656	0.20525	0.100	0.25312	20.00000	Quadratic	
81	1,1,2,2-Tetrachloroethane	0.61633	0.58985	0.58985	0.300	-4.29661	20.00000	Averaged	
34	Dibromofluoromethane	0.50078	0.51276	0.51276	0.010	2.39153	20.00000	Averaged	
42	1,2-Dichloroethane-D4	0.65228	0.65667	0.65667	0.010	0.67172	20.00000	Averaged	
58	Toluene-D8	1.19578	1.18511	1.18511	0.010	-0.89273	20.00000	Averaged	
77	P-Bromofluorobenzene	0.50035	0.50531	0.50531	0.010	0.99212	20.00000	Averaged	

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://katahdinlab.com
sales@katahdinlab.com

Form 7
Calibration Verification Summary

Lab Name : Katahdin Analytical Services
Project : Watervliet Arsenal LTM
SDG: SO6313
Lab ID : WG306383-4
Analytical Date: 09/21/21 07:08
Lab File ID : W0123.D
Instrument ID: GCMS-W
Initial Calibration Date(s): 09/20/21 07:56 09/20/21 11:30
Column ID:

*** = Compound out of QC criteria**

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://katahdinlab.com
sales@katahdinlab.com

Data File: \\target_server\gg\chem\gcms-w.i\W092121.b\W0123.D
Report Date: 11-Oct-2021 12:58

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-w.i\W092121.b\W0123.D
Lab Smp Id: WG306383-4
Inj Date : 21-SEP-2021 07:08
Operator : ES   Inst ID: gcms-w.i
Smp Info : WG306383-4,SO6313
Misc Info : WG306383,WG306317-4,SO6313-1
Comment   : SW846 5030
Method   : \\target_server\gg\chem\gcms-w.i\W092121.b\W8A05(08).m
Meth Date : 11-Oct-2021 12:27 gcms-w.i   Quant Type: ISTD
Cal Date : 20-SEP-2021 11:30   Cal File: W0105.D
Als bottle: 24   Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE   Compound Sublist: all.sub
Target Version: 4.12

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)	REVIEW CODE
1	Dichlorodifluoromethane	85	1.277	1.277	(0.231)	226924	50.0000	45.7	
2	Chloromethane	50	1.412	1.412	(0.255)	332751	50.0000	42.1	
3	Vinyl chloride	62	1.460	1.460	(0.264)	318136	50.0000	45.2	
4	Bromomethane	94	1.672	1.672	(0.302)	94944	50.0000	29.9	
5	Chloroethane	64	1.755	1.752	(0.318)	201508	50.0000	60.5	
6	Trichlorofluoromethane	101	1.848	1.849	(0.334)	514901	50.0000	51.9	
7	Diethyl Ether	59	2.063	2.060	(0.373)	270236	50.0000	51.2	
8	1,1-Dichloroethene	96	2.211	2.211	(0.400)	315754	50.0000	49.4	
9	Freon-113	151	2.240	2.237	(0.405)	247355	50.0000	51.6	
10	Carbon Disulfide	76	2.240	2.240	(0.405)	804778	50.0000	50.6	
11	Iodomethane	142	2.326	2.327	(0.421)	123922	50.0000	25.2	
12	Acrolein	56	2.480	2.478	(0.449)	109288	250.000	226	
13	Allyl Chloride	41	2.586	2.584	(0.468)	505700	50.0000	52.2	
14	Methylene Chloride	84	2.679	2.677	(0.485)	334237	50.0000	53.0	
15	Acetone	43	2.727	2.725	(0.493)	500031	250.000	265	
16	trans-1,2-Dichloroethene	96	2.814	2.815	(0.509)	333154	50.0000	49.1	
17	Methyl Acetate	43	2.830	2.827	(0.512)	298599	50.0000	50.8	
18	Methyl tert-butyl ether	73	2.914	2.914	(0.527)	898044	50.0000	50.4	
19	Tertiary-butyl alcohol	59	3.019	3.017	(0.546)	114651	250.000	214	
20	Acetonitrile	41	3.167	3.164	(0.573)	372168	500.000	447	
21	Di-isopropyl ether	45	3.286	3.289	(0.594)	1057478	50.0000	50.4	
22	Chloroprene	53	3.392	3.389	(0.613)	573088	50.0000	50.4	
23	1,1-Dichloroethane	63	3.417	3.418	(0.618)	639351	50.0000	49.5	
24	Acrylonitrile	52	3.491	3.488	(0.631)	512425	250.000	250	

Data File: \\target_server\gg\chem\gcms-w.i\W092121.b\W0123.D
Report Date: 11-Oct-2021 12:58

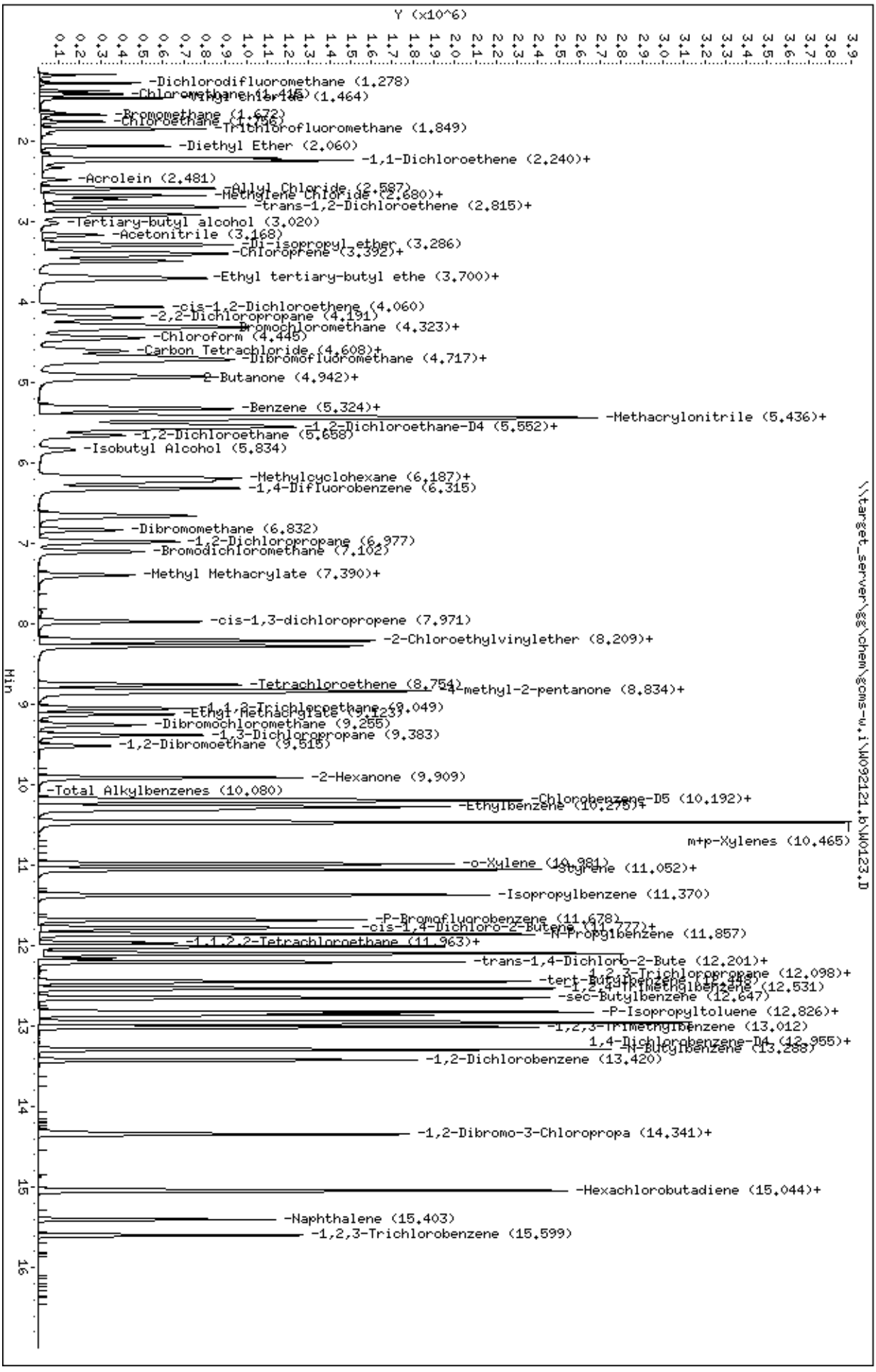
								AMOUNTS		
			QUANT SIG					CAL-AMT	ON-COL	
	Compounds		MASS	RT	EXP RT	REL RT	RESPONSE	(ug/l)	(ug/l)	REVIEW CODE
	25	Ethyl tertiary-butyl ether	59	3.700	3.694	(0.669)	865924	50.0000	47.6	
	26	Vinyl Acetate	43	3.719	3.716	(0.589)	530448	50.0000	55.6	
	27	cis-1,2-Dichloroethene	96	4.059	4.056	(0.734)	352200	50.0000	48.8	
	28	2,2-Dichloropropane	77	4.191	4.191	(0.758)	447981	50.0000	45.2	
	29	Bromochloromethane	128	4.322	4.325	(0.782)	150912	50.0000	49.7	
	30	Cyclohexane	56	4.297	4.300	(0.777)	610970	50.0000	50.3	
	31	Chloroform	83	4.444	4.445	(0.804)	599258	50.0000	48.7	
	32	Carbon Tetrachloride	117	4.608	4.605	(0.730)	448770	50.0000	53.9	
	33	Tetrahydrofuran	42	4.675	4.673	(0.846)	583741	250.000	248	
$	34	Dibromofluoromethane	113	4.717	4.714	(0.853)	328371	50.0000	51.2	
	35	1,1,1-Trichloroethane	97	4.723	4.721	(0.854)	548625	50.0000	49.8	
	36	2-Butanone	43	4.942	4.939	(0.894)	736421	250.000	242	
	37	1,1-Dichloropropene	75	4.919	4.920	(0.779)	480526	50.0000	48.8	
	38	Benzene	78	5.323	5.321	(0.843)	1307995	50.0000	48.3	
	39	Propionitrile	54	5.413	5.411	(0.979)	425441	500.000	472	
	40	Methacrylonitrile	41	5.436	5.436	(0.983)	2035583	500.000	514	
*	41	Pentafluorobenzene	168	5.529	5.526	(1.000)	640403	50.0000		
$	42	1,2-Dichloroethane-D4	65	5.551	5.549	(1.004)	420531	50.0000	50.3	
	43	Tertiary-amyl methyl ether	73	5.567	5.561	(1.007)	691583	50.0000	48.3	
	44	1,2-Dichloroethane	62	5.657	5.658	(0.896)	473641	50.0000	48.4	
	45	Isobutyl Alcohol	43	5.834	5.834	(1.055)	180635	1000.00	783	
	46	Methylcyclohexane	83	6.187	6.184	(1.119)	595816	50.0000	50.7	
	47	Trichloroethene	95	6.235	6.226	(0.987)	321800	50.0000	47.6	
*	48	1,4-Difluorobenzene	114	6.315	6.315	(1.000)	1065912	50.0000		
	49	Dibromomethane	93	6.832	6.832	(1.082)	201467	50.0000	48.9	
	50	1,2-Dichloropropane	63	6.976	6.977	(1.105)	342111	50.0000	48.9	
	51	Bromodichloromethane	83	7.101	7.102	(1.124)	448001	50.0000	51.0	
	52	Methyl Methacrylate	41	7.390	7.390	(1.170)	288420	50.0000	51.9	
	53	Ethyl Methacrylate	69	9.126	9.123	(1.445)	376897	50.0000	45.2	
	54	1,4-Dioxane	88	7.409	7.407	(1.173)	55046	1000.00	613	
M	55	Total Alkylbenzenes	100				10482822	50.0000	(a)	
	56	2-Chloroethylvinylether	63	8.272	8.270	(1.310)	124651	50.0000	50.0	
	57	cis-1,3-dichloropropene	75	7.971	7.971	(1.262)	528421	50.0000	51.5	
$	58	Toluene-D8	98	8.208	8.209	(1.300)	1263221	50.0000	49.6	
	59	Toluene	92	8.276	8.273	(1.310)	804496	50.0000	47.2	
	60	Tetrachloroethene	164	8.754	8.754	(0.859)	275797	50.0000	46.5	
	61	4-methyl-2-pentanone	43	8.828	8.831	(1.398)	1453669	250.000	255	
	62	trans-1,3-Dichloropropene	75	8.853	8.857	(1.402)	475638	50.0000	52.9	
	63	1,1,2-Trichloroethane	83	9.052	9.049	(1.433)	231584	50.0000	48.7	
	64	Dibromochloromethane	129	9.254	9.255	(0.909)	329735	50.0000	52.6	
	65	1,3-Dichloropropane	76	9.383	9.380	(0.921)	529160	50.0000	50.0	
	66	1,2-Dibromoethane	107	9.517	9.518	(1.507)	279542	50.0000	49.1	
	67	2-Hexanone	43	9.909	9.906	(0.973)	948302	250.000	251	
*	68	Chlorobenzene-D5	117	10.185	10.182	(1.000)	1031939	50.0000		
	69	Chlorobenzene	112	10.204	10.201	(1.002)	906497	50.0000	47.2	
	70	Ethylbenzene	91	10.272	10.272	(1.009)	1586139	50.0000	48.8	
	71	1,1,1,2-Tetrachloroethane	131	10.307	10.304	(1.012)	312558	50.0000	50.3	
	72	m+p-Xylenes	91	10.464	10.465	(1.027)	2440654	100.000	102	
	73	o-Xylene	91	10.981	10.981	(1.078)	1243757	50.0000	50.3	
	74	Styrene	104	11.051	11.052	(1.085)	999056	50.0000	50.6	
	75	Bromoform	173	11.051	11.052	(1.085)	211807	50.0000	50.1	
	76	Isopropylbenzene	105	11.369	11.370	(0.878)	1578310	50.0000	49.2	
$	77	P-Bromofluorobenzene	95	11.677	11.678	(1.849)	538621	50.0000	50.5	
	78	cis-1,4-Dichloro-2-Butene	53	11.789	11.790	(0.911)	82275	50.0000	34.6	

Data File: \\target_server\gg\chem\gcms-w.i\W092121.b\W0123.D
Report Date: 11-Oct-2021 12:58

			QUANT SIG					AMOUNTS		
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)	REVIEW CODE
	79	Bromobenzene	156	11.777	11.777	(0.910)	378687	50.0000	47.1	
	80	N-Propylbenzene	91	11.857	11.857	(0.916)	1929300	50.0000	49.7	
	81	1,1,2,2-Tetrachloroethane	83	11.963	11.963	(0.924)	343776	50.0000	47.8	
	82	2-Chlorotoluene	91	12.008	12.005	(0.927)	1111360	50.0000	47.8	
	83	1,2,3-Trichloropropane	75	12.088	12.088	(0.934)	313028	50.0000	48.6	
	84	1,3,5-Trimethylbenzene	105	12.101	12.098	(0.935)	1315022	50.0000	49.7	
	85	trans-1,4-Dichloro-2-Butene	53	12.158	12.159	(0.939)	81496	50.0000	38.0	
	86	4-Chlorotoluene	91	12.200	12.204	(0.942)	1170824	50.0000	48.7	
	87	tert-Butylbenzene	119	12.447	12.448	(0.961)	1169256	50.0000	48.5	
	89	1,2,4-Trimethylbenzene	105	12.531	12.531	(0.968)	1348803	50.0000	49.4	
	90	sec-Butylbenzene	105	12.646	12.647	(0.977)	1756814	50.0000	49.6	
	91	P-Isopropyltoluene	119	12.826	12.823	(0.991)	1498264	50.0000	49.6	
	92	1,3-Dichlorobenzene	146	12.858	12.858	(0.993)	753292	50.0000	47.4	
*	93	1,4-Dichlorobenzene-D4	152	12.948	12.948	(1.000)	582820	50.0000		
	94	1,4-Dichlorobenzene	146	12.964	12.964	(1.001)	774138	50.0000	47.2	
	95	1,2,3-Trimethylbenzene	105	13.012	13.012	(1.005)	1328183	50.0000	48.7	
	96	N-Butylbenzene	91	13.288	13.288	(1.026)	1465363	50.0000	52.5	
M	97	1,2-Dichloroethylene (total)	96				685354	50.0000	(a)	
	98	1,2-Dichlorobenzene	146	13.423	13.420	(1.037)	707222	50.0000	47.9	
	99	1,2-Dibromo-3-Chloropropane	157	14.315	14.315	(1.106)	62833	50.0000	43.3	
	100	1,3,5-Trichlorobenzene	180	14.340	14.344	(1.108)	550549	50.0000	47.8	
	101	Hexachlorobutadiene	225	15.037	15.037	(1.161)	262660	50.0000	46.9	
	102	1,2,4-Trichlorobenzene	180	15.050	15.050	(1.162)	462575	50.0000	46.4	
	103	Naphthalene	128	15.403	15.403	(1.190)	797016	50.0000	44.0	
	104	1,2,3-Trichlorobenzene	180	15.602	15.599	(1.205)	360776	50.0000	49.2	
M	105	Xylenes (total)	106				3684411	150.000	(a)	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).


Data File: \\target_server\gg\chem\gcms-w.i\W092121.b\W0123.D
Date : 21-SEP-2021 07:08
Client ID:
Sample Info: WG306383-4,SD6313
Purge Volume: 5.0
Column phase: RTX-VMS
Instrument: gcms-w.i
Operator: ES
Column diameter: 0.18
\\target_server\gg\chem\gcms-w.i\W092121.b\W0123.D
Y (x10^6)
Min
-Dichlorodifluoromethane (1.278)
-Chloromethane (1.415)
-Vinyl chloride (1.464)
-Bromomethane (1.672)
-Chloroethane (1.746)
-Trichlorofluoromethane (1.849)
-Diethyl Ether (2.060)
-1,1-Dichloroethene (2.240)+
-Acrolein (2.481)
-Allyl Chloride (2.587)
-Methylene Chloride (2.680)+
-trans-1,2-Dichloroethene (2.815)+
-Tertiary-butyl alcohol (3.020)
-Acetonitrile (3.168)
-Di-isopropyl ether (3.286)
-Chloroprene (3.392)+
-Ethyl tertiary-butyl ethe (3.700)+
-cis-1,2-Dichloroethene (4.060)
-2,2-Dichloropropane (4.191)
-Bromochloromethane (4.323)+
-Chloroform (4.445)
-Carbon Tetrachloride (4.608)+
-Dibromofluoromethane (4.717)+
2-Butanone (4.942)+
-Benzene (5.324)+
-Methacrylonitrile (5.436)+
-1,2-Dichloroethane-D4 (5.552)+
-1,2-Dichloroethane (5.658)
-Isobutyl Alcohol (5.834)
-Methylcyclohexane (6.187)+
-1,4-Difluorobenzene (6.315)
-Dibromomethane (6.832)
-1,2-Dichloropropane (6.977)
-Bromodichloromethane (7.102)
-Methyl Methacrylate (7.390)+
-cis-1,3-dichloropropene (7.971)
-2-Chloroethylvinylether (8.209)+
-Tetrachloroethene (8.754)
4-methyl-2-pentanone (8.834)+
-1,1,2-Trichloroethane (9.049)
-Ethyl Methacrylate (9.123)
-Dibromochloromethane (9.255)
-1,3-Dichloropropane (9.383)
-1,2-Dibromoethane (9.515)
-2-Hexanone (9.909)
-Total Alkylbenzenes (10.080)
-Chlorobenzene-D5 (10.192)+
-Ethylbenzene (10.275)+
m+p-Xylenes (10.465)
-o-Xylene (10.981)
Styrene (11.052)+
-Isopropylbenzene (11.370)
-P-Bromofluorobenzene (11.678)
-cis-1,4-Dichloro-2-Butene (11.777)+
-N-Propylbenzene (11.857)
-1,1,2,2-Tetrachloroethane (11.963)+
-trans-1,4-Dichloro-2-Bute (12.201)+
1,2,3-Trichloropropane (12.098)+
-tert-Butylbenzene (12.418)
-1,2,4-Trimethylbenzene (12.531)
-sec-Butylbenzene (12.647)
-P-Isopropyltoluene (12.826)+
-1,2,3-Trimethylbenzene (13.012)
1,4-Dichlorobenzene-D4 (12.955)+
-N-Butylbenzene (13.288)
-1,2-Dichlorobenzene (13.420)
-1,2-Dibromo-3-Chloropropa (14.341)+
-Hexachlorobutadiene (15.044)+
-Naphthalene (15.403)
-1,2,3-Trichlorobenzene (15.599)

Katahdin
ANALYTICAL SERVICES

Form 7
Calibration Verification Summary

Lab Name : Katahdin Analytical Services
Project : Watervliet Arsenal LTM **SDG:** SO6313
Lab ID : WG306464-4 **Analytical Date:** 09/22/21 06:46
Lab File ID : W0145.D **Instrument ID:** GCMS-W
Initial Calibration Date(s): 09/20/21 07:56 09/20/21 11:30 **Column ID:**

	Compound	$\overline{\text{RRF}}$/Amount	RF50	CCAL RRF50	Min	%D/ %Drift	Max %D/ %Drift	Curve Type	
2	Chloromethane	0.61725	0.52655	0.52655	0.100	-14.69527	20.00000	Averaged	
3	Vinyl chloride	0.54944	0.50921	0.50921	0.100	-7.32172	20.00000	Averaged	
4	Bromomethane	50.00000	19.25828	0.09937	0.100	-61.48344	20.00000	Quadratic	*
5	Chloroethane	50.00000	66.29148	0.33737	0.100	32.58297	20.00000	Quadratic	*
6	Trichlorofluoromethane	0.77431	0.85293	0.85293	0.100	10.15393	20.00000	Averaged	
8	1,1-Dichloroethene	0.49863	0.51968	0.51968	0.100	4.22197	20.00000	Averaged	
10	Carbon Disulfide	1.24298	1.30773	1.30773	0.100	5.20994	20.00000	Averaged	
14	Methylene Chloride	50.00000	59.44576	0.58590	0.100	18.89153	20.00000	Linear	
16	trans-1,2-Dichloroethene	0.52949	0.54734	0.54734	0.100	3.37040	20.00000	Averaged	
23	1,1-Dichloroethane	1.00891	1.06745	1.06745	0.200	5.80304	20.00000	Averaged	
27	cis-1,2-Dichloroethene	0.56393	0.54084	0.54084	0.100	-4.09441	20.00000	Averaged	
31	Chloroform	0.96150	0.96221	0.96221	0.200	0.07346	20.00000	Averaged	
32	Carbon Tetrachloride	0.39028	0.42863	0.42863	0.100	9.82794	20.00000	Averaged	
35	1,1,1-Trichloroethane	0.86055	0.89974	0.89974	0.100	4.55376	20.00000	Averaged	
36	2-Butanone	0.23721	0.21119	0.21119	0.100	-10.97145	20.00000	Averaged	
38	Benzene	1.26997	1.23613	1.23613	0.500	-2.66456	20.00000	Averaged	
44	1,2-Dichloroethane	0.45942	0.46460	0.46460	0.100	1.12813	20.00000	Averaged	
47	Trichloroethene	0.31727	0.31214	0.31214	0.200	-1.61717	20.00000	Averaged	
50	1,2-Dichloropropane	0.32813	0.32404	0.32404	0.100	-1.24589	20.00000	Averaged	
51	Bromodichloromethane	0.41202	0.43027	0.43027	0.200	4.42809	20.00000	Averaged	
57	cis-1,3-dichloropropene	0.48168	0.49282	0.49282	0.200	2.31197	20.00000	Averaged	
59	Toluene	0.79921	0.76568	0.76568	0.400	-4.19579	20.00000	Averaged	
60	Tetrachloroethene	0.28734	0.26076	0.26076	0.200	-9.24751	20.00000	Averaged	
61	4-methyl-2-pentanone	0.26701	0.25559	0.25559	0.100	-4.27697	20.00000	Averaged	
62	trans-1,3-Dichloropropene	0.42180	0.43767	0.43767	0.100	3.76256	20.00000	Averaged	
63	1,1,2-Trichloroethane	0.22322	0.21762	0.21762	0.100	-2.50919	20.00000	Averaged	
64	Dibromochloromethane	0.30401	0.30194	0.30194	0.100	-0.68186	20.00000	Averaged	
69	Chlorobenzene	0.93039	0.86539	0.86539	0.500	-6.98609	20.00000	Averaged	
70	Ethylbenzene	1.57324	1.53646	1.53646	0.100	-2.33780	20.00000	Averaged	
72	m+p-Xylenes	1.15872	1.19996	1.19996	0.100	3.55962	20.00000	Averaged	
73	o-Xylene	1.19804	1.20839	1.20839	0.300	0.86422	20.00000	Averaged	
75	Bromoform	50.00000	45.86414	0.18691	0.100	-8.27172	20.00000	Quadratic	
81	1,1,2,2-Tetrachloroethane	0.61633	0.55223	0.55223	0.300	-10.40092	20.00000	Averaged	
34	Dibromofluoromethane	0.50078	0.51862	0.51862	0.010	3.56287	20.00000	Averaged	
42	1,2-Dichloroethane-D4	0.65228	0.71236	0.71236	0.010	9.20994	20.00000	Averaged	
58	Toluene-D8	1.19578	1.18981	1.18981	0.010	-0.49917	20.00000	Averaged	
77	P-Bromofluorobenzene	0.50035	0.52408	0.52408	0.010	4.74175	20.00000	Averaged	

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://katahdinlab.com
sales@katahdinlab.com

Form 7
Calibration Verification Summary

Lab Name : Katahdin Analytical Services
Project : Watervliet Arsenal LTM
SDG: SO6313
Lab ID : WG306464-4
Analytical Date: 09/22/21 06:46
Lab File ID : W0145.D
Instrument ID: GCMS-W
Initial Calibration Date(s): 09/20/21 07:56 09/20/21 11:30
Column ID:

*** = Compound out of QC criteria**

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://katahdinlab.com
sales@katahdinlab.com

Data File: \\target_server\gg\chem\gcms-w.i\W092221.b\W0145.D
Report Date: 11-Oct-2021 21:12

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-w.i\W092221.b\W0145.D
Lab Smp Id: WG306464-4
Inj Date : 22-SEP-2021 06:46
Operator : ES   Inst ID: gcms-w.i
Smp Info : WG306464-4,SO6313
Misc Info : WG306464,WG306317-4,SO6313-13
Comment   : SW846 5030
Method   : \\target_server\gg\chem\gcms-w.i\W092221.b\W8A05(08).m
Meth Date : 11-Oct-2021 13:03 hgould   Quant Type: ISTD
Cal Date : 20-SEP-2021 11:30   Cal File: W0105.D
Als bottle: 1   Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE   Compound Sublist: all.sub
Target Version: 4.12
Processing Host: VOA-WS

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)	REVIEW CODE
1	Dichlorodifluoromethane	85	1.277	1.277	(0.231)	175569	50.0000	40.4	
2	Chloromethane	50	1.409	1.412	(0.255)	295214	50.0000	42.6	
3	Vinyl chloride	62	1.460	1.460	(0.264)	285493	50.0000	46.3	
4	Bromomethane	94	1.672	1.672	(0.303)	55714	50.0000	19.2	
5	Chloroethane	64	1.755	1.752	(0.318)	189148	50.0000	66.3	
6	Trichlorofluoromethane	101	1.848	1.849	(0.335)	478207	50.0000	55.1	
7	Diethyl Ether	59	2.060	2.060	(0.373)	247384	50.0000	53.6	
8	1,1-Dichloroethene	96	2.211	2.211	(0.400)	291364	50.0000	52.1	
9	Freon-113	151	2.236	2.237	(0.405)	232659	50.0000	55.5	
10	Carbon Disulfide	76	2.240	2.240	(0.405)	733197	50.0000	52.6	
11	Iodomethane	142	2.326	2.327	(0.421)	129098	50.0000	29.8	
12	Acrolein	56	2.477	2.478	(0.448)	98240	250.000	232	
13	Allyl Chloride	41	2.583	2.584	(0.468)	497553	50.0000	58.6	
14	Methylene Chloride	84	2.676	2.677	(0.484)	328493	50.0000	59.4	
15	Acetone	43	2.721	2.725	(0.492)	410432	250.000	250	
16	trans-1,2-Dichloroethene	96	2.814	2.815	(0.509)	306872	50.0000	51.7	
17	Methyl Acetate	43	2.827	2.827	(0.512)	258218	50.0000	50.2	
18	Methyl tert-butyl ether	73	2.910	2.914	(0.527)	703473	50.0000	45.1	
19	Tertiary-butyl alcohol	59	3.007	3.017	(0.544)	77967	250.000	166	
20	Acetonitrile	41	3.164	3.164	(0.573)	341108	500.000	468	
21	Di-isopropyl ether	45	3.286	3.289	(0.595)	1006856	50.0000	54.8	
22	Chloroprene	53	3.392	3.389	(0.614)	553317	50.0000	55.6	
23	1,1-Dichloroethane	63	3.417	3.418	(0.618)	598481	50.0000	52.9	

Data File: \\target_server\gg\chem\gcms-w.i\W092221.b\W0145.D
Report Date: 11-Oct-2021 21:12

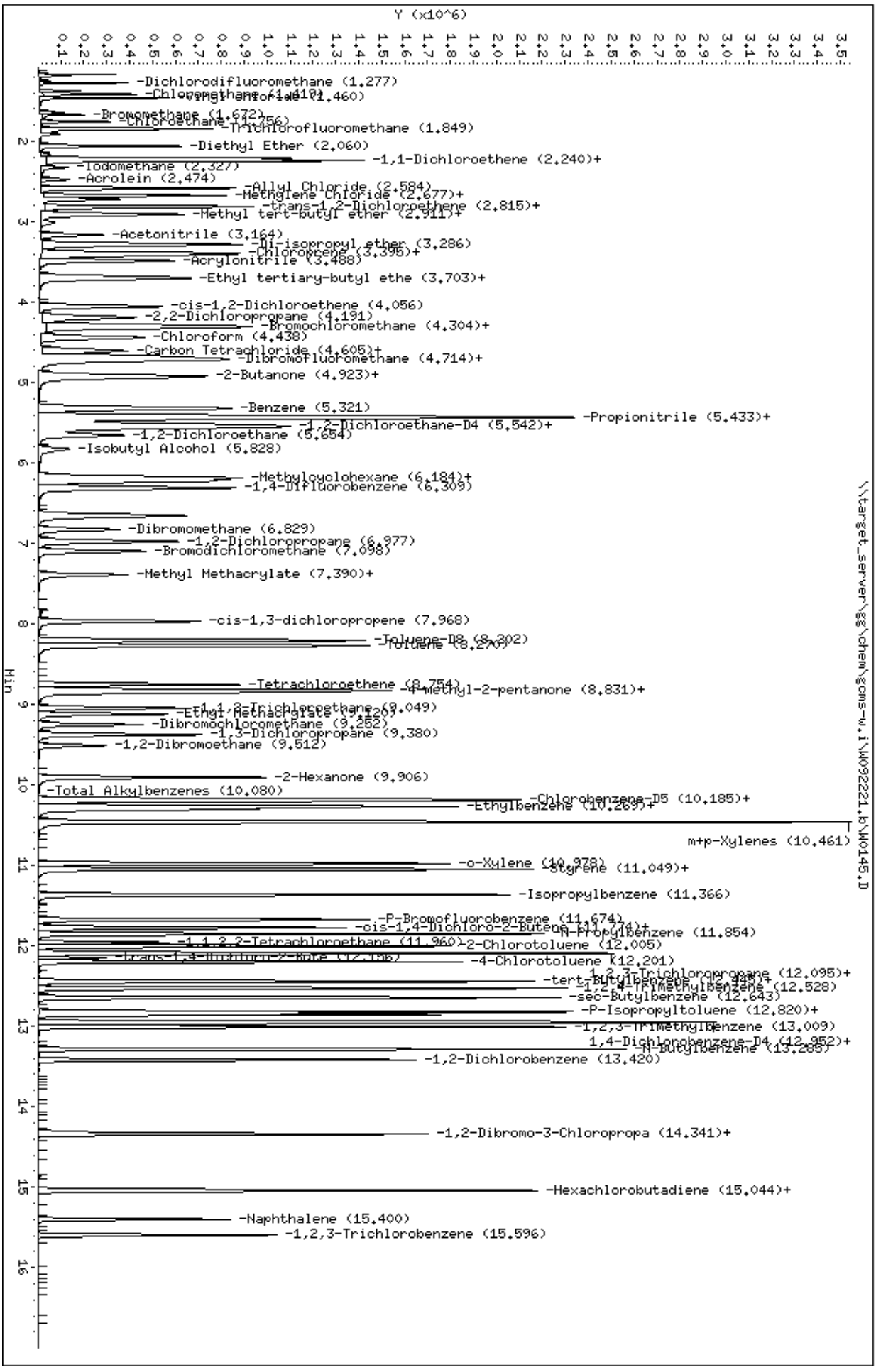
			QUANT SIG					AMOUNTS		
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)	REVIEW CODE
	24	Acrylonitrile	52	3.485	3.488	(0.631)	427235	250.000	238	
	25	Ethyl tertiary-butyl ether	59	3.693	3.694	(0.668)	708860	50.0000	44.5	
	26	Vinyl Acetate	43	3.713	3.716	(0.588)	445294	50.0000	53.1	
	27	cis-1,2-Dichloroethene	96	4.053	4.056	(0.733)	303229	50.0000	48.0	
	28	2,2-Dichloropropane	77	4.194	4.191	(0.759)	366996	50.0000	42.2	
	29	Bromochloromethane	128	4.322	4.325	(0.782)	133868	50.0000	50.4	
	30	Cyclohexane	56	4.297	4.300	(0.778)	538417	50.0000	50.6	
	31	Chloroform	83	4.441	4.445	(0.804)	539474	50.0000	50.0	
	32	Carbon Tetrachloride	117	4.608	4.605	(0.730)	401529	50.0000	54.9	
	33	Tetrahydrofuran	42	4.669	4.673	(0.845)	465622	250.000	226	
$	34	Dibromofluoromethane	113	4.714	4.714	(0.853)	290772	50.0000	51.8	
	35	1,1,1-Trichloroethane	97	4.717	4.721	(0.854)	504450	50.0000	52.3	
	36	2-Butanone	43	4.935	4.939	(0.893)	592021	250.000	222	
	37	1,1-Dichloropropene	75	4.916	4.920	(0.779)	430299	50.0000	49.7	
	38	Benzene	78	5.320	5.321	(0.843)	1157964	50.0000	48.7	
	39	Propionitrile	54	5.407	5.411	(0.979)	355425	500.000	451	
	40	Methacrylonitrile	41	5.433	5.436	(0.983)	1778492	500.000	513	
*	41	Pentafluorobenzene	168	5.526	5.526	(1.000)	560662	50.0000		
$	42	1,2-Dichloroethane-D4	65	5.542	5.549	(1.003)	399393	50.0000	54.6	
	43	Tertiary-amyl methyl ether	73	5.561	5.561	(1.006)	541228	50.0000	43.2	
	44	1,2-Dichloroethane	62	5.654	5.658	(0.896)	435221	50.0000	50.6	
	45	Isobutyl Alcohol	43	5.830	5.834	(1.055)	134941	1000.00	668	
	46	Methylcyclohexane	83	6.183	6.184	(1.119)	532708	50.0000	51.7	
	47	Trichloroethene	95	6.225	6.226	(0.986)	292400	50.0000	49.2	
*	48	1,4-Difluorobenzene	114	6.312	6.315	(1.000)	936763	50.0000		
	49	Dibromomethane	93	6.828	6.832	(1.082)	174796	50.0000	48.3	
	50	1,2-Dichloropropane	63	6.973	6.977	(1.105)	303548	50.0000	49.4	
	51	Bromodichloromethane	83	7.098	7.102	(1.125)	403057	50.0000	52.2	
	52	Methyl Methacrylate	41	7.390	7.390	(1.171)	241264	50.0000	49.4	
	53	Ethyl Methacrylate	69	9.120	9.123	(1.445)	314631	50.0000	42.9	
	54	1,4-Dioxane	88	7.412	7.407	(1.174)	42213	1000.00	525	
M	55	Total Alkylbenzenes	100				9558632	50.0000	348	
	57	cis-1,3-dichloropropene	75	7.968	7.971	(1.262)	461651	50.0000	51.2	
$	58	Toluene-D8	98	8.202	8.209	(1.299)	1114574	50.0000	49.8	
	59	Toluene	92	8.269	8.273	(1.310)	717259	50.0000	47.9	
	60	Tetrachloroethene	164	8.751	8.754	(0.859)	243258	50.0000	45.4	
	61	4-methyl-2-pentanone	43	8.824	8.831	(1.398)	1197123	250.000	239	
	62	trans-1,3-Dichloropropene	75	8.853	8.857	(1.403)	409997	50.0000	51.9	
	63	1,1,2-Trichloroethane	83	9.049	9.049	(1.434)	203856	50.0000	48.7	
	64	Dibromochloromethane	129	9.251	9.255	(0.909)	281666	50.0000	49.6	
	65	1,3-Dichloropropane	76	9.376	9.380	(0.921)	461241	50.0000	48.3	
	66	1,2-Dibromoethane	107	9.514	9.518	(1.507)	236763	50.0000	47.3	
	67	2-Hexanone	43	9.906	9.906	(0.973)	758080	250.000	222	
*	68	Chlorobenzene-D5	117	10.182	10.182	(1.000)	932863	50.0000		
	69	Chlorobenzene	112	10.201	10.201	(1.002)	807290	50.0000	46.5	
	70	Ethylbenzene	91	10.268	10.272	(1.009)	1433308	50.0000	48.8	
	71	1,1,1,2-Tetrachloroethane	131	10.300	10.304	(1.012)	279738	50.0000	49.8	
	72	m+p-Xylenes	91	10.461	10.465	(1.027)	2238801	100.000	104	
	73	o-Xylene	91	10.978	10.981	(1.078)	1127264	50.0000	50.4	
	74	Styrene	104	11.048	11.052	(1.085)	901705	50.0000	50.5	
	75	Bromoform	173	11.048	11.052	(1.085)	174358	50.0000	45.9	
	76	Isopropylbenzene	105	11.366	11.370	(0.878)	1438385	50.0000	49.1	
$	77	P-Bromofluorobenzene	95	11.674	11.678	(1.849)	490935	50.0000	52.4	
	78	cis-1,4-Dichloro-2-Butene	53	11.786	11.790	(0.911)	67867	50.0000	31.3	

Data File: \\target_server\gg\chem\gcms-w.i\W092221.b\W0145.D
Report Date: 11-Oct-2021 21:12

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)	REVIEW CODE
	79 Bromobenzene	156	11.773	11.777	(0.910)	331872	50.0000	45.2	
	80 N-Propylbenzene	91	11.854	11.857	(0.916)	1763184	50.0000	49.7	
	81 1,1,2,2-Tetrachloroethane	83	11.959	11.963	(0.924)	293895	50.0000	44.8	
	82 2-Chlorotoluene	91	12.004	12.005	(0.927)	1016731	50.0000	47.9	
	83 1,2,3-Trichloropropane	75	12.085	12.088	(0.934)	265497	50.0000	45.2	
	84 1,3,5-Trimethylbenzene	105	12.097	12.098	(0.935)	1195381	50.0000	49.4	
	85 trans-1,4-Dichloro-2-Butene	53	12.152	12.159	(0.939)	69839	50.0000	35.7	
	86 4-Chlorotoluene	91	12.197	12.204	(0.942)	1071822	50.0000	48.8	
	87 tert-Butylbenzene	119	12.444	12.448	(0.961)	1059434	50.0000	48.1	
	88 Pentachloroethane	165	12.454	12.442	(0.962)	3254	50.0000	(a)	
	89 1,2,4-Trimethylbenzene	105	12.527	12.531	(0.968)	1236512	50.0000	49.6	
	90 sec-Butylbenzene	105	12.643	12.647	(0.977)	1598077	50.0000	49.5	
	91 P-Isopropyltoluene	119	12.819	12.823	(0.990)	1367012	50.0000	49.6	
	92 1,3-Dichlorobenzene	146	12.855	12.858	(0.993)	675302	50.0000	46.5	
*	93 1,4-Dichlorobenzene-D4	152	12.945	12.948	(1.000)	532200	50.0000		
	94 1,4-Dichlorobenzene	146	12.964	12.964	(1.001)	690211	50.0000	46.0	
	95 1,2,3-Trimethylbenzene	105	13.009	13.012	(1.005)	1236495	50.0000	49.7	
	96 N-Butylbenzene	91	13.285	13.288	(1.026)	1339032	50.0000	52.5	
M	97 1,2-Dichloroethylene (total)	96				610101	50.0000	99.6	
	98 1,2-Dichlorobenzene	146	13.420	13.420	(1.037)	626796	50.0000	46.5	
	99 1,2-Dibromo-3-Chloropropane	157	14.312	14.315	(1.106)	47418	50.0000	35.8	
	100 1,3,5-Trichlorobenzene	180	14.340	14.344	(1.108)	486361	50.0000	46.2	
	101 Hexachlorobutadiene	225	15.034	15.037	(1.161)	222883	50.0000	43.6	
	102 1,2,4-Trichlorobenzene	180	15.050	15.050	(1.163)	384417	50.0000	42.2	
	103 Naphthalene	128	15.403	15.403	(1.190)	595140	50.0000	36.0	
	104 1,2,3-Trichlorobenzene	180	15.595	15.599	(1.205)	288676	50.0000	43.1	
M	105 Xylenes (total)	106				3366065	150.000	154	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).


Data File: \\target_server\gg\chem\gcms-w.i\W092221.b\W0145.D
Date : 22-SEP-2021 06:46
Client ID:
Sample Info: WG306464-4,SD6313
Purge Volume: 5.0
Column phase: RTX-VMS
Instrument: gcms-w.i
Operator: ES
Column diameter: 0.18
\\target_server\gg\chem\gcms-w.i\W092221.b\W0145.D
Y (x10^6)
Min
-Dichlorodifluoromethane (1.277)
-Chloromethane (1.410)
-Vinyl Chloride (1.460)
-Bromomethane (1.672)
-Chloroethane (1.756)
-Trichlorofluoromethane (1.849)
-Diethyl Ether (2.060)
-1,1-Dichloroethene (2.240)+
-Iodomethane (2.327)
-Acrolein (2.474)
-Allyl Chloride (2.584)
-Methylene Chloride (2.677)+
-trans-1,2-Dichloroethene (2.815)+
-Methyl tert-butyl ether (2.911)+
-Acetonitrile (3.164)
-Di-isopropyl ether (3.286)
-Chloroprene (3.395)+
-Acrylonitrile (3.488)
-Ethyl tertiary-butyl ethe (3.703)+
-cis-1,2-Dichloroethene (4.056)
-2,2-Dichloropropane (4.191)
-Bromochloromethane (4.304)+
-Chloroform (4.438)
-Carbon Tetrachloride (4.605)+
-Dibromofluoromethane (4.714)+
-2-Butanone (4.923)+
-Benzene (5.321)
-Propionitrile (5.433)+
-1,2-Dichloroethane-D4 (5.542)+
-1,2-Dichloroethane (5.654)
-Isobutyl Alcohol (5.828)
-Methylcyclohexane (6.184)+
-1,4-Difluorobenzene (6.309)
-Dibromomethane (6.829)
-1,2-Dichloropropane (6.977)
-Bromodichloromethane (7.098)
-Methyl Methacrylate (7.390)+
-cis-1,3-dichloropropene (7.968)
-Toluene-D8 (8.202)
-Toluene (8.270)
-Tetrachloroethene (8.754)
-4-Methyl-2-pentanone (8.831)+
-1,1,2-Trichloroethane (9.049)
-Ethyl Methacrylate (9.120)
-Dibromochloromethane (9.252)
-1,3-Dichloropropane (9.380)
-1,2-Dibromoethane (9.512)
-2-Hexanone (9.906)
-Total Alkylbenzenes (10.080)
-Chlorobenzene-D5 (10.185)+
-Ethylbenzene (10.269)+
m+p-Xylenes (10.461)
-o-Xylene (10.978)
-Styrene (11.049)+
-Isopropylbenzene (11.366)
-P-Bromofluorobenzene (11.674)
-cis-1,4-Dichloro-2-Butene (11.774)+
-N-Propylbenzene (11.854)
-1,1,2,2-Tetrachloroethane (11.960)+
-2-Chlorotoluene (12.005)
-trans-1,4-Dichloro-2-Bute (12.106)
-4-Chlorotoluene (12.201)
-1,2,3-Trichloropropane (12.095)+
-tert-Butylbenzene (12.448)+
-1,2,4-Trimethylbenzene (12.528)
-sec-Butylbenzene (12.643)
-P-Isopropyltoluene (12.820)+
-1,2,3-Trimethylbenzene (13.009)
1,4-Dichlorobenzene-D4 (12.952)+
-N-Butylbenzene (13.288)
-1,2-Dichlorobenzene (13.420)
-1,2-Dibromo-3-Chloropropa (14.341)+
-Hexachlorobutadiene (15.044)+
-Naphthalene (15.400)
-1,2,3-Trichlorobenzene (15.596)

Katahdin
ANALYTICAL SERVICES

Form 7
Calibration Verification Summary

Lab Name : Katahdin Analytical Services
Project : Watervliet Arsenal LTM **SDG:** SO6313
Lab ID : WG306545-4 **Analytical Date:** 09/23/21 07:28
Lab File ID : W0182.D **Instrument ID:** GCMS-W
Initial Calibration Date(s): 09/20/21 07:56 09/20/21 11:30 **Column ID:**

	Compound	$\overline{\text{RRF}}$/Amount	RF50	CCAL RRF50	Min	%D/ %Drift	Max %D/ %Drift	Curve Type	
2	Chloromethane	0.61725	0.72171	0.72171	0.100	16.92260	20.00000	Averaged	
3	Vinyl chloride	0.54944	0.65568	0.65568	0.100	19.33732	20.00000	Averaged	
4	Bromomethane	50.00000	37.11383	0.17954	0.100	-25.77235	20.00000	Quadratic	*
5	Chloroethane	50.00000	77.63535	0.38014	0.100	55.27070	20.00000	Quadratic	*
6	Trichlorofluoromethane	0.77431	0.95111	0.95111	0.100	22.83268	20.00000	Averaged	*
8	1,1-Dichloroethene	0.49863	0.49935	0.49935	0.100	0.14523	20.00000	Averaged	
10	Carbon Disulfide	1.24298	1.24074	1.24074	0.100	-0.17953	20.00000	Averaged	
14	Methylene Chloride	50.00000	57.45812	0.56631	0.100	14.91624	20.00000	Linear	
16	trans-1,2-Dichloroethene	0.52949	0.52273	0.52273	0.100	-1.27701	20.00000	Averaged	
23	1,1-Dichloroethane	1.00891	1.04340	1.04340	0.200	3.41925	20.00000	Averaged	
27	cis-1,2-Dichloroethene	0.56393	0.53379	0.53379	0.100	-5.34482	20.00000	Averaged	
31	Chloroform	0.96150	0.94011	0.94011	0.200	-2.22522	20.00000	Averaged	
32	Carbon Tetrachloride	0.39028	0.40483	0.40483	0.100	3.72953	20.00000	Averaged	
35	1,1,1-Trichloroethane	0.86055	0.83857	0.83857	0.100	-2.55388	20.00000	Averaged	
36	2-Butanone	0.23721	0.24636	0.24636	0.100	3.85770	20.00000	Averaged	
38	Benzene	1.26997	1.21504	1.21504	0.500	-4.32520	20.00000	Averaged	
44	1,2-Dichloroethane	0.45942	0.46072	0.46072	0.100	0.28379	20.00000	Averaged	
47	Trichloroethene	0.31727	0.30629	0.30629	0.200	-3.45982	20.00000	Averaged	
50	1,2-Dichloropropane	0.32813	0.31939	0.31939	0.100	-2.66397	20.00000	Averaged	
51	Bromodichloromethane	0.41202	0.41907	0.41907	0.200	1.70964	20.00000	Averaged	
57	cis-1,3-dichloropropene	0.48168	0.47760	0.47760	0.200	-0.84602	20.00000	Averaged	
59	Toluene	0.79921	0.76189	0.76189	0.400	-4.66942	20.00000	Averaged	
60	Tetrachloroethene	0.28734	0.25710	0.25710	0.200	-10.52128	20.00000	Averaged	
61	4-methyl-2-pentanone	0.26701	0.27375	0.27375	0.100	2.52551	20.00000	Averaged	
62	trans-1,3-Dichloropropene	0.42180	0.41765	0.41765	0.100	-0.98481	20.00000	Averaged	
63	1,1,2-Trichloroethane	0.22322	0.21243	0.21243	0.100	-4.83510	20.00000	Averaged	
64	Dibromochloromethane	0.30401	0.29400	0.29400	0.100	-3.29252	20.00000	Averaged	
69	Chlorobenzene	0.93039	0.85835	0.85835	0.500	-7.74248	20.00000	Averaged	
70	Ethylbenzene	1.57324	1.52927	1.52927	0.100	-2.79463	20.00000	Averaged	
72	m+p-Xylenes	1.15872	1.18762	1.18762	0.100	2.49467	20.00000	Averaged	
73	o-Xylene	1.19804	1.18971	1.18971	0.300	-0.69536	20.00000	Averaged	
75	Bromoform	50.00000	44.01145	0.17899	0.100	-11.97710	20.00000	Quadratic	
81	1,1,2,2-Tetrachloroethane	0.61633	0.56217	0.56217	0.300	-8.78738	20.00000	Averaged	
34	Dibromofluoromethane	0.50078	0.49891	0.49891	0.010	-0.37298	20.00000	Averaged	
42	1,2-Dichloroethane-D4	0.65228	0.67925	0.67925	0.010	4.13323	20.00000	Averaged	
58	Toluene-D8	1.19578	1.19980	1.19980	0.010	0.33617	20.00000	Averaged	
77	P-Bromofluorobenzene	0.50035	0.53185	0.53185	0.010	6.29451	20.00000	Averaged	

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://katahdinlab.com
sales@katahdinlab.com

Form 7
Calibration Verification Summary

Lab Name : Katahdin Analytical Services
Project : Watervliet Arsenal LTM
SDG: SO6313
Lab ID : WG306545-4
Analytical Date: 09/23/21 07:28
Lab File ID : W0182.D
Instrument ID: GCMS-W
Initial Calibration Date(s): 09/20/21 07:56 09/20/21 11:30
Column ID:

*** = Compound out of QC criteria**

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://katahdinlab.com
sales@katahdinlab.com

Data File: \\target_server\gg\chem\gcms-w.i\W092321.b\W0182.D
Report Date: 11-Oct-2021 13:36

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-w.i\W092321.b\W0182.D
Lab Smp Id: WG306545-4
Inj Date : 23-SEP-2021 07:28
Operator : ES   Inst ID: gcms-w.i
Smp Info : WG306545-4,SO6313
Misc Info : WG306545,WG306317-4,SO6313-11
Comment   : SW846 5030
Method   : \\target_server\gg\chem\gcms-w.i\W092321.b\W8A05(08).m
Meth Date : 11-Oct-2021 13:19 gcms-w.i   Quant Type: ISTD
Cal Date : 20-SEP-2021 11:30   Cal File: W0105.D
Als bottle: 2   Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE   Compound Sublist: all.sub
Target Version: 4.12

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

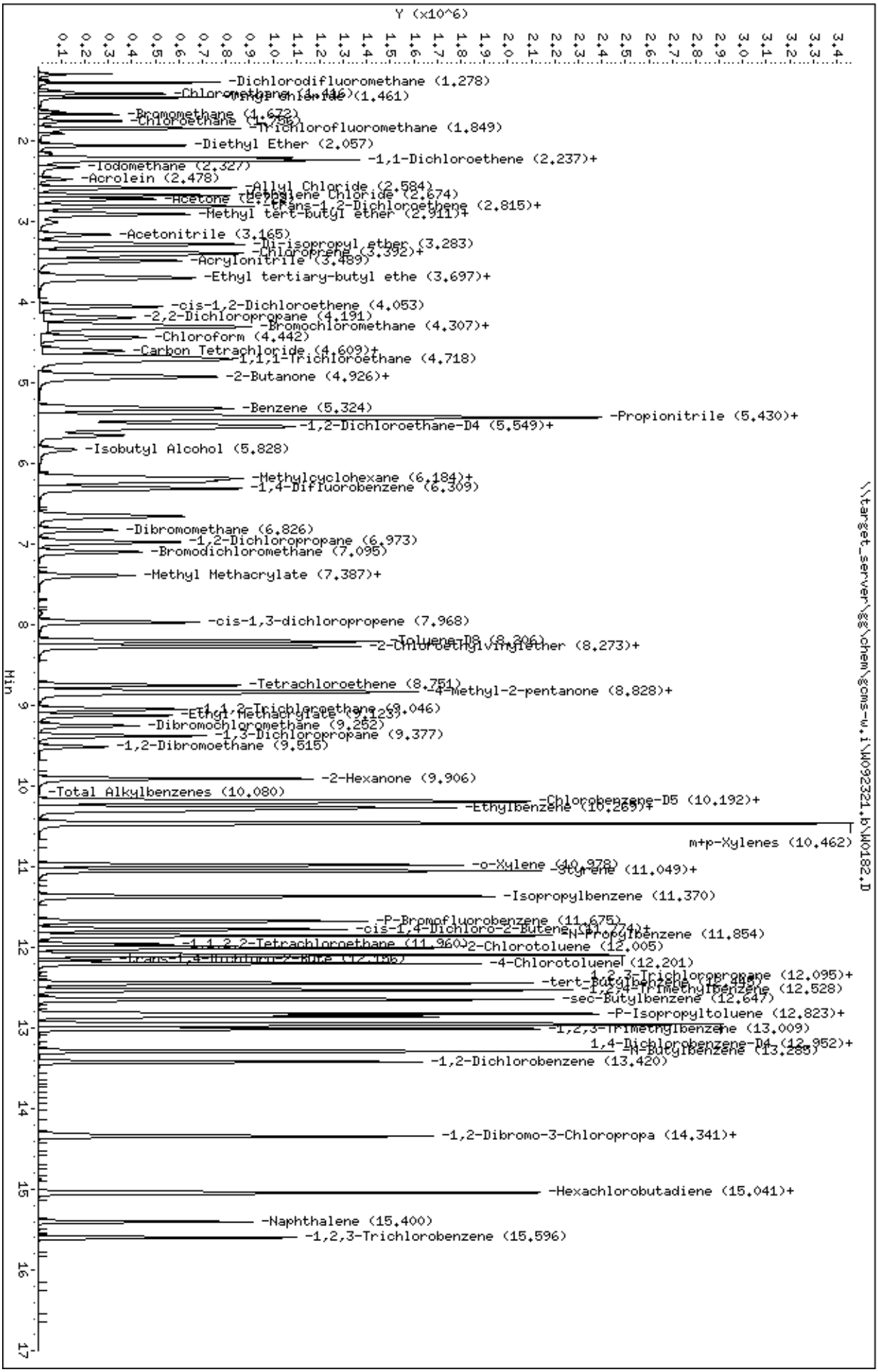
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)	REVIEW CODE
1	Dichlorodifluoromethane	85	1.277	1.277	(0.231)	358660	50.0000	81.7	
2	Chloromethane	50	1.409	1.412	(0.255)	408542	50.0000	58.5	
3	Vinyl chloride	62	1.460	1.460	(0.264)	371166	50.0000	59.7	
4	Bromomethane	94	1.672	1.672	(0.303)	101633	50.0000	37.1	
5	Chloroethane	64	1.755	1.752	(0.318)	215186	50.0000	77.6	
6	Trichlorofluoromethane	101	1.848	1.849	(0.335)	538399	50.0000	61.4	
7	Diethyl Ether	59	2.060	2.060	(0.373)	245499	50.0000	52.7	
8	1,1-Dichloroethene	96	2.211	2.211	(0.400)	282671	50.0000	50.1	
9	Freon-113	151	2.237	2.237	(0.405)	219993	50.0000	52.0	
10	Carbon Disulfide	76	2.240	2.240	(0.405)	702357	50.0000	49.9	
11	Iodomethane	142	2.326	2.327	(0.421)	173222	50.0000	39.3	
12	Acrolein	56	2.477	2.478	(0.448)	101188	250.000	237	
13	Allyl Chloride	41	2.583	2.584	(0.468)	496422	50.0000	57.9	
14	Methylene Chloride	84	2.676	2.677	(0.484)	320576	50.0000	57.4	
15	Acetone	43	2.721	2.725	(0.492)	604989	250.000	352	
16	trans-1,2-Dichloroethene	96	2.811	2.815	(0.509)	295906	50.0000	49.4	
17	Methyl Acetate	43	2.827	2.827	(0.512)	279584	50.0000	53.8	
18	Methyl tert-butyl ether	73	2.911	2.914	(0.527)	696318	50.0000	44.2	
19	Tertiary-butyl alcohol	59	3.010	3.017	(0.545)	86258	250.000	182	
20	Acetonitrile	41	3.164	3.164	(0.573)	364961	500.000	496	
21	Di-isopropyl ether	45	3.283	3.289	(0.594)	1007533	50.0000	54.3	
22	Chloroprene	53	3.392	3.389	(0.614)	541612	50.0000	53.9	
23	1,1-Dichloroethane	63	3.418	3.418	(0.619)	590647	50.0000	51.7	
24	Acrylonitrile	52	3.488	3.488	(0.631)	444134	250.000	245	

Data File: \\target_server\gg\chem\gcms-w.i\W092321.b\W0182.D
Report Date: 11-Oct-2021 13:36

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)	REVIEW CODE
	25 Ethyl tertiary-butyl ether	59	3.693	3.694	(0.668)	703992	50.0000	43.8	
	26 Vinyl Acetate	43	3.716	3.716	(0.589)	442080	50.0000	53.4	
	27 cis-1,2-Dichloroethene	96	4.056	4.056	(0.734)	302166	50.0000	47.3	
	28 2,2-Dichloropropane	77	4.194	4.191	(0.759)	346235	50.0000	39.5	
	29 Bromochloromethane	128	4.322	4.325	(0.782)	126438	50.0000	47.1	
	30 Cyclohexane	56	4.297	4.300	(0.778)	527454	50.0000	49.1	
	31 Chloroform	83	4.441	4.445	(0.804)	532173	50.0000	48.9	
	32 Carbon Tetrachloride	117	4.608	4.605	(0.730)	374670	50.0000	51.9	
	33 Tetrahydrofuran	42	4.672	4.673	(0.846)	499024	250.000	240	
$	34 Dibromofluoromethane	113	4.708	4.714	(0.852)	282423	50.0000	49.8	
	35 1,1,1-Trichloroethane	97	4.717	4.721	(0.854)	474698	50.0000	48.7	
	36 2-Butanone	43	4.932	4.939	(0.893)	697302	250.000	260	
	37 1,1-Dichloropropene	75	4.916	4.920	(0.779)	416667	50.0000	48.7	
	38 Benzene	78	5.324	5.321	(0.844)	1124512	50.0000	47.8	
	39 Propionitrile	54	5.410	5.411	(0.979)	379079	500.000	476	
	40 Methacrylonitrile	41	5.433	5.436	(0.983)	1826063	500.000	522	
*	41 Pentafluorobenzene	168	5.526	5.526	(1.000)	566077	50.0000		
$	42 1,2-Dichloroethane-D4	65	5.548	5.549	(1.004)	384505	50.0000	52.1	
	43 Tertiary-amyl methyl ether	73	5.561	5.561	(1.006)	515639	50.0000	40.8	
	44 1,2-Dichloroethane	62	5.648	5.658	(0.895)	426394	50.0000	50.1	
	45 Isobutyl Alcohol	43	5.831	5.834	(1.055)	162666	1000.00	798	
	46 Methylcyclohexane	83	6.184	6.184	(1.119)	523733	50.0000	50.4	
	47 Trichloroethene	95	6.225	6.226	(0.987)	283471	50.0000	48.3	
*	48 1,4-Difluorobenzene	114	6.309	6.315	(1.000)	925491	50.0000		
	49 Dibromomethane	93	6.822	6.832	(1.081)	172118	50.0000	48.1	
	50 1,2-Dichloropropane	63	6.973	6.977	(1.105)	295589	50.0000	48.7	
	51 Bromodichloromethane	83	7.095	7.102	(1.125)	387841	50.0000	50.8	
	52 Methyl Methacrylate	41	7.384	7.390	(1.170)	255126	50.0000	52.9	
	53 Ethyl Methacrylate	69	9.123	9.123	(1.446)	317649	50.0000	43.9	
	54 1,4-Dioxane	88	7.413	7.407	(1.175)	47670	1000.00	612	
M	55 Total Alkylbenzenes	100				9293065	50.0000	345	
	56 2-Chloroethylvinylether	63	8.269	8.270	(1.311)	111201	50.0000	51.4	
	57 cis-1,3-dichloropropene	75	7.968	7.971	(1.263)	442018	50.0000	49.6	
$	58 Toluene-D8	98	8.205	8.209	(1.301)	1110407	50.0000	50.2	
	59 Toluene	92	8.273	8.273	(1.311)	705125	50.0000	47.7	
	60 Tetrachloroethene	164	8.751	8.754	(0.860)	235729	50.0000	44.7	
	61 4-methyl-2-pentanone	43	8.825	8.831	(1.399)	1266767	250.000	256	
	62 trans-1,3-Dichloropropene	75	8.850	8.857	(1.403)	386531	50.0000	49.5	
	63 1,1,2-Trichloroethane	83	9.046	9.049	(1.434)	196598	50.0000	47.6	
	64 Dibromochloromethane	129	9.251	9.255	(0.909)	269557	50.0000	48.4	
	65 1,3-Dichloropropane	76	9.376	9.380	(0.921)	456824	50.0000	48.6	
	66 1,2-Dibromoethane	107	9.514	9.518	(1.508)	233251	50.0000	47.2	
	67 2-Hexanone	43	9.906	9.906	(0.973)	872118	250.000	260	
*	68 Chlorobenzene-D5	117	10.179	10.182	(1.000)	916859	50.0000		
	69 Chlorobenzene	112	10.201	10.201	(1.002)	786988	50.0000	46.1	
	70 Ethylbenzene	91	10.269	10.272	(1.009)	1402129	50.0000	48.6	
	71 1,1,1,2-Tetrachloroethane	131	10.301	10.304	(1.012)	265963	50.0000	48.1	
	72 m+p-Xylenes	91	10.461	10.465	(1.028)	2177765	100.000	102	
	73 o-Xylene	91	10.978	10.981	(1.078)	1090794	50.0000	49.6	
	74 Styrene	104	11.048	11.052	(1.085)	871730	50.0000	49.6	
	75 Bromoform	173	11.048	11.052	(1.085)	164108	50.0000	44.0	
	76 Isopropylbenzene	105	11.369	11.370	(0.878)	1397401	50.0000	48.7	
$	77 P-Bromofluorobenzene	95	11.674	11.678	(1.850)	492218	50.0000	53.1	
	78 cis-1,4-Dichloro-2-Butene	53	11.786	11.790	(0.911)	73721	50.0000	34.6	

Data File: \\target_server\gg\chem\gcms-w.i\W092321.b\W0182.D
Report Date: 11-Oct-2021 13:36

			QUANT SIG					AMOUNTS		
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)	REVIEW CODE
	79	Bromobenzene	156	11.774	11.777	(0.910)	319024	50.0000	44.3	
	80	N-Propylbenzene	91	11.854	11.857	(0.916)	1725757	50.0000	49.6	
	81	1,1,2,2-Tetrachloroethane	83	11.963	11.963	(0.924)	293332	50.0000	45.6	
	82	2-Chlorotoluene	91	12.005	12.005	(0.927)	989798	50.0000	47.6	
	83	1,2,3-Trichloropropane	75	12.085	12.088	(0.934)	267945	50.0000	46.5	
	84	1,3,5-Trimethylbenzene	105	12.098	12.098	(0.935)	1168839	50.0000	49.3	
	85	trans-1,4-Dichloro-2-Butene	53	12.155	12.159	(0.939)	76442	50.0000	39.7	
	86	4-Chlorotoluene	91	12.200	12.204	(0.942)	1049150	50.0000	48.7	
	87	tert-Butylbenzene	119	12.444	12.448	(0.961)	1019079	50.0000	47.2	
	89	1,2,4-Trimethylbenzene	105	12.528	12.531	(0.968)	1199036	50.0000	49.1	
	90	sec-Butylbenzene	105	12.646	12.647	(0.977)	1548578	50.0000	48.9	
	91	P-Isopropyltoluene	119	12.823	12.823	(0.991)	1322173	50.0000	48.9	
	92	1,3-Dichlorobenzene	146	12.858	12.858	(0.993)	655254	50.0000	46.1	
*	93	1,4-Dichlorobenzene-D4	152	12.945	12.948	(1.000)	521784	50.0000		
	94	1,4-Dichlorobenzene	146	12.961	12.964	(1.001)	669935	50.0000	45.6	
	95	1,2,3-Trimethylbenzene	105	13.009	13.012	(1.005)	1190679	50.0000	48.8	
	96	N-Butylbenzene	91	13.285	13.288	(1.026)	1309603	50.0000	52.4	
M	97	1,2-Dichloroethylene (total)	96				598072	50.0000	96.7	
	98	1,2-Dichlorobenzene	146	13.420	13.420	(1.037)	600734	50.0000	45.5	
	99	1,2-Dibromo-3-Chloropropane	157	14.309	14.315	(1.105)	46099	50.0000	35.5	
	100	1,3,5-Trichlorobenzene	180	14.341	14.344	(1.108)	470270	50.0000	45.6	
	101	Hexachlorobutadiene	225	15.034	15.037	(1.161)	220080	50.0000	43.9	
	102	1,2,4-Trichlorobenzene	180	15.047	15.050	(1.162)	371019	50.0000	41.5	
	103	Naphthalene	128	15.400	15.403	(1.190)	643382	50.0000	39.7	
	104	1,2,3-Trichlorobenzene	180	15.599	15.599	(1.205)	297464	50.0000	45.3	
M	105	Xylenes (total)	106				3268559	150.000	152	


Data File: \\target_server\gg\chem\gcms-w.i\W092321.b\W0182.D
Date : 23-SEP-2021 07:28
Client ID:
Sample Info: WG306545-4,SD6313
Purge Volume: 5.0
Column phase: RTX-VMS
Instrument: gcms-w.i
Operator: ES
Column diameter: 0.18
\\target_server\gg\chem\gcms-w.i\W092321.b\W0182.D
Y (x10^6)
Min
-Dichlorodifluoromethane (1.278)
-Chloromethane (1.446)
-Vinyl Chloride (1.461)
-Bromomethane (1.672)
-Chloroethane (1.768)
-Trichlorofluoromethane (1.849)
-Diethyl Ether (2.057)
-1,1-Dichloroethene (2.237)+
-Iodomethane (2.327)
-Acrolein (2.478)
-Allyl Chloride (2.584)
-Methylene Chloride (2.674)
-Acetone (2.712)
-trans-1,2-Dichloroethene (2.815)+
-Methyl tert-butyl ether (2.911)+
-Acetonitrile (3.165)
-Di-isopropyl ether (3.283)
-Chloroprene (3.392)+
-Acrylonitrile (3.489)
-Ethyl tertiary-butyl ethe (3.697)+
-cis-1,2-Dichloroethene (4.053)
-2,2-Dichloropropane (4.191)
-Bromochloromethane (4.307)+
-Chloroform (4.442)
-Carbon Tetrachloride (4.609)+
-1,1,1-Trichloroethane (4.718)
-2-Butanone (4.926)+
-Benzene (5.324)
-Propionitrile (5.430)+
-1,2-Dichloroethane-D4 (5.549)+
-Isobutyl Alcohol (5.828)
-Methylcyclohexane (6.184)+
-1,4-Difluorobenzene (6.309)
-Dibromomethane (6.826)
-1,2-Dichloropropane (6.973)
-Bromodichloromethane (7.095)
-Methyl Methacrylate (7.387)+
-cis-1,3-dichloropropene (7.968)
-Toluene-D8 (8.206)
-2-Chloroethylvinylether (8.273)+
-Tetrachloroethene (8.751)
-4-Methyl-2-pentanone (8.828)+
-1,1,2-Trichloroethane (9.046)
-Ethyl Methacrylate (9.123)
-Dibromochloromethane (9.252)
-1,3-Dichloropropane (9.377)
-1,2-Dibromoethane (9.515)
-2-Hexanone (9.906)
-Total Alkylbenzenes (10.080)
-Chlorobenzene-D5 (10.192)+
-Ethylbenzene (10.269)+
m+p-Xylenes (10.462)
-o-Xylene (10.978)
-Styrene (11.049)+
-Isopropylbenzene (11.370)
-P-Bromofluorobenzene (11.675)
-cis-1,4-Dichloro-2-Butene (11.774)+
-N-Propylbenzene (11.854)
-1,1,2,2-Tetrachloroethane (11.960)
-2-Chlorotoluene (12.005)
-trans-1,4-Dichloro-2-Bute (12.106)
-4-Chlorotoluene (12.201)
-1,2,3-Trichloropropane (12.095)+
-tert-Butylbenzene (12.488)
-1,2,4-Trimethylbenzene (12.528)
-sec-Butylbenzene (12.647)
-P-Isopropyltoluene (12.823)+
-1,2,3-Trimethylbenzene (13.009)
1,4-Dichlorobenzene-D4 (12.952)+
-N-Butylbenzene (13.285)
-1,2-Dichlorobenzene (13.420)
-1,2-Dibromo-3-Chloropropa (14.341)+
-Hexachlorobutadiene (15.041)+
-Naphthalene (15.400)
-1,2,3-Trichlorobenzene (15.596)

Data File: \\target_server\gg\chem\gcms-w.i\W092021.b\WB637a.D

Date : 20-SEP-2021 07:29

Client ID:

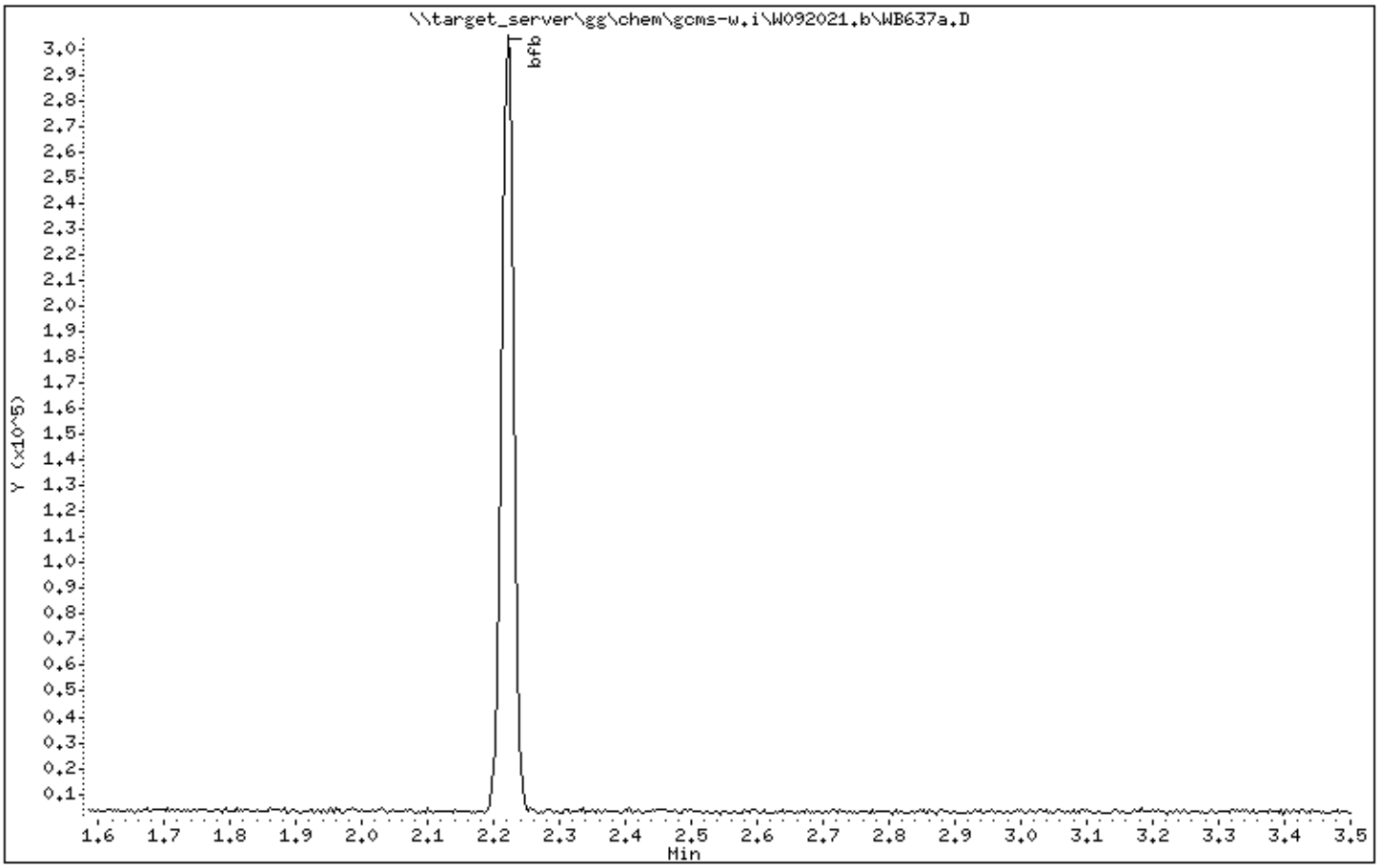
Instrument: gcms-w.i

Sample Info: WG306317-12,SO6313

Operator: HG

Column phase: RTX-VMS

Column diameter: 0.18



Data File: \\target_server\gg\chem\gcms-w.i\W092021.b\WB637a.D

Date : 20-SEP-2021 07:29

Client ID:

Instrument: gcms-w.i

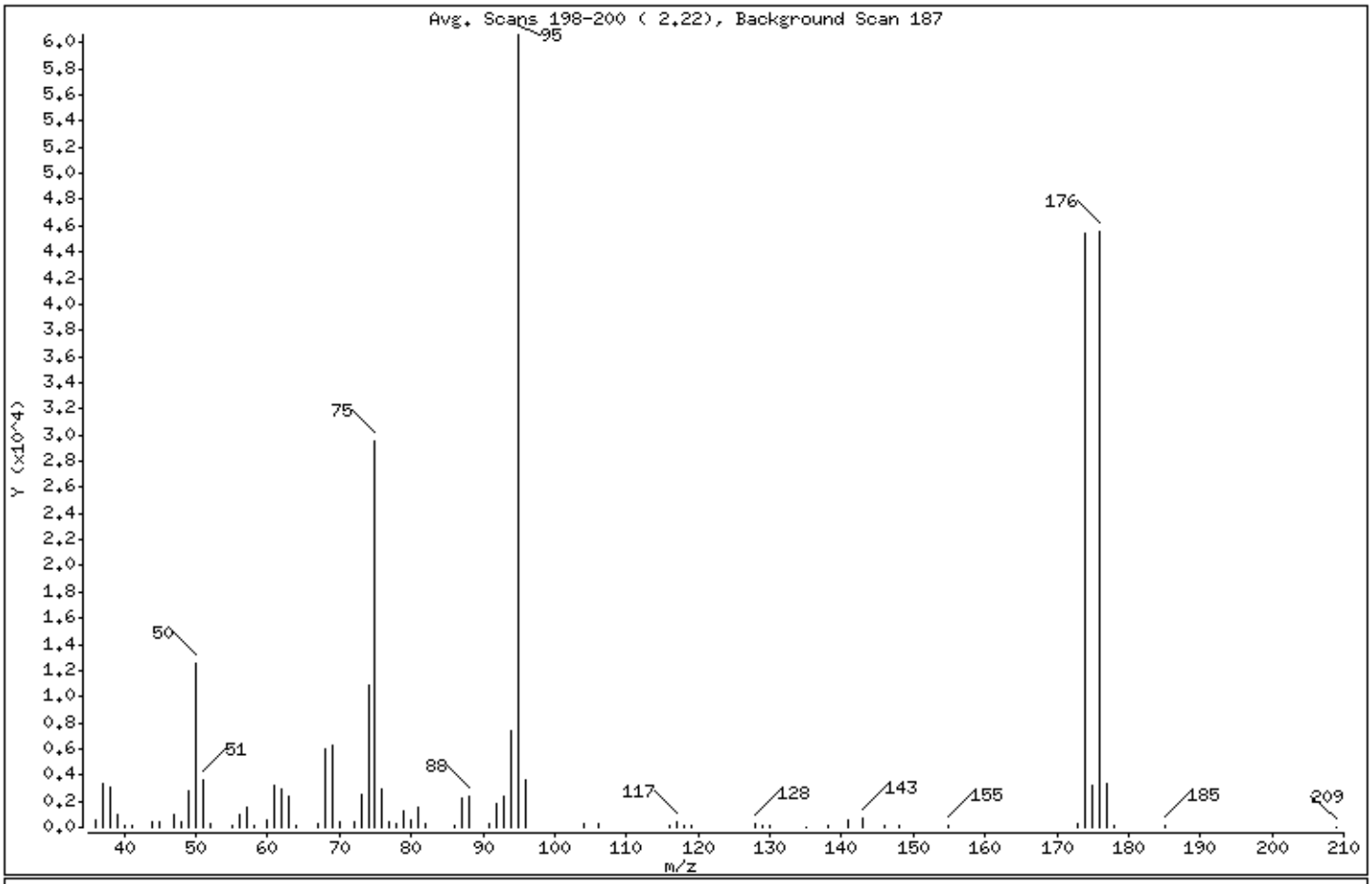
Sample Info: WG306317-12,SO6313

Operator: HG

Column phase: RTX-VMS

Column diameter: 0.18

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	20.70
75	30.00 - 60.00% of mass 95	48.64
96	5.00 - 9.00% of mass 95	5.89
173	Less than 2.00% of mass 174	0.38 (0.51)
174	Greater than 50.00% of mass 95	75.04
175	5.00 - 9.00% of mass 174	5.35 (7.13)
176	95.00 - 101.00% of mass 174	75.26 (100.30)
177	5.00 - 9.00% of mass 176	5.46 (7.26)

Date : 20-SEP-2021 07:29

Client ID: Instrument: gcms-w.i

Sample Info: WG306317-12,SO6313

Operator: HG

Column phase: RTX-VMS Column diameter: 0.18

Data File: WB637a.D
Spectrum: Avg. Scans 198-200 (2.22), Background Scan 187
Location of Maximum: 95.00
Number of points: 71

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	588	60.00	599	81.00	1501	129.00	76
37.00	3352	61.00	3177	82.00	222	130.00	77
38.00	3131	62.00	2921	86.00	82	135.00	68
39.00	963	63.00	2331	87.00	2206	138.00	74
40.00	192	64.00	184	88.00	2370	141.00	512
41.00	145	67.00	259	91.00	236	143.00	689
44.00	363	68.00	5946	92.00	1813	146.00	94
45.00	483	69.00	6301	93.00	2304	148.00	87
47.00	989	70.00	424	94.00	7409	155.00	142
48.00	430	72.00	404	95.00	60608	173.00	232
49.00	2723	73.00	2515	96.00	3570	174.00	45480
50.00	12548	74.00	10904	104.00	267	175.00	3243
51.00	3632	75.00	29480	106.00	320	176.00	45616
52.00	239	76.00	2994	116.00	125	177.00	3312
55.00	157	77.00	391	117.00	356	178.00	106
56.00	1016	78.00	315	118.00	168	185.00	75
57.00	1549	79.00	1282	119.00	173	209.00	67
58.00	148	80.00	498	128.00	262		

Data File: \\target_server\gg\chem\gcms-w.i\W092121.b\WB638a.D

Date : 21-SEP-2021 06:45

Client ID:

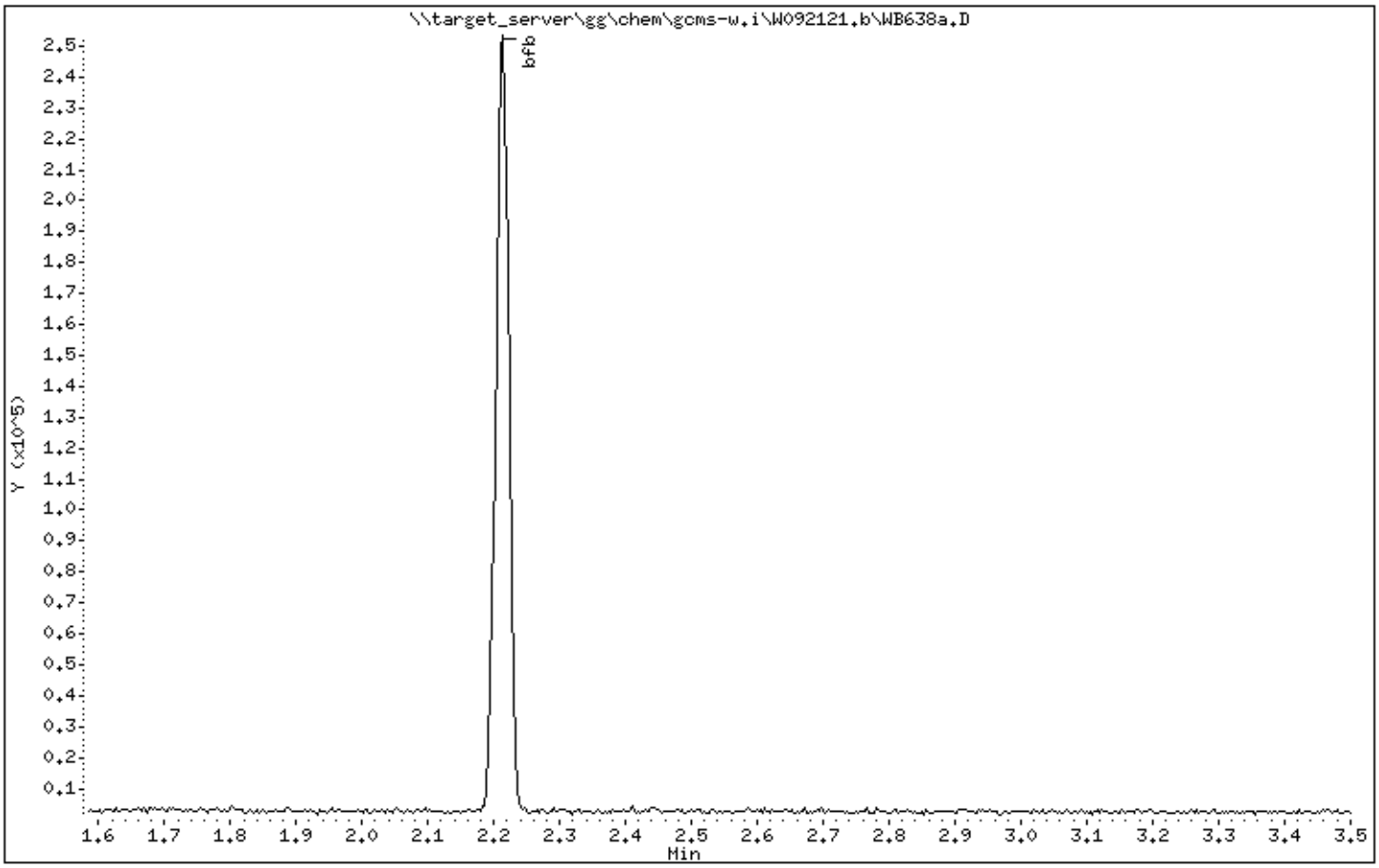
Instrument: gcms-w.i

Sample Info: WG306383-3,SO6313

Operator: ES

Column phase: RTX-VMS

Column diameter: 0.18



Data File: \\target_server\gg\chem\gcms-w.i\W092121.b\WB638a.D

Date : 21-SEP-2021 06:45

Client ID:

Instrument: gcms-w.i

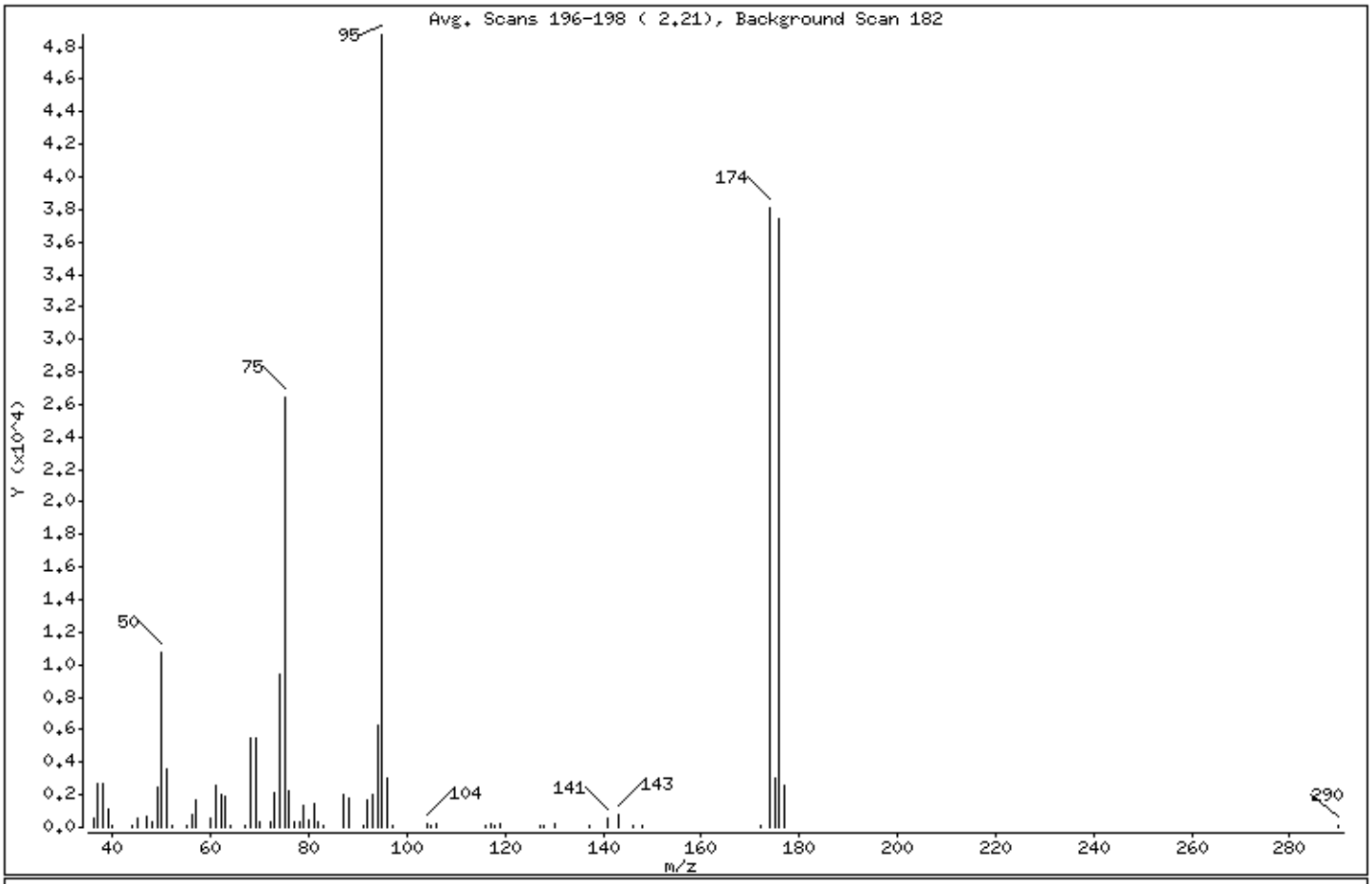
Sample Info: WG306383-3,SO6313

Operator: ES

Column phase: RTX-VMS

Column diameter: 0.18

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	22.15
75	30.00 - 60.00% of mass 95	54.24
96	5.00 - 9.00% of mass 95	6.24
173	Less than 2.00% of mass 174	0.00 (0.00)
174	Greater than 50.00% of mass 95	78.14
175	5.00 - 9.00% of mass 174	6.30 (8.06)
176	95.00 - 101.00% of mass 174	76.76 (98.24)
177	5.00 - 9.00% of mass 176	5.35 (6.97)

Date : 21-SEP-2021 06:45

Client ID: Instrument: gcms-w.i

Sample Info: WG306383-3,SO6313

Operator: ES

Column phase: RTX-VMS Column diameter: 0.18

Data File: WB638a.D
Spectrum: Avg. Scans 196-198 (2.21), Background Scan 182
Location of Maximum: 95.00
Number of points: 67

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	542	61.00	2557	81.00	1425	118.00	92
37.00	2674	62.00	2042	82.00	368	119.00	179
38.00	2703	63.00	1909	83.00	70	127.00	78
39.00	1115	64.00	161	87.00	2023	128.00	85
40.00	113	67.00	80	88.00	1792	130.00	230
44.00	97	68.00	5494	91.00	71	137.00	103
45.00	600	69.00	5474	92.00	1716	141.00	542
47.00	629	70.00	331	93.00	2055	143.00	730
48.00	340	72.00	285	94.00	6305	146.00	77
49.00	2444	73.00	2179	95.00	48736	148.00	76
50.00	10794	74.00	9371	96.00	3040	172.00	70
51.00	3533	75.00	26432	97.00	66	174.00	38080
52.00	85	76.00	2193	104.00	243	175.00	3069
55.00	115	77.00	339	105.00	77	176.00	37408
56.00	829	78.00	307	106.00	197	177.00	2606
57.00	1643	79.00	1376	116.00	92	290.00	76
60.00	541	80.00	404	117.00	223		

Data File: \\target_server\gg\chem\gcms-w.i\W092221.b\WB639a.D

Date : 22-SEP-2021 06:19

Client ID:

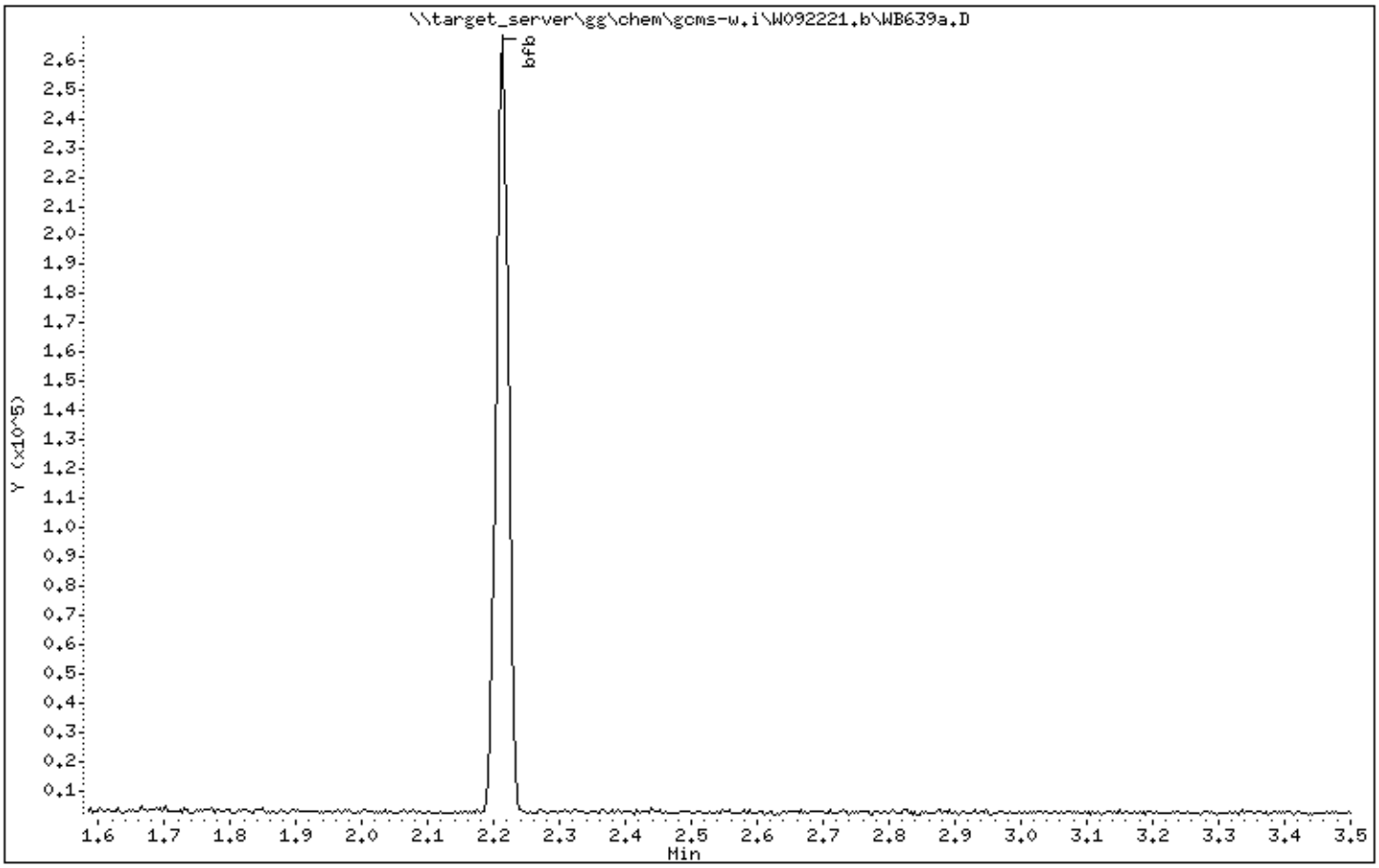
Instrument: gcms-w.i

Sample Info: WG306464-3,SO6313

Operator: ES

Column phase: RTX-VMS

Column diameter: 0.18



Data File: \\target_server\gg\chem\gcms-w.i\W092221.b\WB639a.D

Date : 22-SEP-2021 06:19

Client ID:

Instrument: gcms-w.i

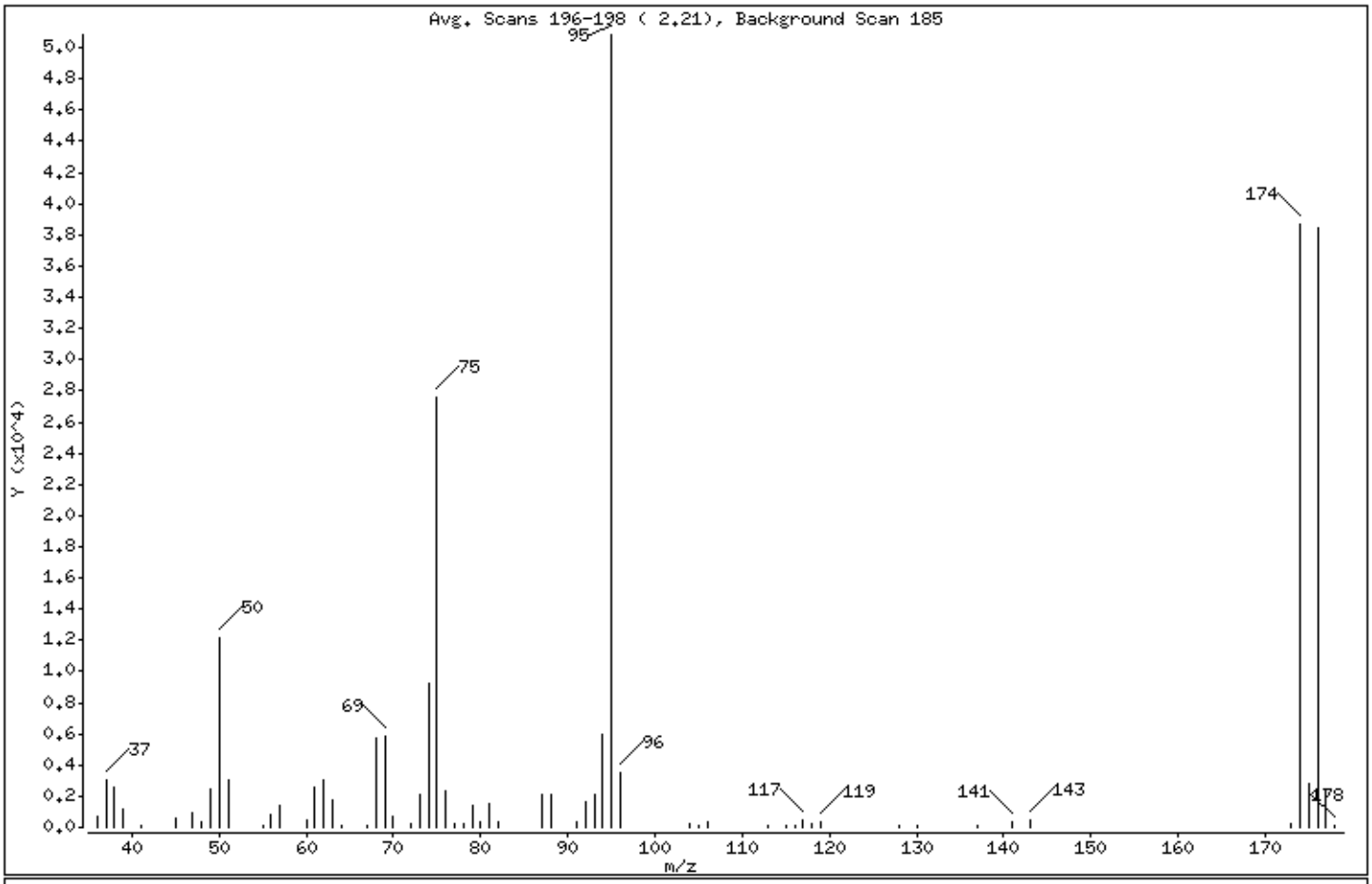
Sample Info: WG306464-3,SO6313

Operator: ES

Column phase: RTX-VMS

Column diameter: 0.18

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	23.88
75	30.00 - 60.00% of mass 95	54.36
96	5.00 - 9.00% of mass 95	6.83
173	Less than 2.00% of mass 174	0.55 (0.72)
174	Greater than 50.00% of mass 95	76.00
175	5.00 - 9.00% of mass 174	5.48 (7.21)
176	95.00 - 101.00% of mass 174	75.67 (99.57)
177	5.00 - 9.00% of mass 176	4.67 (6.18)

Date : 22-SEP-2021 06:19

Client ID:

Instrument: gcms-w.i

Sample Info: WG306464-3,SO6313

Operator: ES

Column phase: RTX-VMS

Column diameter: 0.18

Data File: WB639a.D
Spectrum: Avg. Scans 196-198 (2.21), Background Scan 185
Location of Maximum: 95.00
Number of points: 62

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	683	62.00	3042	81.00	1545	117.00	433
37.00	3079	63.00	1790	82.00	349	118.00	244
38.00	2562	64.00	173	87.00	2060	119.00	298
39.00	1177	67.00	129	88.00	2122	128.00	174
41.00	79	68.00	5721	91.00	299	130.00	101
45.00	630	69.00	5858	92.00	1677	137.00	71
47.00	907	70.00	675	93.00	2115	141.00	376
48.00	377	72.00	227	94.00	5949	143.00	450
49.00	2406	73.00	2111	95.00	50832	173.00	278
50.00	12137	74.00	9285	96.00	3471	174.00	38632
51.00	3078	75.00	27632	104.00	239	175.00	2784
55.00	71	76.00	2292	105.00	68	176.00	38464
56.00	864	77.00	252	106.00	353	177.00	2376
57.00	1428	78.00	186	113.00	94	178.00	70
60.00	470	79.00	1372	115.00	74		
61.00	2522	80.00	352	116.00	82		

Data File: \\target_server\gg\chem\gcms-w.i\W092321.b\WB640a.D

Date : 23-SEP-2021 06:24

Client ID:

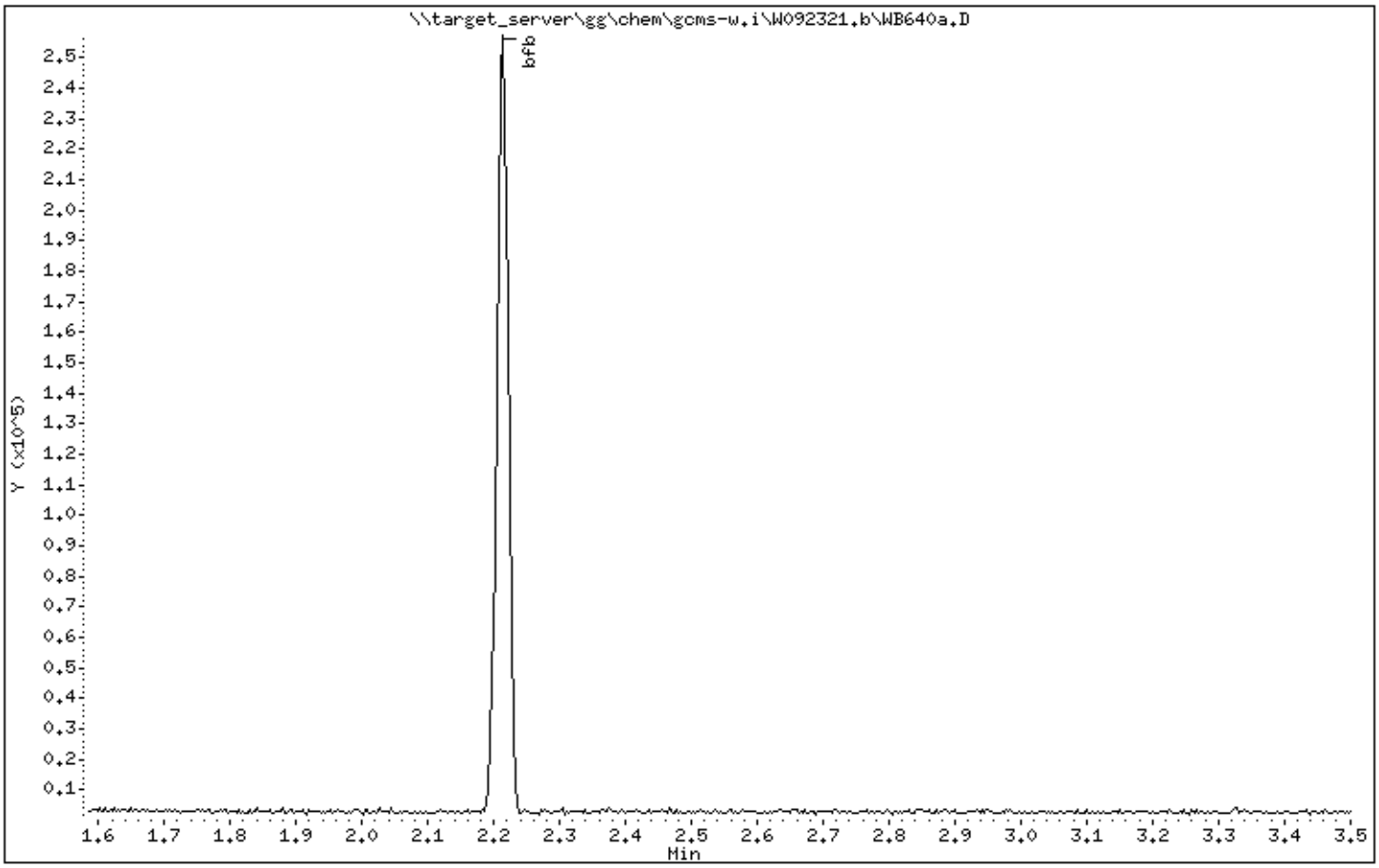
Instrument: gcms-w.i

Sample Info: WG306545-3,SO6313

Operator: ES

Column phase: RTX-VMS

Column diameter: 0.18



Data File: \\target_server\gg\chem\gcms-w.i\W092321.b\WB640a.D

Date : 23-SEP-2021 06:24

Client ID:

Instrument: gcms-w.i

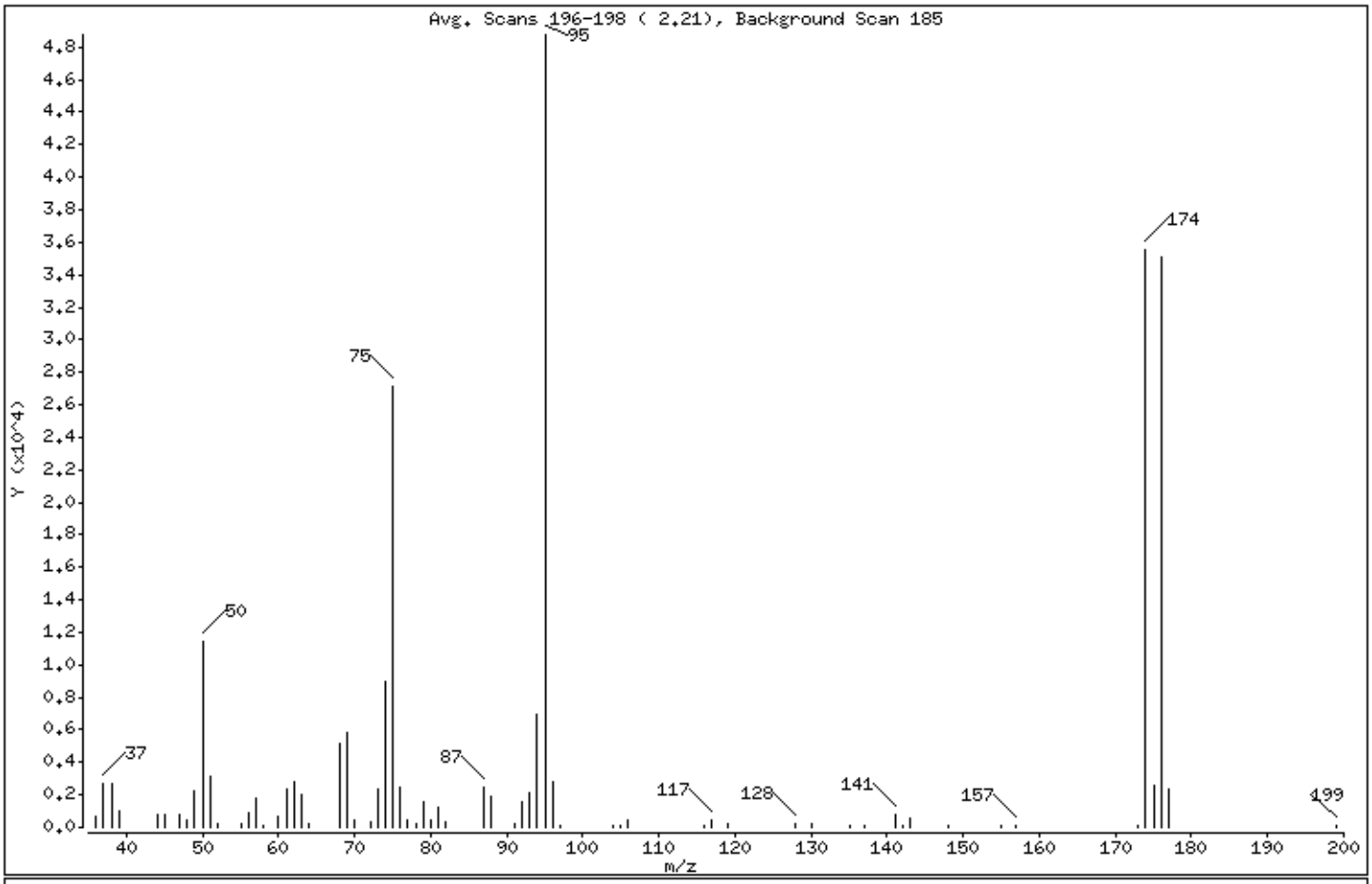
Sample Info: WG306545-3,SO6313

Operator: ES

Column phase: RTX-VMS

Column diameter: 0.18

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	23.42
75	30.00 - 60.00% of mass 95	55.54
96	5.00 - 9.00% of mass 95	5.73
173	Less than 2.00% of mass 174	0.19 (0.26)
174	Greater than 50.00% of mass 95	72.90
175	5.00 - 9.00% of mass 174	5.28 (7.25)
176	95.00 - 101.00% of mass 174	71.98 (98.74)
177	5.00 - 9.00% of mass 176	4.86 (6.76)

Date : 23-SEP-2021 06:24

Client ID: Instrument: gcms-w.i

Sample Info: WG306545-3,SO6313

Operator: ES

Column phase: RTX-VMS Column diameter: 0.18

Data File: WB640a.D
Spectrum: Avg. Scans 196-198 (2.21), Background Scan 185
Location of Maximum: 95.00
Number of points: 66

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	656	61.00	2336	82.00	373	130.00	216
37.00	2728	62.00	2822	87.00	2512	135.00	74
38.00	2664	63.00	2072	88.00	1858	137.00	102
39.00	1027	64.00	195	91.00	171	141.00	748
44.00	740	68.00	5204	92.00	1566	142.00	77
45.00	749	69.00	5846	93.00	2119	143.00	506
47.00	743	70.00	443	94.00	6940	148.00	73
48.00	417	72.00	383	95.00	48760	155.00	68
49.00	2267	73.00	2374	96.00	2796	157.00	115
50.00	11421	74.00	9003	97.00	101	173.00	91
51.00	3158	75.00	27080	104.00	156	174.00	35544
52.00	180	76.00	2416	105.00	77	175.00	2576
55.00	177	77.00	398	106.00	450	176.00	35096
56.00	949	78.00	248	116.00	92	177.00	2372
57.00	1838	79.00	1593	117.00	454	199.00	90
58.00	92	80.00	477	119.00	181		
60.00	657	81.00	1274	128.00	275		

Data File: \\target_server\gg\chem\gcms-w.i\W092421.b\WB641a.D

Date : 24-SEP-2021 06:23

Client ID:

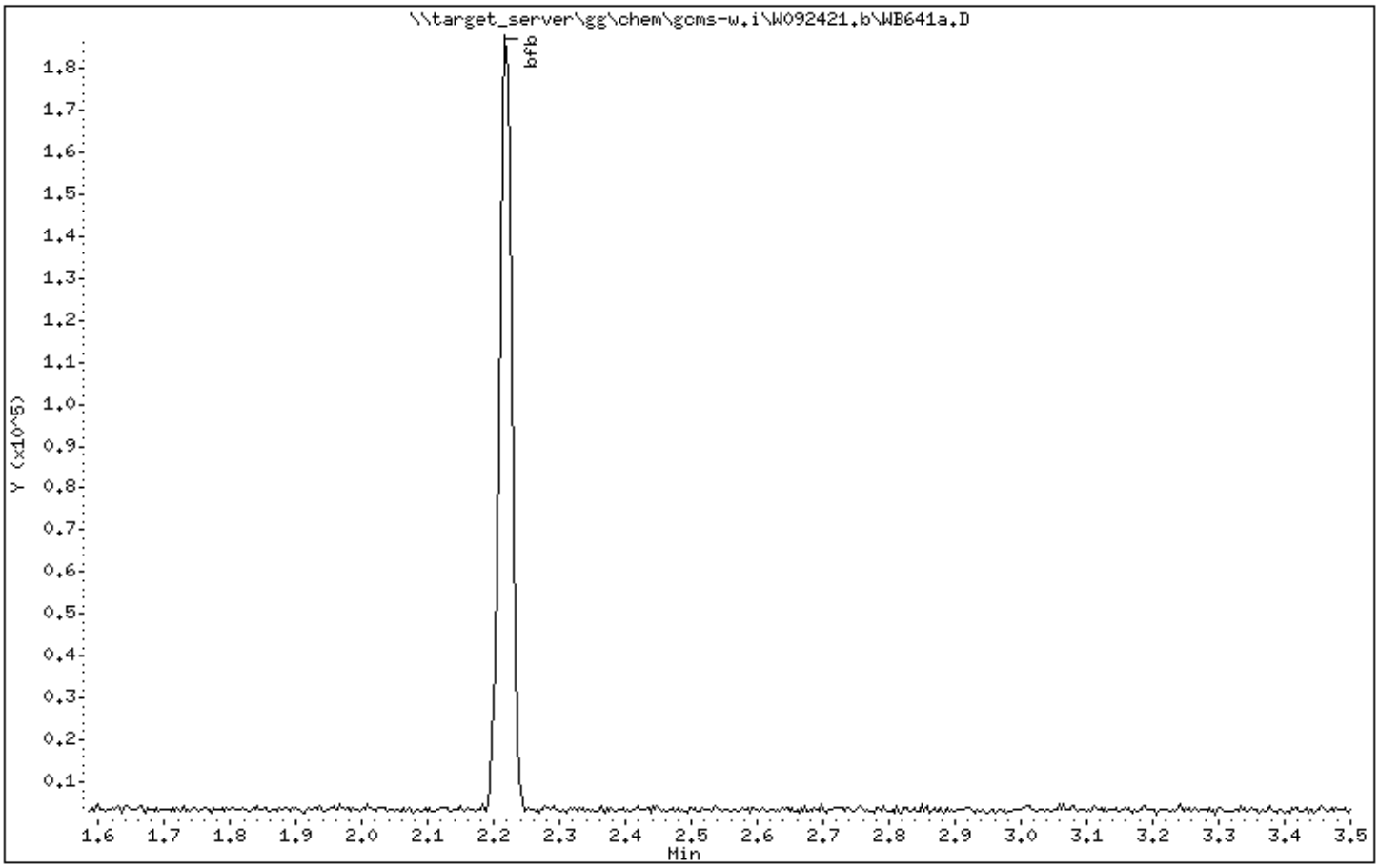
Instrument: gcms-w.i

Sample Info: WG306608-12,SO6313

Operator: ES

Column phase: RTX-VMS

Column diameter: 0.18



Data File: \\target_server\gg\chem\gcms-w.i\W092421.b\WB641a.D

Date : 24-SEP-2021 06:23

Client ID:

Instrument: gcms-w.i

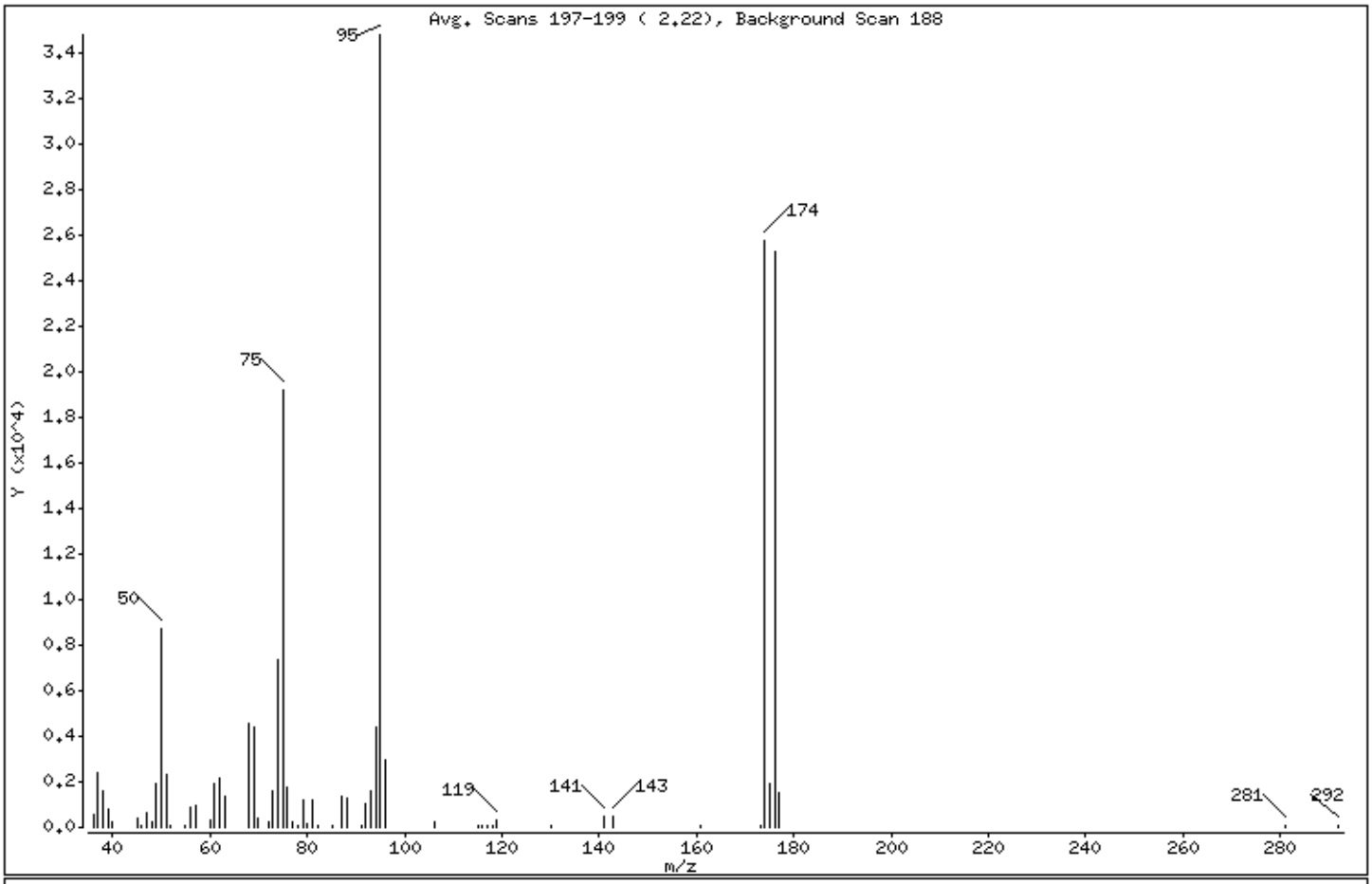
Sample Info: WG306608-12,SO6313

Operator: ES

Column phase: RTX-VMS

Column diameter: 0.18

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	25.14
75	30.00 - 60.00% of mass 95	55.14
96	5.00 - 9.00% of mass 95	8.41
173	Less than 2.00% of mass 174	0.31 (0.42)
174	Greater than 50.00% of mass 95	74.11
175	5.00 - 9.00% of mass 174	5.51 (7.44)
176	95.00 - 101.00% of mass 174	72.68 (98.07)
177	5.00 - 9.00% of mass 176	4.39 (6.04)

Date : 24-SEP-2021 06:23

Client ID:

Instrument: gcms-w.i

Sample Info: WG306608-12,SO6313

Operator: ES

Column phase: RTX-VMS

Column diameter: 0.18

Data File: WB641a.D
Spectrum: Avg. Scans 197-199 (2.22), Background Scan 188
Location of Maximum: 95.00
Number of points: 60

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	571	60.00	343	81.00	1210	119.00	302
37.00	2359	61.00	1925	82.00	104	130.00	73
38.00	1637	62.00	2151	85.00	70	141.00	463
39.00	805	63.00	1343	87.00	1387	143.00	457
40.00	254	68.00	4541	88.00	1312	161.00	78
45.00	383	69.00	4425	91.00	74	173.00	109
46.00	73	70.00	403	92.00	1009	174.00	25760
47.00	611	72.00	275	93.00	1629	175.00	1917
48.00	201	73.00	1615	94.00	4361	176.00	25264
49.00	1933	74.00	7316	95.00	34760	177.00	1525
50.00	8739	75.00	19168	96.00	2923	281.00	72
51.00	2307	76.00	1784	106.00	223	292.00	68
52.00	115	77.00	234	115.00	69		
55.00	80	78.00	89	116.00	85		
56.00	866	79.00	1237	117.00	116		
57.00	995	80.00	194	118.00	68		

Data File: \\target_server\gg\chem\gcms-w.i\W092821B.b\WB644a.D

Date : 28-SEP-2021 10:06

Client ID:

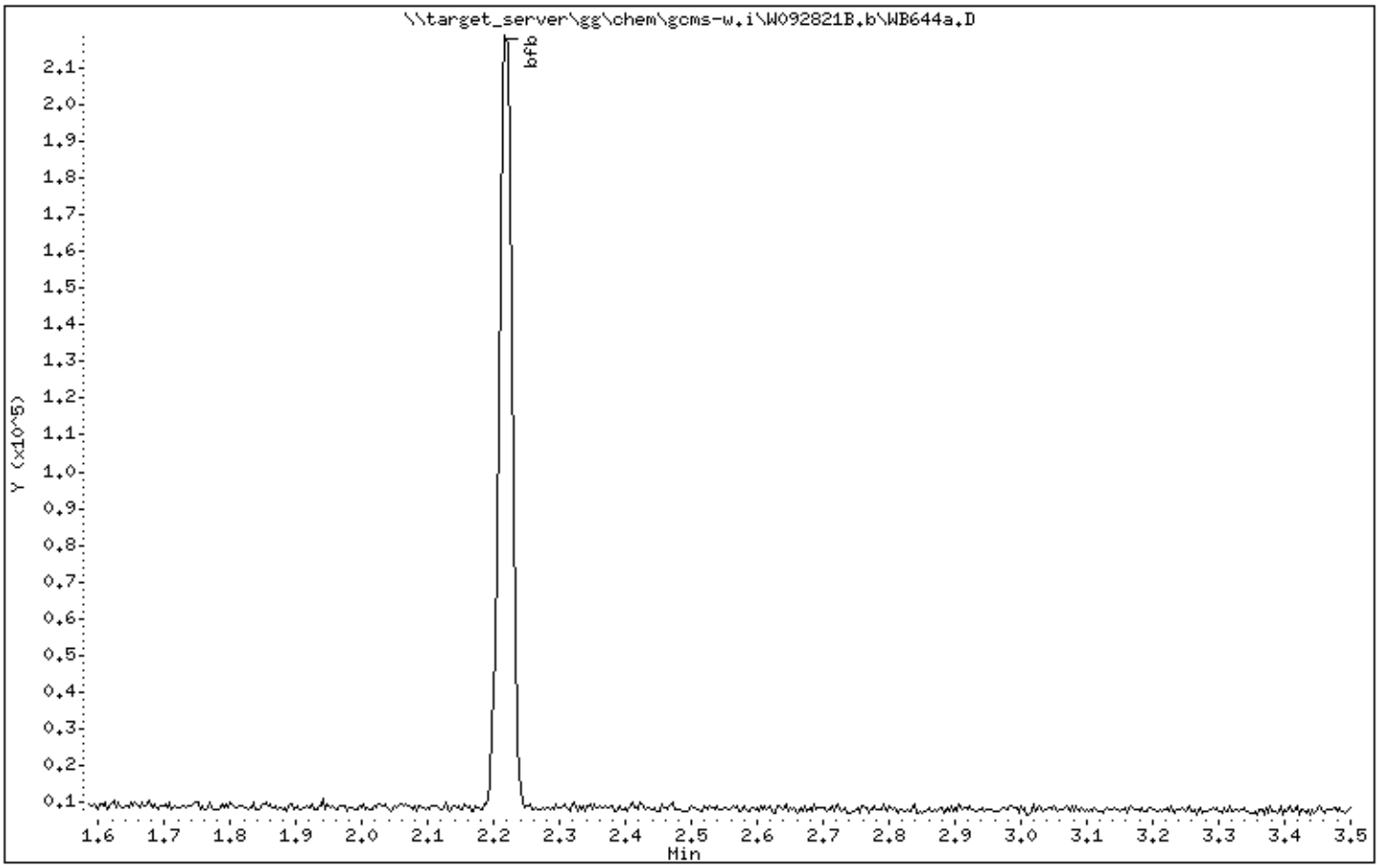
Instrument: gcms-w.i

Sample Info: WG306817-12,SO6313

Operator: ES

Column phase: RTX-VMS

Column diameter: 0.18



Data File: \\target_server\gg\chem\gcms-w.i\W092821B.b\WB644a.D

Date : 28-SEP-2021 10:06

Client ID:

Instrument: gcms-w.i

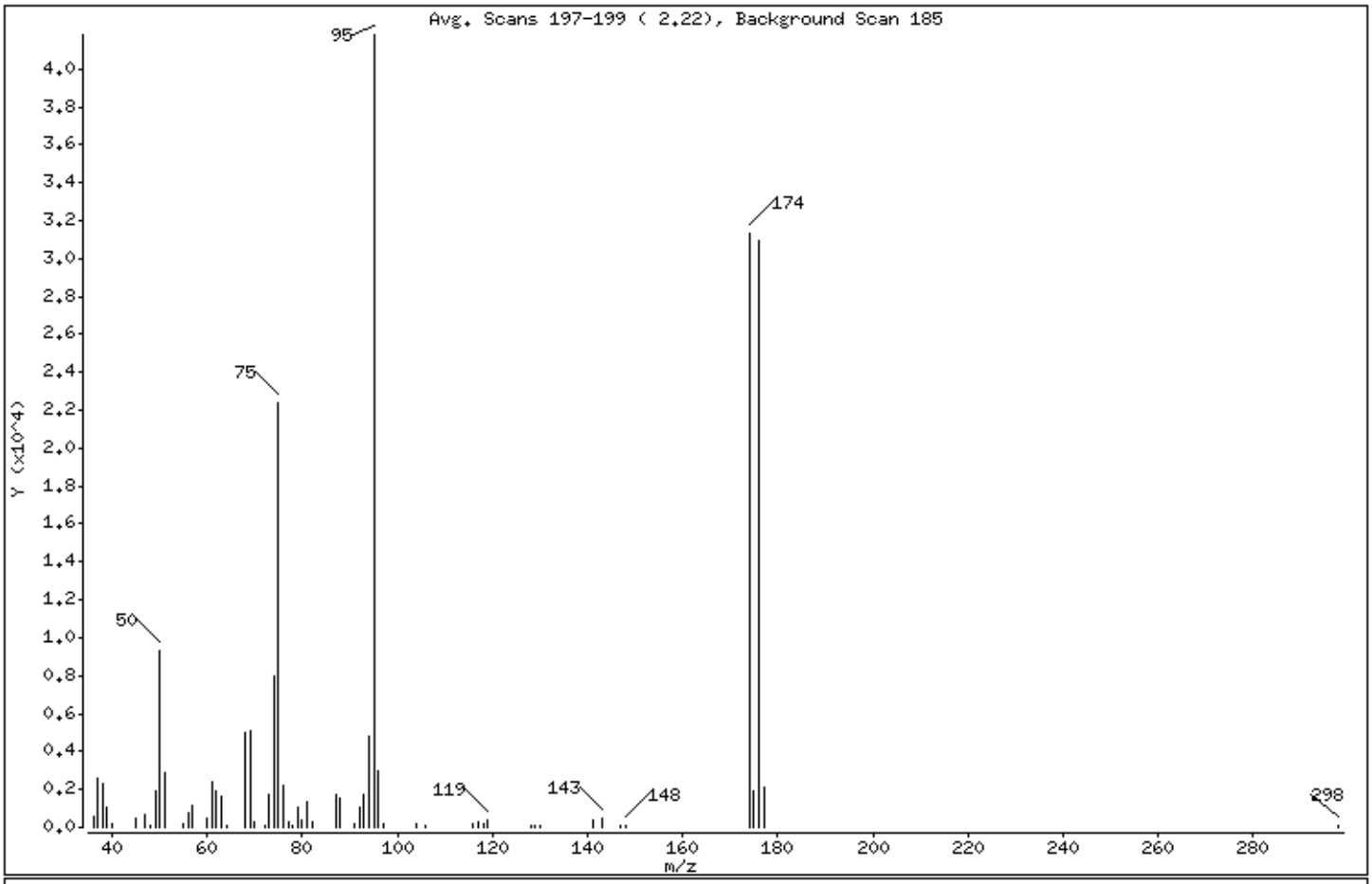
Sample Info: WG306817-12,SO6313

Operator: ES

Column phase: RTX-VMS

Column diameter: 0.18

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	22.34
75	30.00 - 60.00% of mass 95	53.57
96	5.00 - 9.00% of mass 95	7.08
173	Less than 2.00% of mass 174	0.00 (0.00)
174	Greater than 50.00% of mass 95	74.91
175	5.00 - 9.00% of mass 174	4.58 (6.12)
176	95.00 - 101.00% of mass 174	73.91 (98.67)
177	5.00 - 9.00% of mass 176	5.01 (6.78)

Date : 28-SEP-2021 10:06

Client ID:

Instrument: gcms-w.i

Sample Info: WG306817-12,SO6313

Operator: ES

Column phase: RTX-VMS

Column diameter: 0.18

Data File: WB644a.D
Spectrum: Avg. Scans 197-199 (2.22), Background Scan 185
Location of Maximum: 95.00
Number of points: 60

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	611	62.00	1962	82.00	273	128.00	141
37.00	2572	63.00	1670	87.00	1748	129.00	97
38.00	2338	64.00	75	88.00	1584	130.00	90
39.00	1022	68.00	4980	91.00	150	141.00	419
40.00	219	69.00	5086	92.00	1078	143.00	524
45.00	513	70.00	328	93.00	1718	147.00	69
47.00	710	72.00	77	94.00	4798	148.00	95
48.00	104	73.00	1757	95.00	41800	174.00	31312
49.00	1947	74.00	7967	96.00	2960	175.00	1916
50.00	9338	75.00	22392	97.00	180	176.00	30896
51.00	2836	76.00	2253	104.00	219	177.00	2094
55.00	183	77.00	271	106.00	70	298.00	68
56.00	761	78.00	128	116.00	224		
57.00	1198	79.00	1078	117.00	262		
60.00	482	80.00	380	118.00	204		
61.00	2376	81.00	1385	119.00	353		

Raw QC Data Section

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Lab ID: WG306383-2
Client ID: Method Blank
SDG: SO6313
Lab File ID: W0126.D

Extract Date: 21-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306383
% Solids: NA

Analysis Date: 21-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	2.0	ug/L	1	2	2.0
Vinyl Chloride	U	2.0	ug/L	1	2	2.0
Bromomethane	U	2.0	ug/L	1	2	2.0
Chloroethane	U	2.0	ug/L	1	2	2.0
Trichlorofluoromethane	U	2.0	ug/L	1	2	2.0
1,1-Dichloroethene	U	1.0	ug/L	1	1	1.0
Carbon Disulfide	U	1.0	ug/L	1	1	1.0
Methylene Chloride	U	5.0	ug/L	1	5	5.0
trans-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
1,1-Dichloroethane	U	1.0	ug/L	1	1	1.0
cis-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
Chloroform	U	1.0	ug/L	1	1	1.0
Carbon Tetrachloride	U	1.0	ug/L	1	1	1.0
1,1,1-Trichloroethane	U	1.0	ug/L	1	1	1.0
2-Butanone	U	5.0	ug/L	1	5	5.0
Benzene	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethane	U	1.0	ug/L	1	1	1.0
Trichloroethene	U	1.0	ug/L	1	1	1.0
1,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Bromodichloromethane	U	1.0	ug/L	1	1	1.0
cis-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
Toluene	U	1.0	ug/L	1	1	1.0
4-Methyl-2-Pentanone	U	5.0	ug/L	1	5	5.0
Tetrachloroethene	U	1.0	ug/L	1	1	1.0
trans-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
1,1,2-Trichloroethane	U	1.0	ug/L	1	1	1.0
Dibromochloromethane	U	1.0	ug/L	1	1	1.0
Chlorobenzene	U	1.0	ug/L	1	1	1.0
Ethylbenzene	U	1.0	ug/L	1	1	1.0
m+p-Xylenes	U	2.0	ug/L	1	2	2.0
o-Xylene	U	1.0	ug/L	1	1	1.0
Bromoform	U	1.0	ug/L	1	1	1.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
P-Bromofluorobenzene		99.6	%			
Toluene-d8		101.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Lab ID: WG306383-2
Client ID: Method Blank
SDG: SO6313
Lab File ID: W0126.D

Extract Date: 21-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306383
% Solids: NA

Analysis Date: 21-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		109.	%			
Dibromofluoromethane		103.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Data File: \\target_server\gg\chem\gcms-w.i\W092121.b\W0126.D
Report Date: 12-Oct-2021 08:34

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-w.i\W092121.b\W0126.D
Lab Smp Id: WG306383-2
Inj Date : 21-SEP-2021 09:19
Operator : ES   Inst ID: gcms-w.i
Smp Info : WG306383-2,SO6313
Misc Info : WG306383,WG306383-4,SO6313-1
Comment   : SW846 5030
Method   : \\target_server\gg\chem\gcms-w.i\W092121.b\W8A05(08).m
Meth Date : 11-Oct-2021 12:27 gcms-w.i   Quant Type: ISTD
Cal Date : 20-SEP-2021 11:30   Cal File: W0105.D
Als bottle: 4
Dil Factor: 1.00000
Integrator: HP RTE   Compound Sublist: all.sub
Target Version: 4.12

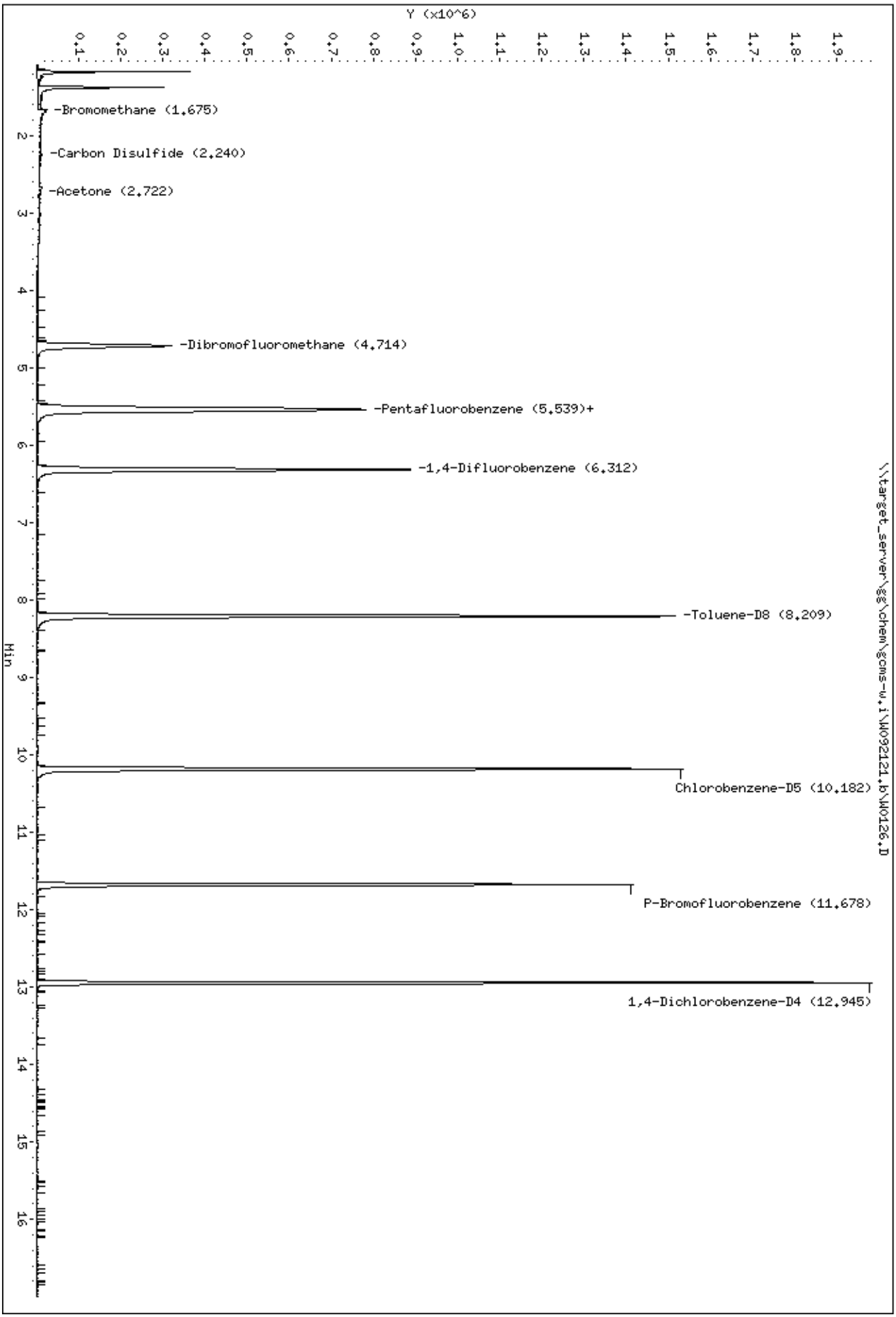
Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)	REVIEW CODE
4	Bromomethane	94	1.675	1.672	(0.303)	1868	0.56606	0.57(a)	
10	Carbon Disulfide	76	2.240	2.240	(0.406)	4489	0.30689	0.31(a)	
15	Acetone	43	2.721	2.725	(0.493)	5931	3.68910	3.7(aM)	
$ 34	Dibromofluoromethane	113	4.714	4.714	(0.854)	302580	51.3444	51.3	
* 41	Pentafluorobenzene	168	5.522	5.526	(1.000)	588396	50.0000		
$ 42	1,2-Dichloroethane-D4	65	5.551	5.549	(1.005)	418048	54.4615	54.5	
* 48	1,4-Difluorobenzene	114	6.315	6.315	(1.000)	987187	50.0000		
$ 58	Toluene-D8	98	8.208	8.209	(1.300)	1192851	50.5248	50.5	
* 68	Chlorobenzene-D5	117	10.182	10.182	(1.000)	959338	50.0000		
$ 77	P-Bromofluorobenzene	95	11.677	11.678	(1.849)	492187	49.8226	49.8	
* 93	1,4-Dichlorobenzene-D4	152	12.945	12.948	(1.000)	487275	50.0000		

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.


Y (x10^6)
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0
1.1
1.2
1.3
1.4
1.5
1.6
1.7
1.8
1.9
-Bromomethane (1.675)
-Carbon Disulfide (2.240)
-Acetone (2.722)
-Dibromofluoromethane (4.714)
-Pentafluorobenzene (5.539)+
-1,4-Difluorobenzene (6.312)
-Toluene-D8 (8.209)
Chlorobenzene-D5 (10.182)
P-Bromofluorobenzene (11.678)
1,4-Dichlorobenzene-D4 (12.945)
Min
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
\\target_server\gg\chem\gcms-w.i\W092121.b\W0126.D
Data File: \\target_server\gg\chem\gcms-w.i\W092121.b\W0126.D
Date : 21-SEP-2021 09:19
Client ID:
Sample Info: WG306383-2,S06313
Instrument: gcms-w.i

Data File: \\target_server\gg\chem\gcms-w.i\W092121.b\W0126.D

Date : 21-SEP-2021 09:19

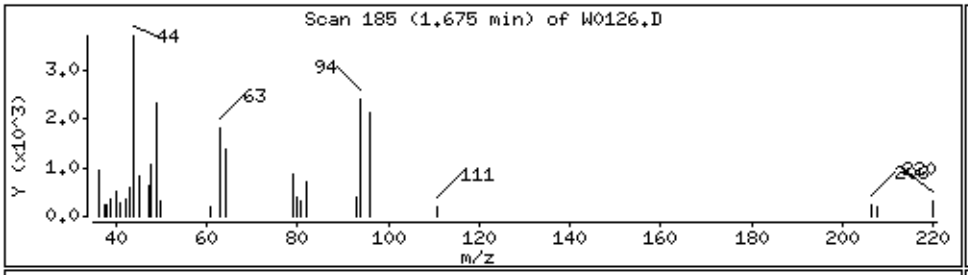
Client ID:

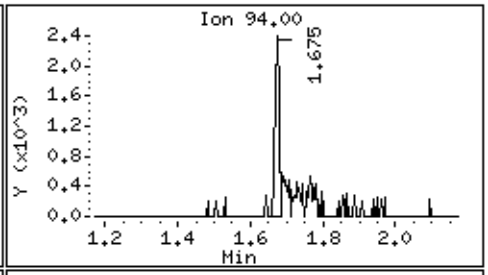
Instrument: gcms-w.i

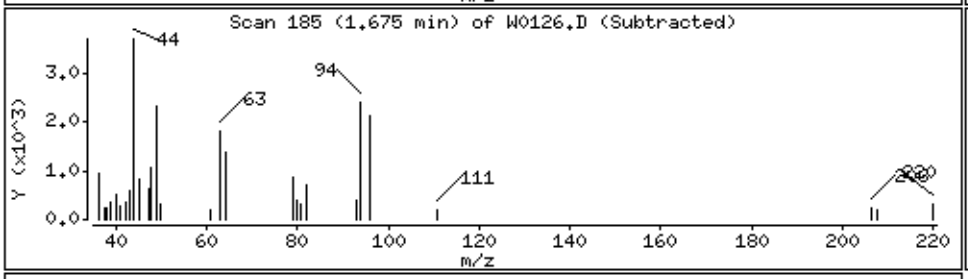
Sample Info: WG306383-2,SO6313

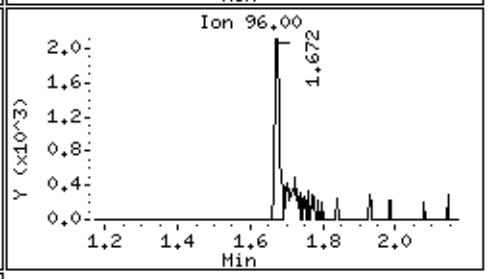
4 Bromomethane

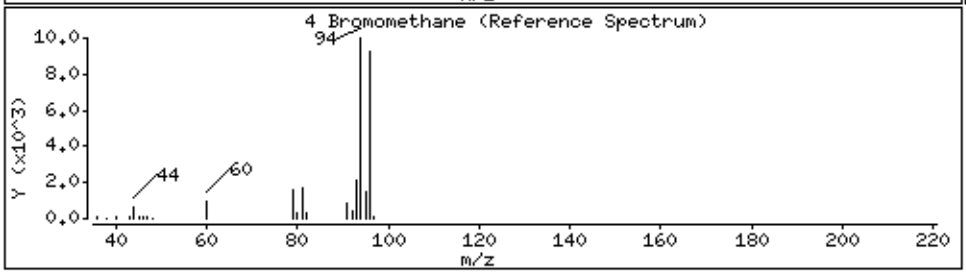
Concentration: 0.57 ug/l





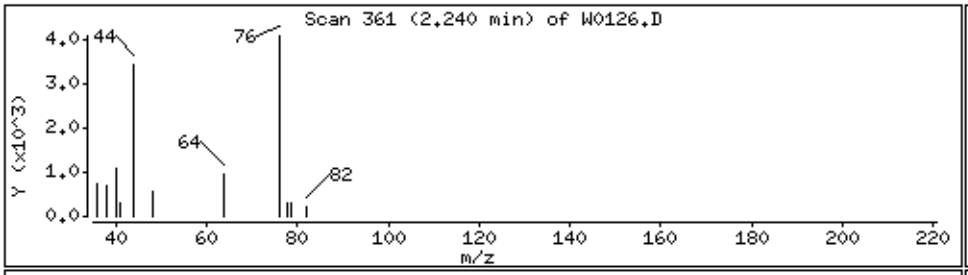


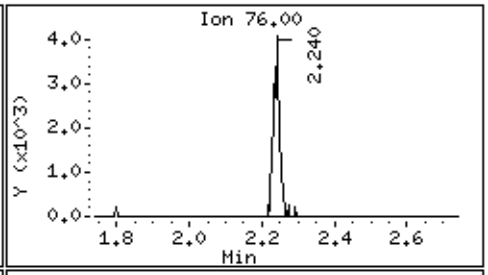


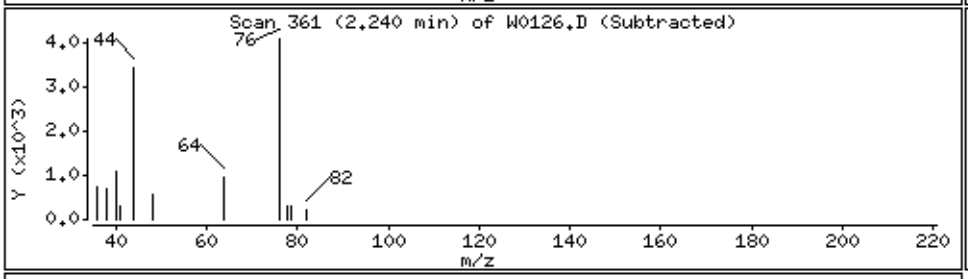


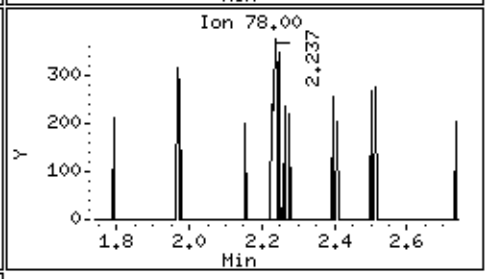
10 Carbon Disulfide

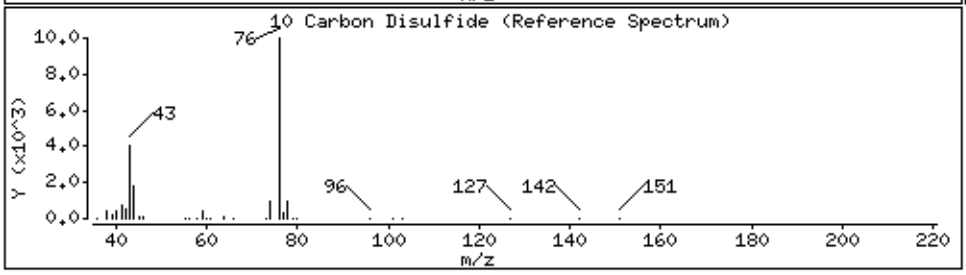
Concentration: 0.31 ug/l











Data File: \\target_server\gg\chem\gcms-w.i\W092121.b\W0126.D

Date : 21-SEP-2021 09:19

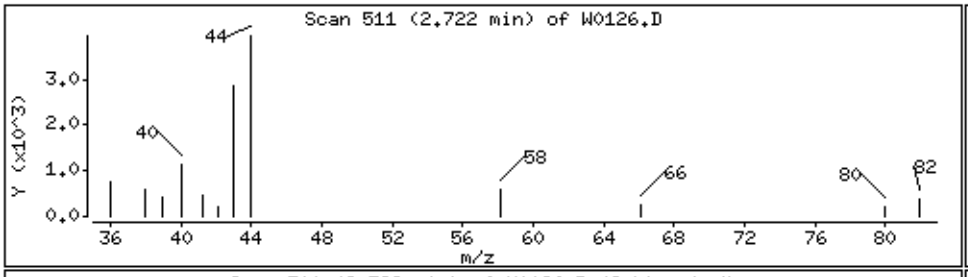
Client ID:

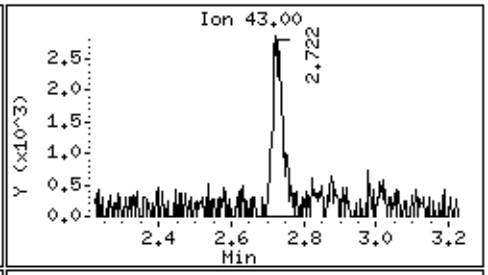
Instrument: gcms-w.i

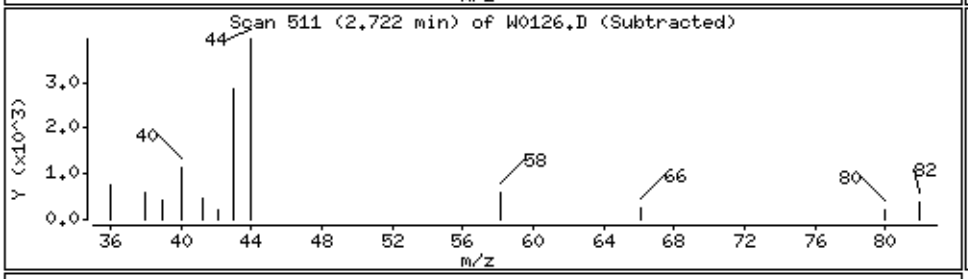
Sample Info: WG306383-2,SO6313

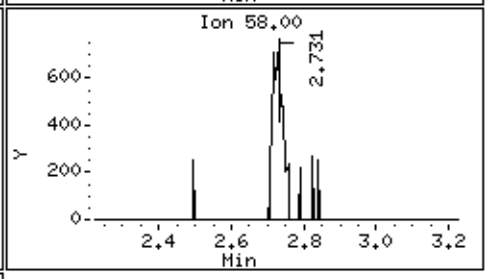
15 Acetone

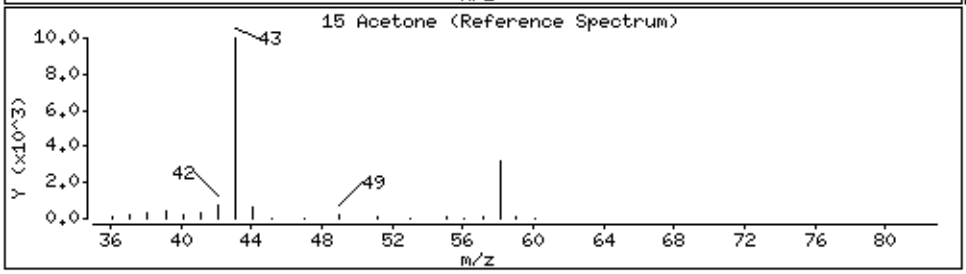
Concentration: 3.7 ug/l











Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Lab ID: WG306464-2
Client ID: Method Blank
SDG: SO6313
Lab File ID: W0149.D

Extract Date: 22-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306464
% Solids: NA

Analysis Date: 22-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	2.0	ug/L	1	2	2.0
Vinyl Chloride	U	2.0	ug/L	1	2	2.0
Bromomethane	U	2.0	ug/L	1	2	2.0
Chloroethane	U	2.0	ug/L	1	2	2.0
Trichlorofluoromethane	U	2.0	ug/L	1	2	2.0
1,1-Dichloroethene	U	1.0	ug/L	1	1	1.0
Carbon Disulfide	U	1.0	ug/L	1	1	1.0
Methylene Chloride	U	5.0	ug/L	1	5	5.0
trans-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
1,1-Dichloroethane	U	1.0	ug/L	1	1	1.0
cis-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
Chloroform	U	1.0	ug/L	1	1	1.0
Carbon Tetrachloride	U	1.0	ug/L	1	1	1.0
1,1,1-Trichloroethane	U	1.0	ug/L	1	1	1.0
2-Butanone	U	5.0	ug/L	1	5	5.0
Benzene	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethane	U	1.0	ug/L	1	1	1.0
Trichloroethene	U	1.0	ug/L	1	1	1.0
1,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Bromodichloromethane	U	1.0	ug/L	1	1	1.0
cis-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
Toluene	U	1.0	ug/L	1	1	1.0
4-Methyl-2-Pentanone	U	5.0	ug/L	1	5	5.0
Tetrachloroethene	U	1.0	ug/L	1	1	1.0
trans-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
1,1,2-Trichloroethane	U	1.0	ug/L	1	1	1.0
Dibromochloromethane	U	1.0	ug/L	1	1	1.0
Chlorobenzene	U	1.0	ug/L	1	1	1.0
Ethylbenzene	U	1.0	ug/L	1	1	1.0
m+p-Xylenes	U	2.0	ug/L	1	2	2.0
o-Xylene	U	1.0	ug/L	1	1	1.0
Bromoform	U	1.0	ug/L	1	1	1.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
P-Bromofluorobenzene		101.	%			
Toluene-d8		99.7	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Lab ID: WG306464-2
Client ID: Method Blank
SDG: SO6313
Lab File ID: W0149.D

Extract Date: 22-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306464
% Solids: NA

Analysis Date: 22-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		113.	%			
Dibromofluoromethane		102.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Data File: \\target_server\gg\chem\gcms-w.i\W092221.b\W0149.D
Report Date: 12-Oct-2021 08:54

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-w.i\W092221.b\W0149.D
Lab Smp Id: WG306464-2
Inj Date : 22-SEP-2021 09:24
Operator : ES   Inst ID: gcms-w.i
Smp Info : WG306464-2,SO6313
Misc Info : WG306464,WG306464-4,SO6313-13
Comment   : SW846 5030
Method   : \\target_server\gg\chem\gcms-w.i\W092221.b\W8A05(08).m
Meth Date : 11-Oct-2021 13:03 hgould   Quant Type: ISTD
Cal Date : 20-SEP-2021 11:30   Cal File: W0105.D
Als bottle: 4
Dil Factor: 1.00000
Integrator: HP RTE   Compound Sublist: all.sub
Target Version: 4.12

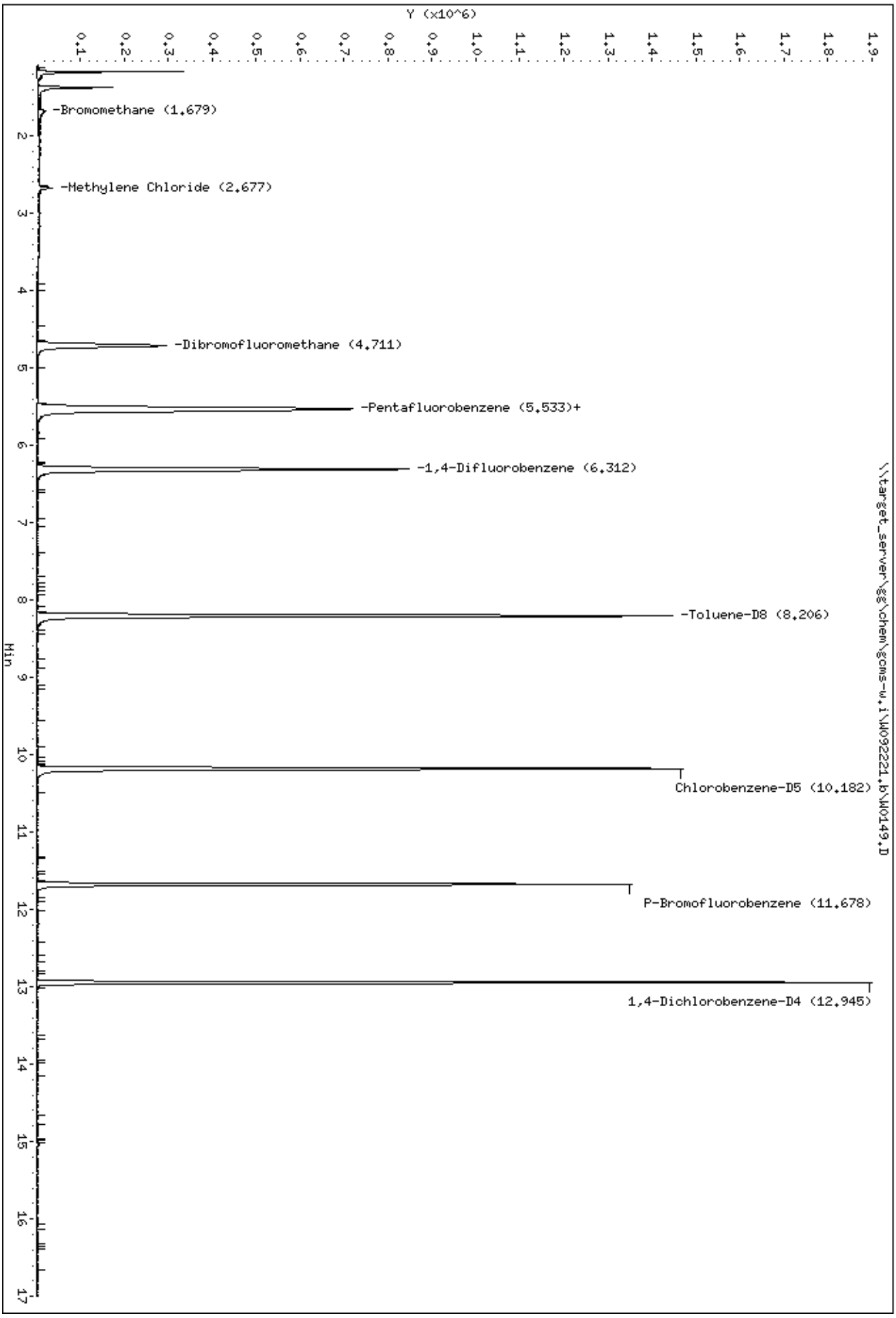
Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)	REVIEW CODE
4 Bromomethane	94	1.678	1.672	(0.304)	1614	0.53594	0.54(a)	
14 Methylene Chloride	84	2.676	2.677	(0.484)	11996	2.26703	2.3(a)	
$ 34 Dibromofluoromethane	113	4.711	4.714	(0.853)	275366	51.2103	51.2	
* 41 Pentafluorobenzene	168	5.526	5.526	(1.000)	536878	50.0000		
$ 42 1,2-Dichloroethane-D4	65	5.551	5.549	(1.005)	395236	56.4305	56.4	
* 48 1,4-Difluorobenzene	114	6.312	6.315	(1.000)	909856	50.0000		
$ 58 Toluene-D8	98	8.205	8.209	(1.300)	1084892	49.8576	49.8	
* 68 Chlorobenzene-D5	117	10.182	10.182	(1.000)	882175	50.0000		
$ 77 P-Bromofluorobenzene	95	11.677	11.678	(1.850)	458316	50.3371	50.3	
* 93 1,4-Dichlorobenzene-D4	152	12.945	12.948	(1.000)	451925	50.0000		

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).


Data File: \\target_server\gg\chem\gcms-w.i\W092221.b\W0149.D
Date : 22-SEP-2021 09:24
Client ID:
Sample Info: WG306464-2,SD6313
Instrument: gcms-w.i
\\target_server\gg\chem\gcms-w.i\W092221.b\W0149.D
Y (x10^6)
Min
-Bromomethane (1.679)
-Methylene Chloride (2.677)
-Dibromofluoromethane (4.711)
-Pentafluorobenzene (5.533)+
-1,4-Difluorobenzene (6.312)
-Toluene-D8 (8.206)
Chlorobenzene-D5 (10.182)
P-Bromofluorobenzene (11.678)
1,4-Dichlorobenzene-D4 (12.945)

Data File: \\target_server\gg\chem\gcms-w.i\W092221.b\W0149.D

Date : 22-SEP-2021 09:24

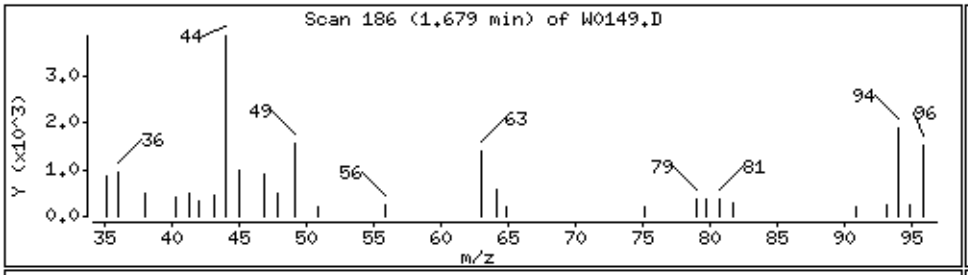
Client ID:

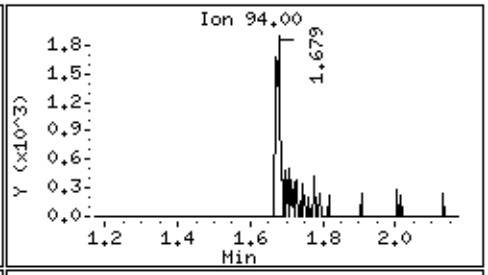
Instrument: gcms-w.i

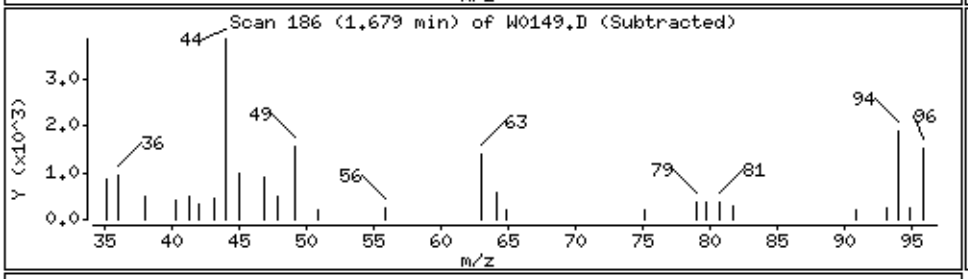
Sample Info: WG306464-2,SO6313

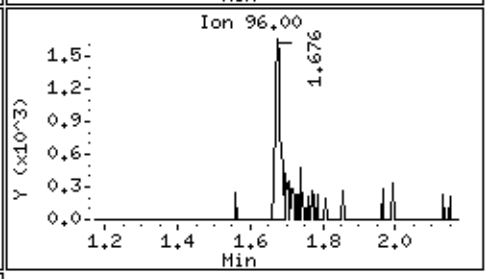
4 Bromomethane

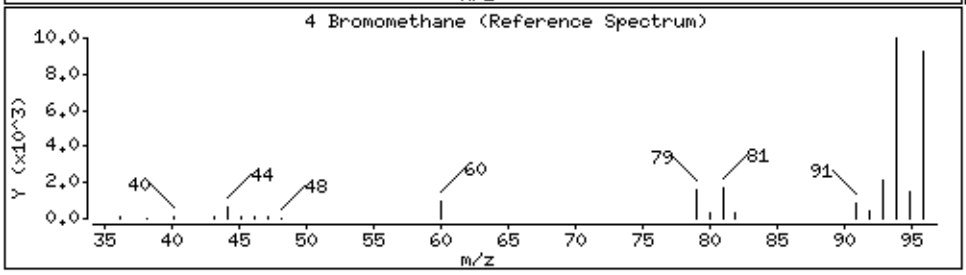
Concentration: 0.54 ug/l





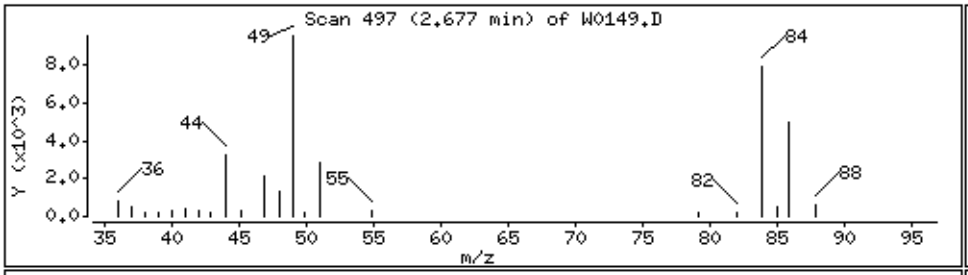


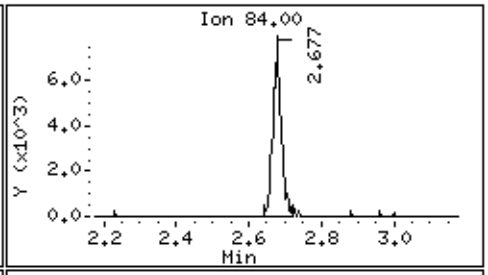


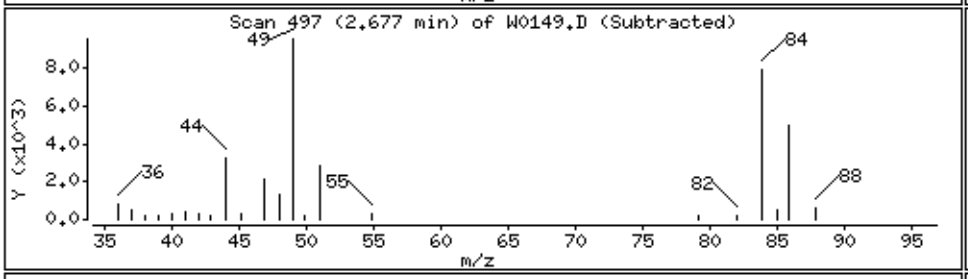


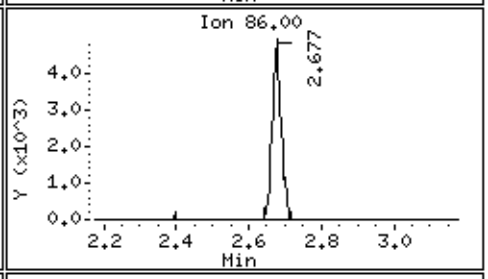
14 Methylene Chloride

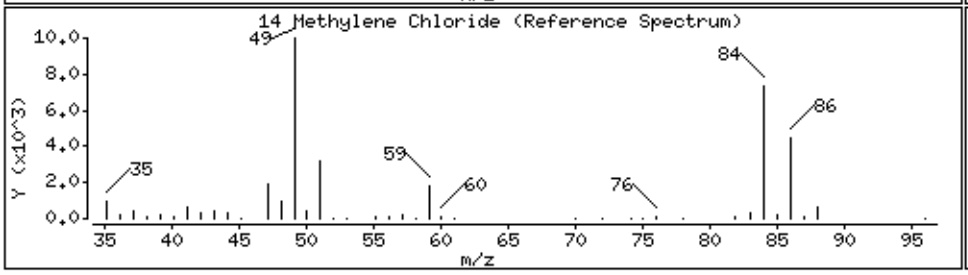
Concentration: 2.3 ug/l

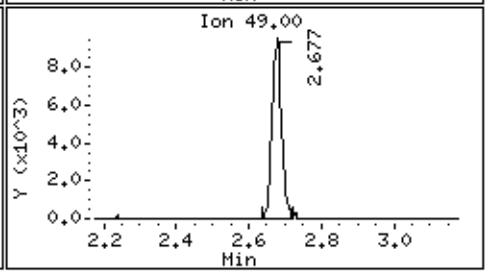












Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Lab ID: WG306545-2
Client ID: Method Blank
SDG: SO6313
Lab File ID: W0185.D

Extract Date: 23-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306545
% Solids: NA

Analysis Date: 23-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	2.0	ug/L	1	2	2.0
Vinyl Chloride	U	2.0	ug/L	1	2	2.0
Bromomethane	U	2.0	ug/L	1	2	2.0
Chloroethane	U	2.0	ug/L	1	2	2.0
Trichlorofluoromethane	U	2.0	ug/L	1	2	2.0
1,1-Dichloroethene	U	1.0	ug/L	1	1	1.0
Carbon Disulfide	U	1.0	ug/L	1	1	1.0
Methylene Chloride	U	5.0	ug/L	1	5	5.0
trans-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
1,1-Dichloroethane	U	1.0	ug/L	1	1	1.0
cis-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
Chloroform	U	1.0	ug/L	1	1	1.0
Carbon Tetrachloride	U	1.0	ug/L	1	1	1.0
1,1,1-Trichloroethane	U	1.0	ug/L	1	1	1.0
2-Butanone	U	5.0	ug/L	1	5	5.0
Benzene	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethane	U	1.0	ug/L	1	1	1.0
Trichloroethene	U	1.0	ug/L	1	1	1.0
1,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Bromodichloromethane	U	1.0	ug/L	1	1	1.0
cis-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
Toluene	U	1.0	ug/L	1	1	1.0
4-Methyl-2-Pentanone	U	5.0	ug/L	1	5	5.0
Tetrachloroethene	U	1.0	ug/L	1	1	1.0
trans-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
1,1,2-Trichloroethane	U	1.0	ug/L	1	1	1.0
Dibromochloromethane	U	1.0	ug/L	1	1	1.0
Chlorobenzene	U	1.0	ug/L	1	1	1.0
Ethylbenzene	U	1.0	ug/L	1	1	1.0
m+p-Xylenes	U	2.0	ug/L	1	2	2.0
o-Xylene	U	1.0	ug/L	1	1	1.0
Bromoform	U	1.0	ug/L	1	1	1.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
P-Bromofluorobenzene		101.	%			
Toluene-d8		102.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Lab ID: WG306545-2
Client ID: Method Blank
SDG: SO6313
Lab File ID: W0185.D

Extract Date: 23-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306545
% Solids: NA

Analysis Date: 23-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		114.	%			
Dibromofluoromethane		102.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Data File: \\target_server\gg\chem\gcms-w.i\W092321.b\W0185.D
Report Date: 12-Oct-2021 09:39

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-w.i\W092321.b\W0185.D
Lab Smp Id: WG306545-2
Inj Date : 23-SEP-2021 09:22
Operator : ES   Inst ID: gcms-w.i
Smp Info : WG306545-2,SO6313
Misc Info : WG306545,WG306545-4,SO6313-11
Comment   : SW846 5030
Method   : \\target_server\gg\chem\gcms-w.i\W092321.b\W8A05(08).m
Meth Date : 11-Oct-2021 13:19 gcms-w.i   Quant Type: ISTD
Cal Date : 20-SEP-2021 11:30   Cal File: W0105.D
Als bottle: 5
Dil Factor: 1.00000
Integrator: HP RTE   Compound Sublist: all.sub
Target Version: 4.12

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

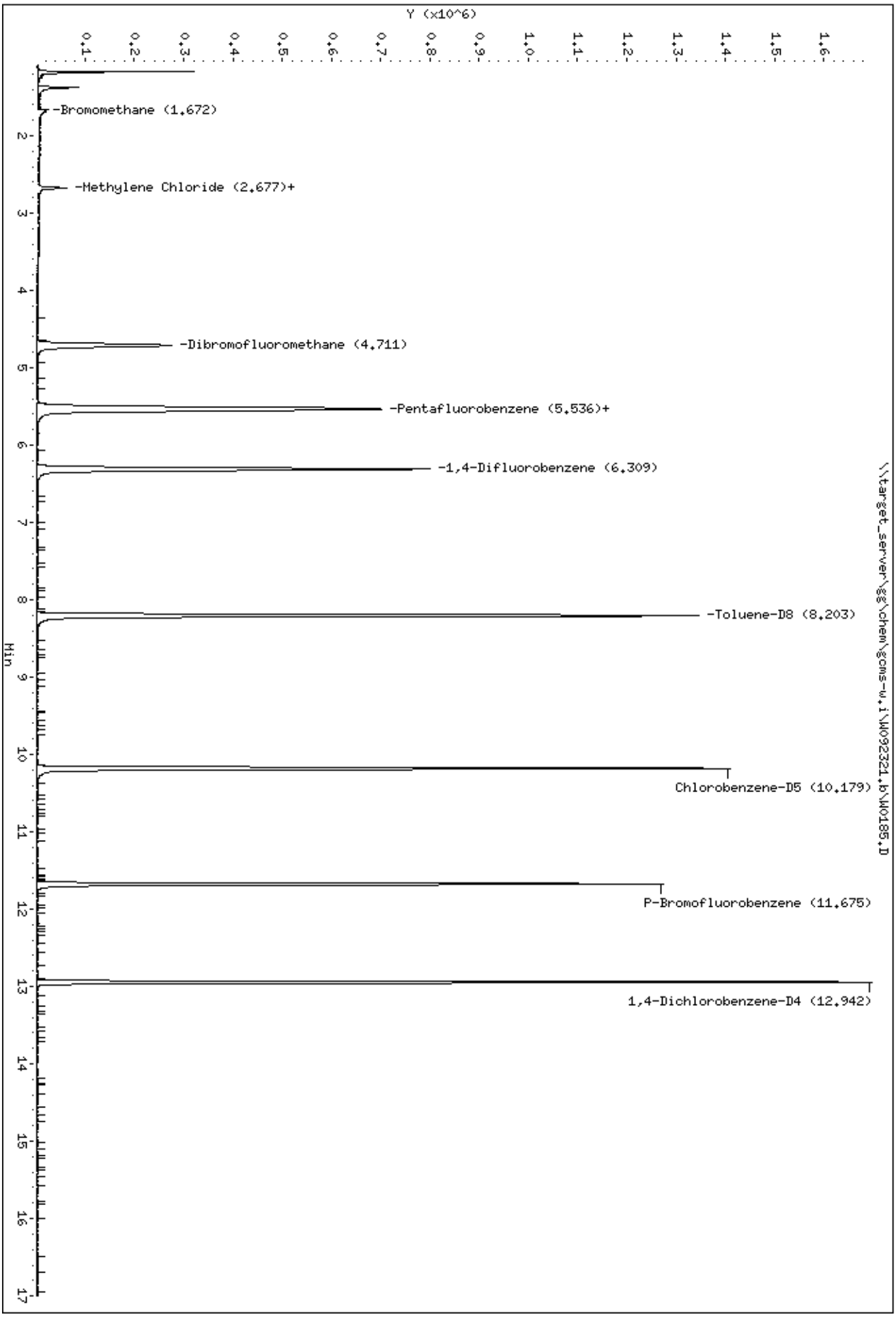
Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

11:47 am, Oct 12, 2021

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)	REVIEW CODE
	4 Bromomethane	94	1.672	1.672	(0.303)	2102	0.74352	0.74(a)	
	14 Methylene Chloride	84	2.676	2.677	(0.485)	21558	4.33532	4.3(a)	
	15 Acetone	43	2.724	2.725	(0.493)	5052	3.66476	3.7(aM)	M9
$	34 Dibromofluoromethane	113	4.714	4.714	(0.854)	258355	51.1277	51.1	
*	41 Pentafluorobenzene	168	5.523	5.526	(1.000)	504526	50.0000		
$	42 1,2-Dichloroethane-D4	65	5.545	5.549	(1.004)	375829	57.1005	57.1	
*	48 1,4-Difluorobenzene	114	6.309	6.315	(1.000)	846387	50.0000		
$	58 Toluene-D8	98	8.202	8.209	(1.300)	1037364	51.2483	51.2	
*	68 Chlorobenzene-D5	117	10.179	10.182	(1.000)	830491	50.0000		
$	77 P-Bromofluorobenzene	95	11.677	11.678	(1.851)	427111	50.4275	50.4	
*	93 1,4-Dichlorobenzene-D4	152	12.942	12.948	(1.000)	420958	50.0000		

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.


Y (x10^6)
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0
1.1
1.2
1.3
1.4
1.5
1.6
-Bromomethane (1.672)
-Methylene Chloride (2.677)+
-Dibromofluoromethane (4.711)
-Pentafluorobenzene (5.536)+
-1,4-Difluorobenzene (6.309)
-Toluene-D8 (8.203)
Chlorobenzene-D5 (10.179)
P-Bromofluorobenzene (11.675)
1,4-Dichlorobenzene-D4 (12.942)
Min
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
\\target_server\gg\chem\gcms-w.i\W092321.b\W0185.D
Data File: \\target_server\gg\chem\gcms-w.i\W092321.b\W0185.D
Date : 23-SEP-2021 09:22
Client ID:
Sample Info: WG306545-2,S06313
Instrument: gcms-w.i

Data File: \\target_server\gg\chem\gcms-w.i\W092321.b\W0185.D

Date : 23-SEP-2021 09:22

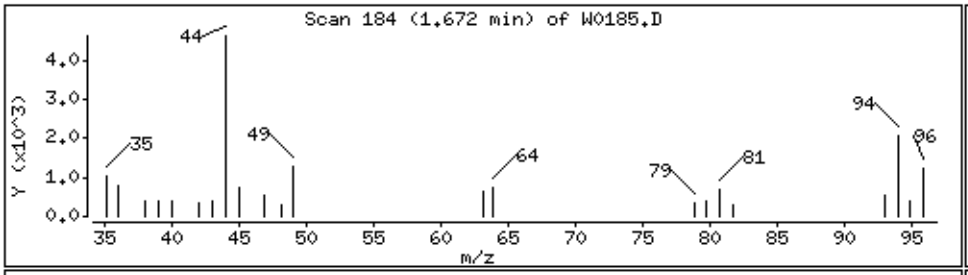
Client ID:

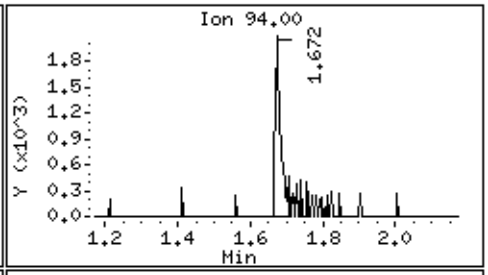
Instrument: gcms-w.i

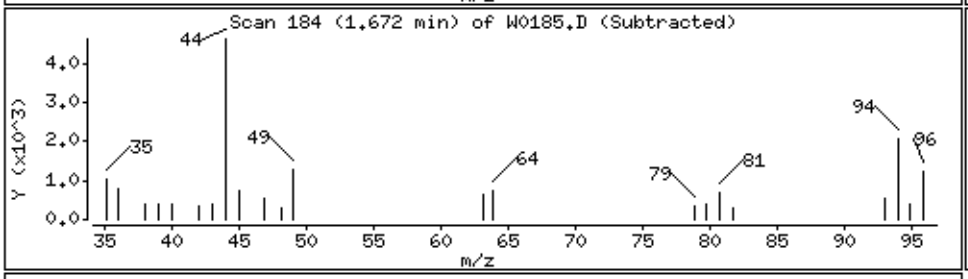
Sample Info: WG306545-2,SO6313

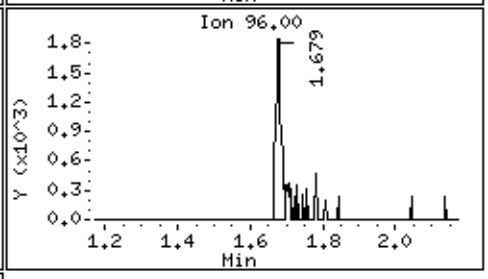
4 Bromomethane

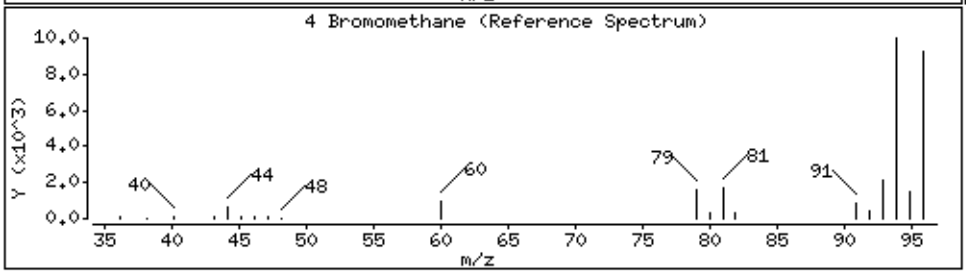
Concentration: 0.74 ug/l





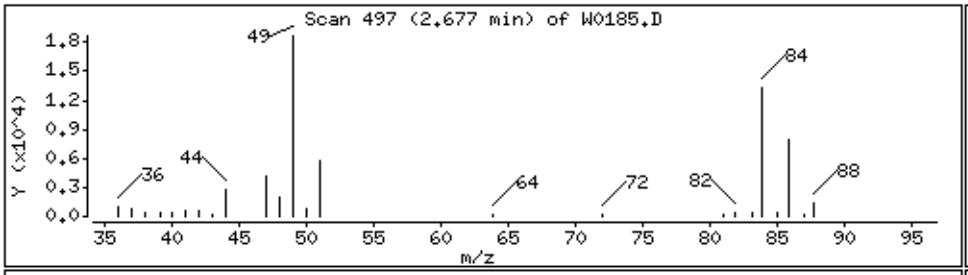


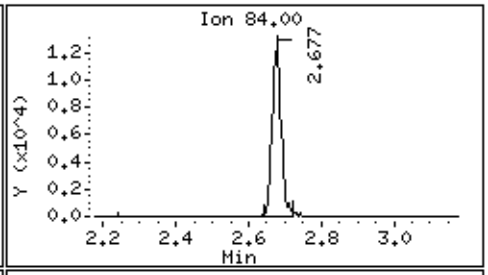


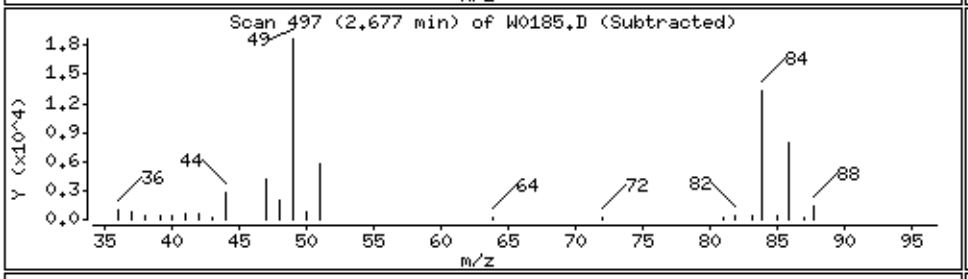


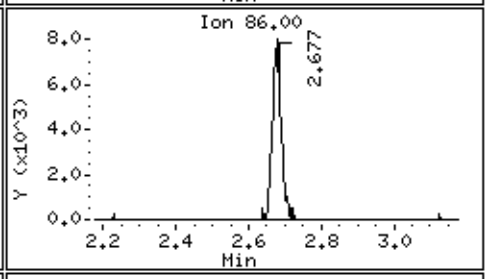
14 Methylene Chloride

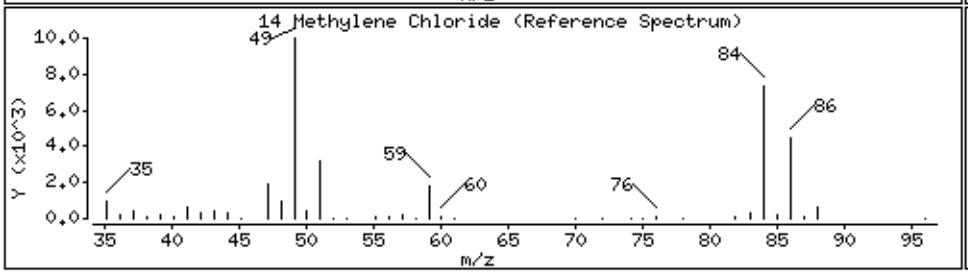
Concentration: 4.3 ug/l

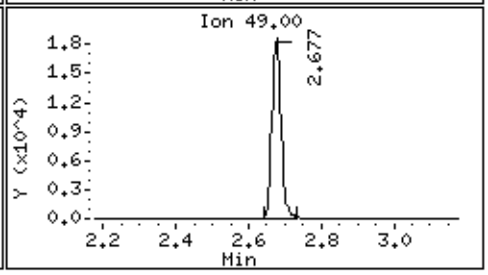












Data File: \\target_server\gg\chem\gcms-w.i\W092321.b\W0185.D

Date : 23-SEP-2021 09:22

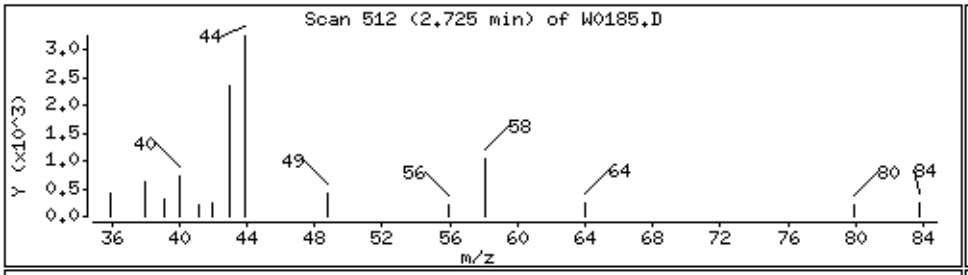
Client ID:

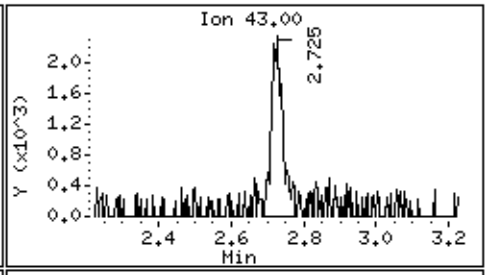
Instrument: gcms-w.i

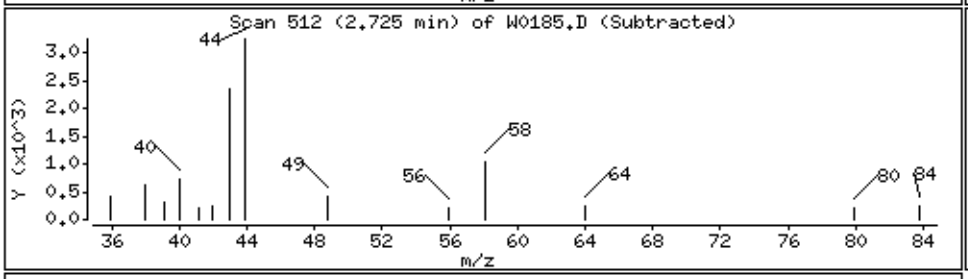
Sample Info: WG306545-2,SO6313

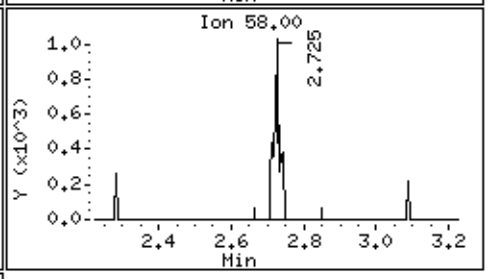
15 Acetone

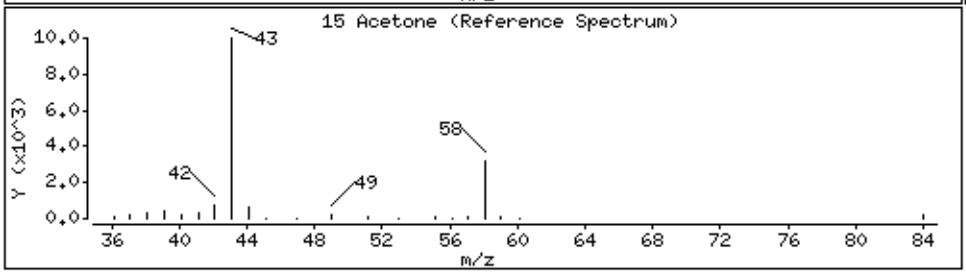
Concentration: 3.7 ug/l











Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Lab ID: WG306608-11
Client ID: Method Blank
SDG: SO6313
Lab File ID: W0219.D

Extract Date: 24-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306608
% Solids: NA

Analysis Date: 24-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	2.0	ug/L	1	2	2.0
Vinyl Chloride	U	2.0	ug/L	1	2	2.0
Bromomethane	U	2.0	ug/L	1	2	2.0
Chloroethane	U	2.0	ug/L	1	2	2.0
Trichlorofluoromethane	U	2.0	ug/L	1	2	2.0
1,1-Dichloroethene	U	1.0	ug/L	1	1	1.0
Carbon Disulfide	U	1.0	ug/L	1	1	1.0
Methylene Chloride	U	5.0	ug/L	1	5	5.0
trans-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
1,1-Dichloroethane	U	1.0	ug/L	1	1	1.0
cis-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
Chloroform	U	1.0	ug/L	1	1	1.0
Carbon Tetrachloride	U	1.0	ug/L	1	1	1.0
1,1,1-Trichloroethane	U	1.0	ug/L	1	1	1.0
2-Butanone	U	5.0	ug/L	1	5	5.0
Benzene	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethane	U	1.0	ug/L	1	1	1.0
Trichloroethene	U	1.0	ug/L	1	1	1.0
1,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Bromodichloromethane	U	1.0	ug/L	1	1	1.0
cis-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
Toluene	U	1.0	ug/L	1	1	1.0
4-Methyl-2-Pentanone	U	5.0	ug/L	1	5	5.0
Tetrachloroethene	U	1.0	ug/L	1	1	1.0
trans-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
1,1,2-Trichloroethane	U	1.0	ug/L	1	1	1.0
Dibromochloromethane	U	1.0	ug/L	1	1	1.0
Chlorobenzene	U	1.0	ug/L	1	1	1.0
Ethylbenzene	U	1.0	ug/L	1	1	1.0
m+p-Xylenes	U	2.0	ug/L	1	2	2.0
o-Xylene	U	1.0	ug/L	1	1	1.0
Bromoform	U	1.0	ug/L	1	1	1.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
P-Bromofluorobenzene		97.9	%			
Toluene-d8		102.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Lab ID: WG306608-11
Client ID: Method Blank
SDG: SO6313
Lab File ID: W0219.D

Extract Date: 24-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306608
% Solids: NA

Analysis Date: 24-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		104.	%			
Dibromofluoromethane		102.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Data File: \\target_server\gg\chem\gcms-w.i\W092421.b\W0219.D
Report Date: 12-Oct-2021 09:39

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-w.i\W092421.b\W0219.D
Lab Smp Id: WG306608-11 Client Smp ID: WG306608-Blank
Inj Date : 24-SEP-2021 15:08
Operator : ES Inst ID: gcms-w.i
Smp Info : WG306608-11,SO6313
Misc Info : WG306608,WG306608-4,SO6313-22
Comment : SW846 5030
Method : \\target_server\gg\chem\gcms-w.i\W092421.b\W8A05(08A).m
Meth Date : 08-Oct-2021 09:51 gcms-w.i Quant Type: ISTD
Cal Date : 24-SEP-2021 11:36 Cal File: W0215.D
Als bottle: 14 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.12

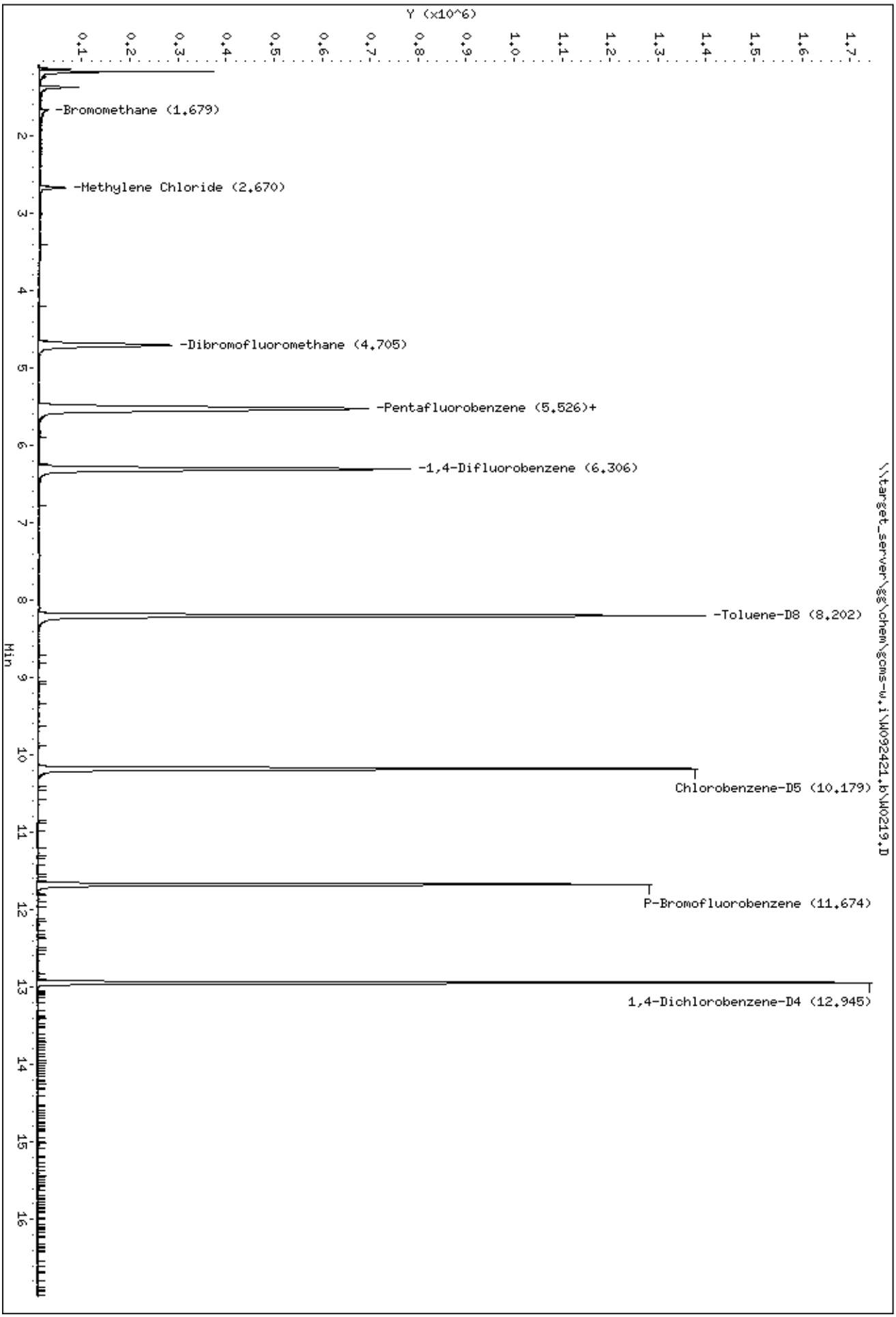
Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)	REVIEW CODE
4	Bromomethane	94	1.672	1.672	(0.303)	1982	0.78502	0.78(a)	
14	Methylene Chloride	84	2.670	2.673	(0.484)	22317	3.83739	3.8(a)	
$ 34	Dibromofluoromethane	113	4.704	4.714	(0.853)	258779	50.8423	50.8	
* 41	Pentafluorobenzene	168	5.513	5.520	(1.000)	503997	50.0000		
$ 42	1,2-Dichloroethane-D4	65	5.538	5.549	(1.005)	363264	51.8649	51.9	
* 48	1,4-Difluorobenzene	114	6.305	6.312	(1.000)	841520	50.0000		
$ 58	Toluene-D8	98	8.202	8.202	(1.301)	1026346	50.8313	50.8	
* 68	Chlorobenzene-D5	117	10.179	10.182	(1.000)	833089	50.0000		
$ 77	P-Bromofluorobenzene	95	11.674	11.674	(1.851)	431056	48.9559	49.0	
* 93	1,4-Dichlorobenzene-D4	152	12.945	12.942	(1.000)	427901	50.0000		

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).


Data File: \\target_server\gg\chem\gcms-w.i\W092421.b\W0219.D
Date : 24-SEP-2021 15:08
Client ID: WG306608-Blank
Sample Info: WG306608-11,S06313
Instrument: gcms-w.i
\\target_server\gg\chem\gcms-w.i\W092421.b\W0219.D
Y (x10^6)
Min
-Bromomethane (1.679)
-Methylene Chloride (2.670)
-Dibromofluoromethane (4.705)
-Pentafluorobenzene (5.526)+
-1,4-Difluorobenzene (6.306)
-Toluene-D8 (8.202)
Chlorobenzene-D5 (10.179)
P-Bromofluorobenzene (11.674)
1,4-Dichlorobenzene-D4 (12.945)

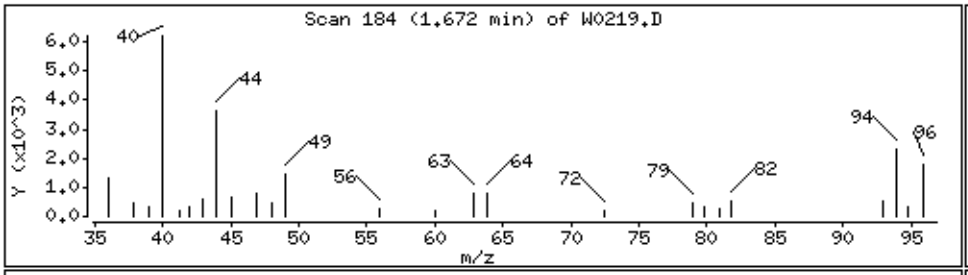
Data File: \\target_server\gg\chem\gcms-w.i\W092421.b\W0219.D

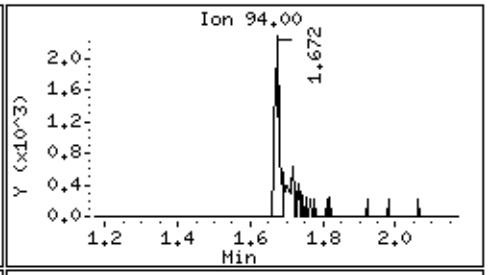
Date : 24-SEP-2021 15:08

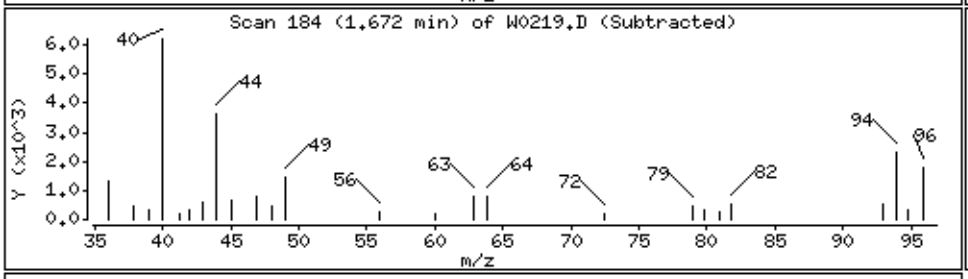
Client ID: WG306608-Blank Instrument: gcms-w.i

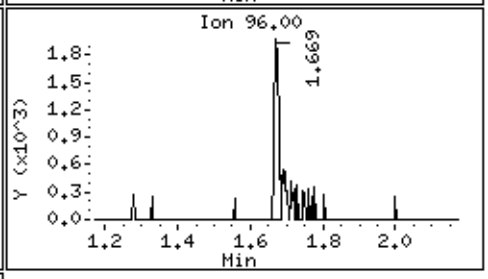
Sample Info: WG306608-11,SO6313

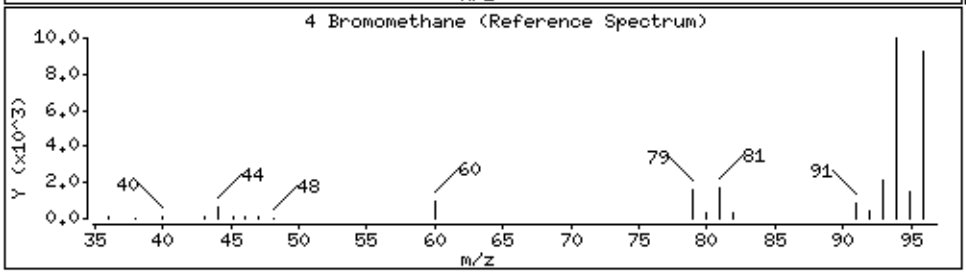
4 Bromomethane Concentration: 0.78 ug/l



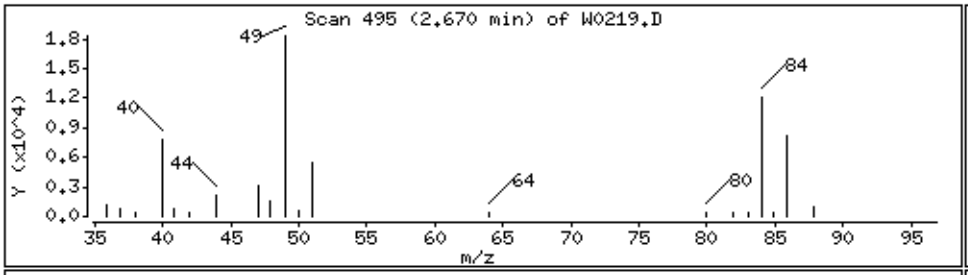


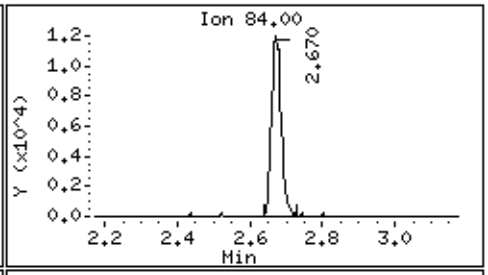


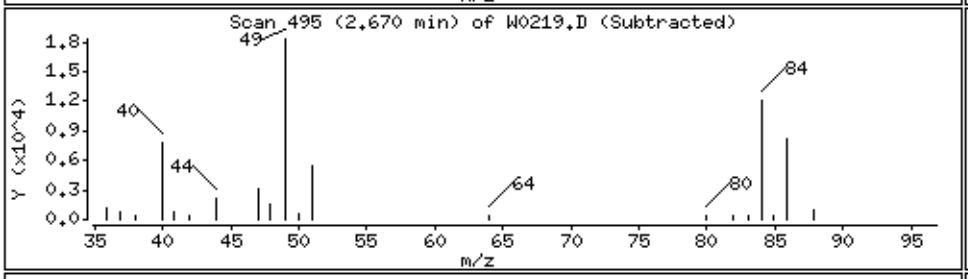


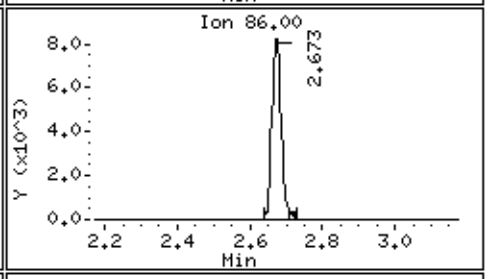


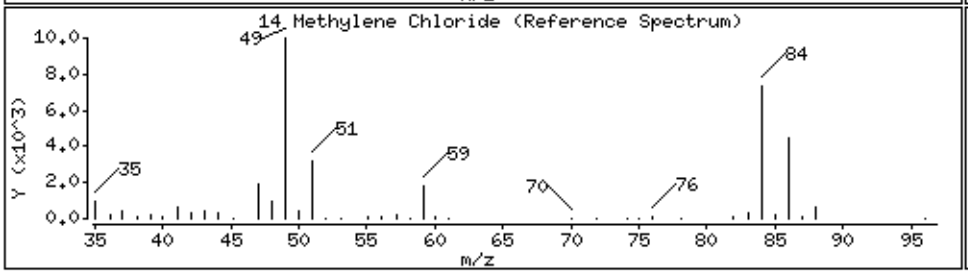
14 Methylene Chloride Concentration: 3.8 ug/l

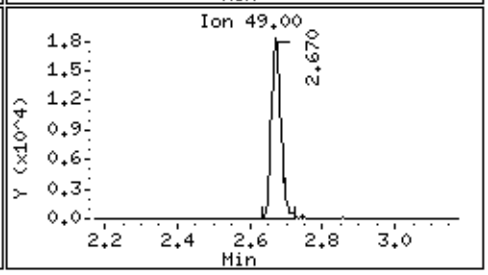












Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Lab ID: WG306817-11
Client ID: Method Blank
SDG: SO6313
Lab File ID: W0275.D

Extract Date: 28-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306817
% Solids: NA

Analysis Date: 28-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	2.0	ug/L	1	2	2.0
Vinyl Chloride	U	2.0	ug/L	1	2	2.0
Bromomethane	U	2.0	ug/L	1	2	2.0
Chloroethane	U	2.0	ug/L	1	2	2.0
Trichlorofluoromethane	U	2.0	ug/L	1	2	2.0
1,1-Dichloroethene	U	1.0	ug/L	1	1	1.0
Carbon Disulfide	U	1.0	ug/L	1	1	1.0
Methylene Chloride	U	5.0	ug/L	1	5	5.0
trans-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
1,1-Dichloroethane	U	1.0	ug/L	1	1	1.0
cis-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
Chloroform	U	1.0	ug/L	1	1	1.0
Carbon Tetrachloride	U	1.0	ug/L	1	1	1.0
1,1,1-Trichloroethane	U	1.0	ug/L	1	1	1.0
2-Butanone	U	5.0	ug/L	1	5	5.0
Benzene	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethane	U	1.0	ug/L	1	1	1.0
Trichloroethene	U	1.0	ug/L	1	1	1.0
1,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Bromodichloromethane	U	1.0	ug/L	1	1	1.0
cis-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
Toluene	U	1.0	ug/L	1	1	1.0
4-Methyl-2-Pentanone	U	5.0	ug/L	1	5	5.0
Tetrachloroethene	U	1.0	ug/L	1	1	1.0
trans-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
1,1,2-Trichloroethane	U	1.0	ug/L	1	1	1.0
Dibromochloromethane	U	1.0	ug/L	1	1	1.0
Chlorobenzene	U	1.0	ug/L	1	1	1.0
Ethylbenzene	U	1.0	ug/L	1	1	1.0
m+p-Xylenes	U	2.0	ug/L	1	2	2.0
o-Xylene	U	1.0	ug/L	1	1	1.0
Bromoform	U	1.0	ug/L	1	1	1.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
P-Bromofluorobenzene		97.1	%			
Toluene-d8		101.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Lab ID: WG306817-11
Client ID: Method Blank
SDG: SO6313
Lab File ID: W0275.D

Extract Date: 28-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306817
% Solids: NA

Analysis Date: 28-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ
Report Date: 12-OCT-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		100.	%			
Dibromofluoromethane		102.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Data File: \\target_server\gg\chem\gcms-w.i\W092821B.b\W0275.D
Report Date: 12-Oct-2021 09:39

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-w.i\W092821B.b\W0275.D
Lab Smp Id: WG306817-11 Client Smp ID: WG306817-Blank
Inj Date : 28-SEP-2021 16:10
Operator : ES Inst ID: gcms-w.i
Smp Info : WG306817-11,SO6313
Misc Info : WG306817,WG306817-4,SO6313-4
Comment : SW846 5030
Method : \\target_server\gg\chem\gcms-w.i\W092821B.b\W8A05(09).m
Meth Date : 01-Oct-2021 17:40 HGOULD Quant Type: ISTD
Cal Date : 28-SEP-2021 12:38 Cal File: W0268.D
Als bottle: 12 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.12
Processing Host: ORGANICS2

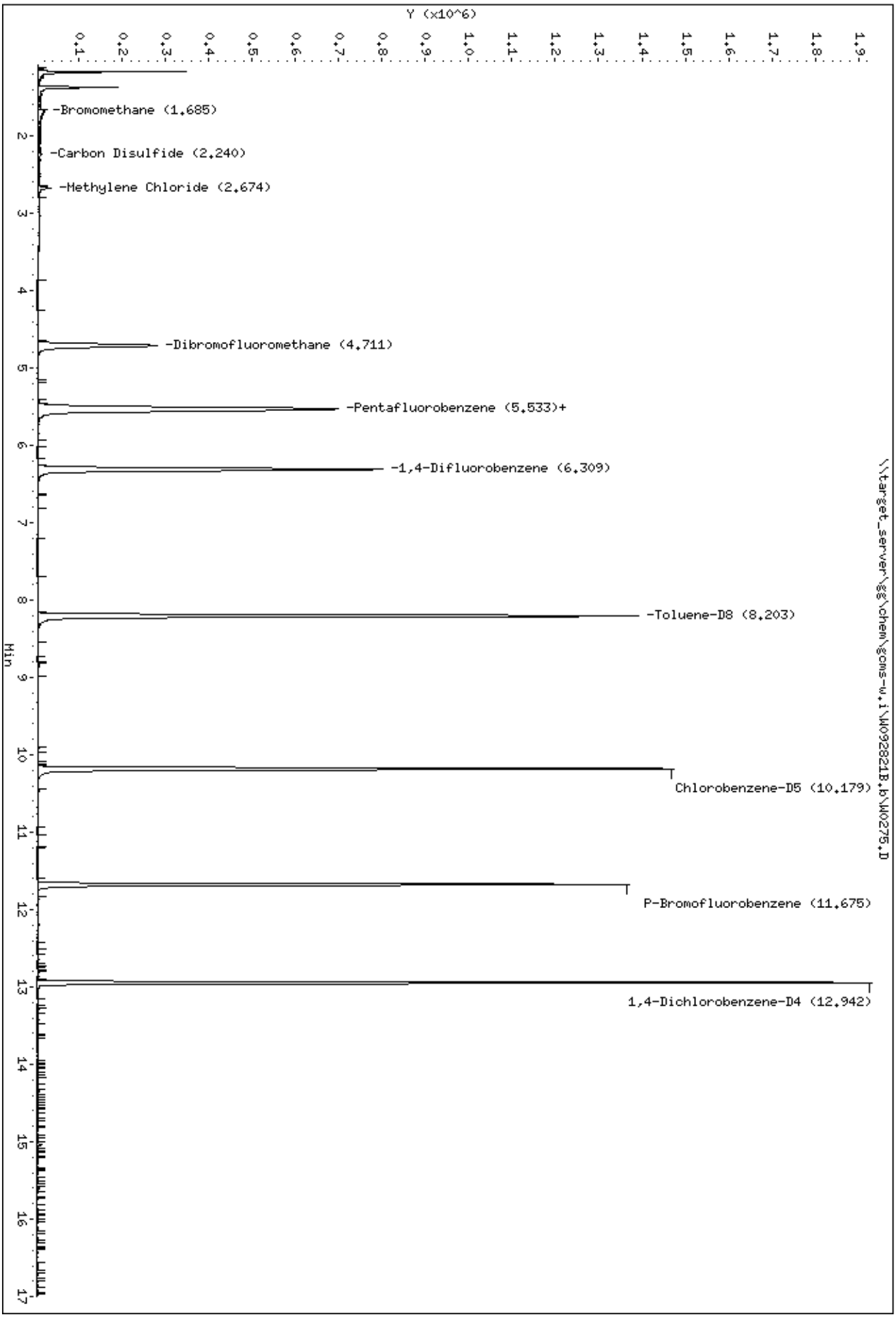
Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)	REVIEW CODE
	4 Bromomethane	94	1.678	1.672	(0.304)	1935	1.08785	1.1	
	10 Carbon Disulfide	76	2.240	2.240	(0.406)	4749	0.32141	0.32(a)	
	14 Methylene Chloride	84	2.676	2.677	(0.485)	10371	1.68736	1.7(a)	
$	34 Dibromofluoromethane	113	4.711	4.711	(0.853)	271224	50.8870	50.9	
*	41 Pentafluorobenzene	168	5.523	5.529	(1.000)	526454	50.0000		
$	42 1,2-Dichloroethane-D4	65	5.545	5.545	(1.004)	361373	50.2862	50.3	
*	48 1,4-Difluorobenzene	114	6.309	6.315	(1.000)	884723	50.0000		
$	58 Toluene-D8	98	8.202	8.205	(1.300)	1075403	50.6123	50.6	
*	68 Chlorobenzene-D5	117	10.179	10.182	(1.000)	884288	50.0000		
$	77 P-Bromofluorobenzene	95	11.674	11.677	(1.850)	463539	48.5424	48.5	
*	93 1,4-Dichlorobenzene-D4	152	12.945	12.942	(1.000)	471039	50.0000		

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).


Data File: \\target_server\gg\chem\gcms-w.i\W092821B.b\W0275.D
Date : 28-SEP-2021 16:10
Client ID: WG306817-Blank
Sample Info: WG306817-11,S06313
Instrument: gcms-w.i
\\target_server\gg\chem\gcms-w.i\W092821B.b\W0275.D
Y (x10^6)
Min
-Bromomethane (1.685)
-Carbon Disulfide (2.240)
-Methylene Chloride (2.674)
-Dibromofluoromethane (4.711)
-Pentafluorobenzene (5.533)+
-1,4-Difluorobenzene (6.309)
-Toluene-D8 (8.203)
Chlorobenzene-D5 (10.179)
P-Bromofluorobenzene (11.675)
1,4-Dichlorobenzene-D4 (12.942)

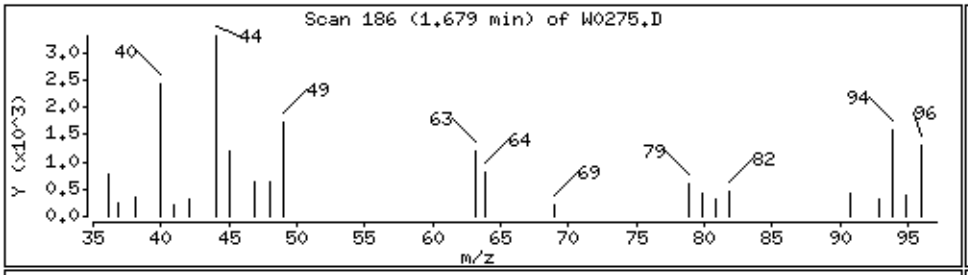
Data File: \\target_server\gg\chem\gcms-w.i\W092821B.b\W0275.D

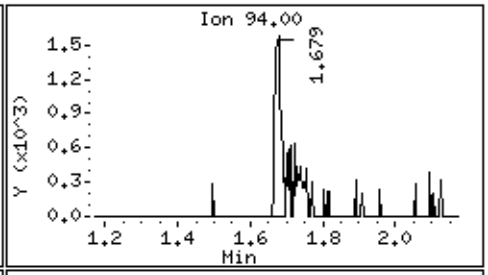
Date : 28-SEP-2021 16:10

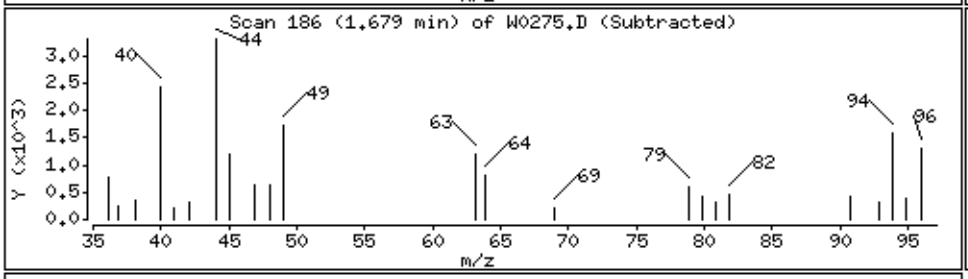
Client ID: WG306817-Blank Instrument: gcms-w.i

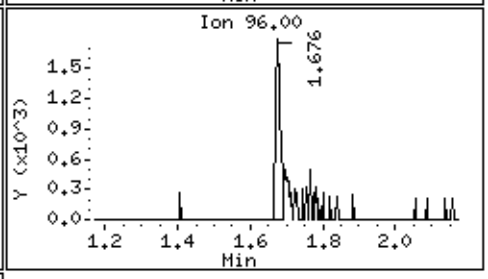
Sample Info: WG306817-11,SO6313

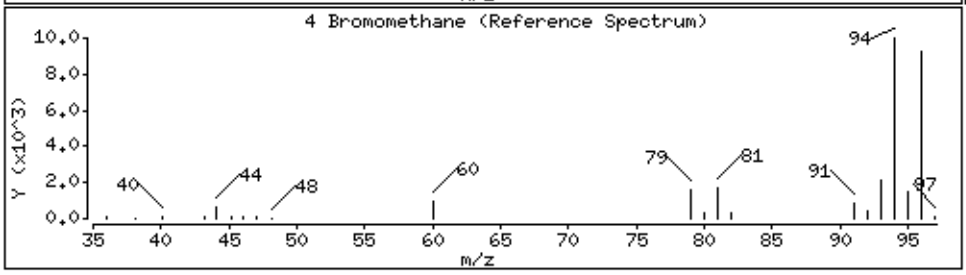
4 Bromomethane Concentration: 1.1 ug/l



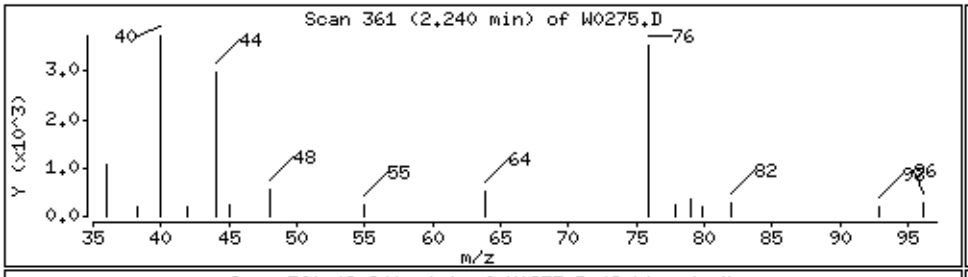


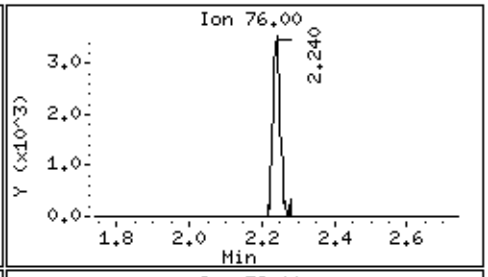


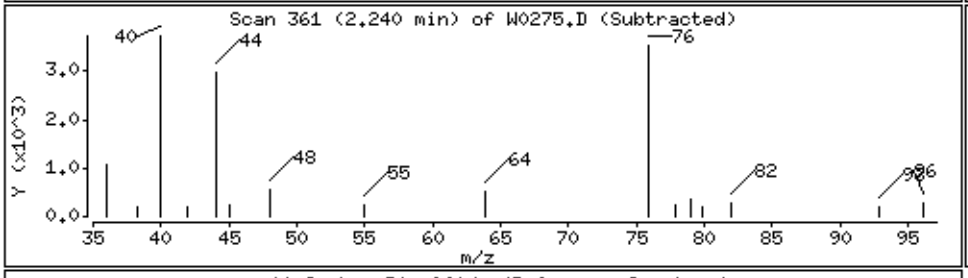


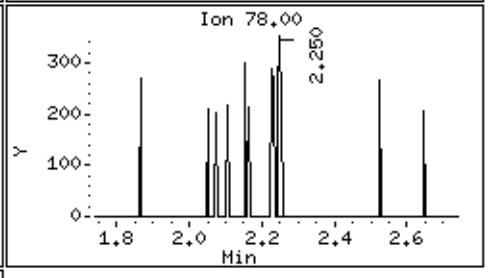


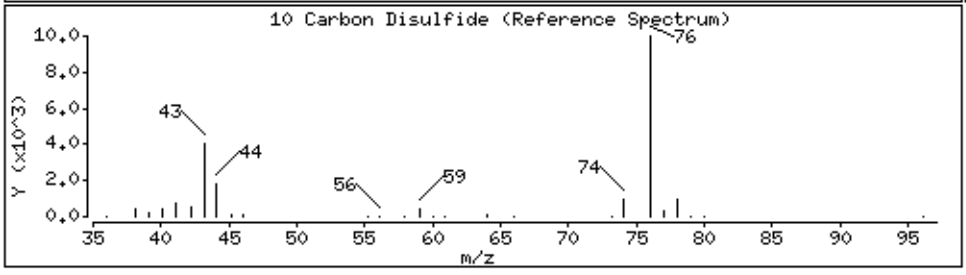
10 Carbon Disulfide Concentration: 0.32 ug/l











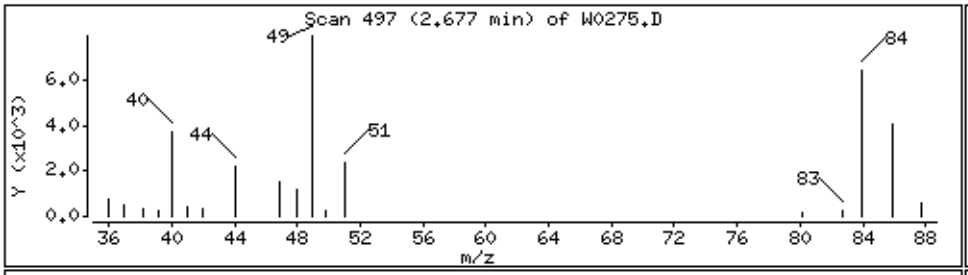
Data File: \\target_server\gg\chem\gcms-w.i\W092821B.b\W0275.D

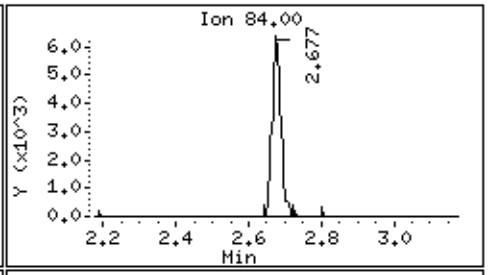
Date : 28-SEP-2021 16:10

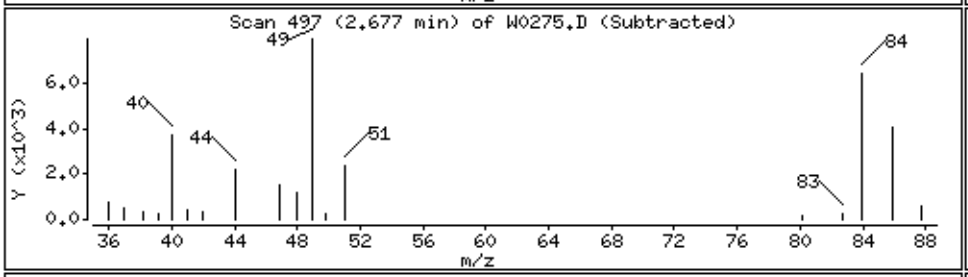
Client ID: WG306817-Blank Instrument: gcms-w.i

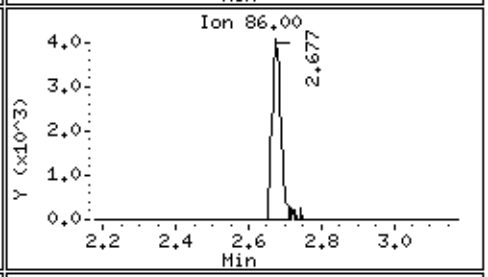
Sample Info: WG306817-11,SO6313

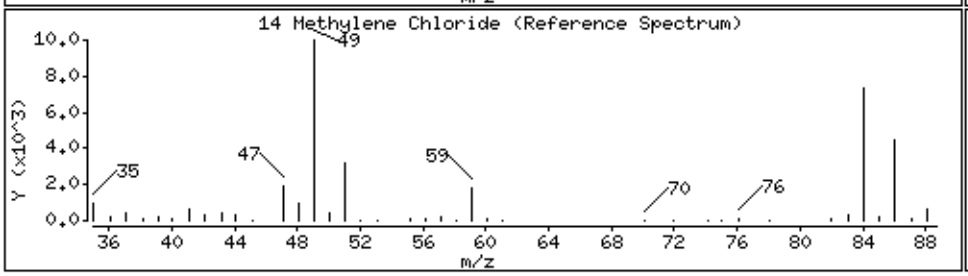
14 Methylene Chloride Concentration: 1.7 ug/l

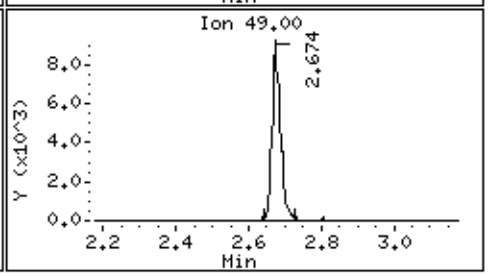












Katahdin
ANALYTICAL SERVICES

LCS Recovery Report

Lab ID: WG306383-1
Client ID: LCS
SDG: SO6313
LCS File ID: W0124.D
Report Date: 11-OCT-21

Extract Date: 21-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306383

Analysis Date: 21-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ

Compound	Recovery (%)	Conc Added	Conc Recovered	Conc Units	Limits
Chloromethane	97.8	50.0	48.9	ug/L	59-123
Vinyl Chloride	106.	50.0	53.0	ug/L	64-131
Bromomethane	59.4	50.0	29.7	ug/L	57-135
Chloroethane	133.	50.0	66.5	ug/L	53-157
Trichlorofluoromethane	115.	50.0	57.5	ug/L	70-149
1,1-Dichloroethene	88.4	50.0	44.2	ug/L	88-127
Carbon Disulfide	86.2	50.0	43.1	ug/L	71-129
Methylene Chloride	100.	50.0	50.2	ug/L	72-129
trans-1,2-Dichloroethene	92.6	50.0	46.3	ug/L	78-125
1,1-Dichloroethane	95.6	50.0	47.8	ug/L	76-130
cis-1,2-Dichloroethene	93.8	50.0	46.9	ug/L	85-123
Chloroform	92.4	50.0	46.2	ug/L	78-128
Carbon Tetrachloride	100.	50.0	50.2	ug/L	87-126
1,1,1-Trichloroethane	92.2	50.0	46.1	ug/L	77-129
2-Butanone	91.2	50.0	45.6	ug/L	71-132
Benzene	95.6	50.0	47.8	ug/L	86-116
1,2-Dichloroethane	97.4	50.0	48.7	ug/L	81-125
Trichloroethene	94.0	50.0	47.0	ug/L	79-121
1,2-Dichloropropane	96.0	50.0	48.0	ug/L	84-118
Bromodichloromethane	99.4	50.0	49.7	ug/L	85-122
cis-1,3-Dichloropropene	104.	50.0	52.1	ug/L	83-119
Toluene	95.0	50.0	47.5	ug/L	84-118
4-Methyl-2-Pentanone	99.6	50.0	49.8	ug/L	83-122
Tetrachloroethene	89.4	50.0	44.7	ug/L	47-155
trans-1,3-Dichloropropene	105.	50.0	52.6	ug/L	85-135
1,1,2-Trichloroethane	98.8	50.0	49.4	ug/L	84-115
Dibromochloromethane	99.4	50.0	49.7	ug/L	85-119
Chlorobenzene	93.6	50.0	46.8	ug/L	89-113
Ethylbenzene	97.4	50.0	48.7	ug/L	88-113
m+p-Xylenes	101.	100.	101.	ug/L	88-116
o-Xylene	101.	50.0	50.7	ug/L	90-116
Bromoform	96.8	50.0	48.4	ug/L	86-117
1,1,2,2-Tetrachloroethane	98.6	50.0	49.3	ug/L	79-121
P-Bromofluorobenzene	101.				56-133
Toluene-d8	99.2				65-128
1,2-Dichloroethane-d4	102.				67-135

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

LCS Recovery Report

Lab ID: WG306383-1
Client ID: LCS
SDG: SO6313
LCS File ID: W0124.D
Report Date: 11-OCT-21

Extract Date: 21-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306383

Analysis Date: 21-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ

Compound	Recovery (%)	Conc Added	Conc Recovered	Conc Units	Limits
Dibromofluoromethane	99.8				68-128

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Data File: \\target_server\gg\chem\gcms-w.i\W092121.b\W0124.D
Report Date: 11-Oct-2021 12:58

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-w.i\W092121.b\W0124.D
Lab Smp Id: WG306383-1
Inj Date : 21-SEP-2021 07:49
Operator : ES   Inst ID: gcms-w.i
Smp Info : WG306383-1,SO6313
Misc Info : WG306383,WG306383-4,SO6313-1
Comment   : SW846 5030
Method   : \\target_server\gg\chem\gcms-w.i\W092121.b\W8A05(08).m
Meth Date : 11-Oct-2021 12:27 gcms-w.i   Quant Type: ISTD
Cal Date : 20-SEP-2021 11:30   Cal File: W0105.D
Als bottle: 2   QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE   Compound Sublist: all.sub
Target Version: 4.12

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)	REVIEW CODE
1	Dichlorodifluoromethane	85	1.277	1.277	(0.231)	317774	63.9085	63.9	
2	Chloromethane	50	1.412	1.412	(0.256)	387152	48.8988	48.9	
3	Vinyl chloride	62	1.460	1.460	(0.264)	373484	52.9950	53.0	
4	Bromomethane	94	1.672	1.672	(0.303)	94529	29.7051	29.7	
5	Chloroethane	64	1.755	1.752	(0.318)	216999	66.5454	66.5	
6	Trichlorofluoromethane	101	1.848	1.849	(0.335)	571423	57.5337	57.5	
7	Diethyl Ether	59	2.060	2.060	(0.373)	283538	53.7041	53.7	
8	1,1-Dichloroethene	96	2.214	2.211	(0.401)	283026	44.2518	44.2	
9	Freon-113	151	2.240	2.237	(0.405)	250486	52.2166	52.2	
10	Carbon Disulfide	76	2.240	2.240	(0.405)	686700	43.0709	43.1	
11	Iodomethane	142	2.326	2.327	(0.421)	139573	28.2445	28.2	
12	Acrolein	56	2.477	2.478	(0.448)	118550	244.729	245	
13	Allyl Chloride	41	2.586	2.584	(0.468)	528833	54.4776	54.5	
14	Methylene Chloride	84	2.676	2.677	(0.484)	317330	50.2015	50.2	
15	Acetone	43	2.721	2.725	(0.492)	101682	57.2115	57.2	
16	trans-1,2-Dichloroethene	96	2.814	2.815	(0.509)	314716	46.3381	46.3	
17	Methyl Acetate	43	2.830	2.827	(0.512)	238649	40.5203	40.5	
18	Methyl tert-butyl ether	73	2.910	2.914	(0.527)	838454	47.0148	47.0	
19	Tertiary-butyl alcohol	59	3.013	3.017	(0.545)	123117	229.475	229	
20	Acetonitrile	41	3.164	3.164	(0.573)	400002	479.636	480	
21	Di-isopropyl ether	45	3.286	3.289	(0.595)	1110991	52.8718	52.9	
22	Chloroprene	53	3.392	3.389	(0.614)	582906	51.2270	51.2	
23	1,1-Dichloroethane	63	3.417	3.418	(0.619)	618403	47.7859	47.8	
24	Acrylonitrile	52	3.488	3.488	(0.631)	499694	243.775	244	

Data File: \\target_server\gg\chem\gcms-w.i\W092121.b\W0124.D
Report Date: 11-Oct-2021 12:58

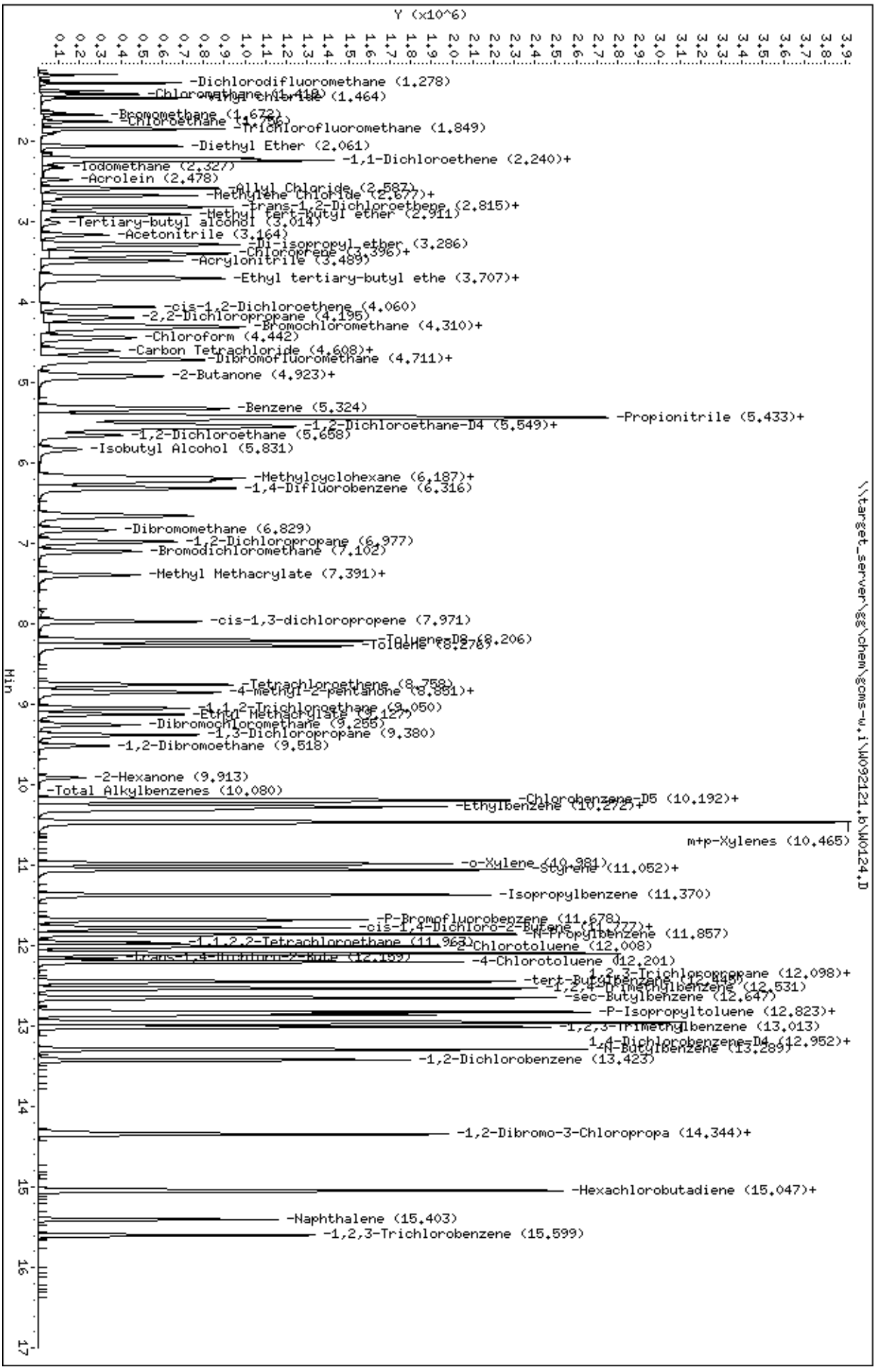
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)	REVIEW CODE
	25 Ethyl tertiary-butyl ether	59	3.697	3.694	(0.669)	912795	50.1250	50.1	
	26 Vinyl Acetate	43	3.719	3.716	(0.589)	747477	79.2656	79.3(R)	
	27 cis-1,2-Dichloroethene	96	4.056	4.056	(0.734)	339116	46.8816	46.9	
	28 2,2-Dichloropropane	77	4.197	4.191	(0.760)	426627	42.9366	42.9	
	29 Bromochloromethane	128	4.322	4.325	(0.782)	154947	50.9812	51.0	
	30 Cyclohexane	56	4.303	4.300	(0.779)	585970	48.1604	48.2	
	31 Chloroform	83	4.441	4.445	(0.804)	569488	46.1757	46.2	
	32 Carbon Tetrachloride	117	4.611	4.605	(0.731)	413158	50.2341	50.2	
	33 Tetrahydrofuran	42	4.682	4.673	(0.847)	101783	43.1791	43.2	
$	34 Dibromofluoromethane	113	4.711	4.714	(0.853)	320582	49.9081	49.9	
	35 1,1,1-Trichloroethane	97	4.720	4.721	(0.854)	509287	46.1386	46.1	
	36 2-Butanone	43	4.945	4.939	(0.895)	138871	45.6409	45.6	
	37 1,1-Dichloropropene	75	4.922	4.920	(0.780)	469451	48.1948	48.2	
	38 Benzene	78	5.324	5.321	(0.843)	1279293	47.8005	47.8	
	39 Propionitrile	54	5.410	5.411	(0.979)	450812	499.750	500	
	40 Methacrylonitrile	41	5.439	5.436	(0.984)	2097435	529.143	529	
*	41 Pentafluorobenzene	168	5.526	5.526	(1.000)	641343	50.0000		
$	42 1,2-Dichloroethane-D4	65	5.548	5.549	(1.004)	426678	50.9968	51.0	
	43 Tertiary-amyl methyl ether	73	5.561	5.561	(1.006)	712950	49.7677	49.8	
	44 1,2-Dichloroethane	62	5.657	5.658	(0.896)	471708	48.7216	48.7	
	45 Isobutyl Alcohol	43	5.831	5.834	(1.055)	212045	917.965	918	
	46 Methylcyclohexane	83	6.187	6.184	(1.120)	609132	51.7298	51.7	
	47 Trichloroethene	95	6.229	6.226	(0.987)	314387	47.0211	47.0	
*	48 1,4-Difluorobenzene	114	6.312	6.315	(1.000)	1053691	50.0000		
	49 Dibromomethane	93	6.829	6.832	(1.082)	191613	47.0327	47.0	
	50 1,2-Dichloropropane	63	6.983	6.977	(1.106)	331846	47.9900	48.0	
	51 Bromodichloromethane	83	7.098	7.102	(1.125)	431541	49.7003	49.7	
	52 Methyl Methacrylate	41	7.387	7.390	(1.170)	298814	54.4352	54.4	
	53 Ethyl Methacrylate	69	9.123	9.123	(1.445)	391610	47.4946	47.5	
	54 1,4-Dioxane	88	7.413	7.407	(1.174)	62549	720.792	721	
M	55 Total Alkylbenzenes	100				10455652	352.426	352	
	57 cis-1,3-dichloropropene	75	7.971	7.971	(1.263)	528724	52.0869	52.1	
$	58 Toluene-D8	98	8.208	8.209	(1.300)	1250432	49.6209	49.6	
	59 Toluene	92	8.269	8.273	(1.310)	799793	47.4868	47.5	
	60 Tetrachloroethene	164	8.757	8.754	(0.860)	263046	44.7094	44.7	
	61 4-methyl-2-pentanone	43	8.834	8.831	(1.400)	280541	49.8575	49.8	
	62 trans-1,3-Dichloropropene	75	8.853	8.857	(1.403)	467459	52.5884	52.6	
	63 1,1,2-Trichloroethane	83	9.046	9.049	(1.433)	232497	49.4247	49.4	
	64 Dibromochloromethane	129	9.255	9.255	(0.909)	309684	49.7495	49.7	
	65 1,3-Dichloropropane	76	9.380	9.380	(0.921)	510670	48.6896	48.7	
	66 1,2-Dibromoethane	107	9.514	9.518	(1.507)	276534	49.1058	49.1	
	67 2-Hexanone	43	9.912	9.906	(0.974)	182944	48.7899	48.8	
*	68 Chlorobenzene-D5	117	10.182	10.182	(1.000)	1023793	50.0000		
	69 Chlorobenzene	112	10.201	10.201	(1.002)	891040	46.7726	46.8	
	70 Ethylbenzene	91	10.272	10.272	(1.009)	1568600	48.6939	48.7	
	71 1,1,1,2-Tetrachloroethane	131	10.304	10.304	(1.012)	316590	51.3280	51.3	
	72 m+p-Xylenes	91	10.464	10.465	(1.028)	2400110	101.161	101	
	73 o-Xylene	91	10.981	10.981	(1.078)	1244587	50.7356	50.7	
	74 Styrene	104	11.048	11.052	(1.085)	1004489	51.2340	51.2	
	75 Bromoform	173	11.051	11.052	(1.085)	202331	48.3607	48.4	
	76 Isopropylbenzene	105	11.369	11.370	(0.878)	1557605	49.1943	49.2	
$	77 P-Bromofluorobenzene	95	11.677	11.678	(1.850)	531562	50.4123	50.4	
	78 cis-1,4-Dichloro-2-Butene	53	11.790	11.790	(0.911)	85380	36.3709	36.4	
	79 Bromobenzene	156	11.777	11.777	(0.910)	378354	47.6117	47.6	

Data File: \\target_server\gg\chem\gcms-w.i\W092121.b\W0124.D
Report Date: 11-Oct-2021 12:58

			QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)	REVIEW CODE
	80	N-Propylbenzene	91	11.857	11.857	(0.916)	1900947	49.5560	49.6	
	81	1,1,2,2-Tetrachloroethane	83	11.963	11.963	(0.924)	349691	49.2812	49.3	
	82	2-Chlorotoluene	91	12.008	12.005	(0.928)	1103176	48.0931	48.1	
	83	1,2,3-Trichloropropane	75	12.085	12.088	(0.934)	304803	47.9408	47.9	
	84	1,3,5-Trimethylbenzene	105	12.098	12.098	(0.935)	1308480	50.0506	50.0	
	85	trans-1,4-Dichloro-2-Butene	53	12.159	12.159	(0.939)	87856	41.3478	41.3	
	86	4-Chlorotoluene	91	12.200	12.204	(0.942)	1165917	49.1045	49.1	
	87	tert-Butylbenzene	119	12.444	12.448	(0.961)	1153349	48.4095	48.4	
	89	1,2,4-Trimethylbenzene	105	12.531	12.531	(0.968)	1335985	49.5505	49.6	
	90	sec-Butylbenzene	105	12.646	12.647	(0.977)	1765426	50.5228	50.5	
	91	P-Isopropyltoluene	119	12.823	12.823	(0.991)	1521400	51.0403	51.0	
	92	1,3-Dichlorobenzene	146	12.858	12.858	(0.993)	758591	48.3399	48.3	
*	93	1,4-Dichlorobenzene-D4	152	12.945	12.948	(1.000)	575651	50.0000		
	94	1,4-Dichlorobenzene	146	12.964	12.964	(1.001)	772899	47.6692	47.7	
	95	1,2,3-Trimethylbenzene	105	13.012	13.012	(1.005)	1378083	51.1885	51.2	
	96	N-Butylbenzene	91	13.288	13.288	(1.027)	1470065	53.2962	53.3	
M	97	1,2-Dichloroethylene (total)	96				653832	93.2197	93.2	
	98	1,2-Dichlorobenzene	146	13.423	13.420	(1.037)	715016	49.0781	49.1	
	99	1,2-Dibromo-3-Chloropropane	157	14.312	14.315	(1.106)	64625	45.1008	45.1	
	100	1,3,5-Trichlorobenzene	180	14.344	14.344	(1.108)	580235	50.9877	51.0	
	101	Hexachlorobutadiene	225	15.037	15.037	(1.162)	263221	47.5623	47.6	
	102	1,2,4-Trichlorobenzene	180	15.050	15.050	(1.163)	467264	47.4236	47.4	
	103	Naphthalene	128	15.403	15.403	(1.190)	837187	46.7826	46.8	
	104	1,2,3-Trichlorobenzene	180	15.599	15.599	(1.205)	373332	51.5517	51.6	
M	105	Xylenes (total)	106				3644697	151.896	152	

QC Flag Legend

R - Spike/Surrogate failed recovery limits.



Data File: \\target_server\gg\chem\gcms-w.i\W092121.b\W0124.D
Date : 21-SEP-2021 07:49
Client ID:
Sample Info: WG306383-1,SD6313
Purge Volume: 5.0
Column phase: RTX-VMS

Instrument: gcms-w.i
Operator: ES
Column diameter: 0.18

Katahdin
ANALYTICAL SERVICES

LCS Recovery Report

Lab ID: WG306464-1
Client ID: LCS
SDG: SO6313
LCS File ID: W0146.D
Report Date: 11-OCT-21

Extract Date: 22-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306464

Analysis Date: 22-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ

Compound	Recovery (%)	Conc Added	Conc Recovered	Conc Units	Limits
Chloromethane	102.	50.0	50.8	ug/L	59-123
Vinyl Chloride	110.	50.0	55.0	ug/L	64-131
Bromomethane	* 53.0	50.0	26.5	ug/L	57-135
Chloroethane	144.	50.0	71.9	ug/L	53-157
Trichlorofluoromethane	120.	50.0	60.1	ug/L	70-149
1,1-Dichloroethene	88.6	50.0	44.3	ug/L	88-127
Carbon Disulfide	88.0	50.0	44.0	ug/L	71-129
Methylene Chloride	105.	50.0	52.6	ug/L	72-129
trans-1,2-Dichloroethene	94.2	50.0	47.1	ug/L	78-125
1,1-Dichloroethane	98.6	50.0	49.3	ug/L	76-130
cis-1,2-Dichloroethene	88.4	50.0	44.2	ug/L	85-123
Chloroform	92.6	50.0	46.3	ug/L	78-128
Carbon Tetrachloride	99.4	50.0	49.7	ug/L	87-126
1,1,1-Trichloroethane	92.2	50.0	46.1	ug/L	77-129
2-Butanone	77.6	50.0	38.8	ug/L	71-132
Benzene	94.4	50.0	47.2	ug/L	86-116
1,2-Dichloroethane	98.2	50.0	49.1	ug/L	81-125
Trichloroethene	94.8	50.0	47.4	ug/L	79-121
1,2-Dichloropropane	95.2	50.0	47.6	ug/L	84-118
Bromodichloromethane	97.8	50.0	48.9	ug/L	85-122
cis-1,3-Dichloropropene	99.8	50.0	49.9	ug/L	83-119
Toluene	92.6	50.0	46.3	ug/L	84-118
4-Methyl-2-Pentanone	90.6	50.0	45.3	ug/L	83-122
Tetrachloroethene	86.4	50.0	43.2	ug/L	47-155
trans-1,3-Dichloropropene	98.8	50.0	49.4	ug/L	85-135
1,1,2-Trichloroethane	94.2	50.0	47.1	ug/L	84-115
Dibromochloromethane	93.4	50.0	46.7	ug/L	85-119
Chlorobenzene	92.0	50.0	46.0	ug/L	89-113
Ethylbenzene	97.2	50.0	48.6	ug/L	88-113
m+p-Xylenes	100.	100.	100.	ug/L	88-116
o-Xylene	99.6	50.0	49.8	ug/L	90-116
Bromoform	87.2	50.0	43.6	ug/L	86-117
1,1,2,2-Tetrachloroethane	91.2	50.0	45.6	ug/L	79-121
P-Bromofluorobenzene	102.				56-133
Toluene-d8	99.8				65-128
1,2-Dichloroethane-d4	102.				67-135

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

LCS Recovery Report

Lab ID: WG306464-1
Client ID: LCS
SDG: SO6313
LCS File ID: W0146.D
Report Date: 11-OCT-21

Extract Date: 22-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306464

Analysis Date: 22-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ

Compound	Recovery (%)	Conc Added	Conc Recovered	Conc Units	Limits
Dibromofluoromethane	101.				68-128

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://www.katahdinlab.com

Data File: \\target_server\gg\chem\gcms-w.i\W092221.b\W0146.D
Report Date: 11-Oct-2021 13:15

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-w.i\W092221.b\W0146.D
Lab Smp Id: WG306464-1
Inj Date : 22-SEP-2021 07:29
Operator : ES   Inst ID: gcms-w.i
Smp Info : WG306464-1,SO6313
Misc Info : WG306464,WG306464-4,SO6313-13
Comment   : SW846 5030
Method   : \\target_server\gg\chem\gcms-w.i\W092221.b\W8A05(08).m
Meth Date : 11-Oct-2021 13:03 hgould   Quant Type: ISTD
Cal Date : 20-SEP-2021 11:30   Cal File: W0105.D
Als bottle: 2   QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE   Compound Sublist: all.sub
Target Version: 4.12

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)	REVIEW CODE
1	Dichlorodifluoromethane	85	1.277	1.277	(0.231)	293964	64.6835	64.7	
2	Chloromethane	50	1.409	1.412	(0.255)	367280	50.7543	50.8	
3	Vinyl chloride	62	1.460	1.460	(0.264)	354168	54.9834	55.0	
4	Bromomethane	94	1.672	1.672	(0.303)	78012	26.5149	26.5(R)	
5	Chloroethane	64	1.755	1.752	(0.318)	210414	71.9356	71.9	
6	Trichlorofluoromethane	101	1.848	1.849	(0.335)	545946	60.1413	60.1	
7	Diethyl Ether	59	2.060	2.060	(0.373)	254490	52.7383	52.7	
8	1,1-Dichloroethene	96	2.211	2.211	(0.400)	259160	44.3334	44.3	
9	Freon-113	151	2.237	2.237	(0.405)	231680	52.8411	52.8	
10	Carbon Disulfide	76	2.240	2.240	(0.406)	641097	43.9946	44.0	
11	Iodomethane	142	2.327	2.327	(0.421)	131031	28.9898	29.0	
12	Acrolein	56	2.474	2.478	(0.448)	102018	230.419	230	
13	Allyl Chloride	41	2.583	2.584	(0.468)	501206	56.4904	56.5	
14	Methylene Chloride	84	2.676	2.677	(0.485)	303671	52.5615	52.6	
15	Acetone	43	2.721	2.725	(0.493)	90877	55.9626	56.0	
16	trans-1,2-Dichloroethene	96	2.811	2.815	(0.509)	292615	47.1384	47.1	
17	Methyl Acetate	43	2.827	2.827	(0.512)	209431	38.9057	38.9	
18	Methyl tert-butyl ether	73	2.911	2.914	(0.527)	649789	39.8645	39.9(R)	
19	Tertiary-butyl alcohol	59	3.010	3.017	(0.545)	83466	170.210	170	
20	Acetonitrile	41	3.161	3.164	(0.572)	360592	473.069	473	
21	Di-isopropyl ether	45	3.280	3.289	(0.594)	1034020	53.8395	53.8	
22	Chloroprene	53	3.389	3.389	(0.614)	554040	53.2721	53.3	
23	1,1-Dichloroethane	63	3.414	3.418	(0.618)	583179	49.3048	49.3	
24	Acrylonitrile	52	3.485	3.488	(0.631)	442116	235.983	236	

Data File: \\target_server\gg\chem\gcms-w.i\W092221.b\W0146.D
Report Date: 11-Oct-2021 13:15

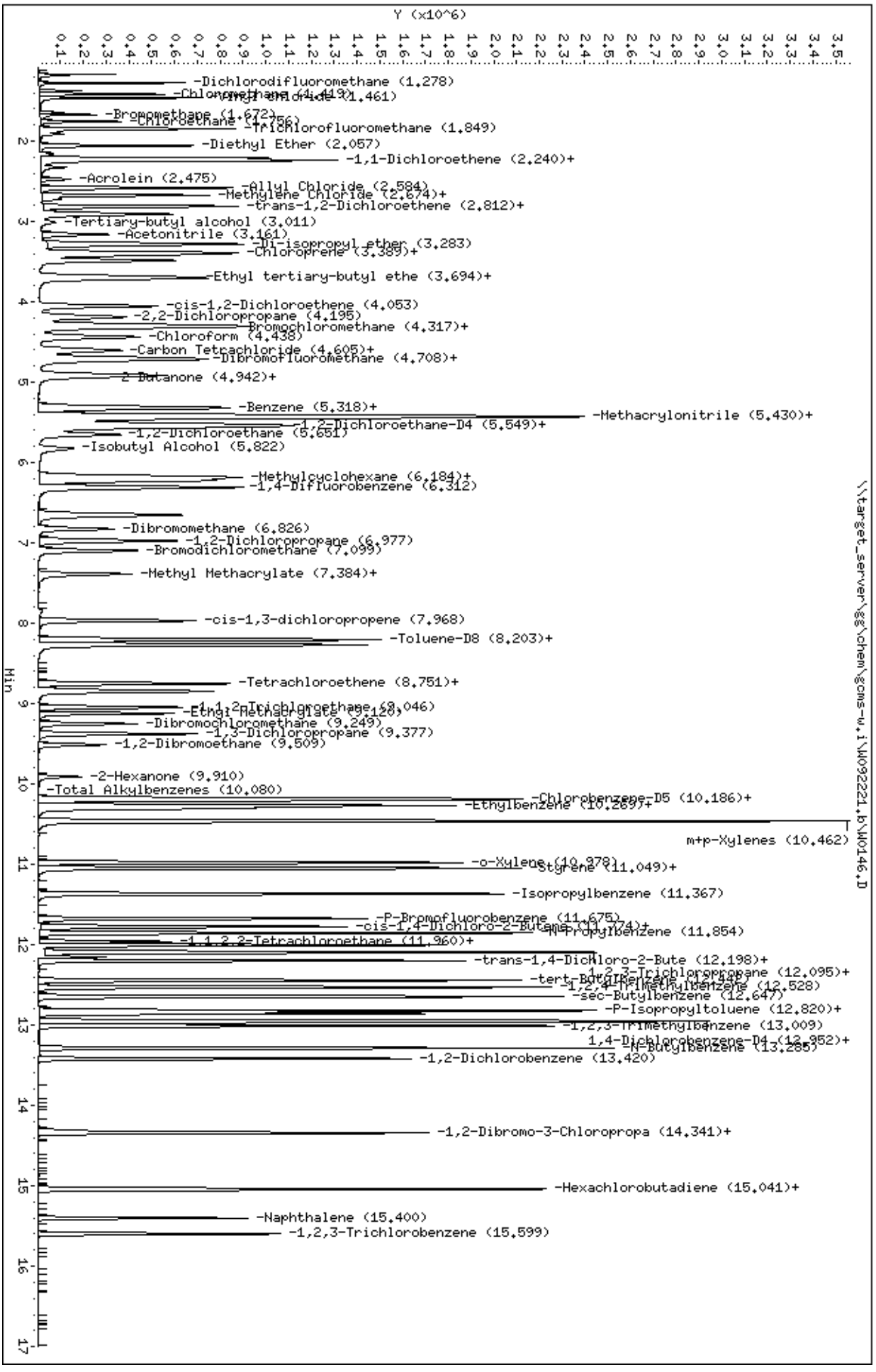
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)	REVIEW CODE
	25 Ethyl tertiary-butyl ether	59	3.694	3.694	(0.669)	724497	43.5288	43.5	
	26 Vinyl Acetate	43	3.713	3.716	(0.588)	637219	73.9168	73.9(R)	
	27 cis-1,2-Dichloroethene	96	4.053	4.056	(0.734)	292316	44.2145	44.2	
	28 2,2-Dichloropropane	77	4.194	4.191	(0.759)	338051	37.2238	37.2	
	29 Bromochloromethane	128	4.316	4.325	(0.782)	139013	50.0428	50.0	
	30 Cyclohexane	56	4.300	4.300	(0.779)	534889	48.0991	48.1	
	31 Chloroform	83	4.438	4.445	(0.804)	521986	46.3070	46.3	
	32 Carbon Tetrachloride	117	4.605	4.605	(0.730)	373624	49.6918	49.7	
	33 Tetrahydrofuran	42	4.675	4.673	(0.847)	82726	38.3971	38.4	
$	34 Dibromofluoromethane	113	4.708	4.714	(0.852)	296317	50.4716	50.5	
	35 1,1,1-Trichloroethane	97	4.714	4.721	(0.854)	465271	46.1176	46.1	
	36 2-Butanone	43	4.942	4.939	(0.895)	108027	38.8449	38.8	
	37 1,1-Dichloropropene	75	4.913	4.920	(0.778)	419680	47.1299	47.1	
	38 Benzene	78	5.320	5.321	(0.843)	1154473	47.1861	47.2	
	39 Propionitrile	54	5.407	5.411	(0.979)	379479	460.260	460	
	40 Methacrylonitrile	41	5.430	5.436	(0.983)	1818263	501.880	502	
*	41 Pentafluorobenzene	168	5.523	5.526	(1.000)	586181	50.0000		
$	42 1,2-Dichloroethane-D4	65	5.548	5.549	(1.005)	391464	51.1909	51.2	
	43 Tertiary-amyl methyl ether	73	5.558	5.561	(1.006)	542963	41.4684	41.5	
	44 1,2-Dichloroethane	62	5.651	5.658	(0.895)	434400	49.0802	49.1	
	45 Isobutyl Alcohol	43	5.821	5.834	(1.054)	161107	763.082	763	
	46 Methylcyclohexane	83	6.180	6.184	(1.119)	534051	49.6216	49.6	
	47 Trichloroethene	95	6.222	6.226	(0.986)	289773	47.4083	47.4	
*	48 1,4-Difluorobenzene	114	6.312	6.315	(1.000)	963264	50.0000		
	49 Dibromomethane	93	6.825	6.832	(1.081)	168965	45.3669	45.4	
	50 1,2-Dichloropropane	63	6.976	6.977	(1.105)	300750	47.5760	47.6	
	51 Bromodichloromethane	83	7.098	7.102	(1.125)	388543	48.9491	48.9	
	52 Methyl Methacrylate	41	7.384	7.390	(1.170)	255485	50.9111	50.9	
	53 Ethyl Methacrylate	69	9.120	9.123	(1.445)	331570	43.9879	44.0	
	54 1,4-Dioxane	88	7.409	7.407	(1.174)	50921	630.152	630	
M	55 Total Alkylbenzenes	100				9514004	347.881	348	
	57 cis-1,3-dichloropropene	75	7.968	7.971	(1.262)	462915	49.8848	49.9	
$	58 Toluene-D8	98	8.205	8.209	(1.300)	1149404	49.8936	49.9	
	59 Toluene	92	8.269	8.273	(1.310)	713005	46.3080	46.3	
	60 Tetrachloroethene	164	8.751	8.754	(0.860)	234841	43.2415	43.2	
	61 4-methyl-2-pentanone	43	8.828	8.831	(1.399)	232875	45.2715	45.3	
	62 trans-1,3-Dichloropropene	75	8.850	8.857	(1.402)	401118	49.3613	49.4	
	63 1,1,2-Trichloroethane	83	9.046	9.049	(1.433)	202454	47.0783	47.1	
	64 Dibromochloromethane	129	9.251	9.255	(0.909)	268137	46.6645	46.7	
	65 1,3-Dichloropropane	76	9.377	9.380	(0.921)	445155	45.9798	46.0	
	66 1,2-Dibromoethane	107	9.508	9.518	(1.506)	237843	46.2000	46.2	
	67 2-Hexanone	43	9.906	9.906	(0.973)	145993	42.1797	42.2	
*	68 Chlorobenzene-D5	117	10.179	10.182	(1.000)	945045	50.0000		
	69 Chlorobenzene	112	10.198	10.201	(1.002)	808542	45.9787	46.0	
	70 Ethylbenzene	91	10.269	10.272	(1.009)	1444625	48.5822	48.6	
	71 1,1,1,2-Tetrachloroethane	131	10.297	10.304	(1.012)	280215	49.2162	49.2	
	72 m+p-Xylenes	91	10.461	10.465	(1.028)	2200077	100.457	100	
	73 o-Xylene	91	10.978	10.981	(1.078)	1128501	49.8366	49.8	
	74 Styrene	104	11.048	11.052	(1.085)	896765	49.5509	49.6	
	75 Bromoform	173	11.048	11.052	(1.085)	167529	43.6083	43.6	
	76 Isopropylbenzene	105	11.366	11.370	(0.878)	1419335	48.6420	48.6	
$	77 P-Bromofluorobenzene	95	11.674	11.678	(1.849)	492538	51.0964	51.1	
	78 cis-1,4-Dichloro-2-Butene	53	11.786	11.790	(0.911)	70384	32.5343	32.5	
	79 Bromobenzene	156	11.774	11.777	(0.910)	333818	45.5822	45.6	

Data File: \\target_server\gg\chem\gcms-w.i\W092221.b\W0146.D
Report Date: 11-Oct-2021 13:15

			QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)	REVIEW CODE
	80	N-Propylbenzene	91	11.854	11.857	(0.916)	1737406	49.1470	49.1	
	81	1,1,2,2-Tetrachloroethane	83	11.960	11.963	(0.924)	298143	45.5923	45.6	
	82	2-Chlorotoluene	91	12.005	12.005	(0.927)	1011811	47.8638	47.9	
	83	1,2,3-Trichloropropane	75	12.085	12.088	(0.934)	262179	44.7459	44.7	
	84	1,3,5-Trimethylbenzene	105	12.098	12.098	(0.935)	1184260	49.1541	49.2	
	85	trans-1,4-Dichloro-2-Butene	53	12.155	12.159	(0.939)	72932	37.3806	37.4	
	86	4-Chlorotoluene	91	12.197	12.204	(0.942)	1062009	48.5347	48.5	
	87	tert-Butylbenzene	119	12.444	12.448	(0.961)	1045627	47.6230	47.6	
	89	1,2,4-Trimethylbenzene	105	12.528	12.531	(0.968)	1217514	48.9993	49.0	
	90	sec-Butylbenzene	105	12.646	12.647	(0.977)	1604275	49.8180	49.8	
	91	P-Isopropyltoluene	119	12.820	12.823	(0.990)	1381825	50.3028	50.3	
	92	1,3-Dichlorobenzene	146	12.858	12.858	(0.993)	664275	45.9321	45.9	
*	93	1,4-Dichlorobenzene-D4	152	12.945	12.948	(1.000)	530505	50.0000		
	94	1,4-Dichlorobenzene	146	12.961	12.964	(1.001)	683583	45.7484	45.7	
	95	1,2,3-Trimethylbenzene	105	13.009	13.012	(1.005)	1251267	50.4332	50.4	
	96	N-Butylbenzene	91	13.285	13.288	(1.026)	1343097	52.8368	52.8	
M	97	1,2-Dichloroethylene (total)	96				584931	91.3530	91.4	
	98	1,2-Dichlorobenzene	146	13.420	13.420	(1.037)	628035	46.7762	46.8	
	99	1,2-Dibromo-3-Chloropropane	157	14.309	14.315	(1.105)	47968	36.3250	36.3	
	100	1,3,5-Trichlorobenzene	180	14.341	14.344	(1.108)	502365	47.9017	47.9	
	101	Hexachlorobutadiene	225	15.037	15.037	(1.162)	227221	44.5514	44.6	
	102	1,2,4-Trichlorobenzene	180	15.047	15.050	(1.162)	390729	43.0307	43.0	
	103	Naphthalene	128	15.400	15.403	(1.190)	637547	38.6584	38.6	
	104	1,2,3-Trichlorobenzene	180	15.599	15.599	(1.205)	302438	45.3163	45.3	
M	105	Xylenes (total)	106				3328578	150.293	150	

QC Flag Legend

R - Spike/Surrogate failed recovery limits.


Data File: \\target_server\gg\chem\gcms-w.i\W092221.b\W0146.D
Date : 22-SEP-2021 07:29
Client ID:
Sample Info: WG306464-1,SD6313
Purge Volume: 5.0
Column phase: RTX-VMS
Instrument: gcms-w.i
Operator: ES
Column diameter: 0.18
\\target_server\gg\chem\gcms-w.i\W092221.b\W0146.D
Y (x10^6)
Min
-Dichlorodifluoromethane (1.278)
-Chloromethane (1.419)
-Vinyl chloride (1.461)
-Bromomethane (1.672)
-Chloroethane (1.756)
-Trichlorofluoromethane (1.849)
-Diethyl Ether (2.057)
-1,1-Dichloroethene (2.240)+
-Acrolein (2.475)
-Allyl Chloride (2.584)
-Methylene Chloride (2.674)+
-trans-1,2-Dichloroethene (2.812)+
-Tertiary-butyl alcohol (3.011)
-Acetonitrile (3.161)
-Di-isopropyl ether (3.283)
-Chloroprene (3.389)+
-Ethyl tertiary-butyl ethe (3.694)+
-cis-1,2-Dichloroethene (4.053)
-2,2-Dichloropropane (4.195)
-Bromochloromethane (4.317)+
-Chloroform (4.438)
-Carbon Tetrachloride (4.605)+
-Dibromofluoromethane (4.708)+
2-Butanone (4.942)+
-Benzene (5.318)+
-Methacrylonitrile (5.430)+
-1,2-Dichloroethane-D4 (5.549)+
-1,2-Dichloroethane (5.651)
-Isobutyl Alcohol (5.822)
-Methylcyclohexane (6.184)+
-1,4-Difluorobenzene (6.312)
-Dibromomethane (6.826)
-1,2-Dichloropropane (6.977)
-Bromodichloromethane (7.099)
-Methyl Methacrylate (7.384)+
-cis-1,3-dichloropropene (7.968)
-Toluene-D8 (8.203)+
-Tetrachloroethene (8.751)+
-1,1,2-Trichloroethane (9.046)
-Ethyl Methacrylate (9.128)
-Dibromochloromethane (9.249)
-1,3-Dichloropropane (9.377)
-1,2-Dibromoethane (9.509)
-2-Hexanone (9.910)
-Total Alkylbenzenes (10.080)
-Chlorobenzene-D5 (10.186)+
-Ethylbenzene (10.269)+
m+p-Xylenes (10.462)
-o-Xylene (10.878)
Styrene (11.049)+
-Isopropylbenzene (11.367)
-P-Bromofluorobenzene (11.675)
-cis-1,4-Dichloro-2-Butene (11.774)+
-N-Propylbenzene (11.854)
-1,1,2,2-Tetrachloroethane (11.960)+
-trans-1,4-Dichloro-2-Bute (12.198)+
-1,2,3-Trichloropropane (12.095)+
-tert-Butylbenzene (12.349)
-1,2,4-Trimethylbenzene (12.528)
-sec-Butylbenzene (12.647)
-P-Isopropyltoluene (12.820)+
-1,2,3-Trimethylbenzene (13.009)
1,4-Dichlorobenzene-D4 (13.052)+
-N-Butylbenzene (13.285)
-1,2-Dichlorobenzene (13.420)
-1,2-Dibromo-3-Chloropropa (14.341)+
-Hexachlorobutadiene (15.041)+
-Naphthalene (15.400)
-1,2,3-Trichlorobenzene (15.599)

Katahdin
ANALYTICAL SERVICES

LCS Recovery Report

Lab ID: WG306545-1
Client ID: LCS
SDG: SO6313
LCS File ID: W0183.D
Report Date: 11-OCT-21

Extract Date: 23-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306545

Analysis Date: 23-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ

Compound	Recovery (%)	Conc Added	Conc Recovered	Conc Units	Limits
Chloromethane	99.8	50.0	49.9	ug/L	59-123
Vinyl Chloride	105.	50.0	52.3	ug/L	64-131
Bromomethane	66.8	50.0	33.4	ug/L	57-135
Chloroethane	135.	50.0	67.5	ug/L	53-157
Trichlorofluoromethane	110.	50.0	54.9	ug/L	70-149
1,1-Dichloroethene	* 85.8	50.0	42.9	ug/L	88-127
Carbon Disulfide	94.2	50.0	47.1	ug/L	71-129
Methylene Chloride	109.	50.0	54.4	ug/L	72-129
trans-1,2-Dichloroethene	91.4	50.0	45.7	ug/L	78-125
1,1-Dichloroethane	98.2	50.0	49.1	ug/L	76-130
cis-1,2-Dichloroethene	86.6	50.0	43.3	ug/L	85-123
Chloroform	91.4	50.0	45.7	ug/L	78-128
Carbon Tetrachloride	92.0	50.0	46.0	ug/L	87-126
1,1,1-Trichloroethane	89.4	50.0	44.7	ug/L	77-129
2-Butanone	94.2	50.0	47.1	ug/L	71-132
Benzene	91.8	50.0	45.9	ug/L	86-116
1,2-Dichloroethane	93.6	50.0	46.8	ug/L	81-125
Trichloroethene	91.4	50.0	45.7	ug/L	79-121
1,2-Dichloropropane	93.0	50.0	46.5	ug/L	84-118
Bromodichloromethane	94.4	50.0	47.2	ug/L	85-122
cis-1,3-Dichloropropene	95.6	50.0	47.8	ug/L	83-119
Toluene	91.4	50.0	45.7	ug/L	84-118
4-Methyl-2-Pentanone	95.6	50.0	47.8	ug/L	83-122
Tetrachloroethene	83.8	50.0	41.9	ug/L	47-155
trans-1,3-Dichloropropene	93.4	50.0	46.7	ug/L	85-135
1,1,2-Trichloroethane	90.4	50.0	45.2	ug/L	84-115
Dibromochloromethane	89.8	50.0	44.9	ug/L	85-119
Chlorobenzene	90.4	50.0	45.2	ug/L	89-113
Ethylbenzene	96.2	50.0	48.1	ug/L	88-113
m+p-Xylenes	100.	100.	100.	ug/L	88-116
o-Xylene	98.6	50.0	49.3	ug/L	90-116
Bromoform	* 82.8	50.0	41.4	ug/L	86-117
1,1,2,2-Tetrachloroethane	88.8	50.0	44.4	ug/L	79-121
P-Bromofluorobenzene	104.				56-133
Toluene-d8	99.5				65-128
1,2-Dichloroethane-d4	107.				67-135

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

LCS Recovery Report

Lab ID: WG306545-1
Client ID: LCS
SDG: SO6313
LCS File ID: W0183.D
Report Date: 11-OCT-21

Extract Date: 23-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306545

Analysis Date: 23-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ

Compound	Recovery (%)	Conc Added	Conc Recovered	Conc Units	Limits
Dibromofluoromethane	101.				68-128

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://www.katahdinlab.com

Data File: \\target_server\gg\chem\gcms-w.i\W092321.b\W0183.D
Report Date: 11-Oct-2021 13:36

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-w.i\W092321.b\W0183.D
Lab Smp Id: WG306545-1
Inj Date : 23-SEP-2021 08:11
Operator : ES   Inst ID: gcms-w.i
Smp Info : WG306545-1,SO6313
Misc Info : WG306545,WG306545-4,SO6313-11
Comment   : SW846 5030
Method   : \\target_server\gg\chem\gcms-w.i\W092321.b\W8A05(08).m
Meth Date : 11-Oct-2021 13:19 gcms-w.i   Quant Type: ISTD
Cal Date : 20-SEP-2021 11:30   Cal File: W0105.D
Als bottle: 3   QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE   Compound Sublist: all.sub
Target Version: 4.12

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)	REVIEW CODE
1	Dichlorodifluoromethane	85	1.277	1.277	(0.231)	256217	57.2611	57.3	
2	Chloromethane	50	1.409	1.412	(0.255)	355657	49.9183	49.9	
3	Vinyl chloride	62	1.460	1.460	(0.264)	331567	52.2813	52.3	
4	Bromomethane	94	1.672	1.672	(0.303)	94394	33.3885	33.4	
5	Chloroethane	64	1.755	1.752	(0.318)	197387	67.4915	67.5	
6	Trichlorofluoromethane	101	1.848	1.849	(0.335)	490353	54.8637	54.9	
7	Diethyl Ether	59	2.060	2.060	(0.373)	247811	52.1589	52.2	
8	1,1-Dichloroethene	96	2.211	2.211	(0.400)	247083	42.9298	42.9(R)	
9	Freon-113	151	2.237	2.237	(0.405)	223626	51.8035	51.8	
10	Carbon Disulfide	76	2.240	2.240	(0.406)	676086	47.1227	47.1	
11	Iodomethane	142	2.323	2.327	(0.421)	175257	38.9877	39.0	
12	Acrolein	56	2.474	2.478	(0.448)	100589	230.752	231	
13	Allyl Chloride	41	2.583	2.584	(0.468)	504675	57.7727	57.8	
14	Methylene Chloride	84	2.673	2.677	(0.484)	309507	54.4111	54.4	
15	Acetone	43	2.724	2.725	(0.493)	121878	75.8196	75.8	
16	trans-1,2-Dichloroethene	96	2.811	2.815	(0.509)	279353	45.7072	45.7	
17	Methyl Acetate	43	2.827	2.827	(0.512)	208278	39.2978	39.3	
18	Methyl tert-butyl ether	73	2.910	2.914	(0.527)	635951	39.6270	39.6(R)	
19	Tertiary-butyl alcohol	59	3.007	3.017	(0.544)	86024	178.176	178	
20	Acetonitrile	41	3.161	3.164	(0.572)	352802	470.102	470	
21	Di-isopropyl ether	45	3.286	3.289	(0.595)	1032115	54.5825	54.6	
22	Chloroprene	53	3.389	3.389	(0.614)	550348	53.7464	53.7	
23	1,1-Dichloroethane	63	3.414	3.418	(0.618)	571967	49.1146	49.1	
24	Acrylonitrile	52	3.485	3.488	(0.631)	432968	234.722	235	

Data File: \\target_server\gg\chem\gcms-w.i\W092321.b\W0183.D
Report Date: 11-Oct-2021 13:36

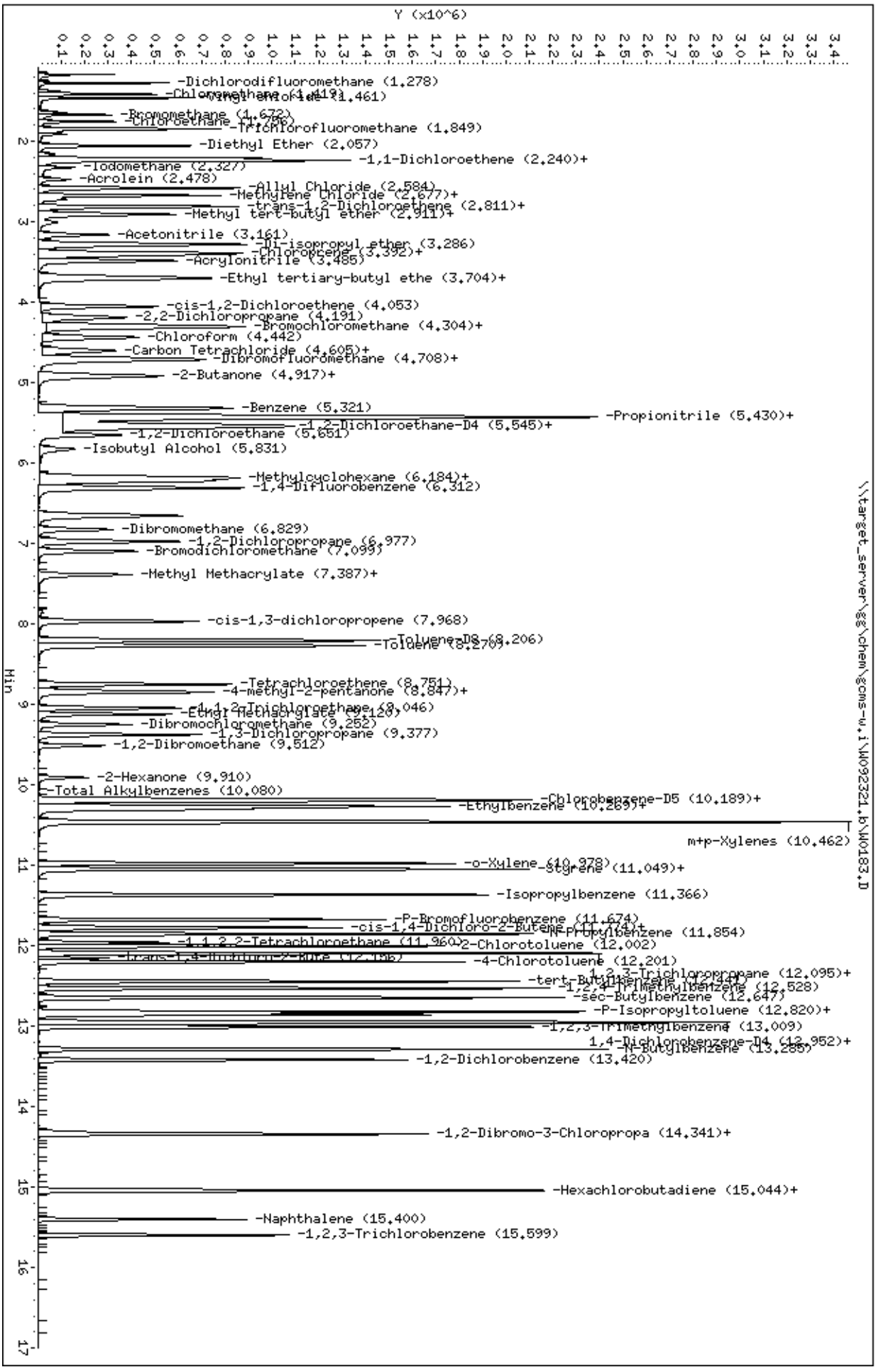
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)	REVIEW CODE
	25 Ethyl tertiary-butyl ether	59	3.690	3.694	(0.668)	715801	43.6802	43.7	
	26 Vinyl Acetate	43	3.716	3.716	(0.589)	632740	74.0368	74.0(R)	
	27 cis-1,2-Dichloroethene	96	4.053	4.056	(0.734)	281662	43.2707	43.3	
	28 2,2-Dichloropropane	77	4.188	4.191	(0.758)	318752	35.6487	35.6	
	29 Bromochloromethane	128	4.319	4.325	(0.782)	133664	48.8712	48.9	
	30 Cyclohexane	56	4.293	4.300	(0.777)	498485	45.5280	45.5	
	31 Chloroform	83	4.441	4.445	(0.804)	507577	45.7344	45.7	
	32 Carbon Tetrachloride	117	4.608	4.605	(0.730)	342582	45.9603	46.0	
	33 Tetrahydrofuran	42	4.685	4.673	(0.848)	77978	36.7605	36.8(R)	
$	34 Dibromofluoromethane	113	4.707	4.714	(0.852)	293169	50.7180	50.7	
	35 1,1,1-Trichloroethane	97	4.717	4.721	(0.854)	444363	44.7354	44.7	
	36 2-Butanone	43	4.945	4.939	(0.895)	128896	47.0754	47.1	
	37 1,1-Dichloropropene	75	4.916	4.920	(0.779)	405661	45.9525	46.0	
	38 Benzene	78	5.320	5.321	(0.843)	1114513	45.9498	45.9	
	39 Propionitrile	54	5.404	5.411	(0.979)	365168	449.843	450	
	40 Methacrylonitrile	41	5.429	5.436	(0.983)	1808929	507.128	507	
*	41 Pentafluorobenzene	168	5.523	5.526	(1.000)	577137	50.0000		
$	42 1,2-Dichloroethane-D4	65	5.545	5.549	(1.004)	402763	53.4938	53.5	
	43 Tertiary-amyl methyl ether	73	5.558	5.561	(1.006)	519498	40.2980	40.3	
	44 1,2-Dichloroethane	62	5.651	5.658	(0.895)	410497	46.7837	46.8	
	45 Isobutyl Alcohol	43	5.831	5.834	(1.056)	158273	761.406	761	
	46 Methylcyclohexane	83	6.180	6.184	(1.119)	521700	49.2336	49.2	
	47 Trichloroethene	95	6.228	6.226	(0.987)	277044	45.7207	45.7	
*	48 1,4-Difluorobenzene	114	6.312	6.315	(1.000)	954943	50.0000		
	49 Dibromomethane	93	6.825	6.832	(1.081)	158355	42.8886	42.9	
	50 1,2-Dichloropropane	63	6.973	6.977	(1.105)	291423	46.5022	46.5	
	51 Bromodichloromethane	83	7.098	7.102	(1.125)	371503	47.2102	47.2	
	52 Methyl Methacrylate	41	7.387	7.390	(1.170)	252660	50.7869	50.8	
	53 Ethyl Methacrylate	69	9.120	9.123	(1.445)	316659	42.3758	42.4	
	54 1,4-Dioxane	88	7.403	7.407	(1.173)	48746	605.327	605	
M	55 Total Alkylbenzenes	100				9165667	340.770	341	
	57 cis-1,3-dichloropropene	75	7.968	7.971	(1.262)	439912	47.8190	47.8	
$	58 Toluene-D8	98	8.205	8.209	(1.300)	1136409	49.7594	49.8	
	59 Toluene	92	8.269	8.273	(1.310)	697132	45.6716	45.7	
	60 Tetrachloroethene	164	8.751	8.754	(0.859)	221654	41.8713	41.9	
	61 4-methyl-2-pentanone	43	8.828	8.831	(1.399)	243969	47.8415	47.8	
	62 trans-1,3-Dichloropropene	75	8.850	8.857	(1.402)	376302	46.7110	46.7	
	63 1,1,2-Trichloroethane	83	9.046	9.049	(1.433)	192812	45.2269	45.2	
	64 Dibromochloromethane	129	9.251	9.255	(0.909)	251598	44.9211	44.9	
	65 1,3-Dichloropropane	76	9.376	9.380	(0.921)	430459	45.6143	45.6	
	66 1,2-Dibromoethane	107	9.511	9.518	(1.507)	226923	44.4630	44.5	
	67 2-Hexanone	43	9.909	9.906	(0.973)	170125	50.4258	50.4	
*	68 Chlorobenzene-D5	117	10.182	10.182	(1.000)	921168	50.0000		
	69 Chlorobenzene	112	10.201	10.201	(1.002)	774509	45.1850	45.2	
	70 Ethylbenzene	91	10.268	10.272	(1.009)	1394068	48.0972	48.1	
	71 1,1,1,2-Tetrachloroethane	131	10.301	10.304	(1.012)	265457	47.8327	47.8	
	72 m+p-Xylenes	91	10.461	10.465	(1.027)	2137319	100.121	100	
	73 o-Xylene	91	10.978	10.981	(1.078)	1087561	49.2736	49.3	
	74 Styrene	104	11.048	11.052	(1.085)	866551	49.1225	49.1	
	75 Bromoform	173	11.048	11.052	(1.085)	154718	41.4168	41.4(R)	
	76 Isopropylbenzene	105	11.369	11.370	(0.878)	1359161	47.3945	47.4(R)	
$	77 P-Bromofluorobenzene	95	11.674	11.678	(1.849)	495965	51.9002	51.9	
	78 cis-1,4-Dichloro-2-Butene	53	11.790	11.790	(0.911)	70382	33.1024	33.1	
	79 Bromobenzene	156	11.773	11.777	(0.910)	316261	43.9401	43.9	

Data File: \\target_server\gg\chem\gcms-w.i\W092321.b\W0183.D
Report Date: 11-Oct-2021 13:36

			QUANT SIG					CONCENTRATIONS		
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/l)	FINAL (ug/l)	REVIEW CODE
	80	N-Propylbenzene	91	11.854	11.857	(0.916)	1696379	48.8258	48.8	
	81	1,1,2,2-Tetrachloroethane	83	11.960	11.963	(0.924)	285739	44.4597	44.4	
	82	2-Chlorotoluene	91	12.005	12.005	(0.927)	978556	47.1003	47.1	
	83	1,2,3-Trichloropropane	75	12.082	12.088	(0.933)	253228	43.9741	44.0	
	84	1,3,5-Trimethylbenzene	105	12.098	12.098	(0.935)	1152414	48.6688	48.7	
	85	trans-1,4-Dichloro-2-Butene	53	12.155	12.159	(0.939)	73370	38.2331	38.2	
	86	4-Chlorotoluene	91	12.200	12.204	(0.942)	1029912	47.8910	47.9	
	87	tert-Butylbenzene	119	12.444	12.448	(0.961)	998541	46.2739	46.3	
	89	1,2,4-Trimethylbenzene	105	12.528	12.531	(0.968)	1167553	47.8105	47.8	
	90	sec-Butylbenzene	105	12.646	12.647	(0.977)	1543966	48.7838	48.8	
	91	P-Isopropyltoluene	119	12.820	12.823	(0.990)	1317818	48.8118	48.8	
	92	1,3-Dichlorobenzene	146	12.855	12.858	(0.993)	641565	45.1376	45.1	
*	93	1,4-Dichlorobenzene-D4	152	12.945	12.948	(1.000)	521386	50.0000		
	94	1,4-Dichlorobenzene	146	12.961	12.964	(1.001)	659259	44.8922	44.9	
	95	1,2,3-Trimethylbenzene	105	13.009	13.012	(1.005)	1214382	49.8026	49.8	
	96	N-Butylbenzene	91	13.285	13.288	(1.026)	1288996	51.5954	51.6	
M	97	1,2-Dichloroethylene (total)	96				561015	88.9779	89.0	
	98	1,2-Dichlorobenzene	146	13.420	13.420	(1.037)	596758	45.2241	45.2	
	99	1,2-Dibromo-3-Chloropropane	157	14.312	14.315	(1.106)	45108	34.7566	34.8	
	100	1,3,5-Trichlorobenzene	180	14.341	14.344	(1.108)	477542	46.3312	46.3	
	101	Hexachlorobutadiene	225	15.034	15.037	(1.161)	213400	42.5733	42.6	
	102	1,2,4-Trichlorobenzene	180	15.047	15.050	(1.162)	375500	42.0768	42.1	
	103	Naphthalene	128	15.400	15.403	(1.190)	622428	38.4017	38.4	
	104	1,2,3-Trichlorobenzene	180	15.595	15.599	(1.205)	290638	44.3099	44.3	
M	105	Xylenes (total)	106				3224880	149.394	149	

QC Flag Legend

R - Spike/Surrogate failed recovery limits.


Data File: \\target_server\gg\chem\gcms-w.i\W092321.b\W0183.D
Date : 23-SEP-2021 08:11
Client ID:
Sample Info: WG306545-1,SD6313
Purge Volume: 5.0
Column phase: RTX-VMS
Instrument: gcms-w.i
Operator: ES
Column diameter: 0.18
\\target_server\gg\chem\gcms-w.i\W092321.b\W0183.D
Y (x10^6)
Min
-Dichlorodifluoromethane (1.278)
-Chloromethane (1.419)
-Vinyl Chloride (1.461)
-Bromomethane (1.672)
-Chloroethane (1.706)
-Trichlorofluoromethane (1.849)
-Diethyl Ether (2.057)
-1,1-Dichloroethene (2.240)+
-Iodomethane (2.327)
-Acrolein (2.478)
-Allyl Chloride (2.584)
-Methylene Chloride (2.677)+
-trans-1,2-Dichloroethene (2.811)+
-Methyl tert-butyl ether (2.911)+
-Acetonitrile (3.161)
-Di-isopropyl ether (3.286)
-Chloroprene (3.392)+
-Acrylonitrile (3.485)
-Ethyl tertiary-butyl ethe (3.704)+
-cis-1,2-Dichloroethene (4.053)
-2,2-Dichloropropane (4.191)
-Bromochloromethane (4.304)+
-Chloroform (4.442)
-Carbon Tetrachloride (4.605)+
-Dibromofluoromethane (4.708)+
-2-Butanone (4.917)+
-Benzene (5.321)
-Propionitrile (5.430)+
-1,2-Dichloroethane-D4 (5.545)+
-1,2-Dichloroethane (5.651)
-Isobutyl Alcohol (5.831)
-Methylcyclohexane (6.184)+
-1,4-Difluorobenzene (6.312)
-Dibromomethane (6.829)
-1,2-Dichloropropane (6.977)
-Bromodichloromethane (7.099)
-Methyl Methacrylate (7.387)+
-cis-1,3-dichloropropene (7.968)
-Toluene-D8 (8.206)
-Toluene (8.270)
-Tetrachloroethene (8.751)
-4-methyl-2-pentanone (8.847)+
-1,1,2-Trichloroethane (9.046)
-Ethyl Methacrylate (9.120)
-Dibromochloromethane (9.252)
-1,3-Dichloropropane (9.377)
-1,2-Dibromoethane (9.512)
-2-Hexanone (9.910)
-Total Alkylbenzenes (10.080)
-Chlorobenzene-D5 (10.189)+
-Ethylbenzene (10.269)+
m+p-Xylenes (10.462)
-o-Xylene (10.978)
-Styrene (11.049)+
-Isopropylbenzene (11.366)
-P-Bromofluorobenzene (11.674)
-cis-1,4-Dichloro-2-Butene (11.774)+
-n-Propylbenzene (11.854)
-1,1,2,2-Tetrachloroethane (11.960)
-2-Chlorotoluene (12.002)
-trans-1,4-Dichloro-2-Bute (12.106)
-4-Chlorotoluene (12.201)
-1,3,5-Trichloropropane (12.095)+
-tert-Butylbenzene (12.441)
-1,2,4-Trimethylbenzene (12.528)
-sec-Butylbenzene (12.647)
-P-Isopropyltoluene (12.820)+
-1,3-Dichlorobenzene (12.944)
-1,2,3-Trimethylbenzene (13.009)
1,4-Dichlorobenzene-D4 (13.052)+
-n-Butylbenzene (13.285)
-1,2-Dichlorobenzene (13.420)
-1,2-Dibromo-3-Chloropropa (14.341)+
-Hexachlorobutadiene (15.044)+
-Naphthalene (15.400)
-1,2,3-Trichlorobenzene (15.599)

Katahdin
ANALYTICAL SERVICES

LCS Recovery Report

Lab ID: WG306608-10
Client ID: LCS
SDG: SO6313
LCS File ID: W0216.D
Report Date: 11-OCT-21

Extract Date: 24-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306608

Analysis Date: 24-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ

Compound	Recovery (%)	Conc Added	Conc Recovered	Conc Units	Limits
Chloromethane	80.0	50.0	40.0	ug/L	59-123
Vinyl Chloride	90.8	50.0	45.4	ug/L	64-131
Bromomethane	85.4	50.0	42.7	ug/L	57-135
Chloroethane	92.2	50.0	46.1	ug/L	53-157
Trichlorofluoromethane	94.6	50.0	47.3	ug/L	70-149
1,1-Dichloroethene	* 86.6	50.0	43.3	ug/L	88-127
Carbon Disulfide	99.0	50.0	49.5	ug/L	71-129
Methylene Chloride	101.	50.0	50.6	ug/L	72-129
trans-1,2-Dichloroethene	92.4	50.0	46.2	ug/L	78-125
1,1-Dichloroethane	95.2	50.0	47.6	ug/L	76-130
cis-1,2-Dichloroethene	92.2	50.0	46.1	ug/L	85-123
Chloroform	92.0	50.0	46.0	ug/L	78-128
Carbon Tetrachloride	95.6	50.0	47.8	ug/L	87-126
1,1,1-Trichloroethane	91.2	50.0	45.6	ug/L	77-129
2-Butanone	85.6	50.0	42.8	ug/L	71-132
Benzene	95.2	50.0	47.6	ug/L	86-116
1,2-Dichloroethane	93.0	50.0	46.5	ug/L	81-125
Trichloroethene	93.6	50.0	46.8	ug/L	79-121
1,2-Dichloropropane	94.8	50.0	47.4	ug/L	84-118
Bromodichloromethane	96.8	50.0	48.4	ug/L	85-122
cis-1,3-Dichloropropene	101.	50.0	50.5	ug/L	83-119
Toluene	95.4	50.0	47.7	ug/L	84-118
4-Methyl-2-Pentanone	91.2	50.0	45.6	ug/L	83-122
Tetrachloroethene	91.8	50.0	45.9	ug/L	47-155
trans-1,3-Dichloropropene	101.	50.0	50.7	ug/L	85-135
1,1,2-Trichloroethane	94.2	50.0	47.1	ug/L	84-115
Dibromochloromethane	95.2	50.0	47.6	ug/L	85-119
Chlorobenzene	94.2	50.0	47.1	ug/L	89-113
Ethylbenzene	96.8	50.0	48.4	ug/L	88-113
m+p-Xylenes	98.4	100.	98.4	ug/L	88-116
o-Xylene	101.	50.0	50.6	ug/L	90-116
Bromoform	98.8	50.0	49.4	ug/L	86-117
1,1,2,2-Tetrachloroethane	95.0	50.0	47.5	ug/L	79-121
P-Bromofluorobenzene	101.				56-133
Toluene-d8	99.7				65-128
1,2-Dichloroethane-d4	101.				67-135

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

LCS Recovery Report

Lab ID: WG306608-10
Client ID: LCS
SDG: SO6313
LCS File ID: W0216.D
Report Date: 11-OCT-21

Extract Date: 24-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306608

Analysis Date: 24-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ

Compound	Recovery (%)	Conc Added	Conc Recovered	Conc Units	Limits
Dibromofluoromethane	100.				68-128

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://www.katahdinlab.com

Data File: \\target_server\gg\chem\gcms-w.i\W092421.b\W0216.D
Report Date: 11-Oct-2021 20:32

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-w.i\W092421.b\W0216.D
Lab Smp Id: WG306608-10
Inj Date : 24-SEP-2021 12:40
Operator : ES   Inst ID: gcms-w.i
Smp Info : WG306608-10,SO6313
Misc Info : WG306608,WG306608-4,SO6313-22
Comment   : SW846 5030
Method   : \\target_server\gg\chem\gcms-w.i\W092421.b\W8A05(08A).m
Meth Date : 08-Oct-2021 09:51 gcms-w.i   Quant Type: ISTD
Cal Date : 24-SEP-2021 11:36   Cal File: W0215.D
Als bottle: 11   QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE   Compound Sublist: all.sub
Target Version: 4.12

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)	REVIEW CODE
1	Dichlorodifluoromethane	85	1.277	1.274	(0.231)	393673	49.3240	49.3	
2	Chloromethane	50	1.409	1.409	(0.255)	396251	40.0179	40.0	
3	Vinyl chloride	62	1.460	1.460	(0.264)	377624	45.4030	45.4	
4	Bromomethane	94	1.672	1.672	(0.303)	117685	42.7386	42.7	
5	Chloroethane	64	1.755	1.753	(0.318)	219393	46.1038	46.1	
6	Trichlorofluoromethane	101	1.848	1.849	(0.335)	521817	47.3424	47.3	
7	Diethyl Ether	59	2.060	2.057	(0.373)	240589	47.1909	47.2	
8	1,1-Dichloroethene	96	2.211	2.211	(0.400)	259244	43.2834	43.3(R)	
9	Freon-113	151	2.237	2.234	(0.405)	214817	49.2440	49.2	
10	Carbon Disulfide	76	2.240	2.240	(0.405)	724434	49.5228	49.5	
11	Iodomethane	142	2.330	2.327	(0.422)	168765	46.6374	46.6	
12	Acrolein	56	2.474	2.474	(0.448)	97315	220.701	221	
13	Allyl Chloride	41	2.583	2.584	(0.468)	486008	49.9576	50.0	
14	Methylene Chloride	84	2.673	2.673	(0.484)	320640	50.5523	50.6	
15	Acetone	43	2.724	2.722	(0.493)	97336	50.6663	50.7	
16	trans-1,2-Dichloroethene	96	2.811	2.811	(0.509)	290464	46.2013	46.2	
17	Methyl Acetate	43	2.827	2.827	(0.512)	206957	36.5319	36.5	
18	Methyl tert-butyl ether	73	2.910	2.911	(0.527)	676111	45.5591	45.6	
19	Tertiary-butyl alcohol	59	3.016	3.010	(0.546)	80747	220.848	221	
20	Acetonitrile	41	3.161	3.161	(0.572)	346934	481.743	482	
21	Di-isopropyl ether	45	3.283	3.283	(0.594)	1008441	48.2891	48.3	
22	Chloroprene	53	3.385	3.386	(0.613)	541710	49.1242	49.1	
23	1,1-Dichloroethane	63	3.417	3.415	(0.618)	588359	47.6006	47.6	
24	Acrylonitrile	52	3.488	3.485	(0.631)	428957	239.152	239	

Data File: \\target_server\gg\chem\gcms-w.i\W092421.b\W0216.D
Report Date: 11-Oct-2021 20:32

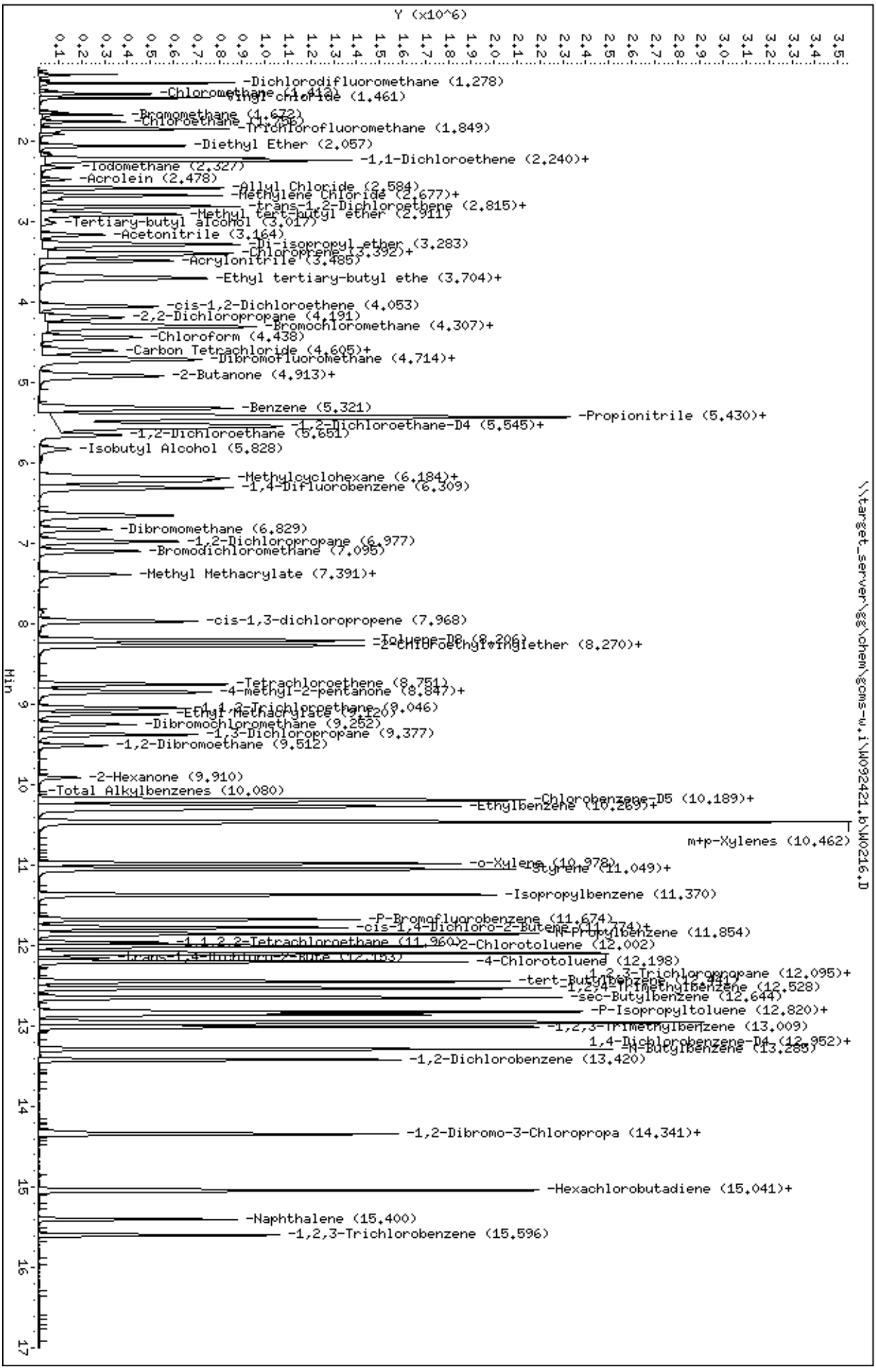
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)	REVIEW CODE
	25 Ethyl tertiary-butyl ether	59	3.690	3.691	(0.668)	705452	47.6745	47.7	
	26 Vinyl Acetate	43	3.716	3.710	(0.589)	655717	73.3775	73.4(R)	
	27 cis-1,2-Dichloroethene	96	4.053	4.050	(0.733)	293123	46.1089	46.1	
	28 2,2-Dichloropropane	77	4.191	4.191	(0.758)	325119	39.2646	39.3	
	29 Bromochloromethane	128	4.316	4.320	(0.781)	135802	51.1358	51.1	
	30 Cyclohexane	56	4.297	4.293	(0.778)	550477	52.4789	52.5	
	31 Chloroform	83	4.438	4.438	(0.803)	511718	45.9748	46.0	
	32 Carbon Tetrachloride	117	4.602	4.608	(0.729)	351800	47.7815	47.8	
	33 Tetrahydrofuran	42	4.682	4.669	(0.847)	78193	37.9618	38.0	
$	34 Dibromofluoromethane	113	4.714	4.714	(0.853)	278543	50.1779	50.2	
	35 1,1,1-Trichloroethane	97	4.720	4.721	(0.854)	451722	45.6234	45.6	
	36 2-Butanone	43	4.948	4.936	(0.895)	113603	42.7635	42.8	
	37 1,1-Dichloropropene	75	4.913	4.916	(0.779)	414080	47.4686	47.5	
	38 Benzene	78	5.320	5.321	(0.843)	1144733	47.5898	47.6	
	39 Propionitrile	54	5.407	5.407	(0.979)	359553	462.670	463	
	40 Methacrylonitrile	41	5.429	5.430	(0.983)	1792888	487.126	487	
*	41 Pentafluorobenzene	168	5.526	5.520	(1.000)	549673	50.0000		
$	42 1,2-Dichloroethane-D4	65	5.545	5.549	(1.003)	385786	50.5035	50.5	
	43 Tertiary-amyl methyl ether	73	5.558	5.558	(1.006)	523748	49.4924	49.5	
	44 1,2-Dichloroethane	62	5.651	5.655	(0.896)	423173	46.4738	46.5	
	45 Isobutyl Alcohol	43	5.831	5.825	(1.055)	137060	734.966	735	
	46 Methylcyclohexane	83	6.184	6.181	(1.119)	505470	50.3063	50.3	
	47 Trichloroethene	95	6.228	6.226	(0.987)	284705	46.7614	46.8	
*	48 1,4-Difluorobenzene	114	6.309	6.312	(1.000)	914040	50.0000		
	49 Dibromomethane	93	6.832	6.826	(1.083)	164188	44.7469	44.7	
	50 1,2-Dichloropropane	63	6.976	6.973	(1.106)	298140	47.4401	47.4	
	51 Bromodichloromethane	83	7.095	7.099	(1.125)	385792	48.4193	48.4	
	52 Methyl Methacrylate	41	7.387	7.384	(1.171)	251195	50.7719	50.8	
	53 Ethyl Methacrylate	69	9.120	9.123	(1.446)	309665	44.0386	44.0	
	54 1,4-Dioxane	88	7.406	7.403	(1.174)	40027	686.748	687	
M	55 Total Alkylbenzenes	100				9390527	344.082	344	
	56 2-Chloroethylvinylether	63	8.269	8.270	(1.311)	114032		(aR)	
	57 cis-1,3-dichloropropene	75	7.964	7.968	(1.262)	451823	50.4830	50.5	
$	58 Toluene-D8	98	8.205	8.202	(1.301)	1092848	49.8306	49.8	
	59 Toluene	92	8.269	8.270	(1.311)	714518	47.7122	47.7	
	60 Tetrachloroethene	164	8.751	8.751	(0.860)	228164	45.9026	45.9	
	61 4-methyl-2-pentanone	43	8.828	8.825	(1.399)	233485	45.6120	45.6	
	62 trans-1,3-Dichloropropene	75	8.850	8.854	(1.403)	393490	50.6780	50.7	
	63 1,1,2-Trichloroethane	83	9.046	9.050	(1.434)	197013	47.0768	47.1	
	64 Dibromochloromethane	129	9.251	9.252	(0.909)	260375	47.6029	47.6	
	65 1,3-Dichloropropane	76	9.376	9.377	(0.921)	445434	47.1868	47.2	
	66 1,2-Dibromoethane	107	9.511	9.512	(1.508)	237967	49.2162	49.2	
	67 2-Hexanone	43	9.909	9.903	(0.974)	141715	42.4807	42.5	
*	68 Chlorobenzene-D5	117	10.179	10.182	(1.000)	910040	50.0000		
	69 Chlorobenzene	112	10.198	10.198	(1.002)	794328	47.1167	47.1	
	70 Ethylbenzene	91	10.268	10.269	(1.009)	1420174	48.3990	48.4	
	71 1,1,1,2-Tetrachloroethane	131	10.301	10.301	(1.012)	275668	50.2108	50.2	
	72 m+p-Xylenes	91	10.461	10.461	(1.028)	2187641	98.4058	98.4	
	73 o-Xylene	91	10.978	10.978	(1.078)	1126872	50.6555	50.6	
	74 Styrene	104	11.048	11.049	(1.085)	898953	51.2223	51.2	
	75 Bromoform	173	11.048	11.049	(1.085)	165515	49.4381	49.4	
	76 Isopropylbenzene	105	11.369	11.366	(0.878)	1406799	48.5216	48.5	
$	77 P-Bromofluorobenzene	95	11.674	11.674	(1.850)	483387	50.5435	50.5	
	78 cis-1,4-Dichloro-2-Butene	53	11.786	11.790	(0.911)	73625	47.8361	47.8	

Data File: \\target_server\gg\chem\gcms-w.i\W092421.b\W0216.D
Report Date: 11-Oct-2021 20:32

			QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)	REVIEW CODE
	79	Bromobenzene	156	11.773	11.774	(0.910)	330996	47.8749	47.9	
	80	N-Propylbenzene	91	11.854	11.854	(0.916)	1727155	48.2378	48.2	
	81	1,1,2,2-Tetrachloroethane	83	11.960	11.960	(0.924)	294506	47.4931	47.5	
	82	2-Chlorotoluene	91	12.001	12.005	(0.927)	998451	47.2333	47.2	
	83	1,2,3-Trichloropropane	75	12.085	12.082	(0.934)	261337	46.1109	46.1	
	84	1,3,5-Trimethylbenzene	105	12.098	12.098	(0.935)	1180913	49.0348	49.0	
	85	trans-1,4-Dichloro-2-Butene	53	12.152	12.153	(0.939)	74248	46.8172	46.8	
	86	4-Chlorotoluene	91	12.200	12.198	(0.942)	1059824	47.9136	47.9	
	87	tert-Butylbenzene	119	12.444	12.445	(0.961)	1028665	48.1376	48.1	
	89	1,2,4-Trimethylbenzene	105	12.528	12.528	(0.968)	1200107	48.2640	48.3	
	90	sec-Butylbenzene	105	12.646	12.644	(0.977)	1594924	49.9140	49.9	
	91	P-Isopropyltoluene	119	12.820	12.820	(0.990)	1352917	50.1647	50.2	
	92	1,3-Dichlorobenzene	146	12.855	12.855	(0.993)	662270	47.0090	47.0	
*	93	1,4-Dichlorobenzene-D4	152	12.945	12.942	(1.000)	519107	50.0000		
	94	1,4-Dichlorobenzene	146	12.961	12.961	(1.001)	679810	46.8474	46.8	
	95	1,2,3-Trimethylbenzene	105	13.009	13.009	(1.005)	1179249	47.8651	47.9	
	96	N-Butylbenzene	91	13.285	13.285	(1.026)	1305846	50.3291	50.3	
M	97	1,2-Dichloroethylene (total)	96				583587	92.3102	92.3	
	98	1,2-Dichlorobenzene	146	13.420	13.417	(1.037)	613583	47.3918	47.4	
	99	1,2-Dibromo-3-Chloropropane	157	14.312	14.312	(1.106)	47120	47.3232	47.3	
	100	1,3,5-Trichlorobenzene	180	14.341	14.341	(1.108)	464445	48.0844	48.1	
	101	Hexachlorobutadiene	225	15.034	15.037	(1.161)	213041	44.9605	45.0	
	102	1,2,4-Trichlorobenzene	180	15.047	15.047	(1.162)	373629	43.9914	44.0	
	103	Naphthalene	128	15.403	15.400	(1.190)	602204	40.4963	40.5	
	104	1,2,3-Trichlorobenzene	180	15.598	15.599	(1.205)	287384	47.4763	47.5	
M	105	Xylenes (total)	106				3314513	149.061	149	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.


Data File: \\target_server\gg\chem\gcms-w.i\W092421.b\W0216.D
Date : 24-SEP-2021 12:40
Client ID:
Sample Info: WG306608-10,S06313
Purge Volume: 5.0
Column phase: RTX-VMS
Instrument: gcms-w.i
Operator: ES
Column diameter: 0.18
\\target_server\gg\chem\gcms-w.i\W092421.b\W0216.D
Y (x10^6)
Min
-Dichlorodifluoromethane (1.278)
-Chloromethane (1.412)
Vinyl Chloride (1.461)
-Bromomethane (1.672)
-Chloroethane (1.766)
-Trichlorofluoromethane (1.849)
-Diethyl Ether (2.057)
-1,1-Dichloroethene (2.240)+
-Iodomethane (2.327)
-Acrolein (2.478)
-Allyl Chloride (2.584)
-Methylene Chloride (2.677)+
-trans-1,2-Dichloroethene (2.815)+
-Methyl tert-butyl ether (2.911)
-Tertiary-butyl alcohol (3.017)
-Acetonitrile (3.164)
-Di-isopropyl ether (3.283)
-Chloroprene (3.392)+
-Acrylonitrile (3.485)
-Ethyl tertiary-butyl ethe (3.704)+
-cis-1,2-Dichloroethene (4.053)
-2,2-Dichloropropane (4.191)
-Bromochloromethane (4.307)+
-Chloroform (4.438)
-Carbon Tetrachloride (4.605)+
-Dibromofluoromethane (4.714)+
-2-Butanone (4.913)+
-Benzene (5.321)
-Propionitrile (5.430)+
-1,2-Dichloroethane-D4 (5.545)+
-1,2-Dichloroethane (5.651)
-Isobutyl Alcohol (5.828)
-Methylcyclohexane (6.184)+
-1,4-Difluorobenzene (6.309)
-Dibromomethane (6.829)
-1,2-Dichloropropane (6.977)
-Bromodichloromethane (7.095)
-Methyl Methacrylate (7.391)+
-cis-1,3-dichloropropene (7.968)
-Toluene-D8 (8.206)
-2-Chloroethylvinylether (8.270)+
-Tetrachloroethene (8.751)
-4-methyl-2-pentanone (8.847)+
-1,1,2-Trichloroethane (9.046)
-Ethyl Methacrylate (9.120)
-Dibromochloromethane (9.252)
-1,3-Dichloropropane (9.377)
-1,2-Dibromoethane (9.512)
-2-Hexanone (9.910)
-Total Alkylbenzenes (10.080)
-Chlorobenzene-D5 (10.189)+
-Ethylbenzene (10.269)+
m+p-Xylenes (10.462)
-o-Xylene (10.978)
-Styrene (11.049)+
-Isopropylbenzene (11.370)
-P-Bromofluorobenzene (11.674)
-cis-1,4-Dichloro-2-Butene (11.674)+
-n-Propylbenzene (11.854)
-1,1,2,2-Tetrachloroethane (11.960)
-2-Chlorotoluene (12.002)
-trans-1,4-Dichloro-2-Bute (12.153)
-4-Chlorotoluene (12.198)
-1,2,3-Trichloropropane (12.095)+
-tert-Butylbenzene (12.441)
-1,2,4-Trimethylbenzene (12.528)
-sec-Butylbenzene (12.644)
-P-Isopropyltoluene (12.820)+
-1,2,3-Trimethylbenzene (13.009)
-1,4-Dichlorobenzene-D4 (12.952)+
-n-Butylbenzene (13.285)
-1,2-Dichlorobenzene (13.420)
-1,2-Dibromo-3-Chloropropa (14.341)+
-Hexachlorobutadiene (15.041)+
-Naphthalene (15.400)
-1,2,3-Trichlorobenzene (15.596)

Katahdin
ANALYTICAL SERVICES

LCS Recovery Report

Lab ID: WG306817-10
Client ID: LCS
SDG: SO6313
LCS File ID: W0272.D
Report Date: 11-OCT-21

Extract Date: 28-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306817

Analysis Date: 28-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ

Compound	Recovery (%)	Conc Added	Conc Recovered	Conc Units	Limits
Chloromethane	75.4	50.0	37.7	ug/L	59-123
Vinyl Chloride	87.8	50.0	43.9	ug/L	64-131
Bromomethane	95.2	50.0	47.6	ug/L	57-135
Chloroethane	92.4	50.0	46.2	ug/L	53-157
Trichlorofluoromethane	86.0	50.0	43.0	ug/L	70-149
1,1-Dichloroethene	* 83.6	50.0	41.8	ug/L	88-127
Carbon Disulfide	91.6	50.0	45.8	ug/L	71-129
Methylene Chloride	91.2	50.0	45.6	ug/L	72-129
trans-1,2-Dichloroethene	90.0	50.0	45.0	ug/L	78-125
1,1-Dichloroethane	93.6	50.0	46.8	ug/L	76-130
cis-1,2-Dichloroethene	88.2	50.0	44.1	ug/L	85-123
Chloroform	90.4	50.0	45.2	ug/L	78-128
Carbon Tetrachloride	93.6	50.0	46.8	ug/L	87-126
1,1,1-Trichloroethane	91.2	50.0	45.6	ug/L	77-129
2-Butanone	88.4	50.0	44.2	ug/L	71-132
Benzene	95.4	50.0	47.7	ug/L	86-116
1,2-Dichloroethane	89.4	50.0	44.7	ug/L	81-125
Trichloroethene	93.4	50.0	46.7	ug/L	79-121
1,2-Dichloropropane	94.4	50.0	47.2	ug/L	84-118
Bromodichloromethane	94.2	50.0	47.1	ug/L	85-122
cis-1,3-Dichloropropene	100.	50.0	50.2	ug/L	83-119
Toluene	95.0	50.0	47.5	ug/L	84-118
4-Methyl-2-Pentanone	102.	50.0	50.9	ug/L	83-122
Tetrachloroethene	95.8	50.0	47.9	ug/L	47-155
trans-1,3-Dichloropropene	98.2	50.0	49.1	ug/L	85-135
1,1,2-Trichloroethane	91.6	50.0	45.8	ug/L	84-115
Dibromochloromethane	92.8	50.0	46.4	ug/L	85-119
Chlorobenzene	95.2	50.0	47.6	ug/L	89-113
Ethylbenzene	97.8	50.0	48.9	ug/L	88-113
m+p-Xylenes	98.7	100.	98.7	ug/L	88-116
o-Xylene	100.	50.0	50.2	ug/L	90-116
Bromoform	95.4	50.0	47.7	ug/L	86-117
1,1,2,2-Tetrachloroethane	93.4	50.0	46.7	ug/L	79-121
P-Bromofluorobenzene	97.2				56-133
Toluene-d8	98.5				65-128
1,2-Dichloroethane-d4	95.8				67-135

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

LCS Recovery Report

Lab ID: WG306817-10
Client ID: LCS
SDG: SO6313
LCS File ID: W0272.D
Report Date: 11-OCT-21

Extract Date: 28-SEP-21
Extracted By: ES
Extraction Method: SW846 5030
Lab Prep Batch: WG306817

Analysis Date: 28-SEP-21
Analyst: ES
Analysis Method: SW846 8260B
Matrix: AQ

Compound	Recovery (%)	Conc Added	Conc Recovered	Conc Units	Limits
Dibromofluoromethane	97.8				68-128

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://www.katahdinlab.com

Data File: \\target_server\gg\chem\gcms-w.i\W092821B.b\W0272.D
Report Date: 11-Oct-2021 20:43

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-w.i\W092821B.b\W0272.D
Lab Smp Id: WG306817-10
Inj Date : 28-SEP-2021 14:39
Operator : ES   Inst ID: gcms-w.i
Smp Info : WG306817-10,SO6313
Misc Info : WG306817,WG306817-4,SO6313-4
Comment   : SW846 5030
Method   : \\target_server\gg\chem\gcms-w.i\W092821B.b\W8A05(09).m
Meth Date : 01-Oct-2021 17:40 HGOULD   Quant Type: ISTD
Cal Date : 28-SEP-2021 14:09   Cal File: W0271.D
Als bottle: 9   QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE   Compound Sublist: all.sub
Target Version: 4.12

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)	REVIEW CODE
1	Dichlorodifluoromethane	85	1.277	1.278	(0.231)	351747	39.6883	39.7	
2	Chloromethane	50	1.412	1.415	(0.256)	397758	37.6903	37.7	
3	Vinyl chloride	62	1.460	1.460	(0.265)	392765	43.8645	43.9	
4	Bromomethane	94	1.672	1.672	(0.303)	100527	47.5820	47.6	
5	Chloroethane	64	1.755	1.755	(0.318)	218206	46.1584	46.2	
6	Trichlorofluoromethane	101	1.848	1.849	(0.335)	519763	43.0093	43.0	
7	Diethyl Ether	59	2.060	2.057	(0.373)	273397	46.1584	46.2	
8	1,1-Dichloroethene	96	2.211	2.211	(0.401)	271830	41.8327	41.8(R)	
9	Freon-113	151	2.236	2.231	(0.405)	233153	48.4144	48.4	
10	Carbon Disulfide	76	2.240	2.240	(0.406)	759650	45.7927	45.8	
11	Iodomethane	142	2.326	2.327	(0.422)	161832	56.9844	57.0	
12	Acrolein	56	2.474	2.478	(0.448)	183732	225.913	226	
13	Allyl Chloride	41	2.583	2.584	(0.468)	519393	49.6130	49.6	
14	Methylene Chloride	84	2.676	2.677	(0.485)	314534	45.5811	45.6	
15	Acetone	43	2.724	2.724	(0.494)	110940	39.1376	39.1	
16	trans-1,2-Dichloroethene	96	2.811	2.811	(0.509)	309462	45.0417	45.0	
17	Methyl Acetate	43	2.827	2.833	(0.512)	234497	33.8484	33.8(R)	
18	Methyl tert-butyl ether	73	2.907	2.907	(0.527)	627911	43.8062	43.8	
19	Tertiary-butyl alcohol	59	3.010	3.010	(0.545)	74459	176.268	176	
20	Acetonitrile	41	3.161	3.164	(0.573)	392553	436.880	437	
21	Di-isopropyl ether	45	3.283	3.286	(0.595)	1087743	47.7760	47.8	
22	Chloroprene	53	3.388	3.385	(0.614)	567565	49.4729	49.5	
23	1,1-Dichloroethane	63	3.417	3.421	(0.619)	611831	46.7532	46.8	
24	Acrylonitrile	52	3.488	3.491	(0.632)	469535	223.309	223	

Data File: \\target_server\gg\chem\gcms-w.i\W092821B.b\W0272.D
Report Date: 11-Oct-2021 20:43

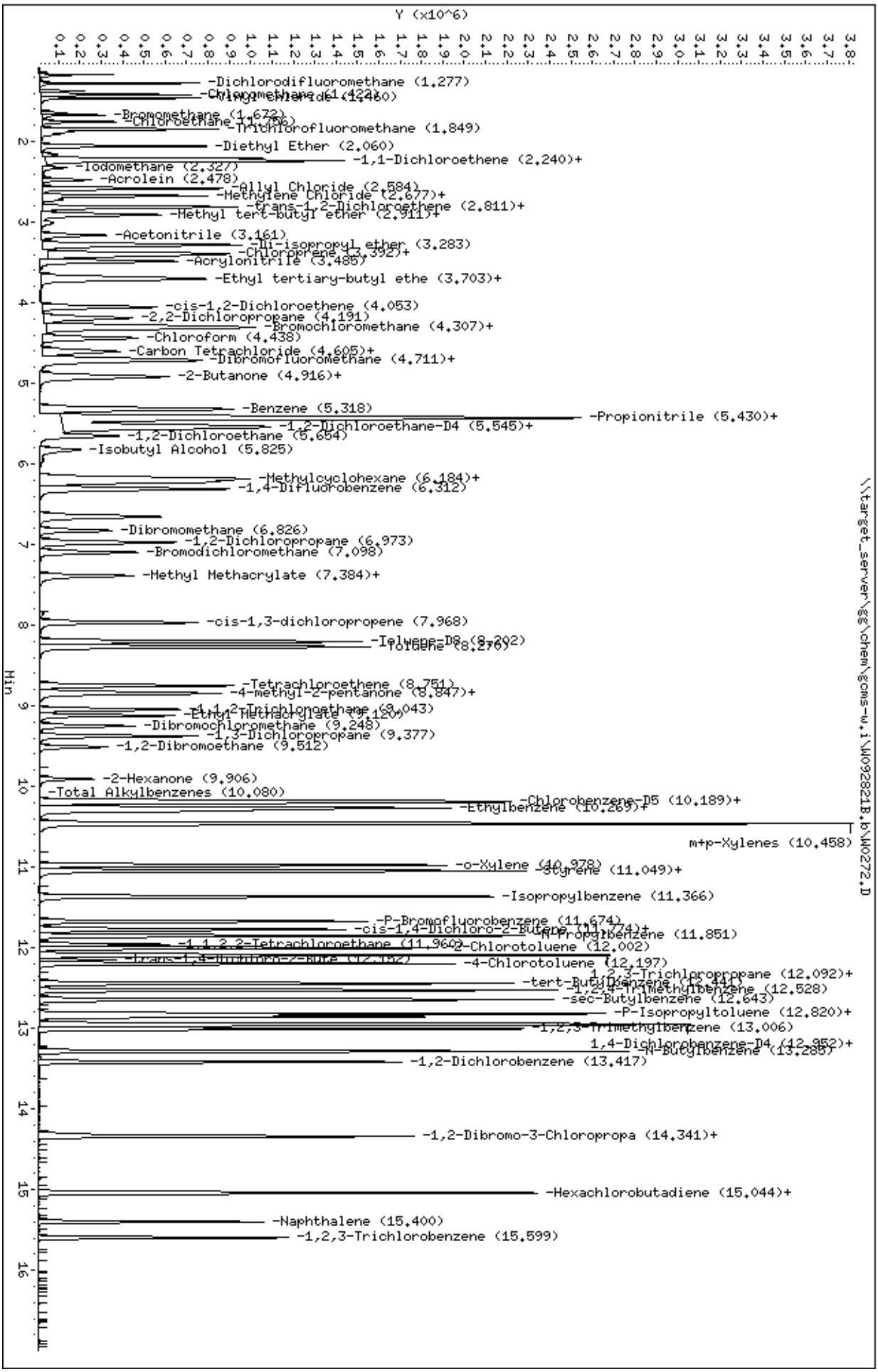
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)	REVIEW CODE
	25 Ethyl tertiary-butyl ether	59	3.690	3.700	(0.669)	723423	49.4032	49.4	
	26 Vinyl Acetate	43	3.716	3.719	(0.589)	760647	76.8856	76.9(R)	
	27 cis-1,2-Dichloroethene	96	4.053	4.053	(0.734)	316681	44.0959	44.1	
	28 2,2-Dichloropropane	77	4.191	4.188	(0.759)	390703	49.6334	49.6	
	29 Bromochloromethane	128	4.316	4.326	(0.782)	144643	50.2988	50.3	
	30 Cyclohexane	56	4.293	4.290	(0.778)	609656	52.0958	52.1	
	31 Chloroform	83	4.438	4.435	(0.804)	550771	45.2336	45.2	
	32 Carbon Tetrachloride	117	4.605	4.614	(0.730)	397188	46.8483	46.8	
	33 Tetrahydrofuran	42	4.685	4.698	(0.849)	98098	40.9620	41.0	
$	34 Dibromofluoromethane	113	4.711	4.711	(0.853)	292570	48.8922	48.9	
	35 1,1,1-Trichloroethane	97	4.720	4.717	(0.855)	489083	45.6175	45.6	
	36 2-Butanone	43	4.938	4.945	(0.895)	141084	44.2511	44.2	
	37 1,1-Dichloropropene	75	4.919	4.922	(0.779)	454624	47.5050	47.5	
	38 Benzene	78	5.317	5.311	(0.842)	1246942	47.7052	47.7	
	39 Propionitrile	54	5.407	5.413	(0.980)	401112	443.417	443	
	40 Methacrylonitrile	41	5.426	5.446	(0.983)	1938070	458.593	458	
*	41 Pentafluorobenzene	168	5.519	5.529	(1.000)	591057	50.0000		
$	42 1,2-Dichloroethane-D4	65	5.545	5.545	(1.005)	386409	47.8930	47.9	
	43 Tertiary-amyl methyl ether	73	5.554	5.567	(1.006)	537731	49.0243	49.0	
	44 1,2-Dichloroethane	62	5.654	5.651	(0.896)	444071	44.7345	44.7	
	45 Isobutyl Alcohol	43	5.821	5.837	(1.055)	200862	959.143	959	
	46 Methylcyclohexane	83	6.180	6.184	(1.120)	602518	51.5902	51.6	
	47 Trichloroethene	95	6.225	6.232	(0.986)	310931	46.6618	46.7	
*	48 1,4-Difluorobenzene	114	6.312	6.315	(1.000)	981544	50.0000		
	49 Dibromomethane	93	6.825	6.822	(1.081)	173257	42.8377	42.8	
	50 1,2-Dichloropropane	63	6.973	6.976	(1.105)	326476	47.1832	47.2	
	51 Bromodichloromethane	83	7.098	7.095	(1.125)	407777	47.1158	47.1	
	52 Methyl Methacrylate	41	7.384	7.393	(1.170)	273101	49.4141	49.4	
	53 Ethyl Methacrylate	69	9.120	9.113	(1.445)	352898	50.8857	50.9	
	54 1,4-Dioxane	88	7.400	7.403	(1.172)	62479	932.090	932	
M	55 Total Alkylbenzenes	100				10197353	350.267	350	
	57 cis-1,3-dichloropropene	75	7.968	7.965	(1.262)	500010	50.2201	50.2	
$	58 Toluene-D8	98	8.202	8.205	(1.299)	1161312	49.2642	49.3	
	59 Toluene	92	8.269	8.269	(1.310)	778556	47.4871	47.5	
	60 Tetrachloroethene	164	8.751	8.747	(0.860)	256801	47.8928	47.9	
	61 4-methyl-2-pentanone	43	8.828	8.834	(1.399)	298748	50.9446	50.9	
	62 trans-1,3-Dichloropropene	75	8.850	8.850	(1.402)	429363	49.0978	49.1	
	63 1,1,2-Trichloroethane	83	9.043	9.049	(1.433)	216497	45.7837	45.8	
	64 Dibromochloromethane	129	9.248	9.251	(0.909)	279062	46.3679	46.4	
	65 1,3-Dichloropropane	76	9.376	9.380	(0.921)	475312	45.8904	45.9	
	66 1,2-Dibromoethane	107	9.511	9.511	(1.507)	255868	47.0913	47.1	
	67 2-Hexanone	43	9.906	9.912	(0.973)	202237	52.4435	52.4	
*	68 Chlorobenzene-D5	117	10.179	10.182	(1.000)	982879	50.0000		
	69 Chlorobenzene	112	10.198	10.198	(1.002)	860845	47.6012	47.6	
	70 Ethylbenzene	91	10.265	10.269	(1.009)	1533399	48.9364	48.9	
	71 1,1,1,2-Tetrachloroethane	131	10.300	10.304	(1.012)	297346	50.5275	50.5	
	72 m+p-Xylenes	91	10.458	10.461	(1.027)	2336273	98.7007	98.7	
	73 o-Xylene	91	10.978	10.981	(1.078)	1205191	50.2503	50.2	
	74 Styrene	104	11.048	11.048	(1.085)	963709	50.4123	50.4	
	75 Bromoform	173	11.048	11.055	(1.085)	179377	47.6698	47.7	
	76 Isopropylbenzene	105	11.366	11.366	(0.878)	1529196	50.1580	50.2	
$	77 P-Bromofluorobenzene	95	11.674	11.677	(1.849)	514788	48.5915	48.6	
	78 cis-1,4-Dichloro-2-Butene	53	11.786	11.793	(0.911)	85960	46.7451	46.7	
	79 Bromobenzene	156	11.773	11.773	(0.910)	361013	47.7913	47.8	

Data File: \\target_server\gg\chem\gcms-w.i\W092821B.b\W0272.D
Report Date: 11-Oct-2021 20:43

			QUANT SIG					CONCENTRATIONS		
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/l)	FINAL (ug/l)	REVIEW CODE
	80	N-Propylbenzene	91	11.850	11.854	(0.916)	1866456	49.0984	49.1	
	81	1,1,2,2-Tetrachloroethane	83	11.959	11.960	(0.924)	319163	46.7136	46.7	
	82	2-Chlorotoluene	91	12.001	12.001	(0.927)	1076270	48.2543	48.2	
	83	1,2,3-Trichloropropane	75	12.085	12.085	(0.934)	278090	43.1491	43.1	
	84	1,3,5-Trimethylbenzene	105	12.094	12.098	(0.935)	1267392	49.7755	49.8	
	85	trans-1,4-Dichloro-2-Butene	53	12.152	12.155	(0.939)	86514	46.6915	46.7	
	86	4-Chlorotoluene	91	12.197	12.200	(0.942)	1137250	48.5631	48.6	
	87	tert-Butylbenzene	119	12.441	12.441	(0.961)	1120435	49.4094	49.4	
	89	1,2,4-Trimethylbenzene	105	12.527	12.531	(0.968)	1290992	48.7676	48.8	
	90	sec-Butylbenzene	105	12.643	12.646	(0.977)	1730399	50.8446	50.8	
	91	P-Isopropyltoluene	119	12.819	12.816	(0.991)	1487348	51.4686	51.5	
	92	1,3-Dichlorobenzene	146	12.855	12.858	(0.993)	723005	48.3353	48.3	
*	93	1,4-Dichlorobenzene-D4	152	12.941	12.942	(1.000)	566079	50.0000		
	94	1,4-Dichlorobenzene	146	12.961	12.961	(1.001)	738629	46.8704	46.9	
	95	1,2,3-Trimethylbenzene	105	13.006	13.006	(1.005)	1269825	49.0465	49.0	
	96	N-Butylbenzene	91	13.285	13.285	(1.027)	1434331	50.9027	50.9	
M	97	1,2-Dichloroethylene (total)	96				626143	89.1376	89.1	
	98	1,2-Dichlorobenzene	146	13.416	13.420	(1.037)	656757	46.6066	46.6	
	99	1,2-Dibromo-3-Chloropropane	157	14.308	14.315	(1.106)	55617	48.2587	48.2	
	100	1,3,5-Trichlorobenzene	180	14.340	14.341	(1.108)	517124	49.2718	49.3	
	101	Hexachlorobutadiene	225	15.034	15.034	(1.162)	240058	46.4058	46.4	
	102	1,2,4-Trichlorobenzene	180	15.046	15.056	(1.163)	422368	50.3029	50.3	
	103	Naphthalene	128	15.399	15.403	(1.190)	760568	43.6849	43.7	
	104	1,2,3-Trichlorobenzene	180	15.598	15.595	(1.205)	334141	48.1934	48.2	
M	105	Xylenes (total)	106				3541464	148.951	149	

QC Flag Legend

R - Spike/Surrogate failed recovery limits.


Data File: \\target_server\gg\chem\gcms-w.i\W092821B.b\W0272.D
Date : 28-SEP-2021 14:39
Client ID:
Sample Info: WG306817-10,S06313
Purge Volume: 5.0
Column phase: RTX-VMS
Instrument: gcms-w.i
Operator: ES
Column diameter: 0.18
\\target_server\gg\chem\gcms-w.i\W092821B.b\W0272.D
Y (x10^6)
Min
-Dichlorodifluoromethane (1.277)
-Chloromethane (1.424)
-Vinyl chloride (1.460)
-Bromomethane (1.672)
-Chloroethane (1.758)
-Trichlorofluoromethane (1.849)
-Diethyl Ether (2.060)
-1,1-Dichloroethene (2.240)+
-Iodomethane (2.327)
-Acrolein (2.478)
-Allyl Chloride (2.584)
-Methylene Chloride (2.677)+
-trans-1,2-Dichloroethene (2.811)+
-Methyl tert-butyl ether (2.911)+
-Acetonitrile (3.161)
-Di-isopropyl ether (3.283)
-Chloroprene (3.392)+
-Acrylonitrile (3.485)
-Ethyl tertiary-butyl ethe (3.703)+
-cis-1,2-Dichloroethene (4.053)
-2,2-Dichloropropane (4.191)
-Bromochloromethane (4.307)+
-Chloroform (4.438)
-Carbon Tetrachloride (4.605)+
-Dibromofluoromethane (4.711)+
-2-Butanone (4.916)+
-Benzene (5.318)
-Propionitrile (5.430)+
-1,2-Dichloroethane-D4 (5.545)+
-1,2-Dichloroethane (5.654)
-Isobutyl Alcohol (5.825)
-Methylcyclohexane (6.184)+
-1,4-Difluorobenzene (6.312)
-Dibromomethane (6.826)
-1,2-Dichloropropane (6.973)
-Bromodichloromethane (7.098)
-Methyl Methacrylate (7.384)+
-cis-1,3-dichloropropene (7.968)
-Toluene-D8 (8.202)
Toluene (8.276)
-Tetrachloroethene (8.751)
-4-methyl-2-pentanone (8.847)+
-1,1,2-Trichloroethane (9.043)
-Ethyl Methacrylate (9.120)
-Dibromochloromethane (9.248)
-1,3-Dichloropropane (9.377)
-1,2-Dibromoethane (9.512)
-2-Hexanone (9.906)
-Total Alkylbenzenes (10.080)
-Chlorobenzene-D5 (10.189)+
-Ethylbenzene (10.269)+
m+p-Xylenes (10.458)
-o-Xylene (10.978)
-Styrene (11.049)+
-Isopropylbenzene (11.366)
-P-Bromofluorobenzene (11.674)
-cis-1,4-Dichloro-2-Butene (11.674)+
-N-Propylbenzene (11.851)
-1,1,2,2-Tetrachloroethane (11.960)
-2-Chlorotoluene (12.002)
-trans-1,4-Dichloro-2-Bute (12.192)
-4-Chlorotoluene (12.197)
1,2,3-Trichloropropane (12.092)+
-tert-Butylbenzene (12.441)
-1,2,4-Trimethylbenzene (12.528)
-sec-Butylbenzene (12.643)
-P-Isopropyltoluene (12.820)+
-1,2,3-Trimethylbenzene (13.006)
1,4-Dichlorobenzene-D4 (12.952)+
-N-Butylbenzene (13.289)
-1,2-Dichlorobenzene (13.417)
-1,2-Dibromo-3-Chloropropa (14.341)+
-Hexachlorobutadiene (15.044)+
-Naphthalene (15.400)
-1,2,3-Trichlorobenzene (15.599)

Logbooks and Supporting Documents

WF

GCMS-W INSTRUMENT RUNLOG

KATAHDIN ANALYTICAL SERVICES

DATE/TIME OF BFB INJECTION: 9-20-21 1:29

Method - Check One:	8260 ✓	8260 - 10 mL	8260 SIM	624	524
STD IDs: * BFB STD: V23013	CAL STD: V23017	GAS STD: V23045	XTRAs STD: V23107	LCS/MS STD: V23009	
SURR STD: V23005	IS STD: V23005				

SAMPLE NAME	DATAFILE	DF	ALS #	METHOD	Prep Method 5030	5035	1311	Criteria KAS	DoD	QAPP	Y/N	ANALYST	pH	TRC	COMMENTS
WC 246317-12	W0100	—	—	V8260D	✓						Y	DP	N/A	N/A	
RSTD 183 - 6	W0106	1	1	WSTD(08)							Y				
100 - 5	99		2								Y				
25 - 7	W=100		3								Y				
50 - 4	=1		4								Y				Chlorobenzene-D5
20 - 3	=2		5								Y				9-20-21
10	=3		6								N				
5 - 2	=4		7								Y				
1 - 1	=5		8								Y				
T.C - 9/10	=6		9								Y/N				
LCS - 14	07		10								Y				
RBLK	08		11								✓				toluene-D8
B - 11	09		12								Y				
Solid-7A	10		13						C3		Y		<2		
-6A	11		14								Y				
-1A	12		15								Y				
-3A	13		16								Y				ISSD THLLOR
-4A	14		17								Y				
-5A	15		18								Y				
-8D2A	16		19								Y				
~~6~~ -23MS -15	17		20								✓				check SO/MeOH
~~9~~ -24 MSD -16	18		21								Y				✓
CCV1 - 13	19		22								X/N		N/A		1B-52 ✓ [illegible]
2	20		23								Y				19:23
3	21		24								X/N				[illegible]
Rinse	22	✓	25								—				

* Refer to page 1 for standard preparation instructions.

Katahdin Analytical Services 1000574

GCMS-W INSTRUMENT RUNLOG WG1

KATAHDIN ANALYTICAL SERVICES

DATE/TIME OF BFB INJECTION: 9/21/21 6:45

Method - Check One:	8260 ✓	8260 - 10 mL	8260 SIM	624	524
STD IDs: * BFB STD: V2313	CAL STD: V2317	GAS STD: V2314 B	XTRAs STD: V2318	LCS/MS STD: V2319	
SURR STD: ✓ 2305	IS STD: V2305				

					Prep Method			Criteria			pH Paper Lot #:			KI Paper Lot #	
SAMPLE NAME	DATAFILE	DF	ALS #	METHOD	5030	5035	1311	KAS	DoD	QAPP	Y/N	ANALYST	pH	TRC	COMMENTS
WG36638-3	WB638	—	—	VOABFB	✓						Y	✓	N/A	N/A	
vstd 050 -4	W023	1	1	WBA05(08)							Y				
LCS -1	24	1	2								Y				
vBlank	25	1	3								N				
vBlank -2	26	1	4								Y				
SO63I3-29 A	27	1	5					✓			Y		✓		
SO63O4-7 A	28	1	6								Y				
SO63I3-8DL A	29	20	7								N				-1.8 BR 1.50
-9DL A	30	20	8								Y				
-1	31	1	9								Y				
-2	32	1	10								Y				
-3	33	1	11								Y				
-5	34	1	12								Y				
-6	35	1	13								Y				
-7	36	1	14								Y				
-10	37	1	15								Y				
-18	38	1	16								Y				
-20	39	1	17								Y				
-21	40	1	18								Y				
-9DL2	41	2	19						B 10-5-21	Y	N				
-9DL2	42	2	20					+			Y				17:28
RINSE	43	1	21	—	+						—	+	N/A	+	

* Refer to page 1 for standard preparation instructions.

T-21-21

Katahdin Analytical Services 1000575

WG

GCMS-W INSTRUMENT RUNLOG

KATAHDIN ANALYTICAL SERVICES

DATE/TIME OF BFB INJECTION: 9/22/21 06:19

Method - Check One:	8260 ✓	8260 - 10 mL	8260 SIM	624	524
STD IDs: * BFB STD: V2313	CAL STD: V2317	GAS STD: V2314 B	XTRAs STD: V2318	LCS/MS STD: V2319	
SURR STD: V2305	IS STD: V2305				

SAMPLE NAME	DATAFILE	DF	ALS #	METHOD	Prep Method: 5030	5035	1311	Criteria: KAS	DoD	QAPP	pH Paper Lot #: Y/N	ANALYST	pH	TRC	KI Paper Lot # COMMENTS
WG86404-3	WB089	—	—	VUARFB	✓						Y	↓	N/A	N/A	
VStd 050 -4	WD145	1	1	WBAQ5(08)							Y				
LCS -1	46	1	2								Y				
LCSD -2	47	1	3								Y				
VBlank	48	1	4								Y				
VBlank -2	49	1	5								N				
SQ63B-8DL3B	50	50	6					✓			Y				
-15DL A	51	200	7								Y		12		
-13DL A	52	200	8								Y				
-25DL A	53	100	9								Y				
-11DL A	54	40	10								Y				
SQ6304-1 A	55	1	11								N				orthophosphate RR 1:20 9:2
-3 A	56	1	12								Y				
-5 A	57	1	13								Y				
-6 A	58	1	14								Y				
SQ62600-1RA B	59	1	15								Y				
-2RA B	60	1	16								Y				
-4RA B	61	1	17								Y				
SQ63B-1DL2 A	62	4	18								N				
-15DL2A	63	20	19								Y				
-13DL2A	64	20	20								Y				
-25DL2A	65	10	21								Y				17:35 ✓
~~CCV~~ Rinse	66	1	22										24		
CCV Rinse	67	1	23									↓	↓	↓	
															9-22-21

* Refer to page 1 for standard preparation instructions.

Katahdin Analytical Services 1000576

KATAHDIN ANALYTICAL SERVICES

GCMS-W INSTRUMENT RUNLOG

DATE/TIME OF BFB INJECTION: 9/23/21 0:29

Method - Check One:	8260 ✓	8260 - 10 mL	8260 SIM	624	524
STD IDs: * BFB STD:	CAL STD: V2317	GAS STD: V2330A	XTRAs STD: V2319	LCS/MS STD: V2313	
SURR STD: V2305	IS STD: V2305				

SAMPLE NAME	DATAFILE	DF	ALS #	METHOD	Prep Method 5030	5035	1311	Criteria KAS	DoD	QAPP	pH Paper Lot #: Y/N	ANALYST	pH	TRC	KI Paper Lot # COMMENTS
[illegible]	VIB040	--	-	VOABFB	✓						Y	[illegible]	N/A	N/A	
Std 050	W0181	1	1	W8A05(08)							N				
[illegible] -4	[illegible]	1	2								Y				
LCS -1	[illegible]	1	3								Y				
Blank	84	1	4								N				
[illegible] -2	85	1	5								Y		—		
[illegible] -29 B	86	1	6					✓			W		12		not needed
-26 DL A	87	200	7								X				KR 1:100
-14 DL A	88	100	8												KR 1:50
-7 11DL3 B	89	20	9								Y				
-27DL A	90	4	10								Y				
-22 DL A	91	2	11								N				KR str
-16 A	92	1	12								Y				
-23 A	93	1	13								Y				
-24 A	94	1	14								Y				
-11DL4 B	95	2	15								Y				
-14 DL2 A	96	10	16												
-20 DL2 A	97	20	17												
-27 B	98	1	18								Y				
-22 B	99	1	19					⊥			✓		✓		✓
RINSE	W0200	1	20								N/A		N/A		
Rinse	W0201	1	21								✓				
SSW313-4 A	102	200	22					✓							Run Std
-12 A	03	[illegible]	[illegible]												Run [illegible]
-17 A	04	[illegible]	[illegible]					⊥							Run Std
[illegible]	05				⊥							⊥		⊥	[illegible]

* Refer to page 1 for standard preparation instructions.

Katahdin Analytical Services 1000577

GCMS-W INSTRUMENT RUNLOG

WG

KATAHDIN ANALYTICAL SERVICES

DATE/TIME OF BFB INJECTION: 09/24/21 6:23

Method - Check One:	8260 ✓	8260 - 10 mL	8260 SIM	624	524
STD IDs: * BFB STD:	v2313	CAL STD: v2321	GAS STD: —	XTRAs STD: v2323	LCS/MS STD: v2322
SURR STD: v2305		IS STD: v2305			

					Prep Method			Criteria					pH Paper Lot #: 0063063	KI Paper Lot #:	
SAMPLE NAME	DATAFILE	DF	ALS #	METHOD	5030	5035	1311	KAS	DoD	QAPP	Y/N	ANALYST	pH	TRC	COMMENTS
WG306608-12	WB0941	—	—	VIABFB	✓						Y	tr	N/A	N/A	
vstd 050	W0206	1	1	WBA05(08)A							✓				
050	07	1	2								N				
150 -6	08	1	3								✓				
100 -5	09	1	4								✓				Curve no good
075 -7	10	1	5								✓				Up 2-Chr
050 -4	11	1	6								✓				Do again
020 -3	12	1	7								Y				
010 -8	13	1	8								Y				
005 -2	14	1	9								Y				
001 -1	15	1	10								Y				
LCS -10 ~~-9~~	16	1	11								Y				
LCSD -13 ~~-10~~	17	1	12								✓				
VBlank	18	1	13								Y				Initial
VBlank -11	19	1	14								N				high ✓ Lic
SO6313-28 DL A	20	100	15					✓			Y		2		
-26DL B	21	100	16								✓		12		
-14DL B	22	50	17								Y				
-22 C	23		18								✓				
-28DL2A	24	10	19								Y				
-26DL2B	25	10	20								Y				
-14DL2B	26	5	21								✓				
Rinse	27		22	"	"			—			—	"	NA	"	

* Refer to page 1 for standard preparation instructions.

1-27-21

Katahdin Analytical Services 1000578

KATAHDIN ANALYTICAL SERVICES

GCMS-W INSTRUMENT RUNLOG

DATE/TIME OF BFB INJECTION: 9/28/21 10:05

Method - Check One:	8260 ✓	8260 - 10 mL	8260 SIM	624	524
STD IDs: * BFB STD: v2313	CAL STD: v2324	GAS STD: —	XTRAs STD: v2325	LCS/MS STD: v2322	
SURR STD: v2305	IS STD: v2305				

SAMPLE NAME	DATAFILE	DF	ALS #	METHOD	Prep Method 5030	5035	1311	Criteria KAS	DoD	QAPP	pH Paper Lot #: Y/N	ANALYST	pH	TRC	KI Paper Lot # COMMENTS
WG306817-12	WB044	—	—	VOATBF3	✓						Y	✓	NA	N/A	
vstd 050 -4	WB044	1	1	WBMS(09)							Y				Cumene
020 -3	05	1	2								Y				Acetone 50
010 -8	06	1	3								Y				MTBE spk 15
005 -2	07	1	4								Y				IPE spk 1mo
001 -1	08	1	5								Y				1,4-D spk 1mo
150 -6	09	1	6								Y				9/29/21
100 -5	70	1	7								Y				
075 -7	71	1	8								Y				
LCS -9/10	72	1	9								Y				
LCSD -9/14	73	1	10								Y				Int "A" Dupes + Chloromethane
VBLK	74	1	11								N				tent hits
WG306817-11	75	1	12								Y				Bromo Cal.
506427-1 A	76	1	13						5.1		Y				no bromo in WG
506271-6 B	77	1	14						5.3		Y				Bromo <LOQ
-7 B	78	1	15						✓		Y				↓
506313-12DL B	79	20	16					✓			Y				Bromo <LOQ
506253-10 B	80	1	17						5.1		Y				Bromo <LOQ
506313-4 B	81	1	18					✓			Y				no Bromo
-17 B	82	1	19					✓			Y				Bromo <LOQ
506271-1B	83	1	20						5.3		Y				no Bromo
-2 B	84	1	21						✓						Bromo >LOQ RA
506313-12DL2 B	85	2	22					✓			Y		✓		
CCV1 -12	86	1	23								Y		✓AB		21:4 / Bromoform ↓
2 -15	87	1	24								Y		✓		Rpt'd w/dilution
3 -16	88	1	25	↓	↓						Y		✓		except for 506427
Rinse	89	1	26												

* Refer to page 1 for standard preparation instructions.

Katahdin Analytical Services 1000579

METALS DATA

Sample Data Section

METALS SAMPLE FLAGGING

FLAG	SPECIFIED MEANING
E	The reported value is estimated because of the presence of interference (as indicated by serial dilution).
N	The pre-digestion spiked sample recovery is not within control limits.
*	The duplicate sample analysis relative percent difference (RPD) is not within control limits.
B	Indicates the analyte was detected in the laboratory method blank analyzed concurrently with the sample.
A	The post-digestion spiked sample recovery is not within control limits.
•	Analytical run QC sample (e.g. ICV, CCV, ICB, CCB, ICSA, ICSAB) not within control limits.
U	The analyte was not detected above the specified level. This level may be the Practical Quantitation Level (PQL) (also called Limit of Quantitation (LOQ)), the Limit of Detection (LOD) or Method Detection Limit (MDL) as required by the client. Note: All results reported as "U" MDL have a 50% rate for false negatives compared to those results reported as "U" PQL, "U" LOQ or "U" LOD, where the rate of false negatives is <1%.
J	Estimated value. The analyte was detected in the sample at a concentration less than the laboratory Practical Quantitation Level (PQL) (also called Limit of Quantitation (LOQ)), but above the Method Detection Limit (MDL).
Q	One or more quality control criteria failed (e.g., LCS recovery, surrogate spike recovery or CCV).

COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

Lab Name: Katahdin Analytical Services

SDG Name: SO6313 **SOW No.** SW846

Client Field ID	Lab Sample ID
83DM-SP-3(20210916)	SO6313-017
86EM-SP-6(20210916)	SO6313-016
92EM-SP-8(20210916)	SO6313-018
92EM-SP-8(20210916)	SO6313-031
94EM-MW-19(20210915)	SO6313-003
94EM-MW-20(20210915)	SO6313-006
94EM-MW-20(20210915)	SO6313-030
94EM-MW-21(20210915)	SO6313-005
DUP-01(20210915)	SO6313-004
FILTER BLANK	SO6313-032

Were ICP interelement corrections applied ?	Yes
Were ICP background corrections applied ?	Yes
If yes - were raw data generated before application of background corrections ?	No

Comments:

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed in the case narrative. Release of the data contained in this hardcopy data package and in the computer-readable data submitted has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: Emily Pelletier Name: Emily Pelletier

Date: 10/7/21 Title: Analyst

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** 94EM-MW-19(20210915)

Matrix: WATER **SDG Name:** SO6313

Percent Solids: 0.00 **Lab Sample ID:** SO6313-003

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	Adj. PQL	Adj. MDL
7440-38-2	ARSENIC, TOTAL	8.0	U		P	1	8.0	1.4
7440-39-3	BARIUM, TOTAL	186			P	1	5.0	0.23
7440-43-9	CADMIUM, TOTAL	5.0	U		P	1	5.0	0.049
7440-47-3	CHROMIUM, TOTAL	382			P	1	10	0.36
7439-92-1	LEAD, TOTAL	5.0	U		P	1	5.0	1.1
7439-97-6	MERCURY, TOTAL	0.20	U		CV	1	0.20	0.013
7782-49-2	SELENIUM, TOTAL	10	U		P	1	10	2.4
7440-22-4	SILVER, TOTAL	10	U		P	1	10	0.27

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** DUP-01(20210915)

Matrix: WATER **SDG Name:** SO6313

Percent Solids: 0.00 **Lab Sample ID:** SO6313-004

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	Adj. PQL	Adj. MDL
7440-38-2	ARSENIC, TOTAL	8.0	U		P	1	8.0	1.4
7440-39-3	BARIUM, TOTAL	184			P	1	5.0	0.23
7440-43-9	CADMIUM, TOTAL	5.0	U		P	1	5.0	0.049
7440-47-3	CHROMIUM, TOTAL	380			P	1	10	0.36
7439-92-1	LEAD, TOTAL	5.0	U		P	1	5.0	1.1
7439-97-6	MERCURY, TOTAL	0.20	U		CV	1	0.20	0.013
7782-49-2	SELENIUM, TOTAL	10	U		P	1	10	2.4
7440-22-4	SILVER, TOTAL	10	U		P	1	10	0.27

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** 94EM-MW-21(20210915)

Matrix: WATER **SDG Name:** SO6313

Percent Solids: 0.00 **Lab Sample ID:** SO6313-005

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	Adj. PQL	Adj. MDL
7440-38-2	ARSENIC, TOTAL	8.0	U		P	1	8.0	1.4
7440-39-3	BARIUM, TOTAL	121			P	1	5.0	0.23
7440-43-9	CADMIUM, TOTAL	5.0	U		P	1	5.0	0.049
7440-47-3	CHROMIUM, TOTAL	191			P	1	10	0.36
7439-92-1	LEAD, TOTAL	5.0	U		P	1	5.0	1.1
7439-97-6	MERCURY, TOTAL	0.20	U		CV	1	0.20	0.013
7782-49-2	SELENIUM, TOTAL	10	U		P	1	10	2.4
7440-22-4	SILVER, TOTAL	10	U		P	1	10	0.27

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** 94EM-MW-20(20210915)

Matrix: WATER **SDG Name:** SO6313

Percent Solids: 0.00 **Lab Sample ID:** SO6313-006

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	Adj. PQL	Adj. MDL
7440-38-2	ARSENIC, TOTAL	8.0	U		P	1	8.0	1.4
7440-39-3	BARIUM, TOTAL	27.0			P	1	5.0	0.23
7440-43-9	CADMIUM, TOTAL	5.0	U		P	1	5.0	0.049
7440-47-3	CHROMIUM, TOTAL	72.8			P	1	10	0.36
7439-92-1	LEAD, TOTAL	19.0			P	1	5.0	1.1
7439-97-6	MERCURY, TOTAL	0.20	U		CV	1	0.20	0.013
7782-49-2	SELENIUM, TOTAL	10	U		P	1	10	2.4
7440-22-4	SILVER, TOTAL	10	U		P	1	10	0.27

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** 86EM-SP-6(20210916)

Matrix: WATER **SDG Name:** SO6313

Percent Solids: 0.00 **Lab Sample ID:** SO6313-016

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	Adj. PQL	Adj. MDL
7440-38-2	ARSENIC, TOTAL	8.0	U		P	1	8.0	1.4
7440-39-3	BARIUM, TOTAL	106			P	1	5.0	0.23
7440-43-9	CADMIUM, TOTAL	5.0	U		P	1	5.0	0.049
7440-47-3	CHROMIUM, TOTAL	10	U		P	1	10	0.36
7439-92-1	LEAD, TOTAL	5.0	U		P	1	5.0	1.1
7439-97-6	MERCURY, TOTAL	0.20	U		CV	1	0.20	0.013
7782-49-2	SELENIUM, TOTAL	10	U		P	1	10	2.4
7440-22-4	SILVER, TOTAL	10	U		P	1	10	0.27

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** 83DM-SP-3(20210916)

Matrix: WATER **SDG Name:** SO6313

Percent Solids: 0.00 **Lab Sample ID:** SO6313-017

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	Adj. PQL	Adj. MDL
7440-47-3	CHROMIUM, TOTAL	10	U		P	1	10	0.36

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** 92EM-SP-8(20210916)

Matrix: WATER **SDG Name:** SO6313

Percent Solids: 0.00 **Lab Sample ID:** SO6313-018

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	Adj. PQL	Adj. MDL
7440-47-3	CHROMIUM, TOTAL	23.9			P	1	10	0.36

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** 94EM-MW-20(20210915)

Matrix: WATER **SDG Name:** SO6313

Percent Solids: 0.00 **Lab Sample ID:** SO6313-030

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	Adj. PQL	Adj. MDL
7440-38-2	ARSENIC, DISSOLVED	8.0	U		P	1	8.0	1.4
7440-39-3	BARIUM, DISSOLVED	46.8			P	1	5.0	0.23
7440-43-9	CADMIUM, DISSOLVED	5.0	U		P	1	5.0	0.049
7440-47-3	CHROMIUM, DISSOLVED	10	U		P	1	10	0.36
7439-92-1	LEAD, DISSOLVED	5.0	U		P	1	5.0	1.1
7439-97-6	MERCURY, DISSOLVED	0.20	U		CV	1	0.20	0.013
7782-49-2	SELENIUM, DISSOLVED	10	U		P	1	10	2.4
7440-22-4	SILVER, DISSOLVED	10	U		P	1	10	0.27

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** 92EM-SP-8(20210916)

Matrix: WATER **SDG Name:** SO6313

Percent Solids: 0.00 **Lab Sample ID:** SO6313-031

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	Adj. PQL	Adj. MDL
7440-47-3	CHROMIUM, DISSOLVED	12.1			P	1	10	0.36

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** FILTER BLANK

Matrix: WATER **SDG Name:** SO6313

Percent Solids: 0.00 **Lab Sample ID:** SO6313-032

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	Adj. PQL	Adj. MDL
7440-38-2	ARSENIC, DISSOLVED	8.0	U		P	1	8.0	1.4
7440-39-3	BARIUM, DISSOLVED	5.98			P	1	5.0	0.23
7440-43-9	CADMIUM, DISSOLVED	5.0	U		P	1	5.0	0.049
7440-47-3	CHROMIUM, DISSOLVED	10	U		P	1	10	0.36
7439-92-1	LEAD, DISSOLVED	5.0	U		P	1	5.0	1.1
7439-97-6	MERCURY, DISSOLVED	0.20	U		CV	1	0.20	0.013
7782-49-2	SELENIUM, DISSOLVED	10	U		P	1	10	2.4
7440-22-4	SILVER, DISSOLVED	10	U		P	1	10	0.27

Comments:

QC Summary Section

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name:** SO6313

Concentration Units: ug/L

SAMPLE: ICV

File: HOJ05A Oct 05, 2021 13:41

Analyte	True	Found	%R (1)
MERCURY	6.0	5.89	98.2

SAMPLE: CCV

File: HOJ05A Oct 05, 2021 13:47

Analyte	True	Found	%R (1)
MERCURY	5.0	5.07	101.4

(1) Control Limits: Mercury 80-120; Other Metals 90-110

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name:** SO6313

Concentration Units: ug/L

SAMPLE: CCV

File: HOJ05A Oct 05, 2021 14:10

Analyte	True	Found	%R (1)
MERCURY	5.0	5.10	102.0

SAMPLE: CCV

File: HOJ05A Oct 05, 2021 14:36

Analyte	True	Found	%R (1)
MERCURY	5.0	4.99	99.8

(1) Control Limits: Mercury 80-120; Other Metals 90-110

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name:** SO6313

Concentration Units: ug/L

SAMPLE: CCV

File: HOJ05A Oct 05, 2021 14:42

Analyte	True	Found	%R (1)
MERCURY	5.0	5.09	101.8

(1) Control Limits: Mercury 80-120; Other Metals 90-110

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name:** SO6313

Concentration Units: ug/L

SAMPLE: ICV

File: IOI24A Sep 24, 2021 11:17

Analyte	True	Found	%R (1)
ALUMINUM	10000.0	9826.00	98.3
ARSENIC	400.0	376.80	94.2
BARIUM	400.0	395.30	98.8
CADMIUM	400.0	394.50	98.6
CALCIUM	10000.0	9766.00	97.7
CHROMIUM	400.0	389.80	97.5
IRON	10000.0	9869.00	98.7
LEAD	400.0	401.40	100.3
MAGNESIUM	10000.0	9809.00	98.1
SELENIUM	400.0	387.40	96.8
SILVER	400.0	387.40	96.8

SAMPLE: CCV

File: IOI24A Sep 24, 2021 11:39

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	12650.00	101.2
ARSENIC	500.0	499.70	99.9
BARIUM	500.0	496.10	99.2
CADMIUM	500.0	504.80	101.0
CALCIUM	12500.0	12500.00	100.0
CHROMIUM	500.0	499.50	99.9
IRON	12500.0	12480.00	99.8
LEAD	500.0	511.00	102.2
MAGNESIUM	12500.0	12830.00	102.6
SELENIUM	500.0	499.70	99.9
SILVER	500.0	499.30	99.9

(1) Control Limits: Mercury 80-120; Other Metals 90-110

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name:** SO6313

Concentration Units: ug/L

SAMPLE: CCV

File: IOI24A Sep 24, 2021 11:57

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	12790.00	102.3
ARSENIC	500.0	491.80	98.4
BARIUM	500.0	500.90	100.2
CADMIUM	500.0	495.20	99.0
CALCIUM	12500.0	12630.00	101.0
CHROMIUM	500.0	494.50	98.9
IRON	12500.0	12610.00	100.9
LEAD	500.0	501.40	100.3
MAGNESIUM	12500.0	12550.00	100.4
SELENIUM	500.0	493.30	98.7
SILVER	500.0	495.80	99.2

SAMPLE: CCV

File: IOI24A Sep 24, 2021 12:49

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	12620.00	101.0
ARSENIC	500.0	498.40	99.7
BARIUM	500.0	497.90	99.6
CADMIUM	500.0	498.90	99.8
CALCIUM	12500.0	12340.00	98.7
CHROMIUM	500.0	492.00	98.4
IRON	12500.0	12400.00	99.2
LEAD	500.0	505.60	101.1
MAGNESIUM	12500.0	12770.00	102.2
SELENIUM	500.0	499.00	99.8
SILVER	500.0	496.90	99.4

(1) Control Limits: Mercury 80-120; Other Metals 90-110

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name:** SO6313

Concentration Units: ug/L

SAMPLE: CCV

File: IOI24A Sep 24, 2021 13:41

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	12610.00	100.9
ARSENIC	500.0	499.00	99.8
BARIUM	500.0	501.10	100.2
CADMIUM	500.0	499.80	100.0
CALCIUM	12500.0	12360.00	98.9
CHROMIUM	500.0	491.70	98.3
IRON	12500.0	12390.00	99.1
LEAD	500.0	506.50	101.3
MAGNESIUM	12500.0	12780.00	102.2
SELENIUM	500.0	496.80	99.4
SILVER	500.0	496.40	99.3

SAMPLE: CCV

File: IOI24A Sep 24, 2021 14:34

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	12470.00	99.8
ARSENIC	500.0	495.90	99.2
BARIUM	500.0	492.60	98.5
CADMIUM	500.0	497.20	99.4
CALCIUM	12500.0	12270.00	98.2
CHROMIUM	500.0	489.00	97.8
IRON	12500.0	12240.00	97.9
LEAD	500.0	503.40	100.7
MAGNESIUM	12500.0	12690.00	101.5
SELENIUM	500.0	496.10	99.2
SILVER	500.0	493.90	98.8

(1) Control Limits: Mercury 80-120; Other Metals 90-110

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name:** SO6313

Concentration Units: ug/L

SAMPLE: CCV

File: IOI24A Sep 24, 2021 15:22

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	12620.00	101.0
ARSENIC	500.0	491.30	98.3
BARIUM	500.0	498.60	99.7
CADMIUM	500.0	496.50	99.3
CALCIUM	12500.0	12330.00	98.6
CHROMIUM	500.0	491.10	98.2
IRON	12500.0	12300.00	98.4
LEAD	500.0	503.40	100.7
MAGNESIUM	12500.0	12620.00	101.0
SELENIUM	500.0	494.40	98.9
SILVER	500.0	498.90	99.8

SAMPLE: CCV

File: IOI24A Sep 24, 2021 15:44

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	12540.00	100.3
ARSENIC	500.0	494.40	98.9
BARIUM	500.0	497.20	99.4
CADMIUM	500.0	497.70	99.5
CALCIUM	12500.0	12300.00	98.4
CHROMIUM	500.0	490.70	98.1
IRON	12500.0	12340.00	98.7
LEAD	500.0	503.30	100.7
MAGNESIUM	12500.0	12670.00	101.4
SELENIUM	500.0	494.90	99.0
SILVER	500.0	498.30	99.7

(1) Control Limits: Mercury 80-120; Other Metals 90-110

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name:** SO6313

Concentration Units: ug/L

SAMPLE: ICV

File: IOI27A Sep 27, 2021 10:23

Analyte	True	Found	%R (1)
ALUMINUM	10000.0	10110.00	101.1
ARSENIC	400.0	384.80	96.2
BARIUM	400.0	403.00	100.8
CADMIUM	400.0	402.80	100.7
CALCIUM	10000.0	10160.00	101.6
CHROMIUM	400.0	407.60	101.9
IRON	10000.0	10100.00	101.0
LEAD	400.0	411.00	102.8
MAGNESIUM	10000.0	10070.00	100.7
SELENIUM	400.0	395.10	98.8
SILVER	400.0	404.40	101.1

SAMPLE: CCV

File: IOI27A Sep 27, 2021 10:45

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	12790.00	102.3
ARSENIC	500.0	506.60	101.3
BARIUM	500.0	503.70	100.7
CADMIUM	500.0	518.30	103.7
CALCIUM	12500.0	12800.00	102.4
CHROMIUM	500.0	513.90	102.8
IRON	12500.0	12730.00	101.8
LEAD	500.0	523.10	104.6
MAGNESIUM	12500.0	13180.00	105.4
SELENIUM	500.0	507.30	101.5
SILVER	500.0	516.80	103.4

(1) Control Limits: Mercury 80-120; Other Metals 90-110

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name:** SO6313

Concentration Units: ug/L

SAMPLE: CCV

File: IOI27A Sep 27, 2021 11:03

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	13010.00	104.1
ARSENIC	500.0	508.00	101.6
BARIUM	500.0	514.50	102.9
CADMIUM	500.0	515.20	103.0
CALCIUM	12500.0	12910.00	103.3
CHROMIUM	500.0	511.70	102.3
IRON	12500.0	12880.00	103.0
LEAD	500.0	521.40	104.3
MAGNESIUM	12500.0	13100.00	104.8
SELENIUM	500.0	507.00	101.4
SILVER	500.0	518.30	103.7

SAMPLE: CCV

File: IOI27A Sep 27, 2021 11:54

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	12740.00	101.9
ARSENIC	500.0	509.70	101.9
BARIUM	500.0	503.50	100.7
CADMIUM	500.0	510.50	102.1
CALCIUM	12500.0	12500.00	100.0
CHROMIUM	500.0	501.40	100.3
IRON	12500.0	12440.00	99.5
LEAD	500.0	517.90	103.6
MAGNESIUM	12500.0	13060.00	104.5
SELENIUM	500.0	511.30	102.3
SILVER	500.0	516.10	103.2

(1) Control Limits: Mercury 80-120; Other Metals 90-110

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name:** SO6313

Concentration Units: ug/L

SAMPLE: CCV

File: IOI27A Sep 27, 2021 12:47

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	12770.00	102.2
ARSENIC	500.0	511.10	102.2
BARIUM	500.0	505.30	101.1
CADMIUM	500.0	507.60	101.5
CALCIUM	12500.0	12320.00	98.6
CHROMIUM	500.0	497.20	99.4
IRON	12500.0	12360.00	98.9
LEAD	500.0	515.80	103.2
MAGNESIUM	12500.0	13000.00	104.0
SELENIUM	500.0	514.20	102.8
SILVER	500.0	515.80	103.2

SAMPLE: CCV

File: IOI27A Sep 27, 2021 13:38

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	12880.00	103.0
ARSENIC	500.0	512.50	102.5
BARIUM	500.0	506.70	101.3
CADMIUM	500.0	506.40	101.3
CALCIUM	12500.0	12370.00	99.0
CHROMIUM	500.0	495.40	99.1
IRON	12500.0	12330.00	98.6
LEAD	500.0	514.00	102.8
MAGNESIUM	12500.0	13090.00	104.7
SELENIUM	500.0	516.30	103.3
SILVER	500.0	520.80	104.2

(1) Control Limits: Mercury 80-120; Other Metals 90-110

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name:** SO6313

Concentration Units: ug/L

SAMPLE: CCV

File: IOI27A Sep 27, 2021 14:30

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	12970.00	103.8
ARSENIC	500.0	518.00	103.6
BARIUM	500.0	507.30	101.5
CADMIUM	500.0	511.50	102.3
CALCIUM	12500.0	12360.00	98.9
CHROMIUM	500.0	494.20	98.8
IRON	12500.0	12260.00	98.1
LEAD	500.0	517.90	103.6
MAGNESIUM	12500.0	13410.00	107.3
SELENIUM	500.0	519.50	103.9
SILVER	500.0	527.00	105.4

SAMPLE: CCV

File: IOI27A Sep 27, 2021 14:39

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	12780.00	102.2
ARSENIC	500.0	506.80	101.4
BARIUM	500.0	506.20	101.2
CADMIUM	500.0	501.80	100.4
CALCIUM	12500.0	12030.00	96.2
CHROMIUM	500.0	488.00	97.6
IRON	12500.0	12110.00	96.9
LEAD	500.0	508.90	101.8
MAGNESIUM	12500.0	13070.00	104.6
SELENIUM	500.0	508.30	101.7
SILVER	500.0	522.00	104.4

(1) Control Limits: Mercury 80-120; Other Metals 90-110

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name:** SO6313

Concentration Units: ug/L

SAMPLE: CCV

File: IOI27A Sep 27, 2021 15:01

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	13000.00	104.0
ARSENIC	500.0	511.00	102.2
BARIUM	500.0	508.50	101.7
CADMIUM	500.0	503.80	100.8
CALCIUM	12500.0	12230.00	97.8
CHROMIUM	500.0	490.90	98.2
IRON	12500.0	12240.00	97.9
LEAD	500.0	510.70	102.1
MAGNESIUM	12500.0	13180.00	105.4
SELENIUM	500.0	511.60	102.3
SILVER	500.0	522.10	104.4

(1) Control Limits: Mercury 80-120; Other Metals 90-110

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name:** SO6313

Concentration Units: ug/L

SAMPLE: ICV

File: IOI28A Sep 28, 2021 09:07

Analyte	True	Found	%R (1)
ALUMINUM	10000.0	10110.00	101.1
CALCIUM	10000.0	10190.00	101.9
IRON	10000.0	10210.00	102.1
MAGNESIUM	10000.0	9819.00	98.2
SELENIUM	400.0	386.50	96.6

SAMPLE: CCV

File: IOI28A Sep 28, 2021 09:29

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	12890.00	103.1
CALCIUM	12500.0	12880.00	103.0
IRON	12500.0	12990.00	103.9
MAGNESIUM	12500.0	12660.00	101.3
SELENIUM	500.0	489.20	97.8

(1) Control Limits: Mercury 80-120; Other Metals 90-110

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name:** SO6313

Concentration Units: ug/L

SAMPLE: CCV

File: IOI28A Sep 28, 2021 09:46

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	12990.00	103.9
CALCIUM	12500.0	12820.00	102.6
IRON	12500.0	13080.00	104.6
MAGNESIUM	12500.0	12670.00	101.4
SELENIUM	500.0	497.80	99.6

SAMPLE: CCV

File: IOI28A Sep 28, 2021 10:38

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	12690.00	101.5
CALCIUM	12500.0	12490.00	99.9
IRON	12500.0	12840.00	102.7
MAGNESIUM	12500.0	12420.00	99.4
SELENIUM	500.0	483.50	96.7

(1) Control Limits: Mercury 80-120; Other Metals 90-110

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name:** SO6313

Concentration Units: ug/L

SAMPLE: CCV

File: IOI28A Sep 28, 2021 11:30

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	12350.00	98.8
CALCIUM	12500.0	11880.00	95.0
IRON	12500.0	12270.00	98.2
MAGNESIUM	12500.0	12340.00	98.7
SELENIUM	500.0	475.80	95.2

SAMPLE: CCV

File: IOI28A Sep 28, 2021 12:13

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	12540.00	100.3
CALCIUM	12500.0	12170.00	97.4
IRON	12500.0	12550.00	100.4
MAGNESIUM	12500.0	12080.00	96.6
SELENIUM	500.0	465.70	93.1

(1) Control Limits: Mercury 80-120; Other Metals 90-110

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name:** SO6313

Concentration Units: ug/L

SAMPLE: CCV

File: IOI28A Sep 28, 2021 12:35

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	12640.00	101.1
CALCIUM	12500.0	12150.00	97.2
IRON	12500.0	12500.00	100.0
MAGNESIUM	12500.0	12260.00	98.1
SELENIUM	500.0	469.50	93.9

(1) Control Limits: Mercury 80-120; Other Metals 90-110

2C

PQL STANDARD FOR AA AND ICP

Lab Name: Katahdin Analytical Services **SDG Name:** SO6313

Concentration Units: ug/L

SAMPLE: PQL

File: HOJ05A Oct 05, 2021 13:45

Analyte	TRUE	FOUND	% R
MERCURY	0.2	0.21	105.0

2C

PQL STANDARD FOR AA AND ICP

Lab Name: Katahdin Analytical Services **SDG Name:** SO6313

Concentration Units: ug/L

SAMPLE: PQL

File: IOI24A Sep 24, 2021 11:26

Analyte	TRUE	FOUND	% R
ALUMINUM	300.0	284.10	94.7
ARSENIC	8.0	7.63	95.4
BARIUM	5.0	5.15	103.0
CADMIUM	5.0	5.00	100.0
CALCIUM	100.0	95.08	95.1
CHROMIUM	10.0	9.64	96.4
IRON	100.0	100.10	100.1
LEAD	5.0	4.02	80.4
MAGNESIUM	100.0	100.30	100.3
SELENIUM	10.0	10.02	100.2
SILVER	10.0	8.87	88.7

SAMPLE: PQL

File: IOI24A Sep 24, 2021 15:31

Analyte	TRUE	FOUND	% R
ALUMINUM	300.0	293.70	97.9
ARSENIC	8.0	7.46	93.3
BARIUM	5.0	5.07	101.4
CADMIUM	5.0	4.90	98.0
CALCIUM	100.0	94.49	94.5
CHROMIUM	10.0	9.52	95.2
IRON	100.0	97.59	97.6
LEAD	5.0	4.46	89.2
MAGNESIUM	100.0	99.65	99.7
SELENIUM	10.0	10.41	104.1
SILVER	10.0	8.95	89.5

2C

PQL STANDARD FOR AA AND ICP

Lab Name: Katahdin Analytical Services **SDG Name:** SO6313

Concentration Units: ug/L

SAMPLE: PQL

File: IOI27A Sep 27, 2021 10:32

Analyte	TRUE	FOUND	% R
ALUMINUM	300.0	294.60	98.2
ARSENIC	8.0	8.46	105.8
BARIUM	5.0	5.08	101.6
CADMIUM	5.0	5.03	100.6
CALCIUM	100.0	97.84	97.8
CHROMIUM	10.0	10.14	101.4
IRON	100.0	101.60	101.6
LEAD	5.0	5.65	113.0
MAGNESIUM	100.0	100.70	100.7
SELENIUM	10.0	12.26	122.6
SILVER	10.0	9.37	93.7

SAMPLE: PQL

File: IOI27A Sep 27, 2021 14:47

Analyte	TRUE	FOUND	% R
ALUMINUM	300.0	295.90	98.6
ARSENIC	8.0	8.23	102.9
BARIUM	5.0	5.12	102.4
CADMIUM	5.0	4.97	99.4
CALCIUM	100.0	95.19	95.2
CHROMIUM	10.0	9.42	94.2
IRON	100.0	103.30	103.3
LEAD	5.0	4.84	96.8
MAGNESIUM	100.0	102.10	102.1
SELENIUM	10.0	11.74	117.4
SILVER	10.0	9.44	94.4

2C

PQL STANDARD FOR AA AND ICP

Lab Name: Katahdin Analytical Services **SDG Name:** SO6313

Concentration Units: ug/L

SAMPLE: PQL

File: IOI28A Sep 28, 2021 09:15

Analyte	TRUE	FOUND	% R
ALUMINUM	300.0	301.70	100.6
CALCIUM	100.0	109.60	109.6
IRON	100.0	103.50	103.5
MAGNESIUM	100.0	96.35	96.3
SELENIUM	10.0	8.90	89.0

SAMPLE: PQL

File: IOI28A Sep 28, 2021 12:22

Analyte	TRUE	FOUND	% R
ALUMINUM	300.0	290.10	96.7
CALCIUM	100.0	105.00	105.0
IRON	100.0	100.00	100.0
MAGNESIUM	100.0	91.54	91.5
SELENIUM	10.0	9.12	91.2

INITIAL AND CONTINUING CALIBRATION BLANKS

Lab Name: Katahdin Analytical Services **SDG Name:** SO6313

Concentration Units: ug/L

SAMPLE: ICB

File: HOJ05A Oct 05, 2021 13:43

Analyte	Result	C
MERCURY	0.020	J

SAMPLE: CCB

File: HOJ05A Oct 05, 2021 13:49

Analyte	Result	C
MERCURY	0.016	U

SAMPLE: CCB

File: HOJ05A Oct 05, 2021 14:12

Analyte	Result	C
MERCURY	0.016	U

INITIAL AND CONTINUING CALIBRATION BLANKS

Lab Name: Katahdin Analytical Services **SDG Name:** SO6313

Concentration Units: ug/L

SAMPLE: CCB

File: HOJ05A Oct 05, 2021 14:38

Analyte	Result	C
MERCURY	0.016	U

SAMPLE: CCB

File: HOJ05A Oct 05, 2021 14:44

Analyte	Result	C
MERCURY	0.016	U

INITIAL AND CONTINUING CALIBRATION BLANKS

Lab Name: Katahdin Analytical Services **SDG Name:** SO6313

Concentration Units: ug/L

SAMPLE: ICB

File: IOI24A Sep 24, 2021 11:21

Analyte	Result	C
ALUMINUM	10.000	U
ARSENIC	1.400	U
BARIUM	0.410	U
CADMIUM	0.092	U
CALCIUM	11.000	U
CHROMIUM	0.266	J
IRON	10.140	J
LEAD	1.000	U
MAGNESIUM	3.024	J
SELENIUM	2.300	U
SILVER	0.530	U

SAMPLE: CCB

File: IOI24A Sep 24, 2021 11:43

Analyte	Result	C
ALUMINUM	21.050	J
ARSENIC	1.400	U
BARIUM	0.410	U
CADMIUM	0.092	U
CALCIUM	23.560	J
CHROMIUM	0.200	U
IRON	19.950	J
LEAD	1.000	U
MAGNESIUM	12.490	J
SELENIUM	2.300	U
SILVER	0.530	U

SAMPLE: CCB

File: IOI24A Sep 24, 2021 12:01

Analyte	Result	C
ALUMINUM	10.000	U
ARSENIC	1.400	U
BARIUM	0.410	U
CADMIUM	0.292	J
CALCIUM	11.000	U
CHROMIUM	0.200	U
IRON	10.130	J
LEAD	1.000	U
MAGNESIUM	5.953	J
SELENIUM	2.300	U
SILVER	0.530	U

INITIAL AND CONTINUING CALIBRATION BLANKS

Lab Name: Katahdin Analytical Services **SDG Name:** SO6313

Concentration Units: ug/L

SAMPLE: CCB
File: IOI24A Sep 24, 2021 12:53

Analyte	Result	C
ALUMINUM	10.000	U
ARSENIC	1.400	U
BARIUM	0.410	U
CADMIUM	0.107	J
CALCIUM	11.000	U
CHROMIUM	0.200	U
IRON	7.013	J
LEAD	1.000	U
MAGNESIUM	3.986	J
SELENIUM	2.300	U
SILVER	0.530	U

SAMPLE: CCB
File: IOI24A Sep 24, 2021 13:46

Analyte	Result	C
ALUMINUM	10.000	U
ARSENIC	1.400	U
BARIUM	0.410	U
CADMIUM	0.131	J
CALCIUM	11.000	U
CHROMIUM	0.200	U
IRON	8.194	J
LEAD	1.000	U
MAGNESIUM	4.560	J
SELENIUM	2.300	U
SILVER	0.530	U

SAMPLE: CCB
File: IOI24A Sep 24, 2021 14:38

Analyte	Result	C
ALUMINUM	10.000	U
ARSENIC	1.400	U
BARIUM	0.410	U
CADMIUM	0.095	J
CALCIUM	11.560	J
CHROMIUM	0.200	U
IRON	8.640	J
LEAD	1.000	U
MAGNESIUM	3.956	J
SELENIUM	2.300	U
SILVER	0.530	U

INITIAL AND CONTINUING CALIBRATION BLANKS

Lab Name: Katahdin Analytical Services **SDG Name:** SO6313

Concentration Units: ug/L

SAMPLE: CCB

File: IOI24A Sep 24, 2021 15:26

Analyte	Result	C
ALUMINUM	10.000	U
ARSENIC	1.400	U
BARIUM	0.410	U
CADMIUM	0.138	J
CALCIUM	11.000	U
CHROMIUM	0.509	J
IRON	11.440	J
LEAD	-1.002	U
MAGNESIUM	3.459	J
SELENIUM	2.300	U
SILVER	0.530	U

SAMPLE: CCB

File: IOI24A Sep 24, 2021 15:48

Analyte	Result	C
ALUMINUM	10.000	U
ARSENIC	1.400	U
BARIUM	0.410	U
CADMIUM	0.169	J
CALCIUM	11.000	U
CHROMIUM	0.200	U
IRON	9.310	J
LEAD	1.000	U
MAGNESIUM	15.260	J
SELENIUM	2.300	U
SILVER	0.530	U

INITIAL AND CONTINUING CALIBRATION BLANKS

Lab Name: Katahdin Analytical Services **SDG Name:** SO6313

Concentration Units: ug/L

SAMPLE: ICB

File: IOI27A Sep 27, 2021 10:27

Analyte	Result	C
ALUMINUM	10.000	U
ARSENIC	1.400	U
BARIUM	0.410	U
CADMIUM	0.092	U
CALCIUM	11.000	U
CHROMIUM	0.209	J
IRON	4.574	J
LEAD	1.000	U
MAGNESIUM	2.900	U
SELENIUM	2.300	U
SILVER	0.530	U

SAMPLE: CCB

File: IOI27A Sep 27, 2021 10:49

Analyte	Result	C
ALUMINUM	10.000	U
ARSENIC	1.400	U
BARIUM	0.410	U
CADMIUM	0.092	U
CALCIUM	11.000	U
CHROMIUM	0.200	U
IRON	6.276	J
LEAD	1.000	U
MAGNESIUM	11.790	J
SELENIUM	2.300	U
SILVER	0.530	U

SAMPLE: CCB

File: IOI27A Sep 27, 2021 11:07

Analyte	Result	C
ALUMINUM	10.000	U
ARSENIC	1.400	U
BARIUM	0.410	U
CADMIUM	0.313	J
CALCIUM	11.000	U
CHROMIUM	0.321	J
IRON	7.450	J
LEAD	1.000	U
MAGNESIUM	6.379	J
SELENIUM	2.300	U
SILVER	0.530	U

INITIAL AND CONTINUING CALIBRATION BLANKS

Lab Name: Katahdin Analytical Services **SDG Name:** SO6313

Concentration Units: ug/L

SAMPLE: CCB
File: IOI27A Sep 27, 2021 11:58

Analyte	Result	C
ALUMINUM	10.000	U
ARSENIC	1.400	U
BARIUM	0.410	U
CADMIUM	0.127	J
CALCIUM	11.000	U
CHROMIUM	0.200	U
IRON	7.405	J
LEAD	1.000	U
MAGNESIUM	3.468	J
SELENIUM	2.300	U
SILVER	0.530	U

SAMPLE: CCB
File: IOI27A Sep 27, 2021 12:51

Analyte	Result	C
ALUMINUM	10.000	U
ARSENIC	1.400	U
BARIUM	0.410	U
CADMIUM	0.130	J
CALCIUM	11.000	U
CHROMIUM	0.313	J
IRON	6.907	J
LEAD	1.000	U
MAGNESIUM	2.900	U
SELENIUM	2.605	J
SILVER	0.530	U

SAMPLE: CCB
File: IOI27A Sep 27, 2021 13:42

Analyte	Result	C
ALUMINUM	10.000	U
ARSENIC	1.400	U
BARIUM	0.410	U
CADMIUM	0.092	U
CALCIUM	11.000	U
CHROMIUM	0.200	U
IRON	4.801	J
LEAD	1.000	U
MAGNESIUM	4.212	J
SELENIUM	2.300	U
SILVER	0.530	U

INITIAL AND CONTINUING CALIBRATION BLANKS

Lab Name: Katahdin Analytical Services **SDG Name:** SO6313

Concentration Units: ug/L

SAMPLE: CCB
File: IOI27A Sep 27, 2021 14:34

Analyte	Result	C
ALUMINUM	10.000	U
ARSENIC	1.400	U
BARIUM	0.410	U
CADMIUM	0.092	U
CALCIUM	11.000	U
CHROMIUM	0.200	U
IRON	4.785	J
LEAD	1.000	U
MAGNESIUM	4.080	J
SELENIUM	2.300	U
SILVER	0.530	U

SAMPLE: CCB
File: IOI27A Sep 27, 2021 14:43

Analyte	Result	C
ALUMINUM	10.000	U
ARSENIC	1.400	U
BARIUM	0.410	U
CADMIUM	0.101	J
CALCIUM	11.000	U
CHROMIUM	0.200	U
IRON	4.913	J
LEAD	1.000	U
MAGNESIUM	4.329	J
SELENIUM	2.432	J
SILVER	0.530	U

SAMPLE: CCB
File: IOI27A Sep 27, 2021 15:05

Analyte	Result	C
ALUMINUM	37.790	J
ARSENIC	1.400	U
BARIUM	0.410	U
CADMIUM	0.092	U
CALCIUM	31.940	J
CHROMIUM	0.200	U
IRON	19.120	J
LEAD	1.000	U
MAGNESIUM	14.940	J
SELENIUM	2.300	U
SILVER	0.530	U

INITIAL AND CONTINUING CALIBRATION BLANKS

Lab Name: Katahdin Analytical Services **SDG Name:** SO6313

Concentration Units: ug/L

SAMPLE: ICB

File: IOI28A Sep 28, 2021 09:11

Analyte	Result	C
ALUMINUM	10.000	U
CALCIUM	11.000	U
IRON	6.833	J
MAGNESIUM	2.900	U
SELENIUM	2.300	U

SAMPLE: CCB

File: IOI28A Sep 28, 2021 09:33

Analyte	Result	C
ALUMINUM	31.780	J
CALCIUM	39.530	J
IRON	18.530	J
MAGNESIUM	25.760	J
SELENIUM	2.300	U

SAMPLE: CCB

File: IOI28A Sep 28, 2021 09:50

Analyte	Result	C
ALUMINUM	29.160	J
CALCIUM	32.810	J
IRON	17.650	J
MAGNESIUM	8.610	J
SELENIUM	2.300	U

INITIAL AND CONTINUING CALIBRATION BLANKS

Lab Name: Katahdin Analytical Services **SDG Name:** SO6313

Concentration Units: ug/L

SAMPLE: CCB
File: IOI28A Sep 28, 2021 10:42

Analyte	Result	C
ALUMINUM	10.000	U
CALCIUM	11.000	U
IRON	4.599	J
MAGNESIUM	2.900	U
SELENIUM	2.300	U

SAMPLE: CCB
File: IOI28A Sep 28, 2021 11:34

Analyte	Result	C
ALUMINUM	10.000	U
CALCIUM	15.700	J
IRON	7.365	J
MAGNESIUM	2.900	U
SELENIUM	2.300	U

SAMPLE: CCB
File: IOI28A Sep 28, 2021 12:18

Analyte	Result	C
ALUMINUM	10.000	U
CALCIUM	12.530	J
IRON	7.904	J
MAGNESIUM	2.900	U
SELENIUM	2.300	U

INITIAL AND CONTINUING CALIBRATION BLANKS

Lab Name: Katahdin Analytical Services **SDG Name:** SO6313

Concentration Units: ug/L

SAMPLE: CCB

File: IOI28A Sep 28, 2021 12:40

Analyte	Result	C
ALUMINUM	12.710	J
CALCIUM	21.730	J
IRON	7.077	J
MAGNESIUM	9.735	J
SELENIUM	2.300	U

3P

PREPARATION BLANKS

Lab Name: Katahdin Analytical Services **Sample ID:** PBWOI23ICW2

Matrix: WATER **SDG Name:** SO6313

QC Batch ID: OI23ICW2

Concentration Units : ug/L

Analyte	RESULT	C
ARSENIC	8.0	U
BARIUM	1.7	J
CADMIUM	0.055	J
CHROMIUM	10	U
LEAD	5.0	U
SELENIUM	10	U
SILVER	10	U

3P

PREPARATION BLANKS

Lab Name: Katahdin Analytical Services **Sample ID:** PBWOI24ICW1

Matrix: WATER **SDG Name:** SO6313

QC Batch ID: OI24ICW1

Concentration Units : ug/L

Analyte	RESULT	C
ARSENIC	8.0	U
BARIUM	0.45	J
CADMIUM	5.0	U
CHROMIUM	10	U
LEAD	5.0	U
SELENIUM	2.6	J
SILVER	10	U

3P

PREPARATION BLANKS

Lab Name: Katahdin Analytical Services **Sample ID:** PBWOJ04HGW1

Matrix: WATER **SDG Name:** SO6313

QC Batch ID: OJ04HGW1

Concentration Units : ug/L

Analyte	RESULT	C
MERCURY	0.20	U

ICP INTERFERENCE CHECK SAMPLE

Lab Name: Katahdin Analytical Services **SDG Name:** SO6313

Concentration Units: ug/L

SAMPLE: ICSA

File: IOI24A Sep 24, 2021 11:30

Analyte	TRUE	FOUND	% R
ALUMINUM	500000.00	501800.00	100.4
ARSENIC	0	1.22	
BARIUM	0	1.69	
CADMIUM	0	-0.71	
CALCIUM	500000.00	468800.00	93.8
CHROMIUM	0	1.08	
IRON	200000.00	181200.00	90.6
LEAD	0	-1.57	
MAGNESIUM	500000.00	430900.00	86.2
SELENIUM	0	2.65	
SILVER	0	-3.92	

SAMPLE: ICSAB

File: IOI24A Sep 24, 2021 11:35

Analyte	TRUE	FOUND	% R
ALUMINUM	500000.00	507600.00	101.5
ARSENIC	100.00	98.35	98.0
BARIUM	500.00	488.40	97.6
CADMIUM	1000.00	912.40	91.2
CALCIUM	500000.00	475400.00	95.1
CHROMIUM	500.00	472.20	94.4
IRON	200000.00	180600.00	90.3
LEAD	50.00	42.77	86.0
MAGNESIUM	500000.00	433800.00	86.8
SELENIUM	50.00	52.26	104.0
SILVER	200.00	214.20	107.0

ICP INTERFERENCE CHECK SAMPLE

Lab Name: Katahdin Analytical Services **SDG Name:** SO6313

Concentration Units: ug/L

SAMPLE: ICSA

File: IOI24A Sep 24, 2021 15:35

Analyte	TRUE	FOUND	% R
ALUMINUM	500000.00	505600.00	101.1
ARSENIC	0	-2.17	
BARIUM	0	1.68	
CADMIUM	0	0.58	
CALCIUM	500000.00	469100.00	93.8
CHROMIUM	0	1.45	
IRON	200000.00	177400.00	88.7
LEAD	0	-1.96	
MAGNESIUM	500000.00	441500.00	88.3
SELENIUM	0	2.02	
SILVER	0	-4.71	

SAMPLE: ICSAB

File: IOI24A Sep 24, 2021 15:40

Analyte	TRUE	FOUND	% R
ALUMINUM	500000.00	510600.00	102.1
ARSENIC	100.00	96.99	97.0
BARIUM	500.00	488.40	97.6
CADMIUM	1000.00	908.10	90.8
CALCIUM	500000.00	471800.00	94.4
CHROMIUM	500.00	468.30	93.6
IRON	200000.00	179000.00	89.5
LEAD	50.00	42.35	84.0
MAGNESIUM	500000.00	437100.00	87.4
SELENIUM	50.00	51.60	104.0
SILVER	200.00	213.70	107.0

ICP INTERFERENCE CHECK SAMPLE

Lab Name: Katahdin Analytical Services **SDG Name:** SO6313

Concentration Units: ug/L

SAMPLE: ICSA

File: IOI27A Sep 27, 2021 10:36

Analyte	TRUE	FOUND	% R
ALUMINUM	500000.00	513800.00	102.8
ARSENIC	0	1.26	
BARIUM	0	1.68	
CADMIUM	0	-2.20	
CALCIUM	500000.00	484700.00	96.9
CHROMIUM	0	1.53	
IRON	200000.00	187400.00	93.7
LEAD	0	-0.99	
MAGNESIUM	500000.00	437600.00	87.5
SELENIUM	0	-0.72	
SILVER	0	-0.98	

SAMPLE: ICSAB

File: IOI27A Sep 27, 2021 10:41

Analyte	TRUE	FOUND	% R
ALUMINUM	500000.00	515800.00	103.2
ARSENIC	100.00	97.66	98.0
BARIUM	500.00	497.80	99.6
CADMIUM	1000.00	931.90	93.2
CALCIUM	500000.00	481800.00	96.4
CHROMIUM	500.00	486.70	97.4
IRON	200000.00	184700.00	92.3
LEAD	50.00	44.53	90.0
MAGNESIUM	500000.00	435100.00	87.0
SELENIUM	50.00	48.79	98.0
SILVER	200.00	224.60	112.5

ICP INTERFERENCE CHECK SAMPLE

Lab Name: Katahdin Analytical Services **SDG Name:** SO6313

Concentration Units: ug/L

SAMPLE: ICSA

File: IOI27A Sep 27, 2021 14:52

Analyte	TRUE	FOUND	% R
ALUMINUM	500000.00	508700.00	101.7
ARSENIC	0	-0.59	
BARIUM	0	1.73	
CADMIUM	0	1.06	
CALCIUM	500000.00	453300.00	90.7
CHROMIUM	0	1.47	
IRON	200000.00	176300.00	88.1
LEAD	0	0.75	
MAGNESIUM	500000.00	452500.00	90.5
SELENIUM	0	0.10	
SILVER	0	-1.53	

SAMPLE: ICSAB

File: IOI27A Sep 27, 2021 14:56

Analyte	TRUE	FOUND	% R
ALUMINUM	500000.00	510700.00	102.1
ARSENIC	100.00	97.21	97.0
BARIUM	500.00	492.90	98.6
CADMIUM	1000.00	924.00	92.4
CALCIUM	500000.00	452200.00	90.4
CHROMIUM	500.00	462.50	92.6
IRON	200000.00	175800.00	87.9
LEAD	50.00	43.86	88.0
MAGNESIUM	500000.00	449600.00	89.9
SELENIUM	50.00	50.39	100.0
SILVER	200.00	226.30	113.0

ICP INTERFERENCE CHECK SAMPLE

Lab Name: Katahdin Analytical Services **SDG Name:** SO6313

Concentration Units: ug/L

SAMPLE: ICSA

File: IOI28A Sep 28, 2021 09:20

Analyte	TRUE	FOUND	% R
ALUMINUM	500000.00	509800.00	102.0
CALCIUM	500000.00	488900.00	97.8
IRON	200000.00	189500.00	94.8
MAGNESIUM	500000.00	433800.00	86.8
SELENIUM	0	-0.24	

SAMPLE: ICSAB

File: IOI28A Sep 28, 2021 09:24

Analyte	TRUE	FOUND	% R
ALUMINUM	500000.00	508900.00	101.8
CALCIUM	500000.00	474400.00	94.9
IRON	200000.00	186900.00	93.5
MAGNESIUM	500000.00	434400.00	86.9
SELENIUM	50.00	47.30	94.0

ICP INTERFERENCE CHECK SAMPLE

Lab Name: Katahdin Analytical Services **SDG Name:** SO6313

Concentration Units: ug/L

SAMPLE: ICSA

File: IOI28A Sep 28, 2021 12:26

Analyte	TRUE	FOUND	% R
ALUMINUM	500000.00	501900.00	100.4
CALCIUM	500000.00	452900.00	90.6
IRON	200000.00	180500.00	90.3
MAGNESIUM	500000.00	427800.00	85.6
SELENIUM	0	0.62	

SAMPLE: ICSAB

File: IOI28A Sep 28, 2021 12:31

Analyte	TRUE	FOUND	% R
ALUMINUM	500000.00	511700.00	102.3
CALCIUM	500000.00	463800.00	92.8
IRON	200000.00	182100.00	91.0
MAGNESIUM	500000.00	422700.00	84.5
SELENIUM	50.00	45.44	90.0

LABORATORY CONTROL SAMPLES

Lab Name: Katahdin Analytical Services **Sample ID:** LC2WOI24ICW1

Matrix: WATER **SDG Name:** SO6313

QC Batch ID: OI24ICW1

Concentration Units : ug/L

Analyte	TRUE	FOUND	% R	LIMITS (%)	
ARSENIC	100	105	105.2	80	120
BARIUM	2000	2090	104.3	80	120
CADMIUM	250	264	105.7	80	120
CHROMIUM	200	211	105.3	80	120
LEAD	100	111	110.8	80	120
SELENIUM	100	106	105.5	80	120
SILVER	50.0	52.8	105.6	80	120

LABORATORY CONTROL SAMPLES

Lab Name: Katahdin Analytical Services **Sample ID:** LC2WOJ04HGW1

Matrix: WATER **SDG Name:** SO6313

QC Batch ID: OJ04HGW1

Concentration Units : ug/L

Analyte	TRUE	FOUND	% R	LIMITS (%)	
MERCURY	5.00	4.93	98.6	80	120

LABORATORY CONTROL SAMPLES

Lab Name: Katahdin Analytical Services **Sample ID:** LCSWOI23ICW2

Matrix: WATER **SDG Name:** SO6313

QC Batch ID: OI23ICW2

Concentration Units : ug/L

Analyte	TRUE	FOUND	% R	LIMITS (%)	
ARSENIC	100	102	102.1	80	120
BARIUM	2000	2080	103.8	80	120
CADMIUM	250	257	102.9	80	120
CHROMIUM	200	202	100.8	80	120
LEAD	100	107	107.1	80	120
SELENIUM	100	105	105.3	80	120
SILVER	50.0	49.9	99.8	80	120

LABORATORY CONTROL SAMPLES

Lab Name: Katahdin Analytical Services **Sample ID:** LCSWOI24ICW1

Matrix: WATER **SDG Name:** SO6313

QC Batch ID: OI24ICW1

Concentration Units : ug/L

Analyte	TRUE	FOUND	% R	LIMITS (%)	
ARSENIC	100	103	102.8	80	120
BARIUM	2000	2030	101.6	80	120
CADMIUM	250	258	103.1	80	120
CHROMIUM	200	206	102.8	80	120
LEAD	100	107	107.4	80	120
SELENIUM	100	102	101.5	80	120
SILVER	50.0	51.0	102.1	80	120

LABORATORY CONTROL SAMPLES

Lab Name: Katahdin Analytical Services **Sample ID:** LCSWOJ04HGW1

Matrix: WATER **SDG Name:** SO6313

QC Batch ID: OJ04HGW1

Concentration Units : ug/L

Analyte	TRUE	FOUND	% R	LIMITS (%)	
MERCURY	5.00	5.31	106.2	80	120

7D

LABORATORY CONTROL SAMPLE DUPLICATES

Lab Name: Katahdin Analytical Services

Matrix: WATER **SDG Name:** SO6313

QC Batch ID: OI24ICW1 **Lab Sample ID:** LCSWOI24ICW1

Concentration Units: ug/L

Analyte	Control Limit (%)	LCS Result	LCS Dup. Result	RPD(%)	Q
ARSENIC	20.0	103	105	2.3	
BARIUM	20.0	2030	2090	2.6	
CADMIUM	20.0	258	264	2.5	
CHROMIUM	20.0	206	211	2.5	
LEAD	20.0	107	111	3.1	
SELENIUM	20.0	102	106	3.9	
SILVER	20.0	51.0	52.8	3.4	

7D

LABORATORY CONTROL SAMPLE DUPLICATES

Lab Name: Katahdin Analytical Services

Matrix: WATER **SDG Name:** SO6313

QC Batch ID: OJ04HGW1 **Lab Sample ID:** LCSWOJ04HGW1

Concentration Units: ug/L

Analyte	Control Limit (%)	LCS Result	LCS Dup. Result	RPD(%)	Q
MERCURY	20.0	5.31	4.93	7.4	

FORM VIID - IN

INSTRUMENT DETECTION LIMITS

Lab Name: Katahdin Analytical Services **Instrument Code:** H

Instrument Name: CETAC M6100 **Date:** 01/17/2019

Concentration Units: ug/L

Analyte	PQL/LOQ	IDL	M
MERCURY	0.20	0.016	CV

INSTRUMENT DETECTION LIMITS

Lab Name: Katahdin Analytical Services **Instrument Code:** I

Instrument Name: THERMO ICAP 6500 **Date:** 01/23/2019

Concentration Units: ug/L

Analyte	PQL/LOQ	IDL	M
ALUMINUM	300	10	P
ARSENIC	8.0	1.4	P
BARIUM	5.0	0.41	P
CADMIUM	5.0	0.092	P
CALCIUM	100	11	P
CHROMIUM	10	0.20	P
IRON	100	3.6	P
LEAD	5.0	1.0	P
MAGNESIUM	100	2.9	P
SELENIUM	10	2.3	P
SILVER	10	0.53	P

METHOD DETECTION LIMITS

Lab Name: Katahdin Analytical Services **Instrument Code:** H

Instrument Name: CETAC M6100 **Date:** 02/09/2011

Analyte	MDL	Units	M	EPA Prep./Anal. Method
MERCURY	0.013	ug/L	CV	SW846 7470A / SW846 7470A

METHOD DETECTION LIMITS

Lab Name: Katahdin Analytical Services **Instrument Code:** I

Instrument Name: THERMO ICAP 6500 **Date:** 01/19/2011

Analyte	MDL	Units	M	EPA Prep./Anal. Method
ARSENIC	1.4	ug/L	P	SW846 3010A / SW846 6010C
BARIUM	0.23	ug/L	P	SW846 3010A / SW846 6010C
CADMIUM	0.049	ug/L	P	SW846 3010A / SW846 6010C
CHROMIUM	0.36	ug/L	P	SW846 3010A / SW846 6010C
LEAD	1.1	ug/L	P	SW846 3010A / SW846 6010C
SELENIUM	2.4	ug/L	P	SW846 3010A / SW846 6010C
SILVER	0.27	ug/L	P	SW846 3010A / SW846 6010C

ICP INTERELEMENT CORRECTION FACTORS

Lab Name: Katahdin Analytical Services **SDG Name:** SO6313

Instrument Name: THERMO ICAP 6500 **Instrument ID:** I **Date:** 03/10/2021

	Wavelength	Interelement Correction Factors for:												
Analyte	**(nm)**	**Al**	**Ca**	**Fe**	**Mg**	**As**	**Cr**	**Co**	**Cu**	**Mn**	**Mo**	**Ni**	**Ti**	**V**
ALUMINUM	396.15	0.0	0.0006250	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0293740	0.0	0.0	0.0
ANTIMONY	206.83	0.0000130	0.0	0.0000150	0.0	0.0000731	0.0160080	0.0	0.0	0.0	-0.0046490	-0.0008980	0.0	-0.0005030
ARSENIC	189.04	-0.0000090	0.0	-0.0001780	0.0	0.0	0.0001984	0.0	0.0	0.0	0.0015170	0.0	0.0	0.0
BARIUM	455.40	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BERYLLIUM	313.04	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.0006836	0.0001220
BORON	208.96	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0501700	0.0	0.0	0.0
CADMIUM	226.50	0.0	0.0	0.0000850	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.0001140	0.0000801	0.0
CALCIUM	315.89	0.0	0.0	0.0	0.0	0.0	0.0026700	0.0008487	0.0	0.0	0.0	0.0	0.0	0.0
CHROMIUM	267.72	0.0	0.0	-0.0000010	0.0	0.0	0.0	0.0	0.0	0.0003640	0.0	0.0	0.0	-0.0000100
COBALT	228.62	0.0	0.0	0.0000050	0.0	0.0	0.0001670	0.0	0.0	0.0	0.0	0.0001562	0.0017840	0.0
COPPER	327.40	0.0000079	0.0	-0.0000147	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.0006988	0.0004860
GOLD	242.79	0.0	0.0	0.0001110	0.0	0.0	0.0	0.0	0.0	0.0058700	0.0	0.0	0.0	0.0
IRON	259.94	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LEAD	220.35	-0.0001590	0.0	0.0000440	0.0	0.0001480	-0.0000772	-0.0000860	0.0004910	0.0	-0.0010840	0.0003270	-0.0000220	0.0
LITHIUM	670.78	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MAGNESIUM	202.58	0.0	0.0	0.0000300	0.0	0.0	0.0	0.1395100	0.0	0.0	0.0145280	0.0	0.0003530	0.0
MANGANESE	257.61	-0.0000050	0.0	0.0000100	0.0000391	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MOLYBDENUM	202.03	0.0	0.0	0.0	0.0	0.0	0.0000270	0.0	0.0	-0.0000204	0.0	0.0	0.0	-0.0001163
NICKEL	231.60	0.0	0.0	-0.0000490	0.0	0.0	0.0	0.0000390	0.0	0.0	0.0034490	0.0	0.0	0.0
POTASSIUM	766.49	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SELENIUM	196.09	0.0000090	0.0	0.0000320	0.0	0.0003180	0.0	0.0002310	0.0	0.0006280	0.0	0.0	0.0	0.0003040
SILICON	251.61	0.0	0.0	-0.0000150	0.0	0.0	0.0	0.0	0.0	0.0	0.0132630	0.0	0.0105540	0.0
SILVER	328.07	0.0	0.0	-0.0002820	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.0008413	0.0
SODIUM	589.59	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
STRONTIUM	421.55	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
THALLIUM	190.86	0.0000030	0.0	0.0000001	0.0	0.0	0.0	0.0023030	-0.0000680	-0.0024730	-0.0000880	0.0	-0.0009840	-0.0078940
TIN	189.99	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TITANIUM	334.90	0.0	0.0	0.0	0.0	0.0	0.0001510	0.0	0.0	0.0	0.0002130	0.0	0.0	0.0
VANADIUM	292.40	0.0	0.0	0.0000120	0.0	0.0	-0.0053650	0.0	0.0	-0.0001670	-0.0037960	0.0	0.0006990	0.0
ZINC	206.20	0.0	0.0	0.0	0.0	0.0	-0.0010444	0.0	0.0	0.0	0.0	0.0	0.0	0.0

FORM XI - IN

ICP LINEAR RANGES

Lab Name: Katahdin Analytical Services **Instrument Code:** I

Instrument Name: THERMO ICAP 6500 **Date:** 11/25/2020

Concentration Units: ug/L

Analyte	Integration Time (sec)	Linear Range	M
ALUMINUM	5.00	500000	P
ARSENIC	45.00	20000	P
BARIUM	5.00	20000	P
CADMIUM	45.00	20000	P
CALCIUM	5.00	500000	P
CHROMIUM	10.00	20000	P
IRON	5.00	250000	P
LEAD	45.00	20000	P
MAGNESIUM	45.00	200000	P
SELENIUM	45.00	20000	P
SILVER	10.00	2000	P

PREPARATION LOG

Lab Name: Katahdin Analytical Services **QC Batch ID:** OI23ICW2

Matrix: WATER **SDG Name:** SO6313

Method: P **Prep Date:** 09/23/2021

Client ID	Lab Sample ID	Initial (L)	Final (L)	Bottle ID
LCSWOI23ICW2	LCSWOI23ICW2	0.05	0.05	
PBWOI23ICW2	PBWOI23ICW2	0.05	0.05	
94EM-MW-19(20210915)	SO6313-003	0.05	0.05	D
DUP-01(20210915)	SO6313-004	0.05	0.05	D
94EM-MW-21(20210915)	SO6313-005	0.05	0.05	D
94EM-MW-20(20210915)	SO6313-006	0.05	0.05	D
86EM-SP-6(20210916)	SO6313-016	0.05	0.05	D
83DM-SP-3(20210916)	SO6313-017	0.05	0.05	D
92EM-SP-8(20210916)	SO6313-018	0.05	0.05	D
94EM-MW-20(20210915)	SO6313-030	0.05	0.05	A

PREPARATION LOG

Lab Name: Katahdin Analytical Services **QC Batch ID:** OI24ICW1

Matrix: WATER **SDG Name:** SO6313

Method: P **Prep Date:** 09/24/2021

Client ID	Lab Sample ID	Initial (L)	Final (L)	Bottle ID
LC2WOI24ICW1	LC2WOI24ICW1	0.05	0.05	
LCSWOI24ICW1	LCSWOI24ICW1	0.05	0.05	
PBWOI24ICW1	PBWOI24ICW1	0.05	0.05	
92EM-SP-8(20210916)	SO6313-031	0.05	0.05	A
FILTER BLANK	SO6313-032	0.05	0.05	A

PREPARATION LOG

Lab Name: Katahdin Analytical Services **QC Batch ID:** OJ04HGW1

Matrix: WATER **SDG Name:** SO6313

Method: CV **Prep Date:** 10/04/2021

Client ID	Lab Sample ID	Initial (L)	Final (L)	Bottle ID
LC2WOJ04HGW1	LC2WOJ04HGW1	0.025	0.025	
LCSWOJ04HGW1	LCSWOJ04HGW1	0.025	0.025	
PBWOJ04HGW1	PBWOJ04HGW1	0.025	0.025	
94EM-MW-19(20210915)	SO6313-003	0.025	0.025	D
DUP-01(20210915)	SO6313-004	0.025	0.025	D
94EM-MW-21(20210915)	SO6313-005	0.025	0.025	D
94EM-MW-20(20210915)	SO6313-006	0.025	0.025	D
86EM-SP-6(20210916)	SO6313-016	0.025	0.025	D
94EM-MW-20(20210915)	SO6313-030	0.025	0.025	A
FILTER BLANK	SO6313-032	0.025	0.025	A

ANALYSIS RUN LOG

Lab Name: Katahdin Analytical Services **SDG Name:** SO6313

Instrument ID: CETAC M6100 **File Name:** HOJ05A

Date: 10/05/2021 **Method:** CV

Lab Sample ID	Client ID	D.F.	Time	Elements
Calibration Blank		1	13:28	Hg
Standard #1 (0.2 ppb		1	13:30	Hg
Standard #2 (0.5 ppb		1	13:32	Hg
Standard #3 (1.0 ppb		1	13:34	Hg
Standard #4 (5.0 ppb		1	13:36	Hg
Standard #5 (10.0 pp		1	13:39	Hg
ICV		1	13:41	HG
ICB		1	13:43	HG
PQL		1	13:45	HG
CCV		1	13:47	HG
CCB		1	13:49	HG
LC2WOJ04HGW1		1	13:51	HG
LCSWOJ04HGW1		1	13:53	HG
PBWOJ04HGW1		1	13:55	HG
ZZZZZZ		1	13:58	
ZZZZZZ		5	14:00	
ZZZZZZ		1	14:02	
ZZZZZZ		1	14:04	
ZZZZZZ		1	14:06	
ZZZZZZ		1	14:08	
CCV		1	14:10	HG
CCB		1	14:12	HG
ZZZZZZ		1	14:15	
ZZZZZZ		1	14:17	
SO6313-003	94EM-MW-19(20210915)	1	14:19	HG
SO6313-004	DUP-01(20210915)	1	14:21	HG
SO6313-005	94EM-MW-21(20210915)	1	14:23	HG

ANALYSIS RUN LOG

Lab Name: Katahdin Analytical Services **SDG Name:** SO6313

Instrument ID: CETAC M6100 **File Name:** HOJ05A

Date: 10/05/2021 **Method:** CV

Lab Sample ID	Client ID	D.F.	Time	Elements
SO6313-006	94EM-MW-20(20210915)	1	14:25	HG
SO6313-016	86EM-SP-6(20210916)	1	14:27	HG
SO6313-030	94EM-MW-20(20210915)	1	14:29	HG
SO6313-032	FILTER BLANK	1	14:32	HG
ZZZZZZ		1	14:34	
CCV		1	14:36	HG
CCB		1	14:38	HG
ZZZZZZ		1	14:40	
CCV		1	14:42	HG
CCB		1	14:44	HG

ANALYSIS RUN LOG

Lab Name: Katahdin Analytical Services **SDG Name:** SO6313

Instrument ID: THERMO ICAP 6500 **File Name:** IOI24A

Date: 09/24/2021 **Method:** P

Lab Sample ID	Client ID	D.F.	Time	Elements										
Blank		1	11:09	AL	AS	BA	CD	CA	CR	FE	PB	MG	SE	AG
Std 1		1	11:13	AL	AS	BA	CD	CA	CR	FE	PB	MG	SE	AG
ICV		1	11:17	AL	AS	BA	CD	CA	CR	FE	PB	MG	SE	AG
ICB		1	11:21	AL	AS	BA	CD	CA	CR	FE	PB	MG	SE	AG
PQL		1	11:26	AL	AS	BA	CD	CA	CR	FE	PB	MG	SE	AG
ICSA		1	11:30	AL	AS	BA	CD	CA	CR	FE	PB	MG	SE	AG
ICSAB		1	11:35	AL	AS	BA	CD	CA	CR	FE	PB	MG	SE	AG
CCV		1	11:39	AL	AS	BA	CD	CA	CR	FE	PB	MG	SE	AG
CCB		1	11:43	AL	AS	BA	CD	CA	CR	FE	PB	MG	SE	AG
ZZZZZZ		1	11:48											
ZZZZZZ		1	11:52											
CCV		1	11:57	AL	AS	BA	CD	CA	CR	FE	PB	MG	SE	AG
CCB		1	12:01	AL	AS	BA	CD	CA	CR	FE	PB	MG	SE	AG
ZZZZZZ		1	12:06											
ZZZZZZ		1	12:10											
ZZZZZZ		1	12:14											
ZZZZZZ		1	12:19											
LCSWOI23ICW2		1	12:23		AS	BA	CD		CR		PB		SE	AG
ZZZZZZ		1	12:27											
ZZZZZZ		1	12:32											
PBWOI23ICW2		1	12:36		AS	BA	CD		CR		PB		SE	AG
ZZZZZZ		2	12:41											
ZZZZZZ		5	12:45											
CCV		1	12:49	AL	AS	BA	CD	CA	CR	FE	PB	MG	SE	AG
CCB		1	12:53	AL	AS	BA	CD	CA	CR	FE	PB	MG	SE	AG
ZZZZZZ		1	12:58											
ZZZZZZ		1	13:02											

ANALYSIS RUN LOG

Lab Name: Katahdin Analytical Services **SDG Name:** SO6313

Instrument ID: THERMO ICAP 6500 **File Name:** IOI24A

Date: 09/24/2021 **Method:** P

Lab Sample ID	Client ID	D.F.	Time	Elements												
ZZZZZZ		1	13:06													
ZZZZZZ		1	13:11													
ZZZZZZ		1	13:15													
ZZZZZZ		1	13:20													
ZZZZZZ		1	13:24													
ZZZZZZ		1	13:28													
ZZZZZZ		1	13:33													
ZZZZZZ		1	13:37													
CCV		1	13:41	AL	AS	BA	CD	CA	CR	FE	PB	MG	SE	AG		
CCB		1	13:46	AL	AS	BA	CD	CA	CR	FE	PB	MG	SE	AG		
ZZZZZZ		5	13:50													
ZZZZZZ		1	13:54													
ZZZZZZ		1	13:59													
ZZZZZZ		1	14:03													
SO6313-003	94EM-MW-19(20210915)	1	14:07		AS	BA	CD		CR		PB		SE	AG		
SO6313-004	DUP-01(20210915)	1	14:12		AS	BA	CD		CR		PB		SE	AG		
SO6313-005	94EM-MW-21(20210915)	1	14:16		AS	BA	CD		CR		PB		SE	AG		
SO6313-006	94EM-MW-20(20210915)	1	14:20		AS	BA	CD		CR		PB		SE	AG		
SO6313-016	86EM-SP-6(20210916)	1	14:25		AS	BA	CD		CR		PB		SE	AG		
SO6313-017	83DM-SP-3(20210916)	1	14:29						CR							
CCV		1	14:34	AL	AS	BA	CD	CA	CR	FE	PB	MG	SE	AG		
CCB		1	14:38	AL	AS	BA	CD	CA	CR	FE	PB	MG	SE	AG		
SO6313-018	92EM-SP-8(20210916)	1	14:42						CR							
SO6313-030	94EM-MW-20(20210915)	1	14:47		AS	BA	CD		CR		PB		SE	AG		
ZZZZZZ		1	14:51													
ZZZZZZ		1	14:55													
ZZZZZZ		1	15:00													

ANALYSIS RUN LOG

Lab Name: Katahdin Analytical Services **SDG Name:** SO6313

Instrument ID: THERMO ICAP 6500 **File Name:** IOI24A

Date: 09/24/2021 **Method:** P

Lab Sample ID	Client ID	D.F.	Time	Elements								
ZZZZZZ		1	15:04									
ZZZZZZ		1	15:09									
ZZZZZZ		1	15:13									
ZZZZZZ		1	15:18									
CCV		1	15:22	AL	AS	BA	CD CA	CR	FE PB	MG	SE	AG
CCB		1	15:26	AL	AS	BA	CD CA	CR	FE PB	MG	SE	AG
PQL		1	15:31	AL	AS	BA	CD CA	CR	FE PB	MG	SE	AG
ICSA		1	15:35	AL	AS	BA	CD CA	CR	FE PB	MG	SE	AG
ICSAB		1	15:40	AL	AS	BA	CD CA	CR	FE PB	MG	SE	AG
CCV		1	15:44	AL	AS	BA	CD CA	CR	FE PB	MG	SE	AG
CCB		1	15:48	AL	AS	BA	CD CA	CR	FE PB	MG	SE	AG

ANALYSIS RUN LOG

Lab Name: Katahdin Analytical Services **SDG Name:** SO6313

Instrument ID: THERMO ICAP 6500 **File Name:** IOI27A

Date: 09/27/2021 **Method:** P

Lab Sample ID	Client ID	D.F.	Time	Elements										
Blank		1	10:15	AL	AS	BA	CD	CA	CR	FE	PB	MG	SE	AG
Std 1		1	10:19	AL	AS	BA	CD	CA	CR	FE	PB	MG	SE	AG
ICV		1	10:23	AL	AS	BA	CD	CA	CR	FE	PB	MG	SE	AG
ICB		1	10:27	AL	AS	BA	CD	CA	CR	FE	PB	MG	SE	AG
PQL		1	10:32	AL	AS	BA	CD	CA	CR	FE	PB	MG	SE	AG
ICSA		1	10:36	AL	AS	BA	CD	CA	CR	FE	PB	MG	SE	AG
ICSAB		1	10:41	AL	AS	BA	CD	CA	CR	FE	PB	MG	SE	AG
CCV		1	10:45	AL	AS	BA	CD	CA	CR	FE	PB	MG	SE	AG
CCB		1	10:49	AL	AS	BA	CD	CA	CR	FE	PB	MG	SE	AG
ZZZZZZ		1	10:54											
ZZZZZZ		1	10:58											
CCV		1	11:03	AL	AS	BA	CD	CA	CR	FE	PB	MG	SE	AG
CCB		1	11:07	AL	AS	BA	CD	CA	CR	FE	PB	MG	SE	AG
LC2WOI24ICW1		1	11:11		AS	BA	CD		CR		PB			AG
LCSWOI24ICW1		1	11:15		AS	BA	CD		CR		PB			AG
PBWOI24ICW1		1	11:20		AS	BA	CD		CR		PB		SE	AG
ZZZZZZ		1	11:24											
ZZZZZZ		1	11:28											
ZZZZZZ		2	11:33											
ZZZZZZ		2	11:37											
ZZZZZZ		1	11:41											
ZZZZZZ		1	11:46											
ZZZZZZ		1	11:50											
CCV		1	11:54	AL	AS	BA	CD	CA	CR	FE	PB	MG	SE	AG
CCB		1	11:58	AL	AS	BA	CD	CA	CR	FE	PB	MG	SE	AG
ZZZZZZ		1	12:03											
ZZZZZZ		1	12:07											

ANALYSIS RUN LOG

Lab Name: Katahdin Analytical Services **SDG Name:** SO6313

Instrument ID: THERMO ICAP 6500 **File Name:** IOI27A

Date: 09/27/2021 **Method:** P

Lab Sample ID	Client ID	D.F.	Time	Elements												
ZZZZZZ		1	12:12													
SO6313-031	92EM-SP-8(20210916)	1	12:16						CR							
SO6313-032	FILTER BLANK	1	12:20		AS	BA		CD	CR		PB			SE	AG	
ZZZZZZ		1	12:25													
ZZZZZZ		1	12:29													
ZZZZZZ		1	12:34													
ZZZZZZ		1	12:38													
ZZZZZZ		5	12:42													
CCV		1	12:47	AL	AS	BA		CD	CA	CR		FE	PB	MG	SE	AG
CCB		1	12:51	AL	AS	BA		CD	CA	CR		FE	PB	MG	SE	AG
ZZZZZZ		1	12:55													
ZZZZZZ		1	12:59													
ZZZZZZ		1	13:04													
ZZZZZZ		1	13:08													
ZZZZZZ		1	13:12													
ZZZZZZ		5	13:17													
ZZZZZZ		1	13:21													
ZZZZZZ		1	13:25													
ZZZZZZ		1	13:29													
ZZZZZZ		1	13:34													
CCV		1	13:38	AL	AS	BA		CD	CA	CR		FE	PB	MG	SE	AG
CCB		1	13:42	AL	AS	BA		CD	CA	CR		FE	PB	MG	SE	AG
ZZZZZZ		1	13:46													
ZZZZZZ		1	13:51													
ZZZZZZ		1	13:55													
ZZZZZZ		1	14:00													
ZZZZZZ		1	14:04													

ANALYSIS RUN LOG

Lab Name: Katahdin Analytical Services **SDG Name:** SO6313

Instrument ID: THERMO ICAP 6500 **File Name:** IOI27A

Date: 09/27/2021 **Method:** P

Lab Sample ID	Client ID	D.F.	Time	Elements								
ZZZZZZ		1	14:08									
ZZZZZZ		1	14:13									
ZZZZZZ		1	14:17									
ZZZZZZ		1	14:21									
ZZZZZZ		1	14:26									
CCV		1	14:30	AL	AS	BA	CD	CA	CR	FE	PB	MG	SE	AG
CCB		1	14:34	AL	AS	BA	CD	CA	CR	FE	PB	MG	SE	AG
CCV		1	14:39	AL	AS	BA	CD	CA	CR	FE	PB	MG	SE	AG
CCB		1	14:43	AL	AS	BA	CD	CA	CR	FE	PB	MG	SE	AG
PQL		1	14:47	AL	AS	BA	CD	CA	CR	FE	PB	MG	SE	AG
ICSA		1	14:52	AL	AS	BA	CD	CA	CR	FE	PB	MG	SE	AG
ICSAB		1	14:56	AL	AS	BA	CD	CA	CR	FE	PB	MG	SE	AG
CCV		1	15:01	AL	AS	BA	CD	CA	CR	FE	PB	MG	SE	AG
CCB		1	15:05	AL	AS	BA	CD	CA	CR	FE	PB	MG	SE	AG

ANALYSIS RUN LOG

Lab Name: Katahdin Analytical Services **SDG Name:** SO6313

Instrument ID: THERMO ICAP 6500 **File Name:** IOI28A

Date: 09/28/2021 **Method:** P

Lab Sample ID	Client ID	D.F.	Time	Elements				
Blank		1	08:58	AL	CA	FE	MG	SE
Std 1		1	09:02	AL	CA	FE	MG	SE
ICV		1	09:07	AL	CA	FE	MG	SE
ICB		1	09:11	AL	CA	FE	MG	SE
PQL		1	09:15	AL	CA	FE	MG	SE
ICSA		1	09:20	AL	CA	FE	MG	SE
ICSAB		1	09:24	AL	CA	FE	MG	SE
CCV		1	09:29	AL	CA	FE	MG	SE
CCB		1	09:33	AL	CA	FE	MG	SE
ZZZZZZ		1	09:37					
ZZZZZZ		1	09:42					
CCV		1	09:46	AL	CA	FE	MG	SE
CCB		1	09:50	AL	CA	FE	MG	SE
LC2WOI24ICW1		1	09:55					SE
LCSWOI24ICW1		1	09:59					SE
ZZZZZZ		1	10:03					
ZZZZZZ		1	10:08					
ZZZZZZ		1	10:12					
ZZZZZZ		1	10:16					
ZZZZZZ		1	10:20					
ZZZZZZ		1	10:25					
ZZZZZZ		10	10:29					
ZZZZZZ		2	10:33					
CCV		1	10:38	AL	CA	FE	MG	SE
CCB		1	10:42	AL	CA	FE	MG	SE
ZZZZZZ		1	10:46					
ZZZZZZ		5	10:51					

ANALYSIS RUN LOG

Lab Name: Katahdin Analytical Services **SDG Name:** SO6313

Instrument ID: THERMO ICAP 6500 **File Name:** IOI28A

Date: 09/28/2021 **Method:** P

Lab Sample ID	Client ID	D.F.	Time	Elements				
ZZZZZZ		1	10:55					
ZZZZZZ		1	10:59					
ZZZZZZ		1	11:04					
ZZZZZZ		1	11:08					
ZZZZZZ		1	11:13					
ZZZZZZ		1	11:17					
ZZZZZZ		1	11:21					
ZZZZZZ		1	11:26					
CCV		1	11:30	AL	CA	FE	MG	SE
CCB		1	11:34	AL	CA	FE	MG	SE
ZZZZZZ		1	11:38					
ZZZZZZ		1	11:43					
ZZZZZZ		1	11:47					
ZZZZZZ		1	11:52					
ZZZZZZ		5	11:56					
ZZZZZZ		1	12:00					
ZZZZZZ		1	12:05					
ZZZZZZ		1	12:09					
CCV		1	12:13	AL	CA	FE	MG	SE
CCB		1	12:18	AL	CA	FE	MG	SE
PQL		1	12:22	AL	CA	FE	MG	SE
ICSA		1	12:26	AL	CA	FE	MG	SE
ICSAB		1	12:31	AL	CA	FE	MG	SE
CCV		1	12:35	AL	CA	FE	MG	SE
CCB		1	12:40	AL	CA	FE	MG	SE

Raw Data Section

KATAHDIN ANALYTICAL SERVICES, LLC
METALS ANALYSIS RUN INFORMATION SHEET

INSTR. ID: Cetac M6100 (H) **ANALYST**: EP **ANALYSIS DATE**: 10/05/21

FILE NAME: HOJ05A **METHOD**: CVAA

Analyte : Mercury

245.1
✓7470
7471
✓DoD

$SnCl_2$ Lot : MR3132

REVIEWED
10-05-21
KATAHDIN ANALYTICAL
METALS SECTION

STANDARDS USED:

Standard Name	Prep. Date	Expiration Date	Standard Conc.
Cal. Blank / ICB / CCB	10/05/21	10/05/21	0.00 ug/L
Standard #1 / PQL	10/05/21	10/05/21	0.20 ug/L
Standard #2	10/05/21	10/05/21	0.50 ug/L
Standard #3	10/05/21	10/05/21	1.00 ug/L
Standard #4 / CCV	10/05/21	10/05/21	5.00 ug/L
Standard #5	10/05/21	10/05/21	10.00 ug/L
ICV	10/05/21	10/05/21	6.00 ug/L

Additional Comments and Notes:

10-05-21

Dilutions:

5x Diln.: 6.4 mL (pipet M26) of Cal. Blank + 1.6mL (pipet M26) of sample

Post Spike (7470/245.1): 0.005 mL MW20547 (pipet M17) + 8.0mL (pipet M26) of sample

INSTRUMENT RUNLOG

Instrument: CETAC M6100

SAMPLE ID	DF	FILE	DATE	TIME	ANALYST
Calibration Blank	1.0000	HOJ05A	10/05/2021	13:28	EP
Standard #1 (0.2 ppb)	1.0000	HOJ05A	10/05/2021	13:30	EP
Standard #2 (0.5 ppb)	1.0000	HOJ05A	10/05/2021	13:32	EP
Standard #3 (1.0 ppb)	1.0000	HOJ05A	10/05/2021	13:34	EP
Standard #4 (5.0 ppb)	1.0000	HOJ05A	10/05/2021	13:36	EP
Standard #5 (10.0 ppb)	1.0000	HOJ05A	10/05/2021	13:39	EP
ICV	1.0000	HOJ05A	10/05/2021	13:41	EP
ICB	1.0000	HOJ05A	10/05/2021	13:43	EP
PQL	1.0000	HOJ05A	10/05/2021	13:45	EP
CCV	1.0000	HOJ05A	10/05/2021	13:47	EP
CCB	1.0000	HOJ05A	10/05/2021	13:49	EP
LC2WOJ04HGW1	1.0000	HOJ05A	10/05/2021	13:51	EP
LCSWOJ04HGW1	1.0000	HOJ05A	10/05/2021	13:53	EP
PBWOJ04HGW1	1.0000	HOJ05A	10/05/2021	13:55	EP
SO6304-001	1.0000	HOJ05A	10/05/2021	13:58	EP
SO6304-001L	5.0000	HOJ05A	10/05/2021	14:00	EP
SO6304-001A	1.0000	HOJ05A	10/05/2021	14:02	EP
SO6304-001P	1.0000	HOJ05A	10/05/2021	14:04	EP
SO6304-001S	1.0000	HOJ05A	10/05/2021	14:06	EP
SO6304-003	1.0000	HOJ05A	10/05/2021	14:08	EP
CCV	1.0000	HOJ05A	10/05/2021	14:10	EP
CCB	1.0000	HOJ05A	10/05/2021	14:12	EP
SO6304-005	1.0000	HOJ05A	10/05/2021	14:15	EP
SO6304-006	1.0000	HOJ05A	10/05/2021	14:17	EP
SO6313-003	1.0000	HOJ05A	10/05/2021	14:19	EP
SO6313-004	1.0000	HOJ05A	10/05/2021	14:21	EP
SO6313-005	1.0000	HOJ05A	10/05/2021	14:23	EP
SO6313-006	1.0000	HOJ05A	10/05/2021	14:25	EP
SO6313-016	1.0000	HOJ05A	10/05/2021	14:27	EP
SO6313-030	1.0000	HOJ05A	10/05/2021	14:29	EP
SO6313-032	1.0000	HOJ05A	10/05/2021	14:32	EP
SO6476-001	1.0000	HOJ05A	10/05/2021	14:34	EP
CCV	1.0000	HOJ05A	10/05/2021	14:36	EP
CCB	1.0000	HOJ05A	10/05/2021	14:38	EP
SO6476-002	1.0000	HOJ05A	10/05/2021	14:40	EP
CCV	1.0000	HOJ05A	10/05/2021	14:42	EP
CCB	1.0000	HOJ05A	10/05/2021	14:44	EP

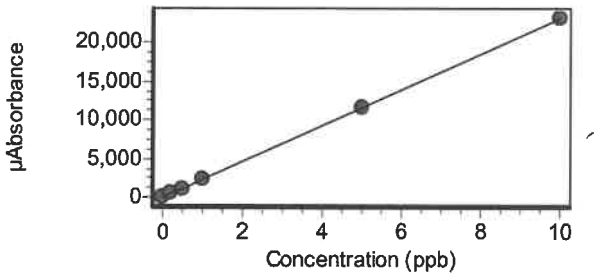
Report Generated By CETAC QuickTrace
Analyst: kasgc
Worksheet file: C:\Program Files\QuickTrace\Worksheets\HOJ05A.wsz
Date Started: 10/5/2021 12:55:12 PM
Comment:

Results

Sample Name				Type	Conc (ppb)	µAbs	%RSD	Flags	DF
Calibration Blank				STD	0.000	-8	480.71		1.00
Replicates	-38.9	-41.9	28.6	20.9					
Standard #1 (0.2 ppb)				STD	0.200	485	5.74		1.00
Replicates	502.0	514.0	453.8	470.0					
Standard #2 (0.5 ppb)				STD	0.500	1141	1.55		1.00
Replicates	1142.8	1115.1	1152.3	1152.8					
Standard #3 (1.0 ppb)				STD	1.000	2266	1.05		1.00
Replicates	2291.3	2237.3	2256.6	2278.1					
Standard #4 (5.0 ppb)				STD	5.000	11616	3.06		1.00
Replicates	11294.1	11386.2	11702.0	12080.2					
Standard #5 (10.0 ppb)				STD	10.000	23204	0.29		1.00
Replicates	23114.8	23247.9	23265.9	23186.9					

Calibration

Equation: A = -12.761 + 2322.143C
R2: 0.99999
SEE: 29.2452
Flags:



ICV				ICV	5.890	13657	0.53		1.00
Replicates	13625.9	13680.8	13745.9	13576.4					
% Recovery	98.11								
ICB				ICB	0.020	33	30.00		1.00
Replicates	32.6	30.4	22.0	45.7					

Sample Name					Type	Conc (ppb)	µAbs	%RSD	Flags	DF
PQL					CRDL	0.214	483	6.24		1.00
	Replicates	473.0	500.2	446.0	514.0					
	% Recovery	106.81								
CCV					CCV	5.070	11762	0.71		1.00
	Replicates	11754.6	11849.1	11793.9	11650.1					
	% Recovery	101.41								
CCB					CCB	-0.011	-39	90.14		1.00
	Replicates	-49.5	-52.7	12.5	-67.7					
LC2WOJ04HGW1					LCS	4.930	11430	0.67		1.00
	Replicates	11421.2	11489.9	11485.0	11324.9					
	% Recovery	98.56								
LCSWOJ04HGW1					LCS	5.310	12317	0.99		1.00
	Replicates	12346.0	12406.4	12378.5	12139.0					
	% Recovery	106.20								
PBWOJ04HGW1					PBK	-0.008	-31	55.27		1.00
	Replicates	-7.3	-42.2	-30.2	-45.7					
SO6304-001					UNK	0.005	-1	418.02		1.00
	Replicates	-10.9	16.6	-24.7	13.4					
SO6304-001L					UNK	-0.006	-15	320.84		5.00
	Replicates	-18.6	4.1	34.9	-82.4					
SO6304-001A					UNK	1.240	2876	1.39		1.00
	Replicates	2931.0	2874.4	2838.4	2858.2					
SO6304-001P					UNK	1.050	2436	1.25		1.00
	Replicates	2414.3	2467.9	2456.9	2406.4					
SO6304-001S					UNK	1.100	2544	2.12		1.00
	Replicates	2602.8	2576.3	2495.9	2500.1					
SO6304-003					UNK	-0.005	-25	37.82		1.00
	Replicates	-19.3	-36.5	-15.5	-27.3					

Sample Name					Type	Conc (ppb)	µAbs	%RSD	Flags	DF
CCV					CCV	5.100	11820	0.56		1.00
	Replicates	11833.7	11859.9	11864.0	11722.9					
	% Recovery	101.91								
CCB					CCB	-0.002	-17	154.96		1.00
	Replicates	-45.8	17.4	-13.4	-26.8					
SO6304-005					UNK	-0.005	-25	47.22		1.00
	Replicates	-32.3	-36.0	-21.2	-10.0					
SO6304-006					UNK	0.015	21	43.35		1.00
	Replicates	29.4	26.0	8.2	22.4					
SO6313-003					UNK	0.018	29	74.84		1.00
	Replicates	13.9	47.9	6.6	46.1					
SO6313-004					UNK	0.029	56	55.06		1.00
	Replicates	32.0	40.7	100.4	49.7					
SO6313-005					UNK	0.004	-5	377.70		1.00
	Replicates	17.2	-14.4	0.6	-21.7					
SO6313-006					UNK	0.032	62	29.46		1.00
	Replicates	85.5	65.1	41.1	58.1					
SO6313-016					UNK	0.037	74	32.27		1.00
	Replicates	101.6	83.9	65.1	46.1					
SO6313-030					UNK	0.034	66	77.24		1.00
	Replicates	45.9	92.6	4.6	119.1					
SO6313-032					UNK	0.001	-11	122.61		1.00
	Replicates	-10.8	7.8	-19.4	-19.9					
SO6476-001					UNK	0.033	64	55.36		1.00
	Replicates	92.3	45.3	96.2	23.7					

Sample Name					Type	Conc (ppb)	µAbs	%RSD	Flags	DF
CCV					CCV	4.990	11577	0.61		1.00
	Replicates	11670.9	11577.6	11559.8	11500.1					
	% Recovery	99.82								
CCB					CCB	0.000	-13	142.30		1.00
	Replicates	-21.9	2.6	-33.4	2.1					
SO6476-002					UNK	0.051	106	15.66		1.00
	Replicates	106.2	89.2	99.6	128.4					
CCV					CCV	5.090	11808	0.78		1.00
	Replicates	11824.5	11869.9	11864.4	11672.7					
	% Recovery	101.81								
CCB					CCB	0.000	-12	272.88		1.00
	Replicates	29.6	-51.6	-9.1	-17.8					

KATAHDIN ANALYTICAL SERVICES, LLC
METALS ANALYSIS RUN INFORMATION SHEET

INSTR. ID: I (Thermo iCAP 6500) **ANALYST**: EP **ANALYSIS DATE**: 09/24/2021

METHOD: ICP
- ☑ 200.7
- ☑ 6010
- ☑ DOD
- ☐ _____

FILE NAME: IOI24A

REVIEWED
10-01-21
KATAHDIN ANALYTICAL
METALS SECTION

The pHs of all samples that were tested by direct analysis in this analytical run were checked just prior to analysis and confirmed to be <2. The time of preservation of these samples was checked in the "Measured Turbidity and Preservation of Incoming Samples" logbook to verify that they had been preserved at least 16 hours prior to analysis. These verifications were performed by _____ (initals) on _____ (date).

STANDARDS USED:

Standard Name	Standard ID	Prep Date	Expiration Date	Standard Conc.
Cal. Blk/ICB/CCB	MW20520	09/13/2021	09/13/2022	0 ug/L
Standard 1	MW20506	09/10/2021	12/10/2021	Varies by Element
ICV	MW20527	09/20/2021	11/04/2021	Varies by Element
PQL	MW20531	09/21/2021	11/09/2021	Varies by Element
LRS1	MW20535	09/22/2021	11/09/2021	Varies by Element
LRS2	MW20536	09/22/2021	12/21/2021	Varies by Element
ICSA	MW20534	09/22/2021	12/22/2021	Varies by Element
ICSAB	MW20509	09/10/2021	10/05/2021	Varies by Element
CCV	MW20539	09/23/2021	12/10/2021	Varies by Element
Internal Standard	MW20537	09/22/2021	11/02/2021	5.0 mg/L Yttrium

Additional Comments and Notes:

ICV warned low for arsenic, non-200.7 BQC accepted.

LRS2 failed low for iron.

10-01-21

Dilutions: Some samples were diluted based on history or due to interfering element concentrations.

Dilution preparations are as follows:

2x diln.: 4.0mL of sample (pipet M25) + 4.0mL of MW19407 (pipet M25)

5x diln.: 2.0 mL of sample (pipet M29) + 8.0 mL of MW20520 (pipet M29)

Post Spike: 0.123mL MW20532 (pipet M27) to 6.0mL of sample (pipet M29)

INSTRUMENT RUNLOG

Instrument: ICAP 6500

SAMPLE ID	DF	FILE	DATE	TIME	ANALYST
Blank	1.000	IOI24A	09/24/2021	11:09	EP
Std 1	1.000	IOI24A	09/24/2021	11:13	EP
ICV	1.000	IOI24A	09/24/2021	11:17	EP
ICB	1.000	IOI24A	09/24/2021	11:21	EP
PQL	1.000	IOI24A	09/24/2021	11:26	EP
ICSA	1.000	IOI24A	09/24/2021	11:30	EP
ICSAB	1.000	IOI24A	09/24/2021	11:35	EP
CCV	1.000	IOI24A	09/24/2021	11:39	EP
CCB	1.000	IOI24A	09/24/2021	11:43	EP
LRS1	1.000	IOI24A	09/24/2021	11:48	EP
LRS2	1.000	IOI24A	09/24/2021	11:52	EP
CCV	1.000	IOI24A	09/24/2021	11:57	EP
CCB	1.000	IOI24A	09/24/2021	12:01	EP
LCSOOI23ICS1	1.000	IOI24A	09/24/2021	12:06	EP
PBSOI23ICS1	1.000	IOI24A	09/24/2021	12:10	EP
LCSWOI23ICW1	1.000	IOI24A	09/24/2021	12:14	EP
PBWOI23ICW1	1.000	IOI24A	09/24/2021	12:19	EP
LCSWOI23ICW2	1.000	IOI24A	09/24/2021	12:23	EP
PBT1708A	1.000	IOI24A	09/24/2021	12:27	EP
PBT1709A	1.000	IOI24A	09/24/2021	12:32	EP
PBWOI23ICW2	1.000	IOI24A	09/24/2021	12:36	EP
SO6311-001	2.000	IOI24A	09/24/2021	12:41	EP
SO6311-001	5.000	IOI24A	09/24/2021	12:45	EP
CCV	1.000	IOI24A	09/24/2021	12:49	EP
CCB	1.000	IOI24A	09/24/2021	12:53	EP
SO6365-002	1.000	IOI24A	09/24/2021	12:58	EP
SO6365-004	1.000	IOI24A	09/24/2021	13:02	EP
SO6365-006	1.000	IOI24A	09/24/2021	13:06	EP
SO6300-001	1.000	IOI24A	09/24/2021	13:11	EP
SO6321-001	1.000	IOI24A	09/24/2021	13:15	EP
SO6321-002	1.000	IOI24A	09/24/2021	13:20	EP
SO6363-001	1.000	IOI24A	09/24/2021	13:24	EP
SO6367-001	1.000	IOI24A	09/24/2021	13:28	EP
SO6194-001	1.000	IOI24A	09/24/2021	13:33	EP
SO6226-004	1.000	IOI24A	09/24/2021	13:37	EP
CCV	1.000	IOI24A	09/24/2021	13:41	EP
CCB	1.000	IOI24A	09/24/2021	13:46	EP
SO6226-004L	5.000	IOI24A	09/24/2021	13:50	EP
SO6226-004A	1.000	IOI24A	09/24/2021	13:54	EP
SO6226-004P	1.000	IOI24A	09/24/2021	13:59	EP
SO6226-004S	1.000	IOI24A	09/24/2021	14:03	EP
SO6313-003	1.000	IOI24A	09/24/2021	14:07	EP
SO6313-004	1.000	IOI24A	09/24/2021	14:12	EP
SO6313-005	1.000	IOI24A	09/24/2021	14:16	EP

SAMPLE ID	DF	FILE	DATE	TIME	ANALYST
SO6313-006	1.000	IOI24A	09/24/2021	14:20	EP
SO6313-016	1.000	IOI24A	09/24/2021	14:25	EP
SO6313-017	1.000	IOI24A	09/24/2021	14:29	EP
CCV	1.000	IOI24A	09/24/2021	14:34	EP
CCB	1.000	IOI24A	09/24/2021	14:38	EP
SO6313-018	1.000	IOI24A	09/24/2021	14:42	EP
SO6313-030	1.000	IOI24A	09/24/2021	14:47	EP
SO6315-003	1.000	IOI24A	09/24/2021	14:51	EP
SO6315-004	1.000	IOI24A	09/24/2021	14:55	EP
SO6362-001	1.000	IOI24A	09/24/2021	15:00	EP
SO6362-002	1.000	IOI24A	09/24/2021	15:04	EP
SO6365-001	1.000	IOI24A	09/24/2021	15:09	EP
SO6365-003	1.000	IOI24A	09/24/2021	15:13	EP
SO6365-005	1.000	IOI24A	09/24/2021	15:18	EP
CCV	1.000	IOI24A	09/24/2021	15:22	EP
CCB	1.000	IOI24A	09/24/2021	15:26	EP
PQL	1.000	IOI24A	09/24/2021	15:31	EP
ICSA	1.000	IOI24A	09/24/2021	15:35	EP
ICSAB	1.000	IOI24A	09/24/2021	15:40	EP
CCV	1.000	IOI24A	09/24/2021	15:44	EP
CCB	1.000	IOI24A	09/24/2021	15:48	EP

Intensity Report

Author:

Published: 9/27/2021 7:45:05AM

Notes:

Blank

Method Name: FAST-2016_NO_AU Method Revision: 1,021

Analyst Name: EP

Acquire Date: 9/24/2021 11:09:04AM Sample Type: Standard

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.00007000	Cts/S	0.00001700	23.78	-8.504
Al3961_R		-0.00001100	Cts/S	0.0001810	1,625	-0.2031
As1891_A		-0.0004290	Cts/S	0.00003100	7.245	-2.877
B_2089_A		0.0005540	Cts/S	0.00009500	17.17	3.716
Ba4554_R		0.0009780	Cts/S	0.0002790	28.56	16.97
Be3130_R		-0.0005290	Cts/S	0.00007500	14.17	-9.193
Ca3158_R		-0.001782	Cts/S	0.0001940	10.87	-30.96
Cd2265_A		-0.0002970	Cts/S	0.00008000	26.84	-1.993
Co2286_A		0.00009000	Cts/S	0.00001600	17.54	0.6061
Cr2677_A		0.00001600	Cts/S	0.00001600	100.8	1.901
Cu3273_A		-0.00004900	Cts/S	0.00001800	36.52	-5.932
Fe2599_R		0.0003330	Cts/S	0.000005000	1.419	5.787
K_7664_R		0.0004190	Cts/S	0.001140	272.4	7.335
Li6707_R		0.001747	Cts/S	0.0005830	33.40	30.38
Mg2025_A		-0.0009120	Cts/S	0.00004400	4.875	-6.115
Mn2576_R		-0.0001090	Cts/S	0.00005800	52.87	-1.904
Mo2020_A		0.00002400	Cts/S	0.00002500	105.7	0.1587
Na5895_R		0.001007	Cts/S	0.0001860	18.51	17.51
Ni2316_A		-0.00002000	Cts/S	0.00002800	144.6	-0.1307
Pb2203_A		-0.00006600	Cts/S	0.00001000	15.30	-0.4412
Sb2068_A		-0.00006700	Cts/S	0.000008000	11.83	-0.4521
Se1960_A		0.0003170	Cts/S	0.00001100	3.324	2.128
Si2516_R		0.001112	Cts/S	0.00006900	6.233	19.31
Sn1899_A		0.0001360	Cts/S	0.00002400	17.41	0.9109
Sr4215_R		-0.002859	Cts/S	0.0002420	8.458	-49.69
Ti3349_A		0.000005000	Cts/S	0.00001000	192.4	-0.6246
Tl1908_A		-0.0002140	Cts/S	0.000008000	3.871	-1.437
V_2924_A		-0.00003200	Cts/S	0.00003300	104.3	-3.831
Zn2062_A		0.00004600	Cts/S	0.000008000	17.31	0.3098
Y_3600_R		17,373	Cts/S	109.12	0.62807	17,373
Y_2243_A		6,703.1	Cts/S	15.530	0.23169	6,703.1
Y_3600_A		121,180	Cts/S	171.49	0.14152	121,180

Std 1

Method Name: FAST-2016_NO_AU Method Revision: 1,021

Analyst Name: EP

Acquire Date: 9/24/2021 11:13:29AM Sample Type: Standard

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.1639	Cts/S	0.00009800	0.05951	19,070
Al3961_R		1.628	Cts/S	0.004893	0.3005	27,570
As1891_A		0.05031	Cts/S	0.00006500	0.1293	326.6
B_2089_A		0.2263	Cts/S	0.0006430	0.2842	1,469
Ba4554_R		5.005	Cts/S	0.003795	0.07582	84,770
Be3130_R		6.755	Cts/S	0.004141	0.06130	114,400
Ca3158_R		1.751	Cts/S	0.01022	0.5835	29,660
Cd2265_A		1.772	Cts/S	0.005270	0.2974	11,510
Co2286_A		0.4761	Cts/S	0.001717	0.3605	3,091
Cr2677_A		0.08682	Cts/S	0.00004200	0.04881	10,100
Cu3273_A		0.1166	Cts/S	0.00002200	0.01902	13,560
Fe2599_R		3.192	Cts/S	0.02568	0.8044	54,060
K_7664_R		0.9540	Cts/S	0.001854	0.1943	16,160
Li6707_R		0.9475	Cts/S	0.002338	0.2468	16,050

Std 1

Method Name: FAST-2016_NO_AU
Method Revision: 1,021
Analyst Name: EP
Acquire Date: 9/24/2021 11:13:29AM
Sample Type: Standard

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Mg2025_A		1.330	Cts/S	0.001527	0.1148	8,636
Mn2576_R		0.6074	Cts/S	0.001496	0.2462	10,290
Mo2020_A		0.4627	Cts/S	0.001689	0.3650	3,004
Na5895_R		3.499	Cts/S	0.01156	0.3304	59,260
Ni2316_A		0.2739	Cts/S	0.0009460	0.3452	1,778
Pb2203_A		0.1375	Cts/S	0.0002860	0.2078	892.6
Sb2068_A		0.08184	Cts/S	0.0001660	0.2032	531.3
Se1960_A		0.03920	Cts/S	0.00006500	0.1658	254.5
Si2516_R		0.7785	Cts/S	0.0005460	0.07013	13,190
Sn1899_A		0.06977	Cts/S	0.0002170	0.3106	453.0
Sr4215_R		5.843	Cts/S	0.002444	0.04184	98,960
Ti3349_A		0.1906	Cts/S	0.0006170	0.3239	22,160
Tl1908_A		0.07503	Cts/S	0.0003070	0.4090	487.1
V_2924_A		0.08912	Cts/S	0.00004200	0.04663	10,360
Zn2062_A		0.3654	Cts/S	0.001960	0.5365	2,372
Y_3600_R		16,937	Cts/S	28.949	0.17092	16,937
Y_2243_A		6,492.0	Cts/S	9.6767	0.14906	6,492.0
Y_3600_A		116,300	Cts/S	273.50	0.23518	116,300

ICV

Method Name: FAST-2016_NO_AU
Method Revision: 1,021
Analyst Name: EP
Acquire Date: 9/24/2021 11:17:35AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		387.4	ug/L	0.2914	0.07521	7,414
Al3961_R		9,826	ug/L	97.54	0.9927	10,830
As1891_A	W	376.8	ug/L	0.9425	0.2502	121.1
B_2089_A		387.6	ug/L	0.4888	0.1261	571.5
Ba4554_R		395.3	ug/L	3.143	0.7951	33,510
Be3130_R		395.6	ug/L	4.561	1.153	45,230
Ca3158_R		9,766	ug/L	142.9	1.464	11,560
Cd2265_A		394.5	ug/L	0.5270	0.1336	4,532
Co2286_A		402.7	ug/L	0.6352	0.1577	1,244
Cr2677_A		389.8	ug/L	3.244	0.8322	3,955
Cu3273_A		395.3	ug/L	1.163	0.2942	5,381
Fe2599_R		9,869	ug/L	151.4	1.534	21,330
K_7664_R		13,250	ug/L	74.11	0.5592	8,565
Li6707_R		398.7	ug/L	3.904	0.9792	6,413
Mg2025_A		9,809	ug/L	10.18	0.1038	3,381
Mn2576_R		388.4	ug/L	2.890	0.7440	3,993
Mo2020_A		410.8	ug/L	0.7592	0.1848	1,233
Na5895_R		9,838	ug/L	48.33	0.4912	23,320
Ni2316_A		400.2	ug/L	0.4230	0.1057	710.8
Pb2203_A		401.4	ug/L	1.220	0.3038	357.6
Sb2068_A		391.9	ug/L	0.4292	0.1095	207.6
Se1960_A		387.4	ug/L	0.2242	0.05789	99.73
Si2516_R		9,625	ug/L	95.97	0.9971	4,987
Sn1899_A		395.6	ug/L	1.467	0.3709	179.5
Sr4215_R		396.1	ug/L	3.260	0.8230	39,150
Ti3349_A		395.3	ug/L	0.8457	0.2139	8,803
Tl1908_A		401.5	ug/L	0.3178	0.07916	194.5
V_2924_A		394.2	ug/L	2.134	0.5413	4,102
Zn2062_A		395.8	ug/L	1.541	0.3892	938.2
Y_3600_R		16,931	Cts/S	136.10	0.80388	16,931
Y_2243_A		6,484.2	Cts/S	22.535	0.34753	6,484.2
Y_3600_A		116,830	Cts/S	40.378	0.034561	116,830

ICB

Method Name: FAST-2016_NO_AU
Method Revision: 1,021
Analyst Name: EP
Acquire Date: 9/24/2021 11:21:45AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.09168	ug/L	0.2751	300.0	-10.25
Al3961_R		2.597	ug/L	2.255	86.83	2.749
As1891_A		0.1261	ug/L	0.4701	372.7	-2.805
B_2089_A		1.612	ug/L	0.2502	15.52	6.058
Ba4554_R		0.2472	ug/L	0.1016	41.11	38.13
Be3130_R		0.2528	ug/L	0.01377	5.446	20.23
Ca3158_R		6.028	ug/L	2.342	38.85	-23.38
Cd2265_A		0.06722	ug/L	0.0001860	0.2761	-1.164
Co2286_A		0.1357	ug/L	0.1440	106.1	1.031
Cr2677_A		0.2655	ug/L	0.05497	20.71	4.632
Cu3273_A		0.3241	ug/L	0.4466	137.8	-1.322
Fe2599_R		10.14	ug/L	0.3056	3.014	28.01
K_7664_R		1.759	ug/L	9.367	532.4	8.377
Li6707_R		-1.383	ug/L	0.4844	35.04	7.584
Mg2025_A		3.024	ug/L	1.320	43.65	-4.981
Mn2576_R		0.3585	ug/L	0.2181	60.86	1.871
Mo2020_A		0.5810	ug/L	0.2527	43.50	1.941
Na5895_R		6.169	ug/L	0.5337	8.652	32.19
Ni2316_A		0.1870	ug/L	0.09069	48.50	0.2151
Pb2203_A		-0.6693	ug/L	0.07523	11.24	-1.049
Sb2068_A		-0.7708	ug/L	0.2726	35.37	-0.8672
Se1960_A		-0.7261	ug/L	1.654	227.8	1.920
Si2516_R		16.70	ug/L	1.390	8.326	27.89
Sn1899_A		-0.2096	ug/L	0.01183	5.642	0.8046
Sr4215_R		0.2439	ug/L	0.002152	0.8824	-24.67
Ti3349_A		0.6333	ug/L	0.2547	40.22	13.82
Tl1908_A		0.7552	ug/L	0.1592	21.09	-1.046
V_2924_A		0.03635	ug/L	0.04159	114.4	-3.427
Zn2062_A		-0.02193	ug/L	0.01150	52.44	0.2528
Y_3600_R		17,207	Cts/S	107.06	0.62221	17,207
Y_2243_A		6,634.9	Cts/S	13.101	0.19746	6,634.9
Y_3600_A		119,510	Cts/S	399.38	0.33417	119,510

PQL

Method Name: FAST-2016_NO_AU
Method Revision: 1,021
Analyst Name: EP
Acquire Date: 9/24/2021 11:26:11AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		8.871	ug/L	0.2918	3.289	164.5
Al3961_R		284.1	ug/L	2.016	0.7094	317.4
As1891_A		7.632	ug/L	0.2570	3.367	-0.2737
B_2089_A		47.10	ug/L	0.06845	0.1453	72.48
Ba4554_R		5.149	ug/L	0.2888	5.609	459.3
Be3130_R		4.910	ug/L	0.1225	2.495	560.2
Ca3158_R		95.08	ug/L	1.018	1.070	83.93
Cd2265_A		4.999	ug/L	0.004351	0.08703	56.34
Co2286_A		10.19	ug/L	0.05512	0.5412	32.54
Cr2677_A		9.641	ug/L	0.2247	2.331	101.0
Cu3273_A		24.60	ug/L	0.3578	1.454	333.9
Fe2599_R		100.1	ug/L	1.281	1.281	225.1
K_7664_R		965.8	ug/L	36.47	3.776	639.9
Li6707_R		95.94	ug/L	2.113	2.202	1,588
Mg2025_A		100.3	ug/L	1.860	1.854	29.51
Mn2576_R		5.179	ug/L	0.05088	0.9823	52.15
Mo2020_A		10.06	ug/L	0.003888	0.03865	30.80
Na5895_R		960.2	ug/L	8.984	0.9356	2,325
Ni2316_A		9.775	ug/L	0.1343	1.374	17.51

PQL

Method Name: FAST-2016_NO_AU
Method Revision: 1,021
Analyst Name: EP
Acquire Date: 9/24/2021 11:26:11AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		4.022	ug/L	0.8292	20.62	3.194
Sb2068_A		8.046	ug/L	0.8433	10.48	3.382
Se1960_A		10.02	ug/L	0.05549	0.5536	4.654
Si2516_R		197.9	ug/L	1.317	0.6651	122.8
Sn1899_A		98.44	ug/L	1.279	1.299	46.03
Sr4215_R		9.861	ug/L	0.1241	1.259	941.0
Ti3349_A		14.71	ug/L	0.1938	1.318	331.5
Tl1908_A		15.17	ug/L	0.04985	0.3286	6.099
V_2924_A		9.759	ug/L	0.1592	1.631	99.38
Zn2062_A		19.40	ug/L	0.01966	0.1014	46.99
Y_3600_R		17,178	Cts/S	188.30	1.0962	17,178
Y_2243_A		6,583.9	Cts/S	11.188	0.16994	6,583.9
Y_3600_A		118,520	Cts/S	70.100	0.059146	118,520

ICSA

Method Name: FAST-2016_NO_AU
Method Revision: 1,021
Analyst Name: EP
Acquire Date: 9/24/2021 11:30:35AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-3.920	ug/L	0.6326	16.14	-625.6
Al3961_R		501,800	ug/L	6,962	1.387	528,400
As1891_A		1.219	ug/L	1.725	141.5	-12.17
B_2089_A		-0.1525	ug/L	0.3542	232.3	2.941
Ba4554_R		1.695	ug/L	0.01728	1.019	153.2
Be3130_R		-0.007774	ug/L	0.04748	610.7	-9.712
Ca3158_R		468,800	ug/L	1,182	0.2521	532,500
Cd2265_A		-0.7087	ug/L	0.2078	29.32	308.8
Co2286_A		-0.3269	ug/L	0.2911	89.03	1.875
Cr2677_A		1.083	ug/L	0.008191	0.7565	26.91
Cu3273_A		0.5522	ug/L	0.2189	39.64	21.87
Fe2599_R		181,200	ug/L	920.2	0.5079	374,600
K_7664_R		14.10	ug/L	11.62	82.42	15.49
Li6707_R		4.957	ug/L	0.4290	8.655	104.2
Mg2025_A		430,900	ug/L	1,624	0.3769	131,900
Mn2576_R		1.235	ug/L	0.1856	15.03	11.36
Mo2020_A		-2.533	ug/L	0.1509	5.956	-6.642
Na5895_R		55.44	ug/L	2.081	3.754	141.9
Ni2316_A		0.7179	ug/L	0.01582	2.204	-6.513
Pb2203_A		-1.572	ug/L	1.359	86.47	-27.72
Sb2068_A		-1.149	ug/L	1.167	101.6	3.070
Se1960_A		2.648	ug/L	0.8776	33.14	8.241
Si2516_R		23.88	ug/L	2.315	9.694	14.86
Sn1899_A		6.542	ug/L	0.5419	8.284	3.421
Sr4215_R		4.868	ug/L	0.01262	0.2593	414.6
Ti3349_A		0.6687	ug/L	0.01594	2.383	12.61
Tl1908_A		0.1610	ug/L	0.2155	133.9	-0.6357
V_2924_A		-3.199	ug/L	0.1679	5.248	1.245
Zn2062_A		0.4876	ug/L	0.1669	34.23	1.297
Y_3600_R		16,196	Cts/S	7.2567	0.044805	16,196
Y_2243_A		5,783.1	Cts/S	16.910	0.29240	5,783.1
Y_3600_A		103,460	Cts/S	270.69	0.26164	103,460

ICSAB

Method Name: FAST-2016_NO_AU
Method Revision: 1,021
Analyst Name: EP
Acquire Date: 9/24/2021 11:35:12AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

ICSAB

Method Name: FAST-2016_NO_AU
Method Revision: 1,021
Analyst Name: EP
Acquire Date: 9/24/2021 11:35:12AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		214.2	ug/L	0.1349	0.06300	3,080
Al3961_R		507,600	ug/L	4,551	0.8966	537,800
As1891_A		98.35	ug/L	2.403	2.443	16.28
B_2089_A		476.1	ug/L	0.04065	0.008538	619.7
Ba4554_R		488.4	ug/L	0.7060	0.1445	39,840
Be3130_R		487.6	ug/L	0.6899	0.1415	53,670
Ca3158_R		475,400	ug/L	6,800	1.430	543,200
Cd2265_A		912.4	ug/L	3.187	0.3493	9,553
Co2286_A		451.7	ug/L	0.9116	0.2018	1,237
Cr2677_A		472.2	ug/L	1.382	0.2926	4,243
Cu3273_A		533.6	ug/L	1.090	0.2042	6,423
Fe2599_R		180,600	ug/L	1,135	0.6286	375,600
K_7664_R		20,390	ug/L	27.20	0.1334	12,680
Li6707_R		517.2	ug/L	0.1160	0.02244	7,999
Mg2025_A		433,800	ug/L	19.61	0.004520	131,800
Mn2576_R		462.7	ug/L	0.4012	0.08669	4,582
Mo2020_A		467.3	ug/L	0.1591	0.03405	1,241
Na5895_R		20,520	ug/L	5.280	0.02574	46,790
Ni2316_A		889.5	ug/L	0.6705	0.07538	1,387
Pb2203_A		42.77	ug/L	0.2070	0.4840	6.929
Sb2068_A		600.1	ug/L	0.6387	0.1064	285.8
Se1960_A		52.26	ug/L	0.2204	0.4218	19.30
Si2516_R		2,099	ug/L	24.89	1.186	1,049
Sn1899_A		456.5	ug/L	0.5181	0.1135	183.2
Sr4215_R		487.0	ug/L	1.604	0.3293	46,340
Ti3349_A		493.5	ug/L	1.002	0.2031	9,698
Tl1908_A		83.90	ug/L	0.3378	0.4027	35.91
V_2924_A		478.5	ug/L	0.3869	0.08085	4,429
Zn2062_A		898.1	ug/L	3.582	0.3988	1,884
Y_3600_R		16,294	Cts/S	72.306	0.44374	16,294
Y_2243_A		5,738.8	Cts/S	6.0705	0.10578	5,738.8
Y_3600_A		103,120	Cts/S	308.79	0.29945	103,120

CCV

Method Name: FAST-2016_NO_AU
Method Revision: 1,021
Analyst Name: EP
Acquire Date: 9/24/2021 11:39:40AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		499.3	ug/L	0.7428	0.1488	9,562
Al3961_R		12,650	ug/L	115.6	0.9142	14,140
As1891_A		499.7	ug/L	0.03430	0.006864	160.6
B_2089_A		503.6	ug/L	1.696	0.3368	736.3
Ba4554_R		496.1	ug/L	5.078	1.024	42,650
Be3130_R		490.1	ug/L	5.749	1.173	56,840
Ca3158_R		12,500	ug/L	95.45	0.7637	15,020
Cd2265_A		504.8	ug/L	1.878	0.3720	5,765
Co2286_A		510.4	ug/L	1.100	0.2156	1,567
Cr2677_A		499.5	ug/L	0.2223	0.04452	5,068
Cu3273_A		496.8	ug/L	0.9424	0.1897	6,766
Fe2599_R		12,480	ug/L	92.34	0.7401	27,360
K_7664_R		12,230	ug/L	136.3	1.114	8,022
Li6707_R		497.2	ug/L	6.116	1.230	8,106
Mg2025_A		12,830	ug/L	8.171	0.06369	4,397
Mn2576_R		493.3	ug/L	4.733	0.9595	5,146
Mo2020_A		511.7	ug/L	1.781	0.3481	1,526
Na5895_R		12,530	ug/L	134.9	1.076	30,130
Ni2316_A		512.8	ug/L	2.378	0.4638	905.0

CCV

Method Name: FAST-2016_NO_AU
Method Revision: 1,021
Analyst Name: EP
Acquire Date: 9/24/2021 11:39:40AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		511.0	ug/L	1.400	0.2740	452.6
Sb2068_A		500.4	ug/L	2.544	0.5083	263.7
Se1960_A		499.7	ug/L	0.8253	0.1652	127.3
Si2516_R		12,720	ug/L	136.6	1.074	6,679
Sn1899_A		508.7	ug/L	0.5953	0.1170	229.2
Sr4215_R		492.3	ug/L	5.654	1.148	49,380
Ti3349_A		506.9	ug/L	2.785	0.5493	11,290
Tl1908_A		514.7	ug/L	4.202	0.8165	248.2
V_2924_A		493.9	ug/L	0.6377	0.1291	5,142
Zn2062_A		503.6	ug/L	0.7780	0.1545	1,186
Y_3600_R		17,175	Cts/S	140.78	0.81970	17,175
Y_2243_A		6,445.0	Cts/S	20.632	0.32013	6,445.0
Y_3600_A		116,870	Cts/S	37.160	0.031798	116,870

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,021
Analyst Name: EP
Acquire Date: 9/24/2021 11:43:50AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.07660	ug/L	0.2622	342.3	-7.004
Al3961_R		21.05	ug/L	0.6756	3.209	23.47
As1891_A		-0.7334	ug/L	0.2348	32.02	-3.073
B_2089_A		1.289	ug/L	0.1511	11.72	5.544
Ba4554_R		0.009442	ug/L	0.01122	118.8	17.70
Be3130_R		0.1376	ug/L	0.002342	1.702	6.873
Ca3158_R		23.56	ug/L	2.183	9.263	-2.242
Cd2265_A		0.04841	ug/L	0.09097	187.9	-1.356
Co2286_A		0.06709	ug/L	0.07511	112.0	0.8085
Cr2677_A		-0.02072	ug/L	0.1990	960.5	1.676
Cu3273_A		0.2899	ug/L	0.3981	137.3	-1.822
Fe2599_R		19.95	ug/L	5.704	28.60	49.77
K_7664_R		12.42	ug/L	40.09	322.7	15.50
Li6707_R		-0.6983	ug/L	0.3987	57.10	18.78
Mg2025_A		12.49	ug/L	1.093	8.745	-1.647
Mn2576_R		0.1654	ug/L	0.1052	63.60	-0.1554
Mo2020_A		0.5764	ug/L	0.2012	34.91	1.913
Na5895_R		4.031	ug/L	3.955	98.12	27.16
Ni2316_A		0.1378	ug/L	0.07933	57.57	0.1249
Pb2203_A		0.05490	ug/L	0.3693	672.6	-0.3853
Sb2068_A		0.1114	ug/L	0.1987	178.3	-0.3843
Se1960_A		0.2724	ug/L	1.094	401.8	2.161
Si2516_R		12.52	ug/L	8.083	64.58	25.81
Sn1899_A		0.07574	ug/L	0.2646	349.4	0.9297
Sr4215_R		0.1601	ug/L	0.01560	9.741	-33.21
Ti3349_A		0.5722	ug/L	0.2596	45.36	12.50
Tl1908_A		0.2666	ug/L	0.4209	157.8	-1.280
V_2924_A		0.1333	ug/L	0.04342	32.57	-2.389
Zn2062_A		-0.01522	ug/L	0.02268	149.0	0.2678
Y_3600_R		17,269	Cts/S	114.20	0.66128	17,269
Y_2243_A		6,585.7	Cts/S	17.565	0.26671	6,585.7
Y_3600_A		120,210	Cts/S	345.22	0.28717	120,210

LRS1

Method Name: FAST-2016_NO_AU
Method Revision: 1,021
Analyst Name: EP
Acquire Date: 9/24/2021 11:48:15AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

LRS1

Method Name: FAST-2016_NO_AU
Method Revision: 1,021
Analyst Name: EP
Acquire Date: 9/24/2021 11:48:15AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		1,967	ug/L	0.4217	0.02144	36,790
Al3961_R		19.12	ug/L	0.8863	4.635	227.2
As1891_A		19,760	ug/L	82.76	0.4188	6,253
B_2089_A		19,840	ug/L	53.33	0.2688	27,410
Ba4554_R		19,030	ug/L	19.29	0.1014	1,631,000
Be3130_R		18,940	ug/L	42.91	0.2265	2,192,000
Ca3158_R		24.01	ug/L	0.3872	1.613	12.57
Cd2265_A		19,070	ug/L	45.79	0.2402	209,300
Co2286_A		20,040	ug/L	75.18	0.3751	59,340
Cr2677_A		19,270	ug/L	2.669	0.01385	191,300
Cu3273_A		19,690	ug/L	159.1	0.8082	262,500
Fe2599_R		6.863	ug/L	0.07397	1.078	20.71
K_7664_R		2.597	ug/L	6.503	250.4	8.868
Li6707_R		19,450	ug/L	80.43	0.4135	315,100
Mg2025_A		976.1	ug/L	6.999	0.7171	1,270
Mn2576_R		18,950	ug/L	12.81	0.06762	197,200
Mo2020_A		5,004	ug/L	16.03	0.3204	14,390
Na5895_R		24.04	ug/L	2.358	9.808	74.87
Ni2316_A		19,840	ug/L	54.82	0.2763	33,650
Pb2203_A		20,540	ug/L	44.70	0.2176	17,600
Sb2068_A		20,120	ug/L	50.07	0.2489	10,240
Se1960_A		20,320	ug/L	58.75	0.2891	4,905
Si2516_R		107.2	ug/L	4.309	4.021	198.3
Sn1899_A		19,550	ug/L	59.33	0.3035	8,468
Sr4215_R		19,030	ug/L	199.9	1.051	1,905,000
Ti3349_A		19,570	ug/L	19.94	0.1019	426,700
Tl1908_A		19,710	ug/L	15.84	0.08038	9,225
V_2924_A		19,700	ug/L	19.26	0.09778	201,700
Zn2062_A		19,040	ug/L	43.52	0.2286	43,270
Y_3600_R		17,126	Cts/S	16.611	0.096993	17,126
Y_2243_A		6,220.0	Cts/S	11.344	0.18239	6,220.0
Y_3600_A		114,430	Cts/S	346.98	0.30322	114,430

LRS2

Method Name: FAST-2016_NO_AU
Method Revision: 1,021
Analyst Name: EP
Acquire Date: 9/24/2021 11:52:58AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-5.606	ug/L	0.1400	2.497	-769.2
Al3961_R		497,300	ug/L	4,491	0.9031	524,400
As1891_A		-0.4044	ug/L	4.384	1,084	-13.54
B_2089_A		50.51	ug/L	1.820	3.603	66.22
Ba4554_R		4.513	ug/L	0.7185	15.92	382.0
Be3130_R		3.312	ug/L	0.6279	18.96	353.1
Ca3158_R		462,100	ug/L	64.53	0.01396	525,500
Cd2265_A		1.565	ug/L	1.805	115.3	395.1
Co2286_A		2.472	ug/L	1.320	53.39	9.904
Cr2677_A		-1.748	ug/L	0.5438	31.11	4.986
Cu3273_A		0.3650	ug/L	0.1998	54.74	52.54
Fe2599_R	F	222,400	ug/L	154.3	0.06938	460,400
K_7664_R		300,000	ug/L	443.9	0.1480	185,600
Li6707_R		9.084	ug/L	0.7217	7.945	167.6
Mg2025_A		187,900	ug/L	403.2	0.2146	56,180
Mn2576_R		13.36	ug/L	0.7561	5.658	46.79
Mo2020_A		1.048	ug/L	0.1939	18.50	2.874
Na5895_R		199,200	ug/L	89.83	0.04510	451,900
Ni2316_A		3.298	ug/L	0.9027	27.37	-4.026

LRS2

Method Name: FAST-2016_NO_AU
Method Revision: 1,021
Analyst Name: EP
Acquire Date: 9/24/2021 11:52:58AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		2.296	ug/L	2.456	107.0	-22.44
Sb2068_A		2.403	ug/L	2.936	122.2	5.290
Se1960_A		7.073	ug/L	3.073	43.45	9.542
Si2516_R		49,560	ug/L	170.7	0.3443	24,490
Sn1899_A		11.01	ug/L	1.075	9.771	5.098
Sr4215_R		9.319	ug/L	0.6276	6.734	837.0
Ti3349_A		13.13	ug/L	1.186	9.037	254.5
Tl1908_A		-1.374	ug/L	0.4273	31.10	-1.313
V_2924_A		-1.124	ug/L	0.1851	16.47	27.83
Zn2062_A		5.931	ug/L	1.554	26.19	12.52
Y_3600_R		16,215	Cts/S	0.15763	0.00097200	16,215
Y_2243_A		5,650.3	Cts/S	2.6329	0.046597	5,650.3
Y_3600_A		102,010	Cts/S	229.05	0.22453	102,010

CCV

Method Name: FAST-2016_NO_AU
Method Revision: 1,021
Analyst Name: EP
Acquire Date: 9/24/2021 11:57:38AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		495.8	ug/L	0.2289	0.04618	9,513
Al3961_R		12,790	ug/L	85.48	0.6681	14,270
As1891_A		491.8	ug/L	0.002549	0.0005180	159.7
B_2089_A		508.9	ug/L	1.118	0.2197	751.7
Ba4554_R		500.9	ug/L	2.372	0.4736	42,940
Be3130_R		492.8	ug/L	0.9398	0.1907	56,990
Ca3158_R		12,630	ug/L	133.8	1.059	15,130
Cd2265_A		495.2	ug/L	1.381	0.2788	5,716
Co2286_A		503.8	ug/L	2.894	0.5745	1,563
Cr2677_A		494.5	ug/L	0.2072	0.04190	5,028
Cu3273_A		491.4	ug/L	0.1901	0.03868	6,706
Fe2599_R		12,610	ug/L	8.002	0.06348	27,560
K_7664_R		12,590	ug/L	9.303	0.07387	8,233
Li6707_R		502.4	ug/L	3.635	0.7235	8,166
Mg2025_A		12,550	ug/L	46.33	0.3692	4,346
Mn2576_R		492.7	ug/L	1.010	0.2050	5,124
Mo2020_A		504.3	ug/L	1.341	0.2660	1,520
Na5895_R		12,670	ug/L	45.16	0.3564	30,380
Ni2316_A		503.7	ug/L	1.024	0.2033	898.5
Pb2203_A		501.4	ug/L	3.476	0.6934	448.8
Sb2068_A		492.8	ug/L	1.109	0.2250	262.5
Se1960_A		493.3	ug/L	2.565	0.5199	127.0
Si2516_R		12,980	ug/L	64.82	0.4992	6,798
Sn1899_A		499.2	ug/L	2.086	0.4178	227.3
Sr4215_R		497.6	ug/L	2.233	0.4489	49,760
Ti3349_A		509.7	ug/L	1.122	0.2201	11,370
Tl1908_A		505.5	ug/L	0.7616	0.1507	246.4
V_2924_A		491.3	ug/L	2.779	0.5658	5,125
Zn2062_A		493.2	ug/L	1.850	0.3752	1,174
Y_3600_R		17,125	Cts/S	69.939	0.40841	17,125
Y_2243_A		6,513.8	Cts/S	2.2268	0.034186	6,513.8
Y_3600_A		117,100	Cts/S	73.313	0.062605	117,100

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,021
Analyst Name: EP
Acquire Date: 9/24/2021 12:01:46PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,021
Analyst Name: EP
Acquire Date: 9/24/2021 12:01:46PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.1100	ug/L	0.1477	134.3	-6.294
Al3961_R		3.444	ug/L	5.372	156.0	3.674
As1891_A		0.2390	ug/L	0.06191	25.90	-2.728
B_2089_A	W	11.85	ug/L	0.7364	6.215	20.78
Ba4554_R		0.1034	ug/L	0.03085	29.83	25.68
Be3130_R		0.1939	ug/L	0.004126	2.128	13.30
Ca3158_R		4.959	ug/L	0.8433	17.01	-24.61
Cd2265_A		0.2919	ug/L	0.02761	9.457	1.447
Co2286_A		0.1535	ug/L	0.1722	112.2	1.077
Cr2677_A		0.02247	ug/L	0.03109	138.3	2.116
Cu3273_A		0.5110	ug/L	0.1561	30.55	1.262
Fe2599_R		10.13	ug/L	0.2305	2.276	27.92
K_7664_R		43.22	ug/L	14.61	33.80	35.53
Li6707_R		0.1419	ug/L	0.2257	159.1	32.31
Mg2025_A		5.953	ug/L	0.4474	7.516	-3.895
Mn2576_R		0.2781	ug/L	0.1810	65.07	1.029
Mo2020_A		0.9970	ug/L	0.1669	16.74	3.173
Na5895_R		19.52	ug/L	1.082	5.542	64.17
Ni2316_A		0.1700	ug/L	0.08335	49.02	0.1871
Pb2203_A		0.1015	ug/L	0.1251	123.3	-0.3399
Sb2068_A		0.9497	ug/L	0.3424	36.06	0.06806
Se1960_A		1.724	ug/L	0.4954	28.74	2.514
Si2516_R		10.71	ug/L	3.480	32.49	24.71
Sn1899_A		0.4574	ug/L	0.05956	13.02	1.097
Sr4215_R		0.1987	ug/L	0.03308	16.65	-29.13
Ti3349_A		1.627	ug/L	0.1574	9.672	36.52
Tl1908_A		0.3707	ug/L	0.3921	105.8	-1.221
V_2924_A		0.3010	ug/L	0.07679	25.51	-0.6003
Zn2062_A		0.1542	ug/L	0.02957	19.18	0.6714
Y_3600_R		17,168	Cts/S	127.47	0.74245	17,168
Y_2243_A		6,541.7	Cts/S	15.292	0.23376	6,541.7
Y_3600_A		119,850	Cts/S	435.63	0.36347	119,850

LCSOOI23ICS1

Method Name: FAST-2016_NO_AU
Method Revision: 1,021
Analyst Name: EP
Acquire Date: 9/24/2021 12:06:12PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		46.25	ug/L	0.06324	0.1367	862.5
Al3961_R		1,949	ug/L	14.38	0.7380	2,159
As1891_A		94.75	ug/L	0.2260	0.2385	27.95
B_2089_A		481.9	ug/L	1.917	0.3977	685.0
Ba4554_R		1,935	ug/L	8.777	0.4535	164,700
Be3130_R		47.82	ug/L	0.3521	0.7363	5,481
Ca3158_R		2,357	ug/L	7.425	0.3150	2,780
Cd2265_A		240.1	ug/L	0.7759	0.3231	2,700
Co2286_A		497.8	ug/L	0.8280	0.1663	1,510
Cr2677_A		189.9	ug/L	0.1340	0.07054	1,908
Cu3273_A		249.0	ug/L	1.659	0.6664	3,348
Fe2599_R		987.3	ug/L	3.119	0.3159	2,149
K_7664_R		9,526	ug/L	114.7	1.204	6,184
Li6707_R		490.9	ug/L	2.164	0.4409	7,922
Mg2025_A		4,853	ug/L	2.806	0.05782	1,654
Mn2576_R		487.3	ug/L	1.154	0.2369	5,034
Mo2020_A		101.8	ug/L	0.2380	0.2338	300.1
Na5895_R		7,296	ug/L	25.16	0.3448	17,370
Ni2316_A		495.5	ug/L	0.7268	0.1467	860.3

LCSOOI23ICS1

Method Name: FAST-2016_NO_AU
Method Revision: 1,021
Analyst Name: EP
Acquire Date: 9/24/2021 12:06:12PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		100.4	ug/L	0.4868	0.4849	87.58
Sb2068_A		95.81	ug/L	0.1108	0.1157	47.08
Se1960_A		100.4	ug/L	1.197	1.193	26.91
Si2516_R		943.0	ug/L	0.7020	0.07444	510.4
Sn1899_A		540.8	ug/L	2.815	0.5205	240.8
Sr4215_R		486.6	ug/L	3.156	0.6486	48,310
Ti3349_A		491.7	ug/L	0.2581	0.05249	10,830
Tl1908_A		97.10	ug/L	1.667	1.716	45.64
V_2924_A		473.8	ug/L	1.357	0.2864	4,908
Zn2062_A		477.2	ug/L	1.923	0.4030	1,112
Y_3600_R		17,001	Cts/S	66.397	0.39055	17,001
Y_2243_A		6,370.8	Cts/S	10.782	0.16924	6,370.8
Y_3600_A		115,650	Cts/S	532.57	0.46050	115,650

PBSOI23ICS1

Method Name: FAST-2016_NO_AU
Method Revision: 1,021
Analyst Name: EP
Acquire Date: 9/24/2021 12:10:25PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.1444	ug/L	0.1037	71.79	-11.30
Al3961_R		19.05	ug/L	9.800	51.44	21.41
As1891_A		0.2534	ug/L	0.5023	198.2	-2.702
B_2089_A		9.871	ug/L	0.1417	1.435	17.76
Ba4554_R		1.074	ug/L	0.02500	2.328	109.5
Be3130_R		0.06972	ug/L	0.02058	29.52	-1.089
Ca3158_R	F	280.6	ug/L	8.560	3.051	308.4
Cd2265_A		0.1264	ug/L	0.01332	10.54	-0.4348
Co2286_A		-0.04633	ug/L	0.03356	72.43	0.4511
Cr2677_A		0.8667	ug/L	0.1567	18.07	10.85
Cu3273_A		0.9223	ug/L	0.2557	27.72	6.979
Fe2599_R		22.96	ug/L	0.4552	1.982	56.27
K_7664_R		77.08	ug/L	8.156	10.58	57.91
Li6707_R		-1.228	ug/L	1.276	103.9	10.13
Mg2025_A		19.75	ug/L	0.05375	0.2721	0.8706
Mn2576_R	F	16.24	ug/L	0.09443	0.5813	168.3
Mo2020_A		0.4265	ug/L	0.01591	3.730	1.433
Na5895_R		41.03	ug/L	0.1538	0.3748	116.3
Ni2316_A		0.6144	ug/L	0.1130	18.39	0.9624
Pb2203_A		0.2007	ug/L	1.158	577.0	-0.2496
Sb2068_A		0.1179	ug/L	0.07237	61.39	-0.6464
Se1960_A		-0.2286	ug/L	0.4645	203.2	2.006
Si2516_R		15.24	ug/L	4.394	28.83	27.17
Sn1899_A		49.00	ug/L	0.6820	1.392	23.03
Sr4215_R		0.6287	ug/L	0.03502	5.570	14.08
Ti3349_A		1.308	ug/L	0.2833	21.66	29.06
Tl1908_A		-0.3709	ug/L	0.1137	30.65	-1.581
V_2924_A		0.3444	ug/L	0.04434	12.87	-0.1792
Zn2062_A	W	19.54	ug/L	0.08364	0.4280	46.68
Y_3600_R		17,238	Cts/S	77.218	0.44796	17,238
Y_2243_A		6,489.4	Cts/S	15.373	0.23690	6,489.4
Y_3600_A		119,120	Cts/S	67.596	0.056746	119,120

LCSWOI23ICW1

Method Name: FAST-2016_NO_AU
Method Revision: 1,021
Analyst Name: EP
Acquire Date: 9/24/2021 12:14:49PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

LCSWOI23ICW1

Method Name: FAST-2016_NO_AU
Method Revision: 1,021
Analyst Name: EP
Acquire Date: 9/24/2021 12:14:49PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		52.90	ug/L	1.019	1.927	1,014
Al3961_R		2,053	ug/L	2.563	0.1248	2,366
As1891_A		106.1	ug/L	1.083	1.020	32.95
B_2089_A		528.8	ug/L	4.355	0.8236	782.1
Ba4554_R		2,016	ug/L	8.346	0.4141	178,400
Be3130_R		50.57	ug/L	0.1250	0.2472	6,032
Ca3158_R		2,562	ug/L	29.59	1.155	3,147
Cd2265_A		258.9	ug/L	1.634	0.6310	3,031
Co2286_A		529.7	ug/L	2.698	0.5093	1,673
Cr2677_A		206.6	ug/L	2.836	1.373	2,128
Cu3273_A		261.1	ug/L	4.462	1.709	3,599
Fe2599_R		1,001	ug/L	6.744	0.6736	2,267
K_7664_R		10,090	ug/L	85.45	0.8467	6,817
Li6707_R		501.5	ug/L	0.3608	0.07196	8,420
Mg2025_A		5,446	ug/L	25.54	0.4689	1,933
Mn2576_R		511.0	ug/L	4.073	0.7971	5,493
Mo2020_A		103.1	ug/L	1.167	1.132	316.4
Na5895_R		7,612	ug/L	53.33	0.7007	18,860
Ni2316_A		533.3	ug/L	3.756	0.7042	964.2
Pb2203_A		109.4	ug/L	0.01144	0.01046	99.44
Sb2068_A		105.9	ug/L	1.494	1.410	54.84
Se1960_A		110.1	ug/L	0.6171	0.5604	30.53
Si2516_R		1,028	ug/L	4.002	0.3892	577.1
Sn1899_A		491.8	ug/L	10.34	2.104	228.1
Sr4215_R		505.7	ug/L	1.470	0.2906	52,240
Ti3349_A		518.5	ug/L	13.23	2.552	11,710
Tl1908_A		111.2	ug/L	1.677	1.508	54.62
V_2924_A		513.7	ug/L	5.639	1.098	5,458
Zn2062_A		522.5	ug/L	2.066	0.3953	1,268
Y_3600_R		17,688	Cts/S	36.419	0.20590	17,688
Y_2243_A		6,635.0	Cts/S	62.218	0.93773	6,635.0
Y_3600_A		118,600	Cts/S	1,572.7	1.3261	118,600

PBWOI23ICW1

Method Name: FAST-2016_NO_AU
Method Revision: 1,021
Analyst Name: EP
Acquire Date: 9/24/2021 12:19:01PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.2150	ug/L	0.1257	58.49	-12.90
Al3961_R		8.817	ug/L	2.437	27.65	9.687
As1891_A		1.092	ug/L	1.362	124.7	-2.492
B_2089_A		5.316	ug/L	0.5366	10.10	11.54
Ba4554_R		2.279	ug/L	0.2506	10.99	213.6
Be3130_R		0.1163	ug/L	0.02770	23.81	4.245
Ca3158_R		13.05	ug/L	1.151	8.818	-15.00
Cd2265_A		0.08743	ug/L	0.01031	11.79	-0.9198
Co2286_A		0.2841	ug/L	0.009047	3.184	1.512
Cr2677_A		0.1076	ug/L	0.1997	185.5	3.036
Cu3273_A		0.3587	ug/L	0.02920	8.141	-0.8737
Fe2599_R		15.78	ug/L	2.916	18.48	40.45
K_7664_R		24.11	ug/L	0.07720	0.3201	23.13
Li6707_R		-1.175	ug/L	0.1550	13.19	10.93
Mg2025_A		13.82	ug/L	0.5424	3.924	-1.189
Mn2576_R	W	2.657	ug/L	0.2393	9.007	25.96
Mo2020_A		0.4773	ug/L	0.04677	9.798	1.630
Na5895_R		15.47	ug/L	9.346	60.43	54.37
Ni2316_A		0.2052	ug/L	0.1666	81.20	0.2468

PBWOI23ICW1

Method Name: FAST-2016_NO_AU
Method Revision: 1,021
Analyst Name: EP
Acquire Date: 9/24/2021 12:19:01PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		-0.08360	ug/L	0.03318	39.68	-0.5160
Sb2068_A		-0.3958	ug/L	0.4473	113.0	-0.6895
Se1960_A		-0.2834	ug/L	1.547	545.8	2.043
Si2516_R		5.927	ug/L	3.066	51.73	22.31
Sn1899_A		3.846	ug/L	1.309	34.04	2.693
Sr4215_R		0.1700	ug/L	0.01250	7.351	-32.21
Ti3349_A		1.631	ug/L	0.09015	5.528	37.13
Tl1908_A		1.183	ug/L	0.3984	33.68	-0.8383
V_2924_A		0.05273	ug/L	0.3091	586.1	-3.278
Zn2062_A		0.6582	ug/L	0.05647	8.580	1.913
Y_3600_R		17,281	Cts/S	653.84	3.7836	17,281
Y_2243_A		6,667.4	Cts/S	30.669	0.45998	6,667.4
Y_3600_A		121,510	Cts/S	1,245.2	1.0248	121,510

LCSWOI23ICW2

Method Name: FAST-2016_NO_AU
Method Revision: 1,021
Analyst Name: EP
Acquire Date: 9/24/2021 12:23:27PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		49.88	ug/L	0.03695	0.07407	926.6
Al3961_R		2,101	ug/L	4.687	0.2231	2,326
As1891_A		102.1	ug/L	0.09271	0.09076	30.08
B_2089_A		516.6	ug/L	2.638	0.5107	727.7
Ba4554_R		2,077	ug/L	4.669	0.2248	176,700
Be3130_R		50.82	ug/L	0.2796	0.5502	5,823
Ca3158_R		2,517	ug/L	6.134	0.2437	2,970
Cd2265_A		257.2	ug/L	0.9842	0.3826	2,868
Co2286_A		536.7	ug/L	1.353	0.2522	1,614
Cr2677_A		201.6	ug/L	0.1282	0.06361	2,016
Cu3273_A		260.3	ug/L	0.5194	0.1995	3,484
Fe2599_R		1,045	ug/L	14.84	1.420	2,273
K_7664_R		10,050	ug/L	7.045	0.07011	6,522
Li6707_R		519.2	ug/L	0.8787	0.1692	8,375
Mg2025_A		5,273	ug/L	2.899	0.05498	1,782
Mn2576_R		507.1	ug/L	2.008	0.3959	5,237
Mo2020_A		107.4	ug/L	0.3332	0.3102	313.9
Na5895_R		7,893	ug/L	0.3721	0.004714	18,780
Ni2316_A		536.2	ug/L	0.1118	0.02085	923.0
Pb2203_A		107.1	ug/L	1.997	1.865	92.66
Sb2068_A		104.5	ug/L	0.5822	0.5569	51.30
Se1960_A		105.3	ug/L	2.252	2.139	27.88
Si2516_R		1,042	ug/L	8.561	0.8220	561.5
Sn1899_A		527.2	ug/L	0.2609	0.04948	232.8
Sr4215_R		512.7	ug/L	1.712	0.3339	50,890
Ti3349_A		531.6	ug/L	0.1703	0.03204	11,660
Tl1908_A		104.8	ug/L	0.1345	0.1284	48.93
V_2924_A		502.3	ug/L	1.043	0.2077	5,181
Zn2062_A		513.8	ug/L	1.543	0.3004	1,187
Y_3600_R		16,995	Cts/S	21.236	0.12495	16,995
Y_2243_A		6,316.8	Cts/S	13.884	0.21980	6,316.8
Y_3600_A		115,110	Cts/S	377.46	0.32790	115,110

PBT1708A

Method Name: FAST-2016_NO_AU
Method Revision: 1,021
Analyst Name: EP
Acquire Date: 9/24/2021 12:27:39PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

PBT1708A

Method Name: FAST-2016_NO_AU
Method Revision: 1,021
Analyst Name: EP
Acquire Date: 9/24/2021 12:27:39PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.2956	ug/L	0.1090	36.86	-12.99
Al3961_R		2.902	ug/L	2.933	101.1	3.086
As1891_A		-0.6506	ug/L	1.130	173.7	-2.789
B_2089_A		8.110	ug/L	0.1839	2.268	14.17
Ba4554_R		6.417	ug/L	0.1935	3.015	550.3
Be3130_R		0.04565	ug/L	0.02713	59.43	-3.757
Ca3158_R		122.1	ug/L	4.067	3.330	112.8
Cd2265_A		0.04828	ug/L	0.06407	132.7	-1.256
Co2286_A		-0.07429	ug/L	0.1064	143.2	0.3374
Cr2677_A		0.3040	ug/L	0.4065	133.7	4.576
Cu3273_A		0.6800	ug/L	0.08673	12.75	3.298
Fe2599_R		13.61	ug/L	1.080	7.936	34.45
K_7664_R		69.27	ug/L	7.905	11.41	50.92
Li6707_R		0.1969	ug/L	0.5014	254.7	32.17
Mg2025_A		7.457	ug/L	0.6225	8.348	-3.120
Mn2576_R		0.5502	ug/L	0.1407	25.58	3.736
Mo2020_A		0.3554	ug/L	0.06280	17.67	1.135
Na5895_R	F	312,300	ug/L	647.5	0.2074	726,600
Ni2316_A		1.069	ug/L	0.1888	17.67	1.641
Pb2203_A		-0.1835	ug/L	0.4943	269.3	-0.5503
Sb2068_A		-0.02995	ug/L	0.7029	2,347	-0.4325
Se1960_A		2.810	ug/L	1.504	53.53	2.573
Si2516_R		16.28	ug/L	0.2828	1.737	26.75
Sn1899_A		2.077	ug/L	0.6994	33.67	1.693
Sr4215_R		0.2221	ug/L	0.01478	6.655	-25.97
Ti3349_A		0.9385	ug/L	0.02663	2.838	18.89
Tl1908_A		-1.572	ug/L	0.3820	24.30	-2.007
V_2924_A		-0.006762	ug/L	0.02974	439.8	-3.528
Zn2062_A		14.40	ug/L	0.1166	0.8093	32.07
Y_3600_R		16,633	Cts/S	91.135	0.54793	16,633
Y_2243_A		6,035.1	Cts/S	16.900	0.28003	6,035.1
Y_3600_A		108,790	Cts/S	165.64	0.15226	108,790

PBT1709A

Method Name: FAST-2016_NO_AU
Method Revision: 1,021
Analyst Name: EP
Acquire Date: 9/24/2021 12:32:10PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.1781	ug/L	0.4368	245.2	-11.78
Al3961_R		14.30	ug/L	1.819	12.72	15.77
As1891_A		-1.466	ug/L	0.2629	17.92	-3.269
B_2089_A		6.254	ug/L	0.008978	0.1436	12.56
Ba4554_R		7.533	ug/L	0.05435	0.7215	659.9
Be3130_R		0.04790	ug/L	0.01503	31.37	-3.541
Ca3158_R		100.1	ug/L	3.745	3.742	89.35
Cd2265_A		0.09638	ug/L	0.02195	22.77	-0.7987
Co2286_A		0.1557	ug/L	0.08158	52.41	1.068
Cr2677_A		0.03568	ug/L	0.1345	377.1	2.217
Cu3273_A		2.939	ug/L	0.1664	5.663	34.57
Fe2599_R		13.06	ug/L	1.011	7.742	34.14
K_7664_R		54.13	ug/L	6.603	12.20	42.36
Li6707_R		-0.4240	ug/L	0.6177	145.7	22.99
Mg2025_A		12.09	ug/L	0.7396	6.115	-1.754
Mn2576_R		0.7511	ug/L	0.03058	4.072	5.921
Mo2020_A		0.08332	ug/L	0.1381	165.8	0.4032
Na5895_R		141.6	ug/L	3.195	2.256	355.3
Ni2316_A		0.2279	ug/L	0.02791	12.25	0.2762

PBT1709A

Method Name: FAST-2016_NO_AU
Method Revision: 1,021
Analyst Name: EP
Acquire Date: 9/24/2021 12:32:10PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		0.01392	ug/L	0.3398	2,442	-0.4148
Sb2068_A		-0.2815	ug/L	0.02468	8.765	-0.5920
Se1960_A		-0.02771	ug/L	1.088	3,925	2.053
Si2516_R		16.78	ug/L	2.642	15.75	27.70
Sn1899_A		0.7538	ug/L	0.05892	7.817	1.222
Sr4215_R		0.4218	ug/L	0.02102	4.983	-6.712
Ti3349_A		0.2940	ug/L	0.08426	28.66	5.991
Tl1908_A		-0.6900	ug/L	0.8363	121.2	-1.727
V_2924_A		-0.01546	ug/L	0.2018	1,305	-3.890
Zn2062_A		11.78	ug/L	0.1615	1.371	28.25
Y_3600_R		17,064	Cts/S	92.465	0.54187	17,064
Y_2243_A		6,488.1	Cts/S	8.9588	0.13808	6,488.1
Y_3600_A		117,760	Cts/S	319.74	0.27151	117,760

PBWOI23ICW2

Method Name: FAST-2016_NO_AU
Method Revision: 1,021
Analyst Name: EP
Acquire Date: 9/24/2021 12:36:36PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.1021	ug/L	0.07708	75.49	-10.36
Al3961_R		0.9942	ug/L	2.659	267.5	0.9197
As1891_A		-0.3680	ug/L	0.3846	104.5	-2.907
B_2089_A		3.634	ug/L	0.1079	2.970	8.815
Ba4554_R		1.679	ug/L	0.2478	14.76	159.6
Be3130_R		0.02997	ug/L	0.01806	60.25	-5.572
Ca3158_R		2.142	ug/L	2.231	104.1	-27.77
Cd2265_A		0.05462	ug/L	0.05183	94.89	-1.277
Co2286_A		-0.02759	ug/L	0.1510	547.3	0.5010
Cr2677_A		0.04036	ug/L	0.04004	99.22	2.278
Cu3273_A		0.3615	ug/L	0.3094	85.58	-0.7980
Fe2599_R		12.86	ug/L	1.232	9.584	33.62
K_7664_R		34.11	ug/L	1.038	3.042	29.27
Li6707_R		-0.4632	ug/L	0.6967	150.4	22.28
Mg2025_A		4.919	ug/L	1.002	20.37	-4.231
Mn2576_R		0.7134	ug/L	0.04656	6.526	5.516
Mo2020_A		0.1854	ug/L	0.02910	15.69	0.7105
Na5895_R		25.66	ug/L	3.701	14.42	78.26
Ni2316_A		-0.1056	ug/L	0.1428	135.2	-0.3112
Pb2203_A		-0.1327	ug/L	0.3843	289.6	-0.5462
Sb2068_A		0.7739	ug/L	0.3354	43.34	-0.02783
Se1960_A		-0.07380	ug/L	0.8947	1,212	2.043
Si2516_R		16.02	ug/L	6.831	42.63	27.24
Sn1899_A		0.8098	ug/L	0.3160	39.02	1.248
Sr4215_R		0.03774	ug/L	0.03944	104.5	-44.92
Ti3349_A		-0.004565	ug/L	0.1165	2,552	-0.7109
Tl1908_A		-0.3160	ug/L	0.2340	74.05	-1.546
V_2924_A		-0.09538	ug/L	0.3041	318.8	-4.777
Zn2062_A		0.4748	ug/L	0.08401	17.70	1.427
Y_3600_R		17,022	Cts/S	0.79043	0.0046430	17,022
Y_2243_A		6,490.9	Cts/S	20.069	0.30919	6,490.9
Y_3600_A		118,540	Cts/S	60.209	0.050791	118,540

SO6311-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,021
Analyst Name: EP
Acquire Date: 9/24/2021 12:41:02PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SO6311-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,021
Analyst Name: EP
Acquire Date: 9/24/2021 12:41:02PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		49.85	ug/L	0.7853	1.575	-76.02
Al3961_R	W	270,800	ug/L	2,742	1.012	146,800
As1891_A		184.5	ug/L	3.264	1.769	20.06
B_2089_A		1,531	ug/L	0.1363	0.008899	990.5
Ba4554_R	W	3,927	ug/L	42.89	1.092	163,300
Be3130_R		5.052	ug/L	0.2498	4.945	-433.6
Ca3158_R	F	1,199,000	ug/L	14,740	1.230	698,600
Cd2265_A		376.6	ug/L	0.07585	0.02014	2,151
Co2286_A		123.0	ug/L	0.3950	0.3211	218.4
Cr2677_A		607.3	ug/L	2.925	0.4816	2,809
Cu3273_A	W	35,320	ug/L	57.75	0.1635	218,300
Fe2599_R	W	235,600	ug/L	2,095	0.8893	249,900
K_7664_R	W	55,310	ug/L	616.5	1.115	17,540
Li6707_R		169.2	ug/L	1.296	0.7658	1,359
Mg2025_A	W	80,730	ug/L	92.96	0.1152	12,460
Mn2576_R	W	4,567	ug/L	20.77	0.4548	23,020
Mo2020_A		76.94	ug/L	0.1829	0.2377	103.8
Na5895_R	W	129,400	ug/L	1,018	0.7868	150,400
Ni2316_A		530.4	ug/L	0.3851	0.07260	416.3
Pb2203_A	W	5,706	ug/L	9.895	0.1734	2,290
Sb2068_A		442.1	ug/L	3.702	0.8375	106.5
Se1960_A		2.659	ug/L	6.189	232.8	4.955
Si2516_R		1,429	ug/L	14.03	0.9822	420.2
Sn1899_A		981.8	ug/L	1.718	0.1749	200.1
Sr4215_R	W	2,130	ug/L	23.12	1.085	103,400
Ti3349_A	W	18,610	ug/L	45.81	0.2461	188,000
Tl1908_A		-5.430	ug/L	0.1389	2.558	-6.470
V_2924_A		154.4	ug/L	1.550	1.004	799.6
Zn2062_A	W	28,090	ug/L	5.399	0.01922	29,960
Y_3600_R		16,621	Cts/S	17.042	0.10253	16,621
Y_2243_A		5,830.4	Cts/S	3.7759	0.064763	5,830.4
Y_3600_A		106,080	Cts/S	185.34	0.17472	106,080

SO6311-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,021
Analyst Name: EP
Acquire Date: 9/24/2021 12:45:20PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		49.58	ug/L	0.04936	0.09956	-45.20
Al3961_R	W	270,000	ug/L	1,714	0.6347	59,110
As1891_A		175.3	ug/L	4.365	2.490	6.162
B_2089_A		1,553	ug/L	10.16	0.6540	421.0
Ba4554_R		3,990	ug/L	19.74	0.4947	67,030
Be3130_R		5.072	ug/L	0.07435	1.466	-184.3
Ca3158_R	W	1,249,000	ug/L	12,580	1.007	293,900
Cd2265_A		388.5	ug/L	4.148	1.068	925.7
Co2286_A		129.9	ug/L	1.137	0.8755	95.67
Cr2677_A		622.9	ug/L	4.360	0.6999	1,203
Cu3273_A	W	35,050	ug/L	44.66	0.1274	90,400
Fe2599_R	W	246,300	ug/L	1,450	0.5886	105,500
K_7664_R		55,160	ug/L	79.93	0.1449	7,068
Li6707_R		165.8	ug/L	3.790	2.285	555.7
Mg2025_A		81,470	ug/L	692.2	0.8496	5,240
Mn2576_R		4,732	ug/L	19.55	0.4132	9,633
Mo2020_A		77.57	ug/L	0.4108	0.5295	43.72
Na5895_R	W	128,700	ug/L	577.4	0.4487	60,440
Ni2316_A		550.2	ug/L	1.316	0.2393	180.0

SO6311-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,021
Analyst Name: EP
Acquire Date: 9/24/2021 12:45:20PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A	W	5,992	ug/L	45.45	0.7584	1,003
Sb2068_A		440.7	ug/L	3.192	0.7243	44.03
Se1960_A		10.72	ug/L	23.94	223.3	3.634
Si2516_R		1,478	ug/L	18.94	1.281	186.1
Sn1899_A		1,017	ug/L	9.472	0.9310	86.96
Sr4215_R		2,155	ug/L	10.95	0.5078	42,240
Ti3349_A	W	18,890	ug/L	1.381	0.007311	79,620
Tl1908_A		-4.759	ug/L	5.486	115.3	-3.460
V_2924_A		155.6	ug/L	0.7026	0.4516	334.6
Zn2062_A	W	29,450	ug/L	221.8	0.7534	13,090
Y_3600_R		16,781	Cts/S	7.9976	0.047659	16,781
Y_2243_A		6,078.7	Cts/S	43.759	0.71988	6,078.7
Y_3600_A		110,670	Cts/S	90.700	0.081954	110,670

CCV

Method Name: FAST-2016_NO_AU
Method Revision: 1,021
Analyst Name: EP
Acquire Date: 9/24/2021 12:49:42PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		496.9	ug/L	1.887	0.3799	9,515
Al3961_R		12,620	ug/L	110.8	0.8784	14,150
As1891_A		498.4	ug/L	0.5898	0.1183	159.0
B_2089_A		504.8	ug/L	0.1623	0.03216	732.6
Ba4554_R		497.9	ug/L	0.4182	0.08399	42,910
Be3130_R		486.7	ug/L	2.308	0.4741	56,590
Ca3158_R		12,340	ug/L	184.5	1.495	14,870
Cd2265_A		498.9	ug/L	0.1029	0.02063	5,656
Co2286_A		508.3	ug/L	0.04373	0.008602	1,549
Cr2677_A		492.0	ug/L	0.7404	0.1505	4,993
Cu3273_A		493.5	ug/L	1.897	0.3844	6,721
Fe2599_R		12,400	ug/L	85.47	0.6892	27,260
K_7664_R		12,250	ug/L	16.97	0.1385	8,051
Li6707_R		497.6	ug/L	0.8072	0.1622	8,133
Mg2025_A		12,770	ug/L	34.45	0.2698	4,343
Mn2576_R		490.1	ug/L	5.010	1.022	5,125
Mo2020_A		510.1	ug/L	0.1340	0.02628	1,510
Na5895_R		12,590	ug/L	55.37	0.4398	30,340
Ni2316_A		508.5	ug/L	0.9629	0.1894	891.1
Pb2203_A		505.6	ug/L	0.7416	0.1467	444.5
Sb2068_A		498.2	ug/L	1.540	0.3092	260.6
Se1960_A		499.0	ug/L	1.711	0.3429	126.2
Si2516_R		12,670	ug/L	168.4	1.329	6,670
Sn1899_A		502.6	ug/L	1.845	0.3672	224.8
Sr4215_R		491.3	ug/L	0.2541	0.05171	49,390
Ti3349_A		512.1	ug/L	0.04253	0.008305	11,410
Tl1908_A		510.5	ug/L	2.504	0.4905	244.4
V_2924_A		487.9	ug/L	0.9615	0.1970	5,079
Zn2062_A		496.9	ug/L	0.7194	0.1448	1,162
Y_3600_R		17,215	Cts/S	136.42	0.79244	17,215
Y_2243_A		6,397.9	Cts/S	14.075	0.22000	6,397.9
Y_3600_A		116,870	Cts/S	267.46	0.22885	116,870

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,021
Analyst Name: EP
Acquire Date: 9/24/2021 12:53:51PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,021
Analyst Name: EP
Acquire Date: 9/24/2021 12:53:51PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.07434	ug/L	0.1650	222.0	-9.787
Al3961_R		-5.248	ug/L	1.009	19.22	-6.028
As1891_A		0.1884	ug/L	0.9223	489.6	-2.714
B_2089_A		3.338	ug/L	0.1798	5.388	8.369
Ba4554_R		-0.05920	ug/L	0.03386	57.19	11.72
Be3130_R		0.04658	ug/L	0.04154	89.17	-3.755
Ca3158_R		1.227	ug/L	5.800	472.6	-29.16
Cd2265_A		0.1065	ug/L	0.02448	22.99	-0.6926
Co2286_A		0.1182	ug/L	0.01207	10.21	0.9533
Cr2677_A		0.1153	ug/L	0.002884	2.503	3.041
Cu3273_A		0.2879	ug/L	0.1947	67.65	-1.823
Fe2599_R		7.013	ug/L	0.2009	2.864	21.12
K_7664_R		13.85	ug/L	32.17	232.3	16.31
Li6707_R		-0.4551	ug/L	0.4654	102.3	22.64
Mg2025_A		3.986	ug/L	1.292	32.42	-4.527
Mn2576_R		0.2397	ug/L	0.03389	14.14	0.6232
Mo2020_A		0.4911	ug/L	0.1355	27.59	1.623
Na5895_R		11.48	ug/L	3.788	32.99	44.91
Ni2316_A		-0.002231	ug/L	0.2838	12,720	-0.1238
Pb2203_A		-0.6897	ug/L	0.06578	9.538	-1.040
Sb2068_A		0.1677	ug/L	0.6472	386.0	-0.3462
Se1960_A		0.3056	ug/L	0.6886	225.4	2.130
Si2516_R		6.812	ug/L	0.4122	6.051	22.69
Sn1899_A		0.002852	ug/L	0.6801	23,850	0.8796
Sr4215_R		0.05464	ug/L	0.02766	50.63	-43.65
Ti3349_A		0.9979	ug/L	0.1402	14.05	21.87
Tl1908_A		-0.2394	ug/L	0.6844	285.8	-1.502
V_2924_A		0.1056	ug/L	0.05056	47.88	-2.644
Zn2062_A		0.08561	ug/L	0.01932	22.57	0.5013
Y_3600_R		17,189	Cts/S	47.991	0.27920	17,189
Y_2243_A		6,467.5	Cts/S	17.560	0.27152	6,467.5
Y_3600_A		118,270	Cts/S	148.38	0.12546	118,270

SO6365-002

Method Name: FAST-2016_NO_AU
Method Revision: 1,021
Analyst Name: EP
Acquire Date: 9/24/2021 12:58:17PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		4.754	ug/L	0.3195	6.721	-847.8
Al3961_R	W	138,700	ug/L	660.0	0.4759	158,000
As1891_A		86.52	ug/L	3.368	3.892	16.56
B_2089_A		151.2	ug/L	0.5334	0.3526	222.5
Ba4554_R		411.7	ug/L	0.01009	0.002450	36,150
Be3130_R		13.53	ug/L	0.08763	0.6478	933.0
Ca3158_R	W	27,080	ug/L	209.3	0.7729	33,280
Cd2265_A		0.3987	ug/L	0.8611	216.0	461.6
Co2286_A		138.0	ug/L	0.9008	0.6525	474.0
Cr2677_A		916.3	ug/L	3.463	0.3780	9,340
Cu3273_A	W	2,060	ug/L	4.090	0.1986	28,190
Fe2599_R	W	230,500	ug/L	3,579	1.553	516,000
K_7664_R		8,499	ug/L	5.228	0.06152	5,692
Li6707_R		213.7	ug/L	0.04501	0.02106	3,575
Mg2025_A	W	59,270	ug/L	278.3	0.4696	20,280
Mn2576_R	W	5,385	ug/L	6.439	0.1196	57,310
Mo2020_A		92.69	ug/L	0.4075	0.4397	277.0
Na5895_R		2,266	ug/L	6.395	0.2823	5,576
Ni2316_A		522.6	ug/L	2.515	0.4813	909.8

SO6365-002

Method Name: FAST-2016_NO_AU
Method Revision: 1,021
Analyst Name: EP
Acquire Date: 9/24/2021 12:58:17PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A	W	3,562	ug/L	20.27	0.5692	3,171
Sb2068_A		18.70	ug/L	1.528	8.170	15.02
Se1960_A		-3.177	ug/L	0.9032	28.43	6.514
Si2516_R		4,266	ug/L	88.11	2.065	2,327
Sn1899_A		282.2	ug/L	0.1573	0.05573	127.9
Sr4215_R		146.3	ug/L	0.2099	0.1435	14,950
Ti3349_A	W	8,447	ug/L	40.92	0.4845	188,400
Tl1908_A		-9.155	ug/L	0.04270	0.4664	-12.10
V_2924_A		297.6	ug/L	1.594	0.5357	3,188
Zn2062_A	W	9,015	ug/L	47.35	0.5253	21,310
Y_3600_R		17,536	Cts/S	6.4157	0.036586	17,536
Y_2243_A		6,464.5	Cts/S	41.259	0.63823	6,464.5
Y_3600_A		117,120	Cts/S	162.68	0.13890	117,120

SO6365-004

Method Name: FAST-2016_NO_AU
Method Revision: 1,021
Analyst Name: EP
Acquire Date: 9/24/2021 1:02:37PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		2.297	ug/L	0.4161	18.11	-1,009
Al3961_R	W	163,600	ug/L	538.4	0.3291	188,100
As1891_A		125.0	ug/L	3.099	2.478	27.96
B_2089_A		14.18	ug/L	0.7330	5.170	24.54
Ba4554_R		220.1	ug/L	0.3521	0.1600	19,500
Be3130_R		5.108	ug/L	0.05782	1.132	-101.7
Ca3158_R	W	27,520	ug/L	49.16	0.1786	34,120
Cd2265_A		-0.6997	ug/L	0.3899	55.72	508.9
Co2286_A		126.4	ug/L	0.4325	0.3422	441.9
Cr2677_A		547.4	ug/L	0.9610	0.1756	5,598
Cu3273_A	W	1,291	ug/L	0.2195	0.01700	17,730
Fe2599_R	F	260,500	ug/L	1,844	0.7080	588,400
K_7664_R		8,029	ug/L	35.45	0.4415	5,427
Li6707_R		266.5	ug/L	1.721	0.6460	4,490
Mg2025_A	W	87,030	ug/L	298.4	0.3429	29,790
Mn2576_R	W	5,027	ug/L	9.963	0.1982	53,980
Mo2020_A		22.60	ug/L	0.1529	0.6764	67.39
Na5895_R		1,329	ug/L	2.289	0.1723	3,307
Ni2316_A		278.2	ug/L	1.310	0.4707	477.9
Pb2203_A		826.0	ug/L	5.714	0.6918	733.8
Sb2068_A		2.260	ug/L	1.402	62.06	7.027
Se1960_A	F	-10.45	ug/L	2.734	26.16	5.286
Si2516_R		2,145	ug/L	2.552	0.1190	1,204
Sn1899_A		59.80	ug/L	0.1667	0.2788	27.81
Sr4215_R		86.72	ug/L	0.08627	0.09948	8,920
Ti3349_A	W	9,021	ug/L	0.1714	0.001900	201,300
Tl1908_A		-9.870	ug/L	0.4124	4.178	-12.55
V_2924_A		423.8	ug/L	0.2122	0.05007	4,544
Zn2062_A	W	2,824	ug/L	7.862	0.2784	6,679
Y_3600_R		17,696	Cts/S	74.424	0.42058	17,696
Y_2243_A		6,467.9	Cts/S	34.153	0.52804	6,467.9
Y_3600_A		117,180	Cts/S	430.19	0.36711	117,180

SO6365-006

Method Name: FAST-2016_NO_AU
Method Revision: 1,021
Analyst Name: EP
Acquire Date: 9/24/2021 1:06:59PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SO6365-006

Method Name: FAST-2016_NO_AU
Method Revision: 1,021
Analyst Name: EP
Acquire Date: 9/24/2021 1:06:59PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.7183	ug/L	0.4698	65.40	-1,200
Al3961_R	W	169,500	ug/L	215.3	0.1270	198,000
As1891_A		105.7	ug/L	0.6622	0.6262	20.24
B_2089_A		15.80	ug/L	0.1035	0.6549	26.86
Ba4554_R		341.2	ug/L	0.1965	0.05759	30,720
Be3130_R		6.918	ug/L	0.01900	0.2747	210.8
Ca3158_R	W	33,540	ug/L	211.9	0.6316	42,270
Cd2265_A		0.1720	ug/L	0.6515	378.7	619.2
Co2286_A		126.3	ug/L	0.1395	0.1105	442.2
Cr2677_A		357.1	ug/L	1.209	0.3386	3,728
Cu3273_A		818.8	ug/L	2.710	0.3309	11,510
Fe2599_R	F	307,500	ug/L	2,203	0.7163	705,900
K_7664_R		10,190	ug/L	10.31	0.1012	7,000
Li6707_R		252.3	ug/L	0.8385	0.3323	4,322
Mg2025_A	W	69,810	ug/L	200.8	0.2877	24,250
Mn2576_R	W	8,513	ug/L	19.16	0.2250	92,930
Mo2020_A		9.721	ug/L	0.2510	2.582	29.06
Na5895_R		1,107	ug/L	3.778	0.3413	2,803
Ni2316_A		241.5	ug/L	1.582	0.6550	417.1
Pb2203_A	W	1,029	ug/L	1.360	0.1321	929.8
Sb2068_A		-1.866	ug/L	0.3248	17.41	5.292
Se1960_A	F	-10.67	ug/L	0.4420	4.144	6.556
Si2516_R		2,163	ug/L	38.19	1.765	1,223
Sn1899_A		58.21	ug/L	0.7115	1.222	27.50
Sr4215_R		93.03	ug/L	0.02005	0.02156	9,727
Ti3349_A	W	7,816	ug/L	9.215	0.1179	177,100
Tl1908_A		-14.60	ug/L	0.1478	1.012	-16.35
V_2924_A		354.1	ug/L	0.01564	0.004417	3,864
Zn2062_A	W	1,592	ug/L	2.689	0.1689	3,821
Y_3600_R		17,982	Cts/S	37.216	0.20696	17,982
Y_2243_A		6,564.2	Cts/S	22.668	0.34533	6,564.2
Y_3600_A		119,010	Cts/S	174.62	0.14672	119,010

SO6300-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,021
Analyst Name: EP
Acquire Date: 9/24/2021 1:11:20PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.07004	ug/L	0.07602	108.5	-13.29
Al3961_R		100.8	ug/L	8.192	8.124	121.4
As1891_A		1.146	ug/L	0.1097	9.577	-2.490
B_2089_A		27.19	ug/L	0.1869	0.6876	43.45
Ba4554_R		5.915	ug/L	0.03400	0.5747	539.0
Be3130_R		0.2125	ug/L	0.01030	4.847	15.65
Ca3158_R		6,335	ug/L	3.285	0.05185	7,800
Cd2265_A		0.7516	ug/L	0.04190	5.575	8.766
Co2286_A		1.011	ug/L	0.1034	10.23	3.825
Cr2677_A		-0.03965	ug/L	0.1114	281.0	6.732
Cu3273_A		7.752	ug/L	0.02441	0.3149	103.2
Fe2599_R		969.2	ug/L	19.92	2.055	2,187
K_7664_R		1,524	ug/L	23.68	1.554	1,032
Li6707_R		0.2974	ug/L	0.2458	82.66	35.75
Mg2025_A		1,862	ug/L	5.645	0.3031	646.7
Mn2576_R	W	5,995	ug/L	1.894	0.03159	64,220
Mo2020_A		-0.1021	ug/L	0.04917	48.14	-0.5315
Na5895_R		11,510	ug/L	28.33	0.2461	28,410
Ni2316_A		3.374	ug/L	0.06649	1.970	5.906

SO6300-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,021
Analyst Name: EP
Acquire Date: 9/24/2021 1:11:20PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		1.670	ug/L	0.1749	10.47	1.120
Sb2068_A		-0.2481	ug/L	0.3014	121.5	-0.5604
Se1960_A		-0.8614	ug/L	1.461	169.6	2.717
Si2516_R		4,494	ug/L	1.858	0.04133	2,434
Sn1899_A		-0.6248	ug/L	0.6009	96.18	0.6111
Sr4215_R		67.92	ug/L	0.08317	0.1224	6,949
Ti3349_A		4.913	ug/L	0.3673	7.477	111.5
Tl1908_A		-5.038	ug/L	0.4142	8.223	-7.015
V_2924_A		0.9875	ug/L	0.1355	13.73	-15.19
Zn2062_A		35.08	ug/L	0.1407	0.4010	85.28
Y_3600_R		17,627	Cts/S	9.4032	0.053345	17,627
Y_2243_A		6,623.5	Cts/S	34.077	0.51449	6,623.5
Y_3600_A		119,830	Cts/S	530.72	0.44289	119,830

SO6321-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,021
Analyst Name: EP
Acquire Date: 9/24/2021 1:15:42PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.008247	ug/L	0.2664	3,230	-8.336
Al3961_R		7.947	ug/L	0.8862	11.15	16.22
As1891_A		0.2978	ug/L	0.008603	2.889	-2.696
B_2089_A		5.101	ug/L	0.4053	7.946	10.95
Ba4554_R		6.992	ug/L	0.2333	3.337	626.9
Be3130_R		0.01749	ug/L	0.003201	18.30	-7.238
Ca3158_R		7,712	ug/L	60.15	0.7799	9,398
Cd2265_A		0.05771	ug/L	0.02955	51.20	-1.194
Co2286_A		0.3676	ug/L	0.2088	56.80	1.731
Cr2677_A		0.1390	ug/L	0.2840	204.3	3.333
Cu3273_A		1.418	ug/L	0.2235	15.76	13.88
Fe2599_R		39.11	ug/L	0.1059	0.2708	92.85
K_7664_R		853.2	ug/L	1.683	0.1972	574.7
Li6707_R		-0.2283	ug/L	0.5850	256.3	26.75
Mg2025_A		1,320	ug/L	0.4921	0.03727	448.9
Mn2576_R		33.16	ug/L	0.2721	0.8206	349.8
Mo2020_A		0.1412	ug/L	0.03103	21.97	0.5774
Na5895_R		10,690	ug/L	25.08	0.2347	26,080
Ni2316_A		0.07676	ug/L	0.07575	98.68	0.008859
Pb2203_A		-0.4684	ug/L	0.2334	49.83	-0.8476
Sb2068_A		-0.8437	ug/L	0.1482	17.56	-0.8934
Se1960_A		0.008043	ug/L	0.3103	3,858	2.074
Si2516_R		4,214	ug/L	35.84	0.8507	2,258
Sn1899_A		0.4824	ug/L	0.2683	55.62	1.103
Sr4215_R		58.37	ug/L	0.1239	0.2123	5,899
Ti3349_A		0.8073	ug/L	0.2124	26.31	17.72
Tl1908_A		1.918	ug/L	0.1076	5.610	-0.4749
V_2924_A		-0.01848	ug/L	0.05867	317.4	-4.086
Zn2062_A		0.4903	ug/L	0.06652	13.57	1.468
Y_3600_R		17,434	Cts/S	214.23	1.2288	17,434
Y_2243_A		6,510.6	Cts/S	1.5500	0.023808	6,510.6
Y_3600_A		119,150	Cts/S	568.72	0.47734	119,150

SO6321-002

Method Name: FAST-2016_NO_AU
Method Revision: 1,021
Analyst Name: EP
Acquire Date: 9/24/2021 1:20:05PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SO6321-002

Method Name: FAST-2016_NO_AU
Method Revision: 1,021
Analyst Name: EP
Acquire Date: 9/24/2021 1:20:05PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.003600	ug/L	0.1261	3,503	-8.405
Al3961_R		-5.486	ug/L	0.7419	13.52	-6.314
As1891_A		0.7661	ug/L	0.3609	47.11	-2.520
B_2089_A		4.701	ug/L	0.08937	1.901	10.29
Ba4554_R		4.970	ug/L	0.1568	3.155	444.5
Be3130_R		0.02179	ug/L	0.02266	104.0	-6.609
Ca3158_R		2.159	ug/L	1.228	56.88	-28.03
Cd2265_A		0.03120	ug/L	0.02096	67.16	-1.507
Co2286_A		0.07462	ug/L	0.2571	344.6	0.8173
Cr2677_A		0.07916	ug/L	0.01060	13.39	2.651
Cu3273_A		2.391	ug/L	0.05993	2.506	26.95
Fe2599_R		28.27	ug/L	1.079	3.815	67.79
K_7664_R		550.7	ug/L	7.137	1.296	368.5
Li6707_R		-0.7471	ug/L	0.3066	41.04	17.86
Mg2025_A		10.47	ug/L	0.3393	3.241	-2.308
Mn2576_R		2.838	ug/L	0.2898	10.21	27.76
Mo2020_A		0.3104	ug/L	0.01332	4.290	1.080
Na5895_R		13,670	ug/L	145.5	1.064	32,920
Ni2316_A		-0.2587	ug/L	0.04320	16.70	-0.5783
Pb2203_A		0.2319	ug/L	0.4663	201.1	-0.2178
Sb2068_A		-0.2524	ug/L	0.7629	302.3	-0.5681
Se1960_A		-0.2057	ug/L	0.8753	425.6	2.000
Si2516_R		4,291	ug/L	79.58	1.854	2,268
Sn1899_A		-0.2977	ug/L	0.2181	73.27	0.7436
Sr4215_R		0.1053	ug/L	0.09575	90.93	-38.67
Ti3349_A		0.5727	ug/L	0.03663	6.395	12.19
Tl1908_A		1.474	ug/L	0.8149	55.28	-0.6719
V_2924_A		-0.1273	ug/L	0.09312	73.16	-5.071
Zn2062_A		0.5238	ug/L	0.08710	16.63	1.535
Y_3600_R		17,201	Cts/S	258.17	1.5009	17,201
Y_2243_A		6,456.6	Cts/S	23.065	0.35722	6,456.6
Y_3600_A		117,210	Cts/S	410.84	0.35051	117,210

SO6363-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,021
Analyst Name: EP
Acquire Date: 9/24/2021 1:24:30PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.02850	ug/L	0.09789	343.5	-8.490
Al3961_R		0.4189	ug/L	1.931	460.9	13.74
As1891_A		1.732	ug/L	1.325	76.53	-2.214
B_2089_A		9.725	ug/L	0.1657	1.704	17.47
Ba4554_R		133.9	ug/L	0.4208	0.3142	11,640
Be3130_R		0.07125	ug/L	0.001269	1.781	-0.8195
Ca3158_R		14,100	ug/L	117.1	0.8307	17,110
Cd2265_A		0.02868	ug/L	0.02884	100.6	-1.121
Co2286_A		1.146	ug/L	0.04124	3.599	4.110
Cr2677_A		-0.1010	ug/L	0.2261	224.0	1.156
Cu3273_A		10.66	ug/L	0.7205	6.757	139.5
Fe2599_R		245.4	ug/L	3.708	1.511	548.9
K_7664_R		2,235	ug/L	12.53	0.5604	1,485
Li6707_R		5.116	ug/L	0.01961	0.3833	114.2
Mg2025_A		6,045	ug/L	52.24	0.8642	2,062
Mn2576_R		377.7	ug/L	0.6471	0.1713	3,979
Mo2020_A		0.02808	ug/L	0.04786	170.4	0.2144
Na5895_R		11,650	ug/L	34.08	0.2925	28,280
Ni2316_A		4.927	ug/L	0.01320	0.2679	8.530

SO6363-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,021
Analyst Name: EP
Acquire Date: 9/24/2021 1:24:30PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		-0.05173	ug/L	1.097	2,120	-0.4554
Sb2068_A		-0.1983	ug/L	0.1565	78.91	-0.5400
Se1960_A		-2.620	ug/L	0.3205	12.23	1.450
Si2516_R		5,136	ug/L	26.05	0.5072	2,733
Sn1899_A		0.08566	ug/L	0.4307	502.8	0.9160
Sr4215_R		172.1	ug/L	0.9546	0.5548	17,390
Ti3349_A		0.03356	ug/L	0.09998	297.9	0.1508
Tl1908_A		0.9171	ug/L	0.7204	78.55	-1.130
V_2924_A		0.2122	ug/L	0.04734	22.31	-2.784
Zn2062_A		4.892	ug/L	0.1966	4.018	11.86
Y_3600_R		17,337	Cts/S	39.481	0.22773	17,337
Y_2243_A		6,464.3	Cts/S	58.883	0.91091	6,464.3
Y_3600_A		116,730	Cts/S	571.62	0.48967	116,730

SO6367-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,021
Analyst Name: EP
Acquire Date: 9/24/2021 1:28:52PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.005948	ug/L	0.1585	2,665	-8.426
Al3961_R		-0.3236	ug/L	1.909	590.0	9.144
As1891_A		0.7262	ug/L	1.209	166.4	-2.515
B_2089_A		16.23	ug/L	0.08309	0.5119	26.53
Ba4554_R		12.72	ug/L	0.1419	1.115	1,116
Be3130_R		0.1383	ug/L	0.03193	23.08	7.018
Ca3158_R		10,210	ug/L	70.84	0.6940	12,330
Cd2265_A		0.5555	ug/L	0.008554	1.540	4.418
Co2286_A		0.2619	ug/L	0.07584	28.96	1.392
Cr2677_A		0.2225	ug/L	0.1529	68.71	4.090
Cu3273_A	W	1,120	ug/L	0.1333	0.01190	15,210
Fe2599_R		38.40	ug/L	1.321	3.440	90.41
K_7664_R		1,398	ug/L	23.96	1.714	928.0
Li6707_R		3.528	ug/L	1.506	42.69	87.87
Mg2025_A		1,243	ug/L	1.586	0.1276	417.6
Mn2576_R		7.511	ug/L	0.2762	3.677	77.31
Mo2020_A		-0.3614	ug/L	0.09997	27.66	-0.9209
Na5895_R	W	33,490	ug/L	510.4	1.524	80,900
Ni2316_A		28.60	ug/L	0.05620	0.1965	49.77
Pb2203_A		19.31	ug/L	0.07259	0.3759	16.88
Sb2068_A		-0.7515	ug/L	0.06520	8.676	-0.7688
Se1960_A		-0.5239	ug/L	1.153	220.1	1.907
Si2516_R		3,798	ug/L	42.79	1.127	2,017
Sn1899_A		0.3775	ug/L	0.07948	21.06	1.040
Sr4215_R		62.48	ug/L	0.1442	0.2308	6,257
Ti3349_A		0.1329	ug/L	0.2194	165.1	2.347
Tl1908_A		1.387	ug/L	0.1169	8.428	-0.6550
V_2924_A		0.2427	ug/L	0.3923	161.6	-1.152
Zn2062_A	W	3,857	ug/L	18.08	0.4688	9,045
Y_3600_R		17,266	Cts/S	142.78	0.82694	17,266
Y_2243_A		6,410.9	Cts/S	2.9181	0.045519	6,410.9
Y_3600_A		116,530	Cts/S	120.80	0.10367	116,530

SO6194-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,021
Analyst Name: EP
Acquire Date: 9/24/2021 1:33:13PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SO6194-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,021
Analyst Name: EP
Acquire Date: 9/24/2021 1:33:13PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.002578	ug/L	0.05496	2,132	-8.146
Al3961_R		69.70	ug/L	1.485	2.131	87.36
As1891_A		-1.487	ug/L	0.002351	0.1581	-3.186
B_2089_A		22.63	ug/L	0.3449	1.524	35.02
Ba4554_R		33.69	ug/L	0.1107	0.3285	2,850
Be3130_R		0.03711	ug/L	0.03341	90.03	-4.674
Ca3158_R		12,370	ug/L	98.69	0.7980	14,540
Cd2265_A		0.2291	ug/L	0.005314	2.320	0.7575
Co2286_A		0.9863	ug/L	0.1363	13.82	3.529
Cr2677_A		0.6480	ug/L	0.1973	30.45	9.143
Cu3273_A		8.634	ug/L	0.3550	4.111	109.8
Fe2599_R		45.20	ug/L	2.180	4.824	102.6
K_7664_R		2,244	ug/L	11.24	0.5010	1,446
Li6707_R		-0.2379	ug/L	0.1979	83.17	25.57
Mg2025_A		2,954	ug/L	17.18	0.5816	980.2
Mn2576_R	W	1,088	ug/L	8.883	0.8167	11,110
Mo2020_A		-0.001553	ug/L	0.05109	3,289	0.08041
Na5895_R		2,149	ug/L	6.131	0.2853	5,071
Ni2316_A		3.607	ug/L	0.02436	0.6755	6.066
Pb2203_A		0.3575	ug/L	0.4687	131.1	-0.1043
Sb2068_A		-0.1199	ug/L	0.2877	240.0	-0.4875
Se1960_A		1.724	ug/L	0.6093	35.34	2.567
Si2516_R		228.2	ug/L	6.594	2.889	135.6
Sn1899_A		1.081	ug/L	0.05949	5.503	1.332
Sr4215_R		93.02	ug/L	0.3469	0.3729	9,090
Ti3349_A		0.01896	ug/L	0.02912	153.6	-0.1748
Tl1908_A		-2.260	ug/L	0.1978	8.753	-2.954
V_2924_A		0.1802	ug/L	0.1307	72.52	-5.645
Zn2062_A		292.1	ug/L	1.178	0.4033	674.1
Y_3600_R		16,805	Cts/S	24.310	0.14466	16,805
Y_2243_A		6,307.0	Cts/S	43.726	0.69329	6,307.0
Y_3600_A		114,630	Cts/S	267.08	0.23300	114,630

SO6226-004

Method Name: FAST-2016_NO_AU
Method Revision: 1,021
Analyst Name: EP
Acquire Date: 9/24/2021 1:37:35PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.1775	ug/L	0.05011	28.23	-11.56
Al3961_R		3.205	ug/L	3.840	119.8	31.98
As1891_A		-0.5381	ug/L	0.07262	13.50	-2.870
B_2089_A		10.34	ug/L	0.3525	3.410	17.84
Ba4554_R		30.80	ug/L	0.09156	0.2972	2,616
Be3130_R		0.03682	ug/L	0.04623	125.6	-4.682
Ca3158_R	W	30,840	ug/L	689.5	2.236	36,430
Cd2265_A		0.02158	ug/L	0.07296	338.1	-1.563
Co2286_A		0.4826	ug/L	0.008486	1.758	2.009
Cr2677_A		0.5738	ug/L	0.3149	54.88	8.384
Cu3273_A		0.3363	ug/L	0.2491	74.05	-1.088
Fe2599_R		34.95	ug/L	0.7639	2.185	80.85
K_7664_R		1,322	ug/L	11.31	0.8557	857.2
Li6707_R		-0.8836	ug/L	0.1128	12.77	15.36
Mg2025_A		2,212	ug/L	1.787	0.08077	729.9
Mn2576_R	W	1,020	ug/L	18.34	1.799	10,450
Mo2020_A		0.1461	ug/L	0.1063	72.76	0.5129
Na5895_R		1,466	ug/L	28.39	1.936	3,476
Ni2316_A		0.1418	ug/L	0.04988	35.16	0.1202

SO6226-004

Method Name: FAST-2016_NO_AU
Method Revision: 1,021
Analyst Name: EP
Acquire Date: 9/24/2021 1:37:35PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		-0.1216	ug/L	0.09241	75.99	-0.5180
Sb2068_A		-0.7762	ug/L	0.04044	5.210	-0.8255
Se1960_A		0.8289	ug/L	0.3910	47.17	2.330
Si2516_R		2,624	ug/L	51.46	1.962	1,367
Sn1899_A		0.2900	ug/L	0.07159	24.68	0.9809
Sr4215_R		70.49	ug/L	0.3876	0.5499	6,900
Ti3349_A		-0.07369	ug/L	0.2501	339.3	-2.201
Tl1908_A		-1.805	ug/L	1.244	68.91	-2.697
V_2924_A		0.2256	ug/L	0.1195	53.00	-4.970
Zn2062_A		1.243	ug/L	0.05098	4.101	3.147
Y_3600_R		16,862	Cts/S	174.60	1.0354	16,862
Y_2243_A		6,285.2	Cts/S	9.3925	0.14944	6,285.2
Y_3600_A		115,110	Cts/S	139.48	0.12116	115,110

CCV

Method Name: FAST-2016_NO_AU
Method Revision: 1,021
Analyst Name: EP
Acquire Date: 9/24/2021 1:41:58PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		496.4	ug/L	1.945	0.3917	9,457
Al3961_R		12,610	ug/L	92.49	0.7334	14,030
As1891_A		499.0	ug/L	0.6770	0.1357	157.8
B_2089_A		504.1	ug/L	1.582	0.3138	725.0
Ba4554_R		501.1	ug/L	1.540	0.3074	42,870
Be3130_R		489.6	ug/L	1.001	0.2045	56,510
Ca3158_R		12,360	ug/L	26.47	0.2142	14,780
Cd2265_A		499.8	ug/L	0.5981	0.1197	5,614
Co2286_A		508.2	ug/L	0.2674	0.05263	1,534
Cr2677_A		491.7	ug/L	3.041	0.6184	4,964
Cu3273_A		492.0	ug/L	0.6484	0.1318	6,665
Fe2599_R		12,390	ug/L	27.92	0.2252	27,050
K_7664_R		12,330	ug/L	52.30	0.4243	8,043
Li6707_R		500.3	ug/L	0.1642	0.03282	8,116
Mg2025_A		12,780	ug/L	7.291	0.05704	4,309
Mn2576_R		492.6	ug/L	5.657	1.148	5,113
Mo2020_A		510.4	ug/L	0.08427	0.01651	1,497
Na5895_R		12,620	ug/L	149.8	1.187	30,180
Ni2316_A		509.1	ug/L	0.9593	0.1884	883.9
Pb2203_A		506.5	ug/L	0.5633	0.1112	441.2
Sb2068_A		499.4	ug/L	0.1971	0.03946	258.8
Se1960_A		496.8	ug/L	1.369	0.2756	124.5
Si2516_R		12,680	ug/L	106.3	0.8381	6,627
Sn1899_A		503.4	ug/L	0.5559	0.1104	223.1
Sr4215_R		496.0	ug/L	0.5345	0.1078	49,510
Ti3349_A		505.7	ug/L	1.793	0.3547	11,200
Tl1908_A		511.7	ug/L	1.260	0.2463	242.7
V_2924_A		489.2	ug/L	1.694	0.3463	5,066
Zn2062_A		495.9	ug/L	0.9435	0.1903	1,149
Y_3600_R		17,090	Cts/S	49.203	0.28791	17,090
Y_2243_A		6,339.3	Cts/S	21.503	0.33920	6,339.3
Y_3600_A		116,260	Cts/S	199.94	0.17198	116,260

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,021
Analyst Name: EP
Acquire Date: 9/24/2021 1:46:07PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,021
Analyst Name: EP
Acquire Date: 9/24/2021 1:46:07PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.01961	ug/L	0.2181	1,112	-7.949
Al3961_R		0.3370	ug/L	2.577	764.5	0.2109
As1891_A		-0.7506	ug/L	0.8284	110.4	-3.018
B_2089_A		2.147	ug/L	0.3360	15.65	6.658
Ba4554_R		0.005207	ug/L	0.04427	850.2	17.23
Be3130_R		0.1205	ug/L	0.01701	14.11	4.865
Ca3158_R		-1.587	ug/L	2.557	161.1	-32.48
Cd2265_A		0.1307	ug/L	0.03791	29.00	-0.4128
Co2286_A		0.1043	ug/L	0.1159	111.1	0.9073
Cr2677_A		-0.05516	ug/L	0.2152	390.2	1.289
Cu3273_A		0.1214	ug/L	0.2197	181.1	-4.107
Fe2599_R		8.194	ug/L	1.218	14.87	23.66
K_7664_R		-5.049	ug/L	4.466	88.46	3.872
Li6707_R		-1.035	ug/L	0.02320	2.242	13.18
Mg2025_A		4.560	ug/L	0.6958	15.26	-4.326
Mn2576_R		0.2698	ug/L	0.05933	21.99	0.9341
Mo2020_A		0.5155	ug/L	0.1286	24.95	1.693
Na5895_R		1.874	ug/L	1.760	93.92	21.77
Ni2316_A		0.2360	ug/L	0.02602	11.03	0.2947
Pb2203_A		-0.9718	ug/L	0.3670	37.77	-1.290
Sb2068_A		-0.2143	ug/L	0.6676	311.5	-0.5484
Se1960_A		0.2775	ug/L	2.514	906.1	2.120
Si2516_R		10.06	ug/L	0.5218	5.189	24.34
Sn1899_A		-0.2534	ug/L	0.04018	15.86	0.7636
Sr4215_R		0.08062	ug/L	0.02096	25.99	-40.98
Ti3349_A		0.6242	ug/L	0.1207	19.34	13.44
Tl1908_A		-0.2975	ug/L	0.2237	75.21	-1.529
V_2924_A		0.3767	ug/L	0.2191	58.17	0.2343
Zn2062_A		-0.05668	ug/L	0.02316	40.86	0.1649
Y_3600_R		17,157	Cts/S	74.236	0.43270	17,157
Y_2243_A		6,458.6	Cts/S	11.485	0.17782	6,458.6
Y_3600_A		118,150	Cts/S	125.38	0.10612	118,150

SO6226-004L

Method Name: FAST-2016_NO_AU
Method Revision: 1,021
Analyst Name: EP
Acquire Date: 9/24/2021 1:50:33PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.1586	ug/L	0.3116	196.5	-8.938
Al3961_R		9.771	ug/L	8.766	89.72	7.739
As1891_A		-5.395	ug/L	1.913	35.46	-3.103
B_2089_A		17.50	ug/L	0.6754	3.858	8.520
Ba4554_R		35.98	ug/L	0.6534	1.816	636.7
Be3130_R		0.3859	ug/L	0.1020	26.43	-0.1491
Ca3158_R		30,230	ug/L	256.5	0.8487	7,269
Cd2265_A		0.3296	ug/L	0.1136	34.48	-1.133
Co2286_A		0.1911	ug/L	0.3682	192.7	0.6961
Cr2677_A		0.04798	ug/L	0.5012	1,045	2.120
Cu3273_A		0.9783	ug/L	0.4085	41.76	-3.071
Fe2599_R		69.71	ug/L	4.340	6.226	36.38
K_7664_R		1,449	ug/L	3.569	0.2463	197.5
Li6707_R		-3.443	ug/L	0.2652	7.701	18.86
Mg2025_A		2,218	ug/L	0.006102	0.0002750	144.6
Mn2576_R		995.3	ug/L	1.109	0.1115	2,081
Mo2020_A		1.280	ug/L	0.4267	33.32	0.8986
Na5895_R		1,431	ug/L	9.847	0.6883	706.6
Ni2316_A		0.3261	ug/L	1.093	335.2	-0.008063

SO6226-004L

Method Name: FAST-2016_NO_AU
Method Revision: 1,021
Analyst Name: EP
Acquire Date: 9/24/2021 1:50:33PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		-0.01677	ug/L	0.4805	2,866	-0.4249
Sb2068_A		-0.4166	ug/L	5.653	1,357	-0.4817
Se1960_A		-1.525	ug/L	9.355	613.4	1.987
Si2516_R		2,548	ug/L	12.50	0.4906	286.6
Sn1899_A		3.734	ug/L	1.446	38.72	1.205
Sr4215_R		69.14	ug/L	0.4228	0.6116	1,342
Ti3349_A		0.4287	ug/L	0.2827	65.94	1.323
Tl1908_A		-3.824	ug/L	2.258	59.04	-1.841
V_2924_A		-0.1835	ug/L	0.2643	144.1	-4.858
Zn2062_A		8.064	ug/L	0.1169	1.450	4.078
Y_3600_R		17,217	Cts/S	30.275	0.17584	17,217
Y_2243_A		6,410.8	Cts/S	27.851	0.43444	6,410.8
Y_3600_A		117,880	Cts/S	163.02	0.13829	117,880

SO6226-004A

Method Name: FAST-2016_NO_AU
Method Revision: 1,021
Analyst Name: EP
Acquire Date: 9/24/2021 1:54:57PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		166.3	ug/L	0.7385	0.4439	3,107
Al3961_R		11,180	ug/L	131.8	1.179	12,350
As1891_A		479.7	ug/L	1.367	0.2849	149.9
B_2089_A		502.0	ug/L	0.5774	0.1150	713.3
Ba4554_R		521.7	ug/L	1.176	0.2254	44,210
Be3130_R		493.1	ug/L	2.058	0.4174	56,370
Ca3158_R	W	35,230	ug/L	414.5	1.177	41,790
Cd2265_A		489.6	ug/L	1.139	0.2326	5,419
Co2286_A		502.6	ug/L	1.309	0.2605	1,499
Cr2677_A		482.1	ug/L	2.415	0.5009	4,795
Cu3273_A		495.0	ug/L	2.253	0.4552	6,601
Fe2599_R		5,417	ug/L	31.67	0.5847	11,710
K_7664_R		11,100	ug/L	11.03	0.09945	7,172
Li6707_R		501.0	ug/L	1.311	0.2618	8,051
Mg2025_A		7,616	ug/L	28.60	0.3755	2,544
Mn2576_R	W	1,462	ug/L	17.21	1.176	15,040
Mo2020_A		515.5	ug/L	1.702	0.3302	1,494
Na5895_R		6,957	ug/L	79.56	1.144	16,490
Ni2316_A		500.0	ug/L	1.009	0.2019	857.8
Pb2203_A		501.0	ug/L	1.887	0.3767	431.0
Sb2068_A		493.6	ug/L	3.010	0.6097	252.5
Se1960_A		493.8	ug/L	3.202	0.6484	122.2
Si2516_R		2,836	ug/L	31.57	1.113	1,486
Sn1899_A		506.5	ug/L	0.4940	0.09753	221.7
Sr4215_R		561.1	ug/L	0.08349	0.01488	55,480
Ti3349_A		498.9	ug/L	0.8319	0.1668	10,890
Tl1908_A		499.6	ug/L	1.244	0.2489	233.6
V_2924_A		484.3	ug/L	1.828	0.3775	4,935
Zn2062_A		484.0	ug/L	1.023	0.2114	1,108
Y_3600_R		16,929	Cts/S	12.971	0.076622	16,929
Y_2243_A		6,261.6	Cts/S	12.638	0.20183	6,261.6
Y_3600_A		114,550	Cts/S	101.45	0.088565	114,550

SO6226-004P

Method Name: FAST-2016_NO_AU
Method Revision: 1,021
Analyst Name: EP
Acquire Date: 9/24/2021 1:59:08PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SO6226-004P

Method Name: FAST-2016_NO_AU
Method Revision: 1,021
Analyst Name: EP
Acquire Date: 9/24/2021 1:59:08PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		50.22	ug/L	0.3272	0.6515	924.3
Al3961_R		2,088	ug/L	3.063	0.1467	2,325
As1891_A		102.3	ug/L	0.2620	0.2561	30.01
B_2089_A		516.8	ug/L	0.5232	0.1012	725.1
Ba4554_R	W	2,092	ug/L	0.4773	0.02282	176,700
Be3130_R		51.81	ug/L	0.06251	0.1207	5,897
Ca3158_R	W	32,930	ug/L	138.7	0.4212	38,960
Cd2265_A		251.7	ug/L	0.1232	0.04897	2,795
Co2286_A		523.8	ug/L	0.08935	0.01706	1,569
Cr2677_A		202.3	ug/L	1.361	0.6727	2,005
Cu3273_A		262.1	ug/L	0.1301	0.04962	3,476
Fe2599_R		1,057	ug/L	10.75	1.017	2,284
K_7664_R		11,350	ug/L	27.86	0.2455	7,316
Li6707_R		523.9	ug/L	1.206	0.2301	8,395
Mg2025_A		7,233	ug/L	0.02837	0.0003920	2,427
Mn2576_R	W	1,511	ug/L	0.7394	0.04893	15,500
Mo2020_A		106.2	ug/L	0.1785	0.1681	309.2
Na5895_R		9,287	ug/L	71.42	0.7690	21,950
Ni2316_A		522.7	ug/L	0.2628	0.05027	896.2
Pb2203_A		105.2	ug/L	0.6831	0.6494	90.65
Sb2068_A		103.3	ug/L	0.4707	0.4556	50.54
Se1960_A		105.9	ug/L	0.2829	0.2671	28.06
Si2516_R		3,635	ug/L	4.917	0.1353	1,892
Sn1899_A		515.0	ug/L	1.762	0.3422	226.5
Sr4215_R		583.0	ug/L	1.700	0.2915	57,490
Ti3349_A		527.7	ug/L	1.150	0.2180	11,460
Tl1908_A		101.7	ug/L	0.8959	0.8810	46.77
V_2924_A		510.2	ug/L	2.102	0.4119	5,209
Zn2062_A		501.9	ug/L	0.6516	0.1298	1,155
Y_3600_R		16,883	Cts/S	2.0278	0.012011	16,883
Y_2243_A		6,291.8	Cts/S	3.3021	0.052483	6,291.8
Y_3600_A		114,040	Cts/S	333.31	0.29228	114,040

SO6226-004S

Method Name: FAST-2016_NO_AU
Method Revision: 1,021
Analyst Name: EP
Acquire Date: 9/24/2021 2:03:21PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		50.77	ug/L	0.1936	0.3814	934.3
Al3961_R		2,092	ug/L	14.11	0.6744	2,334
As1891_A		101.9	ug/L	1.068	1.049	29.76
B_2089_A		521.7	ug/L	0.3530	0.06766	728.9
Ba4554_R	W	2,088	ug/L	2.154	0.1032	176,800
Be3130_R		51.48	ug/L	0.1564	0.3037	5,872
Ca3158_R	W	32,870	ug/L	440.3	1.340	38,970
Cd2265_A		254.0	ug/L	0.3629	0.1429	2,809
Co2286_A		529.1	ug/L	1.646	0.3111	1,579
Cr2677_A		202.9	ug/L	1.114	0.5490	2,010
Cu3273_A		262.9	ug/L	0.1408	0.05356	3,484
Fe2599_R		1,050	ug/L	7.620	0.7258	2,273
K_7664_R		11,380	ug/L	23.95	0.2105	7,348
Li6707_R		519.0	ug/L	1.443	0.2781	8,333
Mg2025_A		7,271	ug/L	21.84	0.3004	2,430
Mn2576_R	W	1,500	ug/L	5.381	0.3588	15,420
Mo2020_A		106.9	ug/L	0.1032	0.09652	309.8
Na5895_R		9,269	ug/L	28.97	0.3126	21,960
Ni2316_A		527.2	ug/L	0.03804	0.007215	900.1

SO6226-004S

Method Name: FAST-2016_NO_AU
Method Revision: 1,021
Analyst Name: EP
Acquire Date: 9/24/2021 2:03:21PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		105.4	ug/L	0.7552	0.7163	90.47
Sb2068_A		103.3	ug/L	0.1138	0.1102	50.29
Se1960_A		107.0	ug/L	0.6250	0.5841	28.21
Si2516_R		3,636	ug/L	9.870	0.2714	1,897
Sn1899_A		519.6	ug/L	0.8522	0.1640	227.6
Sr4215_R		579.9	ug/L	0.1900	0.03277	57,300
Ti3349_A		529.6	ug/L	0.2990	0.05647	11,500
Tl1908_A		101.1	ug/L	0.2845	0.2814	46.32
V_2924_A		512.2	ug/L	0.7852	0.1533	5,228
Zn2062_A		506.8	ug/L	0.3378	0.06664	1,161
Y_3600_R		16,918	Cts/S	35.139	0.20771	16,918
Y_2243_A		6,265.8	Cts/S	12.381	0.19760	6,265.8
Y_3600_A		113,990	Cts/S	68.782	0.060341	113,990

SO6313-003

Method Name: FAST-2016_NO_AU
Method Revision: 1,021
Analyst Name: EP
Acquire Date: 9/24/2021 2:07:34PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.3298	ug/L	0.1145	34.71	-19.56
Al3961_R		458.6	ug/L	8.838	1.927	595.1
As1891_A		-1.022	ug/L	0.2981	29.18	-2.877
B_2089_A		45.14	ug/L	0.2196	0.4864	62.09
Ba4554_R		186.0	ug/L	1.437	0.7729	15,190
Be3130_R		0.03231	ug/L	0.02393	74.06	-5.115
Ca3158_R	W	121,700	ug/L	58.74	0.04826	139,200
Cd2265_A		0.02744	ug/L	0.02257	82.25	1.815
Co2286_A		17.72	ug/L	0.04196	0.2368	50.15
Cr2677_A		382.3	ug/L	1.088	0.2846	3,542
Cu3273_A		12.59	ug/L	0.3853	3.059	152.9
Fe2599_R		1,979	ug/L	13.51	0.6827	4,127
K_7664_R		5,715	ug/L	48.38	0.8465	3,562
Li6707_R		7.495	ug/L	0.4659	6.216	144.1
Mg2025_A		17,930	ug/L	40.77	0.2274	5,585
Mn2576_R		689.7	ug/L	1.033	0.1498	6,839
Mo2020_A		2.215	ug/L	0.06954	3.139	6.167
Na5895_R	F	308,800	ug/L	1,847	0.5982	704,500
Ni2316_A		219.6	ug/L	0.3745	0.1705	352.0
Pb2203_A		0.7256	ug/L	0.2902	39.99	0.2273
Sb2068_A		2.917	ug/L	0.7555	25.90	1.962
Se1960_A		1.957	ug/L	0.2101	10.74	2.432
Si2516_R		6,420	ug/L	18.67	0.2908	3,208
Sn1899_A		0.6066	ug/L	0.2186	36.03	1.049
Sr4215_R		826.1	ug/L	4.874	0.5900	78,700
Ti3349_A		3.297	ug/L	0.06365	1.930	67.66
Tl1908_A		-0.6147	ug/L	0.1611	26.22	-1.823
V_2924_A		2.704	ug/L	0.2610	9.651	10.86
Zn2062_A		8.406	ug/L	0.06501	0.7734	17.53
Y_3600_R		16,308	Cts/S	73.510	0.45077	16,308
Y_2243_A		5,892.0	Cts/S	7.5643	0.12838	5,892.0
Y_3600_A		106,720	Cts/S	42.416	0.039747	106,720

SO6313-004

Method Name: FAST-2016_NO_AU
Method Revision: 1,021
Analyst Name: EP
Acquire Date: 9/24/2021 2:12:01PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SO6313-004

Method Name: FAST-2016_NO_AU
Method Revision: 1,021
Analyst Name: EP
Acquire Date: 9/24/2021 2:12:01PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.1789	ug/L	0.07643	42.73	-17.00
Al3961_R		531.1	ug/L	5.040	0.9490	681.2
As1891_A		-1.011	ug/L	0.4735	46.85	-2.885
B_2089_A		44.66	ug/L	0.05565	0.1246	61.70
Ba4554_R		184.3	ug/L	2.101	1.140	15,300
Be3130_R		0.04448	ug/L	0.01569	35.27	-3.852
Ca3158_R	W	120,100	ug/L	1,526	1.271	139,500
Cd2265_A		-0.05931	ug/L	0.005098	8.596	0.9064
Co2286_A		17.41	ug/L	0.01110	0.06373	49.46
Cr2677_A		379.9	ug/L	11.54	3.038	3,541
Cu3273_A		12.19	ug/L	0.09755	0.8004	148.7
Fe2599_R		1,973	ug/L	23.73	1.203	4,178
K_7664_R		5,719	ug/L	79.75	1.394	3,621
Li6707_R		8.082	ug/L	0.2121	2.624	155.6
Mg2025_A		17,920	ug/L	24.54	0.1370	5,603
Mn2576_R		673.5	ug/L	8.495	1.261	6,785
Mo2020_A		2.198	ug/L	0.1263	5.747	6.143
Na5895_R	F	301,300	ug/L	8,326	2.763	698,400
Ni2316_A		217.6	ug/L	0.1496	0.06872	350.2
Pb2203_A		0.8999	ug/L	0.1568	17.43	0.3650
Sb2068_A		2.627	ug/L	0.1964	7.477	1.824
Se1960_A		1.153	ug/L	0.7209	62.52	2.256
Si2516_R		6,553	ug/L	82.72	1.262	3,327
Sn1899_A		0.3150	ug/L	0.3881	123.2	0.9334
Sr4215_R		821.1	ug/L	10.11	1.231	79,480
Ti3349_A		3.324	ug/L	0.01347	0.4052	68.63
Tl1908_A		-1.015	ug/L	0.3620	35.68	-2.001
V_2924_A		2.460	ug/L	0.1991	8.094	8.662
Zn2062_A		8.255	ug/L	0.1228	1.488	17.27
Y_3600_R		16,570	Cts/S	166.99	1.0078	16,570
Y_2243_A		5,914.6	Cts/S	5.9681	0.10091	5,914.6
Y_3600_A		107,400	Cts/S	2,537.4	2.3626	107,400

SO6313-005

Method Name: FAST-2016_NO_AU
Method Revision: 1,021
Analyst Name: EP
Acquire Date: 9/24/2021 2:16:26PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.06375	ug/L	0.02263	35.49	-13.59
Al3961_R		94.42	ug/L	2.501	2.649	145.9
As1891_A		-0.3636	ug/L	0.2005	55.14	-2.724
B_2089_A		151.7	ug/L	0.04700	0.03098	204.9
Ba4554_R		120.8	ug/L	1.573	1.303	10,010
Be3130_R		0.02505	ug/L	0.06070	242.3	-6.054
Ca3158_R	W	48,440	ug/L	796.1	1.643	56,140
Cd2265_A		0.09209	ug/L	0.06251	67.88	1.425
Co2286_A		9.894	ug/L	0.1503	1.520	28.92
Cr2677_A		191.4	ug/L	1.811	0.9464	1,805
Cu3273_A		7.950	ug/L	0.2453	3.086	96.32
Fe2599_R		1,501	ug/L	25.92	1.726	3,174
K_7664_R	W	43,390	ug/L	481.2	1.109	27,380
Li6707_R		8.809	ug/L	1.191	13.52	166.6
Mg2025_A		10,670	ug/L	49.70	0.4659	3,384
Mn2576_R	W	3,664	ug/L	58.68	1.601	36,830
Mo2020_A		13.69	ug/L	0.1748	1.277	37.97
Na5895_R	F	246,700	ug/L	1,176	0.4765	570,800
Ni2316_A		417.6	ug/L	0.5311	0.1272	682.4

SO6313-005

Method Name: FAST-2016_NO_AU
Method Revision: 1,021
Analyst Name: EP
Acquire Date: 9/24/2021 2:16:26PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		2.040	ug/L	0.1142	5.597	1.340
Sb2068_A		0.8944	ug/L	0.5835	65.24	0.4170
Se1960_A		0.3990	ug/L	0.8433	211.4	2.475
Si2516_R		3,109	ug/L	44.11	1.419	1,585
Sn1899_A		0.6423	ug/L	0.2296	35.75	1.084
Sr4215_R		800.5	ug/L	11.21	1.400	77,330
Ti3349_A		3.662	ug/L	0.2170	5.926	75.86
Tl1908_A		-4.339	ug/L	1.039	23.95	-4.939
V_2924_A		2.024	ug/L	0.06153	3.041	-1.399
Zn2062_A		15.08	ug/L	0.1274	0.8448	32.96
Y_3600_R		16,537	Cts/S	138.93	0.84016	16,537
Y_2243_A		6,004.1	Cts/S	16.110	0.26832	6,004.1
Y_3600_A		108,420	Cts/S	949.14	0.87544	108,420

SO6313-006

Method Name: FAST-2016_NO_AU
Method Revision: 1,021
Analyst Name: EP
Acquire Date: 9/24/2021 2:20:52PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.08686	ug/L	0.1745	200.9	-48.99
Al3961_R		827.2	ug/L	6.671	0.8065	938.5
As1891_A		0.1315	ug/L	1.090	829.0	-3.066
B_2089_A		9.040	ug/L	0.1831	2.026	16.33
Ba4554_R		27.05	ug/L	0.1881	0.6954	2,343
Be3130_R		0.08593	ug/L	0.001073	1.249	-0.3740
Ca3158_R		15,590	ug/L	31.91	0.2048	18,760
Cd2265_A		-0.2083	ug/L	0.02556	12.27	17.79
Co2286_A		2.163	ug/L	0.1052	4.862	7.348
Cr2677_A		72.75	ug/L	0.002560	0.003518	733.2
Cu3273_A		9.137	ug/L	0.5827	6.378	127.2
Fe2599_R		11,430	ug/L	99.97	0.8747	25,080
K_7664_R		1,041	ug/L	11.02	1.059	689.8
Li6707_R		1.578	ug/L	0.2678	16.97	55.68
Mg2025_A		3,272	ug/L	5.904	0.1805	1,094
Mn2576_R		199.6	ug/L	3.111	1.558	2,081
Mo2020_A		4.192	ug/L	0.1215	2.899	12.46
Na5895_R		18,400	ug/L	0.7347	0.003993	44,270
Ni2316_A		19.19	ug/L	0.2951	1.538	32.58
Pb2203_A		18.98	ug/L	0.3165	1.668	16.55
Sb2068_A		-0.2100	ug/L	0.2979	141.8	-0.1369
Se1960_A		-0.4013	ug/L	0.1364	33.98	2.121
Si2516_R		2,259	ug/L	0.06165	0.002729	1,202
Sn1899_A		0.8347	ug/L	0.2932	35.13	1.232
Sr4215_R		60.52	ug/L	0.5838	0.9646	6,032
Ti3349_A		20.37	ug/L	0.1356	0.6658	448.4
Tl1908_A		-0.6692	ug/L	0.003722	0.5562	-1.791
V_2924_A		4.657	ug/L	0.3579	7.685	44.31
Zn2062_A		63.40	ug/L	0.2162	0.3411	147.4
Y_3600_R		17,188	Cts/S	76.447	0.44477	17,188
Y_2243_A		6,351.3	Cts/S	5.6464	0.088902	6,351.3
Y_3600_A		115,650	Cts/S	442.42	0.38255	115,650

SO6313-016

Method Name: FAST-2016_NO_AU
Method Revision: 1,021
Analyst Name: EP
Acquire Date: 9/24/2021 2:25:14PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SO6313-016

Method Name: FAST-2016_NO_AU
Method Revision: 1,021
Analyst Name: EP
Acquire Date: 9/24/2021 2:25:14PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.005678	ug/L	0.08354	1,471	-8.478
Al3961_R		110.4	ug/L	8.555	7.749	235.9
As1891_A		-0.4955	ug/L	0.2740	55.30	-2.700
B_2089_A		201.1	ug/L	0.8213	0.4085	266.7
Ba4554_R		105.9	ug/L	0.1347	0.1272	8,787
Be3130_R		0.02079	ug/L	0.01575	75.73	-6.524
Ca3158_R	W	128,700	ug/L	116.4	0.09047	149,300
Cd2265_A		0.1241	ug/L	0.01553	12.52	-0.07429
Co2286_A		0.3909	ug/L	0.09194	23.52	1.651
Cr2677_A		2.525	ug/L	0.05255	2.082	27.69
Cu3273_A		2.749	ug/L	0.3670	13.35	29.70
Fe2599_R		217.9	ug/L	5.276	2.421	465.8
K_7664_R		23,420	ug/L	108.1	0.4616	14,790
Li6707_R		3.228	ug/L	0.5862	18.16	79.40
Mg2025_A	W	31,300	ug/L	91.47	0.2922	9,810
Mn2576_R	W	2,675	ug/L	4.219	0.1577	26,910
Mo2020_A		5.549	ug/L	0.03589	0.6469	15.21
Na5895_R	W	171,300	ug/L	449.0	0.2621	396,700
Ni2316_A		3.275	ug/L	0.0002250	0.006857	5.221
Pb2203_A		0.2268	ug/L	0.1397	61.59	-0.2083
Sb2068_A		-0.5158	ug/L	0.07478	14.50	-0.6438
Se1960_A		0.1367	ug/L	1.351	988.3	2.244
Si2516_R		6,065	ug/L	19.72	0.3252	3,076
Sn1899_A		-0.04438	ug/L	1.060	2,388	0.7872
Sr4215_R		723.6	ug/L	0.3217	0.04445	69,950
Ti3349_A		2.161	ug/L	0.1736	8.033	44.36
Tl1908_A		-3.148	ug/L	0.1189	3.777	-3.904
V_2924_A		0.9515	ug/L	0.4542	47.73	-3.491
Zn2062_A		2.970	ug/L	0.08598	2.895	6.707
Y_3600_R		16,547	Cts/S	84.461	0.51043	16,547
Y_2243_A		5,926.6	Cts/S	6.6395	0.11203	5,926.6
Y_3600_A		108,940	Cts/S	141.94	0.13030	108,940

SO6313-017

Method Name: FAST-2016_NO_AU
Method Revision: 1,021
Analyst Name: EP
Acquire Date: 9/24/2021 2:29:41PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.1665	ug/L	0.1018	61.17	-10.71
Al3961_R		-96.80	ug/L	5.578	5.763	94.73
As1891_A		-3.056	ug/L	0.5815	19.03	-3.396
B_2089_A		128.8	ug/L	0.3500	0.2717	168.5
Ba4554_R		24.36	ug/L	0.1107	0.4544	2,027
Be3130_R		-0.01237	ug/L	0.01899	153.5	-10.08
Ca3158_R	W	218,700	ug/L	2,580	1.180	252,900
Cd2265_A		-0.004621	ug/L	0.02291	495.7	-1.632
Co2286_A		0.4284	ug/L	0.08702	20.31	1.708
Cr2677_A		0.6705	ug/L	0.3389	50.55	9.028
Cu3273_A		2.226	ug/L	0.02777	1.248	22.62
Fe2599_R		82.05	ug/L	2.991	3.645	178.2
K_7664_R		7,574	ug/L	16.15	0.2132	4,772
Li6707_R		72.80	ug/L	0.7040	0.9670	1,165
Mg2025_A	W	91,970	ug/L	276.7	0.3008	28,240
Mn2576_R	W	1,437	ug/L	10.97	0.7631	14,430
Mo2020_A		0.2041	ug/L	0.1263	61.89	0.6063
Na5895_R	W	133,600	ug/L	1,939	1.451	308,400
Ni2316_A		3.237	ug/L	0.009534	0.2945	5.000

SO6313-017

Method Name: FAST-2016_NO_AU
Method Revision: 1,021
Analyst Name: EP
Acquire Date: 9/24/2021 2:29:41PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		-0.04957	ug/L	0.2892	583.5	-0.4127
Sb2068_A		-0.4796	ug/L	0.5727	119.4	-0.6244
Se1960_A		-0.04887	ug/L	1.205	2,465	2.005
Si2516_R		7,599	ug/L	40.97	0.5392	3,838
Sn1899_A		1.062	ug/L	0.05551	5.227	1.218
Sr4215_R	W	7,287	ug/L	106.8	1.465	702,500
Ti3349_A		-0.1085	ug/L	0.1844	170.0	-2.748
Tl1908_A		-1.686	ug/L	0.1692	10.03	-2.627
V_2924_A		0.3744	ug/L	0.2267	60.56	-4.577
Zn2062_A		2.620	ug/L	0.004912	0.1874	5.831
Y_3600_R		16,494	Cts/S	171.28	1.0384	16,494
Y_2243_A		5,805.4	Cts/S	14.125	0.24331	5,805.4
Y_3600_A		107,040	Cts/S	499.81	0.46696	107,040

CCV

Method Name: FAST-2016_NO_AU
Method Revision: 1,021
Analyst Name: EP
Acquire Date: 9/24/2021 2:34:15PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		493.9	ug/L	0.2474	0.05010	9,439
Al3961_R		12,470	ug/L	44.09	0.3536	14,040
As1891_A		495.9	ug/L	1.588	0.3202	158.1
B_2089_A		500.5	ug/L	0.03221	0.006435	726.1
Ba4554_R		492.6	ug/L	0.3312	0.06723	42,640
Be3130_R		482.5	ug/L	3.983	0.8257	56,340
Ca3158_R		12,270	ug/L	86.05	0.7015	14,840
Cd2265_A		497.2	ug/L	1.037	0.2085	5,633
Co2286_A		503.9	ug/L	0.4582	0.09092	1,535
Cr2677_A		489.0	ug/L	0.2694	0.05510	4,952
Cu3273_A		489.0	ug/L	0.4675	0.09559	6,646
Fe2599_R		12,240	ug/L	95.88	0.7833	27,020
K_7664_R		12,080	ug/L	11.45	0.09472	7,977
Li6707_R		491.4	ug/L	0.1033	0.02101	8,065
Mg2025_A		12,690	ug/L	8.122	0.06401	4,315
Mn2576_R		486.7	ug/L	3.138	0.6447	5,111
Mo2020_A		506.7	ug/L	0.1037	0.02047	1,499
Na5895_R		12,500	ug/L	67.33	0.5386	30,250
Ni2316_A		506.3	ug/L	1.024	0.2022	886.8
Pb2203_A		503.4	ug/L	0.6040	0.1200	442.4
Sb2068_A		497.1	ug/L	2.111	0.4247	259.9
Se1960_A		496.1	ug/L	0.2737	0.05517	125.4
Si2516_R		12,610	ug/L	85.17	0.6755	6,665
Sn1899_A		500.5	ug/L	0.8274	0.1653	223.8
Sr4215_R		486.9	ug/L	1.886	0.3873	49,170
Ti3349_A		503.0	ug/L	1.990	0.3955	11,180
Tl1908_A		508.9	ug/L	0.5181	0.1018	243.5
V_2924_A		486.4	ug/L	0.2839	0.05836	5,053
Zn2062_A		493.5	ug/L	0.9759	0.1977	1,153
Y_3600_R		17,290	Cts/S	57.262	0.33119	17,290
Y_2243_A		6,395.1	Cts/S	9.1382	0.14290	6,395.1
Y_3600_A		116,640	Cts/S	73.817	0.063287	116,640

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,021
Analyst Name: EP
Acquire Date: 9/24/2021 2:38:24PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,021
Analyst Name: EP
Acquire Date: 9/24/2021 2:38:24PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.02966	ug/L	0.2459	829.3	-8.875
Al3961_R		2.910	ug/L	2.203	75.70	3.073
As1891_A		-0.2935	ug/L	0.7680	261.7	-2.879
B_2089_A		1.687	ug/L	0.0008510	0.05044	6.026
Ba4554_R		0.1298	ug/L	0.02930	22.57	27.82
Be3130_R		0.1400	ug/L	0.009089	6.494	7.064
Ca3158_R		11.56	ug/L	2.274	19.67	-16.60
Cd2265_A		0.09459	ug/L	0.03448	36.45	-0.8272
Co2286_A		0.1575	ug/L	0.09687	61.51	1.076
Cr2677_A		0.06684	ug/L	0.09841	147.2	2.523
Cu3273_A		0.2688	ug/L	0.05562	20.69	-2.072
Fe2599_R		8.640	ug/L	0.2858	3.308	24.55
K_7664_R		29.92	ug/L	4.342	14.51	26.66
Li6707_R		-0.05697	ug/L	0.5259	923.1	28.94
Mg2025_A		3.956	ug/L	0.09624	2.433	-4.546
Mn2576_R		0.4236	ug/L	0.2000	47.22	2.529
Mo2020_A		0.5277	ug/L	0.1022	19.37	1.736
Na5895_R		27.30	ug/L	1.609	5.892	82.52
Ni2316_A		0.1495	ug/L	0.3918	262.0	0.1427
Pb2203_A		-0.7621	ug/L	0.1496	19.62	-1.108
Sb2068_A		0.1901	ug/L	0.7715	405.8	-0.3367
Se1960_A		0.08797	ug/L	0.5140	584.2	2.081
Si2516_R		10.70	ug/L	1.263	11.80	24.59
Sn1899_A		0.2329	ug/L	0.04657	19.99	0.9859
Sr4215_R		0.3062	ug/L	0.02790	9.111	-18.28
Ti3349_A		0.9034	ug/L	0.3287	36.38	19.63
Tl1908_A		0.02951	ug/L	0.2483	841.3	-1.376
V_2924_A		0.3001	ug/L	0.1351	45.03	-0.5809
Zn2062_A		0.06370	ug/L	0.1823	286.1	0.4509
Y_3600_R		17,094	Cts/S	8.4127	0.049213	17,094
Y_2243_A		6,482.7	Cts/S	11.664	0.17993	6,482.7
Y_3600_A		117,450	Cts/S	723.63	0.61612	117,450

SO6313-018

Method Name: FAST-2016_NO_AU
Method Revision: 1,021
Analyst Name: EP
Acquire Date: 9/24/2021 2:42:49PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.2448	ug/L	0.07157	29.24	-32.12
Al3961_R		5,155	ug/L	30.40	0.5898	5,665
As1891_A		4.556	ug/L	0.6246	13.71	-1.465
B_2089_A		36.77	ug/L	0.2635	0.7168	54.32
Ba4554_R		75.17	ug/L	0.04225	0.05620	6,367
Be3130_R		0.2517	ug/L	0.06184	24.57	17.57
Ca3158_R		11,170	ug/L	85.58	0.7659	13,200
Cd2265_A		-0.07459	ug/L	0.01548	20.75	8.178
Co2286_A		4.300	ug/L	0.1163	2.705	13.57
Cr2677_A		23.91	ug/L	0.2583	1.080	236.8
Cu3273_A		11.88	ug/L	0.03690	0.3107	154.0
Fe2599_R		5,738	ug/L	5.291	0.09220	12,370
K_7664_R		3,185	ug/L	32.80	1.030	2,058
Li6707_R		5.819	ug/L	0.8596	14.77	122.4
Mg2025_A		2,531	ug/L	10.57	0.4178	828.9
Mn2576_R		279.4	ug/L	0.7447	0.2666	2,863
Mo2020_A		8.871	ug/L	0.008916	0.1005	25.70
Na5895_R	W	94,460	ug/L	220.7	0.2337	223,100
Ni2316_A		20.58	ug/L	0.2046	0.9944	34.62

SO6313-018

Method Name: FAST-2016_NO_AU
Method Revision: 1,021
Analyst Name: EP
Acquire Date: 9/24/2021 2:42:49PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		5.933	ug/L	0.3868	6.520	4.529
Sb2068_A		0.1443	ug/L	0.6242	432.5	-0.1833
Se1960_A		0.4829	ug/L	0.2510	51.98	2.252
Si2516_R		11,790	ug/L	15.60	0.1323	6,085
Sn1899_A		0.8485	ug/L	0.2292	27.02	1.215
Sr4215_R		53.27	ug/L	0.1272	0.2387	5,209
Ti3349_A		37.54	ug/L	0.08224	0.2190	806.7
Tl1908_A		-0.5167	ug/L	0.1796	34.76	-1.716
V_2924_A		9.723	ug/L	0.08744	0.8993	94.33
Zn2062_A		30.78	ug/L	0.2293	0.7450	70.37
Y_3600_R		16,882	Cts/S	49.271	0.29185	16,882
Y_2243_A		6,230.0	Cts/S	1.4476	0.023236	6,230.0
Y_3600_A		112,880	Cts/S	30.123	0.026687	112,880

SO6313-030

Method Name: FAST-2016_NO_AU
Method Revision: 1,021
Analyst Name: EP
Acquire Date: 9/24/2021 2:47:11PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.0009010	ug/L	0.01100	1,221	-11.73
Al3961_R		14.16	ug/L	8.410	59.40	29.74
As1891_A		-1.693	ug/L	0.3539	20.90	-3.274
B_2089_A		20.00	ug/L	0.09499	0.4750	31.28
Ba4554_R		46.81	ug/L	0.01970	0.04207	4,005
Be3130_R		0.03211	ug/L	0.0006230	1.940	-5.314
Ca3158_R		15,190	ug/L	11.60	0.07639	18,100
Cd2265_A		-0.02757	ug/L	0.03752	136.1	-0.1290
Co2286_A		0.7907	ug/L	0.05054	6.391	2.948
Cr2677_A		3.017	ug/L	0.007945	0.2634	32.10
Cu3273_A		1.255	ug/L	0.03362	2.678	12.12
Fe2599_R		1,081	ug/L	11.68	1.080	2,355
K_7664_R		896.5	ug/L	5.391	0.6014	589.3
Li6707_R		0.4367	ug/L	0.3886	88.98	36.77
Mg2025_A		2,749	ug/L	24.75	0.9005	908.5
Mn2576_R		166.2	ug/L	0.1205	0.07252	1,718
Mo2020_A		0.8233	ug/L	0.1938	23.54	2.531
Na5895_R		18,750	ug/L	92.26	0.4922	44,660
Ni2316_A		11.79	ug/L	0.1125	0.9546	20.00
Pb2203_A		-0.006061	ug/L	0.8174	13,480	-0.3780
Sb2068_A		0.01475	ug/L	0.1243	842.9	-0.3959
Se1960_A		0.6441	ug/L	2.001	310.7	2.192
Si2516_R		1,198	ug/L	0.1605	0.01339	640.5
Sn1899_A		0.6342	ug/L	0.3387	53.40	1.132
Sr4215_R		113.9	ug/L	1.106	0.9712	11,280
Ti3349_A		-0.05671	ug/L	0.1379	243.1	-1.811
Tl1908_A		-0.6595	ug/L	1.029	156.0	-1.738
V_2924_A		0.01630	ug/L	0.1284	787.6	-3.960
Zn2062_A		33.71	ug/L	0.3371	1.000	77.78
Y_3600_R		17,024	Cts/S	7.1028	0.041723	17,024
Y_2243_A		6,285.4	Cts/S	41.325	0.65748	6,285.4
Y_3600_A		114,820	Cts/S	159.34	0.13877	114,820

SO6315-003

Method Name: FAST-2016_NO_AU
Method Revision: 1,021
Analyst Name: EP
Acquire Date: 9/24/2021 2:51:33PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SO6315-003

Method Name: FAST-2016_NO_AU
Method Revision: 1,021
Analyst Name: EP
Acquire Date: 9/24/2021 2:51:33PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.4349	ug/L	0.3164	72.76	-15.50
Al3961_R		-40.16	ug/L	8.056	20.06	92.17
As1891_A		-1.662	ug/L	0.8013	48.20	-3.070
B_2089_A		41.32	ug/L	0.4674	1.131	58.12
Ba4554_R		110.2	ug/L	0.8151	0.7394	9,039
Be3130_R		0.003772	ug/L	0.01828	484.6	-8.199
Ca3158_R	W	149,500	ug/L	592.3	0.3961	171,500
Cd2265_A		-0.009283	ug/L	0.03565	384.1	-1.826
Co2286_A		-0.008359	ug/L	0.01068	127.8	0.5123
Cr2677_A		8.659	ug/L	0.09605	1.109	83.67
Cu3273_A		1.387	ug/L	0.06911	4.984	12.31
Fe2599_R		27.24	ug/L	1.181	4.338	62.32
K_7664_R	W	134,900	ug/L	870.9	0.6454	84,190
Li6707_R		8.978	ug/L	0.5348	5.957	167.4
Mg2025_A		15.49	ug/L	1.637	10.57	-0.5060
Mn2576_R		0.8425	ug/L	0.06534	7.755	6.590
Mo2020_A		9.562	ug/L	0.1794	1.876	26.58
Na5895_R		14,290	ug/L	4.731	0.03312	32,710
Ni2316_A		0.03267	ug/L	0.0005340	1.633	0.04373
Pb2203_A		0.05386	ug/L	0.7131	1,324	-0.3512
Sb2068_A		-0.3365	ug/L	0.4971	147.7	-0.5500
Se1960_A		0.8231	ug/L	0.03668	4.456	2.088
Si2516_R		341.3	ug/L	5.483	1.606	188.3
Sn1899_A		0.4322	ug/L	0.3952	91.45	0.9921
Sr4215_R		587.1	ug/L	4.402	0.7497	56,080
Ti3349_A		-0.2399	ug/L	0.1149	47.89	-5.407
Tl1908_A		-0.01308	ug/L	0.03994	305.4	-1.287
V_2924_A		0.3002	ug/L	0.04833	16.10	-1.252
Zn2062_A		6.187	ug/L	0.2348	3.795	13.78
Y_3600_R		16,356	Cts/S	45.635	0.27901	16,356
Y_2243_A		5,974.9	Cts/S	31.383	0.52524	5,974.9
Y_3600_A		109,060	Cts/S	2,123.8	1.9474	109,060

SO6315-004

Method Name: FAST-2016_NO_AU
Method Revision: 1,021
Analyst Name: EP
Acquire Date: 9/24/2021 2:55:58PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.1056	ug/L	0.07033	66.61	-9.658
Al3961_R		-25.83	ug/L	0.8275	3.204	116.8
As1891_A		-0.6242	ug/L	0.1012	16.21	-2.784
B_2089_A		111.1	ug/L	0.05693	0.05124	151.7
Ba4554_R		284.1	ug/L	0.9713	0.3419	23,640
Be3130_R		0.04088	ug/L	0.01767	43.24	-4.090
Ca3158_R	W	158,200	ug/L	1,732	1.095	184,300
Cd2265_A		-0.01495	ug/L	0.05004	334.8	-1.932
Co2286_A		-0.3150	ug/L	0.004745	1.506	-0.3611
Cr2677_A		6.742	ug/L	0.1198	1.777	66.01
Cu3273_A		1.850	ug/L	0.001193	0.06451	18.33
Fe2599_R		12.11	ug/L	0.9944	8.213	31.22
K_7664_R		17,800	ug/L	47.63	0.2677	11,280
Li6707_R		6.204	ug/L	0.5553	8.950	126.5
Mg2025_A		283.2	ug/L	0.06094	0.02152	85.01
Mn2576_R		0.8055	ug/L	0.3120	38.73	6.399
Mo2020_A		2.058	ug/L	0.1727	8.392	5.894
Na5895_R		6,933	ug/L	55.30	0.7977	16,130
Ni2316_A		-0.02373	ug/L	0.0009040	3.809	-0.1339

SO6315-004

Method Name: FAST-2016_NO_AU
Method Revision: 1,021
Analyst Name: EP
Acquire Date: 9/24/2021 2:55:58PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		0.1710	ug/L	0.1358	79.42	-0.2546
Sb2068_A		-0.6478	ug/L	0.3908	60.33	-0.7138
Se1960_A		1.668	ug/L	1.255	75.23	2.309
Si2516_R		1,551	ug/L	14.10	0.9093	803.6
Sn1899_A		0.2237	ug/L	0.4766	213.0	0.9146
Sr4215_R		545.6	ug/L	1.660	0.3042	52,940
Ti3349_A		-0.1495	ug/L	0.03450	23.07	-3.644
Tl1908_A		-1.508	ug/L	0.7214	47.84	-1.979
V_2924_A		1.435	ug/L	0.2328	16.22	10.40
Zn2062_A		9.446	ug/L	0.1558	1.649	21.13
Y_3600_R		16,614	Cts/S	53.459	0.32178	16,614
Y_2243_A		6,040.7	Cts/S	17.072	0.28261	6,040.7
Y_3600_A		109,890	Cts/S	424.82	0.38660	109,890

SO6362-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,021
Analyst Name: EP
Acquire Date: 9/24/2021 3:00:23PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.3811	ug/L	0.2092	54.89	-14.70
Al3961_R		-116.5	ug/L	10.37	8.906	130.2
As1891_A		9.025	ug/L	0.08297	0.9194	0.1775
B_2089_A		370.9	ug/L	2.775	0.7481	487.2
Ba4554_R		38.70	ug/L	0.08139	0.2103	3,195
Be3130_R		-0.02864	ug/L	0.05243	183.1	-11.72
Ca3158_R	W	281,500	ug/L	3,361	1.194	324,100
Cd2265_A		0.5676	ug/L	0.02953	5.203	4.265
Co2286_A		4.062	ug/L	0.1522	3.747	11.94
Cr2677_A		0.6792	ug/L	0.2087	30.74	9.166
Cu3273_A		34.53	ug/L	0.3774	1.093	433.3
Fe2599_R		63.74	ug/L	2.042	3.204	139.0
K_7664_R		8,901	ug/L	60.62	0.6811	5,580
Li6707_R		9.029	ug/L	0.1203	1.333	168.8
Mg2025_A		18,110	ug/L	81.13	0.4479	5,654
Mn2576_R	W	1,308	ug/L	8.138	0.6221	13,050
Mo2020_A		1.740	ug/L	0.01177	0.6762	4.820
Na5895_R		3,676	ug/L	22.23	0.6047	8,460
Ni2316_A		8.213	ug/L	0.03098	0.3771	13.10
Pb2203_A		1.583	ug/L	0.5839	36.89	0.9143
Sb2068_A		3.612	ug/L	0.3399	9.412	1.359
Se1960_A		0.3753	ug/L	1.267	337.5	2.121
Si2516_R		4,162	ug/L	31.76	0.7631	2,100
Sn1899_A		0.7169	ug/L	0.4008	55.91	1.097
Sr4215_R	W	1,143	ug/L	2.653	0.2320	109,700
Ti3349_A		0.3457	ug/L	0.2520	72.91	6.635
Tl1908_A		-2.124	ug/L	0.3681	17.33	-2.800
V_2924_A		2.446	ug/L	0.01809	0.7394	15.98
Zn2062_A		298.2	ug/L	1.396	0.4681	644.2
Y_3600_R		16,416	Cts/S	59.578	0.36292	16,416
Y_2243_A		5,905.1	Cts/S	7.9587	0.13478	5,905.1
Y_3600_A		108,990	Cts/S	202.03	0.18537	108,990

SO6362-002

Method Name: FAST-2016_NO_AU
Method Revision: 1,021
Analyst Name: EP
Acquire Date: 9/24/2021 3:04:50PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SO6362-002

Method Name: FAST-2016_NO_AU
Method Revision: 1,021
Analyst Name: EP
Acquire Date: 9/24/2021 3:04:50PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.03179	ug/L	0.1207	379.9	-8.266
Al3961_R		-118.5	ug/L	6.602	5.572	129.3
As1891_A		11.47	ug/L	0.08043	0.7009	0.9072
B_2089_A		317.7	ug/L	0.1200	0.03779	414.2
Ba4554_R		36.24	ug/L	0.1092	0.3013	2,988
Be3130_R		0.002517	ug/L	0.02302	914.5	-8.205
Ca3158_R	W	283,200	ug/L	6,493	2.292	325,400
Cd2265_A		0.5653	ug/L	0.01571	2.779	4.138
Co2286_A		3.253	ug/L	0.1499	4.609	9.583
Cr2677_A		0.9043	ug/L	0.04170	4.611	11.57
Cu3273_A		103.6	ug/L	0.09042	0.08725	1,305
Fe2599_R		25.80	ug/L	0.4504	1.746	59.42
K_7664_R		9,097	ug/L	2.928	0.03218	5,693
Li6707_R		9.951	ug/L	0.3903	3.922	182.8
Mg2025_A		18,850	ug/L	53.72	0.2851	5,834
Mn2576_R	W	1,721	ug/L	5.404	0.3139	17,150
Mo2020_A		1.831	ug/L	0.2135	11.66	5.002
Na5895_R		4,009	ug/L	9.497	0.2369	9,207
Ni2316_A		7.923	ug/L	0.1419	1.791	12.53
Pb2203_A		0.9819	ug/L	0.03523	3.587	0.4349
Sb2068_A		3.949	ug/L	0.01239	0.3137	1.511
Se1960_A		0.7925	ug/L	0.9560	120.6	2.247
Si2516_R		4,193	ug/L	27.28	0.6506	2,112
Sn1899_A		0.5376	ug/L	0.5743	106.8	1.015
Sr4215_R	W	1,151	ug/L	6.419	0.5575	110,200
Ti3349_A		0.02265	ug/L	0.03147	138.9	-0.06241
Tl1908_A		-1.766	ug/L	0.5837	33.05	-2.805
V_2924_A		2.635	ug/L	0.3694	14.02	16.34
Zn2062_A		234.7	ug/L	0.5649	0.2407	502.9
Y_3600_R		16,386	Cts/S	60.380	0.36848	16,386
Y_2243_A		5,855.1	Cts/S	5.1035	0.087164	5,855.1
Y_3600_A		108,530	Cts/S	63.201	0.058232	108,530

SO6365-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,021
Analyst Name: EP
Acquire Date: 9/24/2021 3:09:16PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.1473	ug/L	0.1772	120.3	-10.43
Al3961_R		73.30	ug/L	8.227	11.22	80.91
As1891_A		-1.927	ug/L	0.8313	43.14	-3.195
B_2089_A		6.684	ug/L	0.3982	5.958	12.31
Ba4554_R		32.80	ug/L	0.1643	0.5008	2,759
Be3130_R		0.06790	ug/L	0.02308	33.98	-1.227
Ca3158_R		1,635	ug/L	1.095	0.06695	1,886
Cd2265_A		0.8041	ug/L	0.01948	2.422	6.854
Co2286_A		0.5077	ug/L	0.02823	5.560	2.012
Cr2677_A		6.836	ug/L	0.06835	0.9998	66.60
Cu3273_A		15.96	ug/L	0.6569	4.115	198.0
Fe2599_R		31.85	ug/L	0.4680	1.469	73.50
K_7664_R		659.3	ug/L	11.31	1.715	427.1
Li6707_R		-0.1911	ug/L	0.6656	348.3	26.18
Mg2025_A		315.2	ug/L	3.801	1.206	95.98
Mn2576_R		61.24	ug/L	0.6274	1.024	620.1
Mo2020_A		0.2225	ug/L	0.008929	4.013	0.7640
Na5895_R	F	258,600	ug/L	2,030	0.7849	604,600
Ni2316_A		2.953	ug/L	0.03220	1.090	4.753

SO6365-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,021
Analyst Name: EP
Acquire Date: 9/24/2021 3:09:16PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		29.00	ug/L	0.7947	2.741	23.81
Sb2068_A		-0.01467	ug/L	0.05785	394.3	-0.3852
Se1960_A		1.272	ug/L	1.161	91.33	2.232
Si2516_R		240.1	ug/L	2.981	1.242	140.8
Sn1899_A		0.7669	ug/L	0.2225	29.01	1.147
Sr4215_R		8.059	ug/L	0.1373	1.704	739.3
Ti3349_A		0.6767	ug/L	0.3643	53.83	13.56
Tl1908_A		-0.6292	ug/L	0.5789	92.01	-1.613
V_2924_A		0.1410	ug/L	0.2580	183.0	-2.464
Zn2062_A		984.0	ug/L	1.951	0.1982	2,181
Y_3600_R		16,707	Cts/S	56.818	0.34008	16,707
Y_2243_A		6,059.5	Cts/S	25.591	0.42232	6,059.5
Y_3600_A		109,290	Cts/S	308.15	0.28196	109,290

SO6365-003

Method Name: FAST-2016_NO_AU
Method Revision: 1,021
Analyst Name: EP
Acquire Date: 9/24/2021 3:13:46PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.08178	ug/L	0.01583	19.35	-9.162
Al3961_R		73.42	ug/L	3.738	5.091	80.36
As1891_A		-2.405	ug/L	1.090	45.31	-3.313
B_2089_A		5.471	ug/L	0.3470	6.342	10.58
Ba4554_R		36.35	ug/L	0.02920	0.08033	3,012
Be3130_R		0.08634	ug/L	0.01283	14.86	0.8541
Ca3158_R		2,179	ug/L	5.217	0.2394	2,488
Cd2265_A		0.5286	ug/L	0.02043	3.865	3.865
Co2286_A		0.6339	ug/L	0.1374	21.68	2.355
Cr2677_A		1.242	ug/L	0.07414	5.970	13.48
Cu3273_A		72.37	ug/L	0.3269	0.4516	908.8
Fe2599_R		27.62	ug/L	0.4050	1.466	63.57
K_7664_R		624.9	ug/L	24.24	3.880	399.5
Li6707_R		-0.6112	ug/L	0.4233	69.25	19.25
Mg2025_A		303.8	ug/L	0.7888	0.2597	91.16
Mn2576_R		117.6	ug/L	1.269	1.078	1,176
Mo2020_A		0.02693	ug/L	0.008170	30.34	0.2101
Na5895_R	F	291,700	ug/L	108.3	0.03713	672,200
Ni2316_A		1.938	ug/L	0.1363	7.034	3.048
Pb2203_A		10.56	ug/L	0.3178	3.011	8.350
Sb2068_A		0.01385	ug/L	0.1890	1,365	-0.3923
Se1960_A		1.795	ug/L	1.527	85.07	2.339
Si2516_R		278.3	ug/L	1.650	0.5930	158.0
Sn1899_A		0.3945	ug/L	0.03708	9.399	0.9808
Sr4215_R		8.596	ug/L	0.03999	0.4652	780.5
Ti3349_A		0.5155	ug/L	0.03950	7.663	10.09
Tl1908_A		-1.140	ug/L	0.1215	10.66	-1.852
V_2924_A		0.09095	ug/L	0.2188	240.6	-2.961
Zn2062_A		265.1	ug/L	0.2090	0.07885	582.4
Y_3600_R		16,470	Cts/S	8.4073	0.051045	16,470
Y_2243_A		6,004.0	Cts/S	24.383	0.40611	6,004.0
Y_3600_A		108,380	Cts/S	345.52	0.31879	108,380

SO6365-005

Method Name: FAST-2016_NO_AU
Method Revision: 1,021
Analyst Name: EP
Acquire Date: 9/24/2021 3:18:15PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SO6365-005

Method Name: FAST-2016_NO_AU
Method Revision: 1,021
Analyst Name: EP
Acquire Date: 9/24/2021 3:18:15PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.2758	ug/L	0.1503	54.48	-12.71
Al3961_R		53.70	ug/L	3.879	7.224	60.48
As1891_A		-2.350	ug/L	1.017	43.28	-3.313
B_2089_A		4.898	ug/L	0.02444	0.4990	9.879
Ba4554_R		42.01	ug/L	0.05863	0.1396	3,508
Be3130_R		0.03326	ug/L	0.01479	44.46	-5.066
Ca3158_R		2,994	ug/L	9.862	0.3294	3,457
Cd2265_A		0.6863	ug/L	0.004490	0.6543	5.577
Co2286_A		0.5587	ug/L	0.1016	18.18	2.145
Cr2677_A		15.31	ug/L	0.05950	0.3886	146.5
Cu3273_A		15.30	ug/L	0.4129	2.700	188.9
Fe2599_R		32.81	ug/L	1.831	5.581	75.08
K_7664_R		735.5	ug/L	1.724	0.2345	472.8
Li6707_R		1.045	ug/L	0.7924	75.80	45.41
Mg2025_A		525.5	ug/L	0.3159	0.06012	162.4
Mn2576_R		39.88	ug/L	0.2087	0.5234	400.8
Mo2020_A		-0.02850	ug/L	0.005137	18.03	0.06191
Na5895_R	F	273,000	ug/L	5,632	2.063	634,400
Ni2316_A		1.203	ug/L	0.08835	7.342	1.858
Pb2203_A		89.13	ug/L	0.6199	0.6956	73.74
Sb2068_A		-0.4259	ug/L	0.2079	48.82	-0.5788
Se1960_A		1.760	ug/L	1.265	71.91	2.334
Si2516_R		299.5	ug/L	0.08470	0.02828	170.0
Sn1899_A		0.4237	ug/L	0.2041	48.18	0.9983
Sr4215_R		11.19	ug/L	0.01046	0.09350	1,039
Ti3349_A		0.3938	ug/L	0.1614	40.98	7.653
Tl1908_A		-1.237	ug/L	0.2519	20.37	-1.872
V_2924_A		0.3375	ug/L	0.3908	115.8	-0.6700
Zn2062_A		102.4	ug/L	0.2826	0.2760	226.4
Y_3600_R		16,606	Cts/S	37.947	0.22851	16,606
Y_2243_A		6,037.1	Cts/S	15.716	0.26033	6,037.1
Y_3600_A		108,950	Cts/S	266.93	0.24501	108,950

CCV

Method Name: FAST-2016_NO_AU
Method Revision: 1,021
Analyst Name: EP
Acquire Date: 9/24/2021 3:22:44PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		498.9	ug/L	1.836	0.3680	9,423
Al3961_R		12,620	ug/L	118.4	0.9381	14,070
As1891_A		491.3	ug/L	0.3544	0.07215	156.7
B_2089_A		498.2	ug/L	1.512	0.3035	723.0
Ba4554_R		498.6	ug/L	1.240	0.2486	42,710
Be3130_R		487.8	ug/L	1.216	0.2492	56,380
Ca3158_R		12,330	ug/L	53.11	0.4307	14,770
Cd2265_A		496.5	ug/L	0.2871	0.05782	5,627
Co2286_A		502.5	ug/L	0.1652	0.03287	1,531
Cr2677_A		491.1	ug/L	1.793	0.3652	4,914
Cu3273_A		493.4	ug/L	3.751	0.7602	6,625
Fe2599_R		12,300	ug/L	35.95	0.2923	26,880
K_7664_R		12,260	ug/L	50.32	0.4105	8,009
Li6707_R		498.4	ug/L	0.8505	0.1706	8,097
Mg2025_A		12,620	ug/L	8.976	0.07112	4,292
Mn2576_R		492.3	ug/L	1.171	0.2378	5,117
Mo2020_A		505.9	ug/L	0.1227	0.02426	1,497
Na5895_R		12,770	ug/L	14.37	0.1126	30,580
Ni2316_A		506.6	ug/L	0.1798	0.03548	887.4

CCV

Method Name: FAST-2016_NO_AU
Method Revision: 1,021
Analyst Name: EP
Acquire Date: 9/24/2021 3:22:44PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		503.4	ug/L	0.1018	0.02023	442.5
Sb2068_A		496.5	ug/L	0.5558	0.1119	259.6
Se1960_A		494.4	ug/L	1.371	0.2773	125.0
Si2516_R		12,740	ug/L	37.88	0.2973	6,666
Sn1899_A		501.0	ug/L	0.5209	0.1040	224.0
Sr4215_R		492.1	ug/L	1.782	0.3620	49,180
Ti3349_A		508.5	ug/L	1.770	0.3480	11,170
Tl1908_A		508.8	ug/L	2.846	0.5594	243.5
V_2924_A		489.9	ug/L	3.158	0.6446	5,029
Zn2062_A		492.5	ug/L	0.1581	0.03210	1,151
Y_3600_R		17,113	Cts/S	36.065	0.21075	17,113
Y_2243_A		6,396.3	Cts/S	6.4347	0.10060	6,396.3
Y_3600_A		115,250	Cts/S	565.49	0.49067	115,250

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,021
Analyst Name: EP
Acquire Date: 9/24/2021 3:26:53PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.2425	ug/L	0.1371	56.52	-3.608
Al3961_R		5.931	ug/L	6.809	114.8	6.379
As1891_A		-0.8644	ug/L	0.6422	74.29	-3.049
B_2089_A		1.339	ug/L	0.1248	9.318	5.494
Ba4554_R		0.1872	ug/L	0.01321	7.056	32.05
Be3130_R		0.2593	ug/L	0.05875	22.66	20.47
Ca3158_R		4.845	ug/L	0.2537	5.236	-24.13
Cd2265_A		0.1377	ug/L	0.03535	25.66	-0.3253
Co2286_A		0.03926	ug/L	0.07191	183.2	0.7085
Cr2677_A		0.5089	ug/L	0.3102	60.96	7.043
Cu3273_A		0.5136	ug/L	0.2072	40.34	1.286
Fe2599_R		11.44	ug/L	0.04334	0.3788	30.02
K_7664_R		31.41	ug/L	22.99	73.20	27.23
Li6707_R		-0.3336	ug/L	0.6163	184.7	24.07
Mg2025_A		3.459	ug/L	0.7547	21.82	-4.694
Mn2576_R		0.4915	ug/L	0.1583	32.20	3.145
Mo2020_A		0.5388	ug/L	0.1598	29.66	1.759
Na5895_R		47.26	ug/L	3.640	7.702	127.6
Ni2316_A		0.1262	ug/L	0.02890	22.90	0.1016
Pb2203_A		-1.002	ug/L	1.055	105.3	-1.314
Sb2068_A		-0.4839	ug/L	0.1007	20.80	-0.6897
Se1960_A		0.3430	ug/L	0.07492	21.84	2.132
Si2516_R		16.97	ug/L	5.649	33.29	27.23
Sn1899_A		-0.1214	ug/L	0.4932	406.1	0.8210
Sr4215_R		0.2394	ug/L	0.02301	9.613	-24.40
Ti3349_A		1.053	ug/L	0.08842	8.396	22.99
Tl1908_A		-0.1607	ug/L	0.05866	36.51	-1.460
V_2924_A		0.2290	ug/L	0.02995	13.08	-1.339
Zn2062_A		0.01887	ug/L	0.07012	371.6	0.3412
Y_3600_R		16,735	Cts/S	409.30	2.4457	16,735
Y_2243_A		6,443.9	Cts/S	4.3195	0.067032	6,443.9
Y_3600_A		117,590	Cts/S	200.74	0.17070	117,590

PQL

Method Name: FAST-2016_NO_AU
Method Revision: 1,021
Analyst Name: EP
Acquire Date: 9/24/2021 3:31:18PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

PQL

Method Name: FAST-2016_NO_AU
Method Revision: 1,021
Analyst Name: EP
Acquire Date: 9/24/2021 3:31:18PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		8.952	ug/L	0.03926	0.4386	162.5
Al3961_R		293.7	ug/L	5.522	1.880	325.7
As1891_A		7.459	ug/L	1.346	18.05	-0.3236
B_2089_A		47.06	ug/L	0.06982	0.1484	70.67
Ba4554_R		5.066	ug/L	0.04092	0.8078	448.9
Be3130_R		4.803	ug/L	0.005257	0.1095	543.9
Ca3158_R		94.49	ug/L	2.477	2.622	82.61
Cd2265_A		4.898	ug/L	0.01545	0.3155	53.83
Co2286_A		9.955	ug/L	0.03274	0.3289	31.06
Cr2677_A		9.517	ug/L	0.1018	1.070	97.61
Cu3273_A		24.18	ug/L	0.4670	1.931	321.0
Fe2599_R		97.59	ug/L	1.319	1.352	218.1
K_7664_R		969.0	ug/L	42.83	4.420	637.3
Li6707_R		96.93	ug/L	0.4966	0.5123	1,593
Mg2025_A		99.65	ug/L	0.4460	0.4475	28.55
Mn2576_R		4.892	ug/L	0.07105	1.452	48.79
Mo2020_A		9.878	ug/L	0.1664	1.684	29.51
Na5895_R		993.5	ug/L	18.04	1.816	2,387
Ni2316_A		9.499	ug/L	0.2434	2.562	16.60
Pb2203_A		4.455	ug/L	0.1278	2.869	3.501
Sb2068_A		7.586	ug/L	0.6234	8.217	3.064
Se1960_A		10.41	ug/L	0.7537	7.239	4.638
Si2516_R		195.5	ug/L	10.25	5.241	120.6
Sn1899_A		97.23	ug/L	0.4413	0.4539	44.38
Sr4215_R		9.676	ug/L	0.08960	0.9260	915.8
Ti3349_A		14.64	ug/L	0.2946	2.012	323.0
Tl1908_A		14.60	ug/L	0.2327	1.594	5.677
V_2924_A		9.602	ug/L	0.005768	0.06007	95.63
Zn2062_A		19.15	ug/L	0.009304	0.04860	45.27
Y_3600_R		17,053	Cts/S	124.22	0.72842	17,053
Y_2243_A		6,425.5	Cts/S	4.2703	0.066459	6,425.5
Y_3600_A		115,980	Cts/S	1,373.4	1.1841	115,980

ICSA

Method Name: FAST-2016_NO_AU
Method Revision: 1,021
Analyst Name: EP
Acquire Date: 9/24/2021 3:35:42PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-4.713	ug/L	0.6572	13.94	-619.4
Al3961_R		505,600	ug/L	2,930	0.5795	533,100
As1891_A		-2.173	ug/L	0.5888	27.10	-12.58
B_2089_A		-0.7273	ug/L	0.1752	24.09	2.118
Ba4554_R		1.679	ug/L	0.09969	5.938	152.0
Be3130_R		-0.02878	ug/L	0.03247	112.8	-11.98
Ca3158_R		469,100	ug/L	7,853	1.674	533,300
Cd2265_A		0.5833	ug/L	0.5693	97.59	303.1
Co2286_A		-0.5876	ug/L	0.1093	18.60	1.068
Cr2677_A		1.449	ug/L	0.2145	14.80	29.48
Cu3273_A		0.8577	ug/L	0.2438	28.42	21.35
Fe2599_R		177,400	ug/L	2,726	1.537	367,200
K_7664_R		17.27	ug/L	32.01	185.4	17.40
Li6707_R		5.555	ug/L	0.3187	5.736	113.5
Mg2025_A		441,500	ug/L	893.6	0.2024	129,800
Mn2576_R		0.5965	ug/L	0.4664	78.19	8.710
Mo2020_A		-2.591	ug/L	0.02134	0.8237	-6.531
Na5895_R		82.58	ug/L	6.384	7.730	203.6
Ni2316_A		1.081	ug/L	0.2212	20.46	-5.561

ICSA

Method Name: FAST-2016_NO_AU
Method Revision: 1,021
Analyst Name: EP
Acquire Date: 9/24/2021 3:35:42PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		-1.961	ug/L	1.433	73.04	-27.29
Sb2068_A		0.8428	ug/L	1.485	176.2	3.814
Se1960_A		2.021	ug/L	2.442	120.8	7.759
Si2516_R		21.64	ug/L	1.979	9.146	14.08
Sn1899_A		5.979	ug/L	0.8206	13.72	3.069
Sr4215_R		4.840	ug/L	0.02679	0.5535	412.4
Ti3349_A		0.8275	ug/L	0.1925	23.27	15.54
Tl1908_A		-0.1105	ug/L	0.4597	416.2	-0.7165
V_2924_A		-2.651	ug/L	0.1141	4.306	5.563
Zn2062_A		0.6373	ug/L	0.3624	56.88	1.549
Y_3600_R		16,214	Cts/S	105.80	0.65252	16,214
Y_2243_A		5,557.1	Cts/S	6.8026	0.12241	5,557.1
Y_3600_A		102,080	Cts/S	684.35	0.67039	102,080

ICSAB

Method Name: FAST-2016_NO_AU
Method Revision: 1,021
Analyst Name: EP
Acquire Date: 9/24/2021 3:40:19PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		213.7	ug/L	0.2180	0.1020	3,029
Al3961_R		510,600	ug/L	2,842	0.5566	539,200
As1891_A		96.99	ug/L	1.555	1.603	15.54
B_2089_A		481.4	ug/L	0.08529	0.01772	611.9
Ba4554_R		488.4	ug/L	1.431	0.2930	39,710
Be3130_R		483.0	ug/L	0.1140	0.02361	52,980
Ca3158_R		471,800	ug/L	714.0	0.1513	537,300
Cd2265_A		908.1	ug/L	0.4512	0.04968	9,288
Co2286_A		451.5	ug/L	0.4046	0.08961	1,208
Cr2677_A		468.3	ug/L	3.674	0.7846	4,142
Cu3273_A		535.7	ug/L	3.164	0.5906	6,347
Fe2599_R		179,000	ug/L	881.9	0.4927	371,100
K_7664_R		20,300	ug/L	147.7	0.7278	12,580
Li6707_R		517.4	ug/L	1.126	0.2177	7,976
Mg2025_A		437,100	ug/L	228.4	0.05227	129,700
Mn2576_R		461.4	ug/L	2.078	0.4504	4,554
Mo2020_A		468.2	ug/L	0.5854	0.1250	1,215
Na5895_R		20,700	ug/L	128.2	0.6195	47,050
Ni2316_A		889.9	ug/L	0.3297	0.03705	1,356
Pb2203_A		42.35	ug/L	0.7484	1.767	6.210
Sb2068_A		606.0	ug/L	4.470	0.7377	281.9
Se1960_A		51.60	ug/L	1.743	3.377	18.71
Si2516_R		2,095	ug/L	2.160	0.1031	1,044
Sn1899_A		455.2	ug/L	2.477	0.5441	178.5
Sr4215_R		484.2	ug/L	0.3794	0.07837	45,920
Ti3349_A		492.9	ug/L	0.4943	0.1003	9,538
Tl1908_A		82.94	ug/L	0.5298	0.6388	34.68
V_2924_A		477.5	ug/L	3.544	0.7423	4,350
Zn2062_A		887.6	ug/L	1.098	0.1237	1,819
Y_3600_R		16,240	Cts/S	61.626	0.37946	16,240
Y_2243_A		5,606.2	Cts/S	3.0563	0.054516	5,606.2
Y_3600_A		101,520	Cts/S	141.32	0.13920	101,520

CCV

Method Name: FAST-2016_NO_AU
Method Revision: 1,021
Analyst Name: EP
Acquire Date: 9/24/2021 3:44:48PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

CCV

Method Name: FAST-2016_NO_AU
Method Revision: 1,021
Analyst Name: EP
Acquire Date: 9/24/2021 3:44:48PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		498.3	ug/L	6.560	1.316	9,416
Al3961_R		12,540	ug/L	143.5	1.144	13,990
As1891_A		494.4	ug/L	0.2246	0.04543	157.0
B_2089_A		500.1	ug/L	1.129	0.2258	722.2
Ba4554_R		497.2	ug/L	0.08546	0.01719	42,630
Be3130_R		486.1	ug/L	0.6821	0.1403	56,230
Ca3158_R		12,300	ug/L	109.0	0.8855	14,750
Cd2265_A		497.7	ug/L	0.4038	0.08115	5,613
Co2286_A		504.7	ug/L	0.3752	0.07434	1,530
Cr2677_A		490.7	ug/L	6.445	1.314	4,913
Cu3273_A		495.2	ug/L	6.193	1.251	6,653
Fe2599_R		12,340	ug/L	26.43	0.2142	26,990
K_7664_R		12,210	ug/L	80.11	0.6558	7,987
Li6707_R		495.7	ug/L	0.2754	0.05556	8,058
Mg2025_A		12,670	ug/L	18.80	0.1483	4,289
Mn2576_R		490.5	ug/L	3.913	0.7978	5,102
Mo2020_A		507.2	ug/L	0.4712	0.09289	1,494
Na5895_R		12,540	ug/L	78.37	0.6250	30,060
Ni2316_A		506.5	ug/L	0.6376	0.1259	883.0
Pb2203_A		503.3	ug/L	1.961	0.3897	440.3
Sb2068_A		498.3	ug/L	2.793	0.5605	259.3
Se1960_A		494.9	ug/L	0.9510	0.1921	124.5
Si2516_R		12,660	ug/L	143.1	1.131	6,627
Sn1899_A		502.2	ug/L	2.878	0.5731	223.5
Sr4215_R		492.1	ug/L	1.875	0.3810	49,220
Ti3349_A		507.8	ug/L	7.688	1.514	11,160
Tl1908_A		508.8	ug/L	0.4579	0.09000	242.3
V_2924_A		488.0	ug/L	7.125	1.460	5,012
Zn2062_A		492.3	ug/L	0.3453	0.07014	1,145
Y_3600_R		17,127	Cts/S	0.45202	0.0026390	17,127
Y_2243_A		6,365.8	Cts/S	4.1414	0.065057	6,365.8
Y_3600_A		115,320	Cts/S	1,308.2	1.1345	115,320

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,021
Analyst Name: EP
Acquire Date: 9/24/2021 3:48:57PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.08738	ug/L	0.1284	147.0	-10.01
Al3961_R		4.582	ug/L	2.412	52.64	4.936
As1891_A		-0.1787	ug/L	0.8009	448.3	-2.817
B_2089_A		1.321	ug/L	0.08717	6.598	5.457
Ba4554_R		0.05822	ug/L	0.02013	34.58	21.72
Be3130_R		0.08320	ug/L	0.04359	52.39	0.5237
Ca3158_R		5.629	ug/L	4.204	74.69	-23.73
Cd2265_A		0.1693	ug/L	0.004279	2.528	0.02840
Co2286_A		0.1248	ug/L	0.03069	24.60	0.9660
Cr2677_A		-0.08216	ug/L	0.05622	68.43	1.009
Cu3273_A		0.4482	ug/L	0.08654	19.31	0.3871
Fe2599_R		9.310	ug/L	0.04867	0.5227	26.04
K_7664_R		13.88	ug/L	30.99	223.3	16.23
Li6707_R		-0.7989	ug/L	0.6957	87.08	16.96
Mg2025_A		15.26	ug/L	3.793	24.85	-0.6622
Mn2576_R		-0.01774	ug/L	0.4233	2,386	-2.057
Mo2020_A		0.6618	ug/L	0.1163	17.58	2.120
Na5895_R		18.12	ug/L	7.471	41.24	60.61
Ni2316_A		0.1239	ug/L	0.04801	38.76	0.09895

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,021
Analyst Name: EP
Acquire Date: 9/24/2021 3:48:57PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		-0.6004	ug/L	0.1801	30.00	-0.9552
Sb2068_A		1.072	ug/L	0.2124	19.81	0.1355
Se1960_A		0.5055	ug/L	1.554	307.4	2.167
Si2516_R		5.878	ug/L	7.572	128.8	22.10
Sn1899_A		-0.3262	ug/L	0.2173	66.61	0.7273
Sr4215_R		0.08991	ug/L	0.02803	31.18	-39.94
Ti3349_A		0.7000	ug/L	0.2246	32.08	15.09
Tl1908_A		-0.2610	ug/L	0.8748	335.2	-1.503
V_2924_A		0.2844	ug/L	0.03651	12.84	-0.7462
Zn2062_A		0.09591	ug/L	0.04913	51.23	0.5226
Y_3600_R		17,112	Cts/S	9.0531	0.052904	17,112
Y_2243_A		6,426.2	Cts/S	16.198	0.25206	6,426.2
Y_3600_A		117,760	Cts/S	566.99	0.48148	117,760

KATAHDIN ANALYTICAL SERVICES, LLC
METALS ANALYSIS RUN INFORMATION SHEET

INSTR. ID: I (Thermo iCAP 6500) **ANALYST**: EP **ANALYSIS DATE**: 09/27/2021

METHOD: ICP
- ☐ 200.7
- ☑ 6010
- ☑ DOD
- ☐ _____

FILE NAME: IOI27A

REVIEWED
Eg 10-01-21
KATAHDIN ANALYTICAL
METALS SECTION

The pHs of all samples that were tested by direct analysis in this analytical run were checked just prior to analysis and confirmed to be <2. The time of preservation of these samples was checked in the "Measured Turbidity and Preservation of Incoming Samples" logbook to verify that they had been preserved at least 16 hours prior to analysis. These verifications were performed by _____ (initals) on _____ (date).

STANDARDS USED:

Standard Name	Standard ID	Prep Date	Expiration Date	Standard Conc.
Cal. Blk/ICB/CCB	MW20520	09/13/2021	09/13/2022	0 ug/L
Standard 1	MW20506	09/10/2021	12/10/2021	Varies by Element
ICV	MW20527	09/20/2021	11/04/2021	Varies by Element
PQL	MW20531	09/21/2021	11/09/2021	Varies by Element
LRS1	MW20535	09/22/2021	11/09/2021	Varies by Element
LRS2	MW20536	09/22/2021	12/21/2021	Varies by Element
ICSA	MW20534	09/22/2021	12/22/2021	Varies by Element
ICSAB	MW20509	09/10/2021	10/05/2021	Varies by Element
CCV	MW20539	09/23/2021	12/10/2021	Varies by Element
Internal Standard	MW20537	09/22/2021	11/02/2021	5.0 mg/L Yttrium

Additional Comments and Notes:

PQL warned high for selenium. Samples accepted at 10x the failing value of the PQL or ½ the true value of the PQL. Non-DoD BQC accepted.

Eg 10-01-21

Dilutions: Some samples were diluted based on history or due to interfering element concentrations.

Dilution preparations are as follows:

2x diln.: 4.0mL of sample (pipet M25) + 4.0mL of MW19407 (pipet M25)

5x diln.: 2.0 mL of sample (pipet M29) + 8.0 mL of MW20520 (pipet M29)

Post Spike: 0.123mL MW20532 (pipet M27) to 6.0mL of sample (pipet M29)

INSTRUMENT RUNLOG

Instrument: ICAP 6500

SAMPLE ID	DF	FILE	DATE	TIME	ANALYST
Blank	1.000	IOI27A	09/27/2021	10:15	EP
Std 1	1.000	IOI27A	09/27/2021	10:19	EP
ICV	1.000	IOI27A	09/27/2021	10:23	EP
ICB	1.000	IOI27A	09/27/2021	10:27	EP
PQL	1.000	IOI27A	09/27/2021	10:32	EP
ICSA	1.000	IOI27A	09/27/2021	10:36	EP
ICSAB	1.000	IOI27A	09/27/2021	10:41	EP
CCV	1.000	IOI27A	09/27/2021	10:45	EP
CCB	1.000	IOI27A	09/27/2021	10:49	EP
LRS1	1.000	IOI27A	09/27/2021	10:54	EP
LRS2	1.000	IOI27A	09/27/2021	10:58	EP
CCV	1.000	IOI27A	09/27/2021	11:03	EP
CCB	1.000	IOI27A	09/27/2021	11:07	EP
LC2WOI24ICW1	1.000	IOI27A	09/27/2021	11:11	EP
LCSWOI24ICW1	1.000	IOI27A	09/27/2021	11:15	EP
PBWOI24ICW1	1.000	IOI27A	09/27/2021	11:20	EP
LCSWOI24ICW3	1.000	IOI27A	09/27/2021	11:24	EP
PBWOI24ICW3	1.000	IOI27A	09/27/2021	11:28	EP
SO6365-004	2.000	IOI27A	09/27/2021	11:33	EP
SO6365-006	2.000	IOI27A	09/27/2021	11:37	EP
SO6185-001	1.000	IOI27A	09/27/2021	11:41	EP
SO6265-009	1.000	IOI27A	09/27/2021	11:46	EP
SO6304-001	1.000	IOI27A	09/27/2021	11:50	EP
CCV	1.000	IOI27A	09/27/2021	11:54	EP
CCB	1.000	IOI27A	09/27/2021	11:58	EP
SO6304-003	1.000	IOI27A	09/27/2021	12:03	EP
SO6304-005	1.000	IOI27A	09/27/2021	12:07	EP
SO6304-006	1.000	IOI27A	09/27/2021	12:12	EP
SO6313-031	1.000	IOI27A	09/27/2021	12:16	EP
SO6313-032	1.000	IOI27A	09/27/2021	12:20	EP
SO6383-001	1.000	IOI27A	09/27/2021	12:25	EP
SO6388-001	1.000	IOI27A	09/27/2021	12:29	EP
SO6390-001	1.000	IOI27A	09/27/2021	12:34	EP
SO6390-002	1.000	IOI27A	09/27/2021	12:38	EP
SO6390-002L	5.000	IOI27A	09/27/2021	12:42	EP
CCV	1.000	IOI27A	09/27/2021	12:47	EP
CCB	1.000	IOI27A	09/27/2021	12:51	EP
SO6390-002A	1.000	IOI27A	09/27/2021	12:55	EP
SO6390-002P	1.000	IOI27A	09/27/2021	12:59	EP
SO6390-002S	1.000	IOI27A	09/27/2021	13:04	EP
SO6390-004	1.000	IOI27A	09/27/2021	13:08	EP
SO6390-005	1.000	IOI27A	09/27/2021	13:12	EP
SO6390-005L	5.000	IOI27A	09/27/2021	13:17	EP
SO6390-005A	1.000	IOI27A	09/27/2021	13:21	EP

SAMPLE ID	DF	FILE	DATE	TIME	ANALYST
SO6390-005P	1.000	IOI27A	09/27/2021	13:25	EP
SO6390-005S	1.000	IOI27A	09/27/2021	13:29	EP
SO6391-001	1.000	IOI27A	09/27/2021	13:34	EP
CCV	1.000	IOI27A	09/27/2021	13:38	EP
CCB	1.000	IOI27A	09/27/2021	13:42	EP
SO6391-002	1.000	IOI27A	09/27/2021	13:46	EP
SO6391-003	1.000	IOI27A	09/27/2021	13:51	EP
SO6392-001	1.000	IOI27A	09/27/2021	13:55	EP
SO6392-002	1.000	IOI27A	09/27/2021	14:00	EP
SO6392-003	1.000	IOI27A	09/27/2021	14:04	EP
SO6392-004	1.000	IOI27A	09/27/2021	14:08	EP
SO6392-005	1.000	IOI27A	09/27/2021	14:13	EP
SO6392-006	1.000	IOI27A	09/27/2021	14:17	EP
SO6392-007	1.000	IOI27A	09/27/2021	14:21	EP
SO6392-008	1.000	IOI27A	09/27/2021	14:26	EP
CCV	1.000	IOI27A	09/27/2021	14:30	EP
CCB	1.000	IOI27A	09/27/2021	14:34	EP
CCV	1.000	IOI27A	09/27/2021	14:39	EP
CCB	1.000	IOI27A	09/27/2021	14:43	EP
PQL	1.000	IOI27A	09/27/2021	14:47	EP
ICSA	1.000	IOI27A	09/27/2021	14:52	EP
ICSAB	1.000	IOI27A	09/27/2021	14:56	EP
CCV	1.000	IOI27A	09/27/2021	15:01	EP
CCB	1.000	IOI27A	09/27/2021	15:05	EP

Intensity Report

Author:

Published: 9/27/2021 3:32:32PM

Notes:

Blank

Method Name: FAST-2016_NO_AU Method Revision: 1,022

Analyst Name: EP

Acquire Date: 9/27/2021 10:15:02AM Sample Type: Standard

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.0001860	Cts/S	0.00001500	7.957	-24.91
Al3961_R		0.0003740	Cts/S	0.0003330	89.13	6.212
As1891_A		-0.0003030	Cts/S	0.00001000	3.350	-2.642
B_2089_A		0.0006470	Cts/S	0.00001900	2.878	5.638
Ba4554_R		0.001004	Cts/S	0.0001120	11.14	16.66
Be3130_R		-0.0006720	Cts/S	0.0001820	27.03	-11.15
Ca3158_R		-0.002062	Cts/S	0.00001700	0.8002	-34.22
Cd2265_A		-0.0002680	Cts/S	0.00002500	9.507	-2.334
Co2286_A		0.0003030	Cts/S	0.0001000	32.92	2.637
Cr2677_A		0.00001300	Cts/S	0.00001500	122.2	1.674
Cu3273_A		-0.0003310	Cts/S	0.00004000	12.21	-44.41
Fe2599_R		0.0004440	Cts/S	0.0001680	37.69	7.380
K_7664_R		-0.002005	Cts/S	0.001044	52.08	-33.30
Li6707_R		-0.0004670	Cts/S	0.0003170	67.90	-7.743
Mg2025_A		-0.0008520	Cts/S	0.00006400	7.469	-7.435
Mn2576_R		0.0002520	Cts/S	0.0001110	44.23	4.183
Mo2020_A		0.00005700	Cts/S	0.00003400	59.10	0.5007
Na5895_R		0.001090	Cts/S	0.001473	135.1	18.05
Ni2316_A		-0.00007600	Cts/S	0.00002000	26.62	-0.6592
Pb2203_A		-0.00005400	Cts/S	0.00001600	29.70	-0.4692
Sb2068_A		0.00002300	Cts/S	0.00001900	84.03	0.1991
Se1960_A		0.0001570	Cts/S	0.00003800	24.24	1.371
Si2516_R		0.001265	Cts/S	0.0001480	11.67	20.99
Sn1899_A		0.0002160	Cts/S	0.0000	0.1820	1.884
Sr4215_R		-0.0008720	Cts/S	0.0003970	45.46	-14.47
Ti3349_A		-0.0001510	Cts/S	0.00003600	24.03	-20.33
Tl1908_A		-0.0002130	Cts/S	0.000005000	2.432	-1.856
V_2924_A		-0.00004000	Cts/S	0.000009000	22.66	-5.304
Zn2062_A		0.00009900	Cts/S	0.00003300	33.52	0.8655
Y_3600_R		16,594	Cts/S	56.099	0.33807	16,594
Y_2243_A		8,719.4	Cts/S	79.895	0.91630	8,719.4
Y_3600_A		134,240	Cts/S	588.21	0.43817	134,240

Std 1

Method Name: FAST-2016_NO_AU Method Revision: 1,022

Analyst Name: EP

Acquire Date: 9/27/2021 10:19:26AM Sample Type: Standard

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.1412	Cts/S	0.0002550	0.1807	18,490
Al3961_R		1.662	Cts/S	0.01228	0.7390	27,430
As1891_A		0.04577	Cts/S	0.0003400	0.7429	390.7
B_2089_A		0.2070	Cts/S	0.0005490	0.2651	1,767
Ba4554_R		4.187	Cts/S	0.03676	0.8780	69,090
Be3130_R		7.035	Cts/S	0.05571	0.7918	116,100
Ca3158_R		2.069	Cts/S	0.007018	0.3392	34,140
Cd2265_A		1.816	Cts/S	0.01193	0.6571	15,500
Co2286_A		0.4433	Cts/S	0.001627	0.3670	3,784
Cr2677_A		0.09923	Cts/S	0.0001790	0.1805	12,990
Cu3273_A		0.1204	Cts/S	0.0006870	0.5702	15,770
Fe2599_R		3.129	Cts/S	0.02548	0.8142	51,630
K_7664_R		1.067	Cts/S	0.006902	0.6468	17,610
Li6707_R		0.8839	Cts/S	0.01019	1.153	14,590

Std 1

Method Name: FAST-2016_NO_AU
Method Revision: 1,022
Analyst Name: EP
Acquire Date: 9/27/2021 10:19:26AM
Sample Type: Standard

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Mg2025_A		1.163	Cts/S	0.0006170	0.05309	9,925
Mn2576_R		0.6868	Cts/S	0.005324	0.7751	11,330
Mo2020_A		0.4161	Cts/S	0.002389	0.5740	3,552
Na5895_R		3.782	Cts/S	0.02571	0.6799	62,410
Ni2316_A		0.2328	Cts/S	0.001177	0.5055	1,987
Pb2203_A		0.1310	Cts/S	0.0007040	0.5370	1,119
Sb2068_A		0.07622	Cts/S	0.0002750	0.3604	650.6
Se1960_A		0.03570	Cts/S	0.0001520	0.4258	304.8
Si2516_R		0.9005	Cts/S	0.006345	0.7046	14,860
Sn1899_A		0.06939	Cts/S	0.0005270	0.7597	592.3
Sr4215_R		5.955	Cts/S	0.04979	0.8361	98,270
Ti3349_A		0.1944	Cts/S	0.002408	1.238	25,460
Tl1908_A		0.07364	Cts/S	0.0001770	0.2405	628.6
V_2924_A		0.1031	Cts/S	0.0005000	0.4854	13,500
Zn2062_A		0.3998	Cts/S	0.003370	0.8430	3,412
Y_3600_R		16,502	Cts/S	44.898	0.27207	16,502
Y_2243_A		8,536.1	Cts/S	19.455	0.22791	8,536.1
Y_3600_A		130,940	Cts/S	506.67	0.38695	130,940

ICV

Method Name: FAST-2016_NO_AU
Method Revision: 1,022
Analyst Name: EP
Acquire Date: 9/27/2021 10:23:32AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		404.4	ug/L	1.751	0.4330	7,255
Al3961_R		10,110	ug/L	103.1	1.020	10,800
As1891_A		384.8	ug/L	1.488	0.3866	146.4
B_2089_A		395.0	ug/L	0.1735	0.04393	691.5
Ba4554_R		403.0	ug/L	4.850	1.204	27,120
Be3130_R		410.4	ug/L	6.221	1.516	46,380
Ca3158_R		10,160	ug/L	168.4	1.658	13,490
Cd2265_A		402.8	ug/L	0.9644	0.2394	6,146
Co2286_A		412.1	ug/L	0.06861	0.01665	1,537
Cr2677_A		407.6	ug/L	0.2599	0.06377	5,150
Cu3273_A		411.7	ug/L	0.3214	0.07806	6,287
Fe2599_R		10,100	ug/L	161.7	1.601	20,320
K_7664_R		13,630	ug/L	172.5	1.265	9,335
Li6707_R		408.7	ug/L	5.457	1.335	5,800
Mg2025_A		10,070	ug/L	3.536	0.03510	3,935
Mn2576_R		409.7	ug/L	5.645	1.378	4,524
Mo2020_A		417.6	ug/L	0.6520	0.1561	1,461
Na5895_R		10,160	ug/L	97.76	0.9622	24,710
Ni2316_A		408.8	ug/L	1.179	0.2884	799.6
Pb2203_A		411.0	ug/L	0.4988	0.1214	452.4
Sb2068_A		397.2	ug/L	0.3008	0.07573	254.5
Se1960_A		395.1	ug/L	0.3555	0.08998	119.4
Si2516_R		10,020	ug/L	178.3	1.779	5,698
Sn1899_A		404.1	ug/L	1.529	0.3783	236.8
Sr4215_R		409.3	ug/L	4.567	1.116	39,160
Ti3349_A		412.8	ug/L	2.287	0.5541	10,210
Tl1908_A		411.3	ug/L	1.909	0.4641	253.5
V_2924_A		411.0	ug/L	0.1274	0.03100	5,390
Zn2062_A		404.1	ug/L	1.678	0.4153	1,358
Y_3600_R		16,068	Cts/S	139.94	0.87088	16,068
Y_2243_A		8,405.5	Cts/S	8.0740	0.096057	8,405.5
Y_3600_A		127,310	Cts/S	79.304	0.062292	127,310

ICB

Method Name: FAST-2016_NO_AU
Method Revision: 1,022
Analyst Name: EP
Acquire Date: 9/27/2021 10:27:41AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.1830	ug/L	0.1260	68.85	-21.04
Al3961_R		-7.992	ug/L	2.591	32.42	-2.559
As1891_A		0.2098	ug/L	0.3529	168.3	-2.536
B_2089_A		1.299	ug/L	0.2182	16.80	7.881
Ba4554_R		0.08854	ug/L	0.1198	135.3	22.25
Be3130_R		0.1090	ug/L	0.007559	6.933	1.513
Ca3158_R		1.609	ug/L	1.961	121.8	-31.37
Cd2265_A		0.08035	ug/L	0.01118	13.91	-1.046
Co2286_A		0.02704	ug/L	0.1725	638.1	2.729
Cr2677_A		0.2093	ug/L	0.02483	11.86	4.382
Cu3273_A		-0.02007	ug/L	0.1664	829.1	-43.92
Fe2599_R		4.574	ug/L	2.700	59.03	16.47
K_7664_R		-3.714	ug/L	6.048	162.8	-35.29
Li6707_R		1.292	ug/L	0.7558	58.48	11.17
Mg2025_A		2.719	ug/L	1.105	40.63	-6.276
Mn2576_R		-0.02505	ug/L	0.06580	262.6	3.811
Mo2020_A		0.6256	ug/L	0.1852	29.60	2.744
Na5895_R		7.444	ug/L	3.335	44.80	35.96
Ni2316_A		0.05531	ug/L	0.01138	20.58	-0.5336
Pb2203_A		0.3486	ug/L	0.1248	35.81	-0.06893
Sb2068_A		0.7452	ug/L	0.5456	73.21	0.6898
Se1960_A		1.560	ug/L	0.6555	42.03	1.838
Si2516_R		25.17	ug/L	0.9259	3.679	35.05
Sn1899_A		0.3494	ug/L	0.1999	57.23	2.077
Sr4215_R		0.07683	ug/L	0.09835	128.0	-6.609
Ti3349_A		0.8041	ug/L	0.1953	24.29	0.6624
Tl1908_A		0.8423	ug/L	0.1953	23.19	-1.304
V_2924_A		0.4443	ug/L	0.1527	34.37	0.8228
Zn2062_A		-0.04936	ug/L	0.1138	230.6	0.6867
Y_3600_R		16,283	Cts/S	501.31	3.0787	16,283
Y_2243_A		8,645.9	Cts/S	56.484	0.65331	8,645.9
Y_3600_A		131,770	Cts/S	447.64	0.33972	131,770

PQL

Method Name: FAST-2016_NO_AU
Method Revision: 1,022
Analyst Name: EP
Acquire Date: 9/27/2021 10:32:05AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		9.373	ug/L	0.1516	1.618	149.1
Al3961_R		294.6	ug/L	3.852	1.308	321.4
As1891_A		8.462	ug/L	0.2661	3.145	0.7421
B_2089_A		47.40	ug/L	0.2709	0.5716	87.28
Ba4554_R		5.082	ug/L	0.1528	3.007	359.1
Be3130_R		5.034	ug/L	0.05000	0.9932	559.7
Ca3158_R		97.84	ug/L	1.919	1.961	97.40
Cd2265_A		5.025	ug/L	0.07067	1.406	75.25
Co2286_A		10.18	ug/L	0.05678	0.5577	40.94
Cr2677_A		10.14	ug/L	0.2633	2.597	132.8
Cu3273_A		24.94	ug/L	0.4031	1.616	349.1
Fe2599_R		101.6	ug/L	1.284	1.264	212.1
K_7664_R		982.8	ug/L	4.523	0.4602	645.1
Li6707_R		100.00	ug/L	0.3530	0.3530	1,418
Mg2025_A		100.7	ug/L	2.803	2.783	32.97
Mn2576_R		5.103	ug/L	0.4019	7.875	60.52
Mo2020_A		9.968	ug/L	0.2600	2.608	35.74
Na5895_R		990.4	ug/L	9.105	0.9194	2,432
Ni2316_A		9.530	ug/L	0.08401	0.8816	18.24

PQL

Method Name: FAST-2016_NO_AU
Method Revision: 1,022
Analyst Name: EP
Acquire Date: 9/27/2021 10:32:05AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		5.651	ug/L	0.08894	1.574	5.824
Sb2068_A		7.883	ug/L	0.1355	1.718	4.672
Se1960_A	W	12.26	ug/L	0.06734	0.5494	5.037
Si2516_R		203.9	ug/L	2.078	1.019	136.4
Sn1899_A		100.5	ug/L	0.7817	0.7782	60.90
Sr4215_R		9.970	ug/L	0.02101	0.2107	943.1
Ti3349_A		15.19	ug/L	0.01437	0.09457	365.6
Tl1908_A		15.71	ug/L	0.2089	1.330	8.043
V_2924_A		10.28	ug/L	0.4447	4.327	133.1
Zn2062_A		19.67	ug/L	0.01934	0.09831	67.71
Y_3600_R		16,120	Cts/S	157.48	0.97694	16,120
Y_2243_A		8,500.3	Cts/S	58.839	0.69220	8,500.3
Y_3600_A		130,370	Cts/S	359.02	0.27538	130,370

ICSA

Method Name: FAST-2016_NO_AU
Method Revision: 1,022
Analyst Name: EP
Acquire Date: 9/27/2021 10:36:29AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.9771	ug/L	0.9591	98.16	-786.7
Al3961_R		513,800	ug/L	361.5	0.07036	521,400
As1891_A		1.264	ug/L	1.256	99.32	-10.25
B_2089_A		-0.01322	ug/L	0.2244	1,697	4.663
Ba4554_R		1.684	ug/L	0.01724	1.023	123.1
Be3130_R		-0.03024	ug/L	0.03339	110.4	-13.87
Ca3158_R		484,700	ug/L	291.7	0.06019	613,900
Cd2265_A		-2.200	ug/L	0.02866	1.303	323.4
Co2286_A		-0.04251	ug/L	0.1575	370.6	4.871
Cr2677_A		1.532	ug/L	0.2218	14.48	38.13
Cu3273_A		-0.9346	ug/L	0.4147	44.37	-24.62
Fe2599_R		187,400	ug/L	210.3	0.1122	358,500
K_7664_R		3.778	ug/L	23.23	614.9	-28.15
Li6707_R		4.237	ug/L	1.010	23.85	50.11
Mg2025_A		437,600	ug/L	1,508	0.3447	149,500
Mn2576_R		1.158	ug/L	0.3877	33.47	15.34
Mo2020_A		-2.929	ug/L	0.1825	6.232	-8.583
Na5895_R		57.49	ug/L	0.9761	1.698	149.6
Ni2316_A		-1.234	ug/L	0.4687	37.99	-11.13
Pb2203_A		-0.9923	ug/L	0.07796	7.856	-37.62
Sb2068_A		-3.069	ug/L	1.650	53.77	3.330
Se1960_A		-0.7162	ug/L	0.04100	5.725	5.716
Si2516_R		26.65	ug/L	6.503	24.40	16.86
Sn1899_A		9.901	ug/L	0.1170	1.182	6.657
Sr4215_R	W	5.083	ug/L	0.07741	1.523	449.6
Ti3349_A		2.225	ug/L	0.3008	13.52	31.24
Tl1908_A		-0.9902	ug/L	0.3915	39.54	-1.428
V_2924_A		-2.416	ug/L	0.05568	2.305	11.77
Zn2062_A		0.9298	ug/L	0.2776	29.85	3.475
Y_3600_R		15,291	Cts/S	77.081	0.50409	15,291
Y_2243_A		7,388.1	Cts/S	16.021	0.21685	7,388.1
Y_3600_A		111,490	Cts/S	2,597.5	2.3299	111,490

ICSAB

Method Name: FAST-2016_NO_AU
Method Revision: 1,022
Analyst Name: EP
Acquire Date: 9/27/2021 10:41:01AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

ICSAB

Method Name: FAST-2016_NO_AU
Method Revision: 1,022
Analyst Name: EP
Acquire Date: 9/27/2021 10:41:01AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		224.6	ug/L	1.466	0.6529	2,818
Al3961_R		515,800	ug/L	3,281	0.6361	528,400
As1891_A		97.66	ug/L	1.546	1.583	22.83
B_2089_A		484.0	ug/L	0.9072	0.1875	746.0
Ba4554_R		497.8	ug/L	2.267	0.4554	32,180
Be3130_R		504.4	ug/L	0.1100	0.02181	54,770
Ca3158_R		481,800	ug/L	1,309	0.2718	616,100
Cd2265_A		931.9	ug/L	1.203	0.1291	12,870
Co2286_A		466.2	ug/L	0.9813	0.2105	1,538
Cr2677_A		486.7	ug/L	3.362	0.6909	5,440
Cu3273_A		551.4	ug/L	3.007	0.5454	7,450
Fe2599_R		184,700	ug/L	608.4	0.3295	356,700
K_7664_R		20,860	ug/L	2.934	0.01407	13,740
Li6707_R		531.9	ug/L	0.3302	0.06209	7,253
Mg2025_A		435,100	ug/L	391.0	0.08985	149,400
Mn2576_R		488.0	ug/L	1.583	0.3244	5,177
Mo2020_A		474.5	ug/L	1.422	0.2997	1,466
Na5895_R		21,070	ug/L	18.81	0.08929	49,200
Ni2316_A		901.0	ug/L	2.027	0.2249	1,544
Pb2203_A		44.53	ug/L	1.000	2.246	6.054
Sb2068_A		607.5	ug/L	3.253	0.5354	348.8
Se1960_A		48.79	ug/L	0.8003	1.640	18.83
Si2516_R		2,171	ug/L	5.773	0.2659	1,189
Sn1899_A		468.2	ug/L	0.3239	0.06918	242.0
Sr4215_R		503.8	ug/L	1.022	0.2029	46,310
Ti3349_A		517.0	ug/L	5.004	0.9679	11,270
Tl1908_A		86.05	ug/L	0.3779	0.4392	46.77
V_2924_A		502.4	ug/L	3.833	0.7630	5,854
Zn2062_A		920.8	ug/L	0.05411	0.005877	2,734
Y_3600_R		15,436	Cts/S	25.781	0.16702	15,436
Y_2243_A		7,422.7	Cts/S	9.5154	0.12819	7,422.7
Y_3600_A		112,250	Cts/S	495.64	0.44155	112,250

CCV

Method Name: FAST-2016_NO_AU
Method Revision: 1,022
Analyst Name: EP
Acquire Date: 9/27/2021 10:45:28AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		516.8	ug/L	1.286	0.2489	9,278
Al3961_R		12,790	ug/L	69.20	0.5410	13,780
As1891_A		506.6	ug/L	1.279	0.2525	190.8
B_2089_A		514.7	ug/L	0.7374	0.1433	885.6
Ba4554_R		503.7	ug/L	0.4818	0.09564	34,170
Be3130_R		507.3	ug/L	1.723	0.3396	57,810
Ca3158_R		12,800	ug/L	93.02	0.7269	17,140
Cd2265_A		518.3	ug/L	1.675	0.3232	7,795
Co2286_A	W	529.2	ug/L	1.226	0.2318	1,945
Cr2677_A		513.9	ug/L	3.527	0.6863	6,492
Cu3273_A		520.1	ug/L	4.231	0.8135	7,951
Fe2599_R		12,730	ug/L	4.032	0.03167	25,810
K_7664_R		12,660	ug/L	86.59	0.6837	8,740
Li6707_R		511.6	ug/L	0.9681	0.1892	7,320
Mg2025_A	W	13,180	ug/L	24.40	0.1850	5,076
Mn2576_R		516.7	ug/L	3.895	0.7538	5,750
Mo2020_A		519.0	ug/L	1.428	0.2751	1,790
Na5895_R		12,740	ug/L	75.80	0.5951	31,220
Ni2316_A		523.1	ug/L	1.808	0.3456	1,009

CCV

Method Name: FAST-2016_NO_AU
Method Revision: 1,022
Analyst Name: EP
Acquire Date: 9/27/2021 10:45:28AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		523.1	ug/L	0.8707	0.1664	567.6
Sb2068_A		517.5	ug/L	1.212	0.2343	326.8
Se1960_A		507.3	ug/L	3.106	0.6123	150.7
Si2516_R		13,070	ug/L	86.10	0.6587	7,486
Sn1899_A		523.4	ug/L	0.7790	0.1488	301.8
Sr4215_R		509.3	ug/L	0.2385	0.04683	49,120
Ti3349_A		525.9	ug/L	5.412	1.029	13,010
Tl1908_A	W	531.3	ug/L	0.4001	0.07530	323.3
V_2924_A		518.7	ug/L	4.836	0.9323	6,803
Zn2062_A		516.2	ug/L	1.816	0.3518	1,710
Y_3600_R		16,198	Cts/S	130.12	0.80329	16,198
Y_2243_A		8,284.5	Cts/S	2.6445	0.031922	8,284.5
Y_3600_A		127,290	Cts/S	710.55	0.55822	127,290

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,022
Analyst Name: EP
Acquire Date: 9/27/2021 10:49:35AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.01359	ug/L	0.06085	447.9	-24.65
Al3961_R		1.240	ug/L	2.952	238.0	7.390
As1891_A		0.6186	ug/L	0.4306	69.60	-2.337
B_2089_A		1.042	ug/L	0.1169	11.22	7.320
Ba4554_R		-0.004400	ug/L	0.03635	826.0	15.90
Be3130_R		0.04625	ug/L	0.01253	27.08	-5.640
Ca3158_R		6.080	ug/L	1.801	29.61	-25.15
Cd2265_A		0.02446	ug/L	0.004683	19.15	-1.887
Co2286_A		-0.1414	ug/L	0.05648	39.94	2.053
Cr2677_A		0.1721	ug/L	0.02241	13.02	3.883
Cu3273_A		0.03925	ug/L	0.2859	728.6	-42.82
Fe2599_R		6.276	ug/L	0.1057	1.684	19.85
K_7664_R		15.33	ug/L	6.772	44.17	-21.78
Li6707_R		0.4516	ug/L	0.6581	145.7	-1.102
Mg2025_A		11.79	ug/L	0.9833	8.340	-2.620
Mn2576_R		-0.1132	ug/L	0.05602	49.48	2.811
Mo2020_A		0.5611	ug/L	0.1187	21.16	2.476
Na5895_R		11.99	ug/L	0.7303	6.088	46.87
Ni2316_A		0.04139	ug/L	0.1161	280.4	-0.5540
Pb2203_A		-0.3775	ug/L	1.177	311.8	-0.8812
Sb2068_A		-0.1245	ug/L	0.2463	197.8	0.1159
Se1960_A		1.618	ug/L	0.4295	26.54	1.829
Si2516_R		11.15	ug/L	2.462	22.07	26.77
Sn1899_A		-0.4177	ug/L	0.2076	49.71	1.595
Sr4215_R		0.04490	ug/L	0.1147	255.5	-9.755
Ti3349_A		0.9335	ug/L	0.06855	7.343	3.973
Tl1908_A		0.2515	ug/L	0.6544	260.2	-1.657
V_2924_A		0.2466	ug/L	0.1160	47.03	-1.867
Zn2062_A		-0.05961	ug/L	0.04875	81.78	0.6405
Y_3600_R		16,138	Cts/S	27.643	0.17129	16,138
Y_2243_A		8,517.1	Cts/S	10.222	0.12001	8,517.1
Y_3600_A		131,270	Cts/S	485.01	0.36947	131,270

LRS1

Method Name: FAST-2016_NO_AU
Method Revision: 1,022
Analyst Name: EP
Acquire Date: 9/27/2021 10:54:00AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

LRS1

Method Name: FAST-2016_NO_AU
Method Revision: 1,022
Analyst Name: EP
Acquire Date: 9/27/2021 10:54:00AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		2,074	ug/L	4.937	0.2380	36,120
Al3961_R		55.40	ug/L	1.667	3.009	266.6
As1891_A		20,010	ug/L	83.07	0.4152	7,376
B_2089_A		20,200	ug/L	117.6	0.5823	32,770
Ba4554_R		19,650	ug/L	97.05	0.4939	1,323,000
Be3130_R		20,040	ug/L	174.1	0.8688	2,268,000
Ca3158_R		30.45	ug/L	1.009	3.312	23.80
Cd2265_A		19,650	ug/L	113.8	0.5791	284,000
Co2286_A		20,760	ug/L	129.0	0.6213	73,460
Cr2677_A		19,890	ug/L	21.95	0.1103	243,400
Cu3273_A		20,940	ug/L	39.13	0.1869	311,500
Fe2599_R		6.835	ug/L	0.4958	7.254	20.91
K_7664_R		15.86	ug/L	8.177	51.56	-21.35
Li6707_R		20,410	ug/L	201.1	0.9850	290,500
Mg2025_A		-2,371	ug/L	3.954	0.1667	226.8
Mn2576_R		20,360	ug/L	141.4	0.6943	225,000
Mo2020_A		5,102	ug/L	23.01	0.4510	16,950
Na5895_R		31.68	ug/L	1.072	3.384	94.62
Ni2316_A		20,460	ug/L	125.7	0.6141	37,890
Pb2203_A		20,990	ug/L	114.8	0.5466	22,020
Sb2068_A		20,700	ug/L	138.4	0.6686	12,590
Se1960_A		20,590	ug/L	135.2	0.6567	5,837
Si2516_R		151.6	ug/L	33.69	22.22	246.8
Sn1899_A		20,250	ug/L	113.5	0.5603	11,190
Sr4215_R		20,040	ug/L	27.05	0.1350	1,920,000
Ti3349_A		20,600	ug/L	41.78	0.2028	494,100
Tl1908_A		20,510	ug/L	118.9	0.5799	12,100
V_2924_A		20,760	ug/L	34.66	0.1670	265,000
Zn2062_A		19,580	ug/L	97.27	0.4968	62,500
Y_3600_R		16,089	Cts/S	28.867	0.17942	16,089
Y_2243_A		7,986.8	Cts/S	48.463	0.60679	7,986.8
Y_3600_A		123,360	Cts/S	247.75	0.20083	123,360

LRS2

Method Name: FAST-2016_NO_AU
Method Revision: 1,022
Analyst Name: EP
Acquire Date: 9/27/2021 10:58:31AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-1.183	ug/L	0.6332	53.53	-951.1
Al3961_R		495,600	ug/L	1,515	0.3058	518,100
As1891_A		-1.393	ug/L	0.3731	26.78	-12.01
B_2089_A		45.55	ug/L	2.846	6.248	72.73
Ba4554_R		3.249	ug/L	0.6168	18.99	230.1
Be3130_R		2.037	ug/L	0.5085	24.96	214.0
Ca3158_R		459,800	ug/L	1,149	0.2499	600,000
Cd2265_A		-2.059	ug/L	0.5071	24.63	397.5
Co2286_A		1.357	ug/L	0.8191	60.35	10.07
Cr2677_A		-2.316	ug/L	0.03345	1.444	-0.3164
Cu3273_A		-1.556	ug/L	0.07350	4.724	5.851
Fe2599_R		225,800	ug/L	1,313	0.5814	445,000
K_7664_R		301,400	ug/L	519.0	0.1722	203,000
Li6707_R		8.130	ug/L	1.077	13.24	105.9
Mg2025_A		183,900	ug/L	259.1	0.1409	62,760
Mn2576_R		12.58	ug/L	0.5200	4.135	46.67
Mo2020_A		1.563	ug/L	1.243	79.53	5.219
Na5895_R		200,900	ug/L	598.1	0.2976	478,700
Ni2316_A		-1.143	ug/L	0.07521	6.582	-12.63

LRS2

Method Name: FAST-2016_NO_AU
Method Revision: 1,022
Analyst Name: EP
Acquire Date: 9/27/2021 10:58:31AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		8.868	ug/L	0.1656	1.867	-25.33
Sb2068_A		0.6357	ug/L	2.685	422.4	6.111
Se1960_A		-1.566	ug/L	1.664	106.2	5.779
Si2516_R		50,410	ug/L	7.964	0.01580	27,990
Sn1899_A		12.84	ug/L	1.613	12.56	8.148
Sr4215_R		8.206	ug/L	0.4758	5.798	756.1
Ti3349_A		13.83	ug/L	1.043	7.542	285.0
Tl1908_A		-0.2057	ug/L	0.2314	112.5	-1.075
V_2924_A		-1.728	ug/L	0.5513	31.89	28.84
Zn2062_A		4.997	ug/L	0.5717	11.44	15.48
Y_3600_R		15,751	Cts/S	30.006	0.19050	15,751
Y_2243_A		7,378.9	Cts/S	9.0786	0.12303	7,378.9
Y_3600_A		112,300	Cts/S	181.16	0.16132	112,300

CCV

Method Name: FAST-2016_NO_AU
Method Revision: 1,022
Analyst Name: EP
Acquire Date: 9/27/2021 11:03:08AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		518.3	ug/L	3.174	0.6124	9,274
Al3961_R		13,010	ug/L	283.0	2.175	13,960
As1891_A		508.0	ug/L	0.2737	0.05388	190.5
B_2089_A	W	527.2	ug/L	2.732	0.5182	902.5
Ba4554_R		514.5	ug/L	7.647	1.486	34,760
Be3130_R		517.5	ug/L	10.62	2.052	58,730
Ca3158_R		12,910	ug/L	269.0	2.084	17,220
Cd2265_A		515.2	ug/L	1.653	0.3209	7,716
Co2286_A		525.6	ug/L	1.464	0.2786	1,923
Cr2677_A		511.7	ug/L	1.230	0.2403	6,442
Cu3273_A		522.0	ug/L	2.187	0.4189	7,954
Fe2599_R		12,880	ug/L	225.1	1.747	26,020
K_7664_R		13,030	ug/L	177.8	1.364	8,961
Li6707_R		525.5	ug/L	8.035	1.529	7,491
Mg2025_A		13,100	ug/L	85.47	0.6526	5,020
Mn2576_R	W	528.2	ug/L	13.66	2.587	5,855
Mo2020_A		518.5	ug/L	1.415	0.2730	1,780
Na5895_R		13,100	ug/L	252.5	1.928	31,980
Ni2316_A		519.7	ug/L	2.011	0.3870	997.6
Pb2203_A		521.4	ug/L	1.015	0.1947	563.4
Sb2068_A		516.8	ug/L	3.221	0.6231	325.0
Se1960_A		507.0	ug/L	0.7781	0.1535	149.9
Si2516_R	W	13,590	ug/L	291.1	2.142	7,753
Sn1899_A		521.0	ug/L	0.09729	0.01867	299.0
Sr4215_R		521.4	ug/L	11.14	2.137	50,090
Ti3349_A	W	531.5	ug/L	2.874	0.5406	13,100
Tl1908_A	W	529.9	ug/L	0.9790	0.1847	321.0
V_2924_A		520.3	ug/L	0.6610	0.1270	6,802
Zn2062_A		512.2	ug/L	0.8864	0.1730	1,689
Y_3600_R		16,136	Cts/S	166.39	1.0312	16,136
Y_2243_A		8,247.9	Cts/S	35.349	0.42858	8,247.9
Y_3600_A		126,860	Cts/S	160.83	0.12678	126,860

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,022
Analyst Name: EP
Acquire Date: 9/27/2021 11:07:16AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,022
Analyst Name: EP
Acquire Date: 9/27/2021 11:07:16AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.06170	ug/L	0.3168	513.5	-22.95
Al3961_R		4.036	ug/L	4.251	105.3	10.46
As1891_A		0.1890	ug/L	0.2193	116.0	-2.461
B_2089_A		9.939	ug/L	0.03666	0.3689	22.25
Ba4554_R		0.1468	ug/L	0.04678	31.86	26.28
Be3130_R		0.1303	ug/L	0.01885	14.46	3.877
Ca3158_R		4.644	ug/L	3.904	84.06	-27.23
Cd2265_A		0.3131	ug/L	0.01364	4.357	2.520
Co2286_A		0.1173	ug/L	0.1459	124.4	2.980
Cr2677_A		0.3210	ug/L	0.08468	26.38	5.744
Cu3273_A		-0.3809	ug/L	0.1225	32.16	-48.82
Fe2599_R		7.450	ug/L	0.5295	7.107	22.35
K_7664_R		79.57	ug/L	3.601	4.526	22.70
Li6707_R		1.651	ug/L	0.2257	13.67	16.13
Mg2025_A		6.379	ug/L	1.215	19.05	-4.650
Mn2576_R		0.2911	ug/L	0.3454	118.6	7.336
Mo2020_A		1.011	ug/L	0.1999	19.77	3.999
Na5895_R		21.66	ug/L	2.836	13.09	70.89
Ni2316_A		0.3478	ug/L	0.1172	33.70	0.05464
Pb2203_A		-0.2047	ug/L	0.3858	188.5	-0.6760
Sb2068_A		0.06644	ug/L	0.2735	411.7	0.2296
Se1960_A		1.689	ug/L	0.4198	24.85	1.818
Si2516_R		16.96	ug/L	0.3874	2.284	30.26
Sn1899_A		0.5634	ug/L	0.1105	19.61	2.134
Sr4215_R		0.1708	ug/L	0.0005330	0.3123	2.349
Ti3349_A		1.890	ug/L	0.02173	1.150	28.00
Tl1908_A		0.1686	ug/L	0.5645	334.9	-1.679
V_2924_A		0.5133	ug/L	0.008048	1.568	1.718
Zn2062_A		0.1844	ug/L	0.06607	35.82	1.445
Y_3600_R		16,235	Cts/S	13.468	0.082957	16,235
Y_2243_A		8,365.7	Cts/S	12.415	0.14840	8,365.7
Y_3600_A		129,500	Cts/S	164.00	0.12664	129,500

LC2WOI24ICW1

Method Name: FAST-2016_NO_AU
Method Revision: 1,022
Analyst Name: EP
Acquire Date: 9/27/2021 11:11:40AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		52.80	ug/L	0.1084	0.2053	914.3
Al3961_R		2,118	ug/L	27.97	1.321	2,298
As1891_A		105.2	ug/L	0.1390	0.1322	37.23
B_2089_A		527.2	ug/L	1.553	0.2947	880.9
Ba4554_R		2,086	ug/L	5.817	0.2789	142,100
Be3130_R		53.10	ug/L	0.3762	0.7085	6,069
Ca3158_R		2,600	ug/L	23.89	0.9190	3,473
Cd2265_A		264.2	ug/L	0.4384	0.1659	3,913
Co2286_A		551.2	ug/L	0.3071	0.05571	2,001
Cr2677_A		210.7	ug/L	0.7120	0.3379	2,645
Cu3273_A		274.4	ug/L	0.9591	0.3495	4,142
Fe2599_R		1,052	ug/L	11.52	1.095	2,151
K_7664_R		10,440	ug/L	65.76	0.6301	7,231
Li6707_R		535.4	ug/L	1.707	0.3188	7,699
Mg2025_A		5,362	ug/L	15.45	0.2881	2,053
Mn2576_R		536.8	ug/L	1.483	0.2762	6,006
Mo2020_A		109.2	ug/L	0.09278	0.08499	372.0
Na5895_R		7,940	ug/L	14.47	0.1823	19,560
Ni2316_A		542.8	ug/L	0.5896	0.1086	1,029

LC2WOI24ICW1

Method Name: FAST-2016_NO_AU
Method Revision: 1,022
Analyst Name: EP
Acquire Date: 9/27/2021 11:11:40AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		110.8	ug/L	0.5434	0.4905	118.5
Sb2068_A		107.8	ug/L	0.5707	0.5294	64.52
Se1960_A		110.8	ug/L	1.113	1.005	33.56
Si2516_R		1,082	ug/L	18.52	1.712	644.8
Sn1899_A		538.1	ug/L	0.2845	0.05288	306.4
Sr4215_R		533.4	ug/L	2.096	0.3930	51,690
Ti3349_A		546.8	ug/L	1.831	0.3350	13,430
Tl1908_A		108.8	ug/L	1.083	0.9962	64.62
V_2924_A		534.1	ug/L	1.694	0.3171	6,999
Zn2062_A		526.0	ug/L	1.590	0.3022	1,722
Y_3600_R		16,276	Cts/S	38.435	0.23614	16,276
Y_2243_A		8,183.6	Cts/S	26.912	0.32886	8,183.6
Y_3600_A		126,460	Cts/S	67.834	0.053641	126,460

LCSWOI24ICW1

Method Name: FAST-2016_NO_AU
Method Revision: 1,022
Analyst Name: EP
Acquire Date: 9/27/2021 11:15:51AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		51.04	ug/L	0.05076	0.09944	884.4
Al3961_R		2,030	ug/L	5.216	0.2570	2,238
As1891_A		102.8	ug/L	0.8200	0.7978	36.39
B_2089_A		513.9	ug/L	1.968	0.3830	860.3
Ba4554_R		2,033	ug/L	5.413	0.2663	140,700
Be3130_R		51.52	ug/L	0.1970	0.3823	5,982
Ca3158_R		2,504	ug/L	10.12	0.4042	3,397
Cd2265_A		257.8	ug/L	0.1232	0.04776	3,825
Co2286_A		537.6	ug/L	0.6554	0.1219	1,955
Cr2677_A		205.5	ug/L	0.7625	0.3710	2,584
Cu3273_A		268.2	ug/L	0.3981	0.1484	4,054
Fe2599_R		1,022	ug/L	1.074	0.1051	2,122
K_7664_R		10,110	ug/L	3.141	0.03108	7,114
Li6707_R		521.2	ug/L	1.249	0.2395	7,614
Mg2025_A		5,243	ug/L	26.27	0.5011	2,010
Mn2576_R		515.7	ug/L	1.056	0.2047	5,862
Mo2020_A		106.4	ug/L	0.1467	0.1379	363.1
Na5895_R		7,677	ug/L	1.846	0.02404	19,220
Ni2316_A		529.4	ug/L	0.7613	0.1438	1,005
Pb2203_A		107.4	ug/L	1.348	1.255	115.0
Sb2068_A		104.8	ug/L	0.1506	0.1437	62.84
Se1960_A		107.3	ug/L	0.8119	0.7567	32.59
Si2516_R		1,032	ug/L	6.492	0.6293	625.7
Sn1899_A		527.1	ug/L	0.5573	0.1057	300.7
Sr4215_R		517.9	ug/L	0.4424	0.08543	50,990
Ti3349_A		533.8	ug/L	3.289	0.6162	13,130
Tl1908_A		106.6	ug/L	0.9098	0.8534	63.42
V_2924_A		522.3	ug/L	0.6288	0.1204	6,855
Zn2062_A		512.7	ug/L	1.777	0.3466	1,682
Y_3600_R		16,535	Cts/S	13.678	0.082717	16,535
Y_2243_A		8,197.9	Cts/S	21.381	0.26081	8,197.9
Y_3600_A		126,650	Cts/S	104.32	0.082365	126,650

PBWOI24ICW1

Method Name: FAST-2016_NO_AU
Method Revision: 1,022
Analyst Name: EP
Acquire Date: 9/27/2021 11:20:03AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

PBWOI24ICW1

Method Name: FAST-2016_NO_AU
Method Revision: 1,022
Analyst Name: EP
Acquire Date: 9/27/2021 11:20:03AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.05669	ug/L	0.6989	1,233	-25.18
Al3961_R		5.927	ug/L	3.888	65.60	12.52
As1891_A		0.1652	ug/L	0.7959	481.7	-2.458
B_2089_A		6.360	ug/L	0.1501	2.360	16.09
Ba4554_R		0.4549	ug/L	0.1283	28.20	47.47
Be3130_R		0.03679	ug/L	0.01757	47.75	-6.826
Ca3158_R		6.851	ug/L	0.1762	2.573	-24.39
Cd2265_A		-0.006624	ug/L	0.01031	155.7	-2.302
Co2286_A		-0.1636	ug/L	0.04498	27.49	1.927
Cr2677_A		0.1942	ug/L	0.1828	94.16	4.123
Cu3273_A		0.5551	ug/L	0.1473	26.54	-34.25
Fe2599_R		11.02	ug/L	0.3341	3.033	29.75
K_7664_R		48.31	ug/L	7.779	16.10	0.9872
Li6707_R		0.3746	ug/L	0.2338	62.42	-2.210
Mg2025_A		3.682	ug/L	0.6332	17.20	-5.686
Mn2576_R		0.2481	ug/L	0.07747	31.22	6.887
Mo2020_A		0.3121	ug/L	0.04507	14.44	1.558
Na5895_R		20.62	ug/L	7.367	35.72	68.66
Ni2316_A		-0.08775	ug/L	0.4015	457.6	-0.7923
Pb2203_A		-0.5223	ug/L	0.1447	27.70	-1.019
Sb2068_A		0.2416	ug/L	1.374	568.8	0.3395
Se1960_A		2.574	ug/L	1.790	69.57	2.069
Si2516_R		12.02	ug/L	2.929	24.37	27.58
Sn1899_A		0.4315	ug/L	0.3189	73.91	2.048
Sr4215_R		0.09777	ug/L	0.007425	7.594	-4.734
Ti3349_A		1.265	ug/L	0.3153	24.92	12.28
Tl1908_A		-0.4762	ug/L	0.6866	144.2	-2.067
V_2924_A		0.1666	ug/L	0.2653	159.2	-2.901
Zn2062_A		0.2766	ug/L	0.1061	38.36	1.745
Y_3600_R		16,320	Cts/S	62.393	0.38232	16,320
Y_2243_A		8,325.1	Cts/S	38.076	0.45736	8,325.1
Y_3600_A		129,730	Cts/S	116.03	0.089444	129,730

LCSWOI214ICW3

Method Name: FAST-2016_NO_AU
Method Revision: 1,022
Analyst Name: EP
Acquire Date: 9/27/2021 11:24:26AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		53.17	ug/L	0.1723	0.3240	928.8
Al3961_R		2,161	ug/L	25.20	1.166	2,362
As1891_A		107.6	ug/L	1.373	1.277	38.17
B_2089_A		532.7	ug/L	1.722	0.3233	890.9
Ba4554_R		2,135	ug/L	5.537	0.2593	146,600
Be3130_R		53.92	ug/L	0.4033	0.7479	6,208
Ca3158_R		2,633	ug/L	16.52	0.6275	3,543
Cd2265_A		267.9	ug/L	0.9676	0.3612	3,971
Co2286_A		559.1	ug/L	3.065	0.5481	2,031
Cr2677_A		213.1	ug/L	0.9431	0.4425	2,698
Cu3273_A		278.5	ug/L	4.280	1.537	4,240
Fe2599_R		1,070	ug/L	9.311	0.8706	2,202
K_7664_R		10,590	ug/L	25.11	0.2372	7,389
Li6707_R		545.6	ug/L	2.810	0.5150	7,903
Mg2025_A		5,399	ug/L	7.631	0.1413	2,069
Mn2576_R		544.3	ug/L	6.751	1.240	6,135
Mo2020_A		110.9	ug/L	0.5005	0.4514	378.2
Na5895_R		8,089	ug/L	29.50	0.3647	20,080
Ni2316_A		551.2	ug/L	2.339	0.4243	1,046

LCSWOI214ICW3

Method Name: FAST-2016_NO_AU
Method Revision: 1,022
Analyst Name: EP
Acquire Date: 9/27/2021 11:24:26AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		111.9	ug/L	0.09241	0.08257	119.8
Sb2068_A		109.2	ug/L	0.3496	0.3201	65.42
Se1960_A		112.0	ug/L	1.275	1.139	33.94
Si2516_R		1,080	ug/L	10.72	0.9922	648.4
Sn1899_A		545.0	ug/L	3.291	0.6038	310.6
Sr4215_R		542.8	ug/L	2.460	0.4531	52,990
Ti3349_A		546.4	ug/L	4.495	0.8227	13,530
Tl1908_A		110.2	ug/L	0.2729	0.2477	65.54
V_2924_A		540.2	ug/L	3.855	0.7136	7,138
Zn2062_A		534.0	ug/L	3.415	0.6394	1,750
Y_3600_R		16,396	Cts/S	96.071	0.58594	16,396
Y_2243_A		8,191.1	Cts/S	6.7131	0.081956	8,191.1
Y_3600_A		127,520	Cts/S	555.58	0.43567	127,520

PBWOI24ICW3

Method Name: FAST-2016_NO_AU
Method Revision: 1,022
Analyst Name: EP
Acquire Date: 9/27/2021 11:28:38AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.04482	ug/L	0.02945	65.71	-23.11
Al3961_R		2.734	ug/L	0.5998	21.94	9.121
As1891_A		0.5710	ug/L	1.124	196.8	-2.294
B_2089_A		5.355	ug/L	0.4501	8.406	14.36
Ba4554_R		0.7348	ug/L	0.1824	24.83	66.86
Be3130_R		0.007930	ug/L	0.04963	625.9	-10.18
Ca3158_R		5.511	ug/L	2.430	44.09	-26.32
Cd2265_A		0.03060	ug/L	0.04568	149.3	-1.741
Co2286_A		-0.2071	ug/L	0.06720	32.45	1.761
Cr2677_A		0.4013	ug/L	0.08821	21.98	6.739
Cu3273_A		0.03080	ug/L	0.2118	687.7	-42.07
Fe2599_R		9.845	ug/L	1.025	10.41	27.48
K_7664_R		38.79	ug/L	5.116	13.19	-5.666
Li6707_R		0.1339	ug/L	0.5450	407.0	-5.704
Mg2025_A		6.138	ug/L	0.03414	0.5562	-4.728
Mn2576_R		0.2815	ug/L	0.2764	98.21	7.292
Mo2020_A		0.3462	ug/L	0.2026	58.52	1.669
Na5895_R		17.30	ug/L	1.678	9.700	60.77
Ni2316_A		-0.03011	ug/L	0.2600	863.6	-0.6786
Pb2203_A		-0.5948	ug/L	0.6180	103.9	-1.097
Sb2068_A		-0.2580	ug/L	0.3992	154.7	0.01922
Se1960_A		1.742	ug/L	1.229	70.54	1.818
Si2516_R		18.49	ug/L	2.001	10.82	31.44
Sn1899_A		1.173	ug/L	0.2967	25.30	2.467
Sr4215_R		0.07132	ug/L	0.09411	132.0	-7.325
Ti3349_A		1.186	ug/L	0.2634	22.22	10.24
Tl1908_A		-1.063	ug/L	0.8418	79.22	-2.417
V_2924_A		0.2238	ug/L	0.1573	70.26	-2.104
Zn2062_A		0.5643	ug/L	0.08902	15.78	2.696
Y_3600_R		16,395	Cts/S	53.441	0.32596	16,395
Y_2243_A		8,300.7	Cts/S	63.428	0.76413	8,300.7
Y_3600_A		128,630	Cts/S	2,081.8	1.6184	128,630

SO6365-004

Method Name: FAST-2016_NO_AU
Method Revision: 1,022
Analyst Name: EP
Acquire Date: 9/27/2021 11:33:03AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SO6365-004

Method Name: FAST-2016_NO_AU
Method Revision: 1,022
Analyst Name: EP
Acquire Date: 9/27/2021 11:33:03AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		9.650	ug/L	0.5440	5.637	-662.2
Al3961_R	W	171,500	ug/L	322.4	0.1880	93,820
As1891_A		129.3	ug/L	2.963	2.292	17.34
B_2089_A		20.19	ug/L	0.1842	0.9120	22.62
Ba4554_R		231.6	ug/L	1.829	0.7896	8,014
Be3130_R		6.341	ug/L	0.1540	2.429	-9.067
Ca3158_R		29,820	ug/L	46.29	0.1552	20,340
Cd2265_A		-2.344	ug/L	0.2027	8.648	289.1
Co2286_A		143.1	ug/L	0.9710	0.6788	297.5
Cr2677_A		594.1	ug/L	5.947	1.001	3,754
Cu3273_A		1,387	ug/L	16.81	1.212	10,630
Fe2599_R	W	286,600	ug/L	1,033	0.3604	295,800
K_7664_R		8,613	ug/L	64.20	0.7453	3,005
Li6707_R		287.2	ug/L	2.364	0.8232	2,087
Mg2025_A	W	92,740	ug/L	198.5	0.2140	17,710
Mn2576_R	W	5,600	ug/L	38.78	0.6926	31,680
Mo2020_A		24.30	ug/L	0.04906	0.2019	41.96
Na5895_R		1,399	ug/L	13.53	0.9667	1,763
Ni2316_A		293.2	ug/L	1.885	0.6431	272.4
Pb2203_A		894.6	ug/L	2.853	0.3189	481.9
Sb2068_A		0.1553	ug/L	1.331	857.5	4.310
Se1960_A		-4.086	ug/L	5.483	134.2	3.299
Si2516_R		1,942	ug/L	7.844	0.4038	601.3
Sn1899_A		64.62	ug/L	1.824	2.822	20.24
Sr4215_R		93.03	ug/L	0.5604	0.6025	4,555
Ti3349_A	W	9,686	ug/L	151.0	1.559	119,200
Tl1908_A		-7.449	ug/L	0.8842	11.87	-8.374
V_2924_A		466.1	ug/L	6.658	1.429	3,120
Zn2062_A	W	3,041	ug/L	1.595	0.05245	5,024
Y_3600_R		16,495	Cts/S	8.0739	0.048949	16,495
Y_2243_A		8,257.5	Cts/S	14.546	0.17616	8,257.5
Y_3600_A		126,670	Cts/S	1,482.2	1.1701	126,670

SO6365-006

Method Name: FAST-2016_NO_AU
Method Revision: 1,022
Analyst Name: EP
Acquire Date: 9/27/2021 11:37:23AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		10.01	ug/L	1.376	13.74	-786.1
Al3961_R	W	176,100	ug/L	395.8	0.2248	99,110
As1891_A		109.5	ug/L	0.7197	0.6571	12.86
B_2089_A		21.55	ug/L	0.3352	1.556	23.67
Ba4554_R		357.1	ug/L	0.3987	0.1117	12,700
Be3130_R		8.281	ug/L	0.07348	0.8873	159.9
Ca3158_R		35,850	ug/L	138.1	0.3853	25,170
Cd2265_A		-1.619	ug/L	0.6847	42.29	352.8
Co2286_A		143.1	ug/L	0.5984	0.4182	295.5
Cr2677_A		382.7	ug/L	0.6749	0.1763	2,481
Cu3273_A		875.1	ug/L	1.551	0.1773	6,882
Fe2599_R	W	340,200	ug/L	5,230	1.537	361,300
K_7664_R		10,940	ug/L	57.78	0.5284	3,935
Li6707_R		268.2	ug/L	0.09660	0.03601	2,005
Mg2025_A	W	74,810	ug/L	79.43	0.1062	14,380
Mn2576_R	W	9,304	ug/L	41.64	0.4475	54,180
Mo2020_A		10.80	ug/L	0.1631	1.509	18.78
Na5895_R		1,151	ug/L	22.94	1.994	1,495
Ni2316_A		253.9	ug/L	0.1907	0.07509	235.1

SO6365-006

Method Name: FAST-2016_NO_AU
Method Revision: 1,022
Analyst Name: EP
Acquire Date: 9/27/2021 11:37:23AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		1,119	ug/L	0.6739	0.06021	608.6
Sb2068_A		-5.420	ug/L	0.5230	9.650	2.826
Se1960_A		-7.462	ug/L	1.174	15.73	3.437
Si2516_R		1,890	ug/L	9.872	0.5224	596.0
Sn1899_A		64.40	ug/L	0.7429	1.153	20.32
Sr4215_R		99.77	ug/L	0.04091	0.04100	5,028
Ti3349_A	W	8,295	ug/L	9.396	0.1133	104,200
Tl1908_A		-12.13	ug/L	0.3384	2.791	-10.68
V_2924_A		383.3	ug/L	0.6937	0.1810	2,624
Zn2062_A		1,722	ug/L	6.323	0.3672	2,864
Y_3600_R		16,974	Cts/S	37.735	0.22231	16,974
Y_2243_A		8,313.7	Cts/S	11.248	0.13529	8,313.7
Y_3600_A		129,240	Cts/S	78.746	0.060931	129,240

SO6185-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,022
Analyst Name: EP
Acquire Date: 9/27/2021 11:41:45AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.1165	ug/L	0.2806	240.9	-24.23
Al3961_R		63.36	ug/L	9.594	15.14	80.98
As1891_A		0.5728	ug/L	0.2160	37.71	-2.237
B_2089_A		6.969	ug/L	0.1811	2.598	16.51
Ba4554_R		12.04	ug/L	0.3331	2.766	838.9
Be3130_R		0.003886	ug/L	0.02451	630.8	-10.43
Ca3158_R		6,811	ug/L	77.34	1.136	9,172
Cd2265_A		-0.06469	ug/L	0.03803	58.78	-1.727
Co2286_A		0.08968	ug/L	0.02346	26.16	2.786
Cr2677_A		0.4389	ug/L	0.04711	10.73	7.974
Cu3273_A		0.7553	ug/L	0.1201	15.90	-29.47
Fe2599_R		658.8	ug/L	4.423	0.6714	1,352
K_7664_R		696.5	ug/L	4.820	0.6920	453.2
Li6707_R		1.917	ug/L	0.04062	2.119	20.04
Mg2025_A		3,548	ug/L	10.35	0.2917	1,309
Mn2576_R		840.0	ug/L	7.560	0.9000	9,418
Mo2020_A		0.8458	ug/L	0.009658	1.142	3.223
Na5895_R	W	45,770	ug/L	221.6	0.4842	113,000
Ni2316_A		0.09496	ug/L	0.2534	266.8	-0.4498
Pb2203_A		1.072	ug/L	0.1446	13.49	0.7153
Sb2068_A		-0.8460	ug/L	0.02668	3.154	-0.3276
Se1960_A		2.253	ug/L	1.460	64.77	2.039
Si2516_R		4,354	ug/L	30.62	0.7032	2,525
Sn1899_A		0.4858	ug/L	0.01485	3.057	2.003
Sr4215_R		17.96	ug/L	0.08910	0.4962	1,731
Ti3349_A		4.531	ug/L	0.8786	19.39	91.57
Tl1908_A		-1.065	ug/L	0.3262	30.64	-2.852
V_2924_A		5.791	ug/L	0.3112	5.374	66.88
Zn2062_A		6.505	ug/L	0.1354	2.082	21.67
Y_3600_R		16,316	Cts/S	155.54	0.95329	16,316
Y_2243_A		8,020.9	Cts/S	29.133	0.36322	8,020.9
Y_3600_A		125,470	Cts/S	149.11	0.11884	125,470

SO6265-009

Method Name: FAST-2016_NO_AU
Method Revision: 1,022
Analyst Name: EP
Acquire Date: 9/27/2021 11:46:06AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SO6265-009

Method Name: FAST-2016_NO_AU
Method Revision: 1,022
Analyst Name: EP
Acquire Date: 9/27/2021 11:46:06AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.2640	ug/L	0.02284	8.653	-28.32
Al3961_R		-2.208	ug/L	1.792	81.17	74.34
As1891_A		-0.09845	ug/L	0.6891	699.9	-2.418
B_2089_A		56.87	ug/L	0.4815	0.8465	95.23
Ba4554_R		15.40	ug/L	0.2863	1.859	1,052
Be3130_R		0.08380	ug/L	0.02372	28.30	-1.414
Ca3158_R	W	78,260	ug/L	1,918	2.450	104,100
Cd2265_A		0.2036	ug/L	0.01149	5.643	1.150
Co2286_A		21.71	ug/L	0.1604	0.7387	77.72
Cr2677_A		0.5079	ug/L	0.1460	28.74	9.117
Cu3273_A		1.574	ug/L	0.09183	5.835	-17.15
Fe2599_R		200.4	ug/L	8.080	4.031	410.1
K_7664_R		2,388	ug/L	66.38	2.779	1,609
Li6707_R		81.52	ug/L	2.834	3.477	1,151
Mg2025_A	W	46,520	ug/L	0.2942	0.0006320	16,880
Mn2576_R	W	1,355	ug/L	33.69	2.486	14,970
Mo2020_A		-0.2012	ug/L	0.06287	31.25	-0.2975
Na5895_R	W	35,190	ug/L	872.9	2.481	85,530
Ni2316_A		28.45	ug/L	0.04871	0.1712	51.06
Pb2203_A		2.769	ug/L	0.2263	8.175	2.441
Sb2068_A		-0.1821	ug/L	0.5124	281.4	0.06114
Se1960_A		6.930	ug/L	1.810	26.12	3.367
Si2516_R		15,750	ug/L	394.9	2.507	8,940
Sn1899_A		0.5200	ug/L	0.2174	41.79	1.978
Sr4215_R		281.7	ug/L	8.008	2.843	26,940
Ti3349_A		1.385	ug/L	0.05168	3.730	14.50
Tl1908_A		-1.460	ug/L	0.1845	12.63	-3.282
V_2924_A		-0.1530	ug/L	0.05056	33.04	-12.72
Zn2062_A		45.43	ug/L	0.3924	0.8637	143.4
Y_3600_R		16,071	Cts/S	268.99	1.6737	16,071
Y_2243_A		7,846.4	Cts/S	13.612	0.17349	7,846.4
Y_3600_A		122,880	Cts/S	128.05	0.10421	122,880

SO6304-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,022
Analyst Name: EP
Acquire Date: 9/27/2021 11:50:29AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.08645	ug/L	0.2607	301.6	-26.94
Al3961_R		85.29	ug/L	0.5910	0.6929	119.5
As1891_A		0.02166	ug/L	1.407	6,499	-2.457
B_2089_A		60.06	ug/L	0.3684	0.6133	103.4
Ba4554_R		26.06	ug/L	0.01618	0.06209	1,797
Be3130_R		0.2063	ug/L	0.03521	17.06	12.74
Ca3158_R		23,020	ug/L	51.97	0.2258	31,090
Cd2265_A		0.006576	ug/L	0.02811	427.5	-1.132
Co2286_A		-0.08508	ug/L	0.006919	8.132	2.155
Cr2677_A		0.3099	ug/L	0.03294	10.63	5.565
Cu3273_A		0.03286	ug/L	0.3603	1,097	-40.76
Fe2599_R		450.6	ug/L	5.176	1.149	927.7
K_7664_R		3,540	ug/L	4.351	0.1229	2,438
Li6707_R		1.747	ug/L	0.08173	4.678	17.60
Mg2025_A		4,735	ug/L	42.69	0.9016	1,764
Mn2576_R		65.62	ug/L	0.3449	0.5256	741.2
Mo2020_A		0.1505	ug/L	0.03090	20.54	0.9645
Na5895_R		12,900	ug/L	37.14	0.2881	31,850
Ni2316_A		0.2619	ug/L	0.1650	62.97	-0.1417

SO6304-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,022
Analyst Name: EP
Acquire Date: 9/27/2021 11:50:29AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		0.4412	ug/L	0.1982	44.92	0.04107
Sb2068_A		-0.06363	ug/L	0.4878	766.6	0.1535
Se1960_A		2.177	ug/L	0.2239	10.28	1.913
Si2516_R		5,183	ug/L	6.344	0.1224	3,002
Sn1899_A		0.4399	ug/L	0.2686	61.07	1.994
Sr4215_R		125.0	ug/L	0.2388	0.1911	12,140
Ti3349_A		0.5037	ug/L	0.1451	28.81	-6.727
Tl1908_A		-0.7204	ug/L	0.09989	13.87	-2.192
V_2924_A		0.3718	ug/L	0.4676	125.8	-0.3224
Zn2062_A		5.322	ug/L	0.01426	0.2679	18.02
Y_3600_R		16,322	Cts/S	115.55	0.70792	16,322
Y_2243_A		8,086.5	Cts/S	50.992	0.63058	8,086.5
Y_3600_A		125,900	Cts/S	577.60	0.45879	125,900

CCV

Method Name: FAST-2016_NO_AU
Method Revision: 1,022
Analyst Name: EP
Acquire Date: 9/27/2021 11:54:51AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		516.1	ug/L	5.734	1.111	9,300
Al3961_R		12,740	ug/L	4.127	0.03240	14,080
As1891_A		509.7	ug/L	2.474	0.4855	188.3
B_2089_A		517.0	ug/L	0.4448	0.08603	872.4
Ba4554_R		503.5	ug/L	1.278	0.2538	35,040
Be3130_R		498.9	ug/L	0.5959	0.1195	58,320
Ca3158_R		12,500	ug/L	75.69	0.6057	17,170
Cd2265_A		510.5	ug/L	0.2250	0.04408	7,531
Co2286_A		518.6	ug/L	0.2774	0.05349	1,869
Cr2677_A		501.4	ug/L	7.254	1.447	6,356
Cu3273_A		511.0	ug/L	6.388	1.250	7,838
Fe2599_R		12,440	ug/L	68.49	0.5504	25,880
K_7664_R		12,600	ug/L	20.60	0.1635	8,920
Li6707_R		513.3	ug/L	3.696	0.7201	7,536
Mg2025_A		13,060	ug/L	9.530	0.07297	4,931
Mn2576_R		506.0	ug/L	1.203	0.2378	5,778
Mo2020_A		521.8	ug/L	0.01482	0.002839	1,765
Na5895_R		12,740	ug/L	51.11	0.4011	32,050
Ni2316_A		517.7	ug/L	0.2314	0.04470	979.0
Pb2203_A		517.9	ug/L	0.3645	0.07039	551.2
Sb2068_A		514.9	ug/L	0.04912	0.009539	319.0
Se1960_A		511.3	ug/L	0.3138	0.06138	148.9
Si2516_R		12,900	ug/L	11.55	0.08957	7,578
Sn1899_A		512.8	ug/L	1.292	0.2520	290.0
Sr4215_R		510.3	ug/L	2.064	0.4045	50,500
Ti3349_A		511.7	ug/L	7.054	1.378	12,700
Tl1908_A		526.3	ug/L	0.1190	0.02262	314.1
V_2924_A		502.7	ug/L	5.804	1.155	6,614
Zn2062_A		503.7	ug/L	0.4722	0.09374	1,636
Y_3600_R		16,618	Cts/S	61.438	0.36970	16,618
Y_2243_A		8,125.1	Cts/S	2.8361	0.034906	8,125.1
Y_3600_A		127,740	Cts/S	1,106.8	0.86648	127,740

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,022
Analyst Name: EP
Acquire Date: 9/27/2021 11:58:59AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,022
Analyst Name: EP
Acquire Date: 9/27/2021 11:58:59AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.2538	ug/L	0.3413	134.5	-19.48
Al3961_R		-1.459	ug/L	5.130	351.6	4.469
As1891_A		1.105	ug/L	0.4781	43.27	-2.082
B_2089_A		2.438	ug/L	0.1410	5.783	9.434
Ba4554_R		-0.01877	ug/L	0.04597	245.0	15.03
Be3130_R		0.1379	ug/L	0.06308	45.74	4.702
Ca3158_R		2.439	ug/L	1.427	58.52	-30.33
Cd2265_A		0.1271	ug/L	0.02927	23.03	-0.2926
Co2286_A		-0.06359	ug/L	0.04950	77.84	2.278
Cr2677_A		0.02964	ug/L	0.2301	776.1	1.975
Cu3273_A		0.1685	ug/L	0.2052	121.8	-40.25
Fe2599_R		7.405	ug/L	2.408	32.52	22.27
K_7664_R		35.35	ug/L	9.223	26.09	-8.119
Li6707_R		1.197	ug/L	0.4364	36.46	9.714
Mg2025_A		3.468	ug/L	1.221	35.20	-5.716
Mn2576_R		0.09207	ug/L	0.2088	226.8	5.102
Mo2020_A		0.6341	ug/L	0.2027	31.96	2.654
Na5895_R		9.217	ug/L	1.662	18.04	40.42
Ni2316_A		0.1070	ug/L	0.2070	193.4	-0.4116
Pb2203_A		-0.3182	ug/L	0.4907	154.2	-0.7889
Sb2068_A		0.2377	ug/L	0.2277	95.76	0.3400
Se1960_A		0.9819	ug/L	0.3805	38.76	1.588
Si2516_R		12.15	ug/L	0.8767	7.215	27.59
Sn1899_A		-0.2014	ug/L	0.1692	84.00	1.671
Sr4215_R		0.1113	ug/L	0.01833	16.47	-3.442
Ti3349_A		1.158	ug/L	0.1137	9.813	9.560
Tl1908_A		0.4474	ug/L	0.2011	44.94	-1.488
V_2924_A		0.2561	ug/L	0.2013	78.61	-1.737
Zn2062_A		-0.02858	ug/L	0.07879	275.7	0.7246
Y_3600_R		16,291	Cts/S	421.09	2.5848	16,291
Y_2243_A		8,261.7	Cts/S	19.782	0.23944	8,261.7
Y_3600_A		129,660	Cts/S	2,408.6	1.8577	129,660

SO6304-003

Method Name: FAST-2016_NO_AU
Method Revision: 1,022
Analyst Name: EP
Acquire Date: 9/27/2021 12:03:24PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.9790	ug/L	0.2360	24.11	-184.0
Al3961_R		10.74	ug/L	11.24	104.7	49.41
As1891_A		2.250	ug/L	0.5952	26.45	-2.698
B_2089_A		91.90	ug/L	0.4652	0.5062	153.2
Ba4554_R		55.70	ug/L	0.3279	0.5886	3,855
Be3130_R		0.2900	ug/L	0.007278	2.510	22.53
Ca3158_R	W	33,910	ug/L	151.3	0.4461	46,210
Cd2265_A		-0.6524	ug/L	0.05729	8.782	69.65
Co2286_A		0.2692	ug/L	0.1999	74.27	3.995
Cr2677_A		-0.1319	ug/L	0.3214	243.7	7.679
Cu3273_A		-3.336	ug/L	0.1942	5.822	-52.14
Fe2599_R	W	39,770	ug/L	211.7	0.5323	81,930
K_7664_R		4,677	ug/L	15.86	0.3392	3,260
Li6707_R		3.080	ug/L	0.1901	6.171	37.16
Mg2025_A		7,863	ug/L	53.15	0.6759	2,891
Mn2576_R	W	2,976	ug/L	15.18	0.5103	33,640
Mo2020_A		3.543	ug/L	0.07789	2.198	12.00
Na5895_R	W	34,520	ug/L	103.4	0.2997	85,960
Ni2316_A		-0.2236	ug/L	0.02583	11.55	-2.897

SO6304-003

Method Name: FAST-2016_NO_AU
Method Revision: 1,022
Analyst Name: EP
Acquire Date: 9/27/2021 12:03:24PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		2.137	ug/L	0.5581	26.11	3.148
Sb2068_A		-1.572	ug/L	0.3299	20.99	0.07090
Se1960_A		1.562	ug/L	1.987	127.2	2.579
Si2516_R		9,683	ug/L	13.67	0.1411	5,636
Sn1899_A		0.6782	ug/L	0.7332	108.1	2.097
Sr4215_R		190.7	ug/L	0.7541	0.3955	18,680
Ti3349_A		0.6458	ug/L	0.1330	20.59	-3.161
Tl1908_A		-3.252	ug/L	0.3429	10.54	-5.455
V_2924_A		0.6399	ug/L	0.05113	7.990	0.2466
Zn2062_A		3.183	ug/L	0.1307	4.106	10.93
Y_3600_R		16,464	Cts/S	42.557	0.25849	16,464
Y_2243_A		7,967.2	Cts/S	50.392	0.63250	7,967.2
Y_3600_A		124,720	Cts/S	360.96	0.28942	124,720

SO6304-005

Method Name: FAST-2016_NO_AU
Method Revision: 1,022
Analyst Name: EP
Acquire Date: 9/27/2021 12:07:45PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.2224	ug/L	0.1724	77.51	-44.41
Al3961_R		2,525	ug/L	17.77	0.7036	2,856
As1891_A		2.259	ug/L	0.4360	19.30	-1.787
B_2089_A		11.61	ug/L	0.02611	0.2249	24.76
Ba4554_R		23.67	ug/L	0.4908	2.074	1,701
Be3130_R		1.940	ug/L	0.02571	1.325	200.2
Ca3158_R		3,615	ug/L	36.34	1.005	5,054
Cd2265_A		0.2243	ug/L	0.0006940	0.3092	10.70
Co2286_A		0.5317	ug/L	0.1533	28.83	6.171
Cr2677_A		1.591	ug/L	0.2089	13.13	22.88
Cu3273_A		3.759	ug/L	0.4360	11.60	16.89
Fe2599_R		4,371	ug/L	57.29	1.311	9,303
K_7664_R		1,570	ug/L	19.04	1.213	1,107
Li6707_R		2.924	ug/L	0.5659	19.35	36.03
Mg2025_A		945.6	ug/L	6.708	0.7094	354.4
Mn2576_R		162.9	ug/L	2.043	1.254	1,904
Mo2020_A		1.187	ug/L	0.2699	22.74	4.539
Na5895_R		4,229	ug/L	28.58	0.6757	10,890
Ni2316_A		1.715	ug/L	0.009928	0.5789	2.451
Pb2203_A		5.524	ug/L	0.3716	6.727	5.467
Sb2068_A		-0.01186	ug/L	0.5575	4,702	0.2797
Se1960_A		1.783	ug/L	0.9825	55.11	1.913
Si2516_R		10,050	ug/L	57.54	0.5725	6,044
Sn1899_A		1.197	ug/L	0.3348	27.97	2.469
Sr4215_R		30.29	ug/L	0.3742	1.235	3,051
Ti3349_A		253.9	ug/L	0.9691	0.3817	6,404
Tl1908_A		-0.3362	ug/L	0.2778	82.64	-2.215
V_2924_A		3.727	ug/L	0.02992	0.8029	47.92
Zn2062_A		42.02	ug/L	0.04009	0.09541	139.7
Y_3600_R		16,996	Cts/S	53.955	0.31746	16,996
Y_2243_A		8,261.8	Cts/S	24.035	0.29092	8,261.8
Y_3600_A		130,110	Cts/S	0.20539	0.00015800	130,110

SO6304-006

Method Name: FAST-2016_NO_AU
Method Revision: 1,022
Analyst Name: EP
Acquire Date: 9/27/2021 12:12:06PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SO6304-006

Method Name: FAST-2016_NO_AU
Method Revision: 1,022
Analyst Name: EP
Acquire Date: 9/27/2021 12:12:06PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.1401	ug/L	0.08894	63.46	-33.35
Al3961_R		923.8	ug/L	6.529	0.7067	1,035
As1891_A		0.2239	ug/L	0.3750	167.5	-2.441
B_2089_A		10.63	ug/L	0.09194	0.8646	22.95
Ba4554_R		11.39	ug/L	0.1274	1.118	815.9
Be3130_R		1.451	ug/L	0.01028	0.7083	154.3
Ca3158_R		2,934	ug/L	2.384	0.08127	4,038
Cd2265_A		0.2227	ug/L	0.02874	12.90	3.613
Co2286_A		0.07589	ug/L	0.01991	26.24	3.233
Cr2677_A		0.6080	ug/L	0.01699	2.795	9.736
Cu3273_A		1.599	ug/L	0.3317	20.75	-17.93
Fe2599_R		1,150	ug/L	3.766	0.3274	2,419
K_7664_R		1,057	ug/L	26.65	2.522	723.6
Li6707_R		0.8337	ug/L	0.7448	89.34	4.556
Mg2025_A		673.4	ug/L	1.869	0.2776	248.6
Mn2576_R		72.89	ug/L	0.3314	0.4546	842.8
Mo2020_A		0.4864	ug/L	0.1027	21.12	2.126
Na5895_R		3,921	ug/L	14.34	0.3657	9,955
Ni2316_A		1.133	ug/L	0.07478	6.599	1.481
Pb2203_A		2.504	ug/L	0.4640	18.53	2.213
Sb2068_A		-0.8095	ug/L	0.05090	6.288	-0.2944
Se1960_A		2.393	ug/L	0.3012	12.59	2.018
Si2516_R		7,044	ug/L	33.69	0.4784	4,181
Sn1899_A		0.1984	ug/L	0.5533	278.9	1.886
Sr4215_R		21.54	ug/L	0.1519	0.7055	2,134
Ti3349_A		70.07	ug/L	0.4930	0.7035	1,760
Tl1908_A		-1.515	ug/L	0.3279	21.64	-2.750
V_2924_A		1.080	ug/L	0.5439	50.37	10.04
Zn2062_A		26.33	ug/L	0.02499	0.09491	87.23
Y_3600_R		16,755	Cts/S	91.529	0.54627	16,755
Y_2243_A		8,204.8	Cts/S	32.102	0.39126	8,204.8
Y_3600_A		130,670	Cts/S	1,129.6	0.86449	130,670

SO6313-031

Method Name: FAST-2016_NO_AU
Method Revision: 1,022
Analyst Name: EP
Acquire Date: 9/27/2021 12:16:28PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.09441	ug/L	0.2878	304.8	-35.65
Al3961_R		3,206	ug/L	13.50	0.4211	3,543
As1891_A		4.111	ug/L	0.9590	23.33	-1.008
B_2089_A		38.53	ug/L	0.3875	1.006	67.20
Ba4554_R		59.90	ug/L	0.2080	0.3472	4,177
Be3130_R		0.1370	ug/L	0.0008260	0.6029	3.621
Ca3158_R		10,420	ug/L	12.36	0.1187	14,280
Cd2265_A		-0.09045	ug/L	0.04762	52.64	2.953
Co2286_A		1.916	ug/L	0.1576	8.227	9.313
Cr2677_A		12.14	ug/L	0.04733	0.3897	151.6
Cu3273_A		8.245	ug/L	0.3734	4.529	84.33
Fe2599_R		3,129	ug/L	2.649	0.08465	6,505
K_7664_R		2,562	ug/L	7.494	0.2926	1,784
Li6707_R		5.402	ug/L	0.02547	0.4716	71.51
Mg2025_A		2,000	ug/L	10.44	0.5221	727.6
Mn2576_R		128.3	ug/L	0.2129	0.1660	1,465
Mo2020_A		8.464	ug/L	0.08048	0.9509	28.39
Na5895_R	W	89,930	ug/L	218.7	0.2432	225,700
Ni2316_A		7.726	ug/L	0.1684	2.180	13.54

SO6313-031

Method Name: FAST-2016_NO_AU
Method Revision: 1,022
Analyst Name: EP
Acquire Date: 9/27/2021 12:16:28PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		3.927	ug/L	0.6688	17.03	3.481
Sb2068_A		0.1690	ug/L	0.005968	3.532	0.3810
Se1960_A		1.467	ug/L	0.1031	7.027	1.734
Si2516_R		8,581	ug/L	25.39	0.2959	5,039
Sn1899_A		1.349	ug/L	0.3027	22.43	2.455
Sr4215_R		50.50	ug/L	0.09490	0.1879	4,976
Ti3349_A		21.98	ug/L	0.2635	1.199	512.0
Tl1908_A		-0.5186	ug/L	0.5308	102.3	-2.073
V_2924_A		6.601	ug/L	0.01855	0.2811	79.65
Zn2062_A		25.33	ug/L	0.01661	0.06557	81.18
Y_3600_R		16,592	Cts/S	41.714	0.25141	16,592
Y_2243_A		7,935.5	Cts/S	30.146	0.37989	7,935.5
Y_3600_A		124,160	Cts/S	23.499	0.018927	124,160

SO6313-032

Method Name: FAST-2016_NO_AU
Method Revision: 1,022
Analyst Name: EP
Acquire Date: 9/27/2021 12:20:48PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.06173	ug/L	0.2395	388.0	-23.02
Al3961_R		4.236	ug/L	2.513	59.32	10.90
As1891_A		-0.3540	ug/L	0.1664	47.01	-2.617
B_2089_A		4.845	ug/L	0.2055	4.241	13.33
Ba4554_R		5.984	ug/L	0.1546	2.584	432.3
Be3130_R		0.01638	ug/L	0.001645	10.04	-9.256
Ca3158_R		17.01	ug/L	0.2819	1.657	-10.83
Cd2265_A		-0.01370	ug/L	0.01550	113.1	-2.331
Co2286_A		-0.3821	ug/L	0.1802	47.16	1.099
Cr2677_A		0.3606	ug/L	0.06206	17.21	6.252
Cu3273_A		0.7878	ug/L	0.1891	24.01	-30.50
Fe2599_R		30.85	ug/L	1.815	5.884	71.41
K_7664_R		35.10	ug/L	4.892	13.94	-8.346
Li6707_R		0.8707	ug/L	0.3927	45.10	5.048
Mg2025_A		5.063	ug/L	0.6391	12.62	-5.082
Mn2576_R		0.5045	ug/L	0.4402	87.26	9.901
Mo2020_A		0.1359	ug/L	0.01091	8.027	0.9327
Na5895_R		77.24	ug/L	1.424	1.844	211.9
Ni2316_A		-0.1132	ug/L	0.01912	16.89	-0.8333
Pb2203_A		-0.1978	ug/L	0.8244	416.8	-0.6508
Sb2068_A		-0.2613	ug/L	0.1109	42.43	0.01852
Se1960_A		2.614	ug/L	1.378	52.71	2.051
Si2516_R		23.57	ug/L	6.251	26.52	34.80
Sn1899_A		0.8528	ug/L	0.1407	16.50	2.255
Sr4215_R		0.2644	ug/L	0.08943	33.83	11.61
Ti3349_A		0.3742	ug/L	0.02871	7.673	-10.17
Tl1908_A		-0.1994	ug/L	0.5794	290.6	-1.866
V_2924_A		0.06534	ug/L	0.2990	457.6	-4.256
Zn2062_A		6.683	ug/L	0.1431	2.141	22.72
Y_3600_R		16,593	Cts/S	128.23	0.77278	16,593
Y_2243_A		8,194.6	Cts/S	31.093	0.37943	8,194.6
Y_3600_A		129,430	Cts/S	338.22	0.26132	129,430

SO6383-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,022
Analyst Name: EP
Acquire Date: 9/27/2021 12:25:14PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SO6383-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,022
Analyst Name: EP
Acquire Date: 9/27/2021 12:25:14PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.1082	ug/L	0.09608	88.82	-25.46
Al3961_R		36.65	ug/L	5.321	14.52	84.22
As1891_A		0.7471	ug/L	1.478	197.8	-2.093
B_2089_A		82.98	ug/L	0.4953	0.5968	135.5
Ba4554_R		39.58	ug/L	0.4299	1.086	2,744
Be3130_R		-0.03033	ug/L	0.003673	12.11	-14.71
Ca3158_R	W	41,140	ug/L	474.3	1.153	56,070
Cd2265_A		0.05836	ug/L	0.06908	118.4	-0.9697
Co2286_A		-0.1319	ug/L	0.2037	154.4	1.917
Cr2677_A		0.5772	ug/L	0.1615	27.99	8.646
Cu3273_A		1.724	ug/L	0.2464	14.29	-15.05
Fe2599_R		145.2	ug/L	4.264	2.937	306.4
K_7664_R		11,770	ug/L	103.8	0.8818	8,257
Li6707_R		6.337	ug/L	0.3839	6.059	84.60
Mg2025_A		10,130	ug/L	24.78	0.2448	3,638
Mn2576_R		21.91	ug/L	0.2375	1.084	255.3
Mo2020_A		0.3007	ug/L	0.05887	19.58	1.418
Na5895_R	W	30,840	ug/L	296.8	0.9624	76,800
Ni2316_A		0.3801	ug/L	0.002136	0.5620	0.09381
Pb2203_A		0.2043	ug/L	0.8152	399.0	-0.2071
Sb2068_A		-1.281	ug/L	0.3537	27.61	-0.5818
Se1960_A		1.722	ug/L	1.394	80.94	1.705
Si2516_R		176.6	ug/L	5.669	3.209	123.3
Sn1899_A		-0.08593	ug/L	0.3089	359.4	1.635
Sr4215_R		146.8	ug/L	1.032	0.7027	14,390
Ti3349_A		1.921	ug/L	0.1723	8.967	27.42
Tl1908_A		-0.6659	ug/L	0.5419	81.38	-2.053
V_2924_A		0.1918	ug/L	0.2851	148.7	-2.505
Zn2062_A		6.325	ug/L	0.01506	0.2382	20.46
Y_3600_R		16,465	Cts/S	129.86	0.78874	16,465
Y_2243_A		7,781.6	Cts/S	8.9633	0.11519	7,781.6
Y_3600_A		123,370	Cts/S	250.85	0.20334	123,370

SO6388-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,022
Analyst Name: EP
Acquire Date: 9/27/2021 12:29:36PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.2116	ug/L	0.002899	1.370	-60.80
Al3961_R		833.8	ug/L	9.731	1.167	997.8
As1891_A		1.069	ug/L	0.4978	46.58	-2.035
B_2089_A		169.8	ug/L	0.2145	0.1263	243.0
Ba4554_R		415.7	ug/L	0.7298	0.1756	27,600
Be3130_R		0.07722	ug/L	0.01984	25.69	-4.612
Ca3158_R	W	129,500	ug/L	15.22	0.01176	170,000
Cd2265_A		-0.05697	ug/L	0.07506	131.8	16.95
Co2286_A		2.860	ug/L	0.1255	4.388	11.25
Cr2677_A		4.496	ug/L	0.3529	7.850	55.29
Cu3273_A		14.98	ug/L	0.2421	1.616	171.4
Fe2599_R		10,940	ug/L	8.946	0.08174	21,720
K_7664_R	W	55,610	ug/L	40.10	0.07211	37,660
Li6707_R		52.03	ug/L	0.8509	1.636	721.9
Mg2025_A	W	65,120	ug/L	98.02	0.1505	20,940
Mn2576_R	W	4,148	ug/L	2.773	0.06685	45,190
Mo2020_A		0.3093	ug/L	0.002763	0.8934	1.048
Na5895_R	F	1,068,000	ug/L	1,197	0.1121	2,560,000
Ni2316_A		7.598	ug/L	0.04871	0.6411	11.24

SO6388-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,022
Analyst Name: EP
Acquire Date: 9/27/2021 12:29:36PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		6.389	ug/L	0.04309	0.6745	5.722
Sb2068_A		-1.217	ug/L	1.276	104.9	-0.2769
Se1960_A		3.585	ug/L	0.3767	10.51	2.633
Si2516_R		10,500	ug/L	43.73	0.4166	5,885
Sn1899_A		0.5388	ug/L	0.01900	3.527	1.762
Sr4215_R	W	4,685	ug/L	30.07	0.6419	442,300
Ti3349_A		36.12	ug/L	0.3934	1.089	755.5
Tl1908_A		-4.189	ug/L	0.7687	18.35	-5.849
V_2924_A		2.276	ug/L	0.1750	7.688	7.952
Zn2062_A		33.63	ug/L	0.03041	0.09043	94.22
Y_3600_R		15,853	Cts/S	73.473	0.46346	15,853
Y_2243_A		6,952.7	Cts/S	10.265	0.14764	6,952.7
Y_3600_A		109,950	Cts/S	264.82	0.24086	109,950

SO6390-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,022
Analyst Name: EP
Acquire Date: 9/27/2021 12:34:07PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.03621	ug/L	0.4097	1,131	-23.06
Al3961_R		-7.124	ug/L	9.033	126.8	64.10
As1891_A		-0.7338	ug/L	0.4294	58.51	-2.549
B_2089_A		8.342	ug/L	0.3960	4.748	17.64
Ba4554_R		4.004	ug/L	0.2118	5.290	288.8
Be3130_R		-0.02863	ug/L	0.01409	49.19	-14.26
Ca3158_R	W	71,900	ug/L	456.6	0.6351	96,840
Cd2265_A		-0.01807	ug/L	0.01720	95.21	-2.229
Co2286_A		-0.1297	ug/L	0.2469	190.3	1.862
Cr2677_A		0.5595	ug/L	0.04675	8.355	8.195
Cu3273_A		1.809	ug/L	0.01607	0.8880	-13.56
Fe2599_R		21.96	ug/L	0.5437	2.476	51.91
K_7664_R		1,899	ug/L	18.37	0.9676	1,288
Li6707_R		110.9	ug/L	0.4928	0.4444	1,587
Mg2025_A	W	56,880	ug/L	13.89	0.02442	19,900
Mn2576_R		3.396	ug/L	0.1100	3.239	61.42
Mo2020_A		-0.08713	ug/L	0.06409	73.56	0.1590
Na5895_R	W	82,530	ug/L	104.5	0.1266	203,000
Ni2316_A		-0.08084	ug/L	0.1336	165.3	-0.7153
Pb2203_A		2.035	ug/L	0.2793	13.72	1.618
Sb2068_A		-0.07793	ug/L	0.5639	723.6	0.1254
Se1960_A		1.905	ug/L	0.2169	11.39	1.703
Si2516_R		11,470	ug/L	43.12	0.3760	6,595
Sn1899_A		0.6712	ug/L	0.1290	19.22	1.987
Sr4215_R		303.2	ug/L	0.5442	0.1795	29,350
Ti3349_A		0.8197	ug/L	0.1372	16.74	0.9738
Tl1908_A		-0.3617	ug/L	1.504	415.7	-1.816
V_2924_A		0.03888	ug/L	0.1387	356.8	-4.291
Zn2062_A		2.142	ug/L	0.007441	0.3473	7.234
Y_3600_R		16,263	Cts/S	53.193	0.32708	16,263
Y_2243_A		7,567.2	Cts/S	13.377	0.17678	7,567.2
Y_3600_A		120,450	Cts/S	297.61	0.24709	120,450

SO6390-002

Method Name: FAST-2016_NO_AU
Method Revision: 1,022
Analyst Name: EP
Acquire Date: 9/27/2021 12:38:30PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SO6390-002

Method Name: FAST-2016_NO_AU
Method Revision: 1,022
Analyst Name: EP
Acquire Date: 9/27/2021 12:38:30PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.2501	ug/L	0.3223	128.9	-28.72
Al3961_R		17.25	ug/L	3.520	20.41	33.42
As1891_A		-1.268	ug/L	0.6415	50.58	-2.904
B_2089_A		164.9	ug/L	1.531	0.9287	272.3
Ba4554_R		40.45	ug/L	0.08479	0.2097	2,832
Be3130_R		0.1846	ug/L	0.03058	16.57	10.41
Ca3158_R		8,729	ug/L	132.9	1.522	11,990
Cd2265_A		0.1624	ug/L	0.01441	8.874	0.4769
Co2286_A		10.85	ug/L	0.05249	0.4837	40.93
Cr2677_A		0.2393	ug/L	0.1630	68.12	5.240
Cu3273_A		1.834	ug/L	0.1981	10.80	-13.80
Fe2599_R		143.1	ug/L	1.840	1.286	305.1
K_7664_R		1,132	ug/L	11.26	0.9952	771.5
Li6707_R		11.85	ug/L	0.4194	3.539	166.6
Mg2025_A		4,914	ug/L	20.16	0.4102	1,816
Mn2576_R		602.6	ug/L	7.791	1.293	6,888
Mo2020_A		-0.003998	ug/L	0.2736	6,842	0.4071
Na5895_R		16,030	ug/L	78.25	0.4883	40,320
Ni2316_A		17.06	ug/L	0.002728	0.01599	31.04
Pb2203_A		2.349	ug/L	0.2065	8.792	2.049
Sb2068_A		-0.3302	ug/L	0.3787	114.7	-0.02605
Se1960_A		1.941	ug/L	0.9790	50.45	1.907
Si2516_R		16,440	ug/L	210.2	1.279	9,655
Sn1899_A		0.3663	ug/L	0.8346	227.8	1.935
Sr4215_R		30.70	ug/L	0.1349	0.4395	3,026
Ti3349_A		0.1863	ug/L	0.006733	3.615	-14.62
Tl1908_A		-1.019	ug/L	0.9675	94.92	-2.657
V_2924_A		0.3131	ug/L	0.1318	42.09	-3.596
Zn2062_A		41.85	ug/L	0.1087	0.2597	135.1
Y_3600_R		16,630	Cts/S	175.00	1.0523	16,630
Y_2243_A		8,020.1	Cts/S	39.222	0.48904	8,020.1
Y_3600_A		127,010	Cts/S	1,019.2	0.80246	127,010

SO6390-002L

Method Name: FAST-2016_NO_AU
Method Revision: 1,022
Analyst Name: EP
Acquire Date: 9/27/2021 12:42:51PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.6853	ug/L	2.356	343.8	-26.33
Al3961_R		32.10	ug/L	22.05	68.68	14.94
As1891_A		-0.04251	ug/L	1.327	3,121	-2.434
B_2089_A		168.4	ug/L	1.779	1.056	59.77
Ba4554_R		42.61	ug/L	0.2411	0.5657	610.0
Be3130_R		0.1484	ug/L	0.3000	202.1	-7.708
Ca3158_R		8,747	ug/L	71.61	0.8186	2,376
Cd2265_A		0.1678	ug/L	0.02808	16.73	-1.606
Co2286_A		10.58	ug/L	0.2475	2.339	9.940
Cr2677_A		0.7158	ug/L	0.6254	87.38	3.544
Cu3273_A		2.004	ug/L	0.5684	28.36	-36.09
Fe2599_R		142.2	ug/L	0.7594	0.5341	66.58
K_7664_R		1,384	ug/L	68.80	4.971	163.6
Li6707_R		14.06	ug/L	2.720	19.34	33.60
Mg2025_A		5,073	ug/L	6.497	0.1281	369.8
Mn2576_R		600.9	ug/L	1.470	0.2446	1,377
Mo2020_A		-0.2694	ug/L	0.4972	184.6	0.2718
Na5895_R		16,140	ug/L	27.88	0.1727	8,140
Ni2316_A		17.25	ug/L	2.411	13.97	5.798

SO6390-002L

Method Name: FAST-2016_NO_AU
Method Revision: 1,022
Analyst Name: EP
Acquire Date: 9/27/2021 12:42:51PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		0.4642	ug/L	0.3706	79.84	-0.3326
Sb2068_A		-3.239	ug/L	4.829	149.1	-0.2117
Se1960_A		7.893	ug/L	1.378	17.46	1.731
Si2516_R		16,240	ug/L	62.05	0.3821	1,925
Sn1899_A		-2.748	ug/L	3.915	142.5	1.429
Sr4215_R		30.47	ug/L	0.6083	1.996	589.1
Ti3349_A		1.865	ug/L	0.3216	17.25	-10.07
Tl1908_A		-1.794	ug/L	1.246	69.48	-1.990
V_2924_A		0.4885	ug/L	0.6581	134.7	-4.294
Zn2062_A		49.47	ug/L	0.5834	1.179	32.55
Y_3600_R		16,631	Cts/S	50.624	0.30439	16,631
Y_2243_A		8,022.6	Cts/S	21.126	0.26333	8,022.6
Y_3600_A		127,820	Cts/S	338.31	0.26469	127,820

CCV

Method Name: FAST-2016_NO_AU
Method Revision: 1,022
Analyst Name: EP
Acquire Date: 9/27/2021 12:47:14PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		515.8	ug/L	0.7715	0.1496	9,248
Al3961_R		12,770	ug/L	3.252	0.02547	14,210
As1891_A		511.1	ug/L	1.555	0.3043	185.8
B_2089_A		518.0	ug/L	0.6030	0.1164	860.0
Ba4554_R		505.3	ug/L	3.162	0.6258	35,410
Be3130_R		496.7	ug/L	1.240	0.2496	58,480
Ca3158_R		12,320	ug/L	30.20	0.2451	17,050
Cd2265_A		507.6	ug/L	0.0007840	0.0001540	7,365
Co2286_A		514.0	ug/L	0.6518	0.1268	1,823
Cr2677_A		497.2	ug/L	1.782	0.3585	6,270
Cu3273_A		512.6	ug/L	1.124	0.2193	7,824
Fe2599_R		12,360	ug/L	53.99	0.4367	25,890
K_7664_R		12,640	ug/L	2.172	0.01719	9,013
Li6707_R		516.8	ug/L	2.683	0.5192	7,641
Mg2025_A		13,000	ug/L	27.49	0.2115	4,829
Mn2576_R		499.2	ug/L	1.024	0.2051	5,740
Mo2020_A		524.3	ug/L	1.535	0.2927	1,744
Na5895_R		12,770	ug/L	9.769	0.07650	32,340
Ni2316_A		517.3	ug/L	1.415	0.2735	962.5
Pb2203_A		515.8	ug/L	0.8292	0.1608	540.0
Sb2068_A		513.7	ug/L	0.07826	0.01524	313.0
Se1960_A		514.2	ug/L	0.1051	0.02043	147.3
Si2516_R		12,750	ug/L	26.09	0.2047	7,543
Sn1899_A		509.7	ug/L	1.086	0.2132	283.5
Sr4215_R		511.5	ug/L	1.904	0.3722	50,970
Ti3349_A		503.7	ug/L	1.377	0.2734	12,440
Tl1908_A		520.0	ug/L	1.905	0.3664	305.3
V_2924_A		499.6	ug/L	2.172	0.4349	6,540
Zn2062_A		497.8	ug/L	0.1021	0.02052	1,591
Y_3600_R		16,735	Cts/S	101.37	0.60575	16,735
Y_2243_A		7,993.0	Cts/S	6.6915	0.083717	7,993.0
Y_3600_A		127,090	Cts/S	157.72	0.12411	127,090

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,022
Analyst Name: EP
Acquire Date: 9/27/2021 12:51:22PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,022
Analyst Name: EP
Acquire Date: 9/27/2021 12:51:22PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.2115	ug/L	0.3110	147.0	-20.09
Al3961_R		3.419	ug/L	0.07062	2.066	10.14
As1891_A		1.081	ug/L	0.2341	21.66	-2.060
B_2089_A		1.015	ug/L	0.1177	11.60	6.949
Ba4554_R		0.2543	ug/L	0.2471	97.18	34.86
Be3130_R		0.1792	ug/L	0.01264	7.052	9.856
Ca3158_R		4.403	ug/L	3.005	68.25	-28.60
Cd2265_A		0.1297	ug/L	0.005332	4.111	-0.2517
Co2286_A		0.06115	ug/L	0.0009720	1.589	2.692
Cr2677_A		0.3132	ug/L	0.08519	27.20	5.617
Cu3273_A		-0.07069	ug/L	0.4270	604.0	-43.77
Fe2599_R		6.907	ug/L	2.219	32.12	22.05
K_7664_R		37.71	ug/L	16.31	43.26	-6.618
Li6707_R		1.013	ug/L	1.902	187.6	7.251
Mg2025_A		2.611	ug/L	0.6292	24.10	-5.949
Mn2576_R		0.06416	ug/L	0.2972	463.3	4.981
Mo2020_A		0.5272	ug/L	0.05541	10.51	2.252
Na5895_R		32.42	ug/L	1.095	3.376	101.0
Ni2316_A		-0.008428	ug/L	0.1901	2,256	-0.6239
Pb2203_A		-0.3870	ug/L	0.3085	79.71	-0.8517
Sb2068_A		0.2354	ug/L	0.3637	154.5	0.3332
Se1960_A		2.605	ug/L	0.9866	37.87	2.033
Si2516_R		15.58	ug/L	5.437	34.91	30.58
Sn1899_A		-0.02777	ug/L	0.3354	1,208	1.743
Sr4215_R		0.1725	ug/L	0.01697	9.838	2.610
Ti3349_A		1.081	ug/L	0.09926	9.181	7.597
Tl1908_A		0.5685	ug/L	0.1799	31.64	-1.393
V_2924_A		0.1799	ug/L	0.08711	48.43	-2.725
Zn2062_A		0.006425	ug/L	0.06120	952.5	0.8265
Y_3600_R		16,847	Cts/S	26.027	0.15450	16,847
Y_2243_A		8,139.2	Cts/S	1.1179	0.013735	8,139.2
Y_3600_A		128,940	Cts/S	202.87	0.15734	128,940

SO6390-002A

Method Name: FAST-2016_NO_AU
Method Revision: 1,022
Analyst Name: EP
Acquire Date: 9/27/2021 12:55:47PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		80.37	ug/L	0.6207	0.7723	1,366
Al3961_R		11,570	ug/L	84.91	0.7336	12,750
As1891_A		500.3	ug/L	7.004	1.400	179.4
B_2089_A		678.0	ug/L	7.657	1.129	1,103
Ba4554_R		549.1	ug/L	4.674	0.8513	38,060
Be3130_R		512.1	ug/L	4.324	0.8444	59,640
Ca3158_R		14,010	ug/L	153.8	1.098	19,170
Cd2265_A		505.1	ug/L	5.948	1.178	7,211
Co2286_A		528.0	ug/L	6.432	1.218	1,845
Cr2677_A		500.7	ug/L	2.797	0.5586	6,173
Cu3273_A		527.2	ug/L	1.067	0.2023	7,860
Fe2599_R		5,669	ug/L	77.00	1.358	11,750
K_7664_R		11,210	ug/L	72.03	0.6425	7,903
Li6707_R		533.2	ug/L	2.021	0.3790	7,797
Mg2025_A		10,360	ug/L	133.8	1.292	3,797
Mn2576_R	W	1,085	ug/L	1.488	0.1372	12,330
Mo2020_A		536.9	ug/L	6.303	1.174	1,761
Na5895_R		21,300	ug/L	92.83	0.4358	53,350
Ni2316_A		530.3	ug/L	5.661	1.068	972.9

SO6390-002A

Method Name: FAST-2016_NO_AU
Method Revision: 1,022
Analyst Name: EP
Acquire Date: 9/27/2021 12:55:47PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		515.5	ug/L	6.202	1.203	531.9
Sb2068_A		514.5	ug/L	7.178	1.395	308.8
Se1960_A		515.6	ug/L	6.152	1.193	145.6
Si2516_R		16,430	ug/L	69.96	0.4257	9,614
Sn1899_A		520.5	ug/L	4.429	0.8508	285.4
Sr4215_R		549.9	ug/L	3.026	0.5503	54,200
Ti3349_A		508.1	ug/L	1.456	0.2866	12,260
Tl1908_A		519.3	ug/L	4.804	0.9252	300.2
V_2924_A		508.7	ug/L	0.9494	0.1866	6,506
Zn2062_A		535.5	ug/L	5.555	1.037	1,687
Y_3600_R		16,554	Cts/S	98.048	0.59230	16,554
Y_2243_A		7,879.2	Cts/S	81.178	1.0303	7,879.2
Y_3600_A		124,230	Cts/S	203.62	0.16391	124,230

SO6390-002P

Method Name: FAST-2016_NO_AU
Method Revision: 1,022
Analyst Name: EP
Acquire Date: 9/27/2021 12:59:55PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		53.12	ug/L	0.7796	1.468	912.7
Al3961_R		2,132	ug/L	4.464	0.2094	2,383
As1891_A		108.2	ug/L	0.4942	0.4566	36.67
B_2089_A		703.6	ug/L	3.939	0.5599	1,120
Ba4554_R	W	2,118	ug/L	4.150	0.1960	148,100
Be3130_R		52.14	ug/L	0.09890	0.1897	6,115
Ca3158_R		11,310	ug/L	30.87	0.2731	15,610
Cd2265_A		263.4	ug/L	1.278	0.4850	3,727
Co2286_A		555.9	ug/L	2.438	0.4385	1,928
Cr2677_A		204.4	ug/L	0.9694	0.4742	2,547
Cu3273_A		273.3	ug/L	2.075	0.7590	4,094
Fe2599_R		1,161	ug/L	1.711	0.1473	2,435
K_7664_R		11,440	ug/L	22.17	0.1939	8,135
Li6707_R		538.7	ug/L	2.132	0.3957	7,950
Mg2025_A		10,270	ug/L	40.90	0.3984	3,735
Mn2576_R	W	1,115	ug/L	10.05	0.9014	12,800
Mo2020_A		111.6	ug/L	0.5655	0.5068	363.2
Na5895_R		23,840	ug/L	116.9	0.4902	60,260
Ni2316_A		557.5	ug/L	2.534	0.4546	1,009
Pb2203_A		112.7	ug/L	0.8389	0.7440	115.2
Sb2068_A		109.2	ug/L	0.3111	0.2848	62.51
Se1960_A		112.9	ug/L	0.8402	0.7439	32.74
Si2516_R		16,860	ug/L	72.63	0.4308	9,951
Sn1899_A		534.4	ug/L	2.542	0.4757	290.7
Sr4215_R		558.6	ug/L	0.4371	0.07824	55,560
Ti3349_A		529.1	ug/L	5.309	1.003	12,890
Tl1908_A		106.9	ug/L	0.7148	0.6687	60.33
V_2924_A		519.5	ug/L	4.252	0.8186	6,751
Zn2062_A		560.5	ug/L	4.573	0.8159	1,753
Y_3600_R		16,704	Cts/S	115.73	0.69281	16,704
Y_2243_A		7,818.1	Cts/S	18.634	0.23835	7,818.1
Y_3600_A		125,490	Cts/S	1,173.8	0.93539	125,490

SO6390-002S

Method Name: FAST-2016_NO_AU
Method Revision: 1,022
Analyst Name: EP
Acquire Date: 9/27/2021 1:04:08PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SO6390-002S

Method Name: FAST-2016_NO_AU
Method Revision: 1,022
Analyst Name: EP
Acquire Date: 9/27/2021 1:04:08PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		51.58	ug/L	0.2682	0.5200	877.0
Al3961_R		2,096	ug/L	11.58	0.5527	2,317
As1891_A		104.6	ug/L	0.8238	0.7876	35.36
B_2089_A		686.7	ug/L	1.961	0.2855	1,094
Ba4554_R	W	2,112	ug/L	7.195	0.3408	146,000
Be3130_R		51.86	ug/L	0.03719	0.07171	6,017
Ca3158_R		11,180	ug/L	37.60	0.3363	15,270
Cd2265_A		254.8	ug/L	0.1533	0.06016	3,605
Co2286_A		539.4	ug/L	0.02983	0.005530	1,871
Cr2677_A		202.2	ug/L	0.06194	0.03063	2,495
Cu3273_A		273.3	ug/L	0.05666	0.02074	4,054
Fe2599_R		1,155	ug/L	5.516	0.4778	2,394
K_7664_R		11,290	ug/L	21.06	0.1865	7,942
Li6707_R		539.6	ug/L	0.3960	0.07339	7,876
Mg2025_A		10,050	ug/L	4.419	0.04395	3,658
Mn2576_R	W	1,110	ug/L	0.2459	0.02214	12,610
Mo2020_A		107.5	ug/L	0.4024	0.3742	350.1
Na5895_R		23,790	ug/L	32.07	0.1348	59,470
Ni2316_A		544.2	ug/L	1.126	0.2069	985.5
Pb2203_A		108.2	ug/L	1.271	1.175	110.5
Sb2068_A		106.4	ug/L	0.3671	0.3451	60.90
Se1960_A		108.5	ug/L	2.186	2.015	31.50
Si2516_R		17,580	ug/L	31.95	0.1817	10,260
Sn1899_A		518.8	ug/L	1.048	0.2021	282.3
Sr4215_R		555.5	ug/L	1.427	0.2568	54,650
Ti3349_A		519.5	ug/L	0.6374	0.1227	12,540
Tl1908_A		103.5	ug/L	1.012	0.9772	58.38
V_2924_A		511.9	ug/L	1.539	0.3006	6,589
Zn2062_A		544.4	ug/L	1.153	0.2118	1,703
Y_3600_R		16,522	Cts/S	20.482	0.12397	16,522
Y_2243_A		7,819.0	Cts/S	18.339	0.23455	7,819.0
Y_3600_A		124,290	Cts/S	273.82	0.22032	124,290

SO6390-004

Method Name: FAST-2016_NO_AU
Method Revision: 1,022
Analyst Name: EP
Acquire Date: 9/27/2021 1:08:21PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.1539	ug/L	0.1401	91.00	-24.81
Al3961_R		-5.602	ug/L	1.314	23.46	64.49
As1891_A		-0.5564	ug/L	0.8809	158.3	-2.460
B_2089_A		9.663	ug/L	0.3188	3.299	19.46
Ba4554_R		4.329	ug/L	0.1605	3.708	309.8
Be3130_R		0.06292	ug/L	0.02069	32.89	-3.797
Ca3158_R	W	70,810	ug/L	280.1	0.3956	94,970
Cd2265_A		-0.02908	ug/L	0.04348	149.6	-2.381
Co2286_A		-0.06976	ug/L	0.08399	120.4	2.045
Cr2677_A		0.5588	ug/L	0.1751	31.34	8.103
Cu3273_A		1.070	ug/L	0.07017	6.557	-24.09
Fe2599_R		8.494	ug/L	0.6804	8.010	24.41
K_7664_R		1,773	ug/L	8.069	0.4550	1,196
Li6707_R		110.6	ug/L	0.4195	0.3792	1,577
Mg2025_A	W	56,440	ug/L	323.8	0.5736	19,540
Mn2576_R		-1.157	ug/L	0.09305	8.042	10.38
Mo2020_A		-0.02418	ug/L	0.05334	220.6	0.3538
Na5895_R	W	81,890	ug/L	254.9	0.3112	200,600
Ni2316_A		0.1398	ug/L	0.008480	6.065	-0.3238

SO6390-004

Method Name: FAST-2016_NO_AU
Method Revision: 1,022
Analyst Name: EP
Acquire Date: 9/27/2021 1:08:21PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		2.155	ug/L	0.4840	22.46	1.717
Sb2068_A		-0.1478	ug/L	0.2617	177.2	0.08157
Se1960_A		3.213	ug/L	0.4687	14.59	2.032
Si2516_R		11,370	ug/L	49.03	0.4312	6,512
Sn1899_A		1.001	ug/L	0.3979	39.74	2.137
Sr4215_R		300.6	ug/L	2.074	0.6900	28,980
Ti3349_A		1.366	ug/L	0.2359	17.28	13.63
Tl1908_A		0.5922	ug/L	0.9072	153.2	-1.267
V_2924_A		0.2376	ug/L	0.1641	69.07	-1.767
Zn2062_A		2.301	ug/L	0.1351	5.871	7.633
Y_3600_R		16,195	Cts/S	8.0248	0.049550	16,195
Y_2243_A		7,488.3	Cts/S	29.885	0.39909	7,488.3
Y_3600_A		119,330	Cts/S	194.27	0.16280	119,330

SO6390-005

Method Name: FAST-2016_NO_AU
Method Revision: 1,022
Analyst Name: EP
Acquire Date: 9/27/2021 1:12:45PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.1121	ug/L	0.3986	355.7	-26.72
Al3961_R		22.83	ug/L	0.8398	3.678	38.97
As1891_A		-0.3626	ug/L	0.3716	102.5	-2.543
B_2089_A		169.5	ug/L	0.1224	0.07222	276.7
Ba4554_R		39.90	ug/L	0.8914	2.234	2,815
Be3130_R		0.1634	ug/L	0.03275	20.04	7.966
Ca3158_R		7,784	ug/L	138.3	1.777	10,770
Cd2265_A		0.1608	ug/L	0.004870	3.028	0.7377
Co2286_A		13.28	ug/L	0.2950	2.221	48.99
Cr2677_A		0.1169	ug/L	0.2583	220.9	3.698
Cu3273_A		0.7344	ug/L	0.2264	30.83	-30.31
Fe2599_R		283.8	ug/L	7.315	2.578	602.4
K_7664_R		1,122	ug/L	30.21	2.691	770.6
Li6707_R		11.37	ug/L	0.3743	3.292	160.7
Mg2025_A		4,976	ug/L	9.051	0.1819	1,819
Mn2576_R		601.4	ug/L	7.708	1.282	6,926
Mo2020_A		0.01415	ug/L	0.01735	122.6	0.4604
Na5895_R		16,110	ug/L	314.1	1.949	40,850
Ni2316_A		16.04	ug/L	0.07831	0.4882	28.83
Pb2203_A		3.466	ug/L	0.1083	3.125	3.193
Sb2068_A		0.06265	ug/L	0.3106	495.8	0.2134
Se1960_A		2.085	ug/L	0.1089	5.225	1.928
Si2516_R		16,550	ug/L	232.8	1.407	9,794
Sn1899_A		0.8207	ug/L	0.1955	23.82	2.164
Sr4215_R		29.82	ug/L	0.6427	2.156	2,961
Ti3349_A		0.7208	ug/L	0.1174	16.28	-1.410
Tl1908_A		-0.8718	ug/L	0.2727	31.29	-2.534
V_2924_A		0.2986	ug/L	0.001973	0.6607	-3.719
Zn2062_A		36.61	ug/L	0.1136	0.3103	116.9
Y_3600_R		16,756	Cts/S	65.956	0.39362	16,756
Y_2243_A		7,930.7	Cts/S	22.474	0.28338	7,930.7
Y_3600_A		126,190	Cts/S	18.010	0.014273	126,190

SO6390-005L

Method Name: FAST-2016_NO_AU
Method Revision: 1,022
Analyst Name: EP
Acquire Date: 9/27/2021 1:17:06PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SO6390-005L

Method Name: FAST-2016_NO_AU
Method Revision: 1,022
Analyst Name: EP
Acquire Date: 9/27/2021 1:17:06PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.09087	ug/L	2.474	2,723	-23.67
Al3961_R		-8.774	ug/L	10.87	123.9	5.786
As1891_A		-3.231	ug/L	1.272	39.39	-2.660
B_2089_A		173.4	ug/L	0.1073	0.06185	61.16
Ba4554_R		42.87	ug/L	0.1414	0.3297	617.0
Be3130_R		0.2364	ug/L	0.01650	6.978	-5.684
Ca3158_R		7,852	ug/L	7.823	0.09964	2,141
Cd2265_A		0.05348	ug/L	0.05580	104.3	-1.872
Co2286_A		11.92	ug/L	0.3953	3.316	10.84
Cr2677_A		0.8062	ug/L	0.2208	27.38	3.780
Cu3273_A		0.3834	ug/L	0.8356	218.0	-41.12
Fe2599_R		283.3	ug/L	5.843	2.063	126.0
K_7664_R		1,210	ug/L	24.69	2.040	139.6
Li6707_R		16.79	ug/L	2.241	13.35	41.85
Mg2025_A		5,114	ug/L	13.28	0.2597	371.2
Mn2576_R		605.5	ug/L	0.5221	0.08623	1,395
Mo2020_A		0.4710	ug/L	0.009759	2.072	0.7625
Na5895_R		16,290	ug/L	8.671	0.05322	8,259
Ni2316_A		16.86	ug/L	0.09428	0.5591	5.630
Pb2203_A		5.649	ug/L	3.409	60.34	0.7599
Sb2068_A		-0.1411	ug/L	1.952	1,383	0.1607
Se1960_A		5.720	ug/L	0.6066	10.60	1.600
Si2516_R		16,560	ug/L	31.41	0.1897	1,973
Sn1899_A		2.875	ug/L	1.320	45.89	2.044
Sr4215_R		29.48	ug/L	0.6123	2.077	572.6
Ti3349_A		1.479	ug/L	1.420	96.01	-11.99
Tl1908_A		-1.558	ug/L	0.4291	27.55	-1.953
V_2924_A		0.4264	ug/L	0.003657	0.8577	-4.476
Zn2062_A		44.95	ug/L	0.4311	0.9589	29.53
Y_3600_R		16,722	Cts/S	24.779	0.14819	16,722
Y_2243_A		7,988.4	Cts/S	32.619	0.40833	7,988.4
Y_3600_A		127,990	Cts/S	419.24	0.32754	127,990

SO6390-005A

Method Name: FAST-2016_NO_AU
Method Revision: 1,022
Analyst Name: EP
Acquire Date: 9/27/2021 1:21:30PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		159.0	ug/L	0.2160	0.1359	2,785
Al3961_R		11,320	ug/L	105.8	0.9347	12,740
As1891_A		497.7	ug/L	3.120	0.6270	177.3
B_2089_A		681.3	ug/L	2.926	0.4295	1,101
Ba4554_R		538.4	ug/L	5.947	1.105	38,170
Be3130_R		498.6	ug/L	4.940	0.9907	59,380
Ca3158_R		12,830	ug/L	87.46	0.6818	17,960
Cd2265_A		502.5	ug/L	1.034	0.2057	7,126
Co2286_A		528.6	ug/L	2.147	0.4062	1,835
Cr2677_A		490.6	ug/L	0.7040	0.1435	6,108
Cu3273_A		517.2	ug/L	3.888	0.7519	7,786
Fe2599_R		5,670	ug/L	70.81	1.249	12,020
K_7664_R		11,060	ug/L	84.56	0.7649	7,969
Li6707_R		524.2	ug/L	3.911	0.7462	7,840
Mg2025_A		10,460	ug/L	55.20	0.5276	3,809
Mn2576_R	W	1,064	ug/L	10.60	0.9959	12,370
Mo2020_A		535.4	ug/L	0.3816	0.07128	1,744
Na5895_R		21,220	ug/L	146.1	0.6887	54,350
Ni2316_A		529.7	ug/L	1.687	0.3184	965.2

SO6390-005A

Method Name: FAST-2016_NO_AU
Method Revision: 1,022
Analyst Name: EP
Acquire Date: 9/27/2021 1:21:30PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		513.8	ug/L	3.184	0.6197	526.6
Sb2068_A		512.7	ug/L	4.517	0.8811	305.6
Se1960_A		512.6	ug/L	0.5593	0.1091	143.8
Si2516_R		16,310	ug/L	176.8	1.084	9,760
Sn1899_A		518.7	ug/L	0.02342	0.004514	282.5
Sr4215_R		538.7	ug/L	4.662	0.8655	54,290
Ti3349_A		498.8	ug/L	1.767	0.3542	12,160
Tl1908_A		516.8	ug/L	0.7242	0.1401	296.7
V_2924_A		497.9	ug/L	0.7620	0.1530	6,430
Zn2062_A		524.4	ug/L	0.9044	0.1725	1,641
Y_3600_R		16,929	Cts/S	81.229	0.47982	16,929
Y_2243_A		7,825.5	Cts/S	29.516	0.37717	7,825.5
Y_3600_A		125,460	Cts/S	300.04	0.23915	125,460

SO6390-005P

Method Name: FAST-2016_NO_AU
Method Revision: 1,022
Analyst Name: EP
Acquire Date: 9/27/2021 1:25:38PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		51.68	ug/L	0.3538	0.6846	877.5
Al3961_R		2,122	ug/L	43.86	2.067	2,353
As1891_A		106.6	ug/L	1.029	0.9651	36.02
B_2089_A		694.7	ug/L	1.745	0.2512	1,104
Ba4554_R	W	2,121	ug/L	49.36	2.327	147,200
Be3130_R		52.13	ug/L	1.142	2.190	6,069
Ca3158_R		10,300	ug/L	217.7	2.114	14,110
Cd2265_A		256.8	ug/L	0.5755	0.2241	3,626
Co2286_A		545.1	ug/L	0.8116	0.1489	1,887
Cr2677_A		202.6	ug/L	0.3188	0.1574	2,499
Cu3273_A		283.8	ug/L	0.3809	0.1342	4,210
Fe2599_R		1,302	ug/L	27.74	2.131	2,708
K_7664_R		11,430	ug/L	272.7	2.387	8,067
Li6707_R		541.7	ug/L	13.23	2.442	7,935
Mg2025_A		10,070	ug/L	12.47	0.1238	3,656
Mn2576_R	W	1,110	ug/L	22.13	1.994	12,650
Mo2020_A		109.0	ug/L	0.2515	0.2308	354.0
Na5895_R		23,900	ug/L	510.0	2.134	59,940
Ni2316_A		544.3	ug/L	0.8314	0.1528	983.7
Pb2203_A		109.1	ug/L	0.2870	0.2629	111.3
Sb2068_A		107.4	ug/L	0.4238	0.3946	61.36
Se1960_A		110.4	ug/L	0.5050	0.4576	31.96
Si2516_R		17,650	ug/L	324.6	1.839	10,340
Sn1899_A		522.5	ug/L	1.789	0.3425	283.7
Sr4215_R		558.5	ug/L	12.73	2.280	55,130
Ti3349_A		524.7	ug/L	2.363	0.4504	12,660
Tl1908_A		104.1	ug/L	0.05075	0.04876	58.58
V_2924_A		515.7	ug/L	1.948	0.3777	6,635
Zn2062_A		540.6	ug/L	1.720	0.3182	1,688
Y_3600_R		16,582	Cts/S	209.06	1.2608	16,582
Y_2243_A		7,803.7	Cts/S	10.759	0.13786	7,803.7
Y_3600_A		124,220	Cts/S	197.68	0.15914	124,220

SO6390-005S

Method Name: FAST-2016_NO_AU
Method Revision: 1,022
Analyst Name: EP
Acquire Date: 9/27/2021 1:29:50PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SO6390-005S

Method Name: FAST-2016_NO_AU
Method Revision: 1,022
Analyst Name: EP
Acquire Date: 9/27/2021 1:29:50PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		52.17	ug/L	0.3870	0.7418	886.7
Al3961_R		2,143	ug/L	16.36	0.7635	2,368
As1891_A		106.4	ug/L	0.5666	0.5324	35.88
B_2089_A		696.4	ug/L	1.110	0.1594	1,105
Ba4554_R	W	2,141	ug/L	17.18	0.8023	148,100
Be3130_R		52.38	ug/L	0.4347	0.8300	6,075
Ca3158_R		10,330	ug/L	95.17	0.9217	14,100
Cd2265_A		257.7	ug/L	0.9734	0.3778	3,633
Co2286_A		547.6	ug/L	1.104	0.2016	1,892
Cr2677_A		202.8	ug/L	0.5219	0.2573	2,503
Cu3273_A		271.9	ug/L	0.4008	0.1474	4,034
Fe2599_R		1,292	ug/L	5.568	0.4311	2,677
K_7664_R		11,480	ug/L	110.1	0.9596	8,075
Li6707_R		551.0	ug/L	5.624	1.021	8,042
Mg2025_A		10,040	ug/L	21.73	0.2164	3,640
Mn2576_R	W	1,124	ug/L	12.50	1.112	12,760
Mo2020_A		110.0	ug/L	0.5452	0.4956	356.8
Na5895_R		24,130	ug/L	209.8	0.8695	60,310
Ni2316_A		546.6	ug/L	1.481	0.2710	986.2
Pb2203_A		110.1	ug/L	0.2242	0.2037	112.1
Sb2068_A		106.9	ug/L	0.5472	0.5117	60.97
Se1960_A		109.8	ug/L	0.3872	0.3527	31.75
Si2516_R		17,770	ug/L	216.5	1.219	10,370
Sn1899_A		524.9	ug/L	0.03557	0.006777	284.6
Sr4215_R		565.6	ug/L	3.806	0.6729	55,640
Ti3349_A		526.6	ug/L	0.2830	0.05375	12,710
Tl1908_A		105.2	ug/L	0.5276	0.5017	59.10
V_2924_A		514.7	ug/L	0.1652	0.03210	6,625
Zn2062_A		542.6	ug/L	1.946	0.3587	1,691
Y_3600_R		16,521	Cts/S	187.94	1.1376	16,521
Y_2243_A		7,790.7	Cts/S	13.635	0.17502	7,790.7
Y_3600_A		124,280	Cts/S	141.69	0.11400	124,280

SO6391-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,022
Analyst Name: EP
Acquire Date: 9/27/2021 1:34:02PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.2651	ug/L	0.07757	29.26	-27.94
Al3961_R		45.00	ug/L	0.9138	2.031	114.6
As1891_A		4.138	ug/L	0.4085	9.874	-0.8571
B_2089_A		16.56	ug/L	0.05493	0.3317	30.60
Ba4554_R		39.10	ug/L	0.1790	0.4578	2,712
Be3130_R		0.02610	ug/L	0.01619	62.03	-8.111
Ca3158_R	W	64,020	ug/L	389.0	0.6077	87,300
Cd2265_A		-0.04566	ug/L	0.01809	39.62	-2.605
Co2286_A		-0.09526	ug/L	0.1761	184.9	2.005
Cr2677_A		0.4080	ug/L	0.1551	38.03	6.978
Cu3273_A		0.3601	ug/L	0.1715	47.62	-35.72
Fe2599_R		35.55	ug/L	0.1628	0.4580	80.58
K_7664_R		3,991	ug/L	14.15	0.3547	2,777
Li6707_R		2.961	ug/L	0.1441	4.866	35.42
Mg2025_A		12,340	ug/L	45.83	0.3713	4,359
Mn2576_R		386.1	ug/L	4.210	1.090	4,375
Mo2020_A		2.355	ug/L	0.02195	0.9324	7.904
Na5895_R		19,100	ug/L	198.2	1.038	47,590
Ni2316_A		0.05991	ug/L	0.3143	524.6	-0.4426

SO6391-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,022
Analyst Name: EP
Acquire Date: 9/27/2021 1:34:02PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		0.7563	ug/L	0.2146	28.37	0.3445
Sb2068_A		0.3361	ug/L	0.1854	55.16	0.3724
Se1960_A		2.685	ug/L	0.8262	30.77	1.988
Si2516_R		5,320	ug/L	43.65	0.8205	3,109
Sn1899_A		-0.02478	ug/L	0.1487	600.2	1.639
Sr4215_R		469.7	ug/L	4.356	0.9274	46,050
Ti3349_A		2.105	ug/L	0.09941	4.721	32.11
Tl1908_A		-0.2335	ug/L	0.1884	80.68	-1.986
V_2924_A		1.086	ug/L	0.2287	21.06	7.230
Zn2062_A		0.5405	ug/L	0.07137	13.21	2.409
Y_3600_R		16,468	Cts/S	113.82	0.69118	16,468
Y_2243_A		7,646.0	Cts/S	37.589	0.49161	7,646.0
Y_3600_A		124,270	Cts/S	263.43	0.21198	124,270

CCV

Method Name: FAST-2016_NO_AU
Method Revision: 1,022
Analyst Name: EP
Acquire Date: 9/27/2021 1:38:24PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		520.8	ug/L	4.588	0.8809	9,223
Al3961_R		12,880	ug/L	30.47	0.2366	14,280
As1891_A		512.5	ug/L	0.4258	0.08308	183.3
B_2089_A		521.1	ug/L	1.524	0.2924	851.0
Ba4554_R		506.7	ug/L	0.9953	0.1964	35,410
Be3130_R		495.5	ug/L	0.1702	0.03435	58,150
Ca3158_R		12,370	ug/L	16.40	0.1326	17,060
Cd2265_A		506.4	ug/L	1.814	0.3583	7,228
Co2286_A		514.4	ug/L	1.334	0.2594	1,794
Cr2677_A		495.4	ug/L	0.5403	0.1091	6,171
Cu3273_A		516.4	ug/L	1.465	0.2837	7,784
Fe2599_R		12,330	ug/L	82.56	0.6696	25,750
K_7664_R		12,710	ug/L	18.87	0.1485	9,032
Li6707_R		520.4	ug/L	4.075	0.7831	7,671
Mg2025_A		13,090	ug/L	68.47	0.5231	4,783
Mn2576_R		500.1	ug/L	2.926	0.5850	5,733
Mo2020_A		526.5	ug/L	1.704	0.3236	1,723
Na5895_R		12,850	ug/L	74.90	0.5829	32,440
Ni2316_A		516.2	ug/L	0.8072	0.1564	944.8
Pb2203_A		514.0	ug/L	2.493	0.4851	529.4
Sb2068_A		518.9	ug/L	1.750	0.3372	311.1
Se1960_A		516.3	ug/L	1.973	0.3821	145.5
Si2516_R		12,850	ug/L	65.93	0.5131	7,580
Sn1899_A		507.5	ug/L	2.217	0.4368	277.7
Sr4215_R		515.0	ug/L	0.8577	0.1665	51,160
Ti3349_A		506.1	ug/L	1.788	0.3532	12,340
Tl1908_A		523.4	ug/L	4.545	0.8685	302.2
V_2924_A		498.1	ug/L	0.4232	0.08496	6,441
Zn2062_A		493.5	ug/L	1.656	0.3355	1,552
Y_3600_R		16,685	Cts/S	5.2618	0.031537	16,685
Y_2243_A		7,863.3	Cts/S	28.932	0.36794	7,863.3
Y_3600_A		125,520	Cts/S	46.839	0.037316	125,520

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,022
Analyst Name: EP
Acquire Date: 9/27/2021 1:42:32PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,022
Analyst Name: EP
Acquire Date: 9/27/2021 1:42:32PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.05424	ug/L	0.04811	88.69	-23.05
Al3961_R		-6.045	ug/L	5.127	84.82	-0.4526
As1891_A		0.5533	ug/L	0.1467	26.52	-2.235
B_2089_A		1.501	ug/L	0.1224	8.157	7.671
Ba4554_R		0.1003	ug/L	0.01980	19.75	24.37
Be3130_R		0.1048	ug/L	0.002633	2.512	1.049
Ca3158_R		5.265	ug/L	2.824	53.64	-27.84
Cd2265_A		0.08450	ug/L	0.002239	2.650	-0.9128
Co2286_A		-0.06300	ug/L	0.1177	186.8	2.223
Cr2677_A		0.08944	ug/L	0.1113	124.5	2.766
Cu3273_A		0.3389	ug/L	0.1837	54.20	-37.55
Fe2599_R		4.801	ug/L	0.5703	11.88	17.88
K_7664_R		36.27	ug/L	23.51	64.82	-7.715
Li6707_R		0.2108	ug/L	0.03546	16.82	-4.806
Mg2025_A		4.212	ug/L	1.698	40.31	-5.300
Mn2576_R		-0.05325	ug/L	0.1671	313.8	3.680
Mo2020_A		0.4999	ug/L	0.04999	10.000	2.138
Na5895_R		15.12	ug/L	1.527	10.10	57.82
Ni2316_A		0.08857	ug/L	0.04856	54.82	-0.4371
Pb2203_A		-0.5918	ug/L	0.3817	64.49	-1.059
Sb2068_A		-0.3235	ug/L	0.9469	292.7	-0.01443
Se1960_A		2.093	ug/L	0.8043	38.42	1.867
Si2516_R		15.11	ug/L	1.376	9.108	30.78
Sn1899_A		-0.3068	ug/L	0.02202	7.177	1.571
Sr4215_R		0.1172	ug/L	0.1104	94.21	-2.956
Ti3349_A		1.040	ug/L	0.1060	10.20	6.590
Tl1908_A		0.3259	ug/L	0.09000	27.61	-1.523
V_2924_A		0.1467	ug/L	0.2804	191.1	-3.171
Zn2062_A		0.002617	ug/L	0.01320	504.5	0.8068
Y_3600_R		17,115	Cts/S	95.969	0.56074	17,115
Y_2243_A		8,058.5	Cts/S	0.63233	0.0078470	8,058.5
Y_3600_A		129,450	Cts/S	206.28	0.15935	129,450

SO6391-002

Method Name: FAST-2016_NO_AU
Method Revision: 1,022
Analyst Name: EP
Acquire Date: 9/27/2021 1:46:57PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.1534	ug/L	0.3344	217.9	-25.15
Al3961_R		12.35	ug/L	5.905	47.80	78.61
As1891_A		4.894	ug/L	0.7547	15.42	-0.5810
B_2089_A		95.08	ug/L	0.07148	0.07518	149.8
Ba4554_R		27.17	ug/L	0.5156	1.898	1,888
Be3130_R		0.02576	ug/L	0.006225	24.17	-7.826
Ca3158_R	W	63,640	ug/L	1,288	2.024	86,700
Cd2265_A		-0.004243	ug/L	0.02732	644.0	-2.046
Co2286_A		-0.2051	ug/L	0.08554	41.71	1.604
Cr2677_A		0.5516	ug/L	0.1915	34.71	8.548
Cu3273_A		0.6133	ug/L	0.07998	13.04	-31.03
Fe2599_R		15.69	ug/L	0.2144	1.367	39.62
K_7664_R		7,469	ug/L	131.4	1.759	5,222
Li6707_R		2.898	ug/L	0.1794	6.190	34.49
Mg2025_A		5,412	ug/L	0.1275	0.002356	1,881
Mn2576_R		423.6	ug/L	8.370	1.976	4,793
Mo2020_A		2.598	ug/L	0.07469	2.874	8.557
Na5895_R	W	79,220	ug/L	1,440	1.818	197,100
Ni2316_A		1.299	ug/L	0.03353	2.581	1.729

SO6391-002

Method Name: FAST-2016_NO_AU
Method Revision: 1,022
Analyst Name: EP
Acquire Date: 9/27/2021 1:46:57PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		1.154	ug/L	0.09581	8.303	0.7349
Sb2068_A		-0.1853	ug/L	0.08027	43.33	0.06123
Se1960_A		1.148	ug/L	1.001	87.22	1.554
Si2516_R		6,039	ug/L	100.6	1.666	3,522
Sn1899_A		0.4424	ug/L	0.3114	70.38	1.860
Sr4215_R		361.1	ug/L	7.123	1.973	35,370
Ti3349_A		0.6791	ug/L	0.1528	22.50	-2.286
Tl1908_A		-0.5166	ug/L	0.2285	44.23	-2.136
V_2924_A		3.743	ug/L	0.1501	4.010	40.18
Zn2062_A		1.552	ug/L	0.03994	2.573	5.428
Y_3600_R		16,453	Cts/S	169.26	1.0288	16,453
Y_2243_A		7,540.4	Cts/S	8.9831	0.11913	7,540.4
Y_3600_A		120,860	Cts/S	309.81	0.25634	120,860

SO6391-003

Method Name: FAST-2016_NO_AU
Method Revision: 1,022
Analyst Name: EP
Acquire Date: 9/27/2021 1:51:19PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.2483	ug/L	0.03916	15.77	-38.09
Al3961_R		1,873	ug/L	12.10	0.6458	2,121
As1891_A		1.948	ug/L	0.07562	3.881	-1.708
B_2089_A		33.30	ug/L	0.2000	0.6005	56.87
Ba4554_R		86.96	ug/L	0.1138	0.1309	6,076
Be3130_R		0.1015	ug/L	0.03448	33.96	-3.479
Ca3158_R	W	50,260	ug/L	141.7	0.2820	69,270
Cd2265_A		-0.04564	ug/L	0.02976	65.20	1.851
Co2286_A		0.9537	ug/L	0.1014	10.63	5.928
Cr2677_A		5.128	ug/L	0.04696	0.9158	64.93
Cu3273_A		3.850	ug/L	0.04598	1.194	17.55
Fe2599_R		2,279	ug/L	5.811	0.2550	4,754
K_7664_R		8,127	ug/L	8.380	0.1031	5,752
Li6707_R		6.012	ug/L	0.4698	7.814	80.73
Mg2025_A		10,680	ug/L	23.89	0.2237	3,784
Mn2576_R		508.3	ug/L	2.854	0.5615	5,818
Mo2020_A		8.673	ug/L	0.1152	1.328	28.09
Na5895_R	W	27,160	ug/L	111.1	0.4088	68,410
Ni2316_A		3.384	ug/L	0.1217	3.597	5.429
Pb2203_A		5.995	ug/L	0.1579	2.634	5.535
Sb2068_A		0.8737	ug/L	0.2531	28.97	0.7295
Se1960_A		3.640	ug/L	0.7291	20.03	2.307
Si2516_R		7,647	ug/L	11.30	0.1478	4,508
Sn1899_A		3.542	ug/L	0.2154	6.082	3.538
Sr4215_R		387.7	ug/L	0.8513	0.2196	38,420
Ti3349_A		55.50	ug/L	0.1812	0.3265	1,310
Tl1908_A		-0.3297	ug/L	0.2276	69.02	-2.144
V_2924_A		3.209	ug/L	0.4922	15.34	34.21
Zn2062_A		9.999	ug/L	0.09382	0.9384	31.43
Y_3600_R		16,646	Cts/S	4.7869	0.028757	16,646
Y_2243_A		7,671.6	Cts/S	31.593	0.41182	7,671.6
Y_3600_A		123,110	Cts/S	431.39	0.35042	123,110

SO6392-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,022
Analyst Name: EP
Acquire Date: 9/27/2021 1:55:40PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SO6392-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,022
Analyst Name: EP
Acquire Date: 9/27/2021 1:55:40PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.4264	ug/L	0.1993	46.75	-17.13
Al3961_R		-6.681	ug/L	4.465	66.83	91.67
As1891_A		-1.436	ug/L	0.4510	31.41	-2.699
B_2089_A		52.49	ug/L	0.07006	0.1335	81.82
Ba4554_R		229.0	ug/L	0.2799	0.1222	15,710
Be3130_R		0.04832	ug/L	0.01152	23.84	-6.168
Ca3158_R	W	100,900	ug/L	532.2	0.5277	136,700
Cd2265_A		0.1316	ug/L	0.01562	11.87	0.7732
Co2286_A		35.33	ug/L	0.2383	0.6744	115.8
Cr2677_A		-0.2710	ug/L	0.1819	67.14	23.54
Cu3273_A		1.840	ug/L	0.7068	38.41	-12.32
Fe2599_R		575.6	ug/L	1.955	0.3396	1,186
K_7664_R	W	45,750	ug/L	123.2	0.2693	31,990
Li6707_R		33.95	ug/L	0.1123	0.3308	483.7
Mg2025_A	W	129,000	ug/L	120.7	0.09357	43,390
Mn2576_R	F	26,060	ug/L	59.13	0.2269	292,900
Mo2020_A		0.5750	ug/L	0.05929	10.31	0.5522
Na5895_R	W	55,420	ug/L	93.12	0.1680	137,200
Ni2316_A		58.19	ug/L	0.1892	0.3251	97.35
Pb2203_A		6.115	ug/L	0.9533	15.59	5.471
Sb2068_A		-0.3303	ug/L	0.5152	156.0	-0.02941
Se1960_A		4.343	ug/L	4.229	97.38	5.850
Si2516_R		8,207	ug/L	15.30	0.1864	4,755
Sn1899_A		0.2746	ug/L	0.3902	142.1	1.709
Sr4215_R	W	1,694	ug/L	3.603	0.2127	165,100
Ti3349_A		1.634	ug/L	0.01650	1.010	19.56
Tl1908_A	F	-24.51	ug/L	0.2841	1.159	-29.09
V_2924_A		-7.851	ug/L	0.1861	2.371	-210.3
Zn2062_A		5.828	ug/L	0.08641	1.483	17.68
Y_3600_R		16,368	Cts/S	7.7729	0.047489	16,368
Y_2243_A		7,271.3	Cts/S	7.4320	0.10221	7,271.3
Y_3600_A		117,550	Cts/S	205.72	0.17500	117,550

SO6392-002

Method Name: FAST-2016_NO_AU
Method Revision: 1,022
Analyst Name: EP
Acquire Date: 9/27/2021 2:00:06PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.2496	ug/L	0.2137	85.61	-27.89
Al3961_R		80.32	ug/L	2.000	2.490	129.6
As1891_A		142.2	ug/L	0.6093	0.4285	48.51
B_2089_A		9.720	ug/L	0.002872	0.02955	20.35
Ba4554_R		41.18	ug/L	0.07277	0.1767	2,909
Be3130_R		0.004401	ug/L	0.01184	269.1	-10.77
Ca3158_R	W	35,850	ug/L	188.0	0.5243	49,790
Cd2265_A		0.07757	ug/L	0.003662	4.721	-0.8427
Co2286_A		0.7681	ug/L	0.08840	11.51	4.984
Cr2677_A		0.6179	ug/L	0.005477	0.8864	9.226
Cu3273_A		0.2667	ug/L	0.02090	7.837	-37.17
Fe2599_R		75.06	ug/L	0.7915	1.054	165.0
K_7664_R		1,736	ug/L	9.917	0.5712	1,212
Li6707_R		10.72	ug/L	0.4198	3.914	151.3
Mg2025_A		7,748	ug/L	10.38	0.1340	2,769
Mn2576_R		24.61	ug/L	2.248	9.132	290.5
Mo2020_A		3.935	ug/L	0.01658	0.4212	13.13
Na5895_R		10,580	ug/L	33.91	0.3206	26,860
Ni2316_A		4.590	ug/L	0.3279	7.145	7.689

SO6392-002

Method Name: FAST-2016_NO_AU
Method Revision: 1,022
Analyst Name: EP
Acquire Date: 9/27/2021 2:00:06PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		4.060	ug/L	0.03568	0.8788	3.707
Sb2068_A		-0.2494	ug/L	0.3671	147.2	0.02860
Se1960_A		2.856	ug/L	1.415	49.53	2.013
Si2516_R		5,899	ug/L	31.20	0.5289	3,509
Sn1899_A		1.010	ug/L	0.01866	1.848	2.215
Sr4215_R		224.4	ug/L	0.3275	0.1459	22,410
Ti3349_A		0.6413	ug/L	0.2177	33.95	-3.250
Tl1908_A		-0.9034	ug/L	0.8242	91.23	-2.178
V_2924_A		0.4089	ug/L	0.1355	33.14	-0.02095
Zn2062_A		4.987	ug/L	0.02447	0.4906	16.22
Y_3600_R		16,777	Cts/S	33.434	0.19929	16,777
Y_2243_A		7,746.4	Cts/S	6.7782	0.087502	7,746.4
Y_3600_A		124,580	Cts/S	232.82	0.18689	124,580

SO6392-003

Method Name: FAST-2016_NO_AU
Method Revision: 1,022
Analyst Name: EP
Acquire Date: 9/27/2021 2:04:29PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.001568	ug/L	0.1835	11,710	-22.84
Al3961_R		18.97	ug/L	8.076	42.56	84.81
As1891_A		1.209	ug/L	0.1345	11.12	-1.879
B_2089_A		14.05	ug/L	0.4721	3.360	26.52
Ba4554_R		8.738	ug/L	0.1164	1.332	622.8
Be3130_R		0.03416	ug/L	0.02174	63.64	-7.192
Ca3158_R	W	61,970	ug/L	389.8	0.6290	85,040
Cd2265_A		0.004486	ug/L	0.001794	40.00	-1.900
Co2286_A		-0.4321	ug/L	0.06732	15.58	0.8534
Cr2677_A		0.7142	ug/L	0.1657	23.21	10.62
Cu3273_A		0.05436	ug/L	0.2324	427.5	-39.68
Fe2599_R		36.67	ug/L	0.4933	1.345	83.40
K_7664_R		2,029	ug/L	13.47	0.6639	1,405
Li6707_R		14.41	ug/L	1.208	8.379	203.5
Mg2025_A		10,270	ug/L	74.69	0.7275	3,603
Mn2576_R		416.5	ug/L	1.106	0.2657	4,748
Mo2020_A		0.8176	ug/L	0.04597	5.623	2.995
Na5895_R		14,090	ug/L	56.35	0.4000	35,330
Ni2316_A		-0.1373	ug/L	0.03155	22.98	-0.8074
Pb2203_A		0.9136	ug/L	0.02221	2.431	0.5026
Sb2068_A		-0.4552	ug/L	0.3152	69.25	-0.09449
Se1960_A		1.810	ug/L	0.6860	37.89	1.746
Si2516_R		6,151	ug/L	38.01	0.6180	3,613
Sn1899_A		0.7172	ug/L	0.2008	28.00	2.020
Sr4215_R		300.9	ug/L	1.036	0.3443	29,690
Ti3349_A		0.6859	ug/L	0.009375	1.367	-2.186
Tl1908_A		-0.4706	ug/L	0.6208	131.9	-2.126
V_2924_A		0.1771	ug/L	0.06318	35.68	-4.482
Zn2062_A		0.9852	ug/L	0.04437	4.503	3.748
Y_3600_R		16,571	Cts/S	61.072	0.36854	16,571
Y_2243_A		7,601.8	Cts/S	46.664	0.61385	7,601.8
Y_3600_A		122,370	Cts/S	356.92	0.29167	122,370

SO6392-004

Method Name: FAST-2016_NO_AU
Method Revision: 1,022
Analyst Name: EP
Acquire Date: 9/27/2021 2:08:52PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SO6392-004

Method Name: FAST-2016_NO_AU
Method Revision: 1,022
Analyst Name: EP
Acquire Date: 9/27/2021 2:08:52PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.01981	ug/L	0.1805	911.2	-22.33
Al3961_R		34.05	ug/L	4.560	13.39	149.5
As1891_A		0.3296	ug/L	0.06491	19.69	-2.126
B_2089_A		88.85	ug/L	0.1452	0.1634	137.2
Ba4554_R		54.59	ug/L	0.007542	0.01382	3,765
Be3130_R		0.03477	ug/L	0.01701	48.92	-7.136
Ca3158_R	W	115,300	ug/L	292.9	0.2541	156,700
Cd2265_A		0.1514	ug/L	0.01345	8.884	0.2904
Co2286_A		2.333	ug/L	0.03758	1.611	9.862
Cr2677_A		0.6458	ug/L	0.002444	0.3784	10.91
Cu3273_A		23.94	ug/L	0.6997	2.923	304.3
Fe2599_R		133.0	ug/L	2.144	1.612	280.4
K_7664_R		14,290	ug/L	51.04	0.3572	9,989
Li6707_R		57.34	ug/L	1.480	2.580	824.2
Mg2025_A	W	64,700	ug/L	68.47	0.1058	22,070
Mn2576_R	W	1,833	ug/L	1.942	0.1059	20,680
Mo2020_A		-0.03216	ug/L	0.07577	235.6	0.2088
Na5895_R		24,760	ug/L	57.57	0.2325	61,450
Ni2316_A		7.287	ug/L	0.08417	1.155	11.87
Pb2203_A		2.975	ug/L	0.2523	8.481	2.489
Sb2068_A		0.6789	ug/L	0.1496	22.03	0.5475
Se1960_A		0.6703	ug/L	0.3189	47.57	1.593
Si2516_R		11,750	ug/L	46.63	0.3970	6,813
Sn1899_A		0.9856	ug/L	0.06398	6.492	2.097
Sr4215_R	W	1,081	ug/L	3.871	0.3581	105,600
Ti3349_A		2.331	ug/L	0.1316	5.648	35.89
Tl1908_A		-2.034	ug/L	0.8739	42.96	-3.704
V_2924_A		0.6281	ug/L	0.1310	20.86	-4.732
Zn2062_A		1.150	ug/L	0.1314	11.43	4.121
Y_3600_R		16,405	Cts/S	71.339	0.43487	16,405
Y_2243_A		7,375.8	Cts/S	2.6727	0.036235	7,375.8
Y_3600_A		118,910	Cts/S	410.71	0.34540	118,910

SO6392-005

Method Name: FAST-2016_NO_AU
Method Revision: 1,022
Analyst Name: EP
Acquire Date: 9/27/2021 2:13:14PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.04980	ug/L	0.1734	348.1	-24.30
Al3961_R		10.48	ug/L	6.613	63.10	68.90
As1891_A		5.552	ug/L	0.4760	8.573	-0.3586
B_2089_A		5.640	ug/L	0.08757	1.553	13.62
Ba4554_R		36.99	ug/L	0.008329	0.02252	2,586
Be3130_R		0.03431	ug/L	0.03754	109.4	-7.199
Ca3158_R	W	54,790	ug/L	163.8	0.2989	75,270
Cd2265_A		-0.02822	ug/L	0.01855	65.74	-2.083
Co2286_A		-0.3482	ug/L	0.09235	26.52	1.139
Cr2677_A		0.5728	ug/L	0.08848	15.45	8.666
Cu3273_A		7.452	ug/L	0.4879	6.547	69.53
Fe2599_R		174.6	ug/L	2.780	1.592	370.0
K_7664_R		845.4	ug/L	16.95	2.005	566.6
Li6707_R		5.128	ug/L	0.02621	0.5111	67.49
Mg2025_A		16,070	ug/L	3.171	0.01973	5,641
Mn2576_R		178.9	ug/L	0.1502	0.08393	2,048
Mo2020_A		1.659	ug/L	0.1267	7.636	5.669
Na5895_R		9,941	ug/L	21.42	0.2155	24,960
Ni2316_A		1.563	ug/L	0.1528	9.777	2.187

SO6392-005

Method Name: FAST-2016_NO_AU
Method Revision: 1,022
Analyst Name: EP
Acquire Date: 9/27/2021 2:13:14PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		1.708	ug/L	0.8926	52.26	1.302
Sb2068_A		-1.066	ug/L	0.5399	50.63	-0.4518
Se1960_A		3.040	ug/L	0.02264	0.7450	2.043
Si2516_R		7,037	ug/L	8.159	0.1160	4,136
Sn1899_A		1.378	ug/L	0.1789	12.98	2.366
Sr4215_R		767.5	ug/L	2.334	0.3041	75,830
Ti3349_A		0.7984	ug/L	0.2932	36.72	0.4981
Tl1908_A		-0.6826	ug/L	0.3754	54.99	-2.104
V_2924_A		-0.02051	ug/L	0.3301	1,609	-5.952
Zn2062_A		1.694	ug/L	0.001899	0.1121	5.900
Y_3600_R		16,592	Cts/S	33.756	0.20345	16,592
Y_2243_A		7,597.4	Cts/S	15.728	0.20702	7,597.4
Y_3600_A		122,120	Cts/S	232.21	0.19016	122,120

SO6392-006

Method Name: FAST-2016_NO_AU
Method Revision: 1,022
Analyst Name: EP
Acquire Date: 9/27/2021 2:17:36PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.009019	ug/L	0.04137	458.8	-28.07
Al3961_R		736.9	ug/L	8.720	1.183	839.4
As1891_A		1.320	ug/L	0.0007210	0.05464	-1.910
B_2089_A		3.534	ug/L	0.1210	3.424	10.58
Ba4554_R		3.995	ug/L	0.06734	1.686	295.1
Be3130_R		0.03831	ug/L	0.01240	32.36	-8.617
Ca3158_R		20,970	ug/L	99.85	0.4763	28,880
Cd2265_A		0.2718	ug/L	0.03674	13.52	3.771
Co2286_A		0.4618	ug/L	0.05626	12.18	4.109
Cr2677_A		1.749	ug/L	0.04088	2.338	23.26
Cu3273_A		2.370	ug/L	0.1859	7.845	-5.084
Fe2599_R		1,007	ug/L	15.97	1.586	2,105
K_7664_R		1,118	ug/L	14.28	1.277	762.5
Li6707_R		7.500	ug/L	0.5179	6.905	102.6
Mg2025_A		2,054	ug/L	8.236	0.4011	730.2
Mn2576_R		56.99	ug/L	0.3663	0.6427	656.1
Mo2020_A		0.6690	ug/L	0.01872	2.798	2.599
Na5895_R		4,560	ug/L	27.15	0.5952	11,500
Ni2316_A		1.252	ug/L	0.006704	0.5355	1.622
Pb2203_A		11.25	ug/L	0.4174	3.709	11.02
Sb2068_A		0.2223	ug/L	0.2390	107.5	0.3279
Se1960_A		9.229	ug/L	12.47	135.1	3.789
Si2516_R		7,132	ug/L	1.673	0.02346	4,206
Sn1899_A		1.205	ug/L	0.07030	5.832	2.323
Sr4215_R		90.24	ug/L	0.7831	0.8678	8,934
Ti3349_A		26.27	ug/L	0.7667	2.918	615.3
Tl1908_A		-0.9131	ug/L	0.1871	20.49	-2.220
V_2924_A		2.285	ug/L	0.1216	5.320	24.70
Zn2062_A		5.252	ug/L	0.02618	0.4985	17.06
Y_3600_R		16,649	Cts/S	15.024	0.090236	16,649
Y_2243_A		7,757.0	Cts/S	25.630	0.33041	7,757.0
Y_3600_A		124,130	Cts/S	1.7217	0.0013870	124,130

SO6392-007

Method Name: FAST-2016_NO_AU
Method Revision: 1,022
Analyst Name: EP
Acquire Date: 9/27/2021 2:21:59PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SO6392-007

Method Name: FAST-2016_NO_AU
Method Revision: 1,022
Analyst Name: EP
Acquire Date: 9/27/2021 2:21:59PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.01154	ug/L	0.3969	3,439	-22.77
Al3961_R		-1.508	ug/L	2.929	194.3	69.43
As1891_A		0.5845	ug/L	0.7096	121.4	-2.034
B_2089_A		112.4	ug/L	1.298	1.155	171.8
Ba4554_R		22.00	ug/L	0.7970	3.624	1,512
Be3130_R		0.01391	ug/L	0.01756	126.3	-9.536
Ca3158_R	W	71,080	ug/L	2,597	3.653	95,650
Cd2265_A		0.1786	ug/L	0.005315	2.976	0.6549
Co2286_A		30.46	ug/L	0.1593	0.5232	101.4
Cr2677_A		-0.03108	ug/L	0.1737	559.1	10.42
Cu3273_A		3.486	ug/L	0.1751	5.023	10.87
Fe2599_R		186.9	ug/L	8.623	4.615	387.1
K_7664_R	W	33,170	ug/L	1,166	3.515	23,020
Li6707_R		14.54	ug/L	0.1608	1.106	201.5
Mg2025_A	W	69,710	ug/L	595.9	0.8548	23,720
Mn2576_R	W	9,453	ug/L	413.0	4.368	105,500
Mo2020_A		0.1526	ug/L	0.2327	152.5	0.2972
Na5895_R		15,530	ug/L	599.8	3.861	38,190
Ni2316_A		71.00	ug/L	0.6599	0.9294	120.3
Pb2203_A		1.596	ug/L	0.04377	2.742	1.158
Sb2068_A		-0.4159	ug/L	0.6857	164.9	-0.09841
Se1960_A		2.411	ug/L	0.7576	31.43	3.104
Si2516_R		8,247	ug/L	345.3	4.187	4,743
Sn1899_A		1.145	ug/L	0.6066	53.00	2.172
Sr4215_R		853.2	ug/L	31.77	3.724	82,550
Ti3349_A		0.8929	ug/L	0.1696	18.99	2.659
Tl1908_A		-8.496	ug/L	0.2180	2.565	-11.42
V_2924_A		-1.273	ug/L	0.5923	46.54	-60.96
Zn2062_A		5.729	ug/L	0.1702	2.971	17.59
Y_3600_R		16,260	Cts/S	596.75	3.6700	16,260
Y_2243_A		7,356.8	Cts/S	41.963	0.57040	7,356.8
Y_3600_A		119,410	Cts/S	177.24	0.14843	119,410

SO6392-008

Method Name: FAST-2016_NO_AU
Method Revision: 1,022
Analyst Name: EP
Acquire Date: 9/27/2021 2:26:19PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.04019	ug/L	0.1562	388.8	-23.14
Al3961_R		0.7517	ug/L	9.621	1,280	64.13
As1891_A		-0.2191	ug/L	0.3733	170.3	-2.340
B_2089_A		118.0	ug/L	0.09057	0.07676	182.3
Ba4554_R		25.53	ug/L	0.9377	3.673	1,812
Be3130_R		-0.005695	ug/L	0.05608	984.8	-12.23
Ca3158_R	W	60,600	ug/L	3,290	5.429	84,260
Cd2265_A		0.1581	ug/L	0.03793	23.99	0.7690
Co2286_A		18.39	ug/L	0.1893	1.029	62.83
Cr2677_A		0.1207	ug/L	0.4824	399.8	11.38
Cu3273_A		5.234	ug/L	0.2510	4.796	36.30
Fe2599_R		376.0	ug/L	17.93	4.769	797.6
K_7664_R	W	31,650	ug/L	1,431	4.522	22,700
Li6707_R		12.11	ug/L	0.1291	1.067	172.1
Mg2025_A	W	57,020	ug/L	53.63	0.09406	19,620
Mn2576_R	W	8,559	ug/L	470.8	5.501	98,720
Mo2020_A		0.07165	ug/L	0.04275	59.66	0.1081
Na5895_R		11,700	ug/L	570.8	4.878	29,740
Ni2316_A		57.44	ug/L	0.5742	0.9997	98.36

SO6392-008

Method Name: FAST-2016_NO_AU
Method Revision: 1,022
Analyst Name: EP
Acquire Date: 9/27/2021 2:26:19PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		3.517	ug/L	0.8216	23.36	3.053
Sb2068_A		-0.3051	ug/L	0.7593	248.8	-0.02344
Se1960_A		3.143	ug/L	1.748	55.61	3.208
Si2516_R		7,852	ug/L	404.9	5.157	4,668
Sn1899_A		0.6583	ug/L	0.1702	25.86	1.948
Sr4215_R		735.3	ug/L	37.44	5.093	73,520
Ti3349_A		0.7455	ug/L	0.02065	2.770	-0.7615
Tl1908_A		-8.229	ug/L	1.028	12.49	-10.93
V_2924_A		-1.166	ug/L	0.2348	20.13	-55.87
Zn2062_A		10.24	ug/L	0.1459	1.425	31.23
Y_3600_R		16,807	Cts/S	586.47	3.4895	16,807
Y_2243_A		7,443.6	Cts/S	24.442	0.32836	7,443.6
Y_3600_A		119,630	Cts/S	308.67	0.25802	119,630

CCV

Method Name: FAST-2016_NO_AU
Method Revision: 1,022
Analyst Name: EP
Acquire Date: 9/27/2021 2:30:41PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		527.0	ug/L	3.125	0.5930	9,173
Al3961_R		12,970	ug/L	70.12	0.5408	14,260
As1891_A		518.0	ug/L	3.877	0.7485	179.7
B_2089_A	W	529.6	ug/L	1.513	0.2856	838.5
Ba4554_R		507.3	ug/L	0.4386	0.08646	35,130
Be3130_R		497.6	ug/L	0.5189	0.1043	57,880
Ca3158_R		12,360	ug/L	4.734	0.03829	16,900
Cd2265_A		511.5	ug/L	1.337	0.2614	7,080
Co2286_A		524.0	ug/L	1.368	0.2611	1,772
Cr2677_A		494.2	ug/L	0.7087	0.1434	6,050
Cu3273_A		520.7	ug/L	1.812	0.3479	7,715
Fe2599_R		12,260	ug/L	1.044	0.008517	25,370
K_7664_R		12,720	ug/L	17.78	0.1397	8,961
Li6707_R		522.6	ug/L	0.7564	0.1447	7,634
Mg2025_A	W	13,410	ug/L	28.86	0.2153	4,750
Mn2576_R		507.6	ug/L	0.6564	0.1293	5,766
Mo2020_A	W	531.4	ug/L	2.715	0.5109	1,686
Na5895_R		12,930	ug/L	14.12	0.1092	32,350
Ni2316_A		520.5	ug/L	1.577	0.3030	923.7
Pb2203_A		517.9	ug/L	0.4351	0.08402	517.2
Sb2068_A	W	529.0	ug/L	0.6562	0.1240	307.5
Se1960_A		519.5	ug/L	6.027	1.160	142.0
Si2516_R		12,940	ug/L	5.790	0.04473	7,569
Sn1899_A		512.5	ug/L	2.121	0.4138	272.0
Sr4215_R		517.3	ug/L	0.9115	0.1762	50,930
Ti3349_A		512.6	ug/L	3.668	0.7156	12,290
Tl1908_A	W	533.3	ug/L	0.3066	0.05750	298.7
V_2924_A		501.7	ug/L	1.742	0.3472	6,375
Zn2062_A		494.5	ug/L	1.232	0.2492	1,508
Y_3600_R		16,534	Cts/S	115.94	0.70122	16,534
Y_2243_A		7,624.6	Cts/S	33.096	0.43406	7,624.6
Y_3600_A		123,360	Cts/S	383.65	0.31101	123,360

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,022
Analyst Name: EP
Acquire Date: 9/27/2021 2:34:49PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,022
Analyst Name: EP
Acquire Date: 9/27/2021 2:34:49PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.1641	ug/L	0.1676	102.1	-26.40
Al3961_R		0.1371	ug/L	1.104	805.3	6.446
As1891_A		0.8279	ug/L	0.5362	64.76	-2.070
B_2089_A		0.3511	ug/L	0.2974	84.69	5.622
Ba4554_R		0.1228	ug/L	0.06198	50.46	25.45
Be3130_R		0.07860	ug/L	0.03003	38.20	-2.099
Ca3158_R		5.919	ug/L	0.7707	13.02	-26.34
Cd2265_A		0.06580	ug/L	0.005217	7.929	-1.149
Co2286_A		-0.1387	ug/L	0.1916	138.2	1.897
Cr2677_A		0.1910	ug/L	0.07683	40.22	3.970
Cu3273_A		-0.1473	ug/L	0.3513	238.4	-44.02
Fe2599_R		4.785	ug/L	0.1374	2.872	17.48
K_7664_R		16.86	ug/L	11.34	67.26	-21.47
Li6707_R		1.452	ug/L	0.4121	28.38	13.71
Mg2025_A		4.080	ug/L	2.243	54.97	-5.195
Mn2576_R		0.2823	ug/L	0.04845	17.16	7.470
Mo2020_A		0.5054	ug/L	0.1148	22.72	2.090
Na5895_R		10.41	ug/L	0.3766	3.617	44.64
Ni2316_A		0.009929	ug/L	0.1933	1,946	-0.5676
Pb2203_A		-0.2007	ug/L	0.4415	220.0	-0.6243
Sb2068_A		-0.5955	ug/L	0.4471	75.08	-0.1796
Se1960_A		0.08713	ug/L	1.660	1,905	1.252
Si2516_R		10.61	ug/L	4.325	40.76	27.49
Sn1899_A		0.01072	ug/L	0.05437	507.3	1.695
Sr4215_R		0.1160	ug/L	0.008225	7.089	-3.036
Ti3349_A		1.052	ug/L	0.06883	6.546	6.710
Tl1908_A		0.05375	ug/L	0.2087	388.3	-1.634
V_2924_A		-0.1375	ug/L	0.01091	7.931	-6.825
Zn2062_A		0.07361	ug/L	0.1276	173.3	1.002
Y_3600_R		16,753	Cts/S	151.99	0.90722	16,753
Y_2243_A		7,815.2	Cts/S	70.473	0.90174	7,815.2
Y_3600_A		126,210	Cts/S	264.93	0.20992	126,210

CCV

Method Name: FAST-2016_NO_AU
Method Revision: 1,022
Analyst Name: EP
Acquire Date: 9/27/2021 2:39:13PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		522.0	ug/L	1.088	0.2085	9,092
Al3961_R		12,780	ug/L	65.22	0.5105	14,260
As1891_A		506.8	ug/L	0.1613	0.03182	177.7
B_2089_A		520.3	ug/L	0.2840	0.05458	833.1
Ba4554_R		506.2	ug/L	3.930	0.7765	35,580
Be3130_R		489.9	ug/L	1.257	0.2565	57,850
Ca3158_R		12,030	ug/L	65.61	0.5452	16,700
Cd2265_A		501.8	ug/L	0.8179	0.1630	7,024
Co2286_A		514.0	ug/L	1.107	0.2153	1,758
Cr2677_A		488.0	ug/L	0.4184	0.08574	5,979
Cu3273_A		516.6	ug/L	2.324	0.4498	7,659
Fe2599_R		12,110	ug/L	89.41	0.7383	25,440
K_7664_R		12,570	ug/L	51.23	0.4077	8,985
Li6707_R		520.0	ug/L	1.282	0.2465	7,711
Mg2025_A		13,070	ug/L	46.39	0.3549	4,683
Mn2576_R		491.8	ug/L	1.463	0.2974	5,672
Mo2020_A		522.2	ug/L	0.5226	0.1001	1,676
Na5895_R		12,780	ug/L	53.86	0.4215	32,460
Ni2316_A		512.4	ug/L	0.5188	0.1012	919.8

CCV

Method Name: FAST-2016_NO_AU
Method Revision: 1,022
Analyst Name: EP
Acquire Date: 9/27/2021 2:39:13PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		508.9	ug/L	0.9894	0.1944	514.0
Sb2068_A		518.7	ug/L	0.6971	0.1344	304.9
Se1960_A		508.3	ug/L	1.735	0.3414	140.5
Si2516_R		12,570	ug/L	14.96	0.1191	7,460
Sn1899_A		503.9	ug/L	0.1606	0.03187	270.4
Sr4215_R		513.2	ug/L	2.297	0.4476	51,290
Ti3349_A		508.6	ug/L	4.611	0.9066	12,200
Tl1908_A		522.0	ug/L	0.4070	0.07798	295.6
V_2924_A		494.5	ug/L	1.093	0.2210	6,288
Zn2062_A		485.1	ug/L	1.996	0.4114	1,496
Y_3600_R		16,785	Cts/S	21.573	0.12853	16,785
Y_2243_A		7,711.0	Cts/S	9.0589	0.11748	7,711.0
Y_3600_A		123,450	Cts/S	346.24	0.28048	123,450

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,022
Analyst Name: EP
Acquire Date: 9/27/2021 2:43:21PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.1507	ug/L	0.02132	14.15	-20.71
Al3961_R		-8.340	ug/L	3.992	47.86	-3.004
As1891_A		0.3027	ug/L	1.527	504.4	-2.258
B_2089_A		0.5773	ug/L	0.1720	29.79	5.982
Ba4554_R		-0.01036	ug/L	0.06238	602.2	16.05
Be3130_R		0.1122	ug/L	0.003048	2.716	1.898
Ca3158_R		-0.7379	ug/L	0.5940	80.50	-35.55
Cd2265_A		0.1013	ug/L	0.03335	32.92	-0.6478
Co2286_A		-0.007446	ug/L	0.02588	347.6	2.348
Cr2677_A		0.1125	ug/L	0.1112	98.89	2.981
Cu3273_A		0.08400	ug/L	0.2844	338.5	-40.42
Fe2599_R		4.913	ug/L	0.3599	7.325	17.74
K_7664_R		25.40	ug/L	15.92	62.69	-15.32
Li6707_R		0.7035	ug/L	0.4949	70.36	2.637
Mg2025_A		4.329	ug/L	0.2703	6.244	-5.094
Mn2576_R		-0.03241	ug/L	0.3181	981.3	3.867
Mo2020_A		0.5609	ug/L	0.1955	34.86	2.272
Na5895_R		7.775	ug/L	5.339	68.67	38.02
Ni2316_A		0.3158	ug/L	0.01722	5.452	-0.01215
Pb2203_A		-0.2053	ug/L	0.1006	48.99	-0.6302
Sb2068_A		-0.4999	ug/L	0.5627	112.6	-0.1227
Se1960_A		2.432	ug/L	1.296	53.28	1.904
Si2516_R		12.77	ug/L	2.146	16.81	28.74
Sn1899_A		0.1466	ug/L	0.5807	396.1	1.768
Sr4215_R		0.06346	ug/L	0.02397	37.77	-8.293
Ti3349_A		1.081	ug/L	0.2216	20.50	7.418
Tl1908_A		0.8872	ug/L	0.4711	53.10	-1.154
V_2924_A		0.1604	ug/L	0.05239	32.65	-2.914
Zn2062_A		-0.01574	ug/L	0.1407	893.6	0.7250
Y_3600_R		16,743	Cts/S	194.53	1.1618	16,743
Y_2243_A		7,814.3	Cts/S	4.8942	0.062631	7,814.3
Y_3600_A		126,000	Cts/S	40.870	0.032437	126,000

PQL

Method Name: FAST-2016_NO_AU
Method Revision: 1,022
Analyst Name: EP
Acquire Date: 9/27/2021 2:47:46PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

PQL

Method Name: FAST-2016_NO_AU
Method Revision: 1,022
Analyst Name: EP
Acquire Date: 9/27/2021 2:47:46PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		9.443	ug/L	0.2886	3.057	144.9
Al3961_R		295.9	ug/L	8.920	3.014	330.9
As1891_A		8.233	ug/L	0.1707	2.073	0.5948
B_2089_A		48.47	ug/L	0.5657	1.167	81.33
Ba4554_R		5.123	ug/L	0.01527	0.2981	370.9
Be3130_R		4.911	ug/L	0.05833	1.188	559.5
Ca3158_R		95.19	ug/L	0.5774	0.6066	96.23
Cd2265_A		4.967	ug/L	0.01893	0.3811	67.85
Co2286_A		10.04	ug/L	0.07231	0.7202	36.88
Cr2677_A		9.418	ug/L	0.1410	1.497	118.9
Cu3273_A		25.15	ug/L	0.4507	1.793	339.4
Fe2599_R		103.3	ug/L	1.815	1.758	220.9
K_7664_R		1,019	ug/L	2.913	0.2859	686.7
Li6707_R		104.1	ug/L	1.223	1.174	1,514
Mg2025_A		102.1	ug/L	1.132	1.109	30.59
Mn2576_R		4.739	ug/L	0.1921	4.054	57.89
Mo2020_A		10.31	ug/L	0.04359	0.4229	33.71
Na5895_R		1,006	ug/L	11.73	1.166	2,532
Ni2316_A		9.269	ug/L	0.05885	0.6349	16.18
Pb2203_A		4.843	ug/L	0.1073	2.215	4.491
Sb2068_A		6.747	ug/L	0.4601	6.820	3.601
Se1960_A		11.74	ug/L	0.4962	4.227	4.454
Si2516_R		195.6	ug/L	2.853	1.459	134.9
Sn1899_A		97.75	ug/L	0.5280	0.5402	54.12
Sr4215_R		10.10	ug/L	0.1246	1.234	979.6
Ti3349_A		14.74	ug/L	0.1446	0.9812	341.1
Tl1908_A		15.41	ug/L	0.1988	1.290	7.169
V_2924_A		9.445	ug/L	0.01230	0.1302	117.3
Zn2062_A		18.82	ug/L	0.02692	0.1431	59.13
Y_3600_R		16,524	Cts/S	46.861	0.28360	16,524
Y_2243_A		7,756.2	Cts/S	31.771	0.40963	7,756.2
Y_3600_A		125,600	Cts/S	104.63	0.083310	125,600

ICSA

Method Name: FAST-2016_NO_AU
Method Revision: 1,022
Analyst Name: EP
Acquire Date: 9/27/2021 2:52:09PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-1.531	ug/L	0.6040	39.46	-731.3
Al3961_R		508,700	ug/L	14,190	2.789	539,100
As1891_A		-0.5947	ug/L	0.5599	94.15	-9.577
B_2089_A		-1.230	ug/L	0.1728	14.04	2.569
Ba4554_R		1.732	ug/L	0.06174	3.564	131.8
Be3130_R		-0.002209	ug/L	0.02231	1,010	-11.33
Ca3158_R		453,300	ug/L	4,030	0.8889	599,600
Cd2265_A		1.064	ug/L	0.6152	57.82	313.9
Co2286_A		0.2477	ug/L	0.02534	10.23	5.131
Cr2677_A		1.468	ug/L	0.01153	0.7854	35.32
Cu3273_A		-0.4461	ug/L	0.2429	54.46	-25.79
Fe2599_R		176,300	ug/L	2,950	1.673	352,300
K_7664_R		1.451	ug/L	23.84	1,643	-31.00
Li6707_R		5.549	ug/L	0.1025	1.847	70.91
Mg2025_A		452,500	ug/L	3,019	0.6672	140,200
Mn2576_R		0.6063	ug/L	0.7097	117.1	19.30
Mo2020_A		-3.352	ug/L	0.02643	0.7884	-8.965
Na5895_R		66.21	ug/L	4.691	7.085	177.3
Ni2316_A		-2.339	ug/L	0.2207	9.438	-11.36

ICSA

Method Name: FAST-2016_NO_AU
Method Revision: 1,022
Analyst Name: EP
Acquire Date: 9/27/2021 2:52:09PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		0.7469	ug/L	0.3017	40.40	-32.53
Sb2068_A		-3.405	ug/L	0.2218	6.516	2.631
Se1960_A		0.09765	ug/L	1.878	1,924	5.250
Si2516_R		23.17	ug/L	1.135	4.900	16.68
Sn1899_A		10.82	ug/L	0.1569	1.449	6.465
Sr4215_R	W	5.119	ug/L	0.1623	3.170	473.0
Ti3349_A		2.223	ug/L	0.09989	4.494	30.42
Tl1908_A		-0.04143	ug/L	0.5176	1,249	-0.8250
V_2924_A		-2.524	ug/L	0.3958	15.68	7.757
Zn2062_A		0.9488	ug/L	0.1111	11.70	3.204
Y_3600_R		15,970	Cts/S	38.119	0.23870	15,970
Y_2243_A		6,701.7	Cts/S	28.884	0.43099	6,701.7
Y_3600_A		108,510	Cts/S	692.16	0.63788	108,510

ICSAB

Method Name: FAST-2016_NO_AU
Method Revision: 1,022
Analyst Name: EP
Acquire Date: 9/27/2021 2:56:44PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		226.3	ug/L	0.8028	0.3548	2,800
Al3961_R		510,700	ug/L	4,691	0.9184	543,700
As1891_A		97.21	ug/L	1.155	1.188	20.85
B_2089_A		502.2	ug/L	0.08899	0.01772	703.0
Ba4554_R		492.9	ug/L	2.510	0.5092	33,110
Be3130_R		481.1	ug/L	3.123	0.6491	54,290
Ca3158_R		452,200	ug/L	4,974	1.100	600,800
Cd2265_A		924.0	ug/L	1.773	0.1918	11,580
Co2286_A		464.1	ug/L	1.132	0.2438	1,392
Cr2677_A		462.5	ug/L	1.374	0.2971	5,025
Cu3273_A		548.4	ug/L	3.140	0.5725	7,196
Fe2599_R		175,800	ug/L	1,097	0.6238	352,900
K_7664_R		20,550	ug/L	132.6	0.6456	14,060
Li6707_R		534.6	ug/L	5.597	1.047	7,576
Mg2025_A		449,600	ug/L	104.4	0.02321	140,300
Mn2576_R		462.3	ug/L	7.004	1.515	5,105
Mo2020_A		487.8	ug/L	1.199	0.2459	1,369
Na5895_R		20,930	ug/L	223.3	1.067	50,790
Ni2316_A		900.0	ug/L	1.735	0.1928	1,402
Pb2203_A		43.86	ug/L	1.121	2.557	5.026
Sb2068_A		628.4	ug/L	0.9401	0.1496	327.5
Se1960_A		50.39	ug/L	0.3839	0.7618	17.38
Si2516_R		2,064	ug/L	17.71	0.8580	1,175
Sn1899_A		463.5	ug/L	2.523	0.5443	217.7
Sr4215_R		500.8	ug/L	4.535	0.9057	47,830
Ti3349_A		494.1	ug/L	3.087	0.6248	10,470
Tl1908_A		84.88	ug/L	0.4684	0.5519	41.93
V_2924_A		477.6	ug/L	2.796	0.5855	5,407
Zn2062_A		881.6	ug/L	2.128	0.2414	2,378
Y_3600_R		16,042	Cts/S	132.04	0.82312	16,042
Y_2243_A		6,744.5	Cts/S	0.027778	0.00041200	6,744.5
Y_3600_A		109,110	Cts/S	591.05	0.54172	109,110

CCV

Method Name: FAST-2016_NO_AU
Method Revision: 1,022
Analyst Name: EP
Acquire Date: 9/27/2021 3:01:11PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

CCV

Method Name: FAST-2016_NO_AU
Method Revision: 1,022
Analyst Name: EP
Acquire Date: 9/27/2021 3:01:11PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		522.1	ug/L	8.011	1.534	9,042
Al3961_R		13,000	ug/L	79.46	0.6111	14,420
As1891_A		511.0	ug/L	1.929	0.3776	177.5
B_2089_A		522.7	ug/L	3.143	0.6014	829.0
Ba4554_R		508.5	ug/L	3.794	0.7460	35,520
Be3130_R		492.6	ug/L	3.914	0.7946	57,800
Ca3158_R		12,230	ug/L	102.7	0.8400	16,860
Cd2265_A		503.8	ug/L	2.839	0.5636	6,984
Co2286_A		516.1	ug/L	3.060	0.5931	1,748
Cr2677_A		490.9	ug/L	9.211	1.876	5,979
Cu3273_A		519.0	ug/L	8.485	1.635	7,650
Fe2599_R		12,240	ug/L	160.5	1.312	25,550
K_7664_R		12,650	ug/L	70.70	0.5587	8,992
Li6707_R		525.5	ug/L	2.809	0.5345	7,744
Mg2025_A	W	13,180	ug/L	67.91	0.5151	4,679
Mn2576_R		497.1	ug/L	3.801	0.7647	5,697
Mo2020_A		525.0	ug/L	2.066	0.3936	1,669
Na5895_R		12,870	ug/L	52.21	0.4059	32,470
Ni2316_A		513.9	ug/L	1.558	0.3032	913.6
Pb2203_A		510.7	ug/L	3.928	0.7690	510.9
Sb2068_A		521.7	ug/L	2.544	0.4877	303.8
Se1960_A		511.6	ug/L	2.427	0.4745	140.1
Si2516_R		12,650	ug/L	84.61	0.6691	7,459
Sn1899_A		505.6	ug/L	5.004	0.9898	268.7
Sr4215_R		516.5	ug/L	3.256	0.6303	51,290
Ti3349_A		507.5	ug/L	9.264	1.825	12,100
Tl1908_A		524.8	ug/L	2.182	0.4157	294.4
V_2924_A		496.0	ug/L	8.491	1.712	6,270
Zn2062_A		485.8	ug/L	2.678	0.5512	1,484
Y_3600_R		16,680	Cts/S	82.433	0.49419	16,680
Y_2243_A		7,637.1	Cts/S	17.245	0.22581	7,637.1
Y_3600_A		122,740	Cts/S	1,517.3	1.2362	122,740

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,022
Analyst Name: EP
Acquire Date: 9/27/2021 3:05:19PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.1557	ug/L	0.08443	54.23	-20.67
Al3961_R		37.79	ug/L	4.604	12.18	48.38
As1891_A		0.5569	ug/L	0.3349	60.14	-2.158
B_2089_A		1.024	ug/L	0.1648	16.09	6.661
Ba4554_R		0.07486	ug/L	0.06497	86.79	22.12
Be3130_R		0.1929	ug/L	0.01452	7.527	11.43
Ca3158_R		31.94	ug/L	5.691	17.82	9.828
Cd2265_A		0.07907	ug/L	0.004935	6.241	-0.9291
Co2286_A		-0.1571	ug/L	0.05265	33.52	1.824
Cr2677_A		0.06169	ug/L	0.1154	187.1	2.349
Cu3273_A		-0.1138	ug/L	0.03561	31.29	-43.39
Fe2599_R		19.12	ug/L	2.893	15.13	47.61
K_7664_R		49.71	ug/L	16.22	32.62	2.093
Li6707_R		1.059	ug/L	0.1636	15.45	7.882
Mg2025_A		14.94	ug/L	1.300	8.702	-1.262
Mn2576_R		-0.06934	ug/L	0.2198	317.0	3.432
Mo2020_A		0.5925	ug/L	0.2602	43.91	2.363
Na5895_R		9.811	ug/L	0.9461	9.643	43.19
Ni2316_A		0.01075	ug/L	0.3584	3,335	-0.5604

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,022
Analyst Name: EP
Acquire Date: 9/27/2021 3:05:19PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		-0.2955	ug/L	0.8541	289.1	-0.7216
Sb2068_A		0.5427	ug/L	0.06846	12.62	0.5008
Se1960_A		0.9932	ug/L	2.006	202.0	1.501
Si2516_R		13.45	ug/L	6.501	48.33	29.16
Sn1899_A		0.07290	ug/L	0.5645	774.4	1.722
Sr4215_R		0.1551	ug/L	0.04381	28.25	0.8845
Ti3349_A		1.299	ug/L	0.03129	2.408	12.76
Tl1908_A		0.5258	ug/L	0.1959	37.25	-1.356
V_2924_A		0.3286	ug/L	0.02331	7.091	-0.7071
Zn2062_A		0.2094	ug/L	0.006908	3.299	1.423
Y_3600_R		16,773	Cts/S	179.65	1.0711	16,773
Y_2243_A		7,782.2	Cts/S	32.260	0.41454	7,782.2
Y_3600_A		125,880	Cts/S	469.98	0.37337	125,880

KATAHDIN ANALYTICAL SERVICES, LLC
METALS ANALYSIS RUN INFORMATION SHEET

INSTR. ID: I (Thermo iCAP 6500) **ANALYST**: EP **ANALYSIS DATE**: 09/28/2021

METHOD: ICP **FILE NAME**: IOI28A

- [x] 200.7
- [x] 6010
- [x] DOD
- [ ] _____

EA 10-01-21
KATAHDIN ANALYTICAL
METALS SECTION

The pHs of all samples that were tested by direct analysis in this analytical run were checked just prior to analysis and confirmed to be <2. The time of preservation of these samples was checked in the "Measured Turbidity and Preservation of Incoming Samples" logbook to verify that they had been preserved at least 16 hours prior to analysis. These verifications were performed by _____ (initals) on _____ (date).

STANDARDS USED:

Standard Name	Standard ID	Prep Date	Expiration Date	Standard Conc.
Cal. Blk/ICB/CCB	MW20520	09/13/2021	09/13/2022	0 ug/L
Standard 1	MW20506	09/10/2021	12/10/2021	Varies by Element
ICV	MW20527	09/20/2021	11/04/2021	Varies by Element
PQL	MW20531	09/21/2021	11/09/2021	Varies by Element
LRS1	MW20535	09/22/2021	11/09/2021	Varies by Element
LRS2	MW20536	09/22/2021	12/21/2021	Varies by Element
ICSA	MW20534	09/22/2021	12/22/2021	Varies by Element
ICSAB	MW20509	09/10/2021	10/05/2021	Varies by Element
CCV	MW20539	09/23/2021	12/10/2021	Varies by Element
Internal Standard	MW20537	09/22/2021	11/02/2021	5.0 mg/L Yttrium

Additional Comments and Notes:

PQL warned low for arsenic. Non-DoD BQC accepted.

EA 10-01-21

Dilutions: Some samples were diluted based on history or due to interfering element concentrations.

Dilution preparations are as follows:

2x diln.: 4.0mL of sample (pipet M25) + 4.0mL of MW19407 (pipet M25)

5x diln.: 2.0 mL of sample (pipet M29) + 8.0 mL of MW20520 (pipet M29)

10x diln.: 1.0 mL of sample (pipet M25) + 9.0 mL of MW19407 (pipet M25)

Post Spike: 0.123mL MW20532 (pipet M27) to 6.0mL of sample (pipet M29)

INSTRUMENT RUNLOG

Instrument: ICAP 6500

SAMPLE ID	DF	FILE	DATE	TIME	ANALYST
Blank	1.000	IOI28A	09/28/2021	08:58	EP
Std 1	1.000	IOI28A	09/28/2021	09:02	EP
ICV	1.000	IOI28A	09/28/2021	09:07	EP
ICB	1.000	IOI28A	09/28/2021	09:11	EP
PQL	1.000	IOI28A	09/28/2021	09:15	EP
ICSA	1.000	IOI28A	09/28/2021	09:20	EP
ICSAB	1.000	IOI28A	09/28/2021	09:24	EP
CCV	1.000	IOI28A	09/28/2021	09:29	EP
CCB	1.000	IOI28A	09/28/2021	09:33	EP
LRS1	1.000	IOI28A	09/28/2021	09:37	EP
LRS2	1.000	IOI28A	09/28/2021	09:42	EP
CCV	1.000	IOI28A	09/28/2021	09:46	EP
CCB	1.000	IOI28A	09/28/2021	09:50	EP
LC2WOI24ICW1	1.000	IOI28A	09/28/2021	09:55	EP
LCSWOI24ICW1	1.000	IOI28A	09/28/2021	09:59	EP
LCSOOI27ICS1	1.000	IOI28A	09/28/2021	10:03	EP
PBSOI27ICS1	1.000	IOI28A	09/28/2021	10:08	EP
LC2WOI27ICW1	1.000	IOI28A	09/28/2021	10:12	EP
LCSWOI27ICW1	1.000	IOI28A	09/28/2021	10:16	EP
PBWOI27ICW1	1.000	IOI28A	09/28/2021	10:20	EP
SO6265-009	1.000	IOI28A	09/28/2021	10:25	EP
SO6388-001	10.00	IOI28A	09/28/2021	10:29	EP
SO6392-001	2.000	IOI28A	09/28/2021	10:33	EP
CCV	1.000	IOI28A	09/28/2021	10:38	EP
CCB	1.000	IOI28A	09/28/2021	10:42	EP
SO6226-009	1.000	IOI28A	09/28/2021	10:46	EP
SO6226-009L	5.000	IOI28A	09/28/2021	10:51	EP
SO6226-009A	1.000	IOI28A	09/28/2021	10:55	EP
SO6226-009P	1.000	IOI28A	09/28/2021	10:59	EP
SO6226-009S	1.000	IOI28A	09/28/2021	11:04	EP
SO6226-010	1.000	IOI28A	09/28/2021	11:08	EP
SO6226-011	1.000	IOI28A	09/28/2021	11:13	EP
SO6012-001R	1.000	IOI28A	09/28/2021	11:17	EP
SO6012-002R	1.000	IOI28A	09/28/2021	11:21	EP
SO6012-003R	1.000	IOI28A	09/28/2021	11:26	EP
CCV	1.000	IOI28A	09/28/2021	11:30	EP
CCB	1.000	IOI28A	09/28/2021	11:34	EP
SO6260-001R	1.000	IOI28A	09/28/2021	11:38	EP
SO6260-002R	1.000	IOI28A	09/28/2021	11:43	EP
SO6260-003R	1.000	IOI28A	09/28/2021	11:47	EP
SO6260-004R	1.000	IOI28A	09/28/2021	11:52	EP
SO6260-005R	5.000	IOI28A	09/28/2021	11:56	EP
SO6260-006R	1.000	IOI28A	09/28/2021	12:00	EP
SO6260-007R	1.000	IOI28A	09/28/2021	12:05	EP

SAMPLE ID	DF	FILE	DATE	TIME	ANALYST
SO6260-008R	1.000	IOI28A	09/28/2021	12:09	EP
CCV	1.000	IOI28A	09/28/2021	12:13	EP
CCB	1.000	IOI28A	09/28/2021	12:18	EP
PQL	1.000	IOI28A	09/28/2021	12:22	EP
ICSA	1.000	IOI28A	09/28/2021	12:26	EP
ICSAB	1.000	IOI28A	09/28/2021	12:31	EP
CCV	1.000	IOI28A	09/28/2021	12:35	EP
CCB	1.000	IOI28A	09/28/2021	12:40	EP

Intensity Report

Author:

Published: 9/28/2021 12:55:08PM

Notes:

Blank

Method Name: FAST-2016_NO_AU Method Revision: 1,023

Analyst Name: EP

Acquire Date: 9/28/2021 8:58:36AM Sample Type: Standard

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.0001690	Cts/S	0.000002000	1.022	-20.58
Al3961_R		-0.00006100	Cts/S	0.00004000	65.41	-0.9692
As1891_A		-0.0002510	Cts/S	0.000003000	1.336	-1.975
B_2089_A		0.0006450	Cts/S	0.00001300	2.056	5.067
Ba4554_R		0.0008260	Cts/S	0.0007120	86.16	13.10
Be3130_R		-0.0008350	Cts/S	0.000006000	0.7550	-13.30
Ca3158_R		-0.002777	Cts/S	0.0004440	15.99	-44.20
Cd2265_A		-0.0002640	Cts/S	0.00001200	4.433	-2.075
Co2286_A		0.0002270	Cts/S	0.00003900	17.02	1.788
Cr2677_A		0.00002300	Cts/S	0.000007000	30.36	2.800
Cu3273_A		0.000004000	Cts/S	0.000009000	201.2	-0.5372
Fe2599_R		0.0004740	Cts/S	0.0002010	42.38	7.529
K_7664_R		-0.001300	Cts/S	0.0005270	40.53	-20.67
Li6707_R		-0.0001190	Cts/S	0.0006930	582.9	-1.950
Mg2025_A		-0.0007140	Cts/S	0.00004200	5.890	-5.614
Mn2576_R		0.0001840	Cts/S	0.00001500	8.068	2.930
Mo2020_A		0.0001050	Cts/S	0.00001400	13.09	0.8226
Na5895_R		0.0009760	Cts/S	0.0007260	74.38	15.49
Ni2316_A		-0.0001370	Cts/S	0.00003000	22.08	-1.074
Pb2203_A		-0.00008200	Cts/S	0.0000	0.5134	-0.6451
Sb2068_A		0.00004600	Cts/S	0.00001800	39.94	0.3591
Se1960_A		0.0002210	Cts/S	0.000007000	3.189	1.735
Si2516_R		0.001660	Cts/S	0.0001250	7.536	26.46
Sn1899_A		0.0002320	Cts/S	0.00001600	7.097	1.822
Sr4215_R		-0.0009070	Cts/S	0.0002080	22.89	-14.43
Ti3349_A		-0.0001590	Cts/S	0.000007000	4.599	-19.40
Tl1908_A		-0.0002210	Cts/S	0.00003900	17.75	-1.733
V_2924_A		-0.00003600	Cts/S	0.00002400	68.66	-4.360
Zn2062_A		0.00009900	Cts/S	0.00008800	89.16	0.7766
Y_3600_R		15,933	Cts/S	164.51	1.0325	15,933
Y_2243_A		7,859.8	Cts/S	21.499	0.27354	7,859.8
Y_3600_A		122,100	Cts/S	706.11	0.57831	122,100

Std 1

Method Name: FAST-2016_NO_AU Method Revision: 1,023

Analyst Name: EP

Acquire Date: 9/28/2021 9:02:59AM Sample Type: Standard

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.1518	Cts/S	0.001055	0.6948	17,900
Al3961_R		1.682	Cts/S	0.01366	0.8119	26,990
As1891_A		0.04532	Cts/S	0.0004480	0.9890	347.4
B_2089_A		0.2191	Cts/S	0.001406	0.6420	1,679
Ba4554_R		4.032	Cts/S	0.03587	0.8898	64,680
Be3130_R		7.070	Cts/S	0.02360	0.3337	113,400
Ca3158_R		2.025	Cts/S	0.01347	0.6653	32,490
Cd2265_A		1.870	Cts/S	0.01601	0.8564	14,330
Co2286_A		0.4734	Cts/S	0.004373	0.9239	3,628
Cr2677_A		0.09888	Cts/S	0.0003450	0.3484	11,660
Cu3273_A		0.1286	Cts/S	0.0008530	0.6631	15,160
Fe2599_R		2.991	Cts/S	0.01065	0.3562	47,990
K_7664_R		1.071	Cts/S	0.005479	0.5117	17,180
Li6707_R		0.9221	Cts/S	0.005287	0.5733	14,790

Std 1

Method Name: FAST-2016_NO_AU
Method Revision: 1,023
Analyst Name: EP
Acquire Date: 9/28/2021 9:02:59AM
Sample Type: Standard

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Mg2025_A		1.246	Cts/S	0.008727	0.7007	9,547
Mn2576_R		0.7207	Cts/S	0.006830	0.9478	11,560
Mo2020_A		0.4250	Cts/S	0.002610	0.6140	3,257
Na5895_R		3.905	Cts/S	0.02075	0.5315	62,650
Ni2316_A		0.2809	Cts/S	0.001905	0.6784	2,153
Pb2203_A		0.1397	Cts/S	0.0008960	0.6410	1,071
Sb2068_A		0.08123	Cts/S	0.0004580	0.5642	622.6
Se1960_A		0.03493	Cts/S	0.0002190	0.6272	267.8
Si2516_R		0.9361	Cts/S	0.006318	0.6750	15,020
Sn1899_A		0.07129	Cts/S	0.0004970	0.6978	546.4
Sr4215_R		6.044	Cts/S	0.02696	0.4462	96,960
Ti3349_A		0.2130	Cts/S	0.001743	0.8182	25,120
Tl1908_A		0.07824	Cts/S	0.0006130	0.7836	599.7
V_2924_A		0.1074	Cts/S	0.0004300	0.3999	12,670
Zn2062_A		0.4028	Cts/S	0.003582	0.8892	3,088
Y_3600_R		16,044	Cts/S	72.909	0.45442	16,044
Y_2243_A		7,664.9	Cts/S	23.242	0.30322	7,664.9
Y_3600_A		117,920	Cts/S	510.67	0.43307	117,920

ICV

Method Name: FAST-2016_NO_AU
Method Revision: 1,023
Analyst Name: EP
Acquire Date: 9/28/2021 9:07:05AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		388.7	ug/L	0.1267	0.03260	6,988
Al3961_R		10,110	ug/L	89.74	0.8877	10,680
As1891_A		379.6	ug/L	3.399	0.8955	132.1
B_2089_A		385.4	ug/L	2.968	0.7700	658.5
Ba4554_R		402.0	ug/L	6.368	1.584	25,450
Be3130_R		410.0	ug/L	4.251	1.037	45,490
Ca3158_R		10,190	ug/L	73.21	0.7183	12,930
Cd2265_A		394.9	ug/L	1.143	0.2896	5,724
Co2286_A		402.8	ug/L	2.499	0.6205	1,479
Cr2677_A		396.1	ug/L	0.4952	0.1250	4,650
Cu3273_A		397.5	ug/L	1.024	0.2577	6,067
Fe2599_R		10,210	ug/L	47.58	0.4659	19,180
K_7664_R		13,670	ug/L	140.9	1.031	9,176
Li6707_R		408.1	ug/L	5.703	1.397	5,905
Mg2025_A		9,819	ug/L	92.79	0.9450	3,790
Mn2576_R		405.5	ug/L	5.034	1.242	4,588
Mo2020_A		408.9	ug/L	1.851	0.4525	1,348
Na5895_R		10,140	ug/L	125.4	1.237	24,870
Ni2316_A		399.9	ug/L	2.390	0.5976	870.3
Pb2203_A		402.5	ug/L	1.161	0.2885	435.6
Sb2068_A		388.0	ug/L	2.587	0.6668	244.5
Se1960_A		386.5	ug/L	3.302	0.8544	105.8
Si2516_R		9,979	ug/L	185.0	1.854	5,764
Sn1899_A		395.9	ug/L	2.928	0.7395	219.9
Sr4215_R		411.1	ug/L	3.826	0.9309	38,980
Ti3349_A		397.5	ug/L	0.2814	0.07080	10,040
Tl1908_A		400.9	ug/L	2.376	0.5927	242.2
V_2924_A		401.6	ug/L	0.2114	0.05264	5,118
Zn2062_A		398.1	ug/L	0.1386	0.03482	1,244
Y_3600_R		15,695	Cts/S	191.83	1.2223	15,695
Y_2243_A		7,753.4	Cts/S	94.283	1.2160	7,753.4
Y_3600_A		118,690	Cts/S	279.07	0.23513	118,690

ICB

Method Name: FAST-2016_NO_AU
Method Revision: 1,023
Analyst Name: EP
Acquire Date: 9/28/2021 9:11:15AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.1399	ug/L	0.1836	131.3	-23.49
Al3961_R		5.923	ug/L	2.007	33.89	5.340
As1891_A		0.1709	ug/L	0.4478	262.0	-1.980
B_2089_A		1.258	ug/L	0.2522	20.05	7.444
Ba4554_R		0.2836	ug/L	0.03412	12.03	31.12
Be3130_R		0.1939	ug/L	0.08436	43.50	8.372
Ca3158_R		9.923	ug/L	2.208	22.25	-31.16
Cd2265_A		0.008134	ug/L	0.06077	747.1	-2.010
Co2286_A		0.04713	ug/L	0.1167	247.5	2.038
Cr2677_A		0.05884	ug/L	0.1599	271.7	3.553
Cu3273_A		0.2705	ug/L	0.1643	60.74	3.755
Fe2599_R		6.833	ug/L	0.8306	12.15	20.40
K_7664_R		-0.6078	ug/L	8.027	1,321	-20.94
Li6707_R		0.4689	ug/L	1.622	346.0	4.839
Mg2025_A		0.5893	ug/L	0.1949	33.08	-5.568
Mn2576_R		-0.08780	ug/L	0.02915	33.20	1.900
Mo2020_A		0.3257	ug/L	0.2244	68.92	1.977
Na5895_R		6.234	ug/L	2.756	44.21	30.86
Ni2316_A		0.2622	ug/L	0.07226	27.56	-0.5110
Pb2203_A		-0.5522	ug/L	0.2783	50.40	-1.297
Sb2068_A		-0.5593	ug/L	0.4122	73.70	0.002615
Se1960_A		0.5938	ug/L	0.9776	164.6	1.963
Si2516_R		26.48	ug/L	8.859	33.45	41.61
Sn1899_A		-0.3357	ug/L	0.08860	26.39	1.692
Sr4215_R		0.2344	ug/L	0.03702	15.79	8.078
Ti3349_A		0.8325	ug/L	0.02786	3.346	2.283
Tl1908_A		-0.2892	ug/L	0.04492	15.53	-1.979
V_2924_A		0.02908	ug/L	0.05854	201.3	-4.027
Zn2062_A		-0.03406	ug/L	0.02067	60.69	0.6929
Y_3600_R		15,809	Cts/S	159.55	1.0092	15,809
Y_2243_A		8,135.1	Cts/S	8.4695	0.10411	8,135.1
Y_3600_A		123,500	Cts/S	673.60	0.54544	123,500

PQL

Method Name: FAST-2016_NO_AU
Method Revision: 1,023
Analyst Name: EP
Acquire Date: 9/28/2021 9:15:40AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		8.646	ug/L	0.2388	2.762	142.3
Al3961_R		301.7	ug/L	8.558	2.837	316.9
As1891_A	W	6.146	ug/L	0.01048	0.1706	0.2324
B_2089_A		45.25	ug/L	0.09126	0.2017	83.20
Ba4554_R		5.368	ug/L	0.09522	1.774	351.9
Be3130_R		5.066	ug/L	0.04187	0.8265	547.8
Ca3158_R		109.6	ug/L	3.208	2.927	95.78
Cd2265_A		4.863	ug/L	0.06065	1.247	70.84
Co2286_A		10.10	ug/L	0.04459	0.4413	40.23
Cr2677_A		9.604	ug/L	0.1294	1.347	120.4
Cu3273_A		23.71	ug/L	0.1319	0.5564	376.6
Fe2599_R		103.5	ug/L	1.874	1.810	201.4
K_7664_R		986.9	ug/L	9.194	0.9315	642.7
Li6707_R		100.5	ug/L	1.804	1.795	1,450
Mg2025_A		96.35	ug/L	0.3580	0.3716	33.21
Mn2576_R		5.039	ug/L	0.1034	2.052	59.72
Mo2020_A		9.653	ug/L	0.1587	1.644	33.76
Na5895_R		995.5	ug/L	3.366	0.3381	2,451
Ni2316_A		9.715	ug/L	0.08137	0.8376	20.82

PQL

Method Name: FAST-2016_NO_AU
Method Revision: 1,023
Analyst Name: EP
Acquire Date: 9/28/2021 9:15:40AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		4.462	ug/L	0.6145	13.77	4.328
Sb2068_A		7.571	ug/L	0.04507	0.5953	4.679
Se1960_A		8.897	ug/L	0.7017	7.887	4.248
Si2516_R		204.2	ug/L	7.718	3.779	143.3
Sn1899_A		98.50	ug/L	0.2703	0.2744	58.04
Sr4215_R		10.19	ug/L	0.01726	0.1695	950.6
Ti3349_A		14.60	ug/L	0.02202	0.1509	365.6
Tl1908_A		14.54	ug/L	0.5502	3.785	7.379
V_2924_A		9.771	ug/L	0.3886	3.977	125.6
Zn2062_A		19.37	ug/L	0.05046	0.2605	63.42
Y_3600_R		15,668	Cts/S	0.11335	0.00072300	15,668
Y_2243_A		8,026.2	Cts/S	14.501	0.18067	8,026.2
Y_3600_A		123,840	Cts/S	142.66	0.11520	123,840

ICSA

Method Name: FAST-2016_NO_AU
Method Revision: 1,023
Analyst Name: EP
Acquire Date: 9/28/2021 9:20:04AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-1.547	ug/L	0.3228	20.86	-816.3
Al3961_R		509,800	ug/L	599.6	0.1176	515,800
As1891_A		-0.4621	ug/L	0.3838	83.06	-9.803
B_2089_A		-0.4251	ug/L	0.7790	183.2	3.779
Ba4554_R		1.746	ug/L	0.02744	1.571	118.4
Be3130_R		0.00003400	ug/L	0.03374	97,800	-12.90
Ca3158_R		488,900	ug/L	143.4	0.02933	597,100
Cd2265_A		-1.709	ug/L	0.2166	12.67	295.6
Co2286_A		-0.2379	ug/L	0.4669	196.3	3.629
Cr2677_A		1.430	ug/L	0.2950	20.63	36.31
Cu3273_A		-4.529	ug/L	0.2021	4.462	-33.97
Fe2599_R		189,500	ug/L	1,748	0.9226	341,200
K_7664_R		-10.71	ug/L	18.12	169.2	-26.52
Li6707_R		3.959	ug/L	0.1413	3.570	53.18
Mg2025_A		433,800	ug/L	607.1	0.1400	149,800
Mn2576_R		1.283	ug/L	0.1910	14.89	14.76
Mo2020_A		-2.600	ug/L	0.07359	2.831	-6.973
Na5895_R		62.41	ug/L	2.403	3.850	161.4
Ni2316_A		2.072	ug/L	0.1182	5.704	-6.660
Pb2203_A		0.7309	ug/L	0.4253	58.18	-35.96
Sb2068_A		-2.970	ug/L	1.013	34.12	3.576
Se1960_A		-0.2423	ug/L	3.725	1,538	7.197
Si2516_R		14.42	ug/L	0.7480	5.186	15.51
Sn1899_A		11.09	ug/L	0.2399	2.163	7.114
Sr4215_R	W	5.100	ug/L	0.07930	1.555	450.4
Ti3349_A		2.159	ug/L	0.1850	8.570	31.78
Tl1908_A		-0.6634	ug/L	0.9466	142.7	-1.224
V_2924_A		-2.352	ug/L	0.1251	5.320	13.43
Zn2062_A		0.7270	ug/L	0.005235	0.7202	2.729
Y_3600_R		15,057	Cts/S	73.354	0.48718	15,057
Y_2243_A		6,973.2	Cts/S	14.223	0.20397	6,973.2
Y_3600_A		105,710	Cts/S	168.46	0.15937	105,710

ICSAB

Method Name: FAST-2016_NO_AU
Method Revision: 1,023
Analyst Name: EP
Acquire Date: 9/28/2021 9:24:36AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

ICSAB

Method Name: FAST-2016_NO_AU
Method Revision: 1,023
Analyst Name: EP
Acquire Date: 9/28/2021 9:24:36AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		214.3	ug/L	0.2264	0.1056	2,661
Al3961_R		508,900	ug/L	1,771	0.3481	524,100
As1891_A		100.7	ug/L	2.495	2.477	22.02
B_2089_A		474.0	ug/L	1.354	0.2856	709.8
Ba4554_R		491.1	ug/L	1.727	0.3517	30,350
Be3130_R		501.2	ug/L	2.785	0.5556	54,310
Ca3158_R		474,400	ug/L	5,173	1.090	589,700
Cd2265_A		913.6	ug/L	0.8974	0.09822	11,910
Co2286_A		454.0	ug/L	0.9558	0.2105	1,468
Cr2677_A		479.8	ug/L	0.7584	0.1580	4,998
Cu3273_A		533.3	ug/L	2.008	0.3765	7,215
Fe2599_R		186,900	ug/L	781.0	0.4178	342,700
K_7664_R		20,770	ug/L	16.28	0.07839	13,630
Li6707_R		530.3	ug/L	4.632	0.8735	7,494
Mg2025_A		434,400	ug/L	1,763	0.4059	146,700
Mn2576_R		476.5	ug/L	2.448	0.5137	5,266
Mo2020_A		466.4	ug/L	0.9967	0.2137	1,351
Na5895_R		20,880	ug/L	45.73	0.2190	49,990
Ni2316_A		892.9	ug/L	0.7928	0.08879	1,695
Pb2203_A		48.45	ug/L	1.554	3.207	10.13
Sb2068_A		595.5	ug/L	0.7891	0.1325	334.7
Se1960_A		47.30	ug/L	0.6982	1.476	18.27
Si2516_R		2,106	ug/L	3.277	0.1556	1,195
Sn1899_A		462.1	ug/L	1.903	0.4117	225.4
Sr4215_R		503.0	ug/L	2.421	0.4812	46,590
Ti3349_A		495.2	ug/L	4.050	0.8179	11,060
Tl1908_A		82.89	ug/L	0.8032	0.9690	43.95
V_2924_A		491.1	ug/L	1.811	0.3688	5,576
Zn2062_A		902.0	ug/L	0.5597	0.06205	2,478
Y_3600_R		15,327	Cts/S	95.605	0.62378	15,327
Y_2243_A		6,815.4	Cts/S	8.1271	0.11925	6,815.4
Y_3600_A		104,940	Cts/S	525.47	0.50074	104,940

CCV

Method Name: FAST-2016_NO_AU
Method Revision: 1,023
Analyst Name: EP
Acquire Date: 9/28/2021 9:29:03AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		489.7	ug/L	0.8666	0.1770	8,956
Al3961_R		12,890	ug/L	163.2	1.266	13,780
As1891_A		492.7	ug/L	0.3413	0.06926	170.6
B_2089_A		495.7	ug/L	1.689	0.3408	837.1
Ba4554_R		508.8	ug/L	1.988	0.3908	32,580
Be3130_R		512.4	ug/L	2.132	0.4161	57,520
Ca3158_R		12,880	ug/L	133.8	1.039	16,550
Cd2265_A		499.4	ug/L	0.4846	0.09703	7,174
Co2286_A		504.6	ug/L	1.212	0.2402	1,836
Cr2677_A		499.5	ug/L	2.514	0.5034	5,963
Cu3273_A		495.1	ug/L	2.399	0.4845	7,684
Fe2599_R		12,990	ug/L	189.4	1.458	24,670
K_7664_R		12,770	ug/L	44.00	0.3445	8,677
Li6707_R		516.6	ug/L	1.572	0.3042	7,563
Mg2025_A		12,660	ug/L	21.71	0.1714	4,844
Mn2576_R		512.9	ug/L	1.005	0.1959	5,870
Mo2020_A		504.9	ug/L	0.7082	0.1403	1,649
Na5895_R		12,840	ug/L	26.68	0.2078	31,850
Ni2316_A		506.3	ug/L	0.7758	0.1532	1,092

CCV

Method Name: FAST-2016_NO_AU
Method Revision: 1,023
Analyst Name: EP
Acquire Date: 9/28/2021 9:29:03AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		505.4	ug/L	0.8212	0.1625	542.2
Sb2068_A		497.8	ug/L	1.219	0.2449	310.8
Se1960_A		489.2	ug/L	1.270	0.2595	132.2
Si2516_R		13,060	ug/L	22.40	0.1716	7,624
Sn1899_A		505.1	ug/L	0.6337	0.1255	277.5
Sr4215_R		516.8	ug/L	2.690	0.5206	49,590
Ti3349_A		493.6	ug/L	4.646	0.9413	12,680
Tl1908_A		507.7	ug/L	2.009	0.3958	304.3
V_2924_A		498.4	ug/L	3.614	0.7250	6,459
Zn2062_A		497.5	ug/L	0.6765	0.1360	1,540
Y_3600_R		15,880	Cts/S	33.306	0.20974	15,880
Y_2243_A		7,682.6	Cts/S	20.522	0.26712	7,682.6
Y_3600_A		120,680	Cts/S	642.47	0.53236	120,680

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,023
Analyst Name: EP
Acquire Date: 9/28/2021 9:33:10AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.08303	ug/L	0.05913	71.21	-22.02
Al3961_R		31.78	ug/L	3.194	10.05	33.78
As1891_A		0.3074	ug/L	0.5201	169.2	-1.811
B_2089_A		1.228	ug/L	0.2513	20.46	6.941
Ba4554_R		0.3465	ug/L	0.1469	42.41	36.19
Be3130_R		0.1970	ug/L	0.04047	20.55	9.018
Ca3158_R		39.53	ug/L	2.291	5.795	6.982
Cd2265_A		0.07929	ug/L	0.01949	24.58	-0.8525
Co2286_A		0.2035	ug/L	0.1122	55.11	2.476
Cr2677_A		0.2614	ug/L	0.01289	4.932	5.896
Cu3273_A		0.1602	ug/L	0.01151	7.187	1.961
Fe2599_R		18.53	ug/L	0.4819	2.600	43.77
K_7664_R		3.440	ug/L	19.74	573.7	-18.72
Li6707_R		0.6627	ug/L	0.5708	86.12	8.031
Mg2025_A		25.76	ug/L	0.8435	3.274	4.303
Mn2576_R		0.04968	ug/L	0.6101	1,228	3.552
Mo2020_A		0.5105	ug/L	0.1849	36.21	2.453
Na5895_R		5.333	ug/L	4.236	79.42	29.40
Ni2316_A		0.4718	ug/L	0.1302	27.60	-0.03065
Pb2203_A		0.4426	ug/L	0.2073	46.83	-0.1560
Sb2068_A		-0.4831	ug/L	0.2129	44.07	0.05202
Se1960_A		0.08026	ug/L	1.133	1,412	1.706
Si2516_R		10.19	ug/L	2.695	26.46	33.09
Sn1899_A		-0.5199	ug/L	0.3574	68.74	1.487
Sr4215_R		0.1112	ug/L	0.03433	30.87	-3.810
Ti3349_A		0.8822	ug/L	0.08001	9.070	3.533
Tl1908_A		0.5522	ug/L	0.6650	120.4	-1.353
V_2924_A		0.2475	ug/L	0.02272	9.177	-1.105
Zn2062_A		0.02452	ug/L	0.09652	393.7	0.8295
Y_3600_R		16,269	Cts/S	80.034	0.49195	16,269
Y_2243_A		7,630.9	Cts/S	4.5342	0.059420	7,630.9
Y_3600_A		120,950	Cts/S	1,127.5	0.93217	120,950

LRS1

Method Name: FAST-2016_NO_AU
Method Revision: 1,023
Analyst Name: EP
Acquire Date: 9/28/2021 9:37:34AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

LRS1

Method Name: FAST-2016_NO_AU
Method Revision: 1,023
Analyst Name: EP
Acquire Date: 9/28/2021 9:37:34AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		1,957	ug/L	1.159	0.05921	34,360
Al3961_R		52.54	ug/L	5.442	10.36	254.6
As1891_A		19,620	ug/L	99.65	0.5080	6,490
B_2089_A		19,850	ug/L	97.37	0.4906	30,910
Ba4554_R		19,620	ug/L	61.82	0.3150	1,256,000
Be3130_R		19,640	ug/L	475.3	2.420	2,206,000
Ca3158_R		45.13	ug/L	1.655	3.666	29.34
Cd2265_A		19,200	ug/L	104.3	0.5436	259,200
Co2286_A		20,070	ug/L	115.5	0.5754	68,770
Cr2677_A		19,330	ug/L	20.39	0.1055	221,200
Cu3273_A		20,120	ug/L	8.831	0.04388	299,200
Fe2599_R		8.281	ug/L	1.014	12.24	23.26
K_7664_R		-4.442	ug/L	11.07	249.2	-23.68
Li6707_R		20,450	ug/L	99.95	0.4887	299,600
Mg2025_A		-2,269	ug/L	13.87	0.6114	223.2
Mn2576_R		19,660	ug/L	22.27	0.1133	225,100
Mo2020_A		5,055	ug/L	25.12	0.4969	15,550
Na5895_R		30.27	ug/L	0.5545	1.832	90.59
Ni2316_A		20,020	ug/L	104.1	0.5198	40,570
Pb2203_A		20,700	ug/L	123.8	0.5983	21,000
Sb2068_A		20,210	ug/L	124.4	0.6157	11,880
Se1960_A		20,190	ug/L	129.4	0.6408	5,069
Si2516_R		161.3	ug/L	52.68	32.67	255.6
Sn1899_A		19,790	ug/L	95.93	0.4848	10,190
Sr4215_R		20,020	ug/L	151.2	0.7551	1,922,000
Ti3349_A		19,210	ug/L	68.53	0.3568	473,800
Tl1908_A		19,850	ug/L	143.4	0.7225	11,280
V_2924_A		19,920	ug/L	51.24	0.2572	248,600
Zn2062_A		19,050	ug/L	130.8	0.6863	55,580
Y_3600_R		15,884	Cts/S	10.448	0.065774	15,884
Y_2243_A		7,243.9	Cts/S	28.430	0.39246	7,243.9
Y_3600_A		115,750	Cts/S	196.49	0.16976	115,750

LRS2

Method Name: FAST-2016_NO_AU
Method Revision: 1,023
Analyst Name: EP
Acquire Date: 9/28/2021 9:42:12AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.7451	ug/L	0.3638	48.82	-941.5
Al3961_R		508,000	ug/L	5,751	1.132	523,700
As1891_A		-0.04785	ug/L	3.007	6,285	-10.15
B_2089_A		47.01	ug/L	3.612	7.683	70.70
Ba4554_R		6.067	ug/L	1.673	27.58	387.5
Be3130_R		4.780	ug/L	1.618	33.85	504.0
Ca3158_R		464,800	ug/L	3,676	0.7908	578,300
Cd2265_A		-0.6403	ug/L	0.3421	53.43	363.0
Co2286_A		1.605	ug/L	0.3536	22.02	9.879
Cr2677_A		-1.043	ug/L	0.3457	33.15	14.61
Cu3273_A		-4.215	ug/L	0.2454	5.822	9.534
Fe2599_R		233,200	ug/L	1,839	0.7886	427,800
K_7664_R		305,700	ug/L	2,835	0.9274	201,100
Li6707_R		9.578	ug/L	1.672	17.46	133.6
Mg2025_A		186,400	ug/L	79.24	0.04251	61,010
Mn2576_R		15.41	ug/L	1.231	7.993	74.06
Mo2020_A		0.9820	ug/L	0.9809	99.89	3.446
Na5895_R		200,600	ug/L	1,622	0.8085	480,500
Ni2316_A		4.106	ug/L	0.6025	14.68	-4.633

LRS2

Method Name: FAST-2016_NO_AU
Method Revision: 1,023
Analyst Name: EP
Acquire Date: 9/28/2021 9:42:12AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		4.909	ug/L	0.5984	12.19	-28.76
Sb2068_A		-0.3131	ug/L	0.9719	310.4	5.621
Se1960_A		-1.226	ug/L	2.471	201.5	7.114
Si2516_R		49,410	ug/L	353.8	0.7160	27,760
Sn1899_A		14.28	ug/L	0.6929	4.852	8.235
Sr4215_R		11.29	ug/L	1.780	15.77	1,032
Ti3349_A		15.10	ug/L	0.7960	5.270	317.9
Tl1908_A		-1.136	ug/L	1.123	98.90	-1.454
V_2924_A		0.4912	ug/L	0.1064	21.66	55.05
Zn2062_A		4.714	ug/L	0.4880	10.35	13.21
Y_3600_R		15,340	Cts/S	101.83	0.66380	15,340
Y_2243_A		6,606.3	Cts/S	2.8810	0.043609	6,606.3
Y_3600_A		103,920	Cts/S	306.31	0.29475	103,920

CCV

Method Name: FAST-2016_NO_AU
Method Revision: 1,023
Analyst Name: EP
Acquire Date: 9/28/2021 9:46:48AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		494.2	ug/L	2.278	0.4611	8,783
Al3961_R		12,990	ug/L	14.61	0.1124	13,940
As1891_A		496.3	ug/L	5.033	1.014	168.0
B_2089_A		514.7	ug/L	1.990	0.3866	848.9
Ba4554_R		505.2	ug/L	2.308	0.4567	32,490
Be3130_R		515.9	ug/L	0.4150	0.08046	58,150
Ca3158_R		12,820	ug/L	45.40	0.3541	16,540
Cd2265_A		499.7	ug/L	3.338	0.6679	7,017
Co2286_A		505.7	ug/L	3.013	0.5957	1,799
Cr2677_A		505.0	ug/L	0.8916	0.1766	5,858
Cu3273_A		510.3	ug/L	1.460	0.2861	7,697
Fe2599_R		13,080	ug/L	16.52	0.1263	24,960
K_7664_R		13,060	ug/L	25.23	0.1932	8,911
Li6707_R	W	529.3	ug/L	1.090	0.2059	7,781
Mg2025_A		12,670	ug/L	64.83	0.5117	4,737
Mn2576_R		508.9	ug/L	1.075	0.2112	5,849
Mo2020_A		509.2	ug/L	2.405	0.4722	1,626
Na5895_R		13,020	ug/L	17.55	0.1348	32,440
Ni2316_A		508.6	ug/L	1.827	0.3592	1,072
Pb2203_A		506.8	ug/L	3.312	0.6536	531.3
Sb2068_A		501.8	ug/L	3.548	0.7072	306.3
Se1960_A		497.8	ug/L	2.522	0.5065	131.4
Si2516_R		13,240	ug/L	63.33	0.4784	7,761
Sn1899_A		505.7	ug/L	5.104	1.009	271.6
Sr4215_R		523.8	ug/L	1.031	0.1968	50,470
Ti3349_A		509.3	ug/L	2.355	0.4625	12,720
Tl1908_A		511.6	ug/L	3.726	0.7284	299.8
V_2924_A		508.8	ug/L	1.017	0.1999	6,409
Zn2062_A		493.0	ug/L	3.195	0.6480	1,492
Y_3600_R		15,945	Cts/S	121.05	0.75916	15,945
Y_2243_A		7,509.7	Cts/S	28.144	0.37477	7,509.7
Y_3600_A		117,280	Cts/S	323.91	0.27618	117,280

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,023
Analyst Name: EP
Acquire Date: 9/28/2021 9:50:56AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,023
Analyst Name: EP
Acquire Date: 9/28/2021 9:50:56AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.06044	ug/L	0.02246	37.15	-21.57
Al3961_R		29.16	ug/L	8.081	27.71	30.54
As1891_A		1.304	ug/L	0.5557	42.63	-1.468
B_2089_A	W	11.09	ug/L	0.5071	4.571	23.12
Ba4554_R		0.6727	ug/L	0.05356	7.961	56.77
Be3130_R		0.5326	ug/L	0.05643	10.60	46.94
Ca3158_R		32.81	ug/L	6.350	19.36	-1.819
Cd2265_A		0.3668	ug/L	0.1444	39.37	3.242
Co2286_A		0.3438	ug/L	0.04456	12.96	2.997
Cr2677_A		0.3905	ug/L	0.2107	53.96	7.425
Cu3273_A		0.3993	ug/L	0.08793	22.02	5.655
Fe2599_R		17.65	ug/L	2.602	14.74	41.48
K_7664_R		49.59	ug/L	9.004	18.16	13.28
Li6707_R		1.017	ug/L	0.6233	61.28	13.11
Mg2025_A		8.610	ug/L	2.063	23.96	-2.180
Mn2576_R		0.4527	ug/L	0.2261	49.95	8.164
Mo2020_A		0.7916	ug/L	0.2668	33.70	3.377
Na5895_R		22.27	ug/L	8.502	38.17	71.55
Ni2316_A		0.8236	ug/L	0.2827	34.33	0.7242
Pb2203_A		0.2401	ug/L	0.3882	161.7	-0.3743
Sb2068_A		-0.07088	ug/L	0.3426	483.3	0.3009
Se1960_A		1.744	ug/L	0.6427	36.85	2.152
Si2516_R		13.45	ug/L	5.482	40.77	34.56
Sn1899_A		0.8066	ug/L	0.1283	15.90	2.213
Sr4215_R		0.5607	ug/L	0.003564	0.6356	39.83
Ti3349_A		1.991	ug/L	0.05732	2.879	32.04
Tl1908_A		0.5423	ug/L	0.3261	60.13	-1.364
V_2924_A		0.5747	ug/L	0.05790	10.08	3.156
Zn2062_A		0.2991	ug/L	0.1007	33.66	1.678
Y_3600_R		16,044	Cts/S	131.96	0.82247	16,044
Y_2243_A		7,653.7	Cts/S	27.275	0.35636	7,653.7
Y_3600_A		120,720	Cts/S	238.39	0.19748	120,720

LC2WOI24ICW1

Method Name: FAST-2016_NO_AU
Method Revision: 1,023
Analyst Name: EP
Acquire Date: 9/28/2021 9:55:21AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		48.49	ug/L	0.2154	0.4443	852.9
Al3961_R		2,128	ug/L	10.51	0.4941	2,311
As1891_A		101.9	ug/L	0.9472	0.9295	32.76
B_2089_A		513.5	ug/L	0.03711	0.007228	826.0
Ba4554_R		2,111	ug/L	6.355	0.3011	137,300
Be3130_R		53.30	ug/L	0.2035	0.3817	6,068
Ca3158_R		2,585	ug/L	11.62	0.4497	3,339
Cd2265_A		255.7	ug/L	0.9682	0.3786	3,549
Co2286_A		529.1	ug/L	0.6060	0.1145	1,866
Cr2677_A		203.9	ug/L	1.536	0.7534	2,408
Cu3273_A		262.9	ug/L	3.043	1.157	4,029
Fe2599_R		1,068	ug/L	11.28	1.056	2,070
K_7664_R		10,490	ug/L	23.18	0.2209	7,239
Li6707_R		539.4	ug/L	2.240	0.4154	8,024
Mg2025_A		5,138	ug/L	1.942	0.03780	1,918
Mn2576_R		516.8	ug/L	3.417	0.6612	6,013
Mo2020_A		107.1	ug/L	0.01583	0.01478	339.5
Na5895_R		7,887	ug/L	11.38	0.1443	19,890
Ni2316_A		531.6	ug/L	1.193	0.2243	1,106

LC2WOI24ICW1

Method Name: FAST-2016_NO_AU
Method Revision: 1,023
Analyst Name: EP
Acquire Date: 9/28/2021 9:55:21AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		108.3	ug/L	0.1341	0.1238	112.1
Sb2068_A		104.1	ug/L	0.07605	0.07308	60.53
Se1960_A		105.5	ug/L	1.322	1.253	28.93
Si2516_R		1,046	ug/L	13.26	1.268	648.1
Sn1899_A		522.1	ug/L	0.8651	0.1657	278.0
Sr4215_R		539.4	ug/L	2.803	0.5196	52,590
Ti3349_A		505.1	ug/L	5.036	0.9971	12,830
Tl1908_A		104.1	ug/L	0.003305	0.003175	59.78
V_2924_A		510.4	ug/L	4.554	0.8922	6,578
Zn2062_A		505.0	ug/L	1.807	0.3579	1,516
Y_3600_R		16,134	Cts/S	20.480	0.12693	16,134
Y_2243_A		7,446.5	Cts/S	26.251	0.35253	7,446.5
Y_3600_A		119,360	Cts/S	946.68	0.79313	119,360

LCSWOI24ICW1

Method Name: FAST-2016_NO_AU
Method Revision: 1,023
Analyst Name: EP
Acquire Date: 9/28/2021 9:59:33AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		48.37	ug/L	0.1013	0.2094	832.8
Al3961_R		2,088	ug/L	7.277	0.3485	2,262
As1891_A		98.82	ug/L	1.338	1.354	31.32
B_2089_A		504.7	ug/L	0.08052	0.01595	801.9
Ba4554_R		2,059	ug/L	1.180	0.05731	133,600
Be3130_R		51.96	ug/L	0.6129	1.180	5,901
Ca3158_R		2,507	ug/L	21.39	0.8532	3,230
Cd2265_A		249.6	ug/L	0.9079	0.3637	3,422
Co2286_A		515.3	ug/L	0.8103	0.1573	1,795
Cr2677_A		202.1	ug/L	0.6454	0.3194	2,337
Cu3273_A		262.9	ug/L	1.797	0.6834	3,945
Fe2599_R		1,053	ug/L	13.75	1.306	2,034
K_7664_R		10,350	ug/L	49.87	0.4817	7,125
Li6707_R		536.6	ug/L	5.535	1.032	7,964
Mg2025_A		5,048	ug/L	5.688	0.1127	1,861
Mn2576_R		501.4	ug/L	5.390	1.075	5,821
Mo2020_A		104.8	ug/L	0.04017	0.03833	328.1
Na5895_R		7,763	ug/L	58.11	0.7485	19,530
Ni2316_A		520.6	ug/L	1.378	0.2647	1,070
Pb2203_A		104.2	ug/L	0.8099	0.7774	106.5
Sb2068_A		101.9	ug/L	0.1947	0.1911	58.56
Se1960_A		101.5	ug/L	0.5531	0.5451	27.55
Si2516_R		1,012	ug/L	0.6196	0.06121	627.0
Sn1899_A		508.0	ug/L	1.127	0.2219	267.2
Sr4215_R		534.0	ug/L	5.081	0.9516	51,940
Ti3349_A		504.2	ug/L	5.219	1.035	12,530
Tl1908_A		102.1	ug/L	0.2095	0.2052	57.86
V_2924_A		508.7	ug/L	4.609	0.9061	6,418
Zn2062_A		492.0	ug/L	2.132	0.4334	1,459
Y_3600_R		16,098	Cts/S	52.158	0.32401	16,098
Y_2243_A		7,354.4	Cts/S	7.8525	0.10677	7,354.4
Y_3600_A		116,830	Cts/S	252.51	0.21612	116,830

LCSOOI27ICS1

Method Name: FAST-2016_NO_AU
Method Revision: 1,023
Analyst Name: EP
Acquire Date: 9/28/2021 10:03:45AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

LCSOOI27ICS1

Method Name: FAST-2016_NO_AU
Method Revision: 1,023
Analyst Name: EP
Acquire Date: 9/28/2021 10:03:45AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A	F	-0.6610	ug/L	0.2941	44.48	-44.06
Al3961_R		2,111	ug/L	13.19	0.6250	2,309
As1891_A		98.11	ug/L	0.02839	0.02893	31.28
B_2089_A		563.8	ug/L	0.3399	0.06029	898.4
Ba4554_R		1,963	ug/L	1.490	0.07589	128,800
Be3130_R		51.05	ug/L	0.4988	0.9769	5,861
Ca3158_R		2,537	ug/L	21.38	0.8428	3,304
Cd2265_A		238.2	ug/L	0.2930	0.1230	3,287
Co2286_A		499.6	ug/L	0.04325	0.008656	1,751
Cr2677_A		197.4	ug/L	0.2743	0.1389	2,302
Cu3273_A	F	3.505	ug/L	0.4982	14.21	50.13
Fe2599_R		1,078	ug/L	6.772	0.6282	2,106
K_7664_R		10,220	ug/L	91.11	0.8917	7,109
Li6707_R		509.8	ug/L	3.431	0.6731	7,649
Mg2025_A		4,969	ug/L	1.166	0.02346	1,843
Mn2576_R		487.4	ug/L	2.113	0.4335	5,720
Mo2020_A	F	35.90	ug/L	0.04983	0.1388	113.5
Na5895_R	F	75,050	ug/L	340.7	0.4540	190,700
Ni2316_A		509.0	ug/L	0.1219	0.02396	1,052
Pb2203_A	F	44.45	ug/L	0.1152	0.2592	45.30
Sb2068_A	F	3.352	ug/L	0.06039	1.802	1.982
Se1960_A	F	9.076	ug/L	1.328	14.63	4.053
Si2516_R	F	1,338	ug/L	15.16	1.133	827.7
Sn1899_A	F	99.79	ug/L	0.1746	0.1749	54.21
Sr4215_R		514.8	ug/L	4.160	0.8079	50,630
Ti3349_A		486.4	ug/L	0.9898	0.2035	12,190
Tl1908_A	F	78.55	ug/L	0.7109	0.9050	44.56
V_2924_A		490.7	ug/L	1.433	0.2921	6,248
Zn2062_A		509.4	ug/L	0.02700	0.005300	1,520
Y_3600_R		16,274	Cts/S	0.53283	0.0032740	16,274
Y_2243_A		7,402.3	Cts/S	13.400	0.18102	7,402.3
Y_3600_A		117,820	Cts/S	164.82	0.13989	117,820

PBSOI27ICS1

Method Name: FAST-2016_NO_AU
Method Revision: 1,023
Analyst Name: EP
Acquire Date: 9/28/2021 10:08:00AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.7228	ug/L	0.06335	8.764	-7.244
Al3961_R		107.9	ug/L	1.046	0.9694	118.5
As1891_A		2.382	ug/L	1.079	45.31	-1.090
B_2089_A		5.931	ug/L	0.1390	2.343	14.62
Ba4554_R		0.7888	ug/L	0.03224	4.087	66.06
Be3130_R		0.03118	ug/L	0.03908	125.4	-10.23
Ca3158_R		36.04	ug/L	1.514	4.200	2.427
Cd2265_A		0.09975	ug/L	0.02028	20.33	-0.5395
Co2286_A		0.5501	ug/L	0.07921	14.40	3.734
Cr2677_A		0.8383	ug/L	0.2177	25.97	12.91
Cu3273_A		1.285	ug/L	0.1476	11.49	19.60
Fe2599_R		31.56	ug/L	1.340	4.247	70.06
K_7664_R		44.96	ug/L	0.7775	1.729	10.35
Li6707_R		0.2146	ug/L	0.5129	239.0	1.325
Mg2025_A		9.937	ug/L	0.3862	3.886	-1.662
Mn2576_R		0.9105	ug/L	0.2693	29.58	13.82
Mo2020_A		0.2346	ug/L	0.09634	41.07	1.560
Na5895_R		122.5	ug/L	3.096	2.527	331.6
Ni2316_A		1.754	ug/L	0.03659	2.086	2.699

PBSOI27ICS1

Method Name: FAST-2016_NO_AU
Method Revision: 1,023
Analyst Name: EP
Acquire Date: 9/28/2021 10:08:00AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		0.3506	ug/L	0.03808	10.86	-0.2603
Sb2068_A		-0.6304	ug/L	0.5677	90.06	-0.03854
Se1960_A		-1.376	ug/L	0.2402	17.46	1.323
Si2516_R		-0.1940	ug/L	3.590	1,850	27.26
Sn1899_A		-0.3499	ug/L	0.06605	18.88	1.581
Sr4215_R		0.1685	ug/L	0.02926	17.36	1.834
Ti3349_A		1.670	ug/L	0.1875	11.23	24.04
Tl1908_A		2.087	ug/L	0.3480	16.68	-0.4371
V_2924_A		0.2792	ug/L	0.3110	111.4	-0.6946
Zn2062_A		6.197	ug/L	0.06300	1.017	19.84
Y_3600_R		16,489	Cts/S	89.507	0.54282	16,489
Y_2243_A		7,638.7	Cts/S	9.7863	0.12812	7,638.7
Y_3600_A		122,090	Cts/S	430.67	0.35276	122,090

LC2WOI27ICW1

Method Name: FAST-2016_NO_AU
Method Revision: 1,023
Analyst Name: EP
Acquire Date: 9/28/2021 10:12:24AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		47.41	ug/L	0.5269	1.111	814.0
Al3961_R		2,050	ug/L	0.07934	0.003871	2,206
As1891_A		96.47	ug/L	0.1039	0.1077	30.23
B_2089_A		503.5	ug/L	4.027	0.7999	792.2
Ba4554_R		2,035	ug/L	4.002	0.1966	131,200
Be3130_R		51.30	ug/L	0.08381	0.1634	5,787
Ca3158_R		2,458	ug/L	0.08509	0.003461	3,145
Cd2265_A		247.1	ug/L	0.7751	0.3137	3,354
Co2286_A		510.4	ug/L	2.447	0.4795	1,760
Cr2677_A		197.6	ug/L	0.5323	0.2694	2,280
Cu3273_A		258.4	ug/L	2.196	0.8500	3,867
Fe2599_R		1,035	ug/L	8.005	0.7733	1,988
K_7664_R		10,220	ug/L	30.19	0.2955	6,986
Li6707_R		537.0	ug/L	2.503	0.4661	7,917
Mg2025_A		4,982	ug/L	50.62	1.016	1,819
Mn2576_R		493.6	ug/L	0.2044	0.04140	5,693
Mo2020_A		105.4	ug/L	0.7836	0.7432	326.9
Na5895_R		7,714	ug/L	36.25	0.4699	19,280
Ni2316_A		513.8	ug/L	2.885	0.5614	1,045
Pb2203_A		103.4	ug/L	0.4949	0.4786	104.7
Sb2068_A		100.9	ug/L	1.327	1.315	57.39
Se1960_A		99.78	ug/L	0.7798	0.7815	26.86
Si2516_R		1,016	ug/L	3.277	0.3225	625.0
Sn1899_A		510.7	ug/L	2.797	0.5477	266.0
Sr4215_R		533.3	ug/L	0.2054	0.03852	51,530
Ti3349_A		496.2	ug/L	1.781	0.3590	12,310
Tl1908_A		101.7	ug/L	0.2811	0.2763	57.10
V_2924_A		498.7	ug/L	4.169	0.8360	6,277
Zn2062_A		484.0	ug/L	0.5324	0.1100	1,421
Y_3600_R		15,992	Cts/S	11.174	0.069871	15,992
Y_2243_A		7,282.6	Cts/S	62.607	0.85968	7,282.6
Y_3600_A		116,560	Cts/S	776.72	0.66636	116,560

LCSWOI27ICW1

Method Name: FAST-2016_NO_AU
Method Revision: 1,023
Analyst Name: EP
Acquire Date: 9/28/2021 10:16:36AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

LCSWOI27ICW1

Method Name: FAST-2016_NO_AU
Method Revision: 1,023
Analyst Name: EP
Acquire Date: 9/28/2021 10:16:36AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		47.81	ug/L	0.9323	1.950	832.0
Al3961_R		2,010	ug/L	18.71	0.9309	2,187
As1891_A		98.73	ug/L	0.4179	0.4233	31.46
B_2089_A		484.9	ug/L	1.650	0.3403	774.6
Ba4554_R		2,006	ug/L	34.84	1.736	130,800
Be3130_R		50.97	ug/L	0.8236	1.616	5,816
Ca3158_R		2,454	ug/L	44.19	1.801	3,175
Cd2265_A		245.1	ug/L	0.6212	0.2535	3,377
Co2286_A		503.6	ug/L	1.702	0.3379	1,763
Cr2677_A		196.7	ug/L	1.107	0.5627	2,298
Cu3273_A		255.0	ug/L	0.8597	0.3372	3,865
Fe2599_R		1,029	ug/L	15.80	1.535	1,999
K_7664_R		10,030	ug/L	174.0	1.734	6,935
Li6707_R		498.6	ug/L	11.27	2.260	7,434
Mg2025_A		4,992	ug/L	31.98	0.6405	1,850
Mn2576_R		493.0	ug/L	4.538	0.9204	5,750
Mo2020_A		98.13	ug/L	0.2223	0.2265	308.9
Na5895_R		7,587	ug/L	140.2	1.848	19,170
Ni2316_A		509.5	ug/L	1.449	0.2844	1,052
Pb2203_A		103.1	ug/L	0.6782	0.6580	106.0
Sb2068_A		99.31	ug/L	1.263	1.272	57.49
Se1960_A		100.9	ug/L	1.592	1.578	27.54
Si2516_R		952.8	ug/L	9.198	0.9654	594.4
Sn1899_A		479.9	ug/L	2.016	0.4201	253.9
Sr4215_R		497.0	ug/L	10.25	2.061	48,570
Ti3349_A		471.8	ug/L	1.167	0.2475	11,850
Tl1908_A		101.8	ug/L	0.08088	0.07943	58.00
V_2924_A		494.3	ug/L	1.832	0.3706	6,302
Zn2062_A		483.0	ug/L	0.6241	0.1292	1,440
Y_3600_R		16,172	Cts/S	63.843	0.39477	16,172
Y_2243_A		7,393.1	Cts/S	15.785	0.21351	7,393.1
Y_3600_A		118,060	Cts/S	356.79	0.30220	118,060

PBWOI27ICW1

Method Name: FAST-2016_NO_AU
Method Revision: 1,023
Analyst Name: EP
Acquire Date: 9/28/2021 10:20:49AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.2415	ug/L	0.2792	115.6	-24.75
Al3961_R		7.644	ug/L	0.07872	1.030	7.324
As1891_A		0.01852	ug/L	1.044	5,636	-1.878
B_2089_A		4.324	ug/L	0.2840	6.567	11.77
Ba4554_R		0.5888	ug/L	0.06705	11.39	51.62
Be3130_R		0.04631	ug/L	0.01993	43.04	-8.296
Ca3158_R		14.91	ug/L	2.327	15.61	-25.30
Cd2265_A		-0.007408	ug/L	0.04085	551.5	-2.067
Co2286_A		-0.007657	ug/L	0.1220	1,593	1.688
Cr2677_A		0.2281	ug/L	0.08980	39.37	5.466
Cu3273_A		0.3742	ug/L	0.06550	17.50	5.248
Fe2599_R		9.198	ug/L	2.623	28.52	25.38
K_7664_R		13.03	ug/L	1.604	12.31	-11.97
Li6707_R		-0.03514	ug/L	0.1761	501.2	-2.433
Mg2025_A		4.598	ug/L	0.1899	4.129	-3.647
Mn2576_R		0.6252	ug/L	0.4140	66.22	10.22
Mo2020_A		0.1317	ug/L	0.05271	40.01	1.204
Na5895_R		42.36	ug/L	0.9199	2.171	122.5
Ni2316_A		0.4702	ug/L	0.1440	30.62	-0.03814

PBWOI27ICW1

Method Name: FAST-2016_NO_AU
Method Revision: 1,023
Analyst Name: EP
Acquire Date: 9/28/2021 10:20:49AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		-0.3250	ug/L	0.1439	44.28	-0.9575
Sb2068_A		-0.1228	ug/L	0.3455	281.4	0.2649
Se1960_A		-0.4877	ug/L	0.5936	121.7	1.528
Si2516_R		0.3824	ug/L	2.704	707.1	27.02
Sn1899_A		0.4906	ug/L	0.3278	66.81	1.999
Sr4215_R		0.1600	ug/L	0.003010	1.881	0.9688
Ti3349_A		1.381	ug/L	0.01995	1.445	16.27
Tl1908_A		-0.1038	ug/L	0.1003	96.55	-1.716
V_2924_A		0.08035	ug/L	0.08812	109.7	-3.245
Zn2062_A		0.8216	ug/L	0.1466	17.84	3.224
Y_3600_R		16,138	Cts/S	97.181	0.60218	16,138
Y_2243_A		7,498.3	Cts/S	20.215	0.26959	7,498.3
Y_3600_A		120,190	Cts/S	412.92	0.34355	120,190

SO6265-009

Method Name: FAST-2016_NO_AU
Method Revision: 1,023
Analyst Name: EP
Acquire Date: 9/28/2021 10:25:14AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.2659	ug/L	0.1233	46.37	-24.64
Al3961_R		2.048	ug/L	17.28	843.7	70.31
As1891_A		0.4245	ug/L	0.4682	110.3	-1.665
B_2089_A		56.94	ug/L	0.6162	1.082	91.82
Ba4554_R		15.40	ug/L	0.2516	1.634	996.7
Be3130_R		0.1151	ug/L	0.04886	42.44	-0.4085
Ca3158_R	W	76,650	ug/L	428.5	0.5591	98,470
Cd2265_A		0.1943	ug/L	0.009926	5.108	1.003
Co2286_A		21.11	ug/L	0.06980	0.3307	73.06
Cr2677_A		0.08202	ug/L	0.3928	479.0	4.730
Cu3273_A		2.025	ug/L	0.09516	4.699	29.24
Fe2599_R		197.6	ug/L	0.6665	0.3373	382.0
K_7664_R		2,365	ug/L	9.770	0.4131	1,586
Li6707_R		82.65	ug/L	0.6729	0.8141	1,206
Mg2025_A	W	44,920	ug/L	239.9	0.5340	15,940
Mn2576_R	W	1,292	ug/L	7.977	0.6176	14,770
Mo2020_A		-0.3226	ug/L	0.1731	53.66	-0.3111
Na5895_R	W	34,910	ug/L	178.8	0.5122	86,400
Ni2316_A		28.45	ug/L	0.6087	2.139	55.93
Pb2203_A		-0.3882	ug/L	0.06538	16.84	-0.9690
Sb2068_A		-0.6492	ug/L	0.09113	14.04	-0.06337
Se1960_A		6.843	ug/L	0.03854	0.5631	3.452
Si2516_R		15,060	ug/L	72.48	0.4813	8,766
Sn1899_A		0.7700	ug/L	0.02077	2.697	2.053
Sr4215_R		284.6	ug/L	2.168	0.7617	27,250
Ti3349_A		1.160	ug/L	0.2840	24.48	10.05
Tl1908_A		-0.7399	ug/L	0.4827	65.24	-2.703
V_2924_A		0.1616	ug/L	0.1741	107.7	-7.460
Zn2062_A		44.05	ug/L	0.1385	0.3144	127.9
Y_3600_R		15,845	Cts/S	23.913	0.15092	15,845
Y_2243_A		7,164.0	Cts/S	42.942	0.59942	7,164.0
Y_3600_A		113,580	Cts/S	767.17	0.67545	113,580

SO6388-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,023
Analyst Name: EP
Acquire Date: 9/28/2021 10:29:37AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SO6388-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,023
Analyst Name: EP
Acquire Date: 9/28/2021 10:29:37AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-3.280	ug/L	2.613	79.68	-30.15
Al3961_R		1,184	ug/L	89.47	7.554	140.8
As1891_A		4.639	ug/L	16.28	351.1	-1.717
B_2089_A		245.0	ug/L	1.396	0.5698	43.14
Ba4554_R		411.4	ug/L	10.25	2.491	2,702
Be3130_R		0.5684	ug/L	0.2329	40.98	-7.288
Ca3158_R		139,500	ug/L	1,357	0.9724	18,310
Cd2265_A		-0.3450	ug/L	0.1313	38.05	-0.3988
Co2286_A		2.299	ug/L	1.407	61.17	2.506
Cr2677_A		5.675	ug/L	1.014	17.87	9.587
Cu3273_A		16.59	ug/L	0.9337	5.630	24.98
Fe2599_R		11,310	ug/L	193.7	1.712	2,202
K_7664_R		53,140	ug/L	893.2	1.681	3,674
Li6707_R		53.95	ug/L	2.485	4.607	78.74
Mg2025_A		63,540	ug/L	175.1	0.2756	2,303
Mn2576_R		4,133	ug/L	45.58	1.103	4,835
Mo2020_A		1.109	ug/L	1.271	114.6	1.086
Na5895_R	W	1,065,000	ug/L	16,530	1.552	269,800
Ni2316_A		13.69	ug/L	2.140	15.63	1.742
Pb2203_A		-6.546	ug/L	4.306	65.78	-1.247
Sb2068_A		-9.779	ug/L	3.282	33.56	-0.2209
Se1960_A		2.724	ug/L	0.3599	13.21	1.759
Si2516_R		10,050	ug/L	132.1	1.314	623.9
Sn1899_A		-6.142	ug/L	5.336	86.88	1.379
Sr4215_R		4,718	ug/L	73.69	1.562	46,220
Ti3349_A		38.48	ug/L	0.2010	0.5223	75.88
Tl1908_A		-6.575	ug/L	1.035	15.74	-2.243
V_2924_A		3.310	ug/L	1.744	52.71	-1.446
Zn2062_A		276.7	ug/L	3.589	1.297	82.53
Y_3600_R		16,215	Cts/S	88.100	0.54333	16,215
Y_2243_A		7,332.3	Cts/S	11.544	0.15745	7,332.3
Y_3600_A		114,800	Cts/S	1,449.5	1.2626	114,800

SO6392-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,023
Analyst Name: EP
Acquire Date: 9/28/2021 10:33:59AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.08347	ug/L	0.3065	367.3	-20.14
Al3961_R		108.4	ug/L	5.725	5.280	106.0
As1891_A		-4.720	ug/L	1.121	23.74	-2.596
B_2089_A		68.34	ug/L	0.07908	0.1157	57.33
Ba4554_R		226.6	ug/L	0.7695	0.3395	7,394
Be3130_R		0.02013	ug/L	0.05032	250.0	-12.64
Ca3158_R	W	104,800	ug/L	516.8	0.4929	68,660
Cd2265_A		0.03496	ug/L	0.06597	188.7	-1.179
Co2286_A		34.90	ug/L	0.3295	0.9442	61.07
Cr2677_A		-0.4794	ug/L	0.2520	52.56	12.27
Cu3273_A		3.028	ug/L	0.2620	8.654	22.27
Fe2599_R		610.8	ug/L	2.897	0.4744	597.9
K_7664_R		45,850	ug/L	528.1	1.152	15,860
Li6707_R		35.82	ug/L	0.8444	2.357	265.0
Mg2025_A	W	126,000	ug/L	111.5	0.08849	22,500
Mn2576_R	W	26,010	ug/L	120.1	0.4619	151,500
Mo2020_A		0.1304	ug/L	0.03705	28.42	0.1431
Na5895_R	W	54,870	ug/L	640.7	1.168	69,240
Ni2316_A		58.37	ug/L	0.01246	0.02135	57.76

SO6392-001

Method Name: FAST-2016_NO_AU
Method Revision: 1,023
Analyst Name: EP
Acquire Date: 9/28/2021 10:33:59AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		3.617	ug/L	0.2305	6.372	1.242
Sb2068_A		-1.002	ug/L	0.09363	9.342	0.02795
Se1960_A		-7.075	ug/L	0.2984	4.218	2.442
Si2516_R		8,001	ug/L	15.23	0.1903	2,394
Sn1899_A		0.7483	ug/L	1.053	140.8	1.863
Sr4215_R		1,707	ug/L	19.71	1.155	83,360
Ti3349_A		2.269	ug/L	0.4034	17.78	9.588
Tl1908_A		-21.06	ug/L	0.4775	2.268	-15.11
V_2924_A		-5.442	ug/L	0.4336	7.968	-94.39
Zn2062_A		81.87	ug/L	0.5850	0.7146	119.7
Y_3600_R		16,157	Cts/S	63.591	0.39359	16,157
Y_2243_A		7,209.7	Cts/S	2.9463	0.040865	7,209.7
Y_3600_A		115,740	Cts/S	368.23	0.31816	115,740

CCV

Method Name: FAST-2016_NO_AU
Method Revision: 1,023
Analyst Name: EP
Acquire Date: 9/28/2021 10:38:21AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		484.9	ug/L	3.105	0.6402	8,803
Al3961_R		12,690	ug/L	42.29	0.3334	13,960
As1891_A		484.8	ug/L	1.083	0.2233	165.1
B_2089_A		498.3	ug/L	1.839	0.3690	828.2
Ba4554_R		495.2	ug/L	2.259	0.4563	32,650
Be3130_R		503.3	ug/L	2.445	0.4859	58,170
Ca3158_R		12,490	ug/L	40.73	0.3261	16,520
Cd2265_A		496.0	ug/L	2.000	0.4033	7,012
Co2286_A		498.2	ug/L	1.310	0.2630	1,784
Cr2677_A		498.7	ug/L	3.531	0.7081	5,909
Cu3273_A		497.8	ug/L	4.038	0.8111	7,669
Fe2599_R		12,840	ug/L	94.57	0.7363	25,130
K_7664_R		12,710	ug/L	69.09	0.5437	8,887
Li6707_R		517.5	ug/L	0.6468	0.1250	7,800
Mg2025_A		12,420	ug/L	45.56	0.3670	4,674
Mn2576_R		492.9	ug/L	0.7740	0.1570	5,809
Mo2020_A		509.4	ug/L	1.880	0.3691	1,637
Na5895_R		12,730	ug/L	28.35	0.2227	32,510
Ni2316_A		506.2	ug/L	1.394	0.2753	1,074
Pb2203_A		504.0	ug/L	2.310	0.4583	532.1
Sb2068_A		496.0	ug/L	2.691	0.5425	304.8
Se1960_A		483.5	ug/L	3.023	0.6252	128.6
Si2516_R		12,640	ug/L	0.7642	0.006044	7,602
Sn1899_A		498.5	ug/L	2.720	0.5456	269.6
Sr4215_R		515.9	ug/L	2.322	0.4500	50,970
Ti3349_A		485.6	ug/L	2.435	0.5014	12,380
Tl1908_A		499.4	ug/L	2.686	0.5378	294.6
V_2924_A		494.6	ug/L	3.343	0.6759	6,361
Zn2062_A		489.6	ug/L	2.676	0.5466	1,491
Y_3600_R		16,349	Cts/S	5.9414	0.036341	16,349
Y_2243_A		7,560.6	Cts/S	6.9648	0.092119	7,560.6
Y_3600_A		119,800	Cts/S	540.57	0.45124	119,800

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,023
Analyst Name: EP
Acquire Date: 9/28/2021 10:42:30AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,023
Analyst Name: EP
Acquire Date: 9/28/2021 10:42:30AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.1348	ug/L	0.1904	141.2	-23.30
Al3961_R		2.869	ug/L	7.955	277.2	2.142
As1891_A		1.188	ug/L	0.04375	3.683	-1.536
B_2089_A		2.235	ug/L	0.01100	0.4919	8.767
Ba4554_R		0.1561	ug/L	0.04161	26.65	23.95
Be3130_R		0.05170	ug/L	0.1201	232.4	-7.711
Ca3158_R		9.856	ug/L	0.7556	7.667	-32.56
Cd2265_A		0.02661	ug/L	0.02989	112.3	-1.663
Co2286_A		0.1277	ug/L	0.01990	15.59	2.251
Cr2677_A		0.1191	ug/L	0.06561	55.07	4.266
Cu3273_A		0.1344	ug/L	0.1887	140.3	1.586
Fe2599_R		4.599	ug/L	1.190	25.87	16.88
K_7664_R		22.19	ug/L	23.85	107.5	-5.856
Li6707_R		0.5621	ug/L	0.2116	37.65	6.603
Mg2025_A		1.992	ug/L	1.115	56.00	-4.791
Mn2576_R		0.2070	ug/L	0.3592	173.5	5.455
Mo2020_A		0.3859	ug/L	0.1216	31.52	2.094
Na5895_R		13.51	ug/L	12.18	90.18	51.03
Ni2316_A		0.2576	ug/L	0.1414	54.91	-0.4988
Pb2203_A		-0.1377	ug/L	1.033	750.2	-0.7908
Sb2068_A		-0.7747	ug/L	0.1560	20.14	-0.1360
Se1960_A		1.338	ug/L	0.5780	43.20	2.082
Si2516_R		12.30	ug/L	5.836	47.43	34.75
Sn1899_A		-0.09528	ug/L	0.1971	206.9	1.755
Sr4215_R		0.1246	ug/L	0.001356	1.088	-2.530
Ti3349_A		1.042	ug/L	0.1973	18.94	7.746
Tl1908_A		0.6804	ug/L	0.3224	47.39	-1.305
V_2924_A		0.1224	ug/L	0.1423	116.2	-2.779
Zn2062_A		-0.1761	ug/L	0.03271	18.57	0.2173
Y_3600_R		16,471	Cts/S	215.29	1.3071	16,471
Y_2243_A		7,797.1	Cts/S	1.4230	0.018250	7,797.1
Y_3600_A		122,920	Cts/S	615.14	0.50042	122,920

SO6226-009

Method Name: FAST-2016_NO_AU
Method Revision: 1,023
Analyst Name: EP
Acquire Date: 9/28/2021 10:46:54AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		2.395	ug/L	0.2147	8.967	-495.7
Al3961_R		17,480	ug/L	11.27	0.06448	21,140
As1891_A		8.994	ug/L	0.04878	0.5424	-1.748
B_2089_A		16.45	ug/L	0.03661	0.2225	33.69
Ba4554_R		824.5	ug/L	5.735	0.6956	59,110
Be3130_R		6.963	ug/L	0.01855	0.2665	829.1
Ca3158_R	W	264,500	ug/L	740.5	0.2800	381,400
Cd2265_A		2.820	ug/L	0.1115	3.954	243.6
Co2286_A		50.44	ug/L	0.1789	0.3546	199.7
Cr2677_A		24.48	ug/L	0.08512	0.3477	334.9
Cu3273_A		43.86	ug/L	0.3677	0.8383	826.0
Fe2599_R	W	103,400	ug/L	398.4	0.3853	219,900
K_7664_R		1,064	ug/L	18.76	1.763	788.3
Li6707_R		4.605	ug/L	0.09726	2.112	73.41
Mg2025_A		4,395	ug/L	3.151	0.07170	1,762
Mn2576_R	W	7,777	ug/L	71.63	0.9211	99,630
Mo2020_A		-0.6925	ug/L	0.05373	7.759	-2.117
Na5895_R		444.5	ug/L	5.749	1.293	1,252
Ni2316_A		24.40	ug/L	0.3672	1.505	47.92

SO6226-009

Method Name: FAST-2016_NO_AU
Method Revision: 1,023
Analyst Name: EP
Acquire Date: 9/28/2021 10:46:54AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		153.0	ug/L	0.7450	0.4868	175.1
Sb2068_A		-3.968	ug/L	0.1877	4.730	0.2274
Se1960_A		-4.541	ug/L	0.06334	1.395	3.346
Si2516_R		5,505	ug/L	47.62	0.8651	3,607
Sn1899_A		1.950	ug/L	0.1378	7.067	3.000
Sr4215_R		307.9	ug/L	1.387	0.4504	33,080
Ti3349_A		459.8	ug/L	1.757	0.3821	12,580
Tl1908_A		-6.495	ug/L	0.3590	5.526	-11.22
V_2924_A		93.64	ug/L	0.1490	0.1591	1,295
Zn2062_A		298.9	ug/L	0.3377	0.1130	976.8
Y_3600_R		17,782	Cts/S	42.117	0.23685	17,782
Y_2243_A		8,100.0	Cts/S	18.627	0.22996	8,100.0
Y_3600_A		128,620	Cts/S	278.10	0.21622	128,620

SO6229-009L

Method Name: FAST-2016_NO_AU
Method Revision: 1,023
Analyst Name: EP
Acquire Date: 9/28/2021 10:51:18AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.8854	ug/L	0.04756	5.372	-123.6
Al3961_R		18,370	ug/L	108.0	0.5881	4,147
As1891_A		18.24	ug/L	1.195	6.552	-1.266
B_2089_A		25.36	ug/L	0.4275	1.686	13.23
Ba4554_R		893.4	ug/L	3.930	0.4399	11,970
Be3130_R		7.436	ug/L	0.1523	2.048	154.2
Ca3158_R	W	282,200	ug/L	30.25	0.01072	75,950
Cd2265_A		2.770	ug/L	0.3314	11.97	47.21
Co2286_A		55.69	ug/L	0.4926	0.8845	43.04
Cr2677_A		27.81	ug/L	2.056	7.392	74.09
Cu3273_A		46.35	ug/L	0.6406	1.382	165.5
Fe2599_R		111,300	ug/L	92.94	0.08355	44,180
K_7664_R		1,200	ug/L	9.751	0.8127	149.2
Li6707_R		7.169	ug/L	2.416	33.70	20.00
Mg2025_A		4,799	ug/L	37.68	0.7850	359.7
Mn2576_R	W	8,453	ug/L	38.14	0.4512	20,220
Mo2020_A		-1.396	ug/L	0.5545	39.71	-0.2255
Na5895_R		533.5	ug/L	19.70	3.693	292.7
Ni2316_A		28.55	ug/L	0.5818	2.038	9.910
Pb2203_A		164.9	ug/L	7.690	4.664	35.20
Sb2068_A		-9.695	ug/L	3.252	33.55	-0.3530
Se1960_A		-7.086	ug/L	3.060	43.19	1.892
Si2516_R		5,703	ug/L	23.63	0.4143	719.4
Sn1899_A		0.2286	ug/L	0.9139	399.8	1.801
Sr4215_R		332.3	ug/L	0.4951	0.1490	6,653
Ti3349_A		505.9	ug/L	0.3952	0.07813	2,609
Tl1908_A		-8.286	ug/L	2.521	30.42	-3.774
V_2924_A		104.2	ug/L	1.046	1.005	269.7
Zn2062_A		324.4	ug/L	0.01333	0.004109	201.1
Y_3600_R		16,599	Cts/S	97.369	0.58660	16,599
Y_2243_A		7,658.6	Cts/S	66.153	0.86377	7,658.6
Y_3600_A		121,950	Cts/S	123.51	0.10128	121,950

SO6226-009A

Method Name: FAST-2016_NO_AU
Method Revision: 1,023
Analyst Name: EP
Acquire Date: 9/28/2021 10:55:38AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SO6226-009A

Method Name: FAST-2016_NO_AU
Method Revision: 1,023
Analyst Name: EP
Acquire Date: 9/28/2021 10:55:38AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		293.5	ug/L	3.531	1.203	5,071
Al3961_R	W	27,740	ug/L	81.15	0.2925	33,080
As1891_A		460.4	ug/L	0.2990	0.06494	159.3
B_2089_A		498.7	ug/L	0.8697	0.1744	854.9
Ba4554_R	W	1,271	ug/L	0.8523	0.06708	90,200
Be3130_R		472.2	ug/L	0.5565	0.1178	58,760
Ca3158_R	W	264,200	ug/L	2,914	1.103	377,400
Cd2265_A		446.6	ug/L	0.5198	0.1164	6,703
Co2286_A		491.0	ug/L	1.211	0.2466	1,821
Cr2677_A		462.2	ug/L	0.4310	0.09325	5,735
Cu3273_A		507.1	ug/L	1.063	0.2096	8,243
Fe2599_R	W	105,600	ug/L	17.84	0.01689	222,400
K_7664_R		10,510	ug/L	32.29	0.3074	7,910
Li6707_R		478.4	ug/L	1.247	0.2607	7,767
Mg2025_A		9,216	ug/L	6.474	0.07025	3,593
Mn2576_R	W	8,051	ug/L	22.75	0.2825	102,100
Mo2020_A		463.8	ug/L	1.290	0.2782	1,540
Na5895_R		5,668	ug/L	3.364	0.05936	15,600
Ni2316_A		470.1	ug/L	1.222	0.2600	1,026
Pb2203_A		601.7	ug/L	1.351	0.2245	658.7
Sb2068_A		454.2	ug/L	2.014	0.4433	290.6
Se1960_A		473.3	ug/L	0.5140	0.1086	132.7
Si2516_R		5,570	ug/L	8.251	0.1481	3,618
Sn1899_A		454.0	ug/L	2.282	0.5025	253.9
Sr4215_R		764.2	ug/L	0.05633	0.007371	81,330
Ti3349_A		886.3	ug/L	0.1226	0.01383	23,600
Tl1908_A		433.7	ug/L	1.960	0.4518	259.2
V_2924_A		535.1	ug/L	1.143	0.2137	7,187
Zn2062_A		727.0	ug/L	1.294	0.1780	2,289
Y_3600_R		17,610	Cts/S	115.46	0.65566	17,610
Y_2243_A		7,814.2	Cts/S	8.1524	0.10433	7,814.2
Y_3600_A		125,030	Cts/S	216.63	0.17325	125,030

SO6226-009P

Method Name: FAST-2016_NO_AU
Method Revision: 1,023
Analyst Name: EP
Acquire Date: 9/28/2021 10:59:54AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		17.86	ug/L	1.284	7.190	-595.8
Al3961_R	W	39,140	ug/L	222.8	0.5693	50,810
As1891_A		62.02	ug/L	1.325	2.136	16.88
B_2089_A		428.2	ug/L	0.4463	0.1042	801.9
Ba4554_R	W	3,013	ug/L	73.20	2.429	234,400
Be3130_R		54.78	ug/L	0.6210	1.133	7,404
Ca3158_R	W	91,370	ug/L	914.9	1.001	143,000
Cd2265_A		204.7	ug/L	0.8995	0.4394	3,681
Co2286_A		491.3	ug/L	0.8230	0.1675	2,030
Cr2677_A		195.2	ug/L	0.5783	0.2963	2,712
Cu3273_A		301.6	ug/L	0.7821	0.2593	5,543
Fe2599_R	W	173,900	ug/L	4,715	2.711	401,500
K_7664_R		9,844	ug/L	46.60	0.4734	8,121
Li6707_R		428.8	ug/L	2.644	0.6166	7,628
Mg2025_A		10,410	ug/L	11.32	0.1087	4,511
Mn2576_R	W	13,740	ug/L	167.5	1.219	191,100
Mo2020_A		13.44	ug/L	0.1515	1.127	49.29
Na5895_R		6,522	ug/L	35.30	0.5412	19,670
Ni2316_A		447.0	ug/L	0.9616	0.2151	1,073

SO6226-009P

Method Name: FAST-2016_NO_AU
Method Revision: 1,023
Analyst Name: EP
Acquire Date: 9/28/2021 10:59:54AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		388.1	ug/L	0.4316	0.1112	474.5
Sb2068_A		18.11	ug/L	1.260	6.958	15.90
Se1960_A		-5.077	ug/L	1.320	26.00	5.683
Si2516_R		13,460	ug/L	176.4	1.310	9,534
Sn1899_A		278.4	ug/L	1.128	0.4050	174.0
Sr4215_R		618.5	ug/L	3.484	0.5633	72,120
Ti3349_A	W	1,178	ug/L	2.988	0.2536	34,720
Tl1908_A		54.07	ug/L	0.7581	1.402	25.78
V_2924_A		584.8	ug/L	1.739	0.2974	8,744
Zn2062_A		922.9	ug/L	2.444	0.2649	3,234
Y_3600_R		19,298	Cts/S	66.298	0.34355	19,298
Y_2243_A		8,690.7	Cts/S	11.040	0.12703	8,690.7
Y_3600_A		138,450	Cts/S	7.1713	0.0051800	138,450

SO6226-009S

Method Name: FAST-2016_NO_AU
Method Revision: 1,023
Analyst Name: EP
Acquire Date: 9/28/2021 11:04:19AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		19.98	ug/L	0.7813	3.912	-378.1
Al3961_R	W	31,380	ug/L	102.0	0.3251	40,030
As1891_A		68.99	ug/L	0.6381	0.9250	19.92
B_2089_A		445.2	ug/L	2.303	0.5173	804.5
Ba4554_R	W	2,824	ug/L	5.263	0.1864	215,600
Be3130_R		52.30	ug/L	0.2426	0.4639	6,945
Ca3158_R	W	112,100	ug/L	517.0	0.4612	172,200
Cd2265_A		210.3	ug/L	0.6047	0.2876	3,577
Co2286_A		488.9	ug/L	2.138	0.4373	1,949
Cr2677_A		189.6	ug/L	0.3193	0.1683	2,585
Cu3273_A		263.3	ug/L	1.369	0.5200	4,749
Fe2599_R	W	143,300	ug/L	1,859	1.297	324,700
K_7664_R		9,717	ug/L	14.94	0.1537	7,868
Li6707_R		429.9	ug/L	0.03893	0.009054	7,507
Mg2025_A		10,340	ug/L	42.10	0.4073	4,322
Mn2576_R	W	10,880	ug/L	73.73	0.6777	148,500
Mo2020_A		17.78	ug/L	0.08924	0.5020	63.24
Na5895_R		6,661	ug/L	4.914	0.07376	19,720
Ni2316_A		451.4	ug/L	1.303	0.2887	1,048
Pb2203_A		324.8	ug/L	0.2791	0.08594	383.3
Sb2068_A		26.50	ug/L	0.1458	0.5503	20.13
Se1960_A		-2.696	ug/L	0.3609	13.39	5.202
Si2516_R		10,600	ug/L	43.63	0.4116	7,375
Sn1899_A		305.7	ug/L	0.1135	0.03712	184.2
Sr4215_R		625.8	ug/L	0.4278	0.06836	71,630
Ti3349_A	W	1,025	ug/L	5.698	0.5559	29,700
Tl1908_A		60.90	ug/L	1.208	1.984	31.41
V_2924_A		548.9	ug/L	1.668	0.3039	8,071
Zn2062_A		827.8	ug/L	2.036	0.2460	2,799
Y_3600_R		18,940	Cts/S	177.66	0.93799	18,940
Y_2243_A		8,388.1	Cts/S	24.017	0.28632	8,388.1
Y_3600_A		136,100	Cts/S	0.85180	0.00062600	136,100

SO6226-010

Method Name: FAST-2016_NO_AU
Method Revision: 1,023
Analyst Name: EP
Acquire Date: 9/28/2021 11:08:44AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SO6226-010

Method Name: FAST-2016_NO_AU
Method Revision: 1,023
Analyst Name: EP
Acquire Date: 9/28/2021 11:08:44AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		1.080	ug/L	0.08752	8.101	-175.2
Al3961_R		5,825	ug/L	15.37	0.2639	6,744
As1891_A		5.123	ug/L	0.5951	11.62	-1.141
B_2089_A		6.820	ug/L	0.2149	3.151	16.35
Ba4554_R		310.6	ug/L	1.397	0.4498	21,560
Be3130_R		2.256	ug/L	0.001688	0.07480	252.0
Ca3158_R		15,020	ug/L	46.07	0.3067	20,920
Cd2265_A		0.6600	ug/L	0.008521	1.291	74.88
Co2286_A		17.03	ug/L	0.2589	1.520	65.61
Cr2677_A		8.260	ug/L	0.01548	0.1874	112.0
Cu3273_A		12.84	ug/L	0.3369	2.624	240.2
Fe2599_R	W	35,820	ug/L	77.06	0.2151	73,750
K_7664_R		620.5	ug/L	4.457	0.7183	435.5
Li6707_R		2.046	ug/L	0.6800	33.24	30.42
Mg2025_A		1,219	ug/L	7.235	0.5935	464.7
Mn2576_R	W	2,845	ug/L	21.55	0.7575	35,280
Mo2020_A		0.7218	ug/L	0.007662	1.062	2.991
Na5895_R		432.6	ug/L	0.2785	0.06437	1,179
Ni2316_A		9.658	ug/L	0.08655	0.8961	17.84
Pb2203_A		44.24	ug/L	0.09160	0.2070	48.18
Sb2068_A		-2.559	ug/L	0.3078	12.03	-0.4457
Se1960_A		-1.525	ug/L	1.354	88.76	2.263
Si2516_R		2,531	ug/L	36.81	1.454	1,621
Sn1899_A		1.014	ug/L	0.08748	8.626	2.358
Sr4215_R		39.14	ug/L	0.02553	0.06523	4,056
Ti3349_A		127.3	ug/L	0.8944	0.7025	3,368
Tl1908_A		-1.160	ug/L	0.9055	78.04	-4.260
V_2924_A		28.55	ug/L	0.2858	1.001	379.0
Zn2062_A		96.54	ug/L	0.8165	0.8457	302.8
Y_3600_R		17,211	Cts/S	37.022	0.21511	17,211
Y_2243_A		7,761.1	Cts/S	13.226	0.17041	7,761.1
Y_3600_A		124,910	Cts/S	623.14	0.49887	124,910

SO6226-011

Method Name: FAST-2016_NO_AU
Method Revision: 1,023
Analyst Name: EP
Acquire Date: 9/28/2021 11:13:03AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		1.865	ug/L	0.5111	27.41	-425.5
Al3961_R		14,380	ug/L	618.2	4.300	17,410
As1891_A		6.514	ug/L	0.3274	5.027	-2.204
B_2089_A		5.063	ug/L	0.2952	5.830	13.67
Ba4554_R		751.6	ug/L	33.22	4.420	54,610
Be3130_R		3.955	ug/L	0.1866	4.718	488.4
Ca3158_R		18,180	ug/L	718.2	3.951	26,520
Cd2265_A		0.9027	ug/L	0.6004	66.51	183.2
Co2286_A		47.85	ug/L	0.06527	0.1364	183.5
Cr2677_A		33.52	ug/L	0.009910	0.02957	438.5
Cu3273_A		1.880	ug/L	0.3309	17.61	120.0
Fe2599_R	W	89,560	ug/L	3,804	4.248	193,100
K_7664_R		887.3	ug/L	49.17	5.541	662.2
Li6707_R		1.885	ug/L	0.1783	9.459	29.25
Mg2025_A		794.2	ug/L	0.3654	0.04601	310.5
Mn2576_R	W	5,431	ug/L	225.6	4.154	70,500
Mo2020_A		-0.7895	ug/L	0.002615	0.3312	-2.259
Na5895_R		171.3	ug/L	10.12	5.907	499.4
Ni2316_A		10.73	ug/L	0.1799	1.675	17.46

SO6226-011

Method Name: FAST-2016_NO_AU
Method Revision: 1,023
Analyst Name: EP
Acquire Date: 9/28/2021 11:13:03AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		147.4	ug/L	0.02400	0.01628	164.9
Sb2068_A		-4.107	ug/L	0.4535	11.04	-0.1804
Se1960_A		-5.320	ug/L	0.7435	13.98	2.493
Si2516_R		3,748	ug/L	131.4	3.504	2,495
Sn1899_A		1.553	ug/L	0.4712	30.33	2.713
Sr4215_R		52.09	ug/L	2.259	4.337	5,658
Ti3349_A		155.1	ug/L	1.581	1.020	4,161
Tl1908_A		-5.304	ug/L	0.3753	7.077	-8.521
V_2924_A		151.2	ug/L	0.1989	0.1316	2,066
Zn2062_A		136.0	ug/L	0.4261	0.3133	435.4
Y_3600_R		18,032	Cts/S	495.64	2.7487	18,032
Y_2243_A		7,928.6	Cts/S	6.3793	0.080460	7,928.6
Y_3600_A		126,570	Cts/S	442.55	0.34964	126,570

SO6012-001R

Method Name: FAST-2016_NO_AU
Method Revision: 1,023
Analyst Name: EP
Acquire Date: 9/28/2021 11:17:19AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.3547	ug/L	0.3227	90.96	-26.51
Al3961_R		194.3	ug/L	5.423	2.791	410.9
As1891_A		1.081	ug/L	1.209	111.9	-1.418
B_2089_A		10.22	ug/L	0.3163	3.096	19.78
Ba4554_R		113.4	ug/L	0.02011	0.01773	7,478
Be3130_R		0.01110	ug/L	0.04110	370.1	-12.56
Ca3158_R	W	214,200	ug/L	1,574	0.7351	283,600
Cd2265_A		-0.08724	ug/L	0.02456	28.15	-2.617
Co2286_A		0.4581	ug/L	0.1311	28.61	3.120
Cr2677_A		1.686	ug/L	0.1035	6.141	21.81
Cu3273_A		3.153	ug/L	0.5402	17.14	46.02
Fe2599_R		216.2	ug/L	4.696	2.172	429.9
K_7664_R		5,794	ug/L	61.54	1.062	4,035
Li6707_R		30.74	ug/L	0.2372	0.7717	460.9
Mg2025_A		24,240	ug/L	130.5	0.5384	8,386
Mn2576_R		92.70	ug/L	0.4725	0.5096	1,102
Mo2020_A		0.09278	ug/L	0.07379	79.54	1.002
Na5895_R	W	100,800	ug/L	775.1	0.7691	257,000
Ni2316_A		1.627	ug/L	0.002110	0.1297	2.211
Pb2203_A		1.615	ug/L	0.3559	22.04	0.9997
Sb2068_A		-1.317	ug/L	0.08836	6.707	-0.4221
Se1960_A		0.04569	ug/L	0.2262	495.0	1.569
Si2516_R		13,220	ug/L	77.17	0.5838	7,932
Sn1899_A		-0.2190	ug/L	0.3532	161.3	1.512
Sr4215_R		973.8	ug/L	4.769	0.4898	96,090
Ti3349_A		2.695	ug/L	0.01248	0.4631	47.56
Tl1908_A		1.004	ug/L	0.9494	94.54	-1.046
V_2924_A		0.3152	ug/L	0.2233	70.83	-0.5519
Zn2062_A		1.544	ug/L	0.07559	4.896	5.037
Y_3600_R		16,327	Cts/S	132.26	0.81006	16,327
Y_2243_A		6,988.3	Cts/S	38.807	0.55531	6,988.3
Y_3600_A		114,510	Cts/S	212.52	0.18559	114,510

SO6012-002R

Method Name: FAST-2016_NO_AU
Method Revision: 1,023
Analyst Name: EP
Acquire Date: 9/28/2021 11:21:40AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SO6012-002R

Method Name: FAST-2016_NO_AU
Method Revision: 1,023
Analyst Name: EP
Acquire Date: 9/28/2021 11:21:40AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.1910	ug/L	0.2282	119.5	-23.52
Al3961_R		201.1	ug/L	4.502	2.239	428.1
As1891_A		0.4251	ug/L	0.6241	146.8	-1.617
B_2089_A		10.30	ug/L	0.2218	2.153	19.77
Ba4554_R		112.0	ug/L	2.141	1.911	7,575
Be3130_R		0.03416	ug/L	0.02654	77.69	-10.10
Ca3158_R	W	213,200	ug/L	5,185	2.432	289,400
Cd2265_A		-0.02482	ug/L	0.004549	18.33	-1.815
Co2286_A		0.5487	ug/L	0.1193	21.75	3.399
Cr2677_A		1.707	ug/L	0.2037	11.93	22.01
Cu3273_A		3.187	ug/L	0.02512	0.7884	46.40
Fe2599_R		202.9	ug/L	0.05445	0.02684	414.2
K_7664_R		5,692	ug/L	118.9	2.089	4,064
Li6707_R		30.64	ug/L	0.9258	3.021	471.1
Mg2025_A		24,580	ug/L	56.83	0.2311	8,456
Mn2576_R		90.56	ug/L	1.120	1.237	1,105
Mo2020_A		-0.1199	ug/L	0.1231	102.7	0.3677
Na5895_R	W	98,840	ug/L	2,258	2.285	258,400
Ni2316_A		1.549	ug/L	0.2091	13.50	2.045
Pb2203_A		1.358	ug/L	0.2109	15.53	0.7417
Sb2068_A		-1.352	ug/L	0.07338	5.428	-0.4395
Se1960_A		-0.6320	ug/L	1.382	218.7	1.397
Si2516_R		13,020	ug/L	340.2	2.613	8,010
Sn1899_A		-0.1522	ug/L	0.3111	204.4	1.535
Sr4215_R		960.2	ug/L	26.31	2.740	97,140
Ti3349_A		2.702	ug/L	0.1229	4.551	47.60
Tl1908_A		0.8655	ug/L	0.2588	29.90	-1.113
V_2924_A		0.3380	ug/L	0.2595	76.78	-0.2616
Zn2062_A		2.124	ug/L	0.06664	3.137	6.632
Y_3600_R		16,744	Cts/S	279.89	1.6716	16,744
Y_2243_A		6,947.8	Cts/S	0.33482	0.0048190	6,947.8
Y_3600_A		114,260	Cts/S	725.87	0.63526	114,260

SO6012-003R

Method Name: FAST-2016_NO_AU
Method Revision: 1,023
Analyst Name: EP
Acquire Date: 9/28/2021 11:26:01AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.1300	ug/L	0.1877	144.3	-23.49
Al3961_R		3.174	ug/L	1.050	33.08	2.756
As1891_A		0.4915	ug/L	0.2147	43.68	-1.742
B_2089_A		3.201	ug/L	0.1831	5.719	10.11
Ba4554_R		0.1917	ug/L	0.1556	81.19	27.39
Be3130_R		0.03305	ug/L	0.06035	182.6	-10.67
Ca3158_R		84.89	ug/L	10.24	12.06	70.81
Cd2265_A		-0.01334	ug/L	0.006026	45.17	-2.167
Co2286_A		-0.01038	ug/L	0.05950	573.4	1.698
Cr2677_A		0.1168	ug/L	0.1497	128.2	4.281
Cu3273_A		1.028	ug/L	0.06164	5.996	15.87
Fe2599_R		17.59	ug/L	0.3127	1.778	44.65
K_7664_R		9.183	ug/L	2.864	31.19	-15.77
Li6707_R		-0.3267	ug/L	0.2105	64.43	-7.380
Mg2025_A		7.538	ug/L	0.6515	8.643	-2.591
Mn2576_R		0.8444	ug/L	0.2236	26.48	13.65
Mo2020_A		-0.1433	ug/L	0.02160	15.08	0.3331
Na5895_R		58.03	ug/L	7.458	12.85	173.4
Ni2316_A		0.5101	ug/L	0.01842	3.611	0.04112

SO6012-003R

Method Name: FAST-2016_NO_AU Method Revision: 1,023
Analyst Name: EP
Acquire Date: 9/28/2021 11:26:01AM Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		0.2632	ug/L	0.08288	31.49	-0.3434
Sb2068_A		-1.163	ug/L	0.2922	25.13	-0.3718
Se1960_A		0.05050	ug/L	1.400	2,772	1.693
Si2516_R		87.18	ug/L	6.903	7.918	83.99
Sn1899_A		-0.3189	ug/L	0.09273	29.07	1.592
Sr4215_R		0.3530	ug/L	0.07871	22.30	21.02
Ti3349_A		0.5666	ug/L	0.09061	15.99	-4.746
Tl1908_A		0.5853	ug/L	0.3458	59.08	-1.331
V_2924_A		0.1916	ug/L	0.2635	137.5	-1.839
Zn2062_A		9.599	ug/L	0.003719	0.03874	30.21
Y_3600_R		17,332	Cts/S	1,015.5	5.8590	17,332
Y_2243_A		7,611.7	Cts/S	12.201	0.16029	7,611.7
Y_3600_A		124,190	Cts/S	59.712	0.048083	124,190

CCV

Method Name: FAST-2016_NO_AU Method Revision: 1,023
Analyst Name: EP
Acquire Date: 9/28/2021 11:30:26AM Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		487.3	ug/L	3.353	0.6879	8,762
Al3961_R		12,350	ug/L	209.0	1.692	14,040
As1891_A		476.2	ug/L	0.3986	0.08370	156.9
B_2089_A		500.8	ug/L	0.4572	0.09129	805.3
Ba4554_R		486.0	ug/L	1.384	0.2849	33,100
Be3130_R		476.5	ug/L	7.829	1.643	56,900
Ca3158_R		11,880	ug/L	124.9	1.051	16,230
Cd2265_A		489.5	ug/L	0.3624	0.07403	6,694
Co2286_A		489.6	ug/L	0.1214	0.02480	1,696
Cr2677_A		487.5	ug/L	2.703	0.5545	5,719
Cu3273_A		493.0	ug/L	3.553	0.7207	7,519
Fe2599_R		12,270	ug/L	271.8	2.215	24,810
K_7664_R		12,300	ug/L	160.0	1.301	8,887
Li6707_R		500.0	ug/L	9.088	1.818	7,788
Mg2025_A		12,340	ug/L	53.45	0.4332	4,495
Mn2576_R	W	462.3	ug/L	4.707	1.018	5,630
Mo2020_A		514.2	ug/L	1.371	0.2666	1,599
Na5895_R		12,300	ug/L	167.0	1.358	32,450
Ni2316_A		503.5	ug/L	0.03609	0.007167	1,034
Pb2203_A		499.2	ug/L	0.09057	0.01814	509.9
Sb2068_A		493.7	ug/L	1.142	0.2312	293.5
Se1960_A		475.8	ug/L	0.4462	0.09379	122.4
Si2516_R	W	11,930	ug/L	95.88	0.8034	7,416
Sn1899_A		491.5	ug/L	0.3987	0.08113	257.2
Sr4215_R		500.1	ug/L	8.630	1.725	51,050
Ti3349_A	W	469.8	ug/L	4.061	0.8642	11,860
Tl1908_A		494.0	ug/L	0.9090	0.1840	281.9
V_2924_A		479.3	ug/L	3.893	0.8123	6,101
Zn2062_A		477.4	ug/L	1.499	0.3140	1,407
Y_3600_R		16,893	Cts/S	50.479	0.29882	16,893
Y_2243_A		7,315.5	Cts/S	33.066	0.45200	7,315.5
Y_3600_A		118,600	Cts/S	698.93	0.58930	118,600

CCB

Method Name: FAST-2016_NO_AU Method Revision: 1,023
Analyst Name: EP
Acquire Date: 9/28/2021 11:34:34AM Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,023
Analyst Name: EP
Acquire Date: 9/28/2021 11:34:34AM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.1056	ug/L	0.2807	265.8	-22.77
Al3961_R		4.312	ug/L	0.05791	1.343	3.870
As1891_A		0.3741	ug/L	1.573	420.6	-1.774
B_2089_A		1.033	ug/L	0.2077	20.11	6.577
Ba4554_R		0.1066	ug/L	0.1227	115.1	21.11
Be3130_R		0.1347	ug/L	0.05707	42.37	1.955
Ca3158_R		15.70	ug/L	1.621	10.32	-25.20
Cd2265_A		0.01959	ug/L	0.02401	122.6	-1.711
Co2286_A		0.1570	ug/L	0.07336	46.72	2.293
Cr2677_A		-0.1492	ug/L	0.2386	160.0	0.9957
Cu3273_A		-0.1631	ug/L	0.3994	244.9	-3.098
Fe2599_R		7.365	ug/L	0.4002	5.435	22.72
K_7664_R		12.06	ug/L	3.048	25.28	-13.12
Li6707_R		0.7242	ug/L	0.3378	46.64	9.181
Mg2025_A		1.003	ug/L	1.129	112.6	-5.030
Mn2576_R		0.1593	ug/L	0.1667	104.6	5.017
Mo2020_A		0.3822	ug/L	0.1571	41.11	2.024
Na5895_R		17.20	ug/L	1.536	8.926	61.45
Ni2316_A		0.4799	ug/L	0.1274	26.55	-0.01520
Pb2203_A		0.003853	ug/L	0.1339	3,474	-0.6191
Sb2068_A		0.3618	ug/L	0.5034	139.2	0.5720
Se1960_A		0.1344	ug/L	1.035	770.0	1.709
Si2516_R		6.659	ug/L	8.481	127.4	31.91
Sn1899_A		-0.4165	ug/L	0.009027	2.167	1.533
Sr4215_R		0.1543	ug/L	0.008764	5.681	0.4332
Ti3349_A		0.9331	ug/L	0.001098	0.1177	4.911
Tl1908_A		0.6462	ug/L	0.06046	9.357	-1.289
V_2924_A		0.2760	ug/L	0.1081	39.17	-0.7169
Zn2062_A		0.07793	ug/L	0.05075	65.12	0.9891
Y_3600_R		16,774	Cts/S	178.74	1.0656	16,774
Y_2243_A		7,582.6	Cts/S	31.589	0.41660	7,582.6
Y_3600_A		122,920	Cts/S	743.26	0.60467	122,920

SO6260-001R

Method Name: FAST-2016_NO_AU
Method Revision: 1,023
Analyst Name: EP
Acquire Date: 9/28/2021 11:38:59AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		1.452	ug/L	0.3103	21.37	-178.8
Al3961_R		4,547	ug/L	18.21	0.4005	5,254
As1891_A		3.928	ug/L	0.1967	5.006	-1.573
B_2089_A		445.4	ug/L	3.607	0.8098	715.5
Ba4554_R	W	2,959	ug/L	27.70	0.9360	202,700
Be3130_R		0.9884	ug/L	0.07589	7.678	79.71
Ca3158_R	W	68,700	ug/L	29.22	0.04254	94,660
Cd2265_A		-0.08083	ug/L	0.06038	74.70	67.33
Co2286_A		1.665	ug/L	0.03061	1.839	10.16
Cr2677_A		11.84	ug/L	0.04582	0.3868	148.3
Cu3273_A		11.33	ug/L	0.2830	2.498	209.2
Fe2599_R	W	38,830	ug/L	350.1	0.9017	78,950
K_7664_R		14,780	ug/L	33.62	0.2276	10,750
Li6707_R		10.24	ug/L	0.1281	1.251	158.4
Mg2025_A		13,060	ug/L	123.7	0.9479	4,820
Mn2576_R		321.1	ug/L	1.001	0.3117	3,926
Mo2020_A		4.362	ug/L	0.09977	2.288	14.58
Na5895_R	W	29,430	ug/L	96.81	0.3290	78,110
Ni2316_A		6.664	ug/L	0.08540	1.282	10.80

SO6260-001R

Method Name: FAST-2016_NO_AU
Method Revision: 1,023
Analyst Name: EP
Acquire Date: 9/28/2021 11:38:59AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		22.41	ug/L	1.206	5.384	23.70
Sb2068_A		-2.021	ug/L	0.09100	4.503	-0.02454
Se1960_A		-0.9257	ug/L	1.391	150.3	2.015
Si2516_R		15,950	ug/L	13.42	0.08412	9,957
Sn1899_A		1.419	ug/L	0.1269	8.947	2.482
Sr4215_R		712.2	ug/L	4.585	0.6438	73,150
Ti3349_A		315.5	ug/L	1.003	0.3178	8,066
Tl1908_A		0.1525	ug/L	0.1364	89.46	-1.953
V_2924_A		12.71	ug/L	0.2399	1.887	172.2
Zn2062_A		73.23	ug/L	0.9449	1.290	221.0
Y_3600_R		16,996	Cts/S	4.5095	0.026533	16,996
Y_2243_A		7,460.7	Cts/S	51.792	0.69421	7,460.7
Y_3600_A		120,290	Cts/S	33.233	0.027628	120,290

SO6260-002R

Method Name: FAST-2016_NO_AU
Method Revision: 1,023
Analyst Name: EP
Acquire Date: 9/28/2021 11:43:20AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		2.387	ug/L	0.03866	1.620	-271.2
Al3961_R		9.257	ug/L	4.062	43.88	63.33
As1891_A		-4.621	ug/L	0.3830	8.288	-4.895
B_2089_A		129.1	ug/L	0.01103	0.008538	200.6
Ba4554_R		64.05	ug/L	0.8354	1.304	4,283
Be3130_R		6.094	ug/L	0.03729	0.6118	698.8
Ca3158_R	W	57,440	ug/L	609.6	1.061	77,010
Cd2265_A		-0.4893	ug/L	0.1251	25.56	104.0
Co2286_A		-0.5364	ug/L	0.1395	26.00	0.8160
Cr2677_A		-0.4114	ug/L	0.03446	8.378	7.619
Cu3273_A		-3.189	ug/L	0.2526	7.920	16.08
Fe2599_R	W	65,400	ug/L	671.7	1.027	129,400
K_7664_R		5,123	ug/L	54.12	1.057	3,611
Li6707_R		39.17	ug/L	0.6867	1.753	595.4
Mg2025_A		18,860	ug/L	38.09	0.2020	6,627
Mn2576_R	W	2,602	ug/L	31.36	1.205	31,000
Mo2020_A		0.1981	ug/L	0.07748	39.11	1.180
Na5895_R	W	32,590	ug/L	326.9	1.003	84,180
Ni2316_A		1.022	ug/L	0.08885	8.696	-2.353
Pb2203_A		-0.3307	ug/L	0.1201	36.32	1.185
Sb2068_A		-2.877	ug/L	0.4644	16.14	-0.01871
Se1960_A		-0.4942	ug/L	0.4024	81.43	2.640
Si2516_R		17,820	ug/L	258.5	1.451	10,810
Sn1899_A		1.212	ug/L	0.4848	39.98	2.258
Sr4215_R		331.8	ug/L	3.845	1.159	33,150
Ti3349_A		1.758	ug/L	0.1495	8.507	25.10
Tl1908_A		-2.341	ug/L	0.7600	32.46	-4.430
V_2924_A		0.3651	ug/L	0.1023	28.02	5.862
Zn2062_A		7.331	ug/L	0.07423	1.012	21.68
Y_3600_R		16,538	Cts/S	78.756	0.47620	16,538
Y_2243_A		7,098.7	Cts/S	34.976	0.49272	7,098.7
Y_3600_A		116,460	Cts/S	632.73	0.54330	116,460

SO6260-003R

Method Name: FAST-2016_NO_AU
Method Revision: 1,023
Analyst Name: EP
Acquire Date: 9/28/2021 11:47:41AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SO6260-003R

Method Name: FAST-2016_NO_AU
Method Revision: 1,023
Analyst Name: EP
Acquire Date: 9/28/2021 11:47:41AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.8045	ug/L	0.3851	47.87	-128.9
Al3961_R		2,702	ug/L	10.55	0.3904	3,085
As1891_A		-0.5449	ug/L	0.2645	48.55	-2.706
B_2089_A		78.44	ug/L	0.5058	0.6449	127.4
Ba4554_R		68.05	ug/L	0.3246	0.4770	4,638
Be3130_R		0.9097	ug/L	0.007478	0.8220	77.71
Ca3158_R	W	29,100	ug/L	136.2	0.4681	39,750
Cd2265_A		0.1235	ug/L	0.04659	37.71	46.46
Co2286_A		1.178	ug/L	0.06725	5.707	7.473
Cr2677_A		3.835	ug/L	0.7363	19.20	52.02
Cu3273_A		2.783	ug/L	0.2327	8.361	65.11
Fe2599_R	W	26,270	ug/L	163.2	0.6211	52,990
K_7664_R		4,569	ug/L	3.749	0.08206	3,282
Li6707_R		7.854	ug/L	0.6443	8.203	120.1
Mg2025_A		4,958	ug/L	17.65	0.3560	1,792
Mn2576_R	W	1,594	ug/L	7.513	0.4714	19,360
Mo2020_A		0.5665	ug/L	0.1468	25.91	2.423
Na5895_R		5,023	ug/L	12.73	0.2534	13,240
Ni2316_A		17.32	ug/L	0.2135	1.232	32.99
Pb2203_A		3.202	ug/L	0.4959	15.49	3.313
Sb2068_A		-1.692	ug/L	0.1310	7.739	-0.1233
Se1960_A		-0.5339	ug/L	0.4593	86.03	2.066
Si2516_R		9,696	ug/L	3.939	0.04062	6,014
Sn1899_A		1.375	ug/L	0.1257	9.141	2.411
Sr4215_R		167.7	ug/L	0.1177	0.07021	17,070
Ti3349_A		214.4	ug/L	10.23	4.771	5,395
Tl1908_A		-1.928	ug/L	0.3355	17.40	-3.798
V_2924_A		9.917	ug/L	0.1409	1.421	124.6
Zn2062_A		81.44	ug/L	0.3526	0.4329	240.9
Y_3600_R		16,859	Cts/S	2.2321	0.013240	16,859
Y_2243_A		7,316.2	Cts/S	26.304	0.35953	7,316.2
Y_3600_A		118,660	Cts/S	4,527.5	3.8156	118,660

SO6260-004R

Method Name: FAST-2016_NO_AU
Method Revision: 1,023
Analyst Name: EP
Acquire Date: 9/28/2021 11:52:01AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		1.493	ug/L	0.3307	22.15	-154.6
Al3961_R		137.8	ug/L	0.5529	0.4013	210.0
As1891_A		-0.8272	ug/L	0.3112	37.62	-3.064
B_2089_A		61.70	ug/L	0.08726	0.1414	104.7
Ba4554_R		40.61	ug/L	0.4254	1.047	2,857
Be3130_R		2.596	ug/L	0.004248	0.1637	303.4
Ca3158_R	W	50,490	ug/L	444.5	0.8802	71,080
Cd2265_A		0.1275	ug/L	0.05680	44.56	61.44
Co2286_A		4.559	ug/L	0.1275	2.798	18.52
Cr2677_A		-1.399	ug/L	0.1392	9.949	8.608
Cu3273_A		-2.043	ug/L	0.1916	9.381	2.233
Fe2599_R	W	33,820	ug/L	228.2	0.6745	70,270
K_7664_R		5,360	ug/L	86.15	1.607	3,969
Li6707_R		11.39	ug/L	0.7269	6.382	180.4
Mg2025_A		9,160	ug/L	22.69	0.2477	3,414
Mn2576_R	W	18,680	ug/L	153.9	0.8236	233,800
Mo2020_A		12.88	ug/L	0.2073	1.609	40.81
Na5895_R		19,610	ug/L	193.3	0.9855	53,200
Ni2316_A		4.891	ug/L	0.2931	5.993	7.575

SO6260-004R

Method Name: FAST-2016_NO_AU
Method Revision: 1,023
Analyst Name: EP
Acquire Date: 9/28/2021 11:52:01AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		3.057	ug/L	0.7309	23.91	3.731
Sb2068_A		-2.609	ug/L	0.3872	14.84	-0.5364
Se1960_A		-4.357	ug/L	3.076	70.59	3.589
Si2516_R		11,660	ug/L	97.32	0.8345	7,443
Sn1899_A		0.1359	ug/L	0.4428	325.9	1.818
Sr4215_R		264.5	ug/L	2.238	0.8462	27,750
Ti3349_A		6.578	ug/L	0.02266	0.3445	154.2
Tl1908_A	F	-15.67	ug/L	0.1550	0.9897	-22.35
V_2924_A		-4.122	ug/L	0.3489	8.464	-137.9
Zn2062_A		102.5	ug/L	0.05079	0.04956	312.0
Y_3600_R		17,366	Cts/S	108.12	0.62261	17,366
Y_2243_A		7,533.3	Cts/S	52.747	0.70018	7,533.3
Y_3600_A		123,900	Cts/S	2,431.9	1.9628	123,900

SO6260-005R

Method Name: FAST-2016_NO_AU
Method Revision: 1,023
Analyst Name: EP
Acquire Date: 9/28/2021 11:56:21AM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		32.05	ug/L	3.452	10.77	-842.5
Al3961_R		77,180	ug/L	118.6	0.1537	18,810
As1891_A		-25.55	ug/L	4.406	17.25	-8.985
B_2089_A		44.38	ug/L	0.6023	1.357	19.82
Ba4554_R		738.5	ug/L	5.438	0.7364	10,820
Be3130_R		65.56	ug/L	0.5209	0.7946	1,648
Ca3158_R		44,080	ug/L	207.7	0.4712	12,920
Cd2265_A		11.01	ug/L	0.05505	0.4999	386.1
Co2286_A		40.45	ug/L	1.588	3.926	36.16
Cr2677_A		36.28	ug/L	0.8952	2.468	120.1
Cu3273_A		35.05	ug/L	0.1151	0.3285	313.8
Fe2599_R	W	948,500	ug/L	9,123	0.9618	411,700
K_7664_R		5,594	ug/L	15.53	0.2776	847.0
Li6707_R		33.33	ug/L	5.801	17.41	109.4
Mg2025_A		11,940	ug/L	140.5	1.176	916.3
Mn2576_R	W	8,159	ug/L	15.12	0.1853	21,270
Mo2020_A		12.88	ug/L	0.5290	4.107	9.185
Na5895_R		18,930	ug/L	31.09	0.1642	10,750
Ni2316_A		80.16	ug/L	0.6333	0.7901	22.90
Pb2203_A		393.8	ug/L	0.3996	0.1015	90.18
Sb2068_A		-30.39	ug/L	0.4855	1.598	0.7688
Se1960_A		-24.80	ug/L	4.493	18.12	3.432
Si2516_R		47,420	ug/L	110.9	0.2338	6,314
Sn1899_A		12.12	ug/L	0.9835	8.112	3.136
Sr4215_R		365.7	ug/L	0.8716	0.2384	8,005
Ti3349_A		1,235	ug/L	0.7994	0.06471	6,755
Tl1908_A		-18.51	ug/L	2.837	15.33	-5.269
V_2924_A		167.4	ug/L	0.7572	0.4523	509.6
Zn2062_A		1,531	ug/L	14.68	0.9594	958.2
Y_3600_R		18,145	Cts/S	10.854	0.059817	18,145
Y_2243_A		7,759.2	Cts/S	38.773	0.49970	7,759.2
Y_3600_A		128,730	Cts/S	242.76	0.18859	128,730

SO6260-006R

Method Name: FAST-2016_NO_AU
Method Revision: 1,023
Analyst Name: EP
Acquire Date: 9/28/2021 12:00:45PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

SO6260-006R

Method Name: FAST-2016_NO_AU
Method Revision: 1,023
Analyst Name: EP
Acquire Date: 9/28/2021 12:00:45PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.1342	ug/L	0.08401	62.61	-26.97
Al3961_R		74.67	ug/L	1.443	1.932	87.94
As1891_A		-1.157	ug/L	0.2749	23.76	-2.300
B_2089_A		27.46	ug/L	0.2775	1.011	48.83
Ba4554_R		60.40	ug/L	0.6561	1.086	4,095
Be3130_R		0.05446	ug/L	0.01783	32.74	-7.719
Ca3158_R		5,143	ug/L	65.43	1.272	6,947
Cd2265_A		-0.02220	ug/L	0.006747	30.39	-0.8058
Co2286_A		-0.05218	ug/L	0.05635	108.0	1.556
Cr2677_A		0.6292	ug/L	0.2748	43.68	10.57
Cu3273_A		2.387	ug/L	0.04887	2.047	37.67
Fe2599_R		816.5	ug/L	6.096	0.7466	1,645
K_7664_R		1,308	ug/L	45.49	3.478	918.3
Li6707_R		0.9853	ug/L	0.2364	23.99	13.23
Mg2025_A		740.3	ug/L	4.082	0.5514	269.5
Mn2576_R		94.22	ug/L	1.819	1.930	1,141
Mo2020_A		0.2127	ug/L	0.09620	45.22	1.455
Na5895_R		4,557	ug/L	86.71	1.903	11,940
Ni2316_A		0.8302	ug/L	0.03739	4.504	0.6714
Pb2203_A		0.7243	ug/L	0.6159	85.03	0.1657
Sb2068_A		-0.5119	ug/L	0.8494	165.9	0.04796
Se1960_A		-0.2695	ug/L	2.556	948.3	1.609
Si2516_R		1,248	ug/L	28.27	2.265	794.1
Sn1899_A		-0.06337	ug/L	0.1252	197.6	1.703
Sr4215_R		41.18	ug/L	0.9087	2.207	4,157
Ti3349_A		3.525	ug/L	0.08017	2.274	72.22
Tl1908_A		-0.5642	ug/L	0.5043	89.38	-2.044
V_2924_A		1.242	ug/L	0.1508	12.14	11.84
Zn2062_A		6.382	ug/L	0.07169	1.123	20.02
Y_3600_R		16,764	Cts/S	102.53	0.61164	16,764
Y_2243_A		7,493.3	Cts/S	20.652	0.27560	7,493.3
Y_3600_A		121,980	Cts/S	339.34	0.27819	121,980

SO6260-007R

Method Name: FAST-2016_NO_AU
Method Revision: 1,023
Analyst Name: EP
Acquire Date: 9/28/2021 12:05:07PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.2313	ug/L	0.2740	118.5	-26.80
Al3961_R		78.94	ug/L	3.011	3.814	97.34
As1891_A		1.182	ug/L	0.07738	6.545	-1.504
B_2089_A		17.38	ug/L	0.1556	0.8949	33.12
Ba4554_R		27.96	ug/L	0.1715	0.6132	1,939
Be3130_R		0.3341	ug/L	0.02063	6.176	26.05
Ca3158_R		8,085	ug/L	35.53	0.4394	11,150
Cd2265_A		0.2188	ug/L	0.03150	14.39	1.496
Co2286_A		0.2100	ug/L	0.1702	81.04	2.489
Cr2677_A		0.1088	ug/L	0.04526	41.60	4.451
Cu3273_A		1.212	ug/L	0.02821	2.328	19.27
Fe2599_R		220.8	ug/L	0.2631	0.1192	459.2
K_7664_R		3,812	ug/L	32.51	0.8528	2,770
Li6707_R		0.5517	ug/L	0.1102	19.98	6.661
Mg2025_A		1,925	ug/L	13.53	0.7027	719.0
Mn2576_R		177.3	ug/L	0.1555	0.08772	2,186
Mo2020_A		-0.1560	ug/L	0.09825	62.96	0.2784
Na5895_R		23,460	ug/L	117.1	0.4991	62,590
Ni2316_A		0.9604	ug/L	0.2285	23.79	0.9830

SO6260-007R

Method Name: FAST-2016_NO_AU
Method Revision: 1,023
Analyst Name: EP
Acquire Date: 9/28/2021 12:05:07PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		0.1255	ug/L	0.2156	171.8	-0.4882
Sb2068_A		-0.7510	ug/L	0.1306	17.39	-0.1097
Se1960_A		-0.5354	ug/L	0.4474	83.56	1.564
Si2516_R		3,460	ug/L	4.166	0.1204	2,193
Sn1899_A		-0.6030	ug/L	0.2424	40.19	1.436
Sr4215_R		51.81	ug/L	0.1801	0.3477	5,333
Ti3349_A		0.8637	ug/L	0.2915	33.75	3.213
Tl1908_A		-0.2152	ug/L	0.5670	263.5	-1.913
V_2924_A		0.3409	ug/L	0.2021	59.28	-0.5796
Zn2062_A		15.41	ug/L	0.05143	0.3339	47.92
Y_3600_R		17,080	Cts/S	5.5955	0.032761	17,080
Y_2243_A		7,595.1	Cts/S	46.511	0.61238	7,595.1
Y_3600_A		125,910	Cts/S	1,712.5	1.3601	125,910

SO6260-008R

Method Name: FAST-2016_NO_AU
Method Revision: 1,023
Analyst Name: EP
Acquire Date: 9/28/2021 12:09:30PM
Sample Type: Unknown

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.2230	ug/L	0.1465	65.69	-17.54
Al3961_R		129.6	ug/L	1.352	1.044	155.0
As1891_A		0.02182	ug/L	0.7067	3,240	-1.863
B_2089_A		18.66	ug/L	0.1360	0.7289	34.38
Ba4554_R		30.22	ug/L	0.06088	0.2015	2,078
Be3130_R		0.3385	ug/L	0.02309	6.823	26.21
Ca3158_R		8,941	ug/L	38.11	0.4263	12,240
Cd2265_A		0.1120	ug/L	0.06816	60.86	0.03783
Co2286_A		0.1772	ug/L	0.04366	24.63	2.329
Cr2677_A		0.3251	ug/L	0.05691	17.51	6.794
Cu3273_A		2.252	ug/L	0.1756	7.796	34.80
Fe2599_R		250.5	ug/L	2.618	1.045	515.7
K_7664_R		3,558	ug/L	44.32	1.245	2,563
Li6707_R		0.2741	ug/L	0.8348	304.5	2.280
Mg2025_A		1,977	ug/L	9.002	0.4554	721.1
Mn2576_R		85.11	ug/L	0.2313	0.2718	1,043
Mo2020_A		-0.08344	ug/L	0.1429	171.3	0.5091
Na5895_R		21,960	ug/L	26.58	0.1210	58,110
Ni2316_A		1.087	ug/L	0.05934	5.459	1.224
Pb2203_A		0.3999	ug/L	0.4888	122.2	-0.1972
Sb2068_A		-0.2830	ug/L	0.3655	129.2	0.1705
Se1960_A		0.8392	ug/L	2.177	259.4	1.870
Si2516_R		3,669	ug/L	13.43	0.3660	2,305
Sn1899_A		0.4797	ug/L	0.9625	200.6	1.974
Sr4215_R		54.71	ug/L	0.2687	0.4912	5,587
Ti3349_A		2.496	ug/L	0.1988	7.965	45.26
Tl1908_A		-1.007	ug/L	0.01270	1.261	-2.273
V_2924_A		0.1709	ug/L	0.06455	37.77	-2.385
Zn2062_A		14.44	ug/L	0.08811	0.6101	43.92
Y_3600_R		16,942	Cts/S	26.787	0.15811	16,942
Y_2243_A		7,418.1	Cts/S	45.380	0.61175	7,418.1
Y_3600_A		121,410	Cts/S	598.28	0.49279	121,410

CCV

Method Name: FAST-2016_NO_AU
Method Revision: 1,023
Analyst Name: EP
Acquire Date: 9/28/2021 12:13:53PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

CCV

Method Name: FAST-2016_NO_AU
Method Revision: 1,023
Analyst Name: EP
Acquire Date: 9/28/2021 12:13:53PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		477.6	ug/L	1.033	0.2163	8,858
Al3961_R		12,540	ug/L	99.29	0.7919	14,250
As1891_A	W	468.5	ug/L	1.411	0.3012	158.0
B_2089_A		491.1	ug/L	1.294	0.2635	808.9
Ba4554_R		490.5	ug/L	2.817	0.5743	33,410
Be3130_R		481.1	ug/L	3.195	0.6641	57,440
Ca3158_R		12,170	ug/L	63.76	0.5237	16,630
Cd2265_A		483.7	ug/L	0.2872	0.05939	6,773
Co2286_A		480.9	ug/L	0.09694	0.02016	1,705
Cr2677_A		481.7	ug/L	0.5836	0.1212	5,831
Cu3273_A		480.0	ug/L	0.5322	0.1109	7,554
Fe2599_R		12,550	ug/L	90.51	0.7214	25,360
K_7664_R		12,440	ug/L	63.52	0.5105	8,991
Li6707_R		497.6	ug/L	3.564	0.7163	7,749
Mg2025_A		12,080	ug/L	10.97	0.09079	4,504
Mn2576_R	W	465.9	ug/L	2.072	0.4447	5,672
Mo2020_A		508.5	ug/L	0.3338	0.06564	1,619
Na5895_R		12,340	ug/L	69.50	0.5630	32,570
Ni2316_A		496.8	ug/L	0.02914	0.005864	1,045
Pb2203_A		491.2	ug/L	0.3567	0.07262	513.6
Sb2068_A		486.5	ug/L	1.151	0.2367	296.1
Se1960_A	W	465.7	ug/L	2.145	0.4607	122.7
Si2516_R		12,090	ug/L	23.84	0.1972	7,513
Sn1899_A		484.6	ug/L	1.070	0.2208	259.6
Sr4215_R		504.2	ug/L	2.831	0.5616	51,460
Ti3349_A	W	454.7	ug/L	0.8658	0.1904	11,850
Tl1908_A		486.0	ug/L	0.8598	0.1769	283.9
V_2924_A	W	468.3	ug/L	0.007962	0.001700	6,150
Zn2062_A	W	473.0	ug/L	0.7344	0.1553	1,427
Y_3600_R		16,890	Cts/S	23.960	0.14186	16,890
Y_2243_A		7,489.3	Cts/S	0.26653	0.0035590	7,489.3
Y_3600_A		122,380	Cts/S	345.10	0.28200	122,380

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,023
Analyst Name: EP
Acquire Date: 9/28/2021 12:18:01PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		0.1146	ug/L	0.1917	167.2	-18.79
Al3961_R		0.3893	ug/L	1.133	290.9	-0.5543
As1891_A		0.3080	ug/L	0.7175	233.0	-1.796
B_2089_A		0.4207	ug/L	0.008539	2.030	5.575
Ba4554_R		0.1119	ug/L	0.09372	83.73	21.71
Be3130_R		0.1365	ug/L	0.01909	13.99	2.161
Ca3158_R		12.53	ug/L	0.7054	5.631	-29.96
Cd2265_A		0.03198	ug/L	0.02077	64.93	-1.533
Co2286_A		0.1528	ug/L	0.02859	18.71	2.276
Cr2677_A		0.02508	ug/L	0.1698	677.2	3.148
Cu3273_A		0.09582	ug/L	0.05176	54.01	0.9856
Fe2599_R		7.904	ug/L	2.958	37.42	24.18
K_7664_R		26.57	ug/L	1.686	6.345	-2.736
Li6707_R		0.5684	ug/L	0.2628	46.24	6.918
Mg2025_A		-0.2281	ug/L	0.7865	344.8	-5.484
Mn2576_R		-0.04918	ug/L	0.03004	61.08	2.524
Mo2020_A		0.3477	ug/L	0.1331	38.28	1.910
Na5895_R		10.48	ug/L	8.148	77.71	44.58
Ni2316_A		0.3172	ug/L	0.006827	2.152	-0.3591

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,023
Analyst Name: EP
Acquire Date: 9/28/2021 12:18:01PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		-0.1157	ug/L	0.2782	240.4	-0.7439
Sb2068_A		-1.409	ug/L	1.039	73.76	-0.5226
Se1960_A		0.1762	ug/L	1.602	909.4	1.718
Si2516_R		5.555	ug/L	8.232	148.2	31.75
Sn1899_A		-0.2496	ug/L	0.3749	150.2	1.621
Sr4215_R		0.09940	ug/L	0.04320	43.46	-5.191
Ti3349_A		1.005	ug/L	0.4116	40.94	6.898
Tl1908_A		0.5931	ug/L	0.3371	56.83	-1.319
V_2924_A		0.2067	ug/L	0.1342	64.92	-1.658
Zn2062_A		-0.06361	ug/L	0.0008660	1.361	0.5548
Y_3600_R		17,021	Cts/S	152.53	0.89610	17,021
Y_2243_A		7,572.5	Cts/S	27.401	0.36185	7,572.5
Y_3600_A		124,150	Cts/S	554.10	0.44630	124,150

PQL

Method Name: FAST-2016_NO_AU
Method Revision: 1,023
Analyst Name: EP
Acquire Date: 9/28/2021 12:22:24PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		8.601	ug/L	0.1481	1.722	140.1
Al3961_R		290.1	ug/L	1.216	0.4192	327.5
As1891_A		6.726	ug/L	0.3520	5.233	0.4137
B_2089_A		45.95	ug/L	0.2579	0.5612	78.50
Ba4554_R		5.002	ug/L	0.08166	1.633	353.4
Be3130_R		4.730	ug/L	0.0003150	0.006669	548.7
Ca3158_R		105.0	ug/L	0.5657	0.5386	96.69
Cd2265_A		4.667	ug/L	0.001835	0.03933	63.15
Co2286_A		9.596	ug/L	0.2695	2.808	35.61
Cr2677_A		9.455	ug/L	0.02676	0.2830	117.5
Cu3273_A		23.70	ug/L	0.3321	1.401	373.1
Fe2599_R		100.0	ug/L	0.6545	0.6544	209.4
K_7664_R		972.3	ug/L	27.98	2.878	680.0
Li6707_R		99.38	ug/L	0.03888	0.03913	1,541
Mg2025_A		91.54	ug/L	1.368	1.495	29.08
Mn2576_R		4.743	ug/L	0.1258	2.652	60.60
Mo2020_A		9.946	ug/L	0.06337	0.6371	32.33
Na5895_R		965.9	ug/L	4.841	0.5012	2,556
Ni2316_A		9.671	ug/L	0.2356	2.436	19.28
Pb2203_A		4.292	ug/L	0.2224	5.181	3.849
Sb2068_A		7.047	ug/L	0.1502	2.131	4.060
Se1960_A		9.115	ug/L	1.247	13.68	4.008
Si2516_R		176.2	ug/L	9.833	5.579	136.7
Sn1899_A		93.97	ug/L	0.5037	0.5361	51.58
Sr4215_R		9.986	ug/L	0.02261	0.2265	1,001
Ti3349_A		13.63	ug/L	0.06565	0.4816	337.0
Tl1908_A		14.27	ug/L	0.7025	4.921	6.708
V_2924_A		9.443	ug/L	0.1518	1.608	120.1
Zn2062_A		18.17	ug/L	0.09762	0.5371	55.40
Y_3600_R		16,837	Cts/S	109.77	0.65197	16,837
Y_2243_A		7,464.7	Cts/S	28.310	0.37926	7,464.7
Y_3600_A		122,700	Cts/S	283.92	0.23140	122,700

ICSA

Method Name: FAST-2016_NO_AU
Method Revision: 1,023
Analyst Name: EP
Acquire Date: 9/28/2021 12:26:49PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

ICSA

Method Name: FAST-2016_NO_AU
Method Revision: 1,023
Analyst Name: EP
Acquire Date: 9/28/2021 12:26:49PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		2.502	ug/L	0.09254	3.699	-713.7
Al3961_R		501,900	ug/L	4,285	0.8537	544,300
As1891_A		-0.5564	ug/L	3.099	557.0	-8.876
B_2089_A		-0.3333	ug/L	0.1070	32.10	3.626
Ba4554_R		1.662	ug/L	0.1696	10.20	121.5
Be3130_R		-0.006265	ug/L	0.02474	394.9	-14.53
Ca3158_R		452,900	ug/L	3,065	0.6767	592,900
Cd2265_A		1.340	ug/L	0.1180	8.805	297.0
Co2286_A		0.3576	ug/L	0.1838	51.42	5.063
Cr2677_A		1.481	ug/L	0.09706	6.555	35.92
Cu3273_A		-4.658	ug/L	0.003263	0.07005	-41.56
Fe2599_R		180,500	ug/L	245.3	0.1359	348,400
K_7664_R		-7.394	ug/L	1.835	24.82	-26.10
Li6707_R		5.487	ug/L	0.8885	16.19	79.73
Mg2025_A		427,800	ug/L	457.6	0.1070	137,100
Mn2576_R		0.8361	ug/L	0.2137	25.56	12.94
Mo2020_A		-2.827	ug/L	0.07215	2.552	-7.097
Na5895_R		60.29	ug/L	0.7946	1.318	167.7
Ni2316_A		2.014	ug/L	0.1087	5.394	-5.859
Pb2203_A	W	3.242	ug/L	0.3528	10.88	-30.75
Sb2068_A		-3.716	ug/L	1.376	37.05	2.739
Se1960_A		0.6209	ug/L	0.2918	46.99	6.717
Si2516_R		10.90	ug/L	8.063	73.99	15.43
Sn1899_A		11.23	ug/L	1.273	11.33	6.666
Sr4215_R	W	5.050	ug/L	0.03896	0.7715	478.0
Ti3349_A		1.947	ug/L	0.1747	8.973	27.01
Tl1908_A		-0.4537	ug/L	0.2499	55.09	-1.032
V_2924_A		-2.531	ug/L	0.002737	0.1081	9.289
Zn2062_A		0.8543	ug/L	0.2446	28.63	2.864
Y_3600_R		16,140	Cts/S	38.111	0.23613	16,140
Y_2243_A		6,471.5	Cts/S	15.147	0.23405	6,471.5
Y_3600_A		105,660	Cts/S	275.40	0.26064	105,660

ICSAB

Method Name: FAST-2016_NO_AU
Method Revision: 1,023
Analyst Name: EP
Acquire Date: 9/28/2021 12:31:24PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		212.6	ug/L	1.158	0.5446	2,687
Al3961_R		511,700	ug/L	1,069	0.2089	547,900
As1891_A		93.94	ug/L	0.4214	0.4486	19.20
B_2089_A		474.9	ug/L	1.718	0.3618	682.8
Ba4554_R		489.3	ug/L	9.421	1.925	31,440
Be3130_R		478.8	ug/L	8.163	1.705	53,930
Ca3158_R		463,800	ug/L	6,359	1.371	599,300
Cd2265_A		885.1	ug/L	2.034	0.2298	11,080
Co2286_A		432.4	ug/L	1.258	0.2909	1,343
Cr2677_A		457.5	ug/L	1.497	0.3273	4,827
Cu3273_A		515.4	ug/L	2.760	0.5355	7,058
Fe2599_R		182,100	ug/L	2,505	1.376	347,000
K_7664_R		20,730	ug/L	308.7	1.489	14,140
Li6707_R		526.7	ug/L	7.189	1.365	7,738
Mg2025_A		422,700	ug/L	1,825	0.4318	137,000
Mn2576_R		442.7	ug/L	9.065	2.048	5,082
Mo2020_A		473.3	ug/L	1.356	0.2865	1,316
Na5895_R		20,630	ug/L	337.5	1.636	51,340
Ni2316_A		878.7	ug/L	1.782	0.2028	1,602

ICSAB

Method Name: FAST-2016_NO_AU
Method Revision: 1,023
Analyst Name: EP
Acquire Date: 9/28/2021 12:31:24PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Pb2203_A		47.16	ug/L	2.680	5.684	8.167
Sb2068_A		586.6	ug/L	0.9653	0.1646	316.6
Se1960_A		45.44	ug/L	3.453	7.599	17.07
Si2516_R		1,982	ug/L	49.25	2.486	1,169
Sn1899_A		443.0	ug/L	0.4095	0.09244	207.5
Sr4215_R		502.0	ug/L	7.506	1.495	48,340
Ti3349_A		450.8	ug/L	1.982	0.4396	10,200
Tl1908_A		79.59	ug/L	0.4432	0.5568	40.50
V_2924_A		458.1	ug/L	2.314	0.5051	5,266
Zn2062_A		852.0	ug/L	2.594	0.3045	2,247
Y_3600_R		15,935	Cts/S	280.12	1.7578	15,935
Y_2243_A		6,542.7	Cts/S	10.372	0.15853	6,542.7
Y_3600_A		106,290	Cts/S	205.14	0.19301	106,290

CCV

Method Name: FAST-2016_NO_AU
Method Revision: 1,023
Analyst Name: EP
Acquire Date: 9/28/2021 12:35:52PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		479.2	ug/L	1.715	0.3579	8,747
Al3961_R		12,640	ug/L	11.58	0.09156	14,330
As1891_A	W	468.7	ug/L	2.063	0.4401	155.6
B_2089_A		497.0	ug/L	0.2350	0.04728	805.5
Ba4554_R		494.3	ug/L	0.3575	0.07233	33,580
Be3130_R		480.8	ug/L	0.08752	0.01820	57,260
Ca3158_R		12,150	ug/L	48.76	0.4013	16,560
Cd2265_A		484.7	ug/L	0.8700	0.1795	6,681
Co2286_A		482.3	ug/L	0.5269	0.1093	1,684
Cr2677_A		482.2	ug/L	1.765	0.3660	5,744
Cu3273_A		485.4	ug/L	3.495	0.7199	7,519
Fe2599_R		12,500	ug/L	18.95	0.1516	25,190
K_7664_R		12,460	ug/L	6.179	0.04960	8,978
Li6707_R		503.0	ug/L	0.5749	0.1143	7,812
Mg2025_A		12,260	ug/L	40.77	0.3325	4,502
Mn2576_R	W	466.0	ug/L	2.095	0.4494	5,659
Mo2020_A		511.3	ug/L	0.6395	0.1251	1,602
Na5895_R		12,410	ug/L	23.55	0.1897	32,670
Ni2316_A		498.9	ug/L	0.9197	0.1843	1,033
Pb2203_A		493.9	ug/L	0.4922	0.09964	508.4
Sb2068_A		490.2	ug/L	0.3778	0.07707	293.7
Se1960_A	W	469.5	ug/L	0.6439	0.1372	121.8
Si2516_R		12,080	ug/L	63.85	0.5288	7,481
Sn1899_A		485.9	ug/L	0.4878	0.1004	256.3
Sr4215_R		506.3	ug/L	0.7617	0.1504	51,540
Ti3349_A	W	460.2	ug/L	1.582	0.3437	11,800
Tl1908_A		489.4	ug/L	0.4016	0.08204	281.5
V_2924_A	W	471.9	ug/L	2.984	0.6322	6,101
Zn2062_A	W	472.6	ug/L	1.270	0.2687	1,404
Y_3600_R		16,845	Cts/S	106.09	0.62977	16,845
Y_2243_A		7,372.5	Cts/S	3.9089	0.053020	7,372.5
Y_3600_A		120,450	Cts/S	495.54	0.41142	120,450

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,023
Analyst Name: EP
Acquire Date: 9/28/2021 12:40:00PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio

CCB

Method Name: FAST-2016_NO_AU
Method Revision: 1,023
Analyst Name: EP
Acquire Date: 9/28/2021 12:40:00PM
Sample Type: QC

Elem	Flags	Avg	Units	Stddev	%RSD	Intensity Ratio
Ag3280_A		-0.1414	ug/L	0.0000	0.0000	-23.60
Al3961_R		12.71	ug/L	0.0000	0.0000	13.62
As1891_A		-0.5617	ug/L	0.0000	0.0000	-2.099
B_2089_A		0.7804	ug/L	0.0000	0.0000	6.169
Ba4554_R		0.1436	ug/L	0.0000	0.0000	24.06
Be3130_R		0.06462	ug/L	0.0000	0.0000	-6.565
Ca3158_R		21.73	ug/L	0.0000	0.0000	-17.37
Cd2265_A		0.01710	ug/L	0.0000	0.0000	-1.746
Co2286_A		0.04419	ug/L	0.0000	0.0000	1.889
Cr2677_A		-0.02376	ug/L	0.0000	0.0000	2.547
Cu3273_A		-0.001486	ug/L	0.0000	0.0000	-0.5738
Fe2599_R		7.077	ug/L	0.0000	0.0000	22.60
K_7664_R		37.95	ug/L	0.0000	0.0000	5.598
Li6707_R		0.5887	ug/L	0.0000	0.0000	7.261
Mg2025_A		9.735	ug/L	0.0000	0.0000	-1.753
Mn2576_R		-0.1541	ug/L	0.0000	0.0000	1.244
Mo2020_A		0.5246	ug/L	0.0000	0.0000	2.483
Na5895_R		9.923	ug/L	0.0000	0.0000	43.24
Ni2316_A		0.3539	ug/L	0.0000	0.0000	-0.2792
Pb2203_A		0.07345	ug/L	0.0000	0.0000	-0.5456
Sb2068_A		1.053	ug/L	0.0000	0.0000	0.9961
Se1960_A		-1.290	ug/L	0.0000	0.0000	1.334
Si2516_R		13.58	ug/L	0.0000	0.0000	36.95
Sn1899_A		0.3240	ug/L	0.0000	0.0000	1.932
Sr4215_R		0.05312	ug/L	0.0000	0.0000	-10.03
Ti3349_A		0.9857	ug/L	0.0000	0.0000	6.337
Tl1908_A		0.3656	ug/L	0.0000	0.0000	-1.456
V_2924_A		-0.1648	ug/L	0.0000	0.0000	-6.649
Zn2062_A		0.006387	ug/L	0.0000	0.0000	0.7694
Y_3600_R		17,122	Cts/S	0.00000	0.00000	17,122
Y_2243_A		7,580.0	Cts/S	0.00000	0.00000	7,580.0
Y_3600_A		123,840	Cts/S	0.00000	0.00000	123,840

Logbooks and Supporting Documents

Katahdin Analytical Services, Inc. | **Metals Preparation Benchsheet**

Reagents and Consumables Information: | **Method:** 3010

HNO3: MSR249 | HCL: MSR248 | Digestion Vessels: 17303030

1:1 HNO3: MR3139 | 1:1 HCL: MR3133

Pipet	LCS/Spiking Information:
M11	CLPP-SPK-1 (ID/Vol): MS2378 / 0.05 mL
M21	CLPP-SPK-INT1 (ID/Vol): MW205110 / 0.5 mL
M21	CLPP-SPK-INT2 (ID/Vol): MW204932 / 0.5 mL
—	— Spike (ID/Vol): — / — mL

Heat Source ID : A
Start Time: 10:12 /Temp. 90 °C
End Time: 17:37 /Temp. 90 °C
Thermometer ID/Pos: ALC30 / 1,6

Sample ID	Batch ID	Initial Wt/Vol	Initial Units	Final Vol	Final Units	MX	Metb	Anal.	Date	Bottle	pH<2
LCSWOI23ICW2	OI23ICW2	0.05	L	0.05	L	AQ	IC	JT	09/23/2021	—	✓
PBWOI23ICW2	OI23ICW2	1	L		L	AQ	IC	JT	09/23/2021	—	
SO6194-001	OI23ICW2	0.01	L		L	AQ	IC	JT	09/23/2021	—	
SO6226-004	OI23ICW2	0.05	L		L	AQ	IC	JT	09/23/2021	I	
SO6226-004P	OI23ICW2		L		L	AQ	IC	JT	09/23/2021	1	
SO6226-004S	OI23ICW2		L		L	AQ	IC	JT	09/23/2021	D	
SO6313-003	OI23ICW2		L		L	AQ	IC	JT	09/23/2021		
SO6313-004	OI23ICW2		L		L	AQ	IC	JT	09/23/2021		
SO6313-005	OI23ICW2		L		L	AQ	IC	JT	09/23/2021		
SO6313-006	OI23ICW2		L		L	AQ	IC	JT	09/23/2021		
SO6313-016	OI23ICW2		L		L	AQ	IC	JT	09/23/2021		
SO6313-017	OI23ICW2		L		L	AQ	IC	JT	09/23/2021		
SO6313-018	OI23ICW2		L		L	AQ	IC	JT	09/23/2021		
SO6313-030	OI23ICW2	1	L		L	AQ	IC	JT	09/23/2021	A	
SO6315-003	OI23ICW2	0.01	L		L	AQ	IC	JT	09/23/2021	—	
SO6315-004	OI23ICW2		L		L	AQ	IC	JT	09/23/2021	—	
SO6362-001	OI23ICW2		L		L	AQ	IC	JT	09/23/2021	—	
SO6362-002	OI23ICW2		L		L	AQ	IC	JT	09/23/2021	—	
SO6365-001	OI23ICW2		L		L	AQ	IC	JT	09/23/2021	—	
SO6365-003	OI23ICW2		L		L	AQ	IC	JT	09/23/2021	—	
SO6365-005	OI23ICW2		L		L	AQ	IC	JT	09/23/2021	—	
PBT1708A		0.01								—	
PBT1709A		0.01								—	

JT 9-23-21

REVIEWED
EP 9/24/21
KATAHDIN ANALYTICAL METALS SECTION

Client IDs Verified JT 9-23-21

QA-064-Revision 5 -12/07/2018 | Digestion performed by: JT | On: 9-23-21 | Page: OI083 | Revision: 00

Katahdin Analytical Services, Inc.

Reagents and Consumables Information:

Metals Preparation Benchsheet

Method: 3010

HNO3: MSR249 HCL: MSR248 Digestion Vessels: MLB026000010

1:1 HNO3: MR3139 1:1 HCL: MR3144

Pipet	LCS/Spiking Information:	
M11	CLPP-SPK-1 (ID/Vol): MS2378	/ 0.05 mL
M21	CLPP-SPK-INT1 (ID/Vol): MW20510	/ 0.5 mL
M31	CLPP-SPK-INT2 (ID/Vol): MW20482	/ 0.5 mL
—	— Spike (ID/Vol): —	/ — mL

Heat Source ID : A
Start Time: 7:03 /Temp. 89 °C
End Time: 14:51 /Temp. 91 °C
Thermometer ID/Pos: ALC30 /1,7

Sample ID	Batch ID	Initial Wt/Vol	Initial Units	Final Vol	Final Units	MX	Meth	Anal.	Date	Bottle	pH<2
LCSWOI24ICW1	OI24ICW1	0.05	L	0.05	L	AQ	IC	JT	09/24/2021	—	✓
PBWOI24ICW1	OI24ICW1	1	L		L	AQ	IC	JT	09/24/2021	—	
SO6185-001	OI24ICW1	0.01	L		L	AQ	IC	JT	09/24/2021	—	
SO6265-009	OI24ICW1	0.05	L		L	AQ	IC	JT	09/24/2021	H	
SO6304-001	OI24ICW1		L		L	AQ	IC	JT	09/24/2021	D	
SO6304-003	OI24ICW1		L		L	AQ	IC	JT	09/24/2021		
SO6304-005	OI24ICW1		L		L	AQ	IC	JT	09/24/2021		
SO6304-006	OI24ICW1		L		L	AQ	IC	JT	09/24/2021	1	
SO6313-031	OI24ICW1		L		L	AQ	IC	JT	09/24/2021	A	
SO6313-032	OI24ICW1		L		L	AQ	IC	JT	09/24/2021	1	
SO6383-001	OI24ICW1		L		L	AQ	IC	JT	09/24/2021	C	
SO6388-001	OI24ICW1		L		L	AQ	IC	JT	09/24/2021	A	
SO6390-001	OI24ICW1		L		L	AQ	IC	JT	09/24/2021	D	
SO6390-002	OI24ICW1		L		L	AQ	IC	JT	09/24/2021	1	
SO6390-002P	OI24ICW1		L		L	AQ	IC	JT	09/24/2021	D	
SO6390-002S	OI24ICW1		L		L	AQ	IC	JT	09/24/2021	D	
SO6390-004	OI24ICW1		L		L	AQ	IC	JT	09/24/2021	A	
SO6390-005	OI24ICW1		L		L	AQ	IC	JT	09/24/2021	C	
SO6390-005P	OI24ICW1		L		L	AQ	IC	JT	09/24/2021	1	
SO6390-005S	OI24ICW1		L		L	AQ	IC	JT	09/24/2021		
SO6391-001	OI24ICW1		L		L	AQ	IC	JT	09/24/2021	D	
SO6391-002	OI24ICW1		L		L	AQ	IC	JT	09/24/2021	1	
SO6391-003	OI24ICW1		L		L	AQ	IC	JT	09/24/2021		
SO6392-001	OI24ICW1	1	L	1	L	AQ	IC	JT	09/24/2021	C	✓
JT 9-24-21	LCSWOI24ICW1	1	1	1	1	1	1	1	1	-B	1

REVIEWED
EQ 9/27/21
KATAHDIN ANALYTICAL
METALS SECTION

Client IDs Verified JT 9-24-21

QA-064-Revision 5 -12/07/2018 Digestion performed by: JT/CD On: 9-24-21 Page: OI089 Revision: 00

Katahdin Analytical Services, Inc. | **Metals Preparation Benchsheet**

Reagents and Consumables Information: | **Method:** 7470

HNO3: MSR249 | H2SO4: MSR 251 | Digestion Vessles: 20030423-10-0318-AF

KMNO4: MR3135 | K2S2O8: MR3068 | NH2OH-HCl: MR3128

Standards/Spiking Information:

1ppm A : MW20547

Pipet | 1ppm B : MW20533

M11 | LCSW = 125uL of 1ppm HgA to 25mL

M11 | Spike(S/P) = 25uL of 1ppm HgA to 25mL

M21 | ICV = 600uL of 1ppm HgB to 100 mL

M21 | S10.0 = 1000uL of 1ppm HgA to 100 mL

Heat Source ID : C

Start Time: 14:41 /Temp. 89.4 °C

End Time: 16:41 /Temp. 92.9 °C

Thermometer ID/Pos: D376 / 5,5

Sample ID	Batch ID	Initial Wt/Vol	Initial Units	Final Vol	Final Units	MX	Meth	Anal.	Date	Bottle	pH <2
LC2WOJ04HGW1	OJ04HGW1	0.025	L	0.025	L	AQ	HG	JT	10/04/2021	N/A	✓
LCSWOJ04HGW1	OJ04HGW1		L		L	AQ	HG	JT	10/04/2021	-	
PBWOJ04HGW1	OJ04HGW1		L		L	AQ	HG	JT	10/04/2021	-	
SO6304-001	OJ04HGW1		L		L	AQ	HG	JT	10/04/2021	D	
SO6304-001P	OJ04HGW1		L		L	AQ	HG	JT	10/04/2021		
SO6304-001S	OJ04HGW1		L		L	AQ	HG	JT	10/04/2021		
SO6304-003	OJ04HGW1		L		L	AQ	HG	JT	10/04/2021		
SO6304-005	OJ04HGW1		L		L	AQ	HG	JT	10/04/2021		
SO6304-006	OJ04HGW1		L		L	AQ	HG	JT	10/04/2021		
SO6313-003	OJ04HGW1		L		L	AQ	HG	JT	10/04/2021		
SO6313-004	OJ04HGW1		L		L	AQ	HG	JT	10/04/2021		
SO6313-005	OJ04HGW1		L		L	AQ	HG	JT	10/04/2021		
SO6313-006	OJ04HGW1		L		L	AQ	HG	JT	10/04/2021		<2
SO6313-016	OJ04HGW1		L		L	AQ	HG	JT	10/04/2021		
SO6313-030	OJ04HGW1		L		L	AQ	HG	JT	10/04/2021	A	
SO6313-032	OJ04HGW1		L		L	AQ	HG	JT	10/04/2021	A	
SO6476-001	OJ04HGW1		L		L	AQ	HG	JT	10/04/2021	-	
SO6476-002	OJ04HGW1		L		L	AQ	HG	JT	10/04/2021	-	

REVIEWED

Sam 10-04-21

KATAHDIN ANALYTICAL METALS SECTION

Client IDs Verified
10/4/21 JT

Katahdin Analytical Services 4000226

ARCADIS
WATERVLIET ARSENAL LTM
SO6709

KATAHDIN ANALYTICAL SERVICES
600 TECHNOLOGY WAY
SCARBOROUGH, ME 04074

TABLE OF CONTENTS

Total number of pages: 532

SAMPLE DATA PACKAGE		0000001		
Narrative	----------	0000002	to	0000003
Supporting Documents	----------	0000004	to	0000005
Chain of Custody Record	----------	0000006	to	0000008
Login Report	----------	0000009	to	0000013
SAMPLE DATA SUMMARY				
Report of Analytical Results	----------	A0000001	to	A0000072
VOLATILES DATA		1000001		
QC Summary	----------	1000002	to	1000023
Sample Data	----------	1000024	to	1000231
Standards Data	----------	1000232	to	1000394
Raw QC Data	----------	1000395	to	1000439
Logbooks and Supporting Documents	----------	1000440	to	1000447

SAMPLE DATA PACKAGE

NARRATIVE
KATAHDIN ANALYTICAL SERVICES
ARCADIS
WATERVLIET ARSENAL LTM
SO6709

Sample Receipt

The following samples were received on October 04, 2021 and were logged in under Katahdin Analytical Services work order number SO6709 for a hardcopy due date of October 16, 2021.

KATAHDIN Sample No.	ARCADIS Sample Identification
SO6709-1	WVA-SA-MW-84(20211001)
SO6709-2	WVA-SA-MW-83(20211001)
SO6709-3	DUP-01(20211001)
SO6709-4	WVA-SA-MW-39(20211001)
SO6709-5	WVA-SA-MW-32(20211001)
SO6709-6	WVA-SA-MW-78(20211001)
SO6709-7	WVA-SA-MW-79(20211001)
SO6709-8	WVA-SA-MW-80(20211001)
SO6709-9	WVA-SA-MW-81(20211001)
SO6709-10	WVA-SA-MW-60(20211001)
SO6709-11	WVA-SA-MW-33(20211001)
SO6709-12	WVA-SA-MW-70(20211001)
SO6709-13	B121-N(20211001)
SO6709-14	B121-S(20211001)
SO6709-15	WVA-AW-MW-27(20211001)
SO6709-16	WVA-AW-MW-26(20211001)
SO6709-17	93EM-RW-2(20211001)
SO6709-18	WVA-AW-MW-52(20211001)
SO6709-19	DUP-02(20211001)
SO6709-20	WVA-AW-MW-64(20211001)
SO6709-21	93EM-SP-13(20211001)
SO6709-22	WVA-AW-135-MW-4(20211001)
SO6709-23	WVA-AW-MW-38(20211001)
SO6709-24	WVA-B35-PW-1(20211001)
SO6709-25	WVA-AW-MW-BLD-110(20211001)
SO6709-26	83DM-SP-4(20211001)
SO6709-27	WVA-AW-MW-35(20211001)
SO6709-28	WVA-AW-25-MW-6(20211001)
SO6709-29	86EM-SP-1A(20211001)
SO6709-30	WVA-AW-25-MW-2(20211001)
SO6709-31	WVA-AW-25-MW-3(20211001)
SO6709-32	WVA-AW-MW-47(20211001)
SO6709-33	WVA-AW-MW-32(20211001)
SO6709-34	93EM-SP-9(20211001)
SO6709-35	TRIP BLANK

The samples were logged in for the analyses specified on the chain of custody form. All problems encountered and resolved during sample receipt have been documented on the applicable chain of custody forms.

We certify that the test results provided in this report meet all the requirements of the NELAP standards unless otherwise noted in this narrative or in the Report of Analysis.

Sample analyses have been performed by the methods as noted herein.

Should you have any questions or comments concerning this Report of Analysis, please do not hesitate to contact your Katahdin Analytical Services Project Manager, **Ms. Heather Manz**. This narrative is an integral part of the Report of Analysis.

Organics Analysis

The samples of Work Order # SO6709 were analyzed in accordance with Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, EPA publication SW-846, Third Edition, Final Updates I (1993), II (1995), IIA (1994), IIB (1995), III (1997), IIIA (1999), IIIB (2005), IV (2008), and V (2015) and/or for the specific methods listed below or on the Report of Analysis.

8260B Analysis

Samples SO6709-13, 14, 19, 20, 27 and 29 were manually integrated for the target analytes vinyl chloride, 111-trichloroethane, trichloroethene, cis-1,2-dichloroethene and/or benzene. The specific reasons for the manual integrations are indicated on the raw data by the manual integration codes (M1-M11). These codes are further explained in the attachment following this narrative.

The reported percent recovery acceptance limits for the Laboratory Control Samples (LCSs) are statistically derived for the full list of spiked compounds. The recoveries of the spiked analytes in the LCS are compared to these acceptance limits. Katahdin standard operating procedure is to take corrective action only if the number of spiked analytes in the LCS that are outside of the QC limits is greater than ten percent of the client compound list.

There were no other protocol deviations or observations noted by the organics laboratory staff.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Quality Assurance Officer, or their designee, as verified by the following signature.

Leslie Dimond ***Nov 15, 2021***

Leslie Dimond
Quality Assurance Officer

Katahdin Analytical Services, Inc.

Manual Integration Codes For GC/MS, GC, HPLC and/or IC

M1	Peak splitting.
M2	Well defined peaks on the shoulders of the other peaks.
M3	There is additional area due to a coeluting interferant.
M4	There are negative spikes in the baseline.
M5	There are rising or falling baselines.
M6	The software has failed to detect a peak or misidentified a peak.
M7	Excessive peak tailing.
M8	Analysis such as GRO, DRO and TPH require a baseline hold.
M9	Peak was not completely integrated as in GC/MS.
M10	Primary ion was correctly integrated, but secondary or tertiary ion needed manual integration as in GC/MS.
M11	For GC analysis, when a sample is diluted by 1:10 or more, the surrogate is set to undetected and then the area under the surrogate is manually integrated.
M12	Manual integration saved in method due to TurboChrom floating point error.

Katahdin Analytical Services, LLC. — Sample Receipt Condition Report

Client: Arcadis	KAS PM: HMM	Sampled By: Client
Project:	KIMS Entry By: GM	Delivered By: Fedex
KAS Work Order#: 506709	KIMS Review By: HMM	Received By: GM
	Labeled By: GM	
SDG #:	Cooler: 1 of 1	Date/Time Rec.: 10/4/21 1100

Receipt Criteria	Y	N	EX*	NA	Comments and/or Resolution
1. Custody seals present / intact?	/				
2. Chain of Custody present in cooler?	/				
3. Chain of Custody signed by client?	/				
4. Chain of Custody matches samples?	/				
5. Temperature Blanks present? If not, take temperature of any sample w/ IR gun.	/				Temp (°C): 4.9 — Thermometer ID: IR-1
Samples received at <6 °C w/o freezing?	/				Note: Not required for metals (except Hg soil) analysis.
Ice packs or ice present?	/				The lack of ice or ice packs (i.e. no attempt to begin cooling process) or insufficient ice may not meet certain regulatory requirements and may invalidate certain data.
If yes, was there sufficient ice to meet temperature requirements?	/				
If temp. out, has the cooling process begun (i.e. ice or packs present) and sample collection times <6hrs., but samples are not yet cool?				/	Note: No cooling process required for metals (except Hg soil) analysis.
6. Volatiles: **Aqueous:** No bubble larger than a pea?	/				
Soil/Sediment:				/	
Received in airtight container?				/	
Received in methanol?				/	
Methanol covering soil?				/	
D.I. Water - Received within 48 hour HT?				/	
7. Trip Blank present in cooler?	/				
8. Proper sample containers and volume?	/				
9. Samples within hold time upon receipt?	X	/			Cr 6+ outside hold
10. Aqueous samples properly preserved? Metals, COD, NH3, TKN, O/G, phenol, TPO4, N+N, TOC, DRO, TPH – pH <2				/	
Sulfide - >9				/	
Cyanide – pH >12				/	
11. Bottleware Prepped on:					

* Log-In Notes to Exceptions: document any problems with samples or discrepancies or pH adjustments.

4.9

Katahdin ANALYTICAL SERVICES
600 Technology Way
Scarborough, ME 04074
Tel: (207) 874-2400
Fax: (207) 775-4029

CHAIN of CUSTODY

PLEASE BEAR DOWN AND PRINT LEGIBLY IN PEN

Client: Arcadis | Contact: Danielle Giroux | Phone #: (518) 250-7327 | Fax #: ( )

Address: 855 Rte 146 Suite 210 | City: Clifton Park | State: NY | Zip Code: 12065

Purchase Order #: PN # 3001988 | Proj Name / No. | Katahdin Quote #

Bill (if different than above) | Address

Sampler (Print / Sign): K Hall K Stilson Pardeep Kundal P Everson | Copies To: Danielle Giroux

LAB USE ONLY | WORK ORDER #: | KATAHDIN PR

REMARKS: SO67409

SHIPPING INFO: ☐ FED EX ☐ UPS ☐ CLIENT

AIRBILL NO:

TEMP°C ____ ☐ TEMP BLANK ☐ INTACT ☐ NOT INTACT

ANALYSIS AND CONTAINER TYPE PRESERVATIVES

★	Sample Description	Date / Time coll'd	Matrix	No. of Cntrs.	VOC 8260	Filt. ☐Y ☐N	Filt. ☐Y ☐N	Filt. ☐Y ☐N	Filt. ☐Y ☐N	Filt. ☐Y ☐N	Filt. ☐Y ☐N	Filt. ☐Y ☐N	Filt. ☐Y ☐N	Filt. ☐Y ☐N	Filt. ☐Y ☐N
	WVA-SA-MW-84(20211001)	10/1/21 0805	GW	3	✓										
	WVA-SA-MW-83(20211001)	10/1/21 0810		3	✓										
	DUP-01(20211001)	10/1/21 0800		3	✓										
	WVA-SA-MW-39(20211001)	10/1/21 0815		3	✓										
	WVA-SA-MW-32(20211001)	10/1/21 0820		3	✓										
	WVA-SA-MW-78(20211001)	10/1/21 0822		3	✓										
	WVA-SA-DOW-79(20211001)	10/1/21 0824		3	✓										
	WVA-SA-MW-80(20211001)	10/1/21 0826		3	✓										
	WVA-SA-MW-81(20211001)	10/1/21 0829		3	✓										
	WVA-SA-MW-60(20211001)	10/1/21 0835		3	✓										
	WVA-SA-MW-33(20211001)	10/1/21 0905		3	✓										
	WVA-SA-MW-70(20211001)	10/1/21 0910		3	✓										
	B121-N(20211001)	10/1/21 0940		3	✓										
	B121-S(20211001)	10/1/21 0942		3	✓										
	WVA-AW-MW-27(20211001)	10/1/21 0950		3	✓										
	WVA-AW-MW-26(20211001)	10/1/21 1000	✓	3	✓										

COMMENTS: ★ WVA-AW-35-MW-12(20211001) split sample + filter 1 by lab.

Relinquished By: (Signature)	Date / Time	Received By: (Signature)	Relinquished By: (Signature)	Date / Time	Received By: (Signature)
	10/1/21 1435				
Relinquished By: (Signature)	Date / Time	Received By: (Signature)	Relinquished By: (Signature)	Date / Time	Received By: (Signature)
	10/4/21 1100				

THE TERMS AND CONDITIONS ON THE REVERSE SIDE HEREOF SHALL GOVERN SERVICES, EXCEPT WHEN A SIGNED CONTRACTUAL AGREEMENT EXISTS.

Katahdin ANALYTICAL SERVICES
600 Technology Way
Scarborough, ME 04074
Tel: (207) 874-2400
Fax: (207) 775-4029

CHAIN of CUSTODY

PLEASE BEAR DOWN AND PRINT LEGIBLY IN PEN

Client	Contact	Phone #	Fax #
Arcadis	Danielle Giroux	518 250 7327	( )

Address 855 Route 146 suite 210 City Clifton Park State NY Zip Code 12065

Purchase Order # Proj. Name / No. Katahdin Quote #

Bill (if different than above) Address

Sampler (Print / Sign) K Stilson KA Parker Gill P Everall Copies To: Danielle Giroux

LAB USE ONLY WORK ORDER #:

KATAHDIN PROJECT NUMBER 506709

REMARKS:

SHIPPING INFO: ☐ FED EX ☐ UPS ☐ CLIENT

AIRBILL NO:

TEMP°C ☐ TEMP BLANK ☐ INTACT ☐ NOT INTACT

ANALYSIS AND CONTAINER TYPE PRESERVATIVES

★	Sample Description	Date / Time coll'd	Matrix	No. of Cntrs.	Filt. ☐Y ☐N VOC 8260	Filt. ☐Y ☐N	Filt. ☐Y ☐N	Filt. ☐Y ☐N	Filt. ☐Y ☐N	Filt. ☐Y ☐N	Filt. ☐Y ☐N	Filt. ☐Y ☐N	Filt. ☐Y ☐N	Filt. ☐Y ☐N
	93EM-RW-2(20211001)	10/1/21/1010	GW	3	✓									
	WVA-AW-MW-52(20211001)	10/1/21/1015		3	✓									
	DUP-02(20211001)	10/1/21/1005		3	✓									
	WVA-AW-MW-64(20211001)	10/1/21/1020		3	✓									
	93EM-SP-13(20211001)	10/1/21/1038		3	✓									
	WVA-AW-135-MW-4(20211001)	10/1/21/1050		3	✓									
	WVA-AW-MW-38(20211001)	10/1/21/1055		3	✓									
	WVA-B35-PW-1(20211001)	10/1/21/1105		3	✓									
	WVA-AW-MW-BLD-110(20211001)	10/1/21/1115		3	✓									
	83DM-SP-4(20211001)	10/1/21/1155		3	✓									
	WVA-AW-MW-35(20211001)	10/1/21/215		3	✓									
	WVA-AW-25-MW-6(20211001)	10/1/21/1220		3	✓									
	86EM-SP-1A(20211001)	10/1/21/1225		3	✓									
	WVA-AW-25-MW-2(20211001)	10/1/21/1235		3	✓									
	WVA-AW-25-MW-3(20211001)	10/1/21/1240		3	✓									
	WVA-AW-MW-47(20211001)	10/1/21/1250	✓	3	✓									

COMMENTS

Relinquished By: (Signature)	Date / Time	Received By: (Signature)	Relinquished By: (Signature)	Date / Time	Received By: (Signature)
	10/1/21 1135				
Relinquished By: (Signature)	Date / Time	Received By: (Signature)	Relinquished By: (Signature)	Date / Time	Received By: (Signature)
	10/1/21 1705				

THE TERMS AND CONDITIONS ON THE REVERSE SIDE HEREOF SHALL GOVERN SERVICES, EXCEPT WHEN A SIGNED CONTRACTUAL AGREEMENT EXISTS.

Katahdin ANALYTICAL SERVICES

600 Technology Way
Scarborough, ME 04074
Tel: (207) 874-2400
Fax: (207) 775-4029

CHAIN of CUSTODY

PLEASE BEAR DOWN AND PRINT LEGIBLY IN PEN

Client	Contact	Phone #	Fax #
Arcadis	Danielle Giraux	(518) 250 7327	( )

Address 855 Route 146 Suite 210 City Clifton Park State NY Zip Code 12065

Purchase Order # PN#30001988 Proj. Name / No. Katahdin Quote #

Bill (if different than above) Address

Sampler (Print / Sign) KStilson KA - Paul Gull PEversoll Copies To: Danielle Giraux

LAB USE ONLY

WORK ORDER #:

KATAHDIN PROJECT NUMBER S06708

REMARKS:

SHIPPING INFO: ❒ FED EX ❒ UPS ❒ CLIENT

AIRBILL NO:

TEMP°C ____ ❒ TEMP BLANK ❒ INTACT ❒ NOT INTACT

★	Sample Description	Date / Time coll'd	Matrix	No. of Cntrs.	ANALYSIS AND CONTAINER TYPE PRESERVATIVES: Filt. ❒Y ❒N — VOC	8260	Hex Chrome SW8467196	Filt. ❒Y ❒N	Filt. ❒Y ❒N	Filt. ❒Y ❒N	Filt. ❒Y ❒N	Filt. ❒Y ❒N	Filt. ❒Y ❒N	Filt. ❒Y ❒N	Filt. ❒Y ❒N	Filt. ❒Y ❒N
	WA-AW-MW-32(20211001)	10/1/21 1310	GW	3	✓											
	93EM-SP-9(20211001)	10/1/21 1320	GW	3	✓											
	WA-AW-35-MW-12(20211001)	10/1/21 1330	GW	1			✓									
	Trip Blank	8/31/21 0900	W	3	✓											
	Temp Blank	— / —	—	1												

10/01/21

COMMENTS ★ WA-AW-35-MW-12 (20211001) SPLIT sample + filter by lab.

Relinquished By: (Signature)	Date / Time	Received By: (Signature)	Relinquished By: (Signature)	Date / Time	Received By: (Signature)
Paul Gull	10/1/21 1435				
Relinquished By: (Signature)	Date / Time	Received By: (Signature)	Relinquished By: (Signature)	Date / Time	Received By: (Signature)
	10/1/21 1700				

THE TERMS AND CONDITIONS ON THE REVERSE SIDE HEREOF SHALL GOVERN SERVICES, EXCEPT WHEN A SIGNED CONTRACTUAL AGREEMENT EXISTS.

Katahdin Analytical Services

Login Chain of Custody Report (lno1)

Oct. 04, 2021
04:40 PM

Quote/Incoming: ARCADIS-WATERVLIET

Login Number: SO6709

Account: ARCADIS002
ARCADIS

Project: ARCADIS-WATERVLIET

Primary Report Address:

Stefan Bagnato
ARCADIS
855 Route 146
Suite 210
Clifton Park, NY 12065
USA
stefan.bagnato@arcadis-us.com

Primary Invoice Address:

Accounts Payable
ARCADIS U.S., Inc.
630 Plaza Drive
Suite 100
Highlands Ranch,CO 80129

Report CC Addresses:
Invoice CC Addresses:

Login Information:

ANALYSIS INSTRUCTIONS	:	Not DOD, NELAP. ND to PQL, no J flags.
CHECK NO.	:	
CLIENT PO#	:	30001988.0001D
CLIENT PROJECT MANAGEI	:	Andy Vitolins
CONTRACT	:	W912DR-18-D-0004
COOLER TEMPERATURE	:	Add of Cooler Receipts
DELIVERY SERVICES	:	FedEx
EDD FORMAT	:	KAS121-CSV & KAS136QC-CSV
LOGIN INITIALS	:	GM
PM	:	HHM
PROJECT NAME	:	Watervliet Arsenal LTM
QC LEVEL	:	IV
REPORT INSTRUCTIONS	:	Email PDF & EDD to Stefan & Danielle.Giroux@arcadis.com. No HC. Need to put "1 Buffington Street (Bldg 36), Watervliet Arsenal, Watervliet, NY 12189" in comments of invoice. Email invoices to Terry Huber (Terry.Huber@arcadis.com), stefan.bagnato@arcadis.com and AccountsPayable.Administration@arcadis.com.
SDG ID	:	
SDG STATUS	:	
VERBAL TAT	:	

4:42 pm, Oct 04, 2021

Login Number: SO6709

Account: ARCADIS002
ARCADIS

Project: ARCADIS-WATERVLIET

Quote/Incoming: ARCADIS-WATERVLIET

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	PR	Verbal Date	Due Date	Mailed
SO6709-1	WVA-SA-MW-84(20211001)	01-OCT-21 08:05	04-OCT-21			16-OCT-21	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	SW8260-S	15-OCT-21	40mL Vial+HCl		

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	PR	Verbal Date	Due Date	Mailed
SO6709-2	WVA-SA-MW-83(20211001)	01-OCT-21 08:10	04-OCT-21			16-OCT-21	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	SW8260-S	15-OCT-21	40mL Vial+HCl		

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	PR	Verbal Date	Due Date	Mailed
SO6709-3	DUP-01(20211001)	01-OCT-21 08:00	04-OCT-21			16-OCT-21	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	SW8260-S	15-OCT-21	40mL Vial+HCl		

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	PR	Verbal Date	Due Date	Mailed
SO6709-4	WVA-SA-MW-39(20211001)	01-OCT-21 08:15	04-OCT-21			16-OCT-21	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	SW8260-S	15-OCT-21	40mL Vial+HCl		

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	PR	Verbal Date	Due Date	Mailed
SO6709-5	WVA-SA-MW-32(20211001)	01-OCT-21 08:20	04-OCT-21			16-OCT-21	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	SW8260-S	15-OCT-21	40mL Vial+HCl		

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	PR	Verbal Date	Due Date	Mailed
SO6709-6	WVA-SA-MW-78(20211001)	01-OCT-21 08:22	04-OCT-21			16-OCT-21	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	SW8260-S	15-OCT-21	40mL Vial+HCl		

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	PR	Verbal Date	Due Date	Mailed
SO6709-7	WVA-SA-MW-79(20211001)	01-OCT-21 08:24	04-OCT-21			16-OCT-21	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	SW8260-S	15-OCT-21	40mL Vial+HCl		

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	PR	Verbal Date	Due Date	Mailed
SO6709-8	WVA-SA-MW-80(20211001)	01-OCT-21 08:26	04-OCT-21			16-OCT-21	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	SW8260-S	15-OCT-21	40mL Vial+HCl		

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	PR	Verbal Date	Due Date	Mailed
SO6709-9	WVA-SA-MW-81(20211001)	01-OCT-21 08:29	04-OCT-21			16-OCT-21	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	SW8260-S	15-OCT-21	40mL Vial+HCl		

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	PR	Verbal Date	Due Date	Mailed
SO6709-10	WVA-SA-MW-60(20211001)	01-OCT-21 08:35	04-OCT-21			16-OCT-21	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	SW8260-S	15-OCT-21	40mL Vial+HCl		

Login Number: SO6709

Account: ARCADIS002
ARCADIS

Project: ARCADIS-WATERVLIET

Quote/Incoming: ARCADIS-WATERVLIET

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	PR	Verbal Date	Due Date	Mailed
SO6709-11	WVA-SA-MW-33(20211001)	01-OCT-21 09:05	04-OCT-21			16-OCT-21	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	SW8260-S	15-OCT-21	40mL Vial+HCl		

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	PR	Verbal Date	Due Date	Mailed
SO6709-12	WVA-SA-MW-70(20211001)	01-OCT-21 09:10	04-OCT-21			16-OCT-21	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	SW8260-S	15-OCT-21	40mL Vial+HCl		

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	PR	Verbal Date	Due Date	Mailed
SO6709-13	B121-N(20211001)	01-OCT-21 09:40	04-OCT-21			16-OCT-21	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	SW8260-S	15-OCT-21	40mL Vial+HCl		

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	PR	Verbal Date	Due Date	Mailed
SO6709-14	B121-S(20211001)	01-OCT-21 09:42	04-OCT-21			16-OCT-21	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	SW8260-S	15-OCT-21	40mL Vial+HCl		

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	PR	Verbal Date	Due Date	Mailed
SO6709-15	WVA-AW-MW-27(20211001)	01-OCT-21 09:52	04-OCT-21			16-OCT-21	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	SW8260-S	15-OCT-21	40mL Vial+HCl		

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	PR	Verbal Date	Due Date	Mailed
SO6709-16	WVA-AW-MW-26(20211001)	01-OCT-21 10:00	04-OCT-21			16-OCT-21	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	SW8260-S	15-OCT-21	40mL Vial+HCl		

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	PR	Verbal Date	Due Date	Mailed
SO6709-17	93EM-RW-2(20211001)	01-OCT-21 10:10	04-OCT-21			16-OCT-21	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	SW8260-S	15-OCT-21	40mL Vial+HCl		

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	PR	Verbal Date	Due Date	Mailed
SO6709-18	WVA-AW-MW-52(20211001)	01-OCT-21 10:15	04-OCT-21			16-OCT-21	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	SW8260-S	15-OCT-21	40mL Vial+HCl		

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	PR	Verbal Date	Due Date	Mailed
SO6709-19	DUP-02(20211001)	01-OCT-21 10:05	04-OCT-21			16-OCT-21	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	SW8260-S	15-OCT-21	40mL Vial+HCl		

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	PR	Verbal Date	Due Date	Mailed
SO6709-20	WVA-AW-MW-64(20211001)	01-OCT-21 10:20	04-OCT-21			16-OCT-21	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	SW8260-S	15-OCT-21	40mL Vial+HCl		

Login Number: SO6709

Account: ARCADIS002
ARCADIS

Project: ARCADIS-WATERVLIET

Quote/Incoming: ARCADIS-WATERVLIET

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	PR	Verbal Date	Due Date	Mailed
SO6709-21	93EM-SP-13(20211001)	01-OCT-21 10:38	04-OCT-21			16-OCT-21	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	SW8260-S	15-OCT-21	40mL Vial+HCl		

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	PR	Verbal Date	Due Date	Mailed
SO6709-22	WVA-AW-135-MW-4(20211001)	01-OCT-21 10:50	04-OCT-21			16-OCT-21	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	SW8260-S	15-OCT-21	40mL Vial+HCl		

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	PR	Verbal Date	Due Date	Mailed
SO6709-23	WVA-AW-MW-38(20211001)	01-OCT-21 10:55	04-OCT-21			16-OCT-21	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	SW8260-S	15-OCT-21	40mL Vial+HCl		

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	PR	Verbal Date	Due Date	Mailed
SO6709-24	WVA-B35-PW-1(20211001)	01-OCT-21 11:05	04-OCT-21			16-OCT-21	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	SW8260-S	15-OCT-21	40mL Vial+HCl		

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	PR	Verbal Date	Due Date	Mailed
SO6709-25	WVA-AW-MW-BLD-110(20211001)	01-OCT-21 11:15	04-OCT-21			16-OCT-21	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	SW8260-S	15-OCT-21	40mL Vial+HCl		

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	PR	Verbal Date	Due Date	Mailed
SO6709-26	83DM-SP-4(20211001)	01-OCT-21 11:55	04-OCT-21			16-OCT-21	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	SW8260-S	15-OCT-21	40mL Vial+HCl		

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	PR	Verbal Date	Due Date	Mailed
SO6709-27	WVA-AW-MW-35(20211001)	01-OCT-21 12:15	04-OCT-21			16-OCT-21	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	SW8260-S	15-OCT-21	40mL Vial+HCl		

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	PR	Verbal Date	Due Date	Mailed
SO6709-28	WVA-AW-25-MW-6(20211001)	01-OCT-21 12:20	04-OCT-21			16-OCT-21	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	SW8260-S	15-OCT-21	40mL Vial+HCl		

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	PR	Verbal Date	Due Date	Mailed
SO6709-29	86EM-SP-1A(20211001)	01-OCT-21 12:25	04-OCT-21			16-OCT-21	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	SW8260-S	15-OCT-21	40mL Vial+HCl		

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	PR	Verbal Date	Due Date	Mailed
SO6709-30	WVA-AW-25-MW-2(20211001)	01-OCT-21 12:35	04-OCT-21			16-OCT-21	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	SW8260-S	15-OCT-21	40mL Vial+HCl		

Login Number: SO6709

Account: ARCADIS002
ARCADIS

Project: ARCADIS-WATERVLIET

Quote/Incoming: ARCADIS-WATERVLIET

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	PR	Verbal Date	Due Date	Mailed
SO6709-31	WVA-AW-25-MW-3(20211001)	01-OCT-21 12:40	04-OCT-21			16-OCT-21	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	SW8260-S	15-OCT-21	40mL Vial+HCl		

SO6709-32	WVA-AW-MW-47(20211001)	01-OCT-21 12:50	04-OCT-21			16-OCT-21

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	SW8260-S	15-OCT-21	40mL Vial+HCl		

SO6709-33	WVA-AW-MW-32(20211001)	01-OCT-21 13:10	04-OCT-21			16-OCT-21

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	SW8260-S	15-OCT-21	40mL Vial+HCl		

SO6709-34	93EM-SP-9(20211001)	01-OCT-21 13:20	04-OCT-21			16-OCT-21

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	SW8260-S	15-OCT-21	40mL Vial+HCl		

SO6709-35	TRIP BLANK	01-OCT-21 09:00	04-OCT-21			16-OCT-21

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	SW8260-S	15-OCT-21	40mL Vial+HCl		

SO6709-36	WVA-AW-35-MW-12(20211001)	01-OCT-21 13:30	04-OCT-21			16-OCT-21

Matrix	Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
					Hex Cr cancelled due to delay in shipping.

SO6709-37	WVA-AW-35-MW-12(20211001)	01-OCT-21 13:30	04-OCT-21			16-OCT-21

Matrix	Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
					Diss Hex Cr cancelled due to delay in shipping.

Total Samples: 35 ***Total Analyses: 35***

4:42 pm, Oct 04, 2021

SAMPLE DATA SUMMARY PACKAGE

KATAHDIN ANALYTICAL SERVICES - ORGANIC DATA QUALIFIERS

The sampled date indicated on the attached Report(s) of Analysis (ROA) is the date for which a grab sample was collected or the date for which a composite sample was completed. Beginning and start times for composite samples can be found on the Chain-of-Custody.

U Indicates the compound was analyzed for but not detected above the specified level. This level may be the Limit of Quantitation (LOQ)(previously called Practical Quantitation Level (PQL)), the Limit of Detection (LOD) or Method Detection Limit (MDL) as required by the client.

Note: All results reported as "U" MDL have a 50% rate for false negatives compared to those results reported as "U" PQL/LOQ or "U" LOD, where the rate of false negatives is <1%.

* Compound recovery or percent RPD (relative percent difference) was outside of quality control limits.

D Indicates the result was obtained from analysis of a diluted sample. Surrogate recoveries may not be calculable.

E Estimated value. This flag identifies compounds whose concentrations exceed the upper level of the calibration range of the instrument for that specific analysis.

J Estimated value. The analyte was detected in the sample at a concentration less than the laboratory Limit of Quantitation (LOQ)(previously called Practical Quantitation Limit (PQL)), but above the Method Detection Limit (MDL).

or

J Used for Pesticides, PCBs, Herbicides, Formaldehyde, Explosives and Method 504.1 analytes when there is a greater than 40% difference for detected concentrations between the two GC columns.

B Indicates the analyte was detected in the laboratory method blank analyzed concurrently with the sample.

C Indicates that the flagged compound did not meet DoD criteria in the corresponding daily calibration verification (CV).

L Indicates that the flagged compound did not meet DoD criteria in the corresponding Laboratory Control Sample (LCS) and/or Laboratory Control Sample Duplicate (LCSD) prepared and/or analyzed concurrently with the sample.

M Indicates that the flagged compound did not meet DoD criteria in the Matrix Spike and/or Matrix Spike Duplicate prepared and/or analyzed concurrently with the native sample.

N Presumptive evidence of a compound based on a mass spectral library search.

A Indicates that a tentatively identified compound is a suspected aldol-condensation product.

P Used for Pesticide/Aroclor analyte when there is a greater than 25% difference for detected concentrations between the two GC columns. (for CLP methods only).

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-1
Client ID: WVA-SA-MW-84(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: W0610.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 11-OCT-21
Extracted By: HG
Extraction Method: SW846 5030
Lab Prep Batch: WG307650

Analysis Date: 11-OCT-21
Analyst: HG
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	2.0	ug/L	1	2	2.0
Vinyl Chloride	U	2.0	ug/L	1	2	2.0
Bromomethane	U	2.0	ug/L	1	2	2.0
Chloroethane	U	2.0	ug/L	1	2	2.0
Trichlorofluoromethane	U	2.0	ug/L	1	2	2.0
1,1-Dichloroethene	U	1.0	ug/L	1	1	1.0
Carbon Disulfide	U	1.0	ug/L	1	1	1.0
Methylene Chloride	U	5.0	ug/L	1	5	5.0
trans-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
1,1-Dichloroethane	U	1.0	ug/L	1	1	1.0
cis-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
Chloroform	U	1.0	ug/L	1	1	1.0
Carbon Tetrachloride	U	1.0	ug/L	1	1	1.0
1,1,1-Trichloroethane	U	1.0	ug/L	1	1	1.0
2-Butanone	U	5.0	ug/L	1	5	5.0
Benzene	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethane	U	1.0	ug/L	1	1	1.0
Trichloroethene	U	1.0	ug/L	1	1	1.0
1,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Bromodichloromethane	U	1.0	ug/L	1	1	1.0
cis-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
Toluene	U	1.0	ug/L	1	1	1.0
4-Methyl-2-Pentanone	U	5.0	ug/L	1	5	5.0
Tetrachloroethene	U	1.0	ug/L	1	1	1.0
trans-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
1,1,2-Trichloroethane	U	1.0	ug/L	1	1	1.0
Dibromochloromethane	U	1.0	ug/L	1	1	1.0
Chlorobenzene	U	1.0	ug/L	1	1	1.0
Ethylbenzene	U	1.0	ug/L	1	1	1.0
m+p-Xylenes	U	2.0	ug/L	1	2	2.0
o-Xylene	U	1.0	ug/L	1	1	1.0
Bromoform	U	1.0	ug/L	1	1	1.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
P-Bromofluorobenzene		97.9	%			
Toluene-d8		102.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-1
Client ID: WVA-SA-MW-84(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: W0610.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 11-OCT-21
Extracted By: HG
Extraction Method: SW846 5030
Lab Prep Batch: WG307650

Analysis Date: 11-OCT-21
Analyst: HG
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		114.	%			
Dibromofluoromethane		109.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-2
Client ID: WVA-SA-MW-83(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: W0611.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 11-OCT-21
Extracted By: HG
Extraction Method: SW846 5030
Lab Prep Batch: WG307650

Analysis Date: 11-OCT-21
Analyst: HG
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	2.0	ug/L	1	2	2.0
Vinyl Chloride	U	2.0	ug/L	1	2	2.0
Bromomethane	U	2.0	ug/L	1	2	2.0
Chloroethane	U	2.0	ug/L	1	2	2.0
Trichlorofluoromethane	U	2.0	ug/L	1	2	2.0
1,1-Dichloroethene	U	1.0	ug/L	1	1	1.0
Carbon Disulfide	U	1.0	ug/L	1	1	1.0
Methylene Chloride	U	5.0	ug/L	1	5	5.0
trans-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
1,1-Dichloroethane	U	1.0	ug/L	1	1	1.0
cis-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
Chloroform	U	1.0	ug/L	1	1	1.0
Carbon Tetrachloride	U	1.0	ug/L	1	1	1.0
1,1,1-Trichloroethane	U	1.0	ug/L	1	1	1.0
2-Butanone	U	5.0	ug/L	1	5	5.0
Benzene	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethane	U	1.0	ug/L	1	1	1.0
Trichloroethene	U	1.0	ug/L	1	1	1.0
1,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Bromodichloromethane	U	1.0	ug/L	1	1	1.0
cis-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
Toluene	U	1.0	ug/L	1	1	1.0
4-Methyl-2-Pentanone	U	5.0	ug/L	1	5	5.0
Tetrachloroethene	U	1.0	ug/L	1	1	1.0
trans-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
1,1,2-Trichloroethane	U	1.0	ug/L	1	1	1.0
Dibromochloromethane	U	1.0	ug/L	1	1	1.0
Chlorobenzene	U	1.0	ug/L	1	1	1.0
Ethylbenzene	U	1.0	ug/L	1	1	1.0
m+p-Xylenes	U	2.0	ug/L	1	2	2.0
o-Xylene	U	1.0	ug/L	1	1	1.0
Bromoform	U	1.0	ug/L	1	1	1.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
P-Bromofluorobenzene		98.2	%			
Toluene-d8		102.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-2
Client ID: WVA-SA-MW-83(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: W0611.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 11-OCT-21
Extracted By: HG
Extraction Method: SW846 5030
Lab Prep Batch: WG307650

Analysis Date: 11-OCT-21
Analyst: HG
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		116.	%			
Dibromofluoromethane		110.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-3
Client ID: DUP-01(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: W0634.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 12-OCT-21
Extracted By: HG
Extraction Method: SW846 5030
Lab Prep Batch: WG307697

Analysis Date: 12-OCT-21
Analyst: HG
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	2.0	ug/L	1	2	2.0
Vinyl Chloride	U	2.0	ug/L	1	2	2.0
Bromomethane	U	2.0	ug/L	1	2	2.0
Chloroethane	U	2.0	ug/L	1	2	2.0
Trichlorofluoromethane	U	2.0	ug/L	1	2	2.0
1,1-Dichloroethene	U	1.0	ug/L	1	1	1.0
Carbon Disulfide	U	1.0	ug/L	1	1	1.0
Methylene Chloride	U	5.0	ug/L	1	5	5.0
trans-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
1,1-Dichloroethane	U	1.0	ug/L	1	1	1.0
cis-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
Chloroform	U	1.0	ug/L	1	1	1.0
Carbon Tetrachloride	U	1.0	ug/L	1	1	1.0
1,1,1-Trichloroethane	U	1.0	ug/L	1	1	1.0
2-Butanone	U	5.0	ug/L	1	5	5.0
Benzene	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethane	U	1.0	ug/L	1	1	1.0
Trichloroethene	U	1.0	ug/L	1	1	1.0
1,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Bromodichloromethane	U	1.0	ug/L	1	1	1.0
cis-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
Toluene	U	1.0	ug/L	1	1	1.0
4-Methyl-2-Pentanone	U	5.0	ug/L	1	5	5.0
Tetrachloroethene	U	1.0	ug/L	1	1	1.0
trans-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
1,1,2-Trichloroethane	U	1.0	ug/L	1	1	1.0
Dibromochloromethane	U	1.0	ug/L	1	1	1.0
Chlorobenzene	U	1.0	ug/L	1	1	1.0
Ethylbenzene	U	1.0	ug/L	1	1	1.0
m+p-Xylenes	U	2.0	ug/L	1	2	2.0
o-Xylene	U	1.0	ug/L	1	1	1.0
Bromoform	U	1.0	ug/L	1	1	1.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
P-Bromofluorobenzene		99.6	%			
Toluene-d8		104.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-3
Client ID: DUP-01(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: W0634.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 12-OCT-21
Extracted By: HG
Extraction Method: SW846 5030
Lab Prep Batch: WG307697

Analysis Date: 12-OCT-21
Analyst: HG
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		121.	%			
Dibromofluoromethane		111.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-4
Client ID: WVA-SA-MW-39(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: W0632.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 12-OCT-21
Extracted By: HG
Extraction Method: SW846 5030
Lab Prep Batch: WG307697

Analysis Date: 12-OCT-21
Analyst: HG
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	2.0	ug/L	1	2	2.0
Vinyl Chloride	U	2.0	ug/L	1	2	2.0
Bromomethane	U	2.0	ug/L	1	2	2.0
Chloroethane	U	2.0	ug/L	1	2	2.0
Trichlorofluoromethane	U	2.0	ug/L	1	2	2.0
1,1-Dichloroethene	U	1.0	ug/L	1	1	1.0
Carbon Disulfide	U	1.0	ug/L	1	1	1.0
Methylene Chloride	U	5.0	ug/L	1	5	5.0
trans-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
1,1-Dichloroethane	U	1.0	ug/L	1	1	1.0
cis-1,2-Dichloroethene		56.	ug/L	1	1	1.0
Chloroform	U	1.0	ug/L	1	1	1.0
Carbon Tetrachloride	U	1.0	ug/L	1	1	1.0
1,1,1-Trichloroethane	U	1.0	ug/L	1	1	1.0
2-Butanone	U	5.0	ug/L	1	5	5.0
Benzene	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethane	U	1.0	ug/L	1	1	1.0
Trichloroethene		14.	ug/L	1	1	1.0
1,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Bromodichloromethane	U	1.0	ug/L	1	1	1.0
cis-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
Toluene	U	1.0	ug/L	1	1	1.0
4-Methyl-2-Pentanone	U	5.0	ug/L	1	5	5.0
Tetrachloroethene		4.9	ug/L	1	1	1.0
trans-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
1,1,2-Trichloroethane	U	1.0	ug/L	1	1	1.0
Dibromochloromethane	U	1.0	ug/L	1	1	1.0
Chlorobenzene	U	1.0	ug/L	1	1	1.0
Ethylbenzene	U	1.0	ug/L	1	1	1.0
m+p-Xylenes	U	2.0	ug/L	1	2	2.0
o-Xylene	U	1.0	ug/L	1	1	1.0
Bromoform	U	1.0	ug/L	1	1	1.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
P-Bromofluorobenzene		97.7	%			
Toluene-d8		101.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-4
Client ID: WVA-SA-MW-39(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: W0632.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 12-OCT-21
Extracted By: HG
Extraction Method: SW846 5030
Lab Prep Batch: WG307697

Analysis Date: 12-OCT-21
Analyst: HG
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		118.	%			
Dibromofluoromethane		112.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-5
Client ID: WVA-SA-MW-32(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: W0612.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 11-OCT-21
Extracted By: HG
Extraction Method: SW846 5030
Lab Prep Batch: WG307650

Analysis Date: 11-OCT-21
Analyst: HG
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	2.0	ug/L	1	2	2.0
Vinyl Chloride	U	2.0	ug/L	1	2	2.0
Bromomethane	U	2.0	ug/L	1	2	2.0
Chloroethane	U	2.0	ug/L	1	2	2.0
Trichlorofluoromethane	U	2.0	ug/L	1	2	2.0
1,1-Dichloroethene	U	1.0	ug/L	1	1	1.0
Carbon Disulfide	U	1.0	ug/L	1	1	1.0
Methylene Chloride	U	5.0	ug/L	1	5	5.0
trans-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
1,1-Dichloroethane	U	1.0	ug/L	1	1	1.0
cis-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
Chloroform	U	1.0	ug/L	1	1	1.0
Carbon Tetrachloride	U	1.0	ug/L	1	1	1.0
1,1,1-Trichloroethane	U	1.0	ug/L	1	1	1.0
2-Butanone	U	5.0	ug/L	1	5	5.0
Benzene	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethane	U	1.0	ug/L	1	1	1.0
Trichloroethene	U	1.0	ug/L	1	1	1.0
1,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Bromodichloromethane	U	1.0	ug/L	1	1	1.0
cis-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
Toluene	U	1.0	ug/L	1	1	1.0
4-Methyl-2-Pentanone	U	5.0	ug/L	1	5	5.0
Tetrachloroethene	U	1.0	ug/L	1	1	1.0
trans-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
1,1,2-Trichloroethane	U	1.0	ug/L	1	1	1.0
Dibromochloromethane	U	1.0	ug/L	1	1	1.0
Chlorobenzene	U	1.0	ug/L	1	1	1.0
Ethylbenzene	U	1.0	ug/L	1	1	1.0
m+p-Xylenes	U	2.0	ug/L	1	2	2.0
o-Xylene	U	1.0	ug/L	1	1	1.0
Bromoform	U	1.0	ug/L	1	1	1.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
P-Bromofluorobenzene		99.8	%			
Toluene-d8		102.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-5
Client ID: WVA-SA-MW-32(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: W0612.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 11-OCT-21
Extracted By: HG
Extraction Method: SW846 5030
Lab Prep Batch: WG307650

Analysis Date: 11-OCT-21
Analyst: HG
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		118.	%			
Dibromofluoromethane		112.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-6
Client ID: WVA-SA-MW-78(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: W0613.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 11-OCT-21
Extracted By: HG
Extraction Method: SW846 5030
Lab Prep Batch: WG307650

Analysis Date: 11-OCT-21
Analyst: HG
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	2.0	ug/L	1	2	2.0
Vinyl Chloride	U	2.0	ug/L	1	2	2.0
Bromomethane	U	2.0	ug/L	1	2	2.0
Chloroethane	U	2.0	ug/L	1	2	2.0
Trichlorofluoromethane	U	2.0	ug/L	1	2	2.0
1,1-Dichloroethene	U	1.0	ug/L	1	1	1.0
Carbon Disulfide	U	1.0	ug/L	1	1	1.0
Methylene Chloride	U	5.0	ug/L	1	5	5.0
trans-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
1,1-Dichloroethane	U	1.0	ug/L	1	1	1.0
cis-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
Chloroform	U	1.0	ug/L	1	1	1.0
Carbon Tetrachloride	U	1.0	ug/L	1	1	1.0
1,1,1-Trichloroethane	U	1.0	ug/L	1	1	1.0
2-Butanone	U	5.0	ug/L	1	5	5.0
Benzene	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethane	U	1.0	ug/L	1	1	1.0
Trichloroethene	U	1.0	ug/L	1	1	1.0
1,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Bromodichloromethane	U	1.0	ug/L	1	1	1.0
cis-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
Toluene	U	1.0	ug/L	1	1	1.0
4-Methyl-2-Pentanone	U	5.0	ug/L	1	5	5.0
Tetrachloroethene	U	1.0	ug/L	1	1	1.0
trans-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
1,1,2-Trichloroethane	U	1.0	ug/L	1	1	1.0
Dibromochloromethane	U	1.0	ug/L	1	1	1.0
Chlorobenzene	U	1.0	ug/L	1	1	1.0
Ethylbenzene	U	1.0	ug/L	1	1	1.0
m+p-Xylenes	U	2.0	ug/L	1	2	2.0
o-Xylene	U	1.0	ug/L	1	1	1.0
Bromoform	U	1.0	ug/L	1	1	1.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
P-Bromofluorobenzene		98.4	%			
Toluene-d8		102.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-6
Client ID: WVA-SA-MW-78(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: W0613.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 11-OCT-21
Extracted By: HG
Extraction Method: SW846 5030
Lab Prep Batch: WG307650

Analysis Date: 11-OCT-21
Analyst: HG
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		117.	%			
Dibromofluoromethane		111.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-7
Client ID: WVA-SA-MW-79(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: W0614.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 11-OCT-21
Extracted By: HG
Extraction Method: SW846 5030
Lab Prep Batch: WG307650

Analysis Date: 11-OCT-21
Analyst: HG
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	2.0	ug/L	1	2	2.0
Vinyl Chloride	U	2.0	ug/L	1	2	2.0
Bromomethane	U	2.0	ug/L	1	2	2.0
Chloroethane	U	2.0	ug/L	1	2	2.0
Trichlorofluoromethane	U	2.0	ug/L	1	2	2.0
1,1-Dichloroethene	U	1.0	ug/L	1	1	1.0
Carbon Disulfide	U	1.0	ug/L	1	1	1.0
Methylene Chloride	U	5.0	ug/L	1	5	5.0
trans-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
1,1-Dichloroethane	U	1.0	ug/L	1	1	1.0
cis-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
Chloroform	U	1.0	ug/L	1	1	1.0
Carbon Tetrachloride	U	1.0	ug/L	1	1	1.0
1,1,1-Trichloroethane	U	1.0	ug/L	1	1	1.0
2-Butanone	U	5.0	ug/L	1	5	5.0
Benzene	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethane	U	1.0	ug/L	1	1	1.0
Trichloroethene	U	1.0	ug/L	1	1	1.0
1,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Bromodichloromethane	U	1.0	ug/L	1	1	1.0
cis-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
Toluene	U	1.0	ug/L	1	1	1.0
4-Methyl-2-Pentanone	U	5.0	ug/L	1	5	5.0
Tetrachloroethene	U	1.0	ug/L	1	1	1.0
trans-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
1,1,2-Trichloroethane	U	1.0	ug/L	1	1	1.0
Dibromochloromethane	U	1.0	ug/L	1	1	1.0
Chlorobenzene	U	1.0	ug/L	1	1	1.0
Ethylbenzene	U	1.0	ug/L	1	1	1.0
m+p-Xylenes	U	2.0	ug/L	1	2	2.0
o-Xylene	U	1.0	ug/L	1	1	1.0
Bromoform	U	1.0	ug/L	1	1	1.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
P-Bromofluorobenzene		99.3	%			
Toluene-d8		102.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-7
Client ID: WVA-SA-MW-79(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: W0614.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 11-OCT-21
Extracted By: HG
Extraction Method: SW846 5030
Lab Prep Batch: WG307650

Analysis Date: 11-OCT-21
Analyst: HG
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		118.	%			
Dibromofluoromethane		111.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-8
Client ID: WVA-SA-MW-80(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: W0615.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 11-OCT-21
Extracted By: HG
Extraction Method: SW846 5030
Lab Prep Batch: WG307650

Analysis Date: 11-OCT-21
Analyst: HG
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	2.0	ug/L	1	2	2.0
Vinyl Chloride	U	2.0	ug/L	1	2	2.0
Bromomethane	U	2.0	ug/L	1	2	2.0
Chloroethane	U	2.0	ug/L	1	2	2.0
Trichlorofluoromethane	U	2.0	ug/L	1	2	2.0
1,1-Dichloroethene	U	1.0	ug/L	1	1	1.0
Carbon Disulfide	U	1.0	ug/L	1	1	1.0
Methylene Chloride	U	5.0	ug/L	1	5	5.0
trans-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
1,1-Dichloroethane	U	1.0	ug/L	1	1	1.0
cis-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
Chloroform	U	1.0	ug/L	1	1	1.0
Carbon Tetrachloride	U	1.0	ug/L	1	1	1.0
1,1,1-Trichloroethane	U	1.0	ug/L	1	1	1.0
2-Butanone	U	5.0	ug/L	1	5	5.0
Benzene	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethane	U	1.0	ug/L	1	1	1.0
Trichloroethene	U	1.0	ug/L	1	1	1.0
1,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Bromodichloromethane	U	1.0	ug/L	1	1	1.0
cis-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
Toluene	U	1.0	ug/L	1	1	1.0
4-Methyl-2-Pentanone	U	5.0	ug/L	1	5	5.0
Tetrachloroethene	U	1.0	ug/L	1	1	1.0
trans-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
1,1,2-Trichloroethane	U	1.0	ug/L	1	1	1.0
Dibromochloromethane	U	1.0	ug/L	1	1	1.0
Chlorobenzene	U	1.0	ug/L	1	1	1.0
Ethylbenzene	U	1.0	ug/L	1	1	1.0
m+p-Xylenes	U	2.0	ug/L	1	2	2.0
o-Xylene	U	1.0	ug/L	1	1	1.0
Bromoform	U	1.0	ug/L	1	1	1.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
P-Bromofluorobenzene		99.1	%			
Toluene-d8		102.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-8
Client ID: WVA-SA-MW-80(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: W0615.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 11-OCT-21
Extracted By: HG
Extraction Method: SW846 5030
Lab Prep Batch: WG307650

Analysis Date: 11-OCT-21
Analyst: HG
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		119.	%			
Dibromofluoromethane		112.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-9
Client ID: WVA-SA-MW-81(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: W0622.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 11-OCT-21
Extracted By: HG
Extraction Method: SW846 5030
Lab Prep Batch: WG307650

Analysis Date: 11-OCT-21
Analyst: HG
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	2.0	ug/L	1	2	2.0
Vinyl Chloride		26.	ug/L	1	2	2.0
Bromomethane	U	2.0	ug/L	1	2	2.0
Chloroethane	U	2.0	ug/L	1	2	2.0
Trichlorofluoromethane	U	2.0	ug/L	1	2	2.0
1,1-Dichloroethene	U	1.0	ug/L	1	1	1.0
Carbon Disulfide	U	1.0	ug/L	1	1	1.0
Methylene Chloride	U	5.0	ug/L	1	5	5.0
trans-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
1,1-Dichloroethane	U	1.0	ug/L	1	1	1.0
cis-1,2-Dichloroethene		1.4	ug/L	1	1	1.0
Chloroform	U	1.0	ug/L	1	1	1.0
Carbon Tetrachloride	U	1.0	ug/L	1	1	1.0
1,1,1-Trichloroethane	U	1.0	ug/L	1	1	1.0
2-Butanone	U	5.0	ug/L	1	5	5.0
Benzene	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethane	U	1.0	ug/L	1	1	1.0
Trichloroethene	U	1.0	ug/L	1	1	1.0
1,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Bromodichloromethane	U	1.0	ug/L	1	1	1.0
cis-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
Toluene	U	1.0	ug/L	1	1	1.0
4-Methyl-2-Pentanone	U	5.0	ug/L	1	5	5.0
Tetrachloroethene	U	1.0	ug/L	1	1	1.0
trans-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
1,1,2-Trichloroethane	U	1.0	ug/L	1	1	1.0
Dibromochloromethane	U	1.0	ug/L	1	1	1.0
Chlorobenzene	U	1.0	ug/L	1	1	1.0
Ethylbenzene	U	1.0	ug/L	1	1	1.0
m+p-Xylenes	U	2.0	ug/L	1	2	2.0
o-Xylene	U	1.0	ug/L	1	1	1.0
Bromoform	U	1.0	ug/L	1	1	1.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
P-Bromofluorobenzene		99.6	%			
Toluene-d8		104.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-9
Client ID: WVA-SA-MW-81(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: W0622.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 11-OCT-21
Extracted By: HG
Extraction Method: SW846 5030
Lab Prep Batch: WG307650

Analysis Date: 11-OCT-21
Analyst: HG
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		122.	%			
Dibromofluoromethane		113.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-10
Client ID: WVA-SA-MW-60(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: W0616.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 11-OCT-21
Extracted By: HG
Extraction Method: SW846 5030
Lab Prep Batch: WG307650

Analysis Date: 11-OCT-21
Analyst: HG
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	2.0	ug/L	1	2	2.0
Vinyl Chloride	U	2.0	ug/L	1	2	2.0
Bromomethane	U	2.0	ug/L	1	2	2.0
Chloroethane	U	2.0	ug/L	1	2	2.0
Trichlorofluoromethane	U	2.0	ug/L	1	2	2.0
1,1-Dichloroethene	U	1.0	ug/L	1	1	1.0
Carbon Disulfide	U	1.0	ug/L	1	1	1.0
Methylene Chloride	U	5.0	ug/L	1	5	5.0
trans-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
1,1-Dichloroethane	U	1.0	ug/L	1	1	1.0
cis-1,2-Dichloroethene		1.2	ug/L	1	1	1.0
Chloroform	U	1.0	ug/L	1	1	1.0
Carbon Tetrachloride	U	1.0	ug/L	1	1	1.0
1,1,1-Trichloroethane	U	1.0	ug/L	1	1	1.0
2-Butanone	U	5.0	ug/L	1	5	5.0
Benzene	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethane	U	1.0	ug/L	1	1	1.0
Trichloroethene	U	1.0	ug/L	1	1	1.0
1,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Bromodichloromethane	U	1.0	ug/L	1	1	1.0
cis-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
Toluene	U	1.0	ug/L	1	1	1.0
4-Methyl-2-Pentanone	U	5.0	ug/L	1	5	5.0
Tetrachloroethene	U	1.0	ug/L	1	1	1.0
trans-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
1,1,2-Trichloroethane	U	1.0	ug/L	1	1	1.0
Dibromochloromethane	U	1.0	ug/L	1	1	1.0
Chlorobenzene	U	1.0	ug/L	1	1	1.0
Ethylbenzene	U	1.0	ug/L	1	1	1.0
m+p-Xylenes	U	2.0	ug/L	1	2	2.0
o-Xylene	U	1.0	ug/L	1	1	1.0
Bromoform	U	1.0	ug/L	1	1	1.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
P-Bromofluorobenzene		101.	%			
Toluene-d8		103.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-10
Client ID: WVA-SA-MW-60(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: W0616.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 11-OCT-21
Extracted By: HG
Extraction Method: SW846 5030
Lab Prep Batch: WG307650

Analysis Date: 11-OCT-21
Analyst: HG
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		120.	%			
Dibromofluoromethane		112.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-11
Client ID: WVA-SA-MW-33(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: W0617.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 11-OCT-21
Extracted By: HG
Extraction Method: SW846 5030
Lab Prep Batch: WG307650

Analysis Date: 11-OCT-21
Analyst: HG
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	2.0	ug/L	1	2	2.0
Vinyl Chloride	U	2.0	ug/L	1	2	2.0
Bromomethane	U	2.0	ug/L	1	2	2.0
Chloroethane	U	2.0	ug/L	1	2	2.0
Trichlorofluoromethane	U	2.0	ug/L	1	2	2.0
1,1-Dichloroethene	U	1.0	ug/L	1	1	1.0
Carbon Disulfide	U	1.0	ug/L	1	1	1.0
Methylene Chloride	U	5.0	ug/L	1	5	5.0
trans-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
1,1-Dichloroethane	U	1.0	ug/L	1	1	1.0
cis-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
Chloroform	U	1.0	ug/L	1	1	1.0
Carbon Tetrachloride	U	1.0	ug/L	1	1	1.0
1,1,1-Trichloroethane	U	1.0	ug/L	1	1	1.0
2-Butanone	U	5.0	ug/L	1	5	5.0
Benzene	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethane	U	1.0	ug/L	1	1	1.0
Trichloroethene	U	1.0	ug/L	1	1	1.0
1,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Bromodichloromethane	U	1.0	ug/L	1	1	1.0
cis-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
Toluene	U	1.0	ug/L	1	1	1.0
4-Methyl-2-Pentanone	U	5.0	ug/L	1	5	5.0
Tetrachloroethene	U	1.0	ug/L	1	1	1.0
trans-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
1,1,2-Trichloroethane	U	1.0	ug/L	1	1	1.0
Dibromochloromethane	U	1.0	ug/L	1	1	1.0
Chlorobenzene	U	1.0	ug/L	1	1	1.0
Ethylbenzene	U	1.0	ug/L	1	1	1.0
m+p-Xylenes	U	2.0	ug/L	1	2	2.0
o-Xylene	U	1.0	ug/L	1	1	1.0
Bromoform	U	1.0	ug/L	1	1	1.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
P-Bromofluorobenzene		99.2	%			
Toluene-d8		104.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-11
Client ID: WVA-SA-MW-33(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: W0617.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 11-OCT-21
Extracted By: HG
Extraction Method: SW846 5030
Lab Prep Batch: WG307650

Analysis Date: 11-OCT-21
Analyst: HG
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		120.	%			
Dibromofluoromethane		112.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-12
Client ID: WVA-SA-MW-70(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: W0618.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 11-OCT-21
Extracted By: HG
Extraction Method: SW846 5030
Lab Prep Batch: WG307650

Analysis Date: 11-OCT-21
Analyst: HG
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	2.0	ug/L	1	2	2.0
Vinyl Chloride	U	2.0	ug/L	1	2	2.0
Bromomethane	U	2.0	ug/L	1	2	2.0
Chloroethane	U	2.0	ug/L	1	2	2.0
Trichlorofluoromethane	U	2.0	ug/L	1	2	2.0
1,1-Dichloroethene	U	1.0	ug/L	1	1	1.0
Carbon Disulfide	U	1.0	ug/L	1	1	1.0
Methylene Chloride	U	5.0	ug/L	1	5	5.0
trans-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
1,1-Dichloroethane	U	1.0	ug/L	1	1	1.0
cis-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
Chloroform	U	1.0	ug/L	1	1	1.0
Carbon Tetrachloride	U	1.0	ug/L	1	1	1.0
1,1,1-Trichloroethane	U	1.0	ug/L	1	1	1.0
2-Butanone	U	5.0	ug/L	1	5	5.0
Benzene	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethane	U	1.0	ug/L	1	1	1.0
Trichloroethene	U	1.0	ug/L	1	1	1.0
1,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Bromodichloromethane	U	1.0	ug/L	1	1	1.0
cis-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
Toluene	U	1.0	ug/L	1	1	1.0
4-Methyl-2-Pentanone	U	5.0	ug/L	1	5	5.0
Tetrachloroethene	U	1.0	ug/L	1	1	1.0
trans-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
1,1,2-Trichloroethane	U	1.0	ug/L	1	1	1.0
Dibromochloromethane	U	1.0	ug/L	1	1	1.0
Chlorobenzene	U	1.0	ug/L	1	1	1.0
Ethylbenzene	U	1.0	ug/L	1	1	1.0
m+p-Xylenes	U	2.0	ug/L	1	2	2.0
o-Xylene	U	1.0	ug/L	1	1	1.0
Bromoform	U	1.0	ug/L	1	1	1.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
P-Bromofluorobenzene		98.7	%			
Toluene-d8		103.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-12
Client ID: WVA-SA-MW-70(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: W0618.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 11-OCT-21
Extracted By: HG
Extraction Method: SW846 5030
Lab Prep Batch: WG307650

Analysis Date: 11-OCT-21
Analyst: HG
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		122.	%			
Dibromofluoromethane		112.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-13
Client ID: B121-N(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: W0619.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 11-OCT-21
Extracted By: HG
Extraction Method: SW846 5030
Lab Prep Batch: WG307650

Analysis Date: 11-OCT-21
Analyst: HG
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	2.0	ug/L	1	2	2.0
Vinyl Chloride		26.	ug/L	1	2	2.0
Bromomethane	U	2.0	ug/L	1	2	2.0
Chloroethane	U	2.0	ug/L	1	2	2.0
Trichlorofluoromethane	U	2.0	ug/L	1	2	2.0
1,1-Dichloroethene	U	1.0	ug/L	1	1	1.0
Carbon Disulfide	U	1.0	ug/L	1	1	1.0
Methylene Chloride	U	5.0	ug/L	1	5	5.0
trans-1,2-Dichloroethene		1.1	ug/L	1	1	1.0
1,1-Dichloroethane	U	1.0	ug/L	1	1	1.0
cis-1,2-Dichloroethene		34.	ug/L	1	1	1.0
Chloroform	U	1.0	ug/L	1	1	1.0
Carbon Tetrachloride	U	1.0	ug/L	1	1	1.0
1,1,1-Trichloroethane	U	1.0	ug/L	1	1	1.0
2-Butanone	U	5.0	ug/L	1	5	5.0
Benzene	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethane	U	1.0	ug/L	1	1	1.0
Trichloroethene	U	1.0	ug/L	1	1	1.0
1,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Bromodichloromethane	U	1.0	ug/L	1	1	1.0
cis-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
Toluene	U	1.0	ug/L	1	1	1.0
4-Methyl-2-Pentanone	U	5.0	ug/L	1	5	5.0
Tetrachloroethene	U	1.0	ug/L	1	1	1.0
trans-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
1,1,2-Trichloroethane	U	1.0	ug/L	1	1	1.0
Dibromochloromethane	U	1.0	ug/L	1	1	1.0
Chlorobenzene	U	1.0	ug/L	1	1	1.0
Ethylbenzene	U	1.0	ug/L	1	1	1.0
m+p-Xylenes	U	2.0	ug/L	1	2	2.0
o-Xylene	U	1.0	ug/L	1	1	1.0
Bromoform	U	1.0	ug/L	1	1	1.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
P-Bromofluorobenzene		100.	%			
Toluene-d8		104.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-13
Client ID: B121-N(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: W0619.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 11-OCT-21
Extracted By: HG
Extraction Method: SW846 5030
Lab Prep Batch: WG307650

Analysis Date: 11-OCT-21
Analyst: HG
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		117.	%			
Dibromofluoromethane		111.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-14
Client ID: B121-S(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: W0620.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 11-OCT-21
Extracted By: HG
Extraction Method: SW846 5030
Lab Prep Batch: WG307650

Analysis Date: 11-OCT-21
Analyst: HG
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	2.0	ug/L	1	2	2.0
Vinyl Chloride	U	2.0	ug/L	1	2	2.0
Bromomethane	U	2.0	ug/L	1	2	2.0
Chloroethane	U	2.0	ug/L	1	2	2.0
Trichlorofluoromethane	U	2.0	ug/L	1	2	2.0
1,1-Dichloroethene	U	1.0	ug/L	1	1	1.0
Carbon Disulfide	U	1.0	ug/L	1	1	1.0
Methylene Chloride	U	5.0	ug/L	1	5	5.0
trans-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
1,1-Dichloroethane	U	1.0	ug/L	1	1	1.0
cis-1,2-Dichloroethene		2.0	ug/L	1	1	1.0
Chloroform	U	1.0	ug/L	1	1	1.0
Carbon Tetrachloride	U	1.0	ug/L	1	1	1.0
1,1,1-Trichloroethane	U	1.0	ug/L	1	1	1.0
2-Butanone	U	5.0	ug/L	1	5	5.0
Benzene	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethane	U	1.0	ug/L	1	1	1.0
Trichloroethene	U	1.0	ug/L	1	1	1.0
1,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Bromodichloromethane	U	1.0	ug/L	1	1	1.0
cis-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
Toluene	U	1.0	ug/L	1	1	1.0
4-Methyl-2-Pentanone	U	5.0	ug/L	1	5	5.0
Tetrachloroethene	U	1.0	ug/L	1	1	1.0
trans-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
1,1,2-Trichloroethane	U	1.0	ug/L	1	1	1.0
Dibromochloromethane	U	1.0	ug/L	1	1	1.0
Chlorobenzene	U	1.0	ug/L	1	1	1.0
Ethylbenzene	U	1.0	ug/L	1	1	1.0
m+p-Xylenes	U	2.0	ug/L	1	2	2.0
o-Xylene	U	1.0	ug/L	1	1	1.0
Bromoform	U	1.0	ug/L	1	1	1.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
P-Bromofluorobenzene		99.8	%			
Toluene-d8		103.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-14
Client ID: B121-S(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: W0620.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 11-OCT-21
Extracted By: HG
Extraction Method: SW846 5030
Lab Prep Batch: WG307650

Analysis Date: 11-OCT-21
Analyst: HG
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		121.	%			
Dibromofluoromethane		114.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-15
Client ID: WVA-AW-MW-27(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: C1222.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 11-OCT-21
Extracted By: HG
Extraction Method: SW846 5030
Lab Prep Batch: WG307646

Analysis Date: 11-OCT-21
Analyst: HG
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	2.0	ug/L	1	2	2.0
Vinyl Chloride	U	2.0	ug/L	1	2	2.0
Bromomethane	U	2.0	ug/L	1	2	2.0
Chloroethane	U	2.0	ug/L	1	2	2.0
Trichlorofluoromethane	U	2.0	ug/L	1	2	2.0
1,1-Dichloroethene	U	1.0	ug/L	1	1	1.0
Carbon Disulfide	U	1.0	ug/L	1	1	1.0
Methylene Chloride	U	5.0	ug/L	1	5	5.0
trans-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
1,1-Dichloroethane	U	1.0	ug/L	1	1	1.0
cis-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
Chloroform	U	1.0	ug/L	1	1	1.0
Carbon Tetrachloride	U	1.0	ug/L	1	1	1.0
1,1,1-Trichloroethane	U	1.0	ug/L	1	1	1.0
2-Butanone	U	5.0	ug/L	1	5	5.0
Benzene	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethane	U	1.0	ug/L	1	1	1.0
Trichloroethene	U	1.0	ug/L	1	1	1.0
1,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Bromodichloromethane	U	1.0	ug/L	1	1	1.0
cis-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
Toluene	U	1.0	ug/L	1	1	1.0
4-Methyl-2-Pentanone	U	5.0	ug/L	1	5	5.0
Tetrachloroethene	U	1.0	ug/L	1	1	1.0
trans-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
1,1,2-Trichloroethane	U	1.0	ug/L	1	1	1.0
Dibromochloromethane	U	1.0	ug/L	1	1	1.0
Chlorobenzene	U	1.0	ug/L	1	1	1.0
Ethylbenzene	U	1.0	ug/L	1	1	1.0
m+p-Xylenes	U	2.0	ug/L	1	2	2.0
o-Xylene	U	1.0	ug/L	1	1	1.0
Bromoform	U	1.0	ug/L	1	1	1.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
P-Bromofluorobenzene		97.2	%			
Toluene-d8		103.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-15
Client ID: WVA-AW-MW-27(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: C1222.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 11-OCT-21
Extracted By: HG
Extraction Method: SW846 5030
Lab Prep Batch: WG307646

Analysis Date: 11-OCT-21
Analyst: HG
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		116.	%			
Dibromofluoromethane		112.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-16
Client ID: WVA-AW-MW-26(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: W0636.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 12-OCT-21
Extracted By: HG
Extraction Method: SW846 5030
Lab Prep Batch: WG307697

Analysis Date: 12-OCT-21
Analyst: HG
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	2.0	ug/L	1	2	2.0
Vinyl Chloride	U	2.0	ug/L	1	2	2.0
Bromomethane	U	2.0	ug/L	1	2	2.0
Chloroethane	U	2.0	ug/L	1	2	2.0
Trichlorofluoromethane	U	2.0	ug/L	1	2	2.0
1,1-Dichloroethene	U	1.0	ug/L	1	1	1.0
Carbon Disulfide	U	1.0	ug/L	1	1	1.0
Methylene Chloride	U	5.0	ug/L	1	5	5.0
trans-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
1,1-Dichloroethane	U	1.0	ug/L	1	1	1.0
cis-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
Chloroform	U	1.0	ug/L	1	1	1.0
Carbon Tetrachloride	U	1.0	ug/L	1	1	1.0
1,1,1-Trichloroethane	U	1.0	ug/L	1	1	1.0
2-Butanone	U	5.0	ug/L	1	5	5.0
Benzene	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethane	U	1.0	ug/L	1	1	1.0
Trichloroethene	U	1.0	ug/L	1	1	1.0
1,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Bromodichloromethane	U	1.0	ug/L	1	1	1.0
cis-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
Toluene	U	1.0	ug/L	1	1	1.0
4-Methyl-2-Pentanone	U	5.0	ug/L	1	5	5.0
Tetrachloroethene	U	1.0	ug/L	1	1	1.0
trans-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
1,1,2-Trichloroethane	U	1.0	ug/L	1	1	1.0
Dibromochloromethane	U	1.0	ug/L	1	1	1.0
Chlorobenzene	U	1.0	ug/L	1	1	1.0
Ethylbenzene	U	1.0	ug/L	1	1	1.0
m+p-Xylenes	U	2.0	ug/L	1	2	2.0
o-Xylene	U	1.0	ug/L	1	1	1.0
Bromoform	U	1.0	ug/L	1	1	1.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
P-Bromofluorobenzene		102.	%			
Toluene-d8		104.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-16
Client ID: WVA-AW-MW-26(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: W0636.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 12-OCT-21
Extracted By: HG
Extraction Method: SW846 5030
Lab Prep Batch: WG307697

Analysis Date: 12-OCT-21
Analyst: HG
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		124.	%			
Dibromofluoromethane		114.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-17
Client ID: 93EM-RW-2(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: C1223.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 11-OCT-21
Extracted By: HG
Extraction Method: SW846 5030
Lab Prep Batch: WG307646

Analysis Date: 11-OCT-21
Analyst: HG
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	2.0	ug/L	1	2	2.0
Vinyl Chloride	U	2.0	ug/L	1	2	2.0
Bromomethane	U	2.0	ug/L	1	2	2.0
Chloroethane	U	2.0	ug/L	1	2	2.0
Trichlorofluoromethane	U	2.0	ug/L	1	2	2.0
1,1-Dichloroethene	U	1.0	ug/L	1	1	1.0
Carbon Disulfide	U	1.0	ug/L	1	1	1.0
Methylene Chloride	U	5.0	ug/L	1	5	5.0
trans-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
1,1-Dichloroethane	U	1.0	ug/L	1	1	1.0
cis-1,2-Dichloroethene		63.	ug/L	1	1	1.0
Chloroform	U	1.0	ug/L	1	1	1.0
Carbon Tetrachloride	U	1.0	ug/L	1	1	1.0
1,1,1-Trichloroethane	U	1.0	ug/L	1	1	1.0
2-Butanone	U	5.0	ug/L	1	5	5.0
Benzene	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethane	U	1.0	ug/L	1	1	1.0
Trichloroethene		76.	ug/L	1	1	1.0
1,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Bromodichloromethane	U	1.0	ug/L	1	1	1.0
cis-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
Toluene	U	1.0	ug/L	1	1	1.0
4-Methyl-2-Pentanone	U	5.0	ug/L	1	5	5.0
Tetrachloroethene		35.	ug/L	1	1	1.0
trans-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
1,1,2-Trichloroethane	U	1.0	ug/L	1	1	1.0
Dibromochloromethane	U	1.0	ug/L	1	1	1.0
Chlorobenzene	U	1.0	ug/L	1	1	1.0
Ethylbenzene	U	1.0	ug/L	1	1	1.0
m+p-Xylenes	U	2.0	ug/L	1	2	2.0
o-Xylene	U	1.0	ug/L	1	1	1.0
Bromoform	U	1.0	ug/L	1	1	1.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
P-Bromofluorobenzene		87.0	%			
Toluene-d8		96.7	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-17
Client ID: 93EM-RW-2(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: C1223.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 11-OCT-21
Extracted By: HG
Extraction Method: SW846 5030
Lab Prep Batch: WG307646

Analysis Date: 11-OCT-21
Analyst: HG
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		114.	%			
Dibromofluoromethane		110.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-18
Client ID: WVA-AW-MW-52(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: C1224.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 11-OCT-21
Extracted By: HG
Extraction Method: SW846 5030
Lab Prep Batch: WG307646

Analysis Date: 11-OCT-21
Analyst: HG
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	2.0	ug/L	1	2	2.0
Vinyl Chloride	U	2.0	ug/L	1	2	2.0
Bromomethane	U	2.0	ug/L	1	2	2.0
Chloroethane	U	2.0	ug/L	1	2	2.0
Trichlorofluoromethane	U	2.0	ug/L	1	2	2.0
1,1-Dichloroethene	U	1.0	ug/L	1	1	1.0
Carbon Disulfide	U	1.0	ug/L	1	1	1.0
Methylene Chloride	U	5.0	ug/L	1	5	5.0
trans-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
1,1-Dichloroethane	U	1.0	ug/L	1	1	1.0
cis-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
Chloroform	U	1.0	ug/L	1	1	1.0
Carbon Tetrachloride	U	1.0	ug/L	1	1	1.0
1,1,1-Trichloroethane	U	1.0	ug/L	1	1	1.0
2-Butanone	U	5.0	ug/L	1	5	5.0
Benzene	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethane	U	1.0	ug/L	1	1	1.0
Trichloroethene	U	1.0	ug/L	1	1	1.0
1,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Bromodichloromethane	U	1.0	ug/L	1	1	1.0
cis-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
Toluene	U	1.0	ug/L	1	1	1.0
4-Methyl-2-Pentanone	U	5.0	ug/L	1	5	5.0
Tetrachloroethene		7.4	ug/L	1	1	1.0
trans-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
1,1,2-Trichloroethane	U	1.0	ug/L	1	1	1.0
Dibromochloromethane	U	1.0	ug/L	1	1	1.0
Chlorobenzene	U	1.0	ug/L	1	1	1.0
Ethylbenzene	U	1.0	ug/L	1	1	1.0
m+p-Xylenes	U	2.0	ug/L	1	2	2.0
o-Xylene	U	1.0	ug/L	1	1	1.0
Bromoform	U	1.0	ug/L	1	1	1.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
P-Bromofluorobenzene		92.8	%			
Toluene-d8		102.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-18
Client ID: WVA-AW-MW-52(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: C1224.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 11-OCT-21
Extracted By: HG
Extraction Method: SW846 5030
Lab Prep Batch: WG307646

Analysis Date: 11-OCT-21
Analyst: HG
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		118.	%			
Dibromofluoromethane		112.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-19
Client ID: DUP-02(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: T3724.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 11-OCT-21
Extracted By: JSS
Extraction Method: SW846 5030
Lab Prep Batch: WG307648

Analysis Date: 11-OCT-21
Analyst: JSS
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	2.0	ug/L	1	2	2.0
Vinyl Chloride	U	2.0	ug/L	1	2	2.0
Bromomethane	U	2.0	ug/L	1	2	2.0
Chloroethane	U	2.0	ug/L	1	2	2.0
Trichlorofluoromethane	U	2.0	ug/L	1	2	2.0
1,1-Dichloroethene	U	1.0	ug/L	1	1	1.0
Carbon Disulfide	U	1.0	ug/L	1	1	1.0
Methylene Chloride	U	5.0	ug/L	1	5	5.0
trans-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
1,1-Dichloroethane	U	1.0	ug/L	1	1	1.0
cis-1,2-Dichloroethene		55.	ug/L	1	1	1.0
Chloroform	U	1.0	ug/L	1	1	1.0
Carbon Tetrachloride	U	1.0	ug/L	1	1	1.0
1,1,1-Trichloroethane	U	1.0	ug/L	1	1	1.0
2-Butanone	U	5.0	ug/L	1	5	5.0
Benzene	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethane	U	1.0	ug/L	1	1	1.0
Trichloroethene		50.	ug/L	1	1	1.0
1,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Bromodichloromethane	U	1.0	ug/L	1	1	1.0
cis-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
Toluene	U	1.0	ug/L	1	1	1.0
4-Methyl-2-Pentanone	U	5.0	ug/L	1	5	5.0
Tetrachloroethene		130	ug/L	1	1	1.0
trans-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
1,1,2-Trichloroethane	U	1.0	ug/L	1	1	1.0
Dibromochloromethane	U	1.0	ug/L	1	1	1.0
Chlorobenzene	U	1.0	ug/L	1	1	1.0
Ethylbenzene	U	1.0	ug/L	1	1	1.0
m+p-Xylenes	U	2.0	ug/L	1	2	2.0
o-Xylene	U	1.0	ug/L	1	1	1.0
Bromoform	U	1.0	ug/L	1	1	1.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
P-Bromofluorobenzene		101.	%			
Toluene-d8		99.5	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-19
Client ID: DUP-02(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: T3724.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 11-OCT-21
Extracted By: JSS
Extraction Method: SW846 5030
Lab Prep Batch: WG307648

Analysis Date: 11-OCT-21
Analyst: JSS
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		120.	%			
Dibromofluoromethane		111.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-20
Client ID: WVA-AW-MW-64(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: W0639.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 12-OCT-21
Extracted By: HG
Extraction Method: SW846 5030
Lab Prep Batch: WG307697

Analysis Date: 12-OCT-21
Analyst: HG
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	2.0	ug/L	1	2	2.0
Vinyl Chloride	U	2.0	ug/L	1	2	2.0
Bromomethane	U	2.0	ug/L	1	2	2.0
Chloroethane	U	2.0	ug/L	1	2	2.0
Trichlorofluoromethane	U	2.0	ug/L	1	2	2.0
1,1-Dichloroethene	U	1.0	ug/L	1	1	1.0
Carbon Disulfide	U	1.0	ug/L	1	1	1.0
Methylene Chloride	U	5.0	ug/L	1	5	5.0
trans-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
1,1-Dichloroethane	U	1.0	ug/L	1	1	1.0
cis-1,2-Dichloroethene		56.	ug/L	1	1	1.0
Chloroform	U	1.0	ug/L	1	1	1.0
Carbon Tetrachloride	U	1.0	ug/L	1	1	1.0
1,1,1-Trichloroethane	U	1.0	ug/L	1	1	1.0
2-Butanone	U	5.0	ug/L	1	5	5.0
Benzene	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethane	U	1.0	ug/L	1	1	1.0
Trichloroethene		47.	ug/L	1	1	1.0
1,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Bromodichloromethane	U	1.0	ug/L	1	1	1.0
cis-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
Toluene	U	1.0	ug/L	1	1	1.0
4-Methyl-2-Pentanone	U	5.0	ug/L	1	5	5.0
Tetrachloroethene		130	ug/L	1	1	1.0
trans-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
1,1,2-Trichloroethane	U	1.0	ug/L	1	1	1.0
Dibromochloromethane	U	1.0	ug/L	1	1	1.0
Chlorobenzene	U	1.0	ug/L	1	1	1.0
Ethylbenzene	U	1.0	ug/L	1	1	1.0
m+p-Xylenes	U	2.0	ug/L	1	2	2.0
o-Xylene	U	1.0	ug/L	1	1	1.0
Bromoform	U	1.0	ug/L	1	1	1.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
P-Bromofluorobenzene		97.2	%			
Toluene-d8		99.5	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-20
Client ID: WVA-AW-MW-64(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: W0639.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 12-OCT-21
Extracted By: HG
Extraction Method: SW846 5030
Lab Prep Batch: WG307697

Analysis Date: 12-OCT-21
Analyst: HG
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		120.	%			
Dibromofluoromethane		110.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-21
Client ID: 93EM-SP-13(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: T3725.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 11-OCT-21
Extracted By: JSS
Extraction Method: SW846 5030
Lab Prep Batch: WG307648

Analysis Date: 11-OCT-21
Analyst: JSS
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	2.0	ug/L	1	2	2.0
Vinyl Chloride	U	2.0	ug/L	1	2	2.0
Bromomethane	U	2.0	ug/L	1	2	2.0
Chloroethane	U	2.0	ug/L	1	2	2.0
Trichlorofluoromethane	U	2.0	ug/L	1	2	2.0
1,1-Dichloroethene	U	1.0	ug/L	1	1	1.0
Carbon Disulfide	U	1.0	ug/L	1	1	1.0
Methylene Chloride	U	5.0	ug/L	1	5	5.0
trans-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
1,1-Dichloroethane	U	1.0	ug/L	1	1	1.0
cis-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
Chloroform	U	1.0	ug/L	1	1	1.0
Carbon Tetrachloride	U	1.0	ug/L	1	1	1.0
1,1,1-Trichloroethane	U	1.0	ug/L	1	1	1.0
2-Butanone	U	5.0	ug/L	1	5	5.0
Benzene	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethane	U	1.0	ug/L	1	1	1.0
Trichloroethene		1.0	ug/L	1	1	1.0
1,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Bromodichloromethane	U	1.0	ug/L	1	1	1.0
cis-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
Toluene	U	1.0	ug/L	1	1	1.0
4-Methyl-2-Pentanone	U	5.0	ug/L	1	5	5.0
Tetrachloroethene	U	1.0	ug/L	1	1	1.0
trans-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
1,1,2-Trichloroethane	U	1.0	ug/L	1	1	1.0
Dibromochloromethane	U	1.0	ug/L	1	1	1.0
Chlorobenzene	U	1.0	ug/L	1	1	1.0
Ethylbenzene	U	1.0	ug/L	1	1	1.0
m+p-Xylenes	U	2.0	ug/L	1	2	2.0
o-Xylene	U	1.0	ug/L	1	1	1.0
Bromoform	U	1.0	ug/L	1	1	1.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
P-Bromofluorobenzene		103.	%			
Toluene-d8		101.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-21
Client ID: 93EM-SP-13(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: T3725.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 11-OCT-21
Extracted By: JSS
Extraction Method: SW846 5030
Lab Prep Batch: WG307648

Analysis Date: 11-OCT-21
Analyst: JSS
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		120.	%			
Dibromofluoromethane		110.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-22
Client ID: WVA-AW-135-MW-4(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: W0637.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 12-OCT-21
Extracted By: HG
Extraction Method: SW846 5030
Lab Prep Batch: WG307697

Analysis Date: 12-OCT-21
Analyst: HG
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	2.0	ug/L	1	2	2.0
Vinyl Chloride	U	2.0	ug/L	1	2	2.0
Bromomethane	U	2.0	ug/L	1	2	2.0
Chloroethane	U	2.0	ug/L	1	2	2.0
Trichlorofluoromethane	U	2.0	ug/L	1	2	2.0
1,1-Dichloroethene	U	1.0	ug/L	1	1	1.0
Carbon Disulfide	U	1.0	ug/L	1	1	1.0
Methylene Chloride	U	5.0	ug/L	1	5	5.0
trans-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
1,1-Dichloroethane	U	1.0	ug/L	1	1	1.0
cis-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
Chloroform	U	1.0	ug/L	1	1	1.0
Carbon Tetrachloride	U	1.0	ug/L	1	1	1.0
1,1,1-Trichloroethane	U	1.0	ug/L	1	1	1.0
2-Butanone	U	5.0	ug/L	1	5	5.0
Benzene	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethane	U	1.0	ug/L	1	1	1.0
Trichloroethene	U	1.0	ug/L	1	1	1.0
1,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Bromodichloromethane	U	1.0	ug/L	1	1	1.0
cis-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
Toluene	U	1.0	ug/L	1	1	1.0
4-Methyl-2-Pentanone	U	5.0	ug/L	1	5	5.0
Tetrachloroethene	U	1.0	ug/L	1	1	1.0
trans-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
1,1,2-Trichloroethane	U	1.0	ug/L	1	1	1.0
Dibromochloromethane	U	1.0	ug/L	1	1	1.0
Chlorobenzene	U	1.0	ug/L	1	1	1.0
Ethylbenzene	U	1.0	ug/L	1	1	1.0
m+p-Xylenes	U	2.0	ug/L	1	2	2.0
o-Xylene	U	1.0	ug/L	1	1	1.0
Bromoform	U	1.0	ug/L	1	1	1.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
P-Bromofluorobenzene		100.	%			
Toluene-d8		102.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-22
Client ID: WVA-AW-135-MW-4(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: W0637.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 12-OCT-21
Extracted By: HG
Extraction Method: SW846 5030
Lab Prep Batch: WG307697

Analysis Date: 12-OCT-21
Analyst: HG
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		121.	%			
Dibromofluoromethane		110.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-23
Client ID: WVA-AW-MW-38(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: T3713.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 11-OCT-21
Extracted By: JSS
Extraction Method: SW846 5030
Lab Prep Batch: WG307648

Analysis Date: 11-OCT-21
Analyst: JSS
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	2.0	ug/L	1	2	2.0
Vinyl Chloride	U	2.0	ug/L	1	2	2.0
Bromomethane	U	2.0	ug/L	1	2	2.0
Chloroethane	U	2.0	ug/L	1	2	2.0
Trichlorofluoromethane	U	2.0	ug/L	1	2	2.0
1,1-Dichloroethene	U	1.0	ug/L	1	1	1.0
Carbon Disulfide	U	1.0	ug/L	1	1	1.0
Methylene Chloride	U	5.0	ug/L	1	5	5.0
trans-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
1,1-Dichloroethane	U	1.0	ug/L	1	1	1.0
cis-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
Chloroform	U	1.0	ug/L	1	1	1.0
Carbon Tetrachloride	U	1.0	ug/L	1	1	1.0
1,1,1-Trichloroethane	U	1.0	ug/L	1	1	1.0
2-Butanone	U	5.0	ug/L	1	5	5.0
Benzene	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethane	U	1.0	ug/L	1	1	1.0
Trichloroethene	U	1.0	ug/L	1	1	1.0
1,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Bromodichloromethane	U	1.0	ug/L	1	1	1.0
cis-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
Toluene	U	1.0	ug/L	1	1	1.0
4-Methyl-2-Pentanone	U	5.0	ug/L	1	5	5.0
Tetrachloroethene	U	1.0	ug/L	1	1	1.0
trans-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
1,1,2-Trichloroethane	U	1.0	ug/L	1	1	1.0
Dibromochloromethane	U	1.0	ug/L	1	1	1.0
Chlorobenzene	U	1.0	ug/L	1	1	1.0
Ethylbenzene	U	1.0	ug/L	1	1	1.0
m+p-Xylenes	U	2.0	ug/L	1	2	2.0
o-Xylene	U	1.0	ug/L	1	1	1.0
Bromoform	U	1.0	ug/L	1	1	1.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
P-Bromofluorobenzene		99.7	%			
Toluene-d8		101.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-23
Client ID: WVA-AW-MW-38(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: T3713.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 11-OCT-21
Extracted By: JSS
Extraction Method: SW846 5030
Lab Prep Batch: WG307648

Analysis Date: 11-OCT-21
Analyst: JSS
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		101.	%			
Dibromofluoromethane		102.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-24
Client ID: WVA-B35-PW-1(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: T3714.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 11-OCT-21
Extracted By: JSS
Extraction Method: SW846 5030
Lab Prep Batch: WG307648

Analysis Date: 11-OCT-21
Analyst: JSS
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	2.0	ug/L	1	2	2.0
Vinyl Chloride	U	2.0	ug/L	1	2	2.0
Bromomethane	U	2.0	ug/L	1	2	2.0
Chloroethane	U	2.0	ug/L	1	2	2.0
Trichlorofluoromethane	U	2.0	ug/L	1	2	2.0
1,1-Dichloroethene	U	1.0	ug/L	1	1	1.0
Carbon Disulfide	U	1.0	ug/L	1	1	1.0
Methylene Chloride	U	5.0	ug/L	1	5	5.0
trans-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
1,1-Dichloroethane	U	1.0	ug/L	1	1	1.0
cis-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
Chloroform	U	1.0	ug/L	1	1	1.0
Carbon Tetrachloride	U	1.0	ug/L	1	1	1.0
1,1,1-Trichloroethane	U	1.0	ug/L	1	1	1.0
2-Butanone	U	5.0	ug/L	1	5	5.0
Benzene	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethane	U	1.0	ug/L	1	1	1.0
Trichloroethene	U	1.0	ug/L	1	1	1.0
1,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Bromodichloromethane	U	1.0	ug/L	1	1	1.0
cis-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
Toluene	U	1.0	ug/L	1	1	1.0
4-Methyl-2-Pentanone	U	5.0	ug/L	1	5	5.0
Tetrachloroethene	U	1.0	ug/L	1	1	1.0
trans-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
1,1,2-Trichloroethane	U	1.0	ug/L	1	1	1.0
Dibromochloromethane	U	1.0	ug/L	1	1	1.0
Chlorobenzene	U	1.0	ug/L	1	1	1.0
Ethylbenzene	U	1.0	ug/L	1	1	1.0
m+p-Xylenes	U	2.0	ug/L	1	2	2.0
o-Xylene	U	1.0	ug/L	1	1	1.0
Bromoform	U	1.0	ug/L	1	1	1.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
P-Bromofluorobenzene		99.7	%			
Toluene-d8		100.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-24
Client ID: WVA-B35-PW-1(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: T3714.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 11-OCT-21
Extracted By: JSS
Extraction Method: SW846 5030
Lab Prep Batch: WG307648

Analysis Date: 11-OCT-21
Analyst: JSS
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		106.	%			
Dibromofluoromethane		104.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-25
Client ID: WVA-AW-MW-BLD-110(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: T3715.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 11-OCT-21
Extracted By: JSS
Extraction Method: SW846 5030
Lab Prep Batch: WG307648

Analysis Date: 11-OCT-21
Analyst: JSS
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	2.0	ug/L	1	2	2.0
Vinyl Chloride	U	2.0	ug/L	1	2	2.0
Bromomethane	U	2.0	ug/L	1	2	2.0
Chloroethane	U	2.0	ug/L	1	2	2.0
Trichlorofluoromethane	U	2.0	ug/L	1	2	2.0
1,1-Dichloroethene	U	1.0	ug/L	1	1	1.0
Carbon Disulfide	U	1.0	ug/L	1	1	1.0
Methylene Chloride	U	5.0	ug/L	1	5	5.0
trans-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
1,1-Dichloroethane	U	1.0	ug/L	1	1	1.0
cis-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
Chloroform	U	1.0	ug/L	1	1	1.0
Carbon Tetrachloride	U	1.0	ug/L	1	1	1.0
1,1,1-Trichloroethane	U	1.0	ug/L	1	1	1.0
2-Butanone	U	5.0	ug/L	1	5	5.0
Benzene	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethane	U	1.0	ug/L	1	1	1.0
Trichloroethene	U	1.0	ug/L	1	1	1.0
1,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Bromodichloromethane	U	1.0	ug/L	1	1	1.0
cis-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
Toluene	U	1.0	ug/L	1	1	1.0
4-Methyl-2-Pentanone	U	5.0	ug/L	1	5	5.0
Tetrachloroethene	U	1.0	ug/L	1	1	1.0
trans-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
1,1,2-Trichloroethane	U	1.0	ug/L	1	1	1.0
Dibromochloromethane	U	1.0	ug/L	1	1	1.0
Chlorobenzene	U	1.0	ug/L	1	1	1.0
Ethylbenzene	U	1.0	ug/L	1	1	1.0
m+p-Xylenes	U	2.0	ug/L	1	2	2.0
o-Xylene	U	1.0	ug/L	1	1	1.0
Bromoform	U	1.0	ug/L	1	1	1.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
P-Bromofluorobenzene		101.	%			
Toluene-d8		100.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-25
Client ID: WVA-AW-MW-BLD-110(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: T3715.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 11-OCT-21
Extracted By: JSS
Extraction Method: SW846 5030
Lab Prep Batch: WG307648

Analysis Date: 11-OCT-21
Analyst: JSS
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		109.	%			
Dibromofluoromethane		106.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-26
Client ID: 83DM-SP-4(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: T3716.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 11-OCT-21
Extracted By: JSS
Extraction Method: SW846 5030
Lab Prep Batch: WG307648

Analysis Date: 11-OCT-21
Analyst: JSS
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	2.0	ug/L	1	2	2.0
Vinyl Chloride	U	2.0	ug/L	1	2	2.0
Bromomethane	U	2.0	ug/L	1	2	2.0
Chloroethane	U	2.0	ug/L	1	2	2.0
Trichlorofluoromethane	U	2.0	ug/L	1	2	2.0
1,1-Dichloroethene	U	1.0	ug/L	1	1	1.0
Carbon Disulfide	U	1.0	ug/L	1	1	1.0
Methylene Chloride	U	5.0	ug/L	1	5	5.0
trans-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
1,1-Dichloroethane	U	1.0	ug/L	1	1	1.0
cis-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
Chloroform	U	1.0	ug/L	1	1	1.0
Carbon Tetrachloride	U	1.0	ug/L	1	1	1.0
1,1,1-Trichloroethane	U	1.0	ug/L	1	1	1.0
2-Butanone	U	5.0	ug/L	1	5	5.0
Benzene	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethane	U	1.0	ug/L	1	1	1.0
Trichloroethene	U	1.0	ug/L	1	1	1.0
1,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Bromodichloromethane	U	1.0	ug/L	1	1	1.0
cis-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
Toluene	U	1.0	ug/L	1	1	1.0
4-Methyl-2-Pentanone	U	5.0	ug/L	1	5	5.0
Tetrachloroethene	U	1.0	ug/L	1	1	1.0
trans-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
1,1,2-Trichloroethane	U	1.0	ug/L	1	1	1.0
Dibromochloromethane	U	1.0	ug/L	1	1	1.0
Chlorobenzene	U	1.0	ug/L	1	1	1.0
Ethylbenzene	U	1.0	ug/L	1	1	1.0
m+p-Xylenes	U	2.0	ug/L	1	2	2.0
o-Xylene	U	1.0	ug/L	1	1	1.0
Bromoform	U	1.0	ug/L	1	1	1.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
P-Bromofluorobenzene		98.1	%			
Toluene-d8		99.8	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-26
Client ID: 83DM-SP-4(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: T3716.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 11-OCT-21
Extracted By: JSS
Extraction Method: SW846 5030
Lab Prep Batch: WG307648

Analysis Date: 11-OCT-21
Analyst: JSS
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		108.	%			
Dibromofluoromethane		105.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-27
Client ID: WVA-AW-MW-35(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: T3717.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 11-OCT-21
Extracted By: JSS
Extraction Method: SW846 5030
Lab Prep Batch: WG307648

Analysis Date: 11-OCT-21
Analyst: JSS
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	2.0	ug/L	1	2	2.0
Vinyl Chloride	U	2.0	ug/L	1	2	2.0
Bromomethane	U	2.0	ug/L	1	2	2.0
Chloroethane	U	2.0	ug/L	1	2	2.0
Trichlorofluoromethane	U	2.0	ug/L	1	2	2.0
1,1-Dichloroethene	U	1.0	ug/L	1	1	1.0
Carbon Disulfide	U	1.0	ug/L	1	1	1.0
Methylene Chloride	U	5.0	ug/L	1	5	5.0
trans-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
1,1-Dichloroethane	U	1.0	ug/L	1	1	1.0
cis-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
Chloroform	U	1.0	ug/L	1	1	1.0
Carbon Tetrachloride	U	1.0	ug/L	1	1	1.0
1,1,1-Trichloroethane	U	1.0	ug/L	1	1	1.0
2-Butanone	U	5.0	ug/L	1	5	5.0
Benzene	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethane	U	1.0	ug/L	1	1	1.0
Trichloroethene	U	1.0	ug/L	1	1	1.0
1,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Bromodichloromethane	U	1.0	ug/L	1	1	1.0
cis-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
Toluene	U	1.0	ug/L	1	1	1.0
4-Methyl-2-Pentanone	U	5.0	ug/L	1	5	5.0
Tetrachloroethene	U	1.0	ug/L	1	1	1.0
trans-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
1,1,2-Trichloroethane	U	1.0	ug/L	1	1	1.0
Dibromochloromethane	U	1.0	ug/L	1	1	1.0
Chlorobenzene	U	1.0	ug/L	1	1	1.0
Ethylbenzene	U	1.0	ug/L	1	1	1.0
m+p-Xylenes	U	2.0	ug/L	1	2	2.0
o-Xylene	U	1.0	ug/L	1	1	1.0
Bromoform	U	1.0	ug/L	1	1	1.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
P-Bromofluorobenzene		100.	%			
Toluene-d8		99.3	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-27
Client ID: WVA-AW-MW-35(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: T3717.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 11-OCT-21
Extracted By: JSS
Extraction Method: SW846 5030
Lab Prep Batch: WG307648

Analysis Date: 11-OCT-21
Analyst: JSS
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		108.	%			
Dibromofluoromethane		105.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-28
Client ID: WVA-AW-25-MW-6(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: T3718.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 11-OCT-21
Extracted By: JSS
Extraction Method: SW846 5030
Lab Prep Batch: WG307648

Analysis Date: 11-OCT-21
Analyst: JSS
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	2.0	ug/L	1	2	2.0
Vinyl Chloride	U	2.0	ug/L	1	2	2.0
Bromomethane	U	2.0	ug/L	1	2	2.0
Chloroethane	U	2.0	ug/L	1	2	2.0
Trichlorofluoromethane	U	2.0	ug/L	1	2	2.0
1,1-Dichloroethene	U	1.0	ug/L	1	1	1.0
Carbon Disulfide	U	1.0	ug/L	1	1	1.0
Methylene Chloride	U	5.0	ug/L	1	5	5.0
trans-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
1,1-Dichloroethane	U	1.0	ug/L	1	1	1.0
cis-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
Chloroform	U	1.0	ug/L	1	1	1.0
Carbon Tetrachloride	U	1.0	ug/L	1	1	1.0
1,1,1-Trichloroethane	U	1.0	ug/L	1	1	1.0
2-Butanone	U	5.0	ug/L	1	5	5.0
Benzene	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethane	U	1.0	ug/L	1	1	1.0
Trichloroethene	U	1.0	ug/L	1	1	1.0
1,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Bromodichloromethane	U	1.0	ug/L	1	1	1.0
cis-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
Toluene	U	1.0	ug/L	1	1	1.0
4-Methyl-2-Pentanone	U	5.0	ug/L	1	5	5.0
Tetrachloroethene	U	1.0	ug/L	1	1	1.0
trans-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
1,1,2-Trichloroethane	U	1.0	ug/L	1	1	1.0
Dibromochloromethane	U	1.0	ug/L	1	1	1.0
Chlorobenzene	U	1.0	ug/L	1	1	1.0
Ethylbenzene	U	1.0	ug/L	1	1	1.0
m+p-Xylenes	U	2.0	ug/L	1	2	2.0
o-Xylene	U	1.0	ug/L	1	1	1.0
Bromoform	U	1.0	ug/L	1	1	1.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
P-Bromofluorobenzene		102.	%			
Toluene-d8		101.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-28
Client ID: WVA-AW-25-MW-6(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: T3718.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 11-OCT-21
Extracted By: JSS
Extraction Method: SW846 5030
Lab Prep Batch: WG307648

Analysis Date: 11-OCT-21
Analyst: JSS
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		114.	%			
Dibromofluoromethane		107.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-29
Client ID: 86EM-SP-1A(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: T3719.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 11-OCT-21
Extracted By: JSS
Extraction Method: SW846 5030
Lab Prep Batch: WG307648

Analysis Date: 11-OCT-21
Analyst: JSS
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	2.0	ug/L	1	2	2.0
Vinyl Chloride	U	2.0	ug/L	1	2	2.0
Bromomethane	U	2.0	ug/L	1	2	2.0
Chloroethane	U	2.0	ug/L	1	2	2.0
Trichlorofluoromethane	U	2.0	ug/L	1	2	2.0
1,1-Dichloroethene	U	1.0	ug/L	1	1	1.0
Carbon Disulfide	U	1.0	ug/L	1	1	1.0
Methylene Chloride	U	5.0	ug/L	1	5	5.0
trans-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
1,1-Dichloroethane	U	1.0	ug/L	1	1	1.0
cis-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
Chloroform	U	1.0	ug/L	1	1	1.0
Carbon Tetrachloride	U	1.0	ug/L	1	1	1.0
1,1,1-Trichloroethane	U	1.0	ug/L	1	1	1.0
2-Butanone	U	5.0	ug/L	1	5	5.0
Benzene	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethane	U	1.0	ug/L	1	1	1.0
Trichloroethene		8.8	ug/L	1	1	1.0
1,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Bromodichloromethane	U	1.0	ug/L	1	1	1.0
cis-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
Toluene	U	1.0	ug/L	1	1	1.0
4-Methyl-2-Pentanone	U	5.0	ug/L	1	5	5.0
Tetrachloroethene	U	1.0	ug/L	1	1	1.0
trans-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
1,1,2-Trichloroethane	U	1.0	ug/L	1	1	1.0
Dibromochloromethane	U	1.0	ug/L	1	1	1.0
Chlorobenzene	U	1.0	ug/L	1	1	1.0
Ethylbenzene	U	1.0	ug/L	1	1	1.0
m+p-Xylenes	U	2.0	ug/L	1	2	2.0
o-Xylene	U	1.0	ug/L	1	1	1.0
Bromoform	U	1.0	ug/L	1	1	1.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
P-Bromofluorobenzene		99.3	%			
Toluene-d8		98.4	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-29
Client ID: 86EM-SP-1A(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: T3719.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 11-OCT-21
Extracted By: JSS
Extraction Method: SW846 5030
Lab Prep Batch: WG307648

Analysis Date: 11-OCT-21
Analyst: JSS
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		115.	%			
Dibromofluoromethane		107.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-30
Client ID: WVA-AW-25-MW-2(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: T3720.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 11-OCT-21
Extracted By: JSS
Extraction Method: SW846 5030
Lab Prep Batch: WG307648

Analysis Date: 11-OCT-21
Analyst: JSS
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	2.0	ug/L	1	2	2.0
Vinyl Chloride		14.	ug/L	1	2	2.0
Bromomethane	U	2.0	ug/L	1	2	2.0
Chloroethane	U	2.0	ug/L	1	2	2.0
Trichlorofluoromethane	U	2.0	ug/L	1	2	2.0
1,1-Dichloroethene	U	1.0	ug/L	1	1	1.0
Carbon Disulfide	U	1.0	ug/L	1	1	1.0
Methylene Chloride	U	5.0	ug/L	1	5	5.0
trans-1,2-Dichloroethene		1.8	ug/L	1	1	1.0
1,1-Dichloroethane		5.4	ug/L	1	1	1.0
cis-1,2-Dichloroethene		22.	ug/L	1	1	1.0
Chloroform	U	1.0	ug/L	1	1	1.0
Carbon Tetrachloride	U	1.0	ug/L	1	1	1.0
1,1,1-Trichloroethane	U	1.0	ug/L	1	1	1.0
2-Butanone	U	5.0	ug/L	1	5	5.0
Benzene	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethane	U	1.0	ug/L	1	1	1.0
Trichloroethene		1.2	ug/L	1	1	1.0
1,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Bromodichloromethane	U	1.0	ug/L	1	1	1.0
cis-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
Toluene	U	1.0	ug/L	1	1	1.0
4-Methyl-2-Pentanone	U	5.0	ug/L	1	5	5.0
Tetrachloroethene	U	1.0	ug/L	1	1	1.0
trans-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
1,1,2-Trichloroethane	U	1.0	ug/L	1	1	1.0
Dibromochloromethane	U	1.0	ug/L	1	1	1.0
Chlorobenzene	U	1.0	ug/L	1	1	1.0
Ethylbenzene	U	1.0	ug/L	1	1	1.0
m+p-Xylenes	U	2.0	ug/L	1	2	2.0
o-Xylene	U	1.0	ug/L	1	1	1.0
Bromoform	U	1.0	ug/L	1	1	1.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
P-Bromofluorobenzene		100.	%			
Toluene-d8		100.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-30
Client ID: WVA-AW-25-MW-2(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: T3720.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 11-OCT-21
Extracted By: JSS
Extraction Method: SW846 5030
Lab Prep Batch: WG307648

Analysis Date: 11-OCT-21
Analyst: JSS
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		114.	%			
Dibromofluoromethane		108.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-31
Client ID: WVA-AW-25-MW-3(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: T3721.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 11-OCT-21
Extracted By: JSS
Extraction Method: SW846 5030
Lab Prep Batch: WG307648

Analysis Date: 11-OCT-21
Analyst: JSS
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	2.0	ug/L	1	2	2.0
Vinyl Chloride	U	2.0	ug/L	1	2	2.0
Bromomethane	U	2.0	ug/L	1	2	2.0
Chloroethane	U	2.0	ug/L	1	2	2.0
Trichlorofluoromethane	U	2.0	ug/L	1	2	2.0
1,1-Dichloroethene	U	1.0	ug/L	1	1	1.0
Carbon Disulfide	U	1.0	ug/L	1	1	1.0
Methylene Chloride	U	5.0	ug/L	1	5	5.0
trans-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
1,1-Dichloroethane	U	1.0	ug/L	1	1	1.0
cis-1,2-Dichloroethene		6.0	ug/L	1	1	1.0
Chloroform		1.7	ug/L	1	1	1.0
Carbon Tetrachloride	U	1.0	ug/L	1	1	1.0
1,1,1-Trichloroethane	U	1.0	ug/L	1	1	1.0
2-Butanone	U	5.0	ug/L	1	5	5.0
Benzene	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethane	U	1.0	ug/L	1	1	1.0
Trichloroethene	U	1.0	ug/L	1	1	1.0
1,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Bromodichloromethane	U	1.0	ug/L	1	1	1.0
cis-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
Toluene	U	1.0	ug/L	1	1	1.0
4-Methyl-2-Pentanone	U	5.0	ug/L	1	5	5.0
Tetrachloroethene	U	1.0	ug/L	1	1	1.0
trans-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
1,1,2-Trichloroethane	U	1.0	ug/L	1	1	1.0
Dibromochloromethane	U	1.0	ug/L	1	1	1.0
Chlorobenzene	U	1.0	ug/L	1	1	1.0
Ethylbenzene	U	1.0	ug/L	1	1	1.0
m+p-Xylenes	U	2.0	ug/L	1	2	2.0
o-Xylene	U	1.0	ug/L	1	1	1.0
Bromoform	U	1.0	ug/L	1	1	1.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
P-Bromofluorobenzene		102.	%			
Toluene-d8		100.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-31
Client ID: WVA-AW-25-MW-3(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: T3721.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 11-OCT-21
Extracted By: JSS
Extraction Method: SW846 5030
Lab Prep Batch: WG307648

Analysis Date: 11-OCT-21
Analyst: JSS
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		116.	%			
Dibromofluoromethane		109.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-32
Client ID: WVA-AW-MW-47(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: T3722.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 11-OCT-21
Extracted By: JSS
Extraction Method: SW846 5030
Lab Prep Batch: WG307648

Analysis Date: 11-OCT-21
Analyst: JSS
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	2.0	ug/L	1	2	2.0
Vinyl Chloride		3.2	ug/L	1	2	2.0
Bromomethane	U	2.0	ug/L	1	2	2.0
Chloroethane	U	2.0	ug/L	1	2	2.0
Trichlorofluoromethane	U	2.0	ug/L	1	2	2.0
1,1-Dichloroethene	U	1.0	ug/L	1	1	1.0
Carbon Disulfide	U	1.0	ug/L	1	1	1.0
Methylene Chloride	U	5.0	ug/L	1	5	5.0
trans-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
1,1-Dichloroethane	U	1.0	ug/L	1	1	1.0
cis-1,2-Dichloroethene		1.3	ug/L	1	1	1.0
Chloroform	U	1.0	ug/L	1	1	1.0
Carbon Tetrachloride	U	1.0	ug/L	1	1	1.0
1,1,1-Trichloroethane	U	1.0	ug/L	1	1	1.0
2-Butanone	U	5.0	ug/L	1	5	5.0
Benzene	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethane	U	1.0	ug/L	1	1	1.0
Trichloroethene	U	1.0	ug/L	1	1	1.0
1,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Bromodichloromethane	U	1.0	ug/L	1	1	1.0
cis-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
Toluene	U	1.0	ug/L	1	1	1.0
4-Methyl-2-Pentanone	U	5.0	ug/L	1	5	5.0
Tetrachloroethene	U	1.0	ug/L	1	1	1.0
trans-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
1,1,2-Trichloroethane	U	1.0	ug/L	1	1	1.0
Dibromochloromethane	U	1.0	ug/L	1	1	1.0
Chlorobenzene	U	1.0	ug/L	1	1	1.0
Ethylbenzene	U	1.0	ug/L	1	1	1.0
m+p-Xylenes	U	2.0	ug/L	1	2	2.0
o-Xylene	U	1.0	ug/L	1	1	1.0
Bromoform	U	1.0	ug/L	1	1	1.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
P-Bromofluorobenzene		103.	%			
Toluene-d8		102.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-32
Client ID: WVA-AW-MW-47(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: T3722.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 11-OCT-21
Extracted By: JSS
Extraction Method: SW846 5030
Lab Prep Batch: WG307648

Analysis Date: 11-OCT-21
Analyst: JSS
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		117.	%			
Dibromofluoromethane		109.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-33
Client ID: WVA-AW-MW-32(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: T3723.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 11-OCT-21
Extracted By: JSS
Extraction Method: SW846 5030
Lab Prep Batch: WG307648

Analysis Date: 11-OCT-21
Analyst: JSS
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	2.0	ug/L	1	2	2.0
Vinyl Chloride	U	2.0	ug/L	1	2	2.0
Bromomethane	U	2.0	ug/L	1	2	2.0
Chloroethane	U	2.0	ug/L	1	2	2.0
Trichlorofluoromethane	U	2.0	ug/L	1	2	2.0
1,1-Dichloroethene	U	1.0	ug/L	1	1	1.0
Carbon Disulfide	U	1.0	ug/L	1	1	1.0
Methylene Chloride	U	5.0	ug/L	1	5	5.0
trans-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
1,1-Dichloroethane	U	1.0	ug/L	1	1	1.0
cis-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
Chloroform	U	1.0	ug/L	1	1	1.0
Carbon Tetrachloride	U	1.0	ug/L	1	1	1.0
1,1,1-Trichloroethane	U	1.0	ug/L	1	1	1.0
2-Butanone	U	5.0	ug/L	1	5	5.0
Benzene	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethane	U	1.0	ug/L	1	1	1.0
Trichloroethene	U	1.0	ug/L	1	1	1.0
1,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Bromodichloromethane	U	1.0	ug/L	1	1	1.0
cis-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
Toluene	U	1.0	ug/L	1	1	1.0
4-Methyl-2-Pentanone	U	5.0	ug/L	1	5	5.0
Tetrachloroethene	U	1.0	ug/L	1	1	1.0
trans-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
1,1,2-Trichloroethane	U	1.0	ug/L	1	1	1.0
Dibromochloromethane	U	1.0	ug/L	1	1	1.0
Chlorobenzene	U	1.0	ug/L	1	1	1.0
Ethylbenzene	U	1.0	ug/L	1	1	1.0
m+p-Xylenes	U	2.0	ug/L	1	2	2.0
o-Xylene	U	1.0	ug/L	1	1	1.0
Bromoform	U	1.0	ug/L	1	1	1.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
P-Bromofluorobenzene		102.	%			
Toluene-d8		101.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-33
Client ID: WVA-AW-MW-32(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: T3723.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 11-OCT-21
Extracted By: JSS
Extraction Method: SW846 5030
Lab Prep Batch: WG307648

Analysis Date: 11-OCT-21
Analyst: JSS
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		119.	%			
Dibromofluoromethane		111.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-34
Client ID: 93EM-SP-9(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: W0638.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 12-OCT-21
Extracted By: HG
Extraction Method: SW846 5030
Lab Prep Batch: WG307697

Analysis Date: 12-OCT-21
Analyst: HG
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	2.0	ug/L	1	2	2.0
Vinyl Chloride	U	2.0	ug/L	1	2	2.0
Bromomethane	U	2.0	ug/L	1	2	2.0
Chloroethane	U	2.0	ug/L	1	2	2.0
Trichlorofluoromethane	U	2.0	ug/L	1	2	2.0
1,1-Dichloroethene	U	1.0	ug/L	1	1	1.0
Carbon Disulfide	U	1.0	ug/L	1	1	1.0
Methylene Chloride	U	5.0	ug/L	1	5	5.0
trans-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
1,1-Dichloroethane	U	1.0	ug/L	1	1	1.0
cis-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
Chloroform	U	1.0	ug/L	1	1	1.0
Carbon Tetrachloride	U	1.0	ug/L	1	1	1.0
1,1,1-Trichloroethane	U	1.0	ug/L	1	1	1.0
2-Butanone	U	5.0	ug/L	1	5	5.0
Benzene	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethane	U	1.0	ug/L	1	1	1.0
Trichloroethene	U	1.0	ug/L	1	1	1.0
1,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Bromodichloromethane	U	1.0	ug/L	1	1	1.0
cis-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
Toluene	U	1.0	ug/L	1	1	1.0
4-Methyl-2-Pentanone	U	5.0	ug/L	1	5	5.0
Tetrachloroethene	U	1.0	ug/L	1	1	1.0
trans-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
1,1,2-Trichloroethane	U	1.0	ug/L	1	1	1.0
Dibromochloromethane	U	1.0	ug/L	1	1	1.0
Chlorobenzene	U	1.0	ug/L	1	1	1.0
Ethylbenzene	U	1.0	ug/L	1	1	1.0
m+p-Xylenes	U	2.0	ug/L	1	2	2.0
o-Xylene	U	1.0	ug/L	1	1	1.0
Bromoform	U	1.0	ug/L	1	1	1.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
P-Bromofluorobenzene		100.	%			
Toluene-d8		102.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-34
Client ID: 93EM-SP-9(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: W0638.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 12-OCT-21
Extracted By: HG
Extraction Method: SW846 5030
Lab Prep Batch: WG307697

Analysis Date: 12-OCT-21
Analyst: HG
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		122.	%			
Dibromofluoromethane		114.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-35
Client ID: TRIP BLANK
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: T3712.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 11-OCT-21
Extracted By: JSS
Extraction Method: SW846 5030
Lab Prep Batch: WG307648

Analysis Date: 11-OCT-21
Analyst: JSS
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	2.0	ug/L	1	2	2.0
Vinyl Chloride	U	2.0	ug/L	1	2	2.0
Bromomethane	U	2.0	ug/L	1	2	2.0
Chloroethane	U	2.0	ug/L	1	2	2.0
Trichlorofluoromethane	U	2.0	ug/L	1	2	2.0
1,1-Dichloroethene	U	1.0	ug/L	1	1	1.0
Carbon Disulfide	U	1.0	ug/L	1	1	1.0
Methylene Chloride	U	5.0	ug/L	1	5	5.0
trans-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
1,1-Dichloroethane	U	1.0	ug/L	1	1	1.0
cis-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
Chloroform	U	1.0	ug/L	1	1	1.0
Carbon Tetrachloride	U	1.0	ug/L	1	1	1.0
1,1,1-Trichloroethane	U	1.0	ug/L	1	1	1.0
2-Butanone	U	5.0	ug/L	1	5	5.0
Benzene	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethane	U	1.0	ug/L	1	1	1.0
Trichloroethene	U	1.0	ug/L	1	1	1.0
1,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Bromodichloromethane	U	1.0	ug/L	1	1	1.0
cis-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
Toluene	U	1.0	ug/L	1	1	1.0
4-Methyl-2-Pentanone	U	5.0	ug/L	1	5	5.0
Tetrachloroethene	U	1.0	ug/L	1	1	1.0
trans-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
1,1,2-Trichloroethane	U	1.0	ug/L	1	1	1.0
Dibromochloromethane	U	1.0	ug/L	1	1	1.0
Chlorobenzene	U	1.0	ug/L	1	1	1.0
Ethylbenzene	U	1.0	ug/L	1	1	1.0
m+p-Xylenes	U	2.0	ug/L	1	2	2.0
o-Xylene	U	1.0	ug/L	1	1	1.0
Bromoform	U	1.0	ug/L	1	1	1.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
P-Bromofluorobenzene		95.9	%			
Toluene-d8		98.2	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-35
Client ID: TRIP BLANK
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: T3712.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 11-OCT-21
Extracted By: JSS
Extraction Method: SW846 5030
Lab Prep Batch: WG307648

Analysis Date: 11-OCT-21
Analyst: JSS
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		100.	%			
Dibromofluoromethane		100.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://www.katahdinlab.com

VOLATILES DATA

QC Summary Section

Form 2
System Monitoring Compound Recovery

Lab Name: Katahdin Analytical Services **Project:** Watervliet Arsenal LTM **Matrix:** AQ
Lab Code: KAS **SDG:** SO6709

Client Sample ID	Lab Sample ID	Col. ID	BFB #	DBF #	DCA #	TOL #
WVA-SA-MW-84(2021100	SO6709-1		97.9	109.	114.	102.
WVA-SA-MW-83(2021100	SO6709-2		98.2	110.	116.	102.
DUP-01(20211001)	SO6709-3		99.6	111.	121.	104.
WVA-SA-MW-39(2021100	SO6709-4		97.7	112.	118.	101.
WVA-SA-MW-32(2021100	SO6709-5		99.8	112.	118.	102.
WVA-SA-MW-78(2021100	SO6709-6		98.4	111.	117.	102.
WVA-SA-MW-79(2021100	SO6709-7		99.3	111.	118.	102.
WVA-SA-MW-80(2021100	SO6709-8		99.1	112.	119.	102.
WVA-SA-MW-81(2021100	SO6709-9		99.6	113.	122.	104.
WVA-SA-MW-60(2021100	SO6709-10		101.	112.	120.	103.
WVA-SA-MW-33(2021100	SO6709-11		99.2	112.	120.	104.
WVA-SA-MW-70(2021100	SO6709-12		98.7	112.	122.	103.
B121-N(20211001)	SO6709-13		100.	111.	117.	104.
B121-S(20211001)	SO6709-14		99.8	114.	121.	103.
WVA-AW-MW-27(202110	SO6709-15		97.2	112.	116.	103.
WVA-AW-MW-26(202110	SO6709-16		102.	114.	124.	104.
93EM-RW-2(20211001)	SO6709-17		87.0	110.	114.	96.7
WVA-AW-MW-52(202110	SO6709-18		92.8	112.	118.	102.
DUP-02(20211001)	SO6709-19		101.	111.	120.	99.5
WVA-AW-MW-64(202110	SO6709-20		97.2	110.	120.	99.5
93EM-SP-13(20211001)	SO6709-21		103.	110.	120.	101.
WVA-AW-135-MW-4(2021	SO6709-22		100.	110.	121.	102.
WVA-AW-MW-38(202110	SO6709-23		99.7	102.	101.	101.
WVA-B35-PW-1(20211001	SO6709-24		99.7	104.	106.	100.
WVA-AW-MW-BLD-110(2	SO6709-25		101.	106.	109.	100.
83DM-SP-4(20211001)	SO6709-26		98.1	105.	108.	99.8
WVA-AW-MW-35(202110	SO6709-27		100.	105.	108.	99.3
WVA-AW-25-MW-6(2021	SO6709-28		102.	107.	114.	101.
86EM-SP-1A(20211001)	SO6709-29		99.3	107.	115.	98.4
WVA-AW-25-MW-2(2021	SO6709-30		100.	108.	114.	100.
WVA-AW-25-MW-3(2021	SO6709-31		102.	109.	116.	100.
WVA-AW-MW-47(202110	SO6709-32		103.	109.	117.	102.
WVA-AW-MW-32(202110	SO6709-33		102.	111.	119.	101.
93EM-SP-9(20211001)	SO6709-34		100.	114.	122.	102.
TRIP BLANK	SO6709-35		95.9	100.	100.	98.2
Laboratory Control S	WG307646-1		102.	98.1	98.5	98.3

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://katahdinlab.com
sales@katahdinlab.com

Form 2
System Monitoring Compound Recovery

Lab Name: Katahdin Analytical Services **Project:** Watervliet Arsenal LTM **Matrix:** AQ
Lab Code: KAS **SDG:** SO6709

Client Sample ID	Lab Sample ID	Col. ID	BFB	#	DBF	#	DCA	#	TOL	#
Method Blank	WG307646-2		95.1		104.		109.		102.	
Laboratory Control S	WG307648-10		97.2		99.2		95.7		98.3	
Method Blank	WG307648-11		96.0		98.9		97.6		99.1	
Laboratory Control S	WG307650-1		99.6		98.9		99.1		99.5	
Method Blank	WG307650-2		97.2		106.		108.		100.	
Laboratory Control S	WG307697-1		101.		101.		104.		101.	
Method Blank	WG307697-2		98.0		107.		115.		101.	

		QC Limits
BFB	P-BROMOFLUOROBENZENE	56-133
DBF	DIBROMOFLUOROMETHANE	68-128
DCA	1,2-DICHLOROETHANE-D4	67-135
TOL	TOLUENE-D8	65-128

= Column to be used to flag recovery limits.
* = Values outside of contract required QC limits.
D= System Monitoring Compound diluted out.

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://katahdinlab.com
sales@katahdinlab.com

Form 4
Method Blank Summary - VOA

Lab Name : Katahdin Analytical Services
Project : Watervliet Arsenal LTM
Lab File ID : C1211.D
Instrument ID : GCMS-C
Heated Purge : No

SDG : SO6709
Lab Sample ID : WG307646-2
Date Analyzed : 11-OCT-21
Time Analyzed : 09:18

This Method Blank applies to the following samples, LCS, MS and MSD:

Client Sample ID	Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed
Laboratory Control S	WG307646-1	C1209.D	10/11/21	08:09
WVA-AW-MW-27(20211001)	SO6709-15	C1222.D	10/11/21	14:58
93EM-RW-2(20211001)	SO6709-17	C1223.D	10/11/21	15:29
WVA-AW-MW-52(20211001)	SO6709-18	C1224.D	10/11/21	15:59

Katahdin
ANALYTICAL SERVICES

Form 4
Method Blank Summary - VOA

Lab Name : Katahdin Analytical Services
Project : Watervliet Arsenal LTM
Lab File ID : T3711.D
Instrument ID : GCMS-T
Heated Purge : No

SDG : SO6709
Lab Sample ID : WG307648-11
Date Analyzed : 11-OCT-21
Time Analyzed : 15:31

This Method Blank applies to the following samples, LCS, MS and MSD:

Client Sample ID	Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed
Laboratory Control S	WG307648-10	T3709.D	10/11/21	14:39
TRIP BLANK	SO6709-35	T3712.D	10/11/21	15:57
WVA-AW-MW-38(20211001)	SO6709-23	T3713.D	10/11/21	16:23
WVA-B35-PW-1(20211001)	SO6709-24	T3714.D	10/11/21	16:50
WVA-AW-MW-BLD-110(20211001)	SO6709-25	T3715.D	10/11/21	17:16
83DM-SP-4(20211001)	SO6709-26	T3716.D	10/11/21	17:42
WVA-AW-MW-35(20211001)	SO6709-27	T3717.D	10/11/21	18:08
WVA-AW-25-MW-6(20211001)	SO6709-28	T3718.D	10/11/21	18:34
86EM-SP-1A(20211001)	SO6709-29	T3719.D	10/11/21	19:01
WVA-AW-25-MW-2(20211001)	SO6709-30	T3720.D	10/11/21	19:27
WVA-AW-25-MW-3(20211001)	SO6709-31	T3721.D	10/11/21	19:53
WVA-AW-MW-47(20211001)	SO6709-32	T3722.D	10/11/21	20:19
WVA-AW-MW-32(20211001)	SO6709-33	T3723.D	10/11/21	20:45
DUP-02(20211001)	SO6709-19	T3724.D	10/11/21	21:11
93EM-SP-13(20211001)	SO6709-21	T3725.D	10/11/21	21:38

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://katahdinlab.com
sales@katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Form 4
Method Blank Summary - VOA

Lab Name : Katahdin Analytical Services
Project : Watervliet Arsenal LTM
Lab File ID : W0604.D
Instrument ID : GCMS-W
Heated Purge : No

SDG : SO6709
Lab Sample ID : WG307650-2
Date Analyzed : 11-OCT-21
Time Analyzed : 08:23

This Method Blank applies to the following samples, LCS, MS and MSD:

Client Sample ID	Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed
Laboratory Control S	WG307650-1	W0602.D	10/11/21	07:13
WVA-SA-MW-84(20211001)	SO6709-1	W0610.D	10/11/21	11:25
WVA-SA-MW-83(20211001)	SO6709-2	W0611.D	10/11/21	11:56
WVA-SA-MW-32(20211001)	SO6709-5	W0612.D	10/11/21	12:26
WVA-SA-MW-78(20211001)	SO6709-6	W0613.D	10/11/21	12:56
WVA-SA-MW-79(20211001)	SO6709-7	W0614.D	10/11/21	13:27
WVA-SA-MW-80(20211001)	SO6709-8	W0615.D	10/11/21	13:57
WVA-SA-MW-60(20211001)	SO6709-10	W0616.D	10/11/21	14:27
WVA-SA-MW-33(20211001)	SO6709-11	W0617.D	10/11/21	14:58
WVA-SA-MW-70(20211001)	SO6709-12	W0618.D	10/11/21	15:28
B121-N(20211001)	SO6709-13	W0619.D	10/11/21	15:59
B121-S(20211001)	SO6709-14	W0620.D	10/11/21	16:29
WVA-SA-MW-81(20211001)	SO6709-9	W0622.D	10/11/21	17:30

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://katahdinlab.com
sales@katahdinlab.com

Form 4
Method Blank Summary - VOA

Lab Name : Katahdin Analytical Services
Project : Watervliet Arsenal LTM
Lab File ID : W0628.D
Instrument ID : GCMS-W
Heated Purge : No

SDG : SO6709
Lab Sample ID : WG307697-2
Date Analyzed : 12-OCT-21
Time Analyzed : 08:42

This Method Blank applies to the following samples, LCS, MS and MSD:

Client Sample ID	Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed
Laboratory Control S	WG307697-1	W0626.D	10/12/21	07:35
WVA-SA-MW-39(20211001)	SO6709-4	W0632.D	10/12/21	10:44
DUP-01(20211001)	SO6709-3	W0634.D	10/12/21	11:45
WVA-AW-MW-26(20211001)	SO6709-16	W0636.D	10/12/21	12:46
WVA-AW-135-MW-4(20211001)	SO6709-22	W0637.D	10/12/21	13:16
93EM-SP-9(20211001)	SO6709-34	W0638.D	10/12/21	13:47
WVA-AW-MW-64(20211001)	SO6709-20	W0639.D	10/12/21	14:17

Katahdin
ANALYTICAL SERVICES

Form 5
Volatile Organic Instrument Performance Check

Lab Name : Katahdin Analytical Services
Project : Watervliet Arsenal LTM
Lab File ID : CB643A.D
Instrument ID : GCMS-C

SDG : SO6709
Date Analyzed : 04-OCT-21
Time Analyzed : 07:41
Heated Purge : No

m/e	Ion Abundance Criteria	% Relative Abundance		
50	15.0 - 40.0% of mass 95	18.9		
75	30.0 - 60.0% of mass 95	51.8		
95	Base Peak, 100% relative abundance	100		
96	5.0 - 9.0% of mass 95	6.1		
173	Less than 2.0% of mass 174	1.0	1.36	1
174	Greater than 50.0% of mass 95	70.3		
175	5.0 - 9.0% of mass 174	5.7	8.11	1
176	95.0 - 101.0% of mass 174	68.9	98.12	1
177	5.0 - 9.0% of mass 176	5.7	8.30	2

1-Value is % mass 174 2-Value is % mass 176

This check applies to the following samples, LCS, MS, MSD and standards:

Client Sample ID	Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed
Initial Calibration	WG307158-4	C1008.D	10/04/21	08:06
Initial Calibration	WG307158-2	C1011.D	10/04/21	09:39
Initial Calibration	WG307158-1	C1012.D	10/04/21	10:10
Initial Calibration	WG307158-6	C1013.D	10/04/21	10:41
Initial Calibration	WG307158-5	C1014.D	10/04/21	11:12
Initial Calibration	WG307158-7	C1015.D	10/04/21	11:43
Initial Calibration	WG307158-3	C1016.D	10/04/21	12:14
Initial Calibration	WG307158-8	C1017.D	10/04/21	12:45

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://katahdinlab.com
sales@katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Form 5
Volatile Organic Instrument Performance Check

Lab Name : Katahdin Analytical Services
Project : Watervliet Arsenal LTM
Lab File ID : CB644A.D
Instrument ID : GCMS-C

SDG : SO6709
Date Analyzed : 04-OCT-21
Time Analyzed : 13:21
Heated Purge : No

m/e	Ion Abundance Criteria	% Relative Abundance		
50	15.0 - 40.0% of mass 95	18.3		
75	30.0 - 60.0% of mass 95	50.3		
95	Base Peak, 100% relative abundance	100		
96	5.0 - 9.0% of mass 95	6.7		
173	Less than 2.0% of mass 174	0.4	0.65	1
174	Greater than 50.0% of mass 95	69.0		
175	5.0 - 9.0% of mass 174	5.2	7.49	1
176	95.0 - 101.0% of mass 174	67.9	98.50	1
177	5.0 - 9.0% of mass 176	4.5	6.62	2

1-Value is % mass 174 2-Value is % mass 176

This check applies to the following samples, LCS, MS, MSD and standards:

Client Sample ID	Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed
Independent Source	WG307227-8	C1020A.D	10/04/21	14:57

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://katahdinlab.com
sales@katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Form 5
Volatile Organic Instrument Performance Check

Lab Name : Katahdin Analytical Services
Project : Watervliet Arsenal LTM
Lab File ID : CB651A.D
Instrument ID : GCMS-C

SDG : SO6709
Date Analyzed : 11-OCT-21
Time Analyzed : 07:12
Heated Purge : No

m/e	Ion Abundance Criteria	% Relative Abundance		
50	15.0 - 40.0% of mass 95	19.4		
75	30.0 - 60.0% of mass 95	53.8		
95	Base Peak, 100% relative abundance	100		
96	5.0 - 9.0% of mass 95	7.5		
173	Less than 2.0% of mass 174	0.2	0.34	1
174	Greater than 50.0% of mass 95	72.3		
175	5.0 - 9.0% of mass 174	5.3	7.35	1
176	95.0 - 101.0% of mass 174	70.9	98.07	1
177	5.0 - 9.0% of mass 176	4.0	5.69	2

1-Value is % mass 174 2-Value is % mass 176

This check applies to the following samples, LCS, MS, MSD and standards:

Client Sample ID	Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed
Continuing Calibrati	WG307646-4	C1208.D	10/11/21	07:32
Laboratory Control S	WG307646-1	C1209.D	10/11/21	08:09
Method Blank	WG307646-2	C1211.D	10/11/21	09:18
WVA-AW-MW-27(20211001)	SO6709-15	C1222.D	10/11/21	14:58
93EM-RW-2(20211001)	SO6709-17	C1223.D	10/11/21	15:29
WVA-AW-MW-52(20211001)	SO6709-18	C1224.D	10/11/21	15:59

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://katahdinlab.com
sales@katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Form 5
Volatile Organic Instrument Performance Check

Lab Name : Katahdin Analytical Services
Project : Watervliet Arsenal LTM
Lab File ID : TB587A.D
Instrument ID : GCMS-T

SDG : SO6709
Date Analyzed : 11-OCT-21
Time Analyzed : 10:11
Heated Purge : No

m/e	Ion Abundance Criteria	% Relative Abundance		
50	15.0 - 40.0% of mass 95	19.6		
75	30.0 - 60.0% of mass 95	54.9		
95	Base Peak, 100% relative abundance	100		
96	5.0 - 9.0% of mass 95	7.3		
173	Less than 2.0% of mass 174	1.0	1.14	1
174	Greater than 50.0% of mass 95	85.7		
175	5.0 - 9.0% of mass 174	5.6	6.52	1
176	95.0 - 101.0% of mass 174	83.2	97.16	1
177	5.0 - 9.0% of mass 176	5.3	6.33	2

1-Value is % mass 174 2-Value is % mass 176

This check applies to the following samples, LCS, MS, MSD and standards:

Client Sample ID	Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed
Initial Calibration	WG307648-3	T3701.D	10/11/21	11:10
Initial Calibration	WG307648-8	T3702.D	10/11/21	11:36
Initial Calibration	WG307648-2	T3703.D	10/11/21	12:02
Initial Calibration	WG307648-1	T3704.D	10/11/21	12:28
Initial Calibration	WG307648-6	T3705.D	10/11/21	12:54
Initial Calibration	WG307648-5	T3706.D	10/11/21	13:20
Initial Calibration	WG307648-7	T3707.D	10/11/21	13:47
Initial Calibration	WG307648-4	T3708.D	10/11/21	14:13
Laboratory Control S	WG307648-10	T3709.D	10/11/21	14:39
Independent Source	WG307648-9	T3709A.D	10/11/21	14:39
Method Blank	WG307648-11	T3711.D	10/11/21	15:31
TRIP BLANK	SO6709-35	T3712.D	10/11/21	15:57
WVA-AW-MW-38(20211001)	SO6709-23	T3713.D	10/11/21	16:23
WVA-B35-PW-1(20211001)	SO6709-24	T3714.D	10/11/21	16:50
WVA-AW-MW-BLD-110(20211001)	SO6709-25	T3715.D	10/11/21	17:16
83DM-SP-4(20211001)	SO6709-26	T3716.D	10/11/21	17:42
WVA-AW-MW-35(20211001)	SO6709-27	T3717.D	10/11/21	18:08
WVA-AW-25-MW-6(20211001)	SO6709-28	T3718.D	10/11/21	18:34
86EM-SP-1A(20211001)	SO6709-29	T3719.D	10/11/21	19:01
WVA-AW-25-MW-2(20211001)	SO6709-30	T3720.D	10/11/21	19:27
WVA-AW-25-MW-3(20211001)	SO6709-31	T3721.D	10/11/21	19:53
WVA-AW-MW-47(20211001)	SO6709-32	T3722.D	10/11/21	20:19
WVA-AW-MW-32(20211001)	SO6709-33	T3723.D	10/11/21	20:45
DUP-02(20211001)	SO6709-19	T3724.D	10/11/21	21:11
93EM-SP-13(20211001)	SO6709-21	T3725.D	10/11/21	21:38

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://katahdinlab.com
sales@katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Form 5
Volatile Organic Instrument Performance Check

Lab Name : Katahdin Analytical Services
Project : Watervliet Arsenal LTM
Lab File ID : WB657A.D
Instrument ID : GCMS-W

SDG : SO6709
Date Analyzed : 10-OCT-21
Time Analyzed : 08:37
Heated Purge : No

m/e	Ion Abundance Criteria	% Relative Abundance		
50	15.0 - 40.0% of mass 95	22.1		
75	30.0 - 60.0% of mass 95	55.4		
95	Base Peak, 100% relative abundance	100		
96	5.0 - 9.0% of mass 95	6.1		
173	Less than 2.0% of mass 174	0.0	0.0	1
174	Greater than 50.0% of mass 95	74.9		
175	5.0 - 9.0% of mass 174	5.4	7.26	1
176	95.0 - 101.0% of mass 174	73.0	97.46	1
177	5.0 - 9.0% of mass 176	4.9	6.73	2

1-Value is % mass 174 2-Value is % mass 176

This check applies to the following samples, LCS, MS, MSD and standards:

Client Sample ID	Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed
Initial Calibration	WG307630-4	W0576.D	10/10/21	09:02
Initial Calibration	WG307630-3	W0577.D	10/10/21	09:32
Initial Calibration	WG307630-8	W0578.D	10/10/21	10:03
Initial Calibration	WG307630-2	W0579.D	10/10/21	10:33
Initial Calibration	WG307630-1	W0580.D	10/10/21	11:04
Initial Calibration	WG307630-6	W0581.D	10/10/21	11:34
Initial Calibration	WG307630-5	W0582.D	10/10/21	12:05
Initial Calibration	WG307630-7	W0583.D	10/10/21	12:35
Independent Source	WG307630-9	W0584A.D	10/10/21	13:06

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://katahdinlab.com
sales@katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Form 5
Volatile Organic Instrument Performance Check

Lab Name : Katahdin Analytical Services
Project : Watervliet Arsenal LTM
Lab File ID : WB658A.D
Instrument ID : GCMS-W

SDG : SO6709
Date Analyzed : 11-OCT-21
Time Analyzed : 06:17
Heated Purge : No

m/e	Ion Abundance Criteria	% Relative Abundance		
50	15.0 - 40.0% of mass 95	23.1		
75	30.0 - 60.0% of mass 95	54.6		
95	Base Peak, 100% relative abundance	100		
96	5.0 - 9.0% of mass 95	6.2		
173	Less than 2.0% of mass 174	0.0	0.0	1
174	Greater than 50.0% of mass 95	76.0		
175	5.0 - 9.0% of mass 174	5.0	6.54	1
176	95.0 - 101.0% of mass 174	75.2	99.01	1
177	5.0 - 9.0% of mass 176	5.0	6.70	2

1-Value is % mass 174 2-Value is % mass 176

This check applies to the following samples, LCS, MS, MSD and standards:

Client Sample ID	Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed
Continuing Calibrati	WG307650-4	W0601.D	10/11/21	06:38
Laboratory Control S	WG307650-1	W0602.D	10/11/21	07:13
Method Blank	WG307650-2	W0604.D	10/11/21	08:23
WVA-SA-MW-84(20211001)	SO6709-1	W0610.D	10/11/21	11:25
WVA-SA-MW-83(20211001)	SO6709-2	W0611.D	10/11/21	11:56
WVA-SA-MW-32(20211001)	SO6709-5	W0612.D	10/11/21	12:26
WVA-SA-MW-78(20211001)	SO6709-6	W0613.D	10/11/21	12:56
WVA-SA-MW-79(20211001)	SO6709-7	W0614.D	10/11/21	13:27
WVA-SA-MW-80(20211001)	SO6709-8	W0615.D	10/11/21	13:57
WVA-SA-MW-60(20211001)	SO6709-10	W0616.D	10/11/21	14:27
WVA-SA-MW-33(20211001)	SO6709-11	W0617.D	10/11/21	14:58
WVA-SA-MW-70(20211001)	SO6709-12	W0618.D	10/11/21	15:28
B121-N(20211001)	SO6709-13	W0619.D	10/11/21	15:59
B121-S(20211001)	SO6709-14	W0620.D	10/11/21	16:29
WVA-SA-MW-81(20211001)	SO6709-9	W0622.D	10/11/21	17:30

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://katahdinlab.com
sales@katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Form 5
Volatile Organic Instrument Performance Check

Lab Name : Katahdin Analytical Services
Project : Watervliet Arsenal LTM
Lab File ID : WB659A.D
Instrument ID : GCMS-W

SDG : SO6709
Date Analyzed : 12-OCT-21
Time Analyzed : 06:35
Heated Purge : No

m/e	Ion Abundance Criteria	% Relative Abundance		
50	15.0 - 40.0% of mass 95	23.0		
75	30.0 - 60.0% of mass 95	55.1		
95	Base Peak, 100% relative abundance	100		
96	5.0 - 9.0% of mass 95	6.3		
173	Less than 2.0% of mass 174	0.0	0.0	1
174	Greater than 50.0% of mass 95	70.7		
175	5.0 - 9.0% of mass 174	5.2	7.35	1
176	95.0 - 101.0% of mass 174	71.4	100.94	1
177	5.0 - 9.0% of mass 176	4.8	6.78	2

1-Value is % mass 174 2-Value is % mass 176

This check applies to the following samples, LCS, MS, MSD and standards:

Client Sample ID	Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed
Continuing Calibrati	WG307697-4	W0625.D	10/12/21	06:59
Laboratory Control S	WG307697-1	W0626.D	10/12/21	07:35
Method Blank	WG307697-2	W0628.D	10/12/21	08:42
WVA-SA-MW-39(20211001)	SO6709-4	W0632.D	10/12/21	10:44
DUP-01(20211001)	SO6709-3	W0634.D	10/12/21	11:45
WVA-AW-MW-26(20211001)	SO6709-16	W0636.D	10/12/21	12:46
WVA-AW-135-MW-4(20211001)	SO6709-22	W0637.D	10/12/21	13:16
93EM-SP-9(20211001)	SO6709-34	W0638.D	10/12/21	13:47
WVA-AW-MW-64(20211001)	SO6709-20	W0639.D	10/12/21	14:17

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://katahdinlab.com
sales@katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Form 8
Internal Standard Area and RT Summary

Lab Name : Katahdin Analytical Services
Project : Watervliet Arsenal LTM
Lab ID : WG307646-4
Lab File ID : C1208.D

SDG: SO6709
Analytical Date: 10/11/21 07:32
Instrument ID: GCMS-C

		PENTAFLUOROBENZENE			1,4-DIFLUOROBENZENE			CHLOROBENZENE-D5		
		Area	#	RT	#	Area	#	RT	#	Area	#	RT	#
	Std .	323077		6.56		535162		7.22		489426		10.48	
	Upper Limit	646154		6.73		1070324		7.38		978852		10.64	
	Lower Limit	161538.5		6.40		267581		7.05		244713		10.31	
Client Sample ID	Lab Sample ID												
Laboratory Control S	WG307646-1	332181		6.57		564050		7.22		501257		10.48	
Method Blank	WG307646-2	269108		6.57		467686		7.22		419742		10.48	
WVA-AW-MW-27(20	SO6709-15	215443		6.57		387140		7.22		355135		10.48	
93EM-RW-2(20211001	SO6709-17	229502		6.57		428826		7.22		366960		10.48	
WVA-AW-MW-52(20	SO6709-18	214732		6.57		391676		7.22		353618		10.48	

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area
RT Upper Limit = + 10 seconds of internal standard RT
RT Lower Limit = - 10 seconds of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://katahdinlab.com
sales@katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Form 8
Internal Standard Area and RT Summary

Lab Name : Katahdin Analytical Services
Project : Watervliet Arsenal LTM
Lab ID : WG307646-4
Lab File ID : C1208.D

SDG: SO6709
Analytical Date: 10/11/21 07:32
Instrument ID: GCMS-C

		1,4-DICHLOROBENZENE-D4			
		Area	#	RT	#
	Std .	259845		13.32	
	Upper Limit	519690		13.48	
	Lower Limit	129922.5		13.15	
Client Sample ID	Lab Sample ID				
Laboratory Control S	WG307646-1	262461		13.32	
Method Blank	WG307646-2	196119		13.32	
WVA-AW-MW-27(20	SO6709-15	172999		13.32	
93EM-RW-2(20211001	SO6709-17	171455		13.32	
WVA-AW-MW-52(20	SO6709-18	169595		13.32	

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area
RT Upper Limit = + 10 seconds of internal standard RT
RT Lower Limit = - 10 seconds of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://katahdinlab.com
sales@katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Form 8
Internal Standard Area and RT Summary

Lab Name : Katahdin Analytical Services
Project : Watervliet Arsenal LTM
Lab ID : WG307648-4
Lab File ID : T3708.D

SDG: SO6709
Analytical Date: 10/11/21 14:13
Instrument ID: GCMS-T

		PENTAFLUOROBENZENE			1,4-DIFLUOROBENZENE			CHLOROBENZENE-D5		
		Area	#	RT	#	Area	#	RT	#	Area	#	RT	#
	Std .	625975		5.18		959155		5.71		837049		8.66	
	Upper Limit	1251950		5.34		1918310		5.88		1674098		8.83	
	Lower Limit	312987.5		5.01		479577.5		5.55		418524.5		8.50	
Client Sample ID	Lab Sample ID												
Laboratory Control S	WG307648-10	608946		5.18		943029		5.71		818092		8.66	
Method Blank	WG307648-11	587921		5.18		917311		5.71		797947		8.66	
TRIP BLANK	SO6709-35	584399		5.18		924184		5.71		793084		8.66	
WVA-AW-MW-38(202	SO6709-23	576233		5.18		886325		5.71		778207		8.66	
WVA-B35-PW-1(2021	SO6709-24	551238		5.18		868759		5.71		762309		8.66	
WVA-AW-MW-BLD-1	SO6709-25	532282		5.18		850220		5.71		746107		8.66	
83DM-SP-4(20211001)	SO6709-26	527735		5.17		840658		5.71		736348		8.66	
WVA-AW-MW-35(202	SO6709-27	519924		5.18		817877		5.71		715575		8.66	
WVA-AW-25-MW-6(2	SO6709-28	498091		5.18		800449		5.71		702109		8.66	
86EM-SP-1A(2021100	SO6709-29	500823		5.18		805852		5.71		700024		8.66	
WVA-AW-25-MW-2(2	SO6709-30	472127		5.18		758667		5.71		665005		8.66	
WVA-AW-25-MW-3(2	SO6709-31	474045		5.18		749574		5.71		667917		8.66	
WVA-AW-MW-47(202	SO6709-32	468559		5.18		746565		5.71		663456		8.66	
WVA-AW-MW-32(202	SO6709-33	464248		5.18		750037		5.71		667543		8.66	
DUP-02(20211001)	SO6709-19	452021		5.18		741967		5.71		652147		8.66	
93EM-SP-13(20211001	SO6709-21	464178		5.18		749485		5.71		662624		8.66	

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area
RT Upper Limit = + 10 seconds of internal standard RT
RT Lower Limit = - 10 seconds of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://katahdinlab.com
sales@katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Form 8
Internal Standard Area and RT Summary

Lab Name : Katahdin Analytical Services
Project : Watervliet Arsenal LTM
Lab ID : WG307648-4
Lab File ID : T3708.D

SDG: SO6709
Analytical Date: 10/11/21 14:13
Instrument ID: GCMS-T

		1,4-DICHLOROBENZENE-D4			
		Area	#	RT	#
	Std .	405132		10.99	
	Upper Limit	810264		11.16	
	Lower Limit	202566		10.82	
Client Sample ID	Lab Sample ID				
Laboratory Control S	WG307648-10	400867		10.99	
Method Blank	WG307648-11	378850		10.99	
TRIP BLANK	SO6709-35	377499		10.99	
WVA-AW-MW-38(202	SO6709-23	370615		10.99	
WVA-B35-PW-1(2021	SO6709-24	364591		10.99	
WVA-AW-MW-BLD-1	SO6709-25	361409		10.99	
83DM-SP-4(20211001)	SO6709-26	350757		10.99	
WVA-AW-MW-35(202	SO6709-27	338031		10.99	
WVA-AW-25-MW-6(2	SO6709-28	336005		10.99	
86EM-SP-1A(2021100	SO6709-29	335053		10.99	
WVA-AW-25-MW-2(2	SO6709-30	311107		10.99	
WVA-AW-25-MW-3(2	SO6709-31	319813		10.99	
WVA-AW-MW-47(202	SO6709-32	318279		10.99	
WVA-AW-MW-32(202	SO6709-33	317291		10.99	
DUP-02(20211001)	SO6709-19	314106		10.99	
93EM-SP-13(20211001	SO6709-21	318062		10.99	

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area
RT Upper Limit = + 10 seconds of internal standard RT
RT Lower Limit = - 10 seconds of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://katahdinlab.com
sales@katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Form 8
Internal Standard Area and RT Summary

Lab Name : Katahdin Analytical Services
Project : Watervliet Arsenal LTM
Lab ID : WG307650-4
Lab File ID : W0601.D

SDG: SO6709
Analytical Date: 10/11/21 06:38
Instrument ID: GCMS-W

		PENTAFLUOROBENZENE			1,4-DIFLUOROBENZENE			CHLOROBENZENE-D5		
		Area	#	RT	#	Area	#	RT	#	Area	#	RT	#
	Std .	486797		5.53		807984		6.32		753991		10.19	
	Upper Limit	973594		5.70		1615968		6.48		1507982		10.35	
	Lower Limit	243398.5		5.36		403992		6.15		376995.5		10.02	
Client Sample ID	Lab Sample ID												
Laboratory Control S	WG307650-1	511478		5.53		841289		6.32		780445		10.19	
Method Blank	WG307650-2	439952		5.53		763705		6.31		697814		10.18	
WVA-SA-MW-84(202	SO6709-1	403803		5.52		721999		6.31		664469		10.18	
WVA-SA-MW-83(202	SO6709-2	387853		5.53		691882		6.31		640954		10.18	
WVA-SA-MW-32(202	SO6709-5	382551		5.52		686243		6.31		636812		10.18	
WVA-SA-MW-78(202	SO6709-6	381805		5.52		688938		6.31		639028		10.18	
WVA-SA-MW-79(202	SO6709-7	378026		5.52		682175		6.31		633879		10.18	
WVA-SA-MW-80(202	SO6709-8	375702		5.52		677185		6.31		627235		10.18	
WVA-SA-MW-60(202	SO6709-10	376456		5.53		672141		6.31		634909		10.18	
WVA-SA-MW-33(202	SO6709-11	377907		5.53		676607		6.31		634284		10.18	
WVA-SA-MW-70(202	SO6709-12	365843		5.52		665935		6.31		628292		10.18	
B121-N(20211001)	SO6709-13	372222		5.52		665147		6.31		621470		10.18	
B121-S(20211001)	SO6709-14	366518		5.52		667521		6.31		621497		10.18	
WVA-SA-MW-81(202	SO6709-9	366069		5.53		660930		6.32		621247		10.19	

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area
RT Upper Limit = + 10 seconds of internal standard RT
RT Lower Limit = - 10 seconds of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://katahdinlab.com
sales@katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Form 8
Internal Standard Area and RT Summary

Lab Name : Katahdin Analytical Services
Project : Watervliet Arsenal LTM
Lab ID : WG307650-4
Lab File ID : W0601.D

SDG: SO6709
Analytical Date: 10/11/21 06:38
Instrument ID: GCMS-W

		1,4-DICHLOROBENZENE-D4			
		Area	#	RT	#
	Std .	418886		12.95	
	Upper Limit	837772		13.11	
	Lower Limit	209443		12.78	
Client Sample ID	Lab Sample ID				
Laboratory Control S	WG307650-1	437497		12.95	
Method Blank	WG307650-2	359663		12.95	
WVA-SA-MW-84(202	SO6709-1	341010		12.95	
WVA-SA-MW-83(202	SO6709-2	326382		12.95	
WVA-SA-MW-32(202	SO6709-5	326769		12.95	
WVA-SA-MW-78(202	SO6709-6	326178		12.94	
WVA-SA-MW-79(202	SO6709-7	324227		12.94	
WVA-SA-MW-80(202	SO6709-8	319190		12.94	
WVA-SA-MW-60(202	SO6709-10	323313		12.95	
WVA-SA-MW-33(202	SO6709-11	323784		12.95	
WVA-SA-MW-70(202	SO6709-12	320073		12.94	
B121-N(20211001)	SO6709-13	318587		12.94	
B121-S(20211001)	SO6709-14	319627		12.95	
WVA-SA-MW-81(202	SO6709-9	319541		12.95	

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area
RT Upper Limit = + 10 seconds of internal standard RT
RT Lower Limit = - 10 seconds of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://katahdinlab.com
sales@katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Form 8
Internal Standard Area and RT Summary

Lab Name : Katahdin Analytical Services
Project : Watervliet Arsenal LTM
Lab ID : WG307697-4
Lab File ID : W0625.D

SDG: SO6709
Analytical Date: 10/12/21 06:59
Instrument ID: GCMS-W

		PENTAFLUOROBENZENE			1,4-DIFLUOROBENZENE			CHLOROBENZENE-D5		
		Area	#	RT	#	Area	#	RT	#	Area	#	RT	#
	Std .	439337		5.53		736204		6.32		707493		10.19	
	Upper Limit	878674		5.69		1472408		6.48		1414986		10.35	
	Lower Limit	219668.5		5.36		368102		6.15		353746.5		10.02	
Client Sample ID	Lab Sample ID												
Laboratory Control S	WG307697-1	473766		5.53		789863		6.32		740276		10.19	
Method Blank	WG307697-2	408491		5.53		718632		6.32		665662		10.19	
WVA-SA-MW-39(202	SO6709-4	375939		5.52		685071		6.31		631190		10.18	
DUP-01(20211001)	SO6709-3	368252		5.53		659792		6.31		617979		10.18	
WVA-AW-MW-26(20	SO6709-16	361601		5.52		658479		6.31		623311		10.18	
WVA-AW-135-MW-4(	SO6709-22	360419		5.52		656375		6.31		614189		10.18	
93EM-SP-9(20211001)	SO6709-34	350119		5.52		644181		6.31		598390		10.18	
WVA-AW-MW-64(20	SO6709-20	363396		5.52		669229		6.31		612808		10.18	

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area
RT Upper Limit = + 10 seconds of internal standard RT
RT Lower Limit = - 10 seconds of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://katahdinlab.com
sales@katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Form 8
Internal Standard Area and RT Summary

Lab Name : Katahdin Analytical Services
Project : Watervliet Arsenal LTM
Lab ID : WG307697-4
Lab File ID : W0625.D

SDG: SO6709
Analytical Date: 10/12/21 06:59
Instrument ID: GCMS-W

		1,4-DICHLOROBENZENE-D4			
		Area	#	RT	#
	Std .	384125		12.95	
	Upper Limit	768250		13.11	
	Lower Limit	192062.5		12.78	
Client Sample ID	Lab Sample ID				
Laboratory Control S	WG307697-1	408381		12.95	
Method Blank	WG307697-2	342808		12.95	
WVA-SA-MW-39(202	SO6709-4	321130		12.95	
DUP-01(20211001)	SO6709-3	315491		12.95	
WVA-AW-MW-26(20	SO6709-16	316804		12.95	
WVA-AW-135-MW-4(	SO6709-22	314480		12.94	
93EM-SP-9(20211001)	SO6709-34	311022		12.94	
WVA-AW-MW-64(20	SO6709-20	308877		12.94	

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area
RT Upper Limit = + 10 seconds of internal standard RT
RT Lower Limit = - 10 seconds of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://katahdinlab.com
sales@katahdinlab.com

Sample Data Section

KATAHDIN ANALYTICAL SERVICES - ORGANIC DATA QUALIFIERS

The sampled date indicated on the attached Report(s) of Analysis (ROA) is the date for which a grab sample was collected or the date for which a composite sample was completed. Beginning and start times for composite samples can be found on the Chain-of-Custody.

U Indicates the compound was analyzed for but not detected above the specified level. This level may be the Limit of Quantitation (LOQ)(previously called Practical Quantitation Level (PQL)), the Limit of Detection (LOD) or Method Detection Limit (MDL) as required by the client.

Note: All results reported as "U" MDL have a 50% rate for false negatives compared to those results reported as "U" PQL/LOQ or "U" LOD, where the rate of false negatives is <1%.

* Compound recovery or percent RPD (relative percent difference) was outside of quality control limits.

D Indicates the result was obtained from analysis of a diluted sample. Surrogate recoveries may not be calculable.

E Estimated value. This flag identifies compounds whose concentrations exceed the upper level of the calibration range of the instrument for that specific analysis.

J Estimated value. The analyte was detected in the sample at a concentration less than the laboratory Limit of Quantitation (LOQ)(previously called Practical Quantitation Limit (PQL)), but above the Method Detection Limit (MDL).

or

J Used for Pesticides, PCBs, Herbicides, Formaldehyde, Explosives and Method 504.1 analytes when there is a greater than 40% difference for detected concentrations between the two GC columns.

B Indicates the analyte was detected in the laboratory method blank analyzed concurrently with the sample.

C Indicates that the flagged compound did not meet DoD criteria in the corresponding daily calibration verification (CV).

L Indicates that the flagged compound did not meet DoD criteria in the corresponding Laboratory Control Sample (LCS) and/or Laboratory Control Sample Duplicate (LCSD) prepared and/or analyzed concurrently with the sample.

M Indicates that the flagged compound did not meet DoD criteria in the Matrix Spike and/or Matrix Spike Duplicate prepared and/or analyzed concurrently with the native sample.

N Presumptive evidence of a compound based on a mass spectral library search.

A Indicates that a tentatively identified compound is a suspected aldol-condensation product.

P Used for Pesticide/Aroclor analyte when there is a greater than 25% difference for detected concentrations between the two GC columns. (for CLP methods only).

Katahdin Analytical Services, Inc.

Manual Integration Codes For GC/MS, GC, HPLC and/or IC

M1	Peak splitting.
M2	Well defined peaks on the shoulders of the other peaks.
M3	There is additional area due to a coeluting interferant.
M4	There are negative spikes in the baseline.
M5	There are rising or falling baselines.
M6	The software has failed to detect a peak or misidentified a peak.
M7	Excessive peak tailing.
M8	Analysis such as GRO, DRO and TPH require a baseline hold.
M9	Peak was not completely integrated as in GC/MS.
M10	Primary ion was correctly integrated, but secondary or tertiary ion needed manual integration as in GC/MS.
M11	For GC analysis, when a sample is diluted by 1:10 or more, the surrogate is set to undetected and then the area under the surrogate is manually integrated.
M12	Manual integration saved in method due to TurboChrom floating point error.

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-1
Client ID: WVA-SA-MW-84(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: W0610.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 11-OCT-21
Extracted By: HG
Extraction Method: SW846 5030
Lab Prep Batch: WG307650

Analysis Date: 11-OCT-21
Analyst: HG
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	2.0	ug/L	1	2	2.0
Vinyl Chloride	U	2.0	ug/L	1	2	2.0
Bromomethane	U	2.0	ug/L	1	2	2.0
Chloroethane	U	2.0	ug/L	1	2	2.0
Trichlorofluoromethane	U	2.0	ug/L	1	2	2.0
1,1-Dichloroethene	U	1.0	ug/L	1	1	1.0
Carbon Disulfide	U	1.0	ug/L	1	1	1.0
Methylene Chloride	U	5.0	ug/L	1	5	5.0
trans-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
1,1-Dichloroethane	U	1.0	ug/L	1	1	1.0
cis-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
Chloroform	U	1.0	ug/L	1	1	1.0
Carbon Tetrachloride	U	1.0	ug/L	1	1	1.0
1,1,1-Trichloroethane	U	1.0	ug/L	1	1	1.0
2-Butanone	U	5.0	ug/L	1	5	5.0
Benzene	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethane	U	1.0	ug/L	1	1	1.0
Trichloroethene	U	1.0	ug/L	1	1	1.0
1,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Bromodichloromethane	U	1.0	ug/L	1	1	1.0
cis-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
Toluene	U	1.0	ug/L	1	1	1.0
4-Methyl-2-Pentanone	U	5.0	ug/L	1	5	5.0
Tetrachloroethene	U	1.0	ug/L	1	1	1.0
trans-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
1,1,2-Trichloroethane	U	1.0	ug/L	1	1	1.0
Dibromochloromethane	U	1.0	ug/L	1	1	1.0
Chlorobenzene	U	1.0	ug/L	1	1	1.0
Ethylbenzene	U	1.0	ug/L	1	1	1.0
m+p-Xylenes	U	2.0	ug/L	1	2	2.0
o-Xylene	U	1.0	ug/L	1	1	1.0
Bromoform	U	1.0	ug/L	1	1	1.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
P-Bromofluorobenzene		97.9	%			
Toluene-d8		102.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-1
Client ID: WVA-SA-MW-84(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: W0610.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 11-OCT-21
Extracted By: HG
Extraction Method: SW846 5030
Lab Prep Batch: WG307650

Analysis Date: 11-OCT-21
Analyst: HG
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		114.	%			
Dibromofluoromethane		109.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Data File: \\target_server\gg\chem\gcms-w.i\W101121.b\W0610.D
Report Date: 11-Nov-2021 17:25

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-w.i\W101121.b\W0610.D
Lab Smp Id: SO6709-1 Client Smp ID: VA-SA-MW-84(2021100
Inj Date : 11-OCT-2021 11:25
Operator : HG Inst ID: gcms-w.i
Smp Info : SO6709-1
Misc Info : WG307650,WG307650-4
Comment : SW846 5030
Method : \\target_server\gg\chem\gcms-w.i\W101121.b\W8A05(11).m
Meth Date : 11-Oct-2021 08:15 hgould Quant Type: ISTD
Cal Date : 10-OCT-2021 12:35 Cal File: W0583.D
Als bottle: 10
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.12
Processing Host: VOA-WS

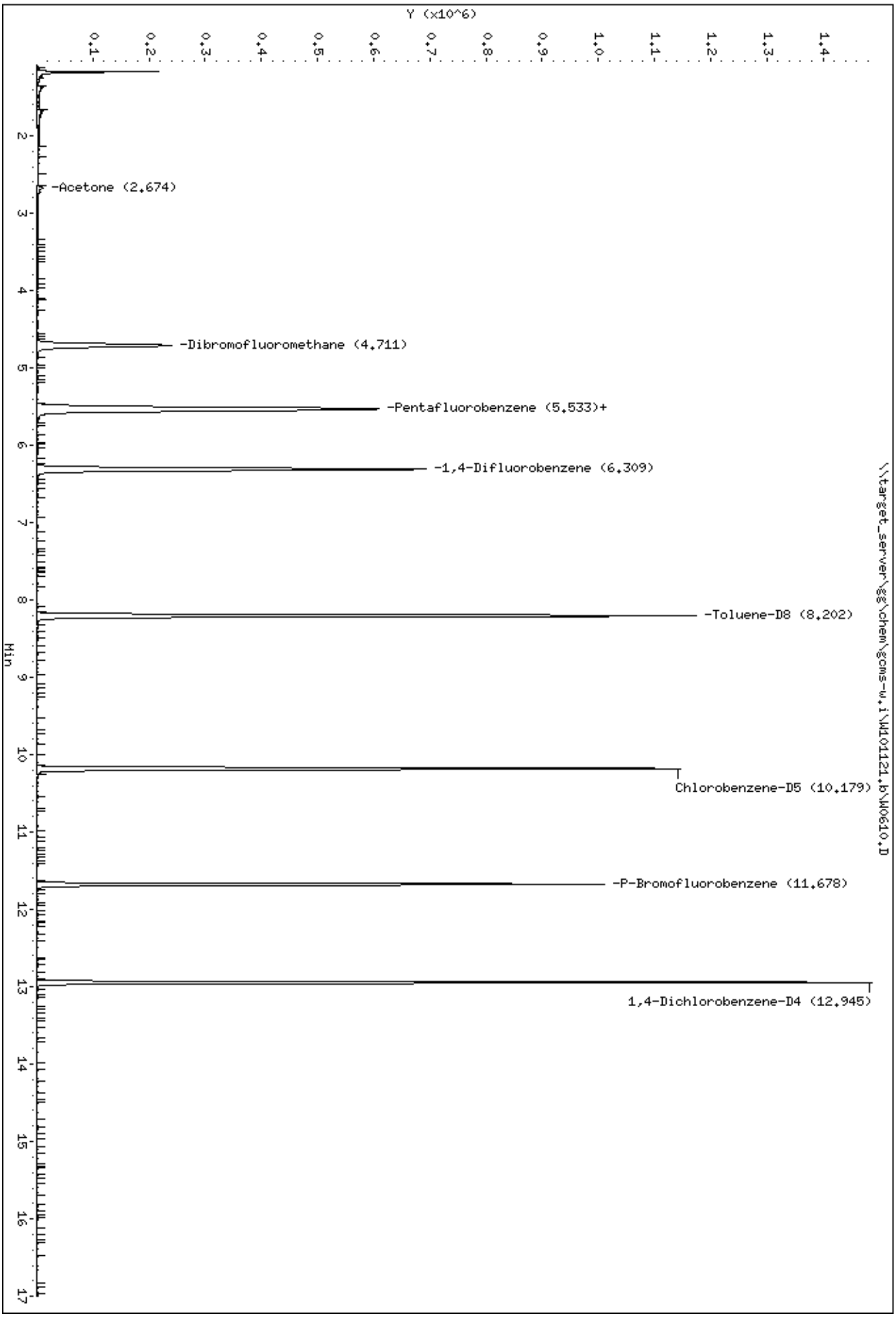
Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)	REVIEW CODE
15 Acetone	43	2.724	2.725	(0.493)	4581	2.41953	2.4(a)	
$ 34 Dibromofluoromethane	113	4.711	4.721	(0.853)	222855	54.5037	54.5	
* 41 Pentafluorobenzene	168	5.523	5.533	(1.000)	403803	50.0000		
$ 42 1,2-Dichloroethane-D4	65	5.548	5.555	(1.005)	326472	57.2516	57.2	
* 48 1,4-Difluorobenzene	114	6.309	6.319	(1.000)	721999	50.0000		
$ 58 Toluene-D8	98	8.205	8.212	(1.301)	863635	50.9146	50.9	
* 68 Chlorobenzene-D5	117	10.182	10.185	(1.000)	664469	50.0000		
$ 77 P-Bromofluorobenzene	95	11.674	11.684	(1.850)	329088	48.9379	48.9	
* 93 1,4-Dichlorobenzene-D4	152	12.945	12.952	(1.000)	341010	50.0000		

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).


Data File: \\target_server\gg\chem\gcms-w.i\W101121.b\W0610.D
Date : 11-OCT-2021 11:25
Client ID: WA-SA-MW-84(20211
Sample Info: S06709-1
Instrument: gcms-w.i
Y (x10^6)
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0
1.1
1.2
1.3
1.4
Min
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
-Acetone (2.674)
-Dibromofluoromethane (4.711)
-Pentafluorobenzene (5.533)+
-1,4-Difluorobenzene (6.309)
-Toluene-D8 (8.202)
Chlorobenzene-D5 (10.179)
-P-Bromofluorobenzene (11.678)
1,4-Dichlorobenzene-D4 (12.945)
\\target_server\gg\chem\gcms-w.i\W101121.b\W0610.D

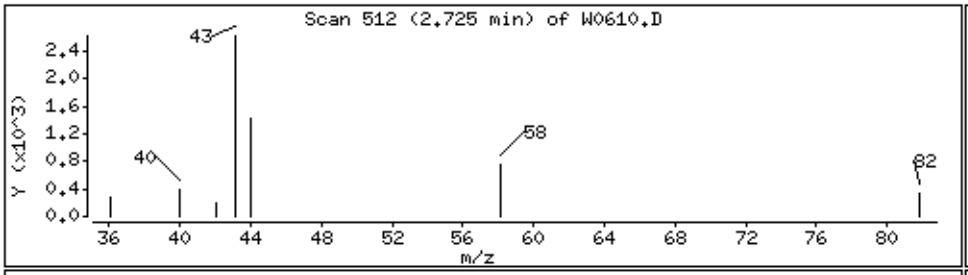
Data File: \\target_server\gg\chem\gcms-w.i\W101121.b\W0610.D

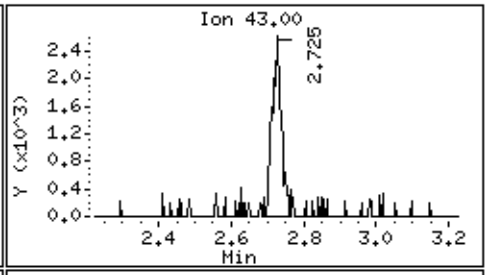
Date : 11-OCT-2021 11:25

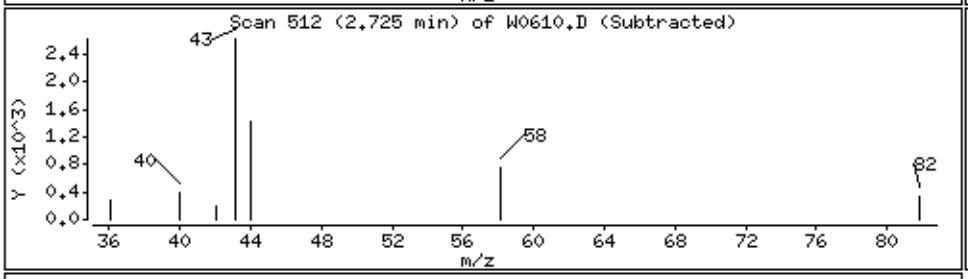
Client ID: VA-SA-MW-84(2021100 Instrument: gcms-w.i

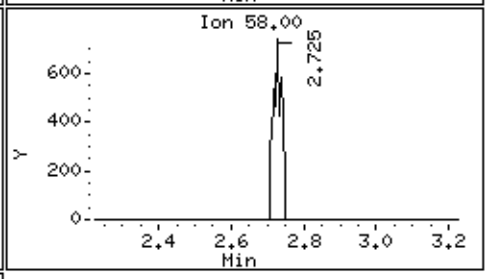
Sample Info: SO6709-1

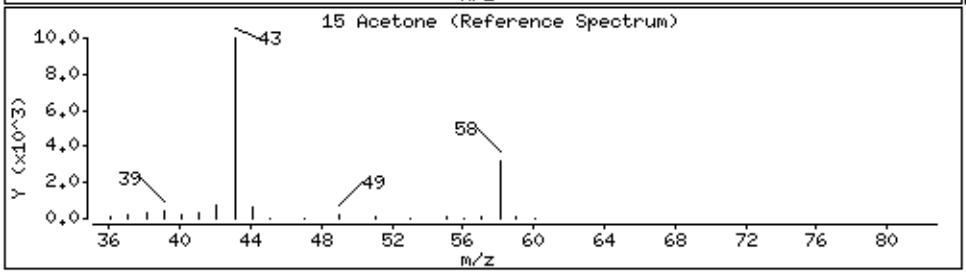
15 Acetone Concentration: 2.4 ug/l











Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-2
Client ID: WVA-SA-MW-83(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: W0611.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 11-OCT-21
Extracted By: HG
Extraction Method: SW846 5030
Lab Prep Batch: WG307650

Analysis Date: 11-OCT-21
Analyst: HG
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	2.0	ug/L	1	2	2.0
Vinyl Chloride	U	2.0	ug/L	1	2	2.0
Bromomethane	U	2.0	ug/L	1	2	2.0
Chloroethane	U	2.0	ug/L	1	2	2.0
Trichlorofluoromethane	U	2.0	ug/L	1	2	2.0
1,1-Dichloroethene	U	1.0	ug/L	1	1	1.0
Carbon Disulfide	U	1.0	ug/L	1	1	1.0
Methylene Chloride	U	5.0	ug/L	1	5	5.0
trans-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
1,1-Dichloroethane	U	1.0	ug/L	1	1	1.0
cis-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
Chloroform	U	1.0	ug/L	1	1	1.0
Carbon Tetrachloride	U	1.0	ug/L	1	1	1.0
1,1,1-Trichloroethane	U	1.0	ug/L	1	1	1.0
2-Butanone	U	5.0	ug/L	1	5	5.0
Benzene	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethane	U	1.0	ug/L	1	1	1.0
Trichloroethene	U	1.0	ug/L	1	1	1.0
1,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Bromodichloromethane	U	1.0	ug/L	1	1	1.0
cis-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
Toluene	U	1.0	ug/L	1	1	1.0
4-Methyl-2-Pentanone	U	5.0	ug/L	1	5	5.0
Tetrachloroethene	U	1.0	ug/L	1	1	1.0
trans-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
1,1,2-Trichloroethane	U	1.0	ug/L	1	1	1.0
Dibromochloromethane	U	1.0	ug/L	1	1	1.0
Chlorobenzene	U	1.0	ug/L	1	1	1.0
Ethylbenzene	U	1.0	ug/L	1	1	1.0
m+p-Xylenes	U	2.0	ug/L	1	2	2.0
o-Xylene	U	1.0	ug/L	1	1	1.0
Bromoform	U	1.0	ug/L	1	1	1.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
P-Bromofluorobenzene		98.2	%			
Toluene-d8		102.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-2
Client ID: WVA-SA-MW-83(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: W0611.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 11-OCT-21
Extracted By: HG
Extraction Method: SW846 5030
Lab Prep Batch: WG307650

Analysis Date: 11-OCT-21
Analyst: HG
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		116.	%			
Dibromofluoromethane		110.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Data File: \\target_server\gg\chem\gcms-w.i\W101121.b\W0611.D
Report Date: 11-Nov-2021 17:25

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-w.i\W101121.b\W0611.D
Lab Smp Id: SO6709-2 Client Smp ID: VA-SA-MW-83(2021100
Inj Date : 11-OCT-2021 11:56
Operator : HG Inst ID: gcms-w.i
Smp Info : SO6709-2
Misc Info : WG307650,WG307650-4
Comment : SW846 5030
Method : \\target_server\gg\chem\gcms-w.i\W101121.b\W8A05(11).m
Meth Date : 11-Oct-2021 08:15 hgould Quant Type: ISTD
Cal Date : 10-OCT-2021 12:35 Cal File: W0583.D
Als bottle: 11
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.12
Processing Host: VOA-WS

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

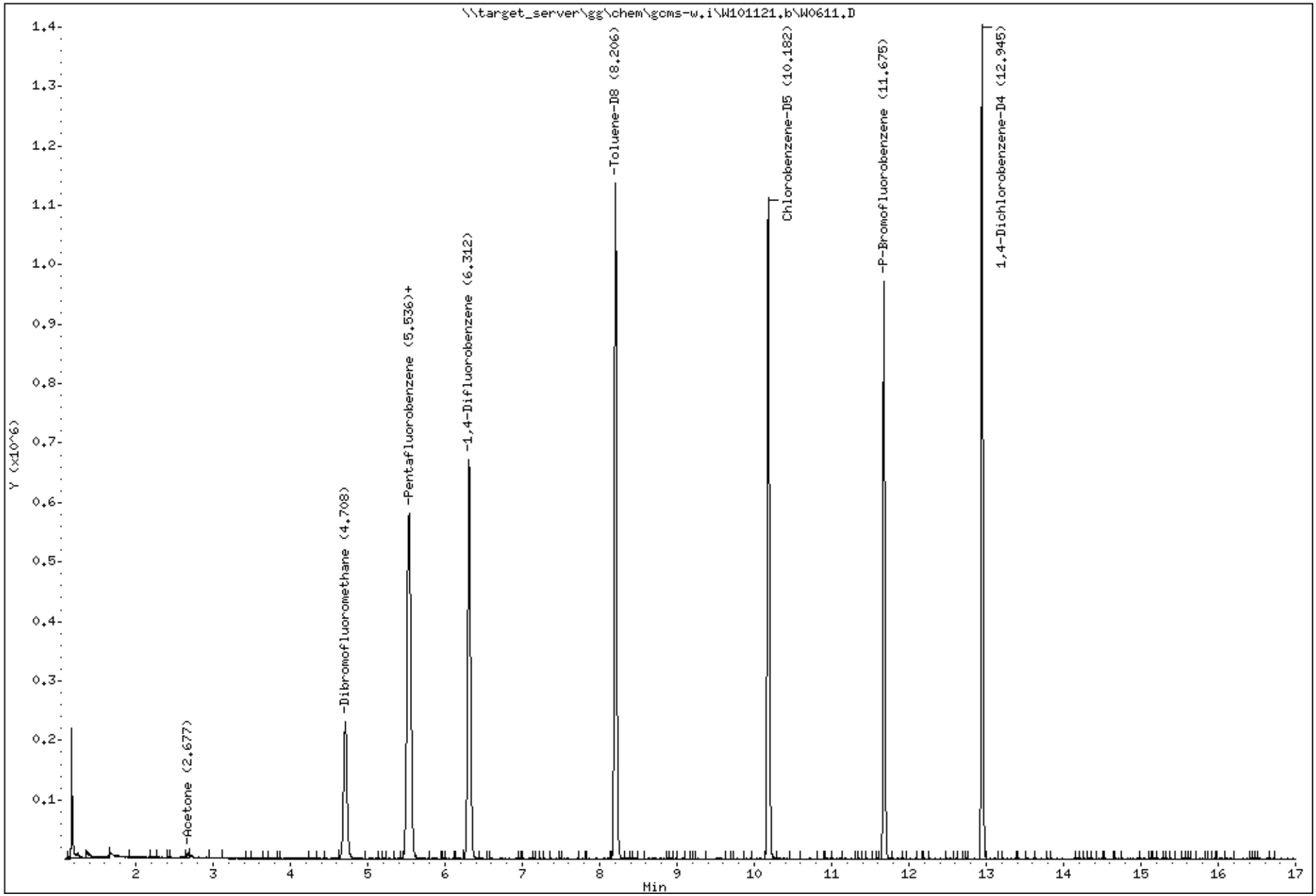
Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)	REVIEW CODE
	15 Acetone	43	2.721	2.725	(0.492)	4158	2.28643	2.3(a)	
$	34 Dibromofluoromethane	113	4.711	4.721	(0.853)	215936	54.9834	55.0	
*	41 Pentafluorobenzene	168	5.526	5.533	(1.000)	387853	50.0000		
$	42 1,2-Dichloroethane-D4	65	5.545	5.555	(1.003)	318961	58.2346	58.2	
*	48 1,4-Difluorobenzene	114	6.312	6.319	(1.000)	691882	50.0000		
$	58 Toluene-D8	98	8.205	8.212	(1.300)	830710	51.1053	51.1	
*	68 Chlorobenzene-D5	117	10.182	10.185	(1.000)	640954	50.0000		
$	77 P-Bromofluorobenzene	95	11.674	11.684	(1.849)	316350	49.0914	49.1	
*	93 1,4-Dichlorobenzene-D4	152	12.945	12.952	(1.000)	326382	50.0000		

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Data File: \\target_server\gg\chem\gcms-w.i\W101121.b\W0611.D
Date : 11-OCT-2021 11:56
Client ID: VA-SA-MW-83(2021100
Instrument: gcms-w.i
Sample Info: SO6709-2



Katahdin Analytical Services 1000035

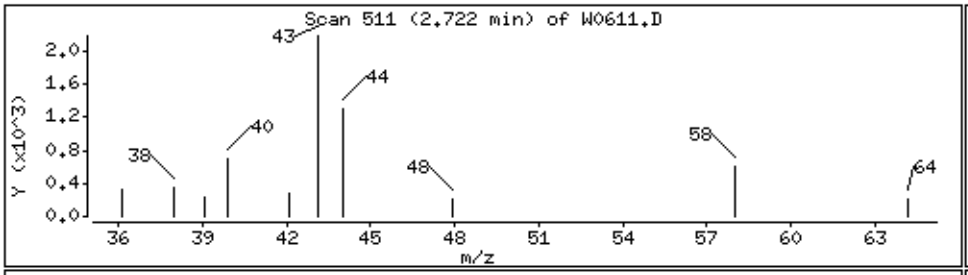
Data File: \\target_server\gg\chem\gcms-w.i\W101121.b\W0611.D

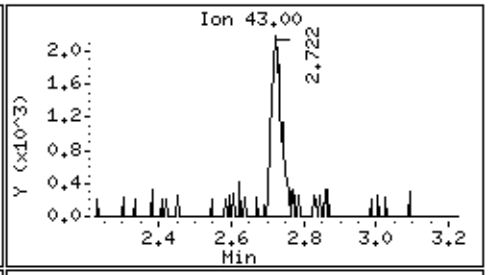
Date : 11-OCT-2021 11:56

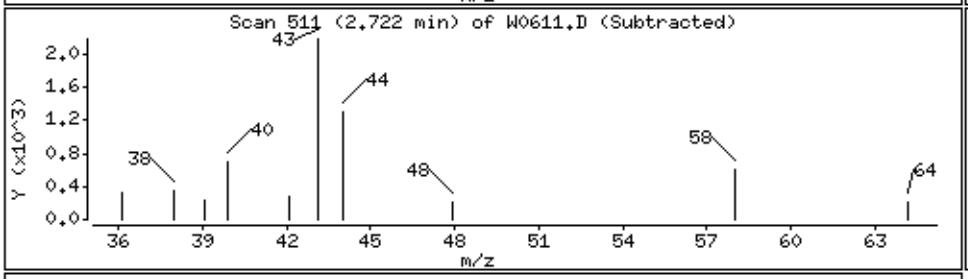
Client ID: VA-SA-MW-83(2021100 Instrument: gcms-w.i

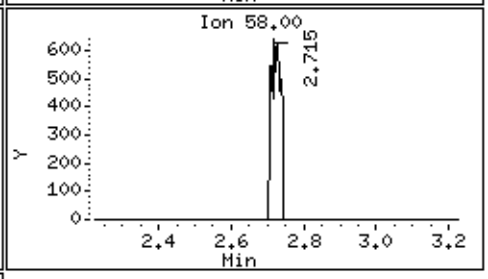
Sample Info: SO6709-2

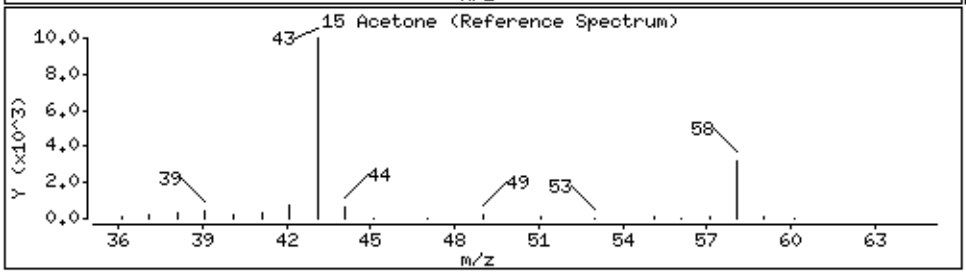
15 Acetone Concentration: 2.3 ug/l











Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-3
Client ID: DUP-01(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: W0634.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 12-OCT-21
Extracted By: HG
Extraction Method: SW846 5030
Lab Prep Batch: WG307697

Analysis Date: 12-OCT-21
Analyst: HG
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	2.0	ug/L	1	2	2.0
Vinyl Chloride	U	2.0	ug/L	1	2	2.0
Bromomethane	U	2.0	ug/L	1	2	2.0
Chloroethane	U	2.0	ug/L	1	2	2.0
Trichlorofluoromethane	U	2.0	ug/L	1	2	2.0
1,1-Dichloroethene	U	1.0	ug/L	1	1	1.0
Carbon Disulfide	U	1.0	ug/L	1	1	1.0
Methylene Chloride	U	5.0	ug/L	1	5	5.0
trans-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
1,1-Dichloroethane	U	1.0	ug/L	1	1	1.0
cis-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
Chloroform	U	1.0	ug/L	1	1	1.0
Carbon Tetrachloride	U	1.0	ug/L	1	1	1.0
1,1,1-Trichloroethane	U	1.0	ug/L	1	1	1.0
2-Butanone	U	5.0	ug/L	1	5	5.0
Benzene	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethane	U	1.0	ug/L	1	1	1.0
Trichloroethene	U	1.0	ug/L	1	1	1.0
1,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Bromodichloromethane	U	1.0	ug/L	1	1	1.0
cis-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
Toluene	U	1.0	ug/L	1	1	1.0
4-Methyl-2-Pentanone	U	5.0	ug/L	1	5	5.0
Tetrachloroethene	U	1.0	ug/L	1	1	1.0
trans-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
1,1,2-Trichloroethane	U	1.0	ug/L	1	1	1.0
Dibromochloromethane	U	1.0	ug/L	1	1	1.0
Chlorobenzene	U	1.0	ug/L	1	1	1.0
Ethylbenzene	U	1.0	ug/L	1	1	1.0
m+p-Xylenes	U	2.0	ug/L	1	2	2.0
o-Xylene	U	1.0	ug/L	1	1	1.0
Bromoform	U	1.0	ug/L	1	1	1.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
P-Bromofluorobenzene		99.6	%			
Toluene-d8		104.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-3
Client ID: DUP-01(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: W0634.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 12-OCT-21
Extracted By: HG
Extraction Method: SW846 5030
Lab Prep Batch: WG307697

Analysis Date: 12-OCT-21
Analyst: HG
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		121.	%			
Dibromofluoromethane		111.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Data File: \\target_server\gg\chem\gcms-w.i\W101221.b\W0634.D
Report Date: 11-Nov-2021 17:35

Katahdin Analytical Services

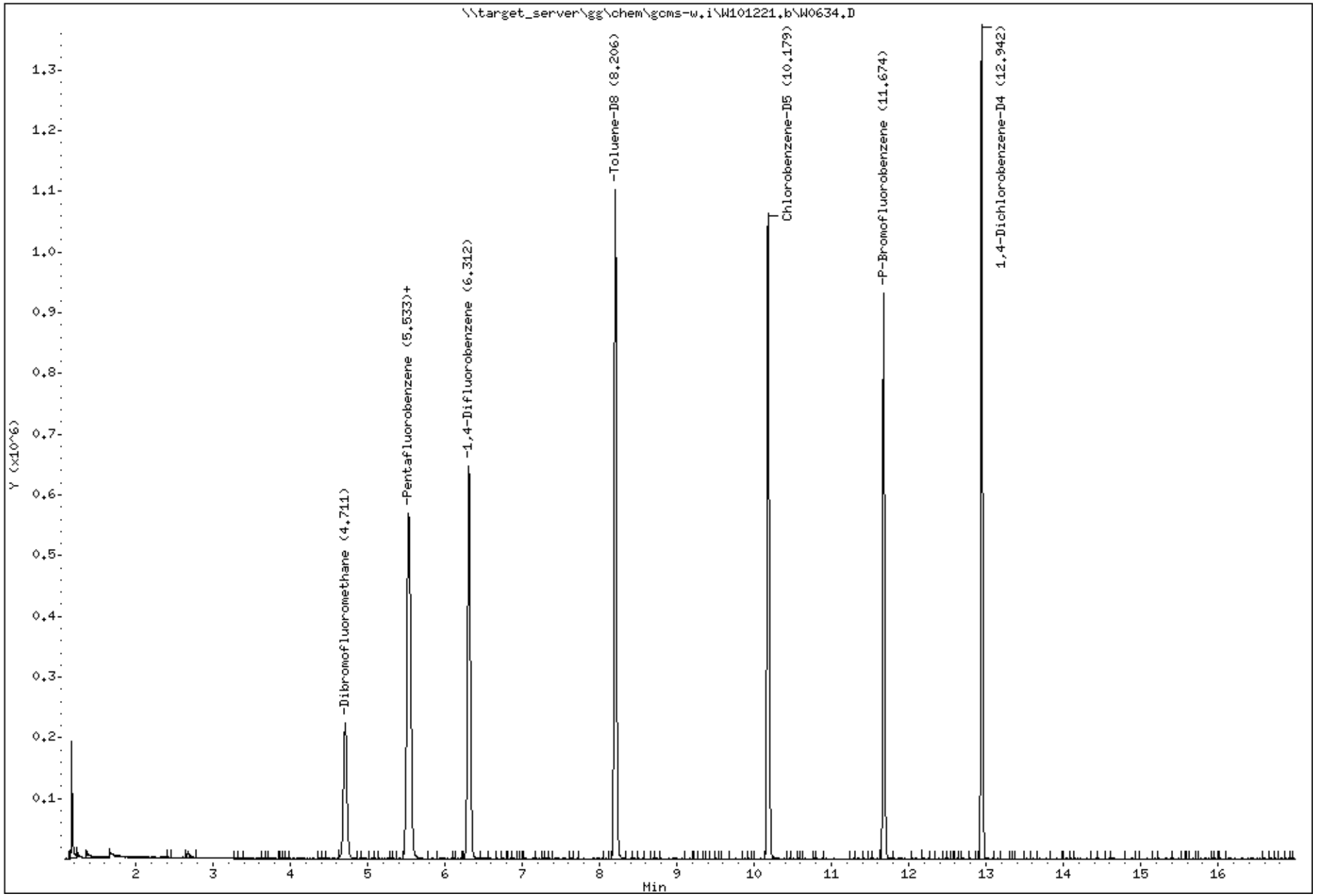
Data file : \\target_server\gg\chem\gcms-w.i\W101221.b\W0634.D
Lab Smp Id: SO6709-3 Client Smp ID: DUP-01(20211001)
Inj Date : 12-OCT-2021 11:45
Operator : HG Inst ID: gcms-w.i
Smp Info : SO6709-3
Misc Info : WG307697,WG307697-4
Comment : SW846 5030
Method : \\target_server\gg\chem\gcms-w.i\W101221.b\W8A05(11).m
Meth Date : 12-Oct-2021 07:57 estroh Quant Type: ISTD
Cal Date : 10-OCT-2021 12:35 Cal File: W0583.D
Als bottle: 10
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.12
Processing Host: VOSTRO2

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)	REVIEW CODE
$	34 Dibromofluoromethane	113	4.711	4.721	(0.853)	207492	55.6455	55.6	
*	41 Pentafluorobenzene	168	5.526	5.533	(1.000)	368252	50.0000		
$	42 1,2-Dichloroethane-D4	65	5.548	5.555	(1.004)	315638	60.6953	60.7	
*	48 1,4-Difluorobenzene	114	6.312	6.319	(1.000)	659792	50.0000		
$	58 Toluene-D8	98	8.202	8.212	(1.299)	802277	51.7566	51.8	
*	68 Chlorobenzene-D5	117	10.182	10.185	(1.000)	617979	50.0000		
$	77 P-Bromofluorobenzene	95	11.674	11.684	(1.849)	306023	49.7985	49.8	
*	93 1,4-Dichlorobenzene-D4	152	12.945	12.952	(1.000)	315491	50.0000		

Data File: \\target_server\gg\chem\gcms-w.i\W101221.b\W0634.D
Date : 12-OCT-2021 11:45
Client ID: DUP-01(20211001)
Instrument: gcms-w.i
Sample Info: SO6709-3



Katahdin Analytical Services 1000040

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-4
Client ID: WVA-SA-MW-39(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: W0632.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 12-OCT-21
Extracted By: HG
Extraction Method: SW846 5030
Lab Prep Batch: WG307697

Analysis Date: 12-OCT-21
Analyst: HG
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	2.0	ug/L	1	2	2.0
Vinyl Chloride	U	2.0	ug/L	1	2	2.0
Bromomethane	U	2.0	ug/L	1	2	2.0
Chloroethane	U	2.0	ug/L	1	2	2.0
Trichlorofluoromethane	U	2.0	ug/L	1	2	2.0
1,1-Dichloroethene	U	1.0	ug/L	1	1	1.0
Carbon Disulfide	U	1.0	ug/L	1	1	1.0
Methylene Chloride	U	5.0	ug/L	1	5	5.0
trans-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
1,1-Dichloroethane	U	1.0	ug/L	1	1	1.0
cis-1,2-Dichloroethene		56.	ug/L	1	1	1.0
Chloroform	U	1.0	ug/L	1	1	1.0
Carbon Tetrachloride	U	1.0	ug/L	1	1	1.0
1,1,1-Trichloroethane	U	1.0	ug/L	1	1	1.0
2-Butanone	U	5.0	ug/L	1	5	5.0
Benzene	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethane	U	1.0	ug/L	1	1	1.0
Trichloroethene		14.	ug/L	1	1	1.0
1,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Bromodichloromethane	U	1.0	ug/L	1	1	1.0
cis-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
Toluene	U	1.0	ug/L	1	1	1.0
4-Methyl-2-Pentanone	U	5.0	ug/L	1	5	5.0
Tetrachloroethene		4.9	ug/L	1	1	1.0
trans-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
1,1,2-Trichloroethane	U	1.0	ug/L	1	1	1.0
Dibromochloromethane	U	1.0	ug/L	1	1	1.0
Chlorobenzene	U	1.0	ug/L	1	1	1.0
Ethylbenzene	U	1.0	ug/L	1	1	1.0
m+p-Xylenes	U	2.0	ug/L	1	2	2.0
o-Xylene	U	1.0	ug/L	1	1	1.0
Bromoform	U	1.0	ug/L	1	1	1.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
P-Bromofluorobenzene		97.7	%			
Toluene-d8		101.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-4
Client ID: WVA-SA-MW-39(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: W0632.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 12-OCT-21
Extracted By: HG
Extraction Method: SW846 5030
Lab Prep Batch: WG307697

Analysis Date: 12-OCT-21
Analyst: HG
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		118.	%			
Dibromofluoromethane		112.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Data File: \\target_server\gg\chem\gcms-w.i\W101221.b\W0632.D
Report Date: 12-Nov-2021 12:04

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-w.i\W101221.b\W0632.D
Lab Smp Id: SO6709-4 Client Smp ID: VA-SA-MW-39(2021100
Inj Date : 12-OCT-2021 10:44
Operator : HG Inst ID: gcms-w.i
Smp Info : SO6709-4
Misc Info : WG307697,WG307697-4
Comment : SW846 5030
Method : \\target_server\gg\chem\gcms-w.i\W101221.b\W8A05(11).m
Meth Date : 12-Oct-2021 07:57 estroh Quant Type: ISTD
Cal Date : 10-OCT-2021 12:35 Cal File: W0583.D
Als bottle: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.12
Processing Host: VOSTRO2

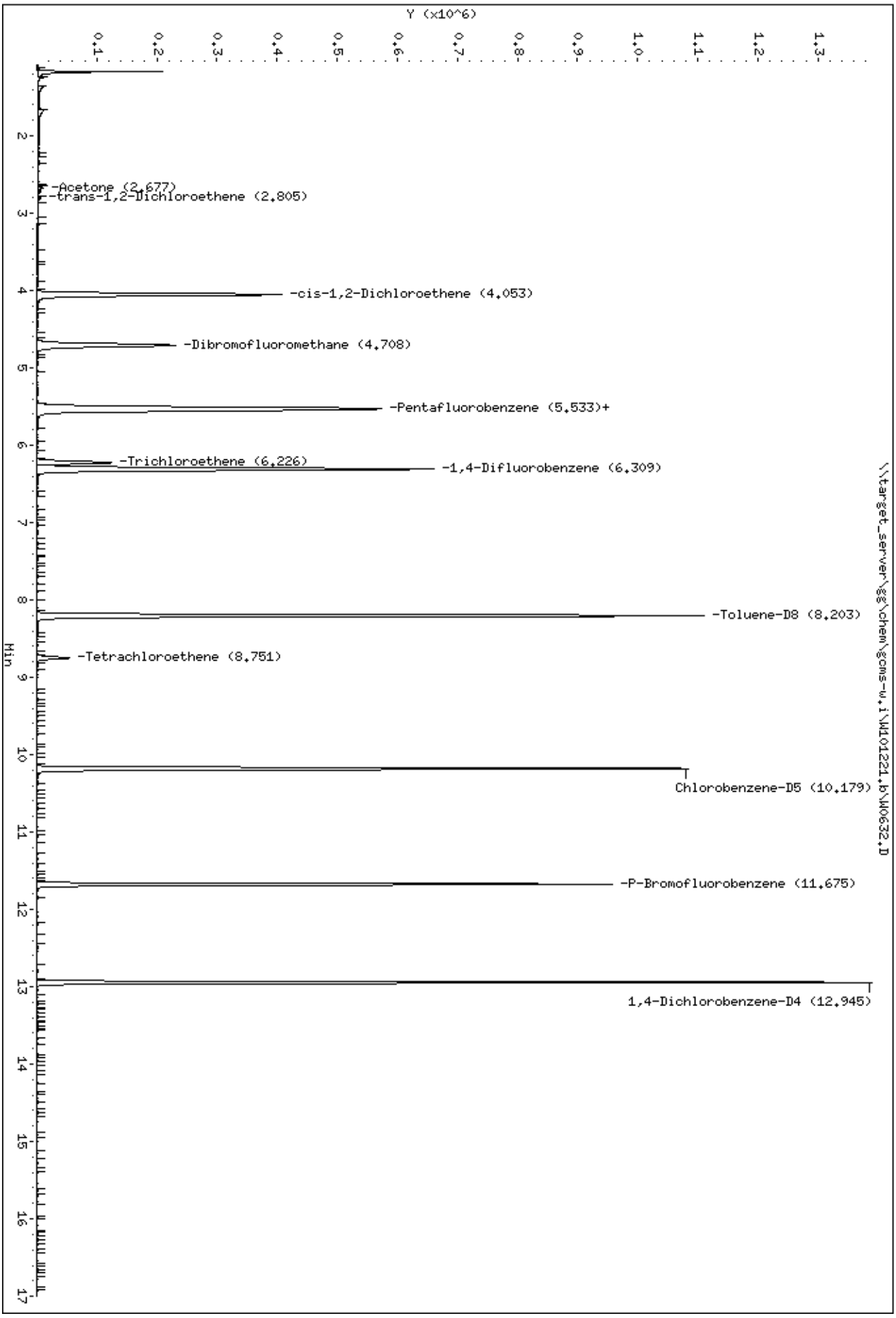
Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)	REVIEW CODE
	15 Acetone	43	2.718	2.725	(0.492)	5110	2.89897	2.9(a)	
	16 trans-1,2-Dichloroethene	96	2.814	2.815	(0.510)	1231	0.31006	0.31(a)	
	27 cis-1,2-Dichloroethene	96	4.056	4.062	(0.735)	217304	55.9958	56.0	
$	34 Dibromofluoromethane	113	4.708	4.721	(0.853)	213357	56.0484	56.0	
*	41 Pentafluorobenzene	168	5.519	5.533	(1.000)	375939	50.0000		
$	42 1,2-Dichloroethane-D4	65	5.542	5.555	(1.004)	312730	58.9065	58.9	
	47 Trichloroethene	95	6.225	6.235	(0.987)	56101	13.9340	13.9	
*	48 1,4-Difluorobenzene	114	6.309	6.319	(1.000)	685071	50.0000		
$	58 Toluene-D8	98	8.202	8.212	(1.300)	811624	50.4275	50.4	
	60 Tetrachloroethene	164	8.754	8.761	(0.860)	15461	4.87349	4.9	
*	68 Chlorobenzene-D5	117	10.182	10.185	(1.000)	631190	50.0000		
$	77 P-Bromofluorobenzene	95	11.674	11.684	(1.850)	311776	48.8626	48.9	
*	93 1,4-Dichlorobenzene-D4	152	12.945	12.952	(1.000)	321130	50.0000		
M	97 1,2-Dichloroethylene (total)	96				218535	56.3059	56.3	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).



Data File: \\target_server\gg\chem\gcms-w.i\W101221.b\W0632.D
Date : 12-OCT-2021 10:44
Client ID: WA-SA-MW-39(20211
Sample Info: SD6709-4

Instrument: gcms-w.i

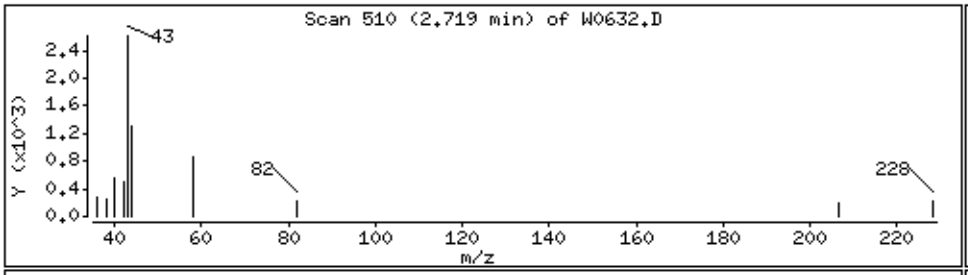
Data File: \\target_server\gg\chem\gcms-w.i\W101221.b\W0632.D

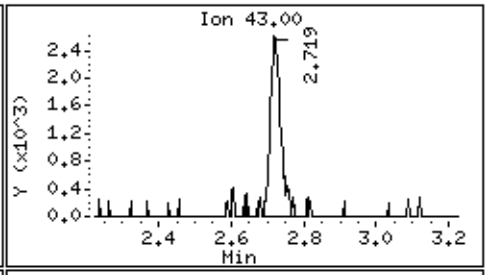
Date : 12-OCT-2021 10:44

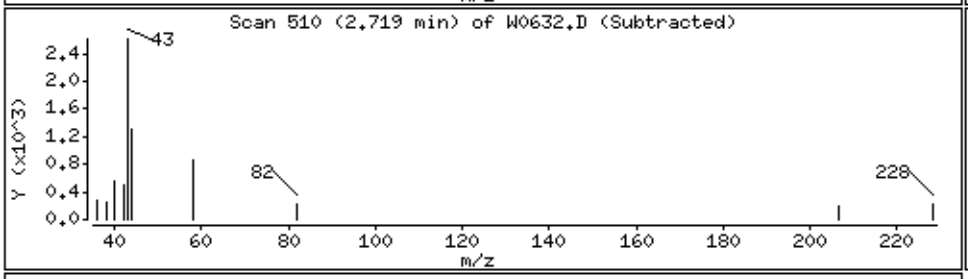
Client ID: VA-SA-MW-39(2021100 Instrument: gcms-w.i

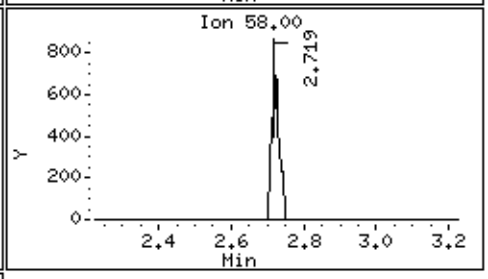
Sample Info: S06709-4

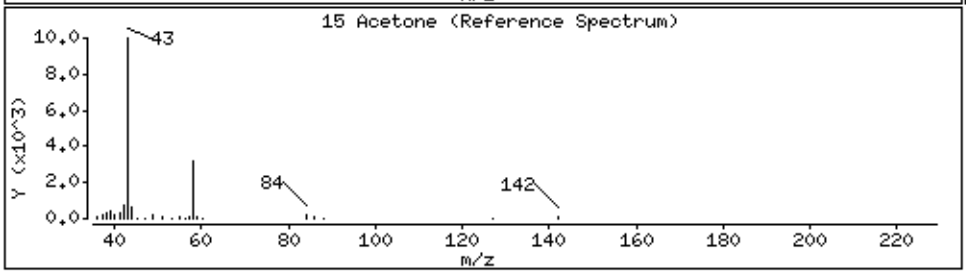
15 Acetone Concentration: 2.9 ug/l



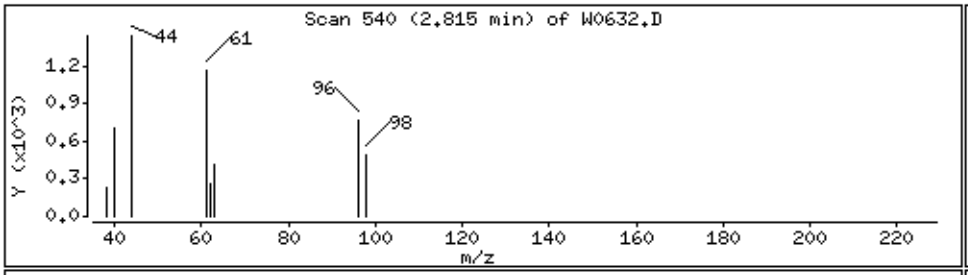


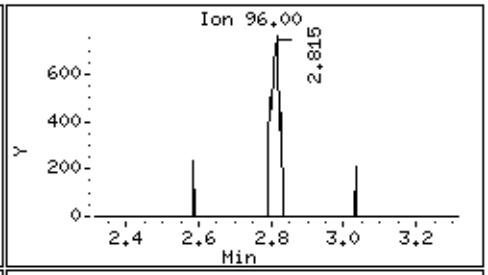


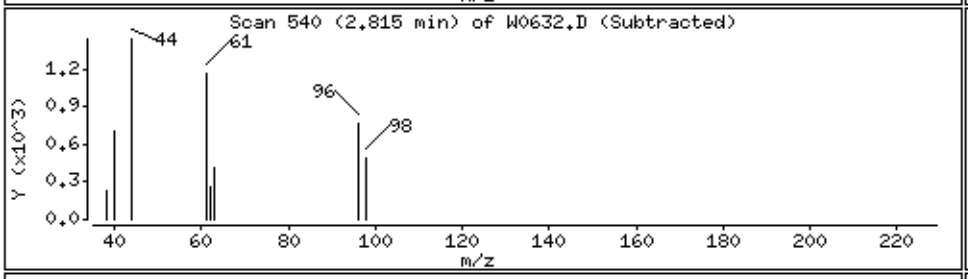


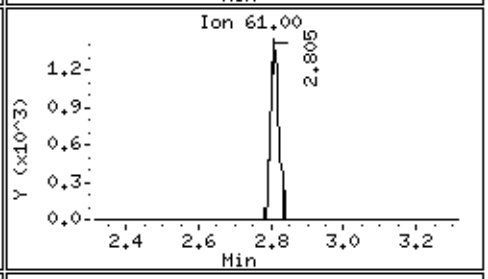


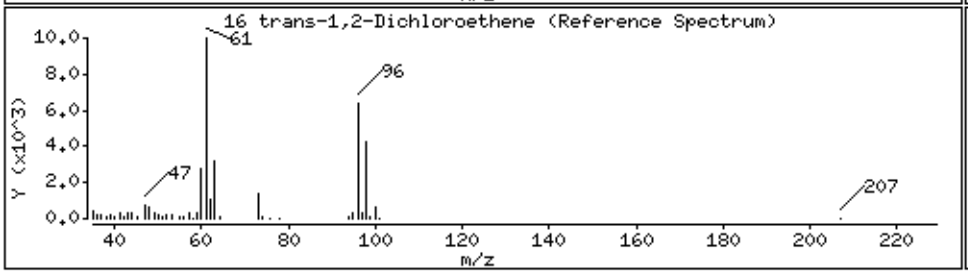
16 trans-1,2-Dichloroethene Concentration: 0.31 ug/l

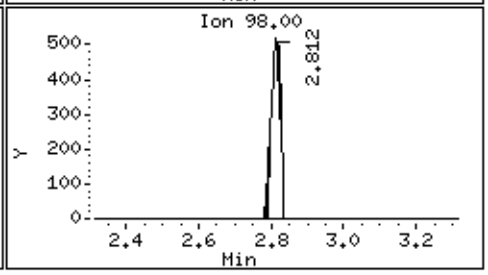












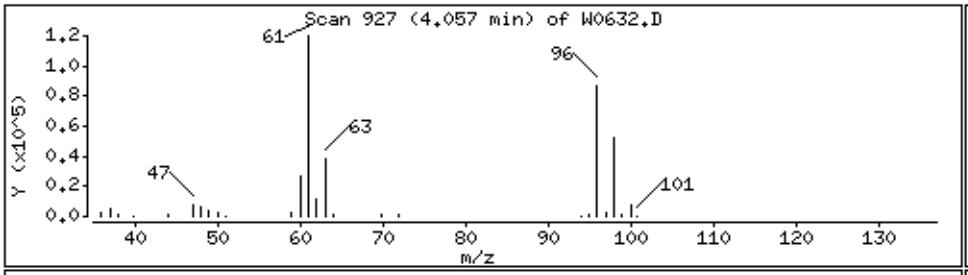
Data File: \\target_server\gg\chem\gcms-w.i\W101221.b\W0632.D

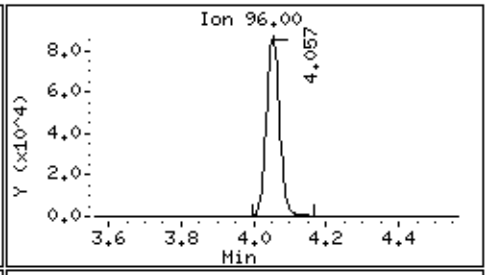
Date : 12-OCT-2021 10:44

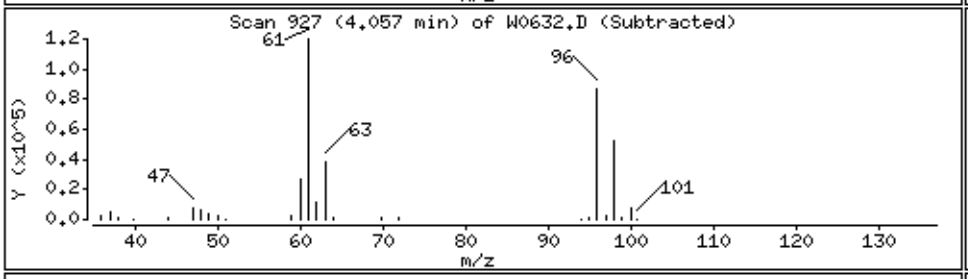
Client ID: VA-SA-MW-39(2021100 Instrument: gcms-w.i

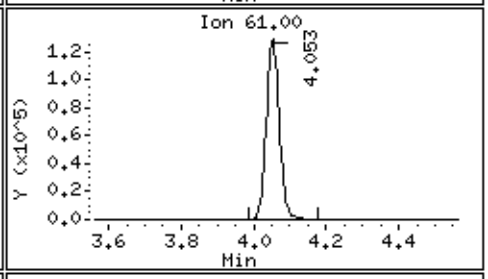
Sample Info: SO6709-4

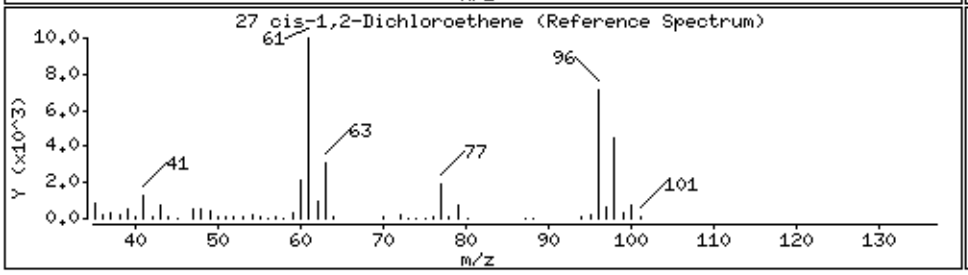
27 cis-1,2-Dichloroethene Concentration: 56.0 ug/l

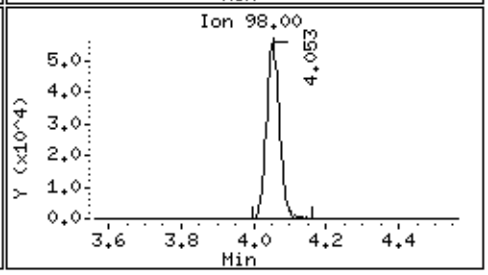




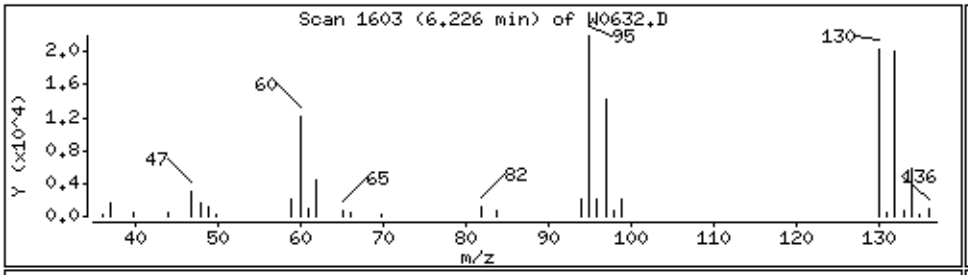


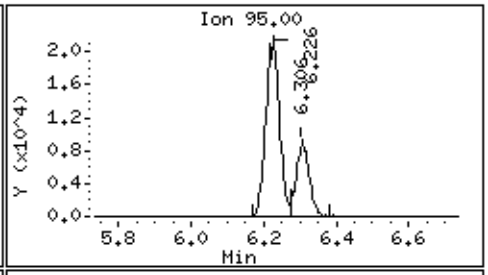


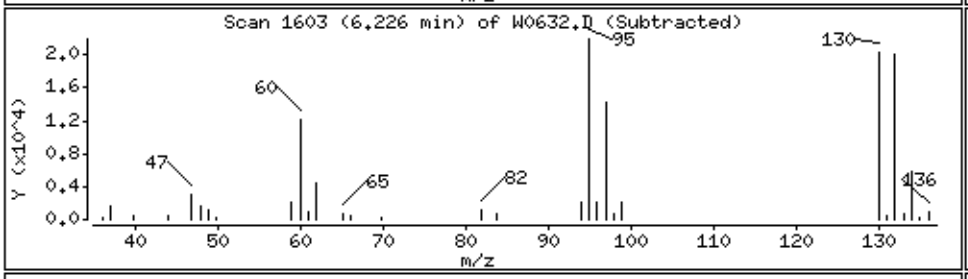


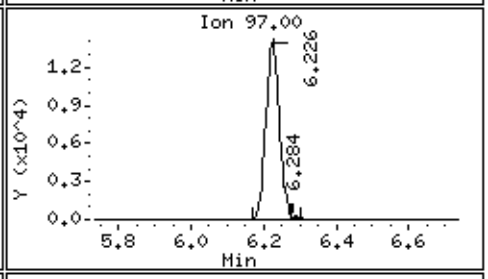


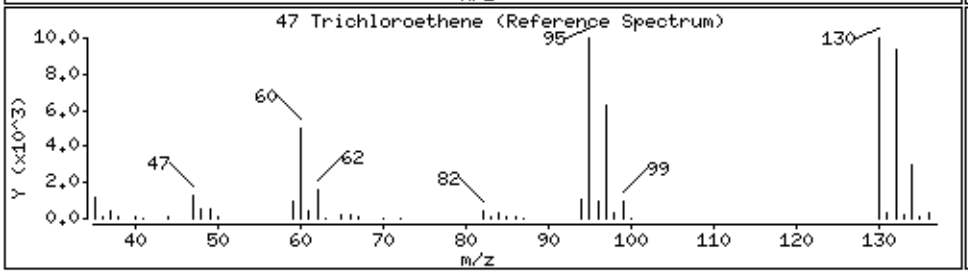
47 Trichloroethene Concentration: 13.9 ug/l

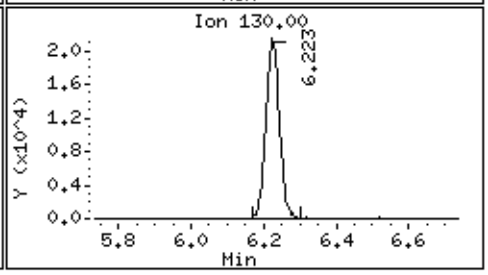












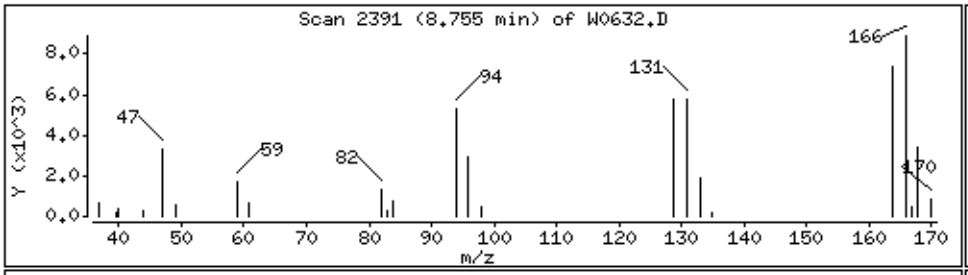
Data File: \\target_server\gg\chem\gcms-w.i\W101221.b\W0632.D

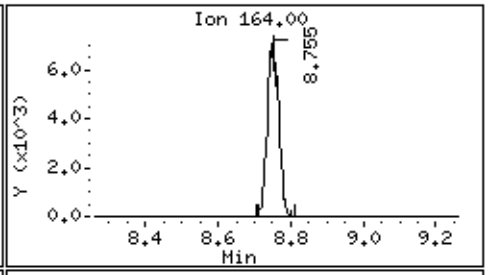
Date : 12-OCT-2021 10:44

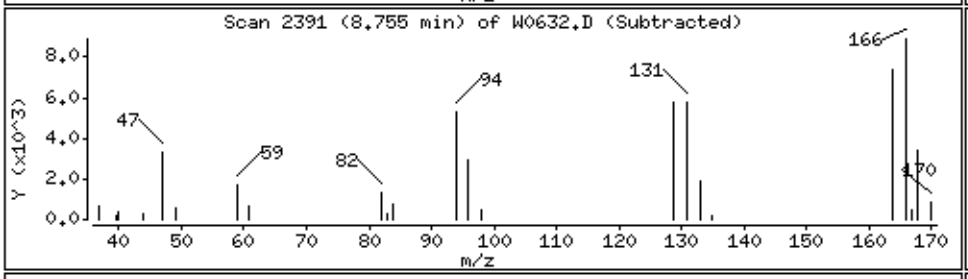
Client ID: VA-SA-MW-39(2021100 Instrument: gcms-w.i

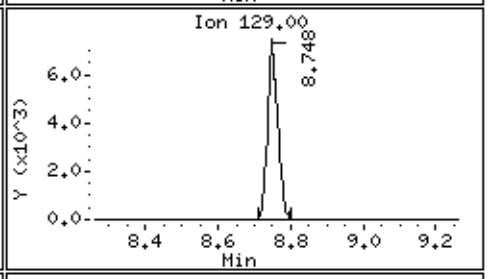
Sample Info: SO6709-4

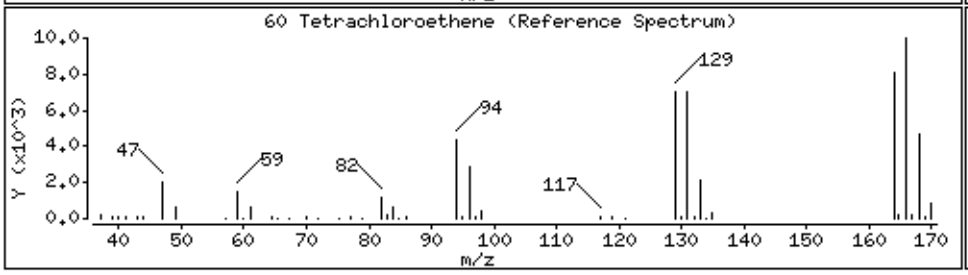
60 Tetrachloroethene Concentration: 4.9 ug/l

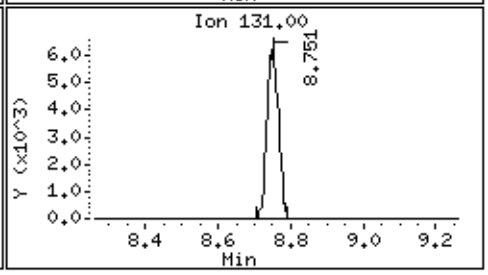












Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-5
Client ID: WVA-SA-MW-32(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: W0612.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 11-OCT-21
Extracted By: HG
Extraction Method: SW846 5030
Lab Prep Batch: WG307650

Analysis Date: 11-OCT-21
Analyst: HG
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	2.0	ug/L	1	2	2.0
Vinyl Chloride	U	2.0	ug/L	1	2	2.0
Bromomethane	U	2.0	ug/L	1	2	2.0
Chloroethane	U	2.0	ug/L	1	2	2.0
Trichlorofluoromethane	U	2.0	ug/L	1	2	2.0
1,1-Dichloroethene	U	1.0	ug/L	1	1	1.0
Carbon Disulfide	U	1.0	ug/L	1	1	1.0
Methylene Chloride	U	5.0	ug/L	1	5	5.0
trans-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
1,1-Dichloroethane	U	1.0	ug/L	1	1	1.0
cis-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
Chloroform	U	1.0	ug/L	1	1	1.0
Carbon Tetrachloride	U	1.0	ug/L	1	1	1.0
1,1,1-Trichloroethane	U	1.0	ug/L	1	1	1.0
2-Butanone	U	5.0	ug/L	1	5	5.0
Benzene	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethane	U	1.0	ug/L	1	1	1.0
Trichloroethene	U	1.0	ug/L	1	1	1.0
1,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Bromodichloromethane	U	1.0	ug/L	1	1	1.0
cis-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
Toluene	U	1.0	ug/L	1	1	1.0
4-Methyl-2-Pentanone	U	5.0	ug/L	1	5	5.0
Tetrachloroethene	U	1.0	ug/L	1	1	1.0
trans-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
1,1,2-Trichloroethane	U	1.0	ug/L	1	1	1.0
Dibromochloromethane	U	1.0	ug/L	1	1	1.0
Chlorobenzene	U	1.0	ug/L	1	1	1.0
Ethylbenzene	U	1.0	ug/L	1	1	1.0
m+p-Xylenes	U	2.0	ug/L	1	2	2.0
o-Xylene	U	1.0	ug/L	1	1	1.0
Bromoform	U	1.0	ug/L	1	1	1.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
P-Bromofluorobenzene		99.8	%			
Toluene-d8		102.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-5
Client ID: WVA-SA-MW-32(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: W0612.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 11-OCT-21
Extracted By: HG
Extraction Method: SW846 5030
Lab Prep Batch: WG307650

Analysis Date: 11-OCT-21
Analyst: HG
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		118.	%			
Dibromofluoromethane		112.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Data File: \\target_server\gg\chem\gcms-w.i\W101121.b\W0612.D
Report Date: 11-Nov-2021 17:25

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-w.i\W101121.b\W0612.D
Lab Smp Id: SO6709-5 Client Smp ID: VA-SA-MW-32(2021100
Inj Date : 11-OCT-2021 12:26
Operator : HG Inst ID: gcms-w.i
Smp Info : SO6709-5
Misc Info : WG307650,WG307650-4
Comment : SW846 5030
Method : \\target_server\gg\chem\gcms-w.i\W101121.b\W8A05(11).m
Meth Date : 11-Oct-2021 08:15 hgould Quant Type: ISTD
Cal Date : 10-OCT-2021 12:35 Cal File: W0583.D
Als bottle: 12
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.12
Processing Host: VOA-WS

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

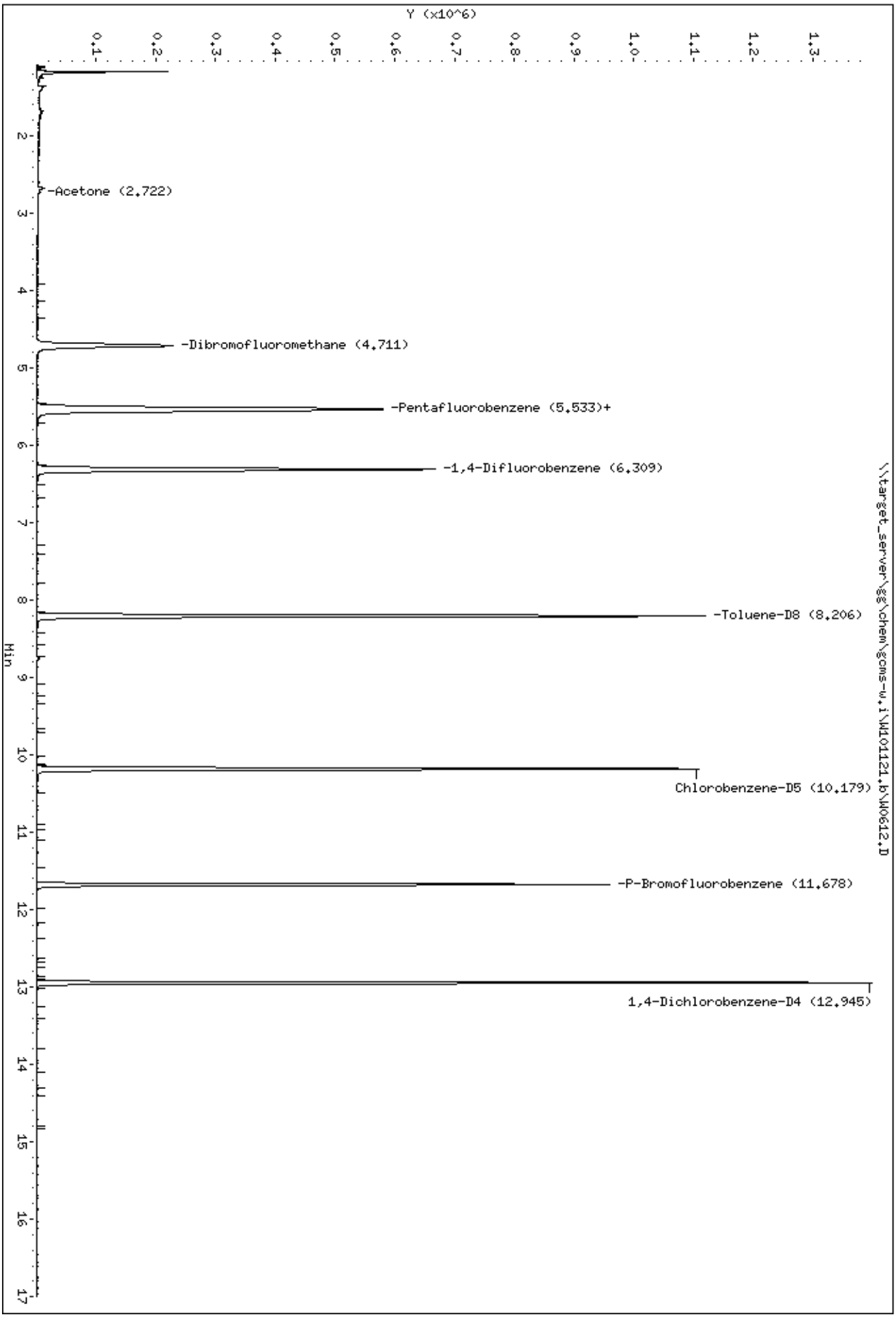
Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

3:33 pm, Nov 12, 2021

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)	REVIEW CODE
15 Acetone	43	2.721	2.725	(0.493)	4889	2.72566	2.7(aM)	M10
$ 34 Dibromofluoromethane	113	4.711	4.721	(0.853)	215959	55.7514	55.8	
* 41 Pentafluorobenzene	168	5.523	5.533	(1.000)	382551	50.0000		
$ 42 1,2-Dichloroethane-D4	65	5.545	5.555	(1.004)	318606	58.9760	59.0	
* 48 1,4-Difluorobenzene	114	6.309	6.319	(1.000)	686243	50.0000		
$ 58 Toluene-D8	98	8.205	8.212	(1.301)	824882	51.1637	51.2	
* 68 Chlorobenzene-D5	117	10.179	10.185	(1.000)	636812	50.0000		
$ 77 P-Bromofluorobenzene	95	11.677	11.684	(1.851)	318791	49.8767	49.9	
* 93 1,4-Dichlorobenzene-D4	152	12.948	12.952	(1.000)	326769	50.0000		

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.


Data File: \\target_server\gg\chem\gcms-w.i\W101121.b\W0612.D
Date : 11-OCT-2021 12:26
Client ID: WA-SA-MW-32(20211
Sample Info: SD6709-5
Instrument: gcms-w.i
\\target_server\gg\chem\gcms-w.i\W101121.b\W0612.D
Y (x10^6)
Min
-Acetone (2.722)
-Dibromofluoromethane (4.711)
-Pentafluorobenzene (5.533)+
-1,4-Difluorobenzene (6.309)
-Toluene-D8 (8.206)
Chlorobenzene-D5 (10.179)
-P-Bromofluorobenzene (11.678)
1,4-Dichlorobenzene-D4 (12.945)

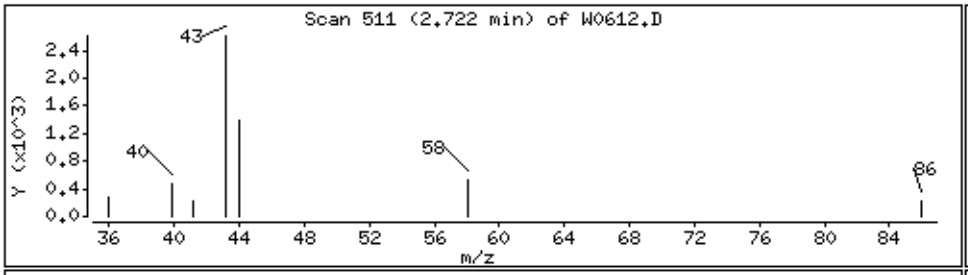
Data File: \\target_server\gg\chem\gcms-w.i\W101121.b\W0612.D

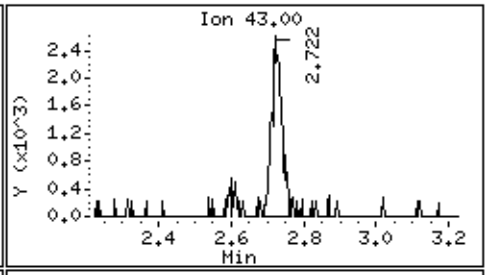
Date : 11-OCT-2021 12:26

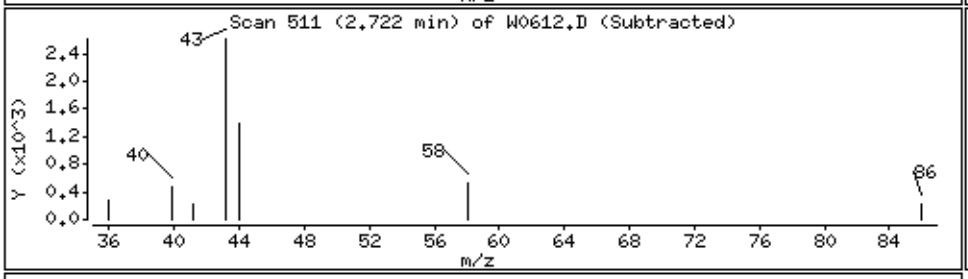
Client ID: VA-SA-MW-32(2021100 Instrument: gcms-w.i

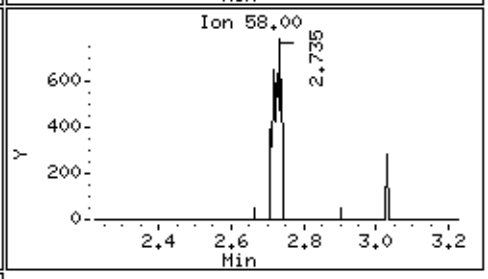
Sample Info: SO6709-5

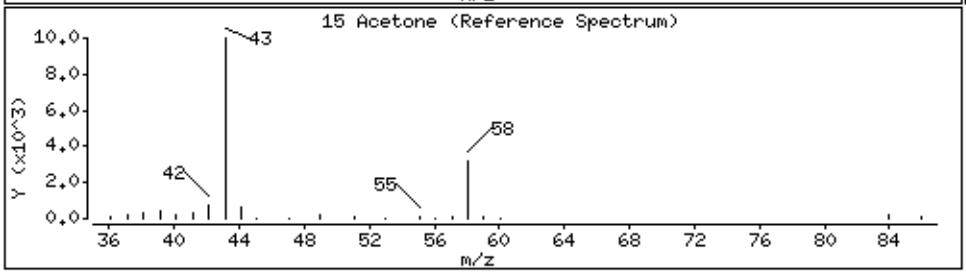
15 Acetone Concentration: 2.7 ug/l











Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-6
Client ID: WVA-SA-MW-78(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: W0613.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 11-OCT-21
Extracted By: HG
Extraction Method: SW846 5030
Lab Prep Batch: WG307650

Analysis Date: 11-OCT-21
Analyst: HG
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	2.0	ug/L	1	2	2.0
Vinyl Chloride	U	2.0	ug/L	1	2	2.0
Bromomethane	U	2.0	ug/L	1	2	2.0
Chloroethane	U	2.0	ug/L	1	2	2.0
Trichlorofluoromethane	U	2.0	ug/L	1	2	2.0
1,1-Dichloroethene	U	1.0	ug/L	1	1	1.0
Carbon Disulfide	U	1.0	ug/L	1	1	1.0
Methylene Chloride	U	5.0	ug/L	1	5	5.0
trans-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
1,1-Dichloroethane	U	1.0	ug/L	1	1	1.0
cis-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
Chloroform	U	1.0	ug/L	1	1	1.0
Carbon Tetrachloride	U	1.0	ug/L	1	1	1.0
1,1,1-Trichloroethane	U	1.0	ug/L	1	1	1.0
2-Butanone	U	5.0	ug/L	1	5	5.0
Benzene	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethane	U	1.0	ug/L	1	1	1.0
Trichloroethene	U	1.0	ug/L	1	1	1.0
1,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Bromodichloromethane	U	1.0	ug/L	1	1	1.0
cis-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
Toluene	U	1.0	ug/L	1	1	1.0
4-Methyl-2-Pentanone	U	5.0	ug/L	1	5	5.0
Tetrachloroethene	U	1.0	ug/L	1	1	1.0
trans-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
1,1,2-Trichloroethane	U	1.0	ug/L	1	1	1.0
Dibromochloromethane	U	1.0	ug/L	1	1	1.0
Chlorobenzene	U	1.0	ug/L	1	1	1.0
Ethylbenzene	U	1.0	ug/L	1	1	1.0
m+p-Xylenes	U	2.0	ug/L	1	2	2.0
o-Xylene	U	1.0	ug/L	1	1	1.0
Bromoform	U	1.0	ug/L	1	1	1.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
P-Bromofluorobenzene		98.4	%			
Toluene-d8		102.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-6
Client ID: WVA-SA-MW-78(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: W0613.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 11-OCT-21
Extracted By: HG
Extraction Method: SW846 5030
Lab Prep Batch: WG307650

Analysis Date: 11-OCT-21
Analyst: HG
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		117.	%			
Dibromofluoromethane		111.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Data File: \\target_server\gg\chem\gcms-w.i\W101121.b\W0613.D
Report Date: 11-Nov-2021 17:25

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-w.i\W101121.b\W0613.D
Lab Smp Id: SO6709-6 Client Smp ID: VA-SA-MW-78(2021100
Inj Date : 11-OCT-2021 12:56
Operator : HG Inst ID: gcms-w.i
Smp Info : SO6709-6
Misc Info : WG307650,WG307650-4
Comment : SW846 5030
Method : \\target_server\gg\chem\gcms-w.i\W101121.b\W8A05(11).m
Meth Date : 11-Oct-2021 08:15 hgould Quant Type: ISTD
Cal Date : 10-OCT-2021 12:35 Cal File: W0583.D
Als bottle: 13
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.12
Processing Host: VOA-WS

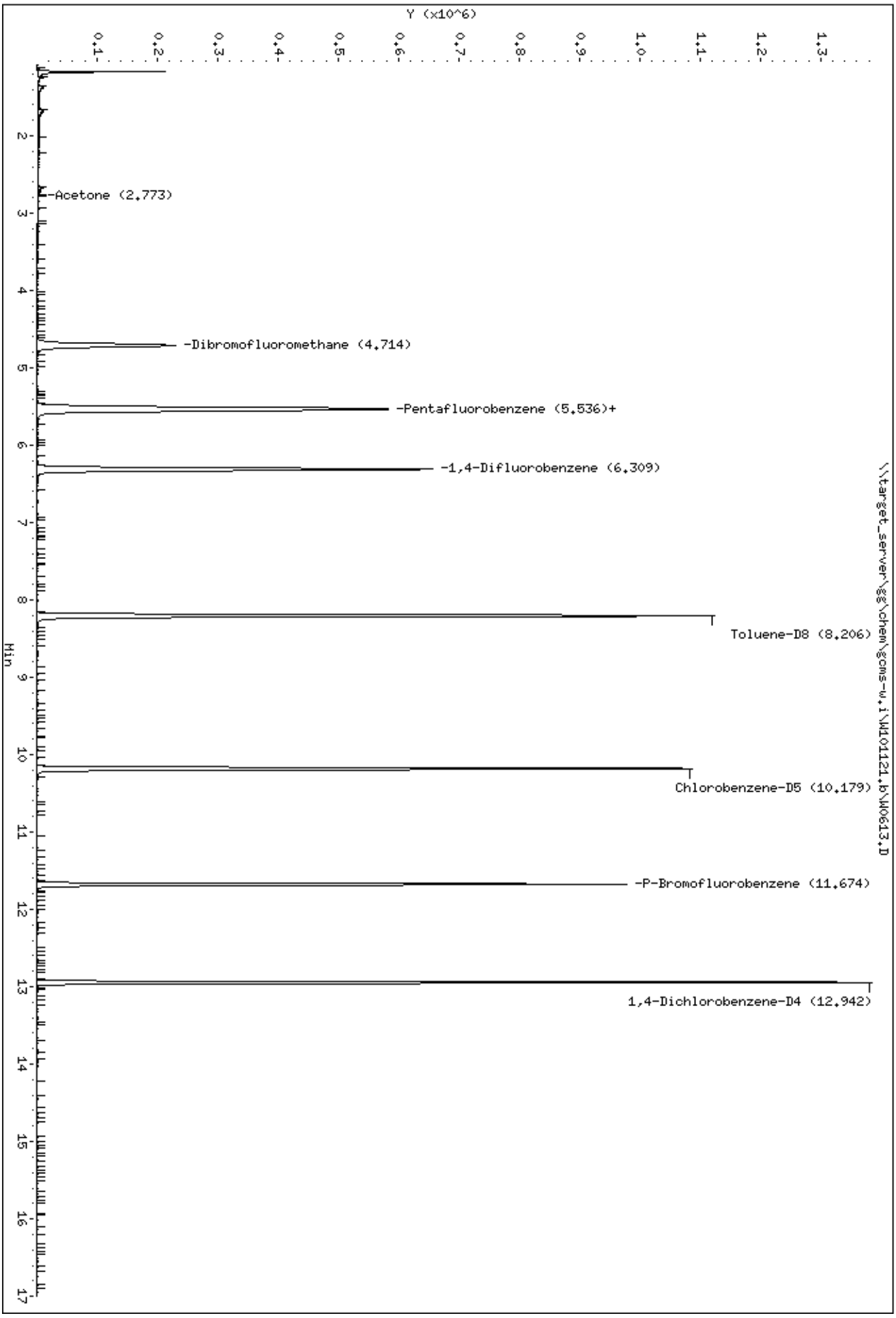
Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)	REVIEW CODE
	15 Acetone	43	2.724	2.725	(0.493)	4926	2.75165	2.8(a)	
$	34 Dibromofluoromethane	113	4.711	4.721	(0.853)	214017	55.3580	55.4	
*	41 Pentafluorobenzene	168	5.523	5.533	(1.000)	381805	50.0000		
$	42 1,2-Dichloroethane-D4	65	5.542	5.555	(1.003)	314421	58.3151	58.3	
*	48 1,4-Difluorobenzene	114	6.312	6.319	(1.000)	688938	50.0000		
$	58 Toluene-D8	98	8.202	8.212	(1.299)	822330	50.8059	50.8	
*	68 Chlorobenzene-D5	117	10.179	10.185	(1.000)	639028	50.0000		
$	77 P-Bromofluorobenzene	95	11.674	11.684	(1.849)	315865	49.2256	49.2	
*	93 1,4-Dichlorobenzene-D4	152	12.942	12.952	(1.000)	326178	50.0000		

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).


Data File: \\target_server\gg\chem\gcms-w.i\W101121.b\W0613.D
Date : 11-OCT-2021 12:56
Client ID: WA-SA-MW-78(2021100
Sample Info: SD6709-6
Instrument: gcms-w.i
\\target_server\gg\chem\gcms-w.i\W101121.b\W0613.D
Y (x10^6)
Min
-Acetone (2.773)
-Dibromofluoromethane (4.714)
-Pentafluorobenzene (5.536)+
-1,4-Difluorobenzene (6.309)
Toluene-D8 (8.206)
Chlorobenzene-D5 (10.179)
-P-Bromofluorobenzene (11.674)
1,4-Dichlorobenzene-D4 (12.942)

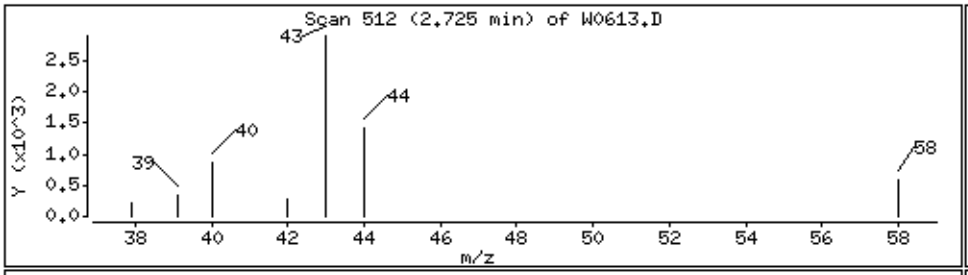
Data File: \\target_server\gg\chem\gcms-w.i\W101121.b\W0613.D

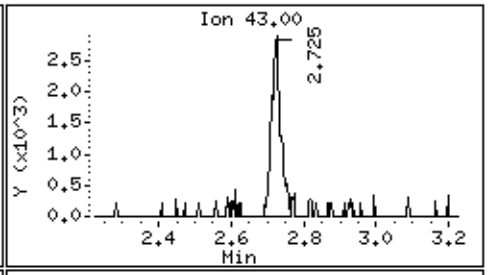
Date : 11-OCT-2021 12:56

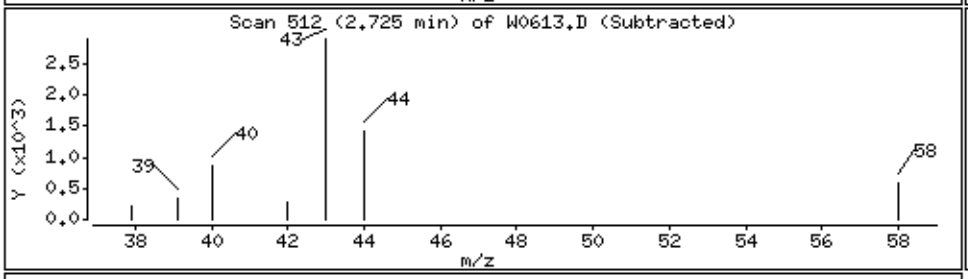
Client ID: VA-SA-MW-78(2021100 Instrument: gcms-w.i

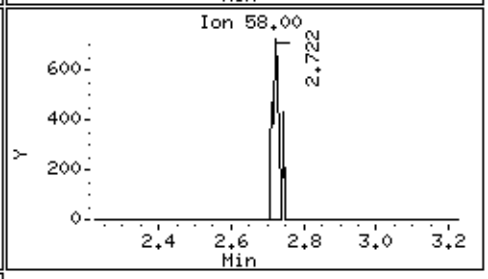
Sample Info: SO6709-6

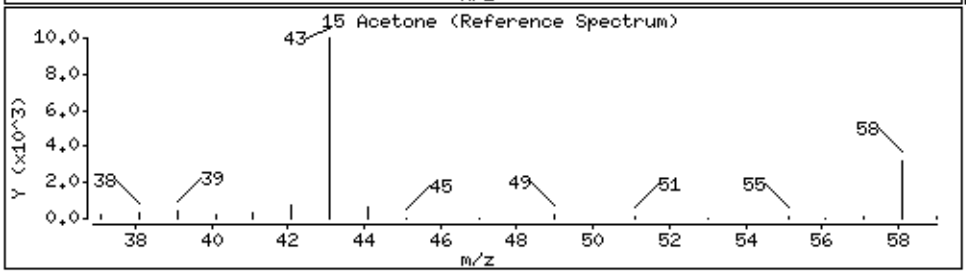
15 Acetone Concentration: 2.8 ug/l











Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-7
Client ID: WVA-SA-MW-79(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: W0614.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 11-OCT-21
Extracted By: HG
Extraction Method: SW846 5030
Lab Prep Batch: WG307650

Analysis Date: 11-OCT-21
Analyst: HG
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	2.0	ug/L	1	2	2.0
Vinyl Chloride	U	2.0	ug/L	1	2	2.0
Bromomethane	U	2.0	ug/L	1	2	2.0
Chloroethane	U	2.0	ug/L	1	2	2.0
Trichlorofluoromethane	U	2.0	ug/L	1	2	2.0
1,1-Dichloroethene	U	1.0	ug/L	1	1	1.0
Carbon Disulfide	U	1.0	ug/L	1	1	1.0
Methylene Chloride	U	5.0	ug/L	1	5	5.0
trans-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
1,1-Dichloroethane	U	1.0	ug/L	1	1	1.0
cis-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
Chloroform	U	1.0	ug/L	1	1	1.0
Carbon Tetrachloride	U	1.0	ug/L	1	1	1.0
1,1,1-Trichloroethane	U	1.0	ug/L	1	1	1.0
2-Butanone	U	5.0	ug/L	1	5	5.0
Benzene	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethane	U	1.0	ug/L	1	1	1.0
Trichloroethene	U	1.0	ug/L	1	1	1.0
1,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Bromodichloromethane	U	1.0	ug/L	1	1	1.0
cis-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
Toluene	U	1.0	ug/L	1	1	1.0
4-Methyl-2-Pentanone	U	5.0	ug/L	1	5	5.0
Tetrachloroethene	U	1.0	ug/L	1	1	1.0
trans-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
1,1,2-Trichloroethane	U	1.0	ug/L	1	1	1.0
Dibromochloromethane	U	1.0	ug/L	1	1	1.0
Chlorobenzene	U	1.0	ug/L	1	1	1.0
Ethylbenzene	U	1.0	ug/L	1	1	1.0
m+p-Xylenes	U	2.0	ug/L	1	2	2.0
o-Xylene	U	1.0	ug/L	1	1	1.0
Bromoform	U	1.0	ug/L	1	1	1.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
P-Bromofluorobenzene		99.3	%			
Toluene-d8		102.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-7
Client ID: WVA-SA-MW-79(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: W0614.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 11-OCT-21
Extracted By: HG
Extraction Method: SW846 5030
Lab Prep Batch: WG307650

Analysis Date: 11-OCT-21
Analyst: HG
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		118.	%			
Dibromofluoromethane		111.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Data File: \\target_server\gg\chem\gcms-w.i\W101121.b\W0614.D
Report Date: 11-Nov-2021 17:25

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-w.i\W101121.b\W0614.D
Lab Smp Id: SO6709-7 Client Smp ID: VA-SA-MW-79(2021100
Inj Date : 11-OCT-2021 13:27
Operator : HG Inst ID: gcms-w.i
Smp Info : SO6709-7
Misc Info : WG307650,WG307650-4
Comment : SW846 5030
Method : \\target_server\gg\chem\gcms-w.i\W101121.b\W8A05(11).m
Meth Date : 11-Oct-2021 08:15 hgould Quant Type: ISTD
Cal Date : 10-OCT-2021 12:35 Cal File: W0583.D
Als bottle: 14
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.12
Processing Host: VOA-WS

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

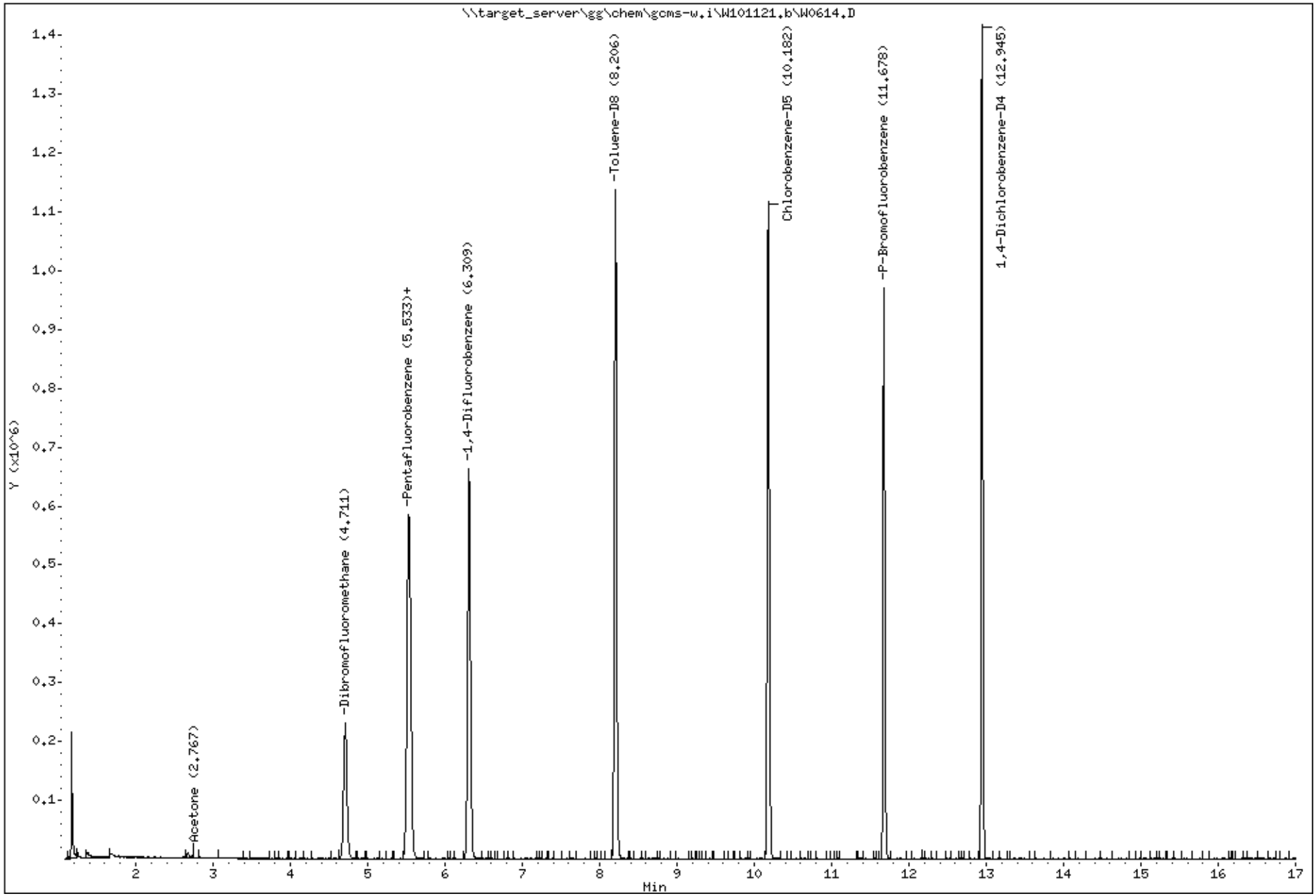
3:33 pm, Nov 12, 2021

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)	REVIEW CODE
	15 Acetone	43	2.728	2.725	(0.494)	4302	2.42711	2.4(aM)	M10
$	34 Dibromofluoromethane	113	4.711	4.721	(0.853)	212510	55.5177	55.5	
*	41 Pentafluorobenzene	168	5.522	5.533	(1.000)	378026	50.0000		
$	42 1,2-Dichloroethane-D4	65	5.545	5.555	(1.004)	315592	59.1174	59.1	
*	48 1,4-Difluorobenzene	114	6.312	6.319	(1.000)	682175	50.0000		
$	58 Toluene-D8	98	8.202	8.212	(1.299)	815793	50.9017	50.9	
*	68 Chlorobenzene-D5	117	10.182	10.185	(1.000)	633879	50.0000		
$	77 P-Bromofluorobenzene	95	11.674	11.684	(1.849)	315339	49.6308	49.6	
*	93 1,4-Dichlorobenzene-D4	152	12.941	12.952	(1.000)	324227	50.0000		

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Data File: \\target_server\gg\chem\gcms-w.i\W101121.b\W0614.D
Date : 11-OCT-2021 13:27
Client ID: VA-SA-MW-79(2021100
Instrument: gcms-w.i
Sample Info: SO6709-7



Katahdin Analytical Services 1000061

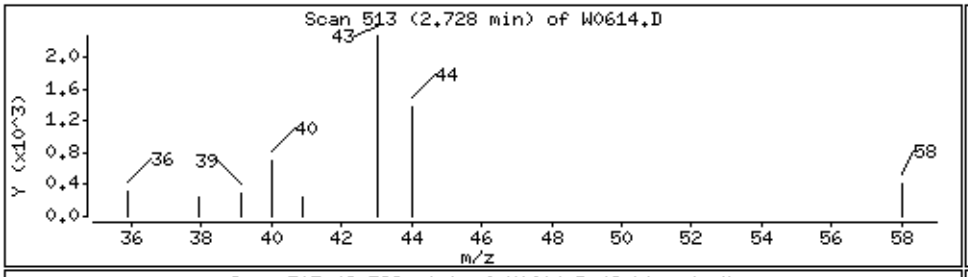
Data File: \\target_server\gg\chem\gcms-w.i\W101121.b\W0614.D

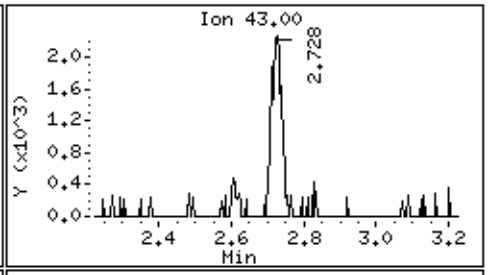
Date : 11-OCT-2021 13:27

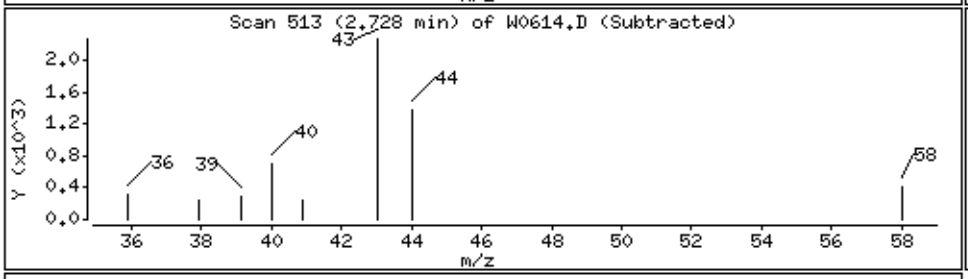
Client ID: VA-SA-MW-79(2021100 Instrument: gcms-w.i

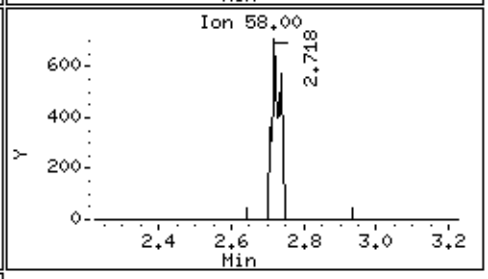
Sample Info: SO6709-7

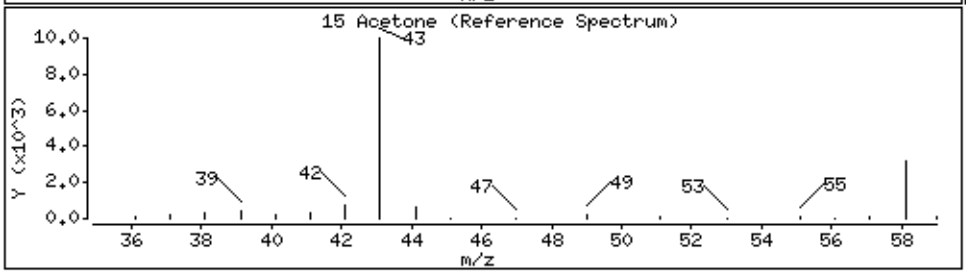
15 Acetone Concentration: 2.4 ug/l











Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-8
Client ID: WVA-SA-MW-80(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: W0615.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 11-OCT-21
Extracted By: HG
Extraction Method: SW846 5030
Lab Prep Batch: WG307650

Analysis Date: 11-OCT-21
Analyst: HG
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	2.0	ug/L	1	2	2.0
Vinyl Chloride	U	2.0	ug/L	1	2	2.0
Bromomethane	U	2.0	ug/L	1	2	2.0
Chloroethane	U	2.0	ug/L	1	2	2.0
Trichlorofluoromethane	U	2.0	ug/L	1	2	2.0
1,1-Dichloroethene	U	1.0	ug/L	1	1	1.0
Carbon Disulfide	U	1.0	ug/L	1	1	1.0
Methylene Chloride	U	5.0	ug/L	1	5	5.0
trans-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
1,1-Dichloroethane	U	1.0	ug/L	1	1	1.0
cis-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
Chloroform	U	1.0	ug/L	1	1	1.0
Carbon Tetrachloride	U	1.0	ug/L	1	1	1.0
1,1,1-Trichloroethane	U	1.0	ug/L	1	1	1.0
2-Butanone	U	5.0	ug/L	1	5	5.0
Benzene	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethane	U	1.0	ug/L	1	1	1.0
Trichloroethene	U	1.0	ug/L	1	1	1.0
1,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Bromodichloromethane	U	1.0	ug/L	1	1	1.0
cis-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
Toluene	U	1.0	ug/L	1	1	1.0
4-Methyl-2-Pentanone	U	5.0	ug/L	1	5	5.0
Tetrachloroethene	U	1.0	ug/L	1	1	1.0
trans-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
1,1,2-Trichloroethane	U	1.0	ug/L	1	1	1.0
Dibromochloromethane	U	1.0	ug/L	1	1	1.0
Chlorobenzene	U	1.0	ug/L	1	1	1.0
Ethylbenzene	U	1.0	ug/L	1	1	1.0
m+p-Xylenes	U	2.0	ug/L	1	2	2.0
o-Xylene	U	1.0	ug/L	1	1	1.0
Bromoform	U	1.0	ug/L	1	1	1.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
P-Bromofluorobenzene		99.1	%			
Toluene-d8		102.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-8
Client ID: WVA-SA-MW-80(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: W0615.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 11-OCT-21
Extracted By: HG
Extraction Method: SW846 5030
Lab Prep Batch: WG307650

Analysis Date: 11-OCT-21
Analyst: HG
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		119.	%			
Dibromofluoromethane		112.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Data File: \\target_server\gg\chem\gcms-w.i\W101121.b\W0615.D
Report Date: 11-Nov-2021 17:26

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-w.i\W101121.b\W0615.D
Lab Smp Id: SO6709-8 Client Smp ID: VA-SA-MW-80(2021100
Inj Date : 11-OCT-2021 13:57
Operator : HG Inst ID: gcms-w.i
Smp Info : SO6709-8
Misc Info : WG307650,WG307650-4
Comment : SW846 5030
Method : \\target_server\gg\chem\gcms-w.i\W101121.b\W8A05(11).m
Meth Date : 11-Oct-2021 08:15 hgould Quant Type: ISTD
Cal Date : 10-OCT-2021 12:35 Cal File: W0583.D
Als bottle: 15
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.12
Processing Host: VOA-WS

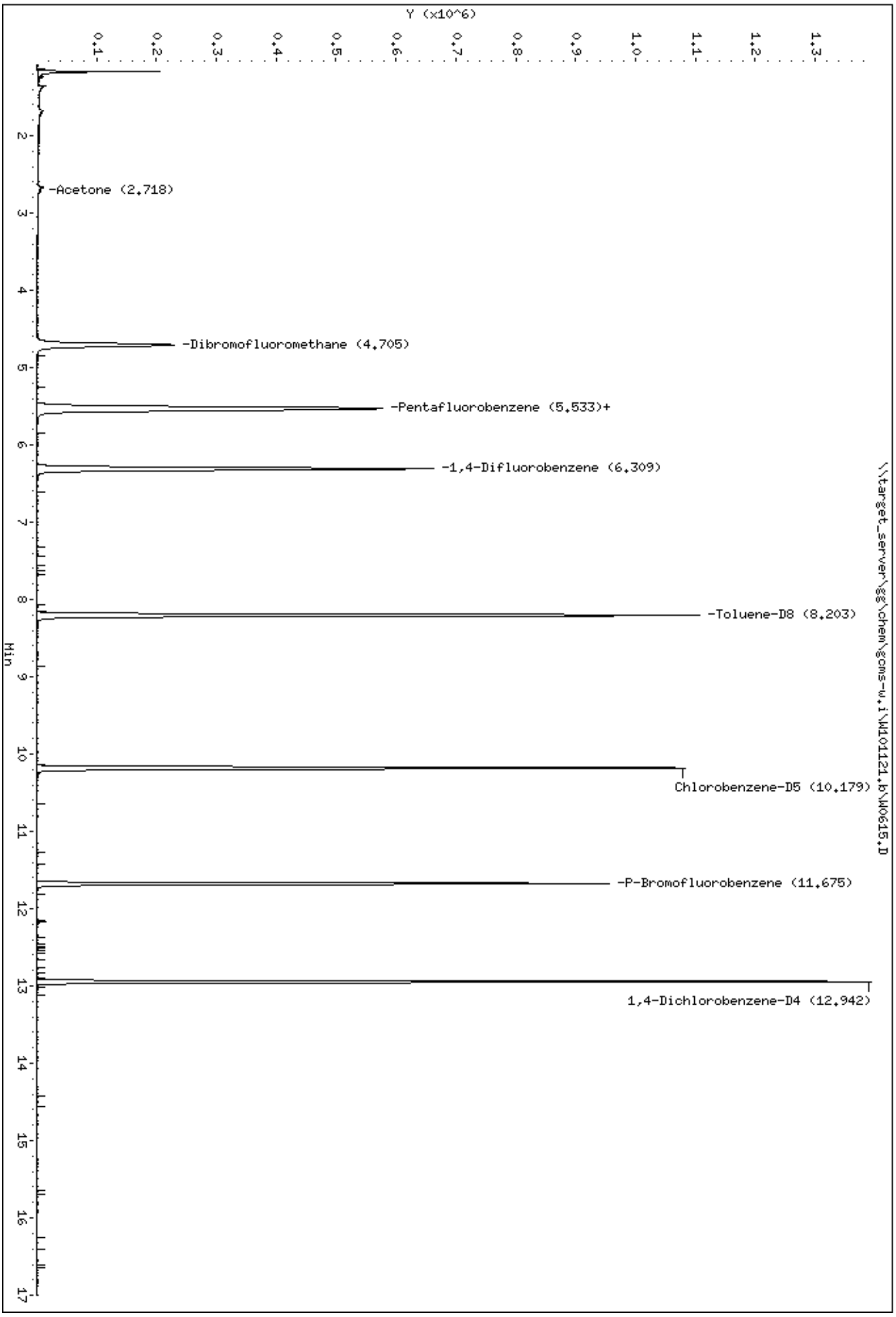
Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)	REVIEW CODE
	15 Acetone	43	2.718	2.725	(0.492)	4680	2.65670	2.6(a)	
$	34 Dibromofluoromethane	113	4.704	4.721	(0.852)	212101	55.7536	55.8	
*	41 Pentafluorobenzene	168	5.519	5.533	(1.000)	375702	50.0000		
$	42 1,2-Dichloroethane-D4	65	5.545	5.555	(1.005)	316227	59.6028	59.6	
*	48 1,4-Difluorobenzene	114	6.309	6.319	(1.000)	677185	50.0000		
$	58 Toluene-D8	98	8.202	8.212	(1.300)	811190	50.9875	51.0	
*	68 Chlorobenzene-D5	117	10.179	10.185	(1.000)	627235	50.0000		
$	77 P-Bromofluorobenzene	95	11.674	11.684	(1.850)	312624	49.5661	49.6	
*	93 1,4-Dichlorobenzene-D4	152	12.942	12.952	(1.000)	319190	50.0000		

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).


Data File: \\target_server\gg\chem\gcms-w.i\W101121.b\W0615.D
Date : 11-OCT-2021 13:57
Client ID: WA-SA-MW-80(2021100
Sample Info: SD6709-8
Instrument: gcms-w.i
\\target_server\gg\chem\gcms-w.i\W101121.b\W0615.D
Y (x10^6)
Min
-Acetone (2.718)
-Dibromofluoromethane (4.705)
-Pentafluorobenzene (5.533)+
-1,4-Difluorobenzene (6.309)
-Toluene-D8 (8.203)
Chlorobenzene-D5 (10.179)
-P-Bromofluorobenzene (11.675)
1,4-Dichlorobenzene-D4 (12.942)

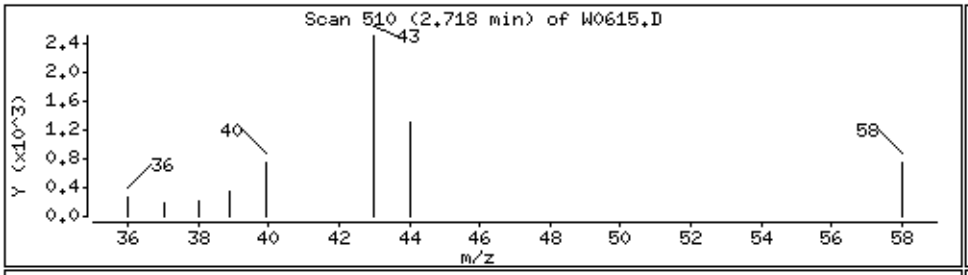
Data File: \\target_server\gg\chem\gcms-w.i\W101121.b\W0615.D

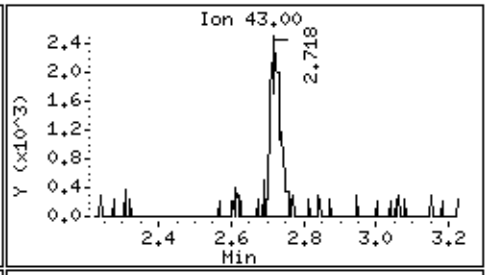
Date : 11-OCT-2021 13:57

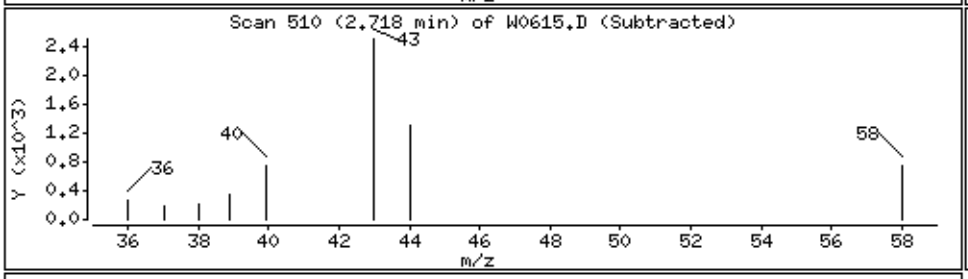
Client ID: VA-SA-MW-80(2021100 Instrument: gcms-w.i

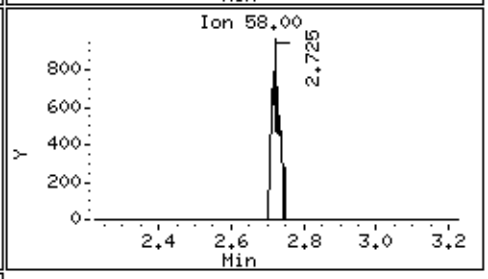
Sample Info: SO6709-8

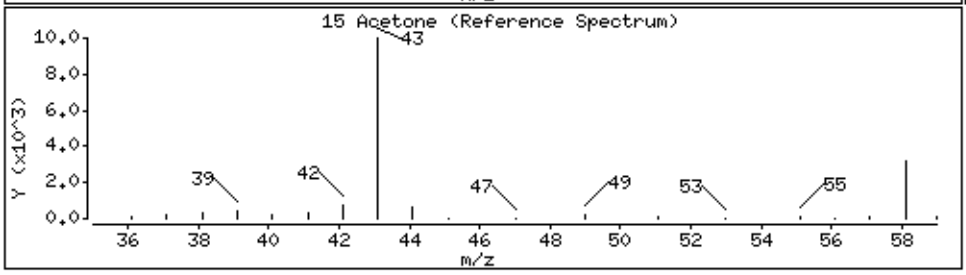
15 Acetone Concentration: 2.6 ug/l











Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-9
Client ID: WVA-SA-MW-81(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: W0622.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 11-OCT-21
Extracted By: HG
Extraction Method: SW846 5030
Lab Prep Batch: WG307650

Analysis Date: 11-OCT-21
Analyst: HG
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	2.0	ug/L	1	2	2.0
Vinyl Chloride		26.	ug/L	1	2	2.0
Bromomethane	U	2.0	ug/L	1	2	2.0
Chloroethane	U	2.0	ug/L	1	2	2.0
Trichlorofluoromethane	U	2.0	ug/L	1	2	2.0
1,1-Dichloroethene	U	1.0	ug/L	1	1	1.0
Carbon Disulfide	U	1.0	ug/L	1	1	1.0
Methylene Chloride	U	5.0	ug/L	1	5	5.0
trans-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
1,1-Dichloroethane	U	1.0	ug/L	1	1	1.0
cis-1,2-Dichloroethene		1.4	ug/L	1	1	1.0
Chloroform	U	1.0	ug/L	1	1	1.0
Carbon Tetrachloride	U	1.0	ug/L	1	1	1.0
1,1,1-Trichloroethane	U	1.0	ug/L	1	1	1.0
2-Butanone	U	5.0	ug/L	1	5	5.0
Benzene	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethane	U	1.0	ug/L	1	1	1.0
Trichloroethene	U	1.0	ug/L	1	1	1.0
1,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Bromodichloromethane	U	1.0	ug/L	1	1	1.0
cis-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
Toluene	U	1.0	ug/L	1	1	1.0
4-Methyl-2-Pentanone	U	5.0	ug/L	1	5	5.0
Tetrachloroethene	U	1.0	ug/L	1	1	1.0
trans-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
1,1,2-Trichloroethane	U	1.0	ug/L	1	1	1.0
Dibromochloromethane	U	1.0	ug/L	1	1	1.0
Chlorobenzene	U	1.0	ug/L	1	1	1.0
Ethylbenzene	U	1.0	ug/L	1	1	1.0
m+p-Xylenes	U	2.0	ug/L	1	2	2.0
o-Xylene	U	1.0	ug/L	1	1	1.0
Bromoform	U	1.0	ug/L	1	1	1.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
P-Bromofluorobenzene		99.6	%			
Toluene-d8		104.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-9
Client ID: WVA-SA-MW-81(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: W0622.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 11-OCT-21
Extracted By: HG
Extraction Method: SW846 5030
Lab Prep Batch: WG307650

Analysis Date: 11-OCT-21
Analyst: HG
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		122.	%			
Dibromofluoromethane		113.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Data File: \\target_server\gg\chem\gcms-w.i\W101121.b\W0622.D
Report Date: 11-Nov-2021 17:26

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-w.i\W101121.b\W0622.D
Lab Smp Id: SO6709-9 Client Smp ID: VA-SA-MW-81(2021100
Inj Date : 11-OCT-2021 17:30
Operator : HG Inst ID: gcms-w.i
Smp Info : SO6709-9
Misc Info : WG307650,WG307650-4
Comment : SW846 5030
Method : \\target_server\gg\chem\gcms-w.i\W101121.b\W8A05(11).m
Meth Date : 11-Oct-2021 08:15 hgould Quant Type: ISTD
Cal Date : 10-OCT-2021 12:35 Cal File: W0583.D
Als bottle: 22
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.12
Processing Host: VOA-WS

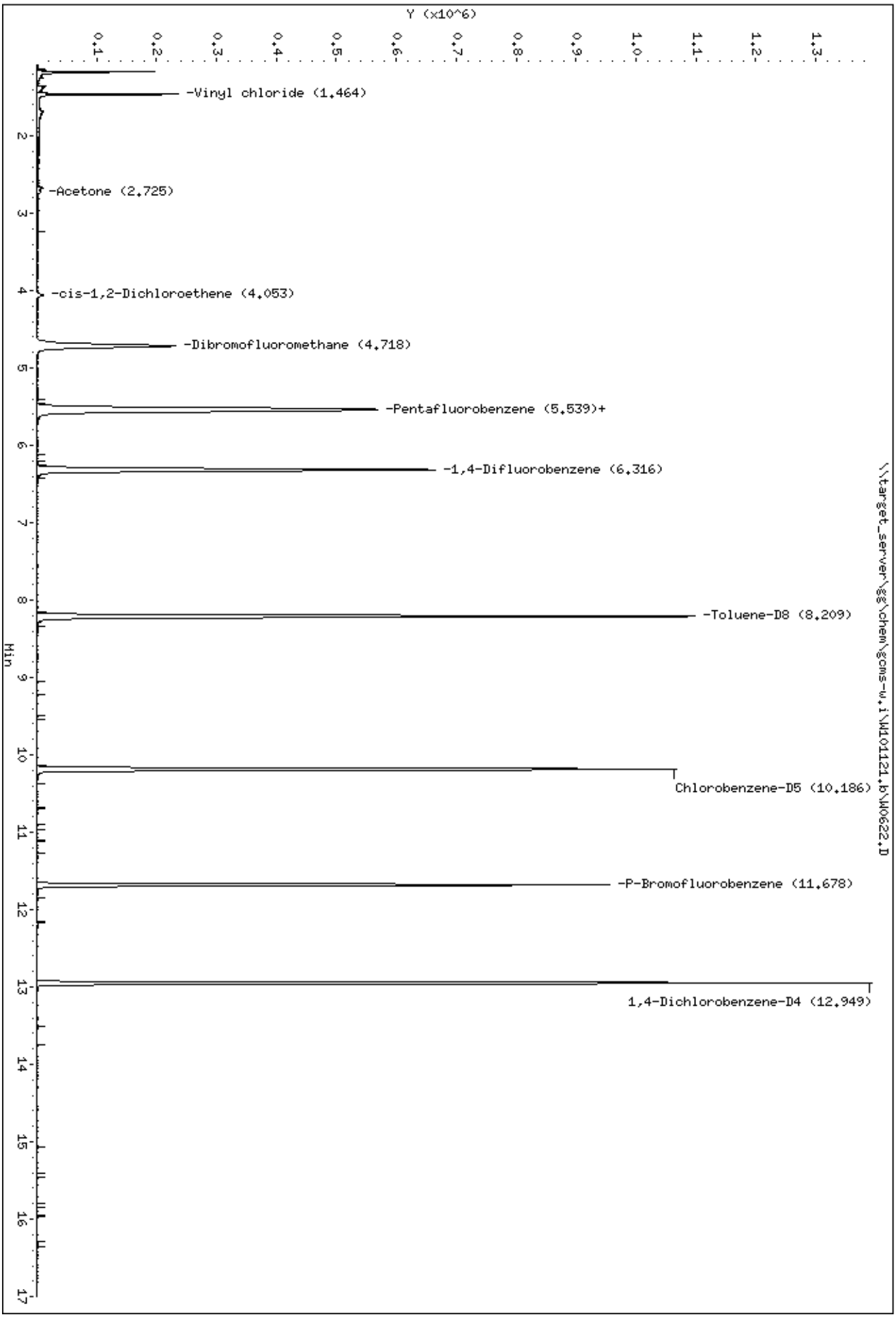
Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)	REVIEW CODE
	3 Vinyl chloride	62	1.463	1.460	(0.265)	124313	25.6651	25.7	
	15 Acetone	43	2.724	2.725	(0.493)	5792	3.37447	3.4(a)	
	27 cis-1,2-Dichloroethene	96	4.053	4.062	(0.733)	5481	1.45045	1.4	
$	34 Dibromofluoromethane	113	4.717	4.721	(0.853)	209673	56.5657	56.6	
*	41 Pentafluorobenzene	168	5.532	5.533	(1.000)	366069	50.0000		
$	42 1,2-Dichloroethane-D4	65	5.548	5.555	(1.003)	314658	60.8677	60.9	
*	48 1,4-Difluorobenzene	114	6.315	6.319	(1.000)	660930	50.0000		
$	58 Toluene-D8	98	8.208	8.212	(1.300)	804182	51.7901	51.8	
*	68 Chlorobenzene-D5	117	10.185	10.185	(1.000)	621247	50.0000		
$	77 P-Bromofluorobenzene	95	11.681	11.684	(1.850)	306644	49.8137	49.8	
*	93 1,4-Dichlorobenzene-D4	152	12.948	12.952	(1.000)	319541	50.0000		
M	97 1,2-Dichloroethylene (total)	96				5481	1.45045	1.4(a)	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).


Y (x10^6)
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0
1.1
1.2
1.3
Min
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
-Vinyl chloride (1.464)
-Acetone (2.725)
-cis-1,2-Dichloroethene (4.053)
-Dibromofluoromethane (4.718)
-Pentafluorobenzene (5.539)+
-1,4-Difluorobenzene (6.316)
-Toluene-D8 (8.209)
Chlorobenzene-D5 (10.186)
-P-Bromofluorobenzene (11.678)
1,4-Dichlorobenzene-D4 (12.949)
\\target_server\gg\chem\gcms-w.i\W101121.b\W0622.D
Data File: \\target_server\gg\chem\gcms-w.i\W101121.b\W0622.D
Date : 11-OCT-2021 17:30
Client ID: WA-SA-MW-81(2021100
Sample Info: SD6709-9
Instrument: gcms-w.i

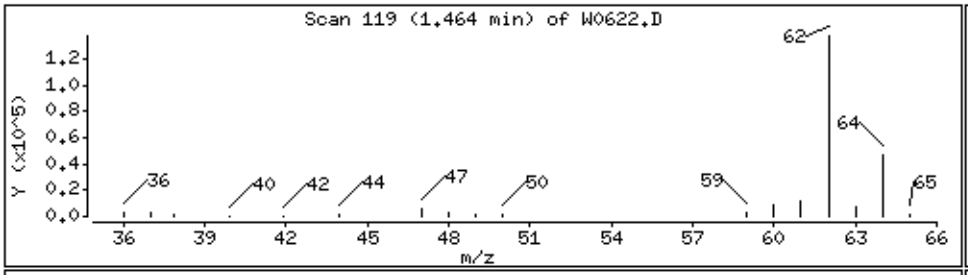
Data File: \\target_server\gg\chem\gcms-w.i\W101121.b\W0622.D

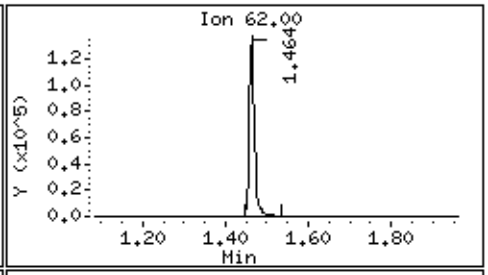
Date : 11-OCT-2021 17:30

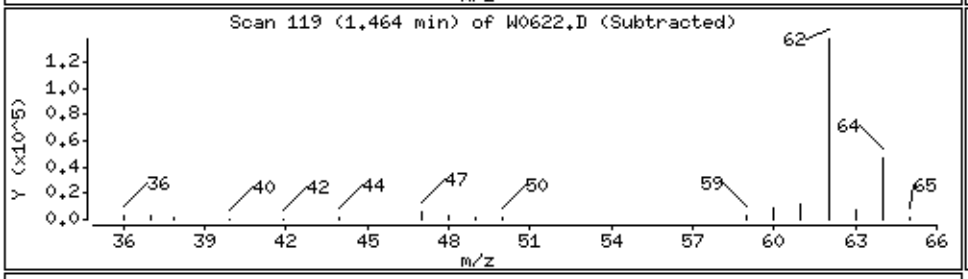
Client ID: VA-SA-MW-81(2021100 Instrument: gcms-w.i

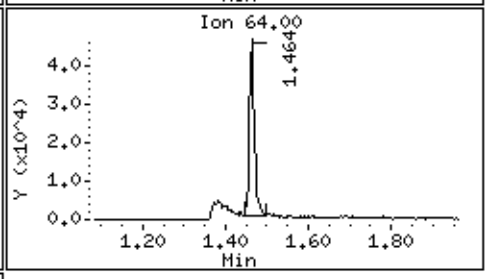
Sample Info: SO6709-9

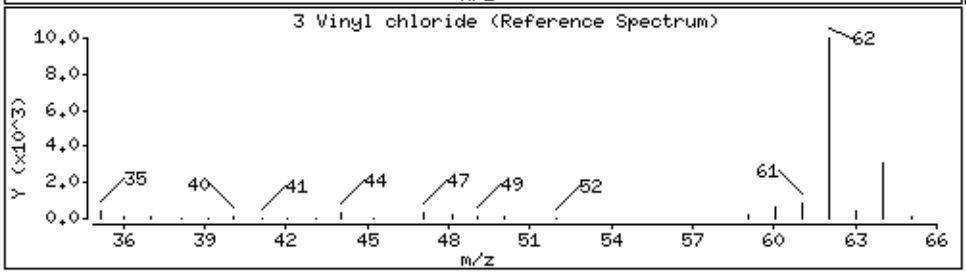
3 Vinyl chloride Concentration: 25.7 ug/l



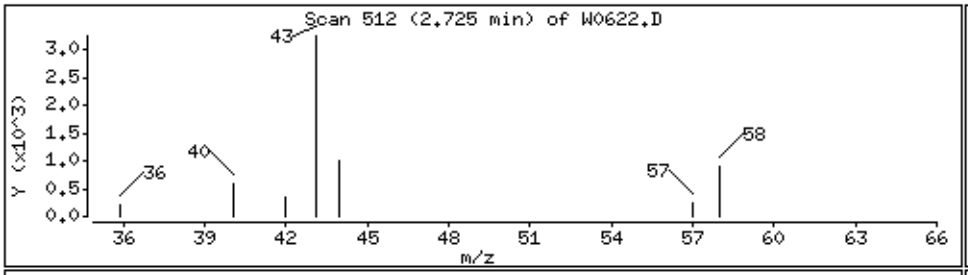


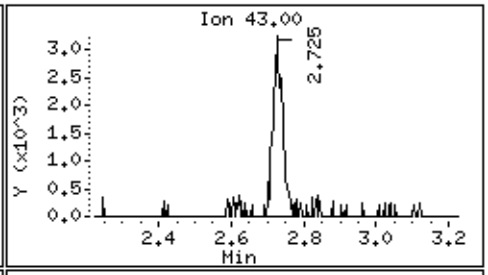


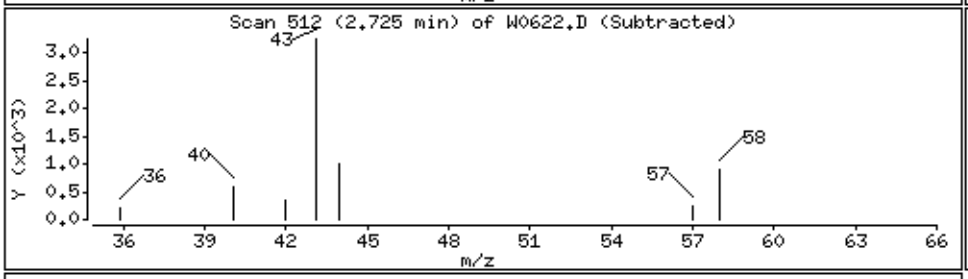


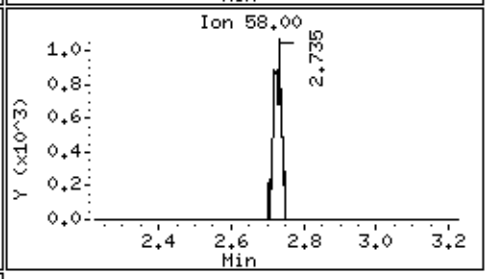


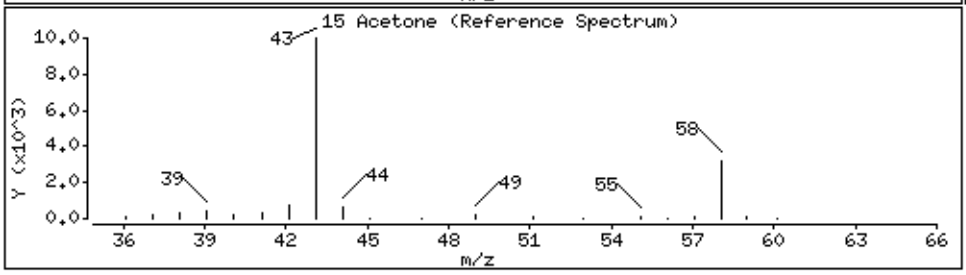
15 Acetone Concentration: 3.4 ug/l











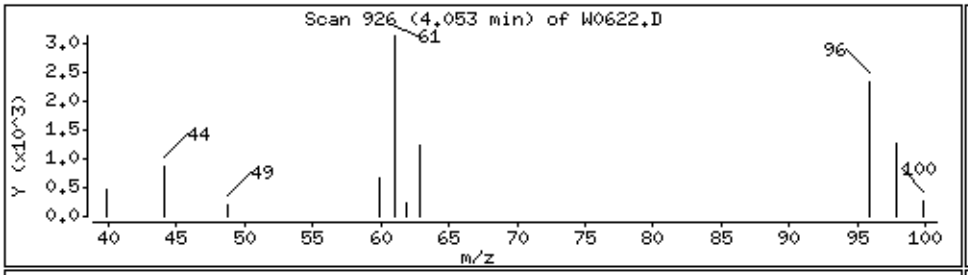
Data File: \\target_server\gg\chem\gcms-w.i\W101121.b\W0622.D

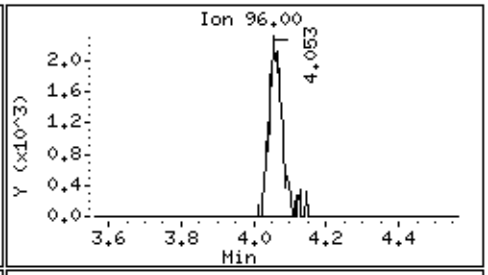
Date : 11-OCT-2021 17:30

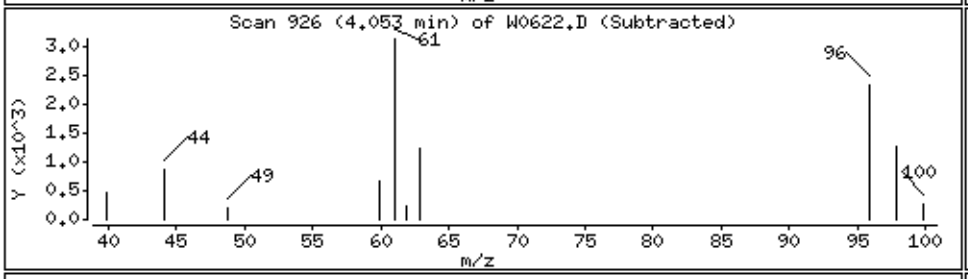
Client ID: VA-SA-MW-81(2021100 Instrument: gcms-w.i

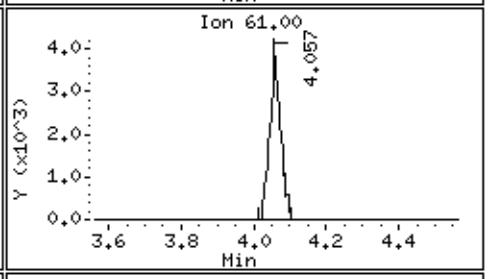
Sample Info: SO6709-9

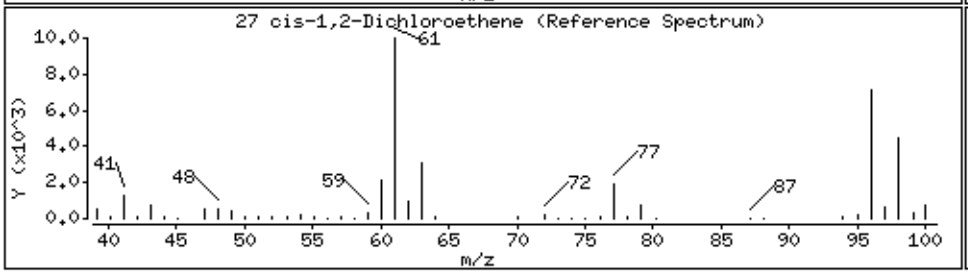
27 cis-1,2-Dichloroethene Concentration: 1.4 ug/l

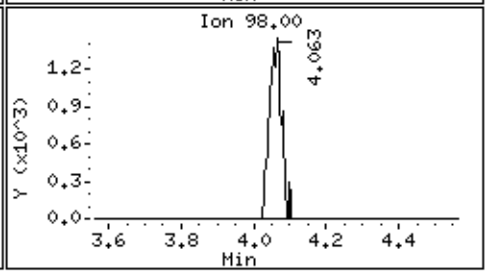












Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-10
Client ID: WVA-SA-MW-60(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: W0616.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 11-OCT-21
Extracted By: HG
Extraction Method: SW846 5030
Lab Prep Batch: WG307650

Analysis Date: 11-OCT-21
Analyst: HG
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	2.0	ug/L	1	2	2.0
Vinyl Chloride	U	2.0	ug/L	1	2	2.0
Bromomethane	U	2.0	ug/L	1	2	2.0
Chloroethane	U	2.0	ug/L	1	2	2.0
Trichlorofluoromethane	U	2.0	ug/L	1	2	2.0
1,1-Dichloroethene	U	1.0	ug/L	1	1	1.0
Carbon Disulfide	U	1.0	ug/L	1	1	1.0
Methylene Chloride	U	5.0	ug/L	1	5	5.0
trans-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
1,1-Dichloroethane	U	1.0	ug/L	1	1	1.0
cis-1,2-Dichloroethene		1.2	ug/L	1	1	1.0
Chloroform	U	1.0	ug/L	1	1	1.0
Carbon Tetrachloride	U	1.0	ug/L	1	1	1.0
1,1,1-Trichloroethane	U	1.0	ug/L	1	1	1.0
2-Butanone	U	5.0	ug/L	1	5	5.0
Benzene	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethane	U	1.0	ug/L	1	1	1.0
Trichloroethene	U	1.0	ug/L	1	1	1.0
1,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Bromodichloromethane	U	1.0	ug/L	1	1	1.0
cis-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
Toluene	U	1.0	ug/L	1	1	1.0
4-Methyl-2-Pentanone	U	5.0	ug/L	1	5	5.0
Tetrachloroethene	U	1.0	ug/L	1	1	1.0
trans-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
1,1,2-Trichloroethane	U	1.0	ug/L	1	1	1.0
Dibromochloromethane	U	1.0	ug/L	1	1	1.0
Chlorobenzene	U	1.0	ug/L	1	1	1.0
Ethylbenzene	U	1.0	ug/L	1	1	1.0
m+p-Xylenes	U	2.0	ug/L	1	2	2.0
o-Xylene	U	1.0	ug/L	1	1	1.0
Bromoform	U	1.0	ug/L	1	1	1.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
P-Bromofluorobenzene		101.	%			
Toluene-d8		103.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-10
Client ID: WVA-SA-MW-60(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: W0616.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 11-OCT-21
Extracted By: HG
Extraction Method: SW846 5030
Lab Prep Batch: WG307650

Analysis Date: 11-OCT-21
Analyst: HG
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		120.	%			
Dibromofluoromethane		112.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Data File: \\target_server\gg\chem\gcms-w.i\W101121.b\W0616.D
Report Date: 11-Nov-2021 17:26

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-w.i\W101121.b\W0616.D
Lab Smp Id: SO6709-10 Client Smp ID: VA-SA-MW-60(2021100
Inj Date : 11-OCT-2021 14:27
Operator : HG Inst ID: gcms-w.i
Smp Info : SO6709-10
Misc Info : WG307650,WG307650-4
Comment : SW846 5030
Method : \\target_server\gg\chem\gcms-w.i\W101121.b\W8A05(11).m
Meth Date : 11-Oct-2021 08:15 hgould Quant Type: ISTD
Cal Date : 10-OCT-2021 12:35 Cal File: W0583.D
Als bottle: 16
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.12
Processing Host: VOA-WS

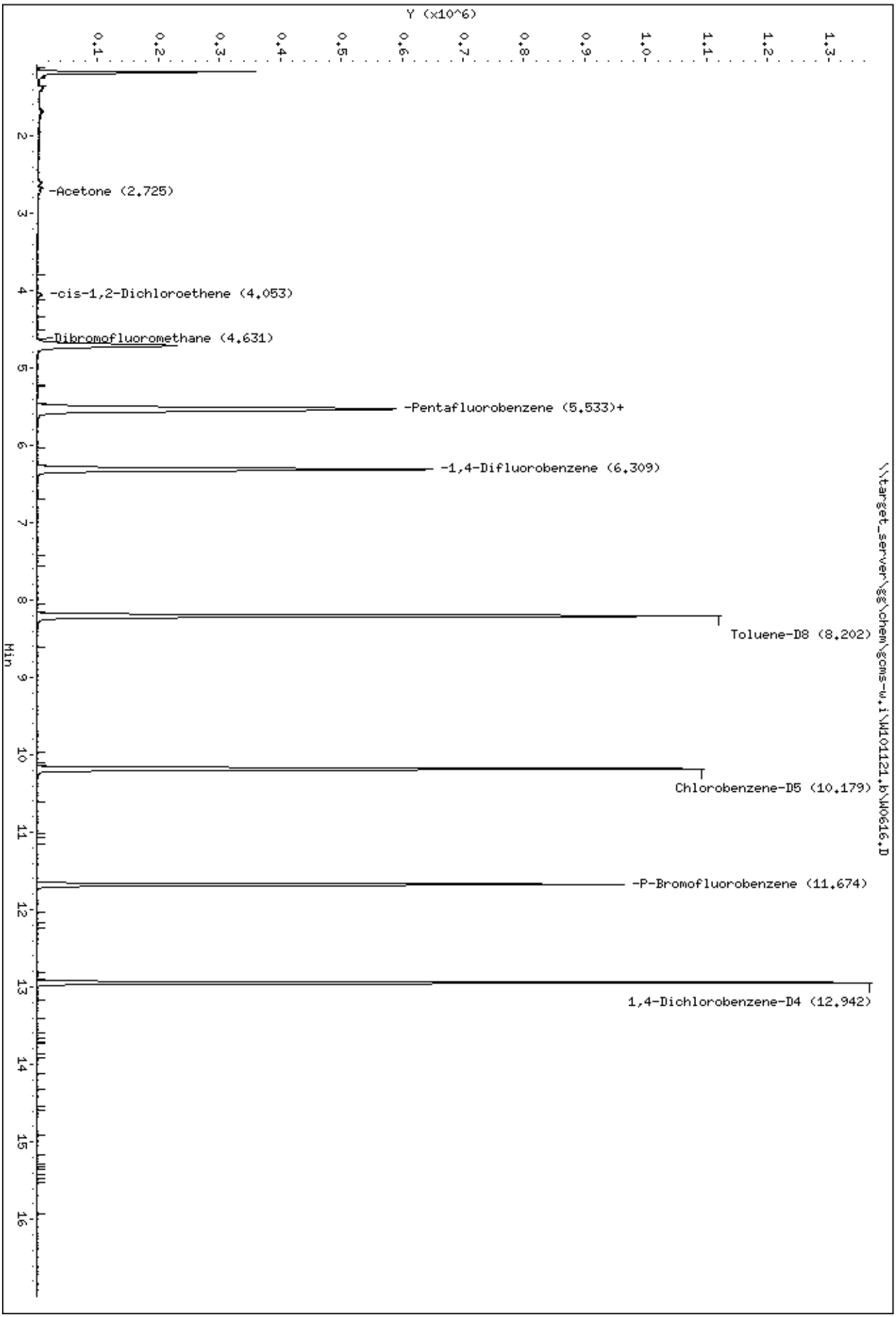
Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)	REVIEW CODE
	15 Acetone	43	2.724	2.725	(0.493)	6281	3.55840	3.6(a)	
	27 cis-1,2-Dichloroethene	96	4.053	4.062	(0.733)	4850	1.24805	1.2	
$	34 Dibromofluoromethane	113	4.711	4.721	(0.853)	213629	56.0428	56.0	
*	41 Pentafluorobenzene	168	5.526	5.533	(1.000)	376456	50.0000		
$	42 1,2-Dichloroethane-D4	65	5.545	5.555	(1.003)	318575	59.9251	59.9	
*	48 1,4-Difluorobenzene	114	6.312	6.319	(1.000)	672141	50.0000		
$	58 Toluene-D8	98	8.202	8.212	(1.299)	815628	51.6512	51.6	
*	68 Chlorobenzene-D5	117	10.179	10.185	(1.000)	634909	50.0000		
$	77 P-Bromofluorobenzene	95	11.674	11.684	(1.849)	315221	50.3529	50.4	
*	93 1,4-Dichlorobenzene-D4	152	12.945	12.952	(1.000)	323313	50.0000		
M	97 1,2-Dichloroethylene (total)	96				4850	1.24805	1.2(a)	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).


Data File: \\target_server\gg\chem\gcms-w.i\W101121.b\W0616.D
Date : 11-OCT-2021 14:27
Client ID: WA-SA-MW-60(20211
Sample Info: SD6709-10
Instrument: gcms-w.i
\\target_server\gg\chem\gcms-w.i\W101121.b\W0616.D
Y (x10^6)
Min
-Acetone (2.725)
-cis-1,2-Dichloroethene (4.053)
-Dibromofluoromethane (4.631)
-Pentafluorobenzene (5.533)+
-1,4-Difluorobenzene (6.309)
Toluene-D8 (8.202)
Chlorobenzene-D5 (10.179)
-P-Bromofluorobenzene (11.674)
1,4-Dichlorobenzene-D4 (12.942)

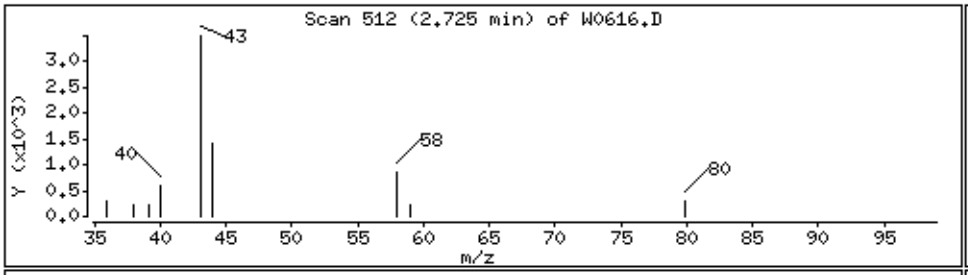
Data File: \\target_server\gg\chem\gcms-w.i\W101121.b\W0616.D

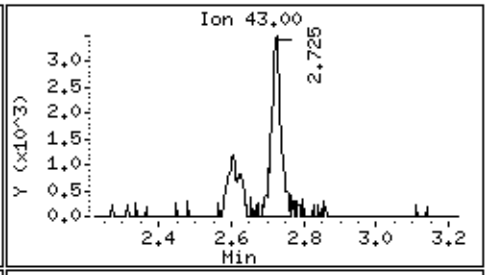
Date : 11-OCT-2021 14:27

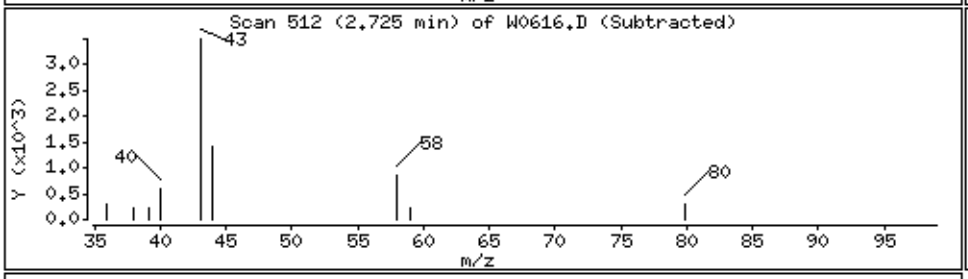
Client ID: VA-SA-MW-60(2021100 Instrument: gcms-w.i

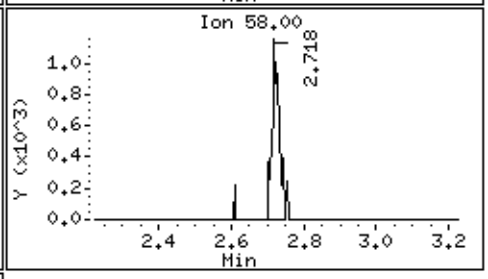
Sample Info: SO6709-10

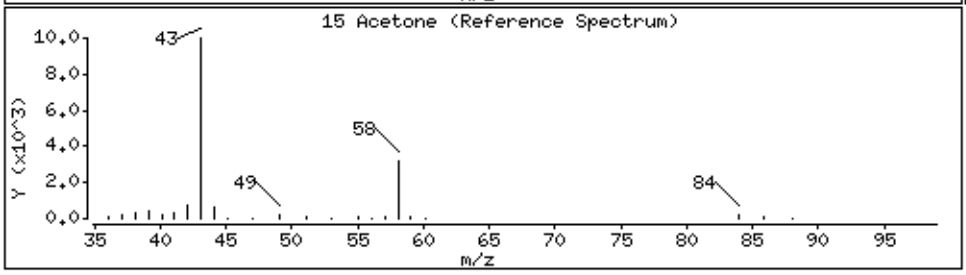
15 Acetone Concentration: 3.6 ug/l



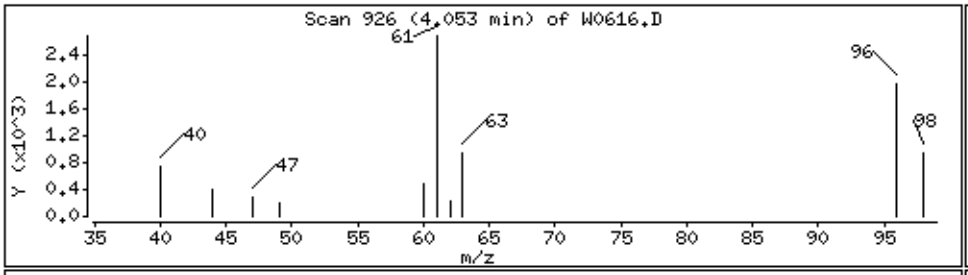


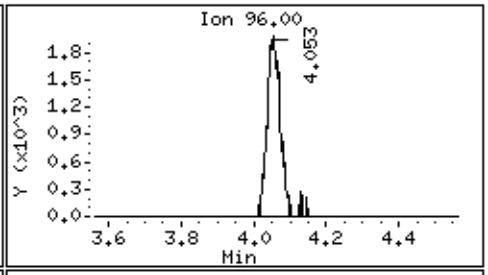


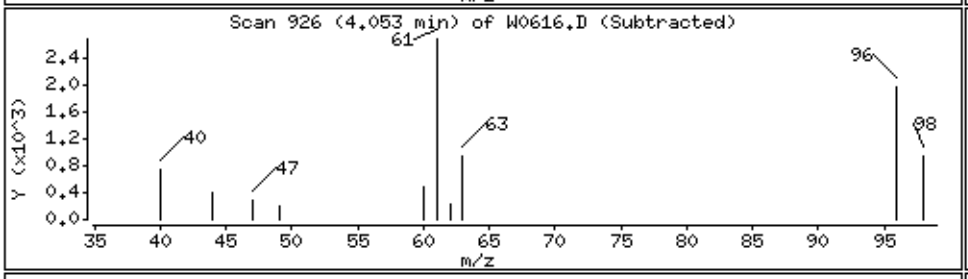


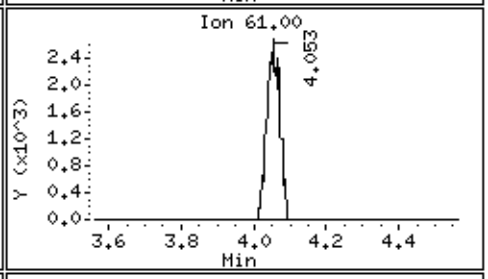


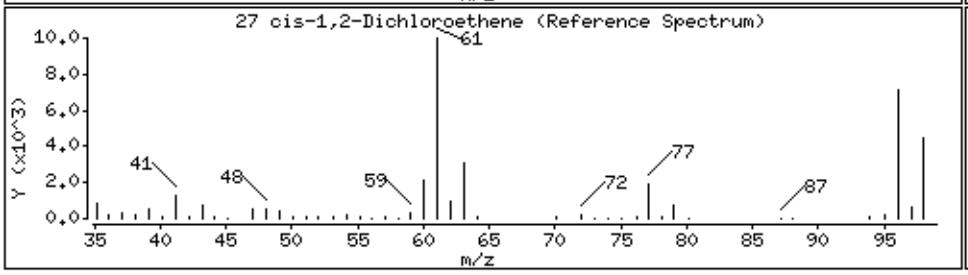
27 cis-1,2-Dichloroethene Concentration: 1.2 ug/l

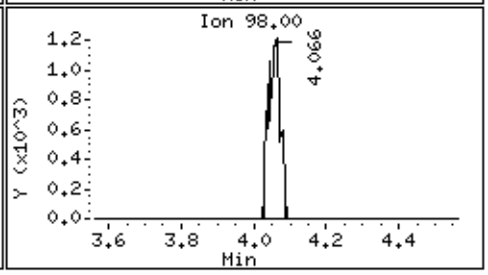












Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-11
Client ID: WVA-SA-MW-33(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: W0617.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 11-OCT-21
Extracted By: HG
Extraction Method: SW846 5030
Lab Prep Batch: WG307650

Analysis Date: 11-OCT-21
Analyst: HG
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	2.0	ug/L	1	2	2.0
Vinyl Chloride	U	2.0	ug/L	1	2	2.0
Bromomethane	U	2.0	ug/L	1	2	2.0
Chloroethane	U	2.0	ug/L	1	2	2.0
Trichlorofluoromethane	U	2.0	ug/L	1	2	2.0
1,1-Dichloroethene	U	1.0	ug/L	1	1	1.0
Carbon Disulfide	U	1.0	ug/L	1	1	1.0
Methylene Chloride	U	5.0	ug/L	1	5	5.0
trans-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
1,1-Dichloroethane	U	1.0	ug/L	1	1	1.0
cis-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
Chloroform	U	1.0	ug/L	1	1	1.0
Carbon Tetrachloride	U	1.0	ug/L	1	1	1.0
1,1,1-Trichloroethane	U	1.0	ug/L	1	1	1.0
2-Butanone	U	5.0	ug/L	1	5	5.0
Benzene	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethane	U	1.0	ug/L	1	1	1.0
Trichloroethene	U	1.0	ug/L	1	1	1.0
1,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Bromodichloromethane	U	1.0	ug/L	1	1	1.0
cis-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
Toluene	U	1.0	ug/L	1	1	1.0
4-Methyl-2-Pentanone	U	5.0	ug/L	1	5	5.0
Tetrachloroethene	U	1.0	ug/L	1	1	1.0
trans-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
1,1,2-Trichloroethane	U	1.0	ug/L	1	1	1.0
Dibromochloromethane	U	1.0	ug/L	1	1	1.0
Chlorobenzene	U	1.0	ug/L	1	1	1.0
Ethylbenzene	U	1.0	ug/L	1	1	1.0
m+p-Xylenes	U	2.0	ug/L	1	2	2.0
o-Xylene	U	1.0	ug/L	1	1	1.0
Bromoform	U	1.0	ug/L	1	1	1.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
P-Bromofluorobenzene		99.2	%			
Toluene-d8		104.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-11
Client ID: WVA-SA-MW-33(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: W0617.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 11-OCT-21
Extracted By: HG
Extraction Method: SW846 5030
Lab Prep Batch: WG307650

Analysis Date: 11-OCT-21
Analyst: HG
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		120.	%			
Dibromofluoromethane		112.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Data File: \\target_server\gg\chem\gcms-w.i\W101121.b\W0617.D
Report Date: 11-Nov-2021 17:26

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-w.i\W101121.b\W0617.D
Lab Smp Id: SO6709-11 Client Smp ID: VA-SA-MW-33(2021100
Inj Date : 11-OCT-2021 14:58
Operator : HG Inst ID: gcms-w.i
Smp Info : SO6709-11
Misc Info : WG307650,WG307650-4
Comment : SW846 5030
Method : \\target_server\gg\chem\gcms-w.i\W101121.b\W8A05(11).m
Meth Date : 11-Oct-2021 08:15 hgould Quant Type: ISTD
Cal Date : 10-OCT-2021 12:35 Cal File: W0583.D
Als bottle: 17
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.12
Processing Host: VOA-WS

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

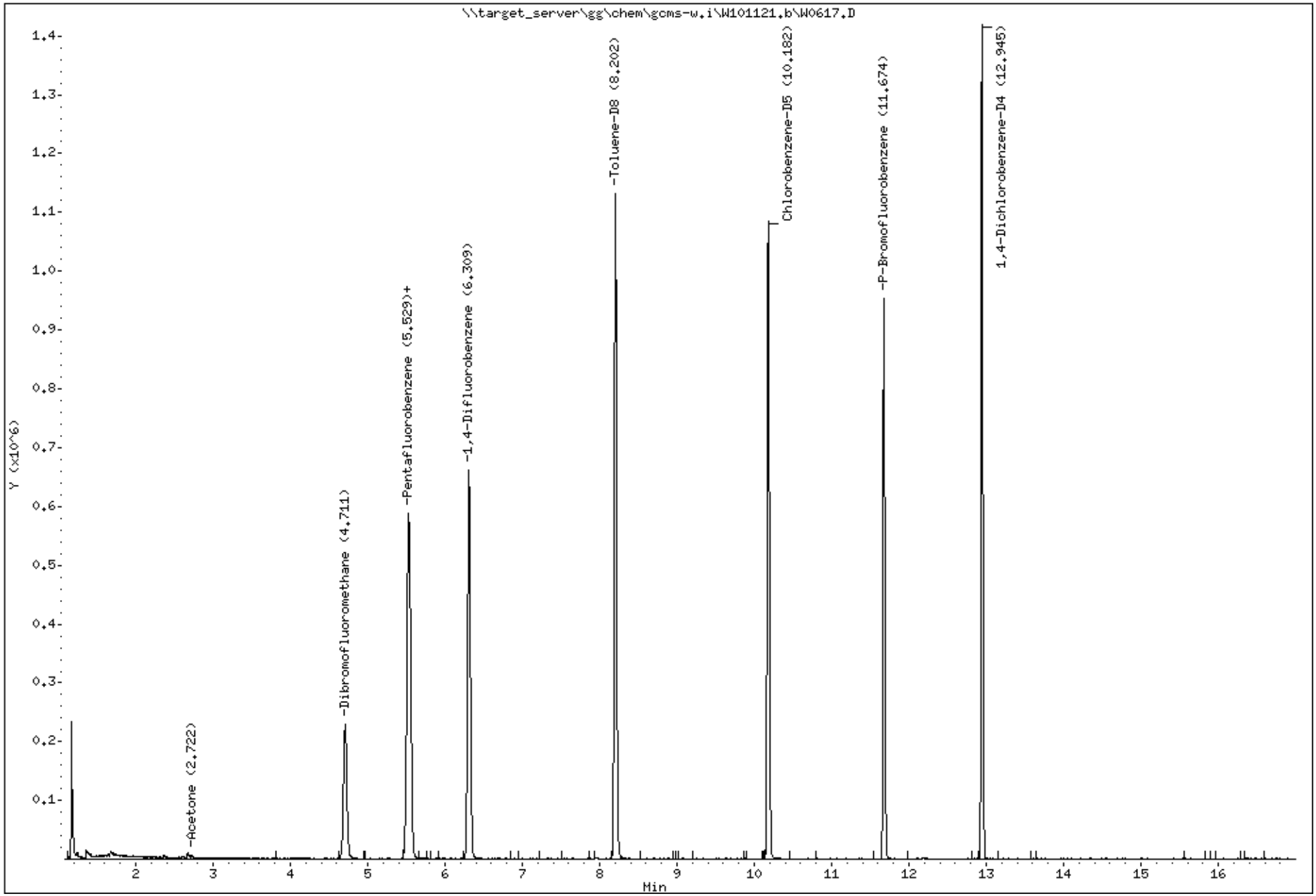
Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)	REVIEW CODE
	15 Acetone	43	2.721	2.725	(0.492)	5587	3.15307	3.2(a)	
$	34 Dibromofluoromethane	113	4.707	4.721	(0.852)	214301	56.0032	56.0	
*	41 Pentafluorobenzene	168	5.526	5.533	(1.000)	377907	50.0000		
$	42 1,2-Dichloroethane-D4	65	5.542	5.555	(1.003)	319804	59.9253	59.9	
*	48 1,4-Difluorobenzene	114	6.312	6.319	(1.000)	676607	50.0000		
$	58 Toluene-D8	98	8.202	8.212	(1.299)	823829	51.8261	51.8	
*	68 Chlorobenzene-D5	117	10.179	10.185	(1.000)	634284	50.0000		
$	77 P-Bromofluorobenzene	95	11.674	11.684	(1.849)	312488	49.5868	49.6	
*	93 1,4-Dichlorobenzene-D4	152	12.945	12.952	(1.000)	323784	50.0000		

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Data File: \\target_server\gg\chem\gcms-w.i\W101121.b\W0617.D
Date : 11-OCT-2021 14:58
Client ID: VA-SA-MW-33(2021100
Instrument: gcms-w.i
Sample Info: SO6709-11



Katahdin Analytical Services 1000082

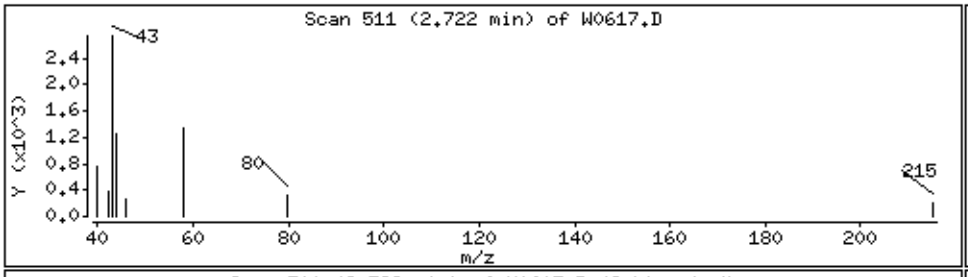
Data File: \\target_server\gg\chem\gcms-w.i\W101121.b\W0617.D

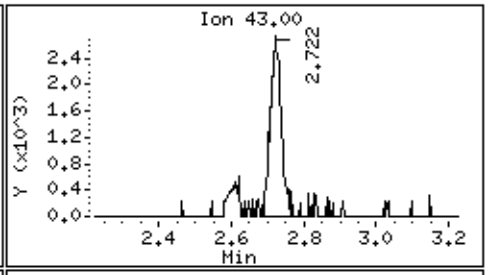
Date : 11-OCT-2021 14:58

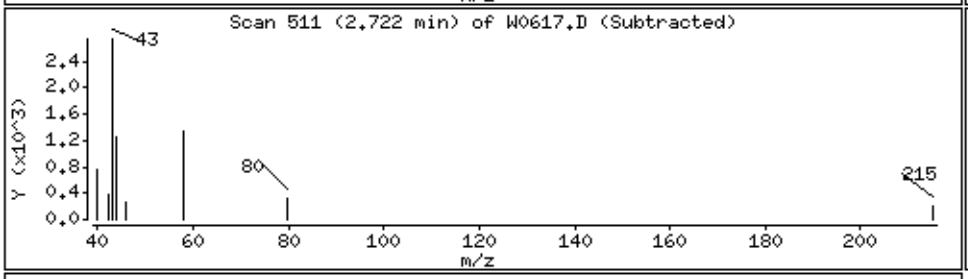
Client ID: VA-SA-MW-33(2021100 Instrument: gcms-w.i

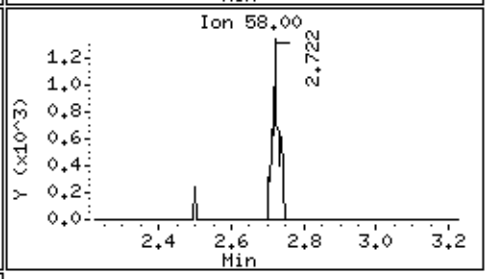
Sample Info: SO6709-11

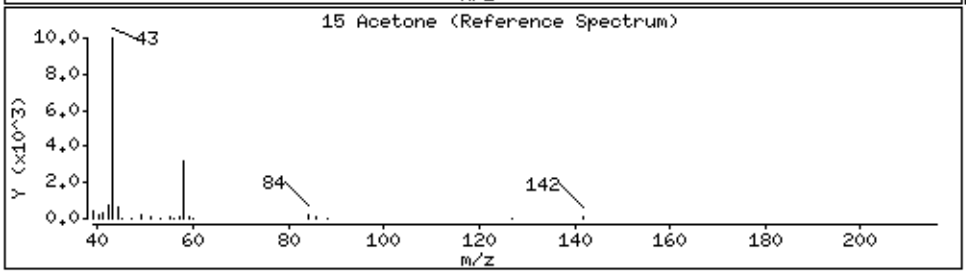
15 Acetone Concentration: 3.2 ug/l











Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-12
Client ID: WVA-SA-MW-70(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: W0618.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 11-OCT-21
Extracted By: HG
Extraction Method: SW846 5030
Lab Prep Batch: WG307650

Analysis Date: 11-OCT-21
Analyst: HG
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	2.0	ug/L	1	2	2.0
Vinyl Chloride	U	2.0	ug/L	1	2	2.0
Bromomethane	U	2.0	ug/L	1	2	2.0
Chloroethane	U	2.0	ug/L	1	2	2.0
Trichlorofluoromethane	U	2.0	ug/L	1	2	2.0
1,1-Dichloroethene	U	1.0	ug/L	1	1	1.0
Carbon Disulfide	U	1.0	ug/L	1	1	1.0
Methylene Chloride	U	5.0	ug/L	1	5	5.0
trans-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
1,1-Dichloroethane	U	1.0	ug/L	1	1	1.0
cis-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
Chloroform	U	1.0	ug/L	1	1	1.0
Carbon Tetrachloride	U	1.0	ug/L	1	1	1.0
1,1,1-Trichloroethane	U	1.0	ug/L	1	1	1.0
2-Butanone	U	5.0	ug/L	1	5	5.0
Benzene	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethane	U	1.0	ug/L	1	1	1.0
Trichloroethene	U	1.0	ug/L	1	1	1.0
1,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Bromodichloromethane	U	1.0	ug/L	1	1	1.0
cis-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
Toluene	U	1.0	ug/L	1	1	1.0
4-Methyl-2-Pentanone	U	5.0	ug/L	1	5	5.0
Tetrachloroethene	U	1.0	ug/L	1	1	1.0
trans-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
1,1,2-Trichloroethane	U	1.0	ug/L	1	1	1.0
Dibromochloromethane	U	1.0	ug/L	1	1	1.0
Chlorobenzene	U	1.0	ug/L	1	1	1.0
Ethylbenzene	U	1.0	ug/L	1	1	1.0
m+p-Xylenes	U	2.0	ug/L	1	2	2.0
o-Xylene	U	1.0	ug/L	1	1	1.0
Bromoform	U	1.0	ug/L	1	1	1.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
P-Bromofluorobenzene		98.7	%			
Toluene-d8		103.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-12
Client ID: WVA-SA-MW-70(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: W0618.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 11-OCT-21
Extracted By: HG
Extraction Method: SW846 5030
Lab Prep Batch: WG307650

Analysis Date: 11-OCT-21
Analyst: HG
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		122.	%			
Dibromofluoromethane		112.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Data File: \\target_server\gg\chem\gcms-w.i\W101121.b\W0618.D
Report Date: 11-Nov-2021 17:26

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-w.i\W101121.b\W0618.D
Lab Smp Id: SO6709-12 Client Smp ID: VA-SA-MW-70(2021100
Inj Date : 11-OCT-2021 15:28
Operator : HG Inst ID: gcms-w.i
Smp Info : SO6709-12
Misc Info : WG307650,WG307650-4
Comment : SW846 5030
Method : \\target_server\gg\chem\gcms-w.i\W101121.b\W8A05(11).m
Meth Date : 11-Oct-2021 08:15 hgould Quant Type: ISTD
Cal Date : 10-OCT-2021 12:35 Cal File: W0583.D
Als bottle: 18
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.12
Processing Host: VOA-WS

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

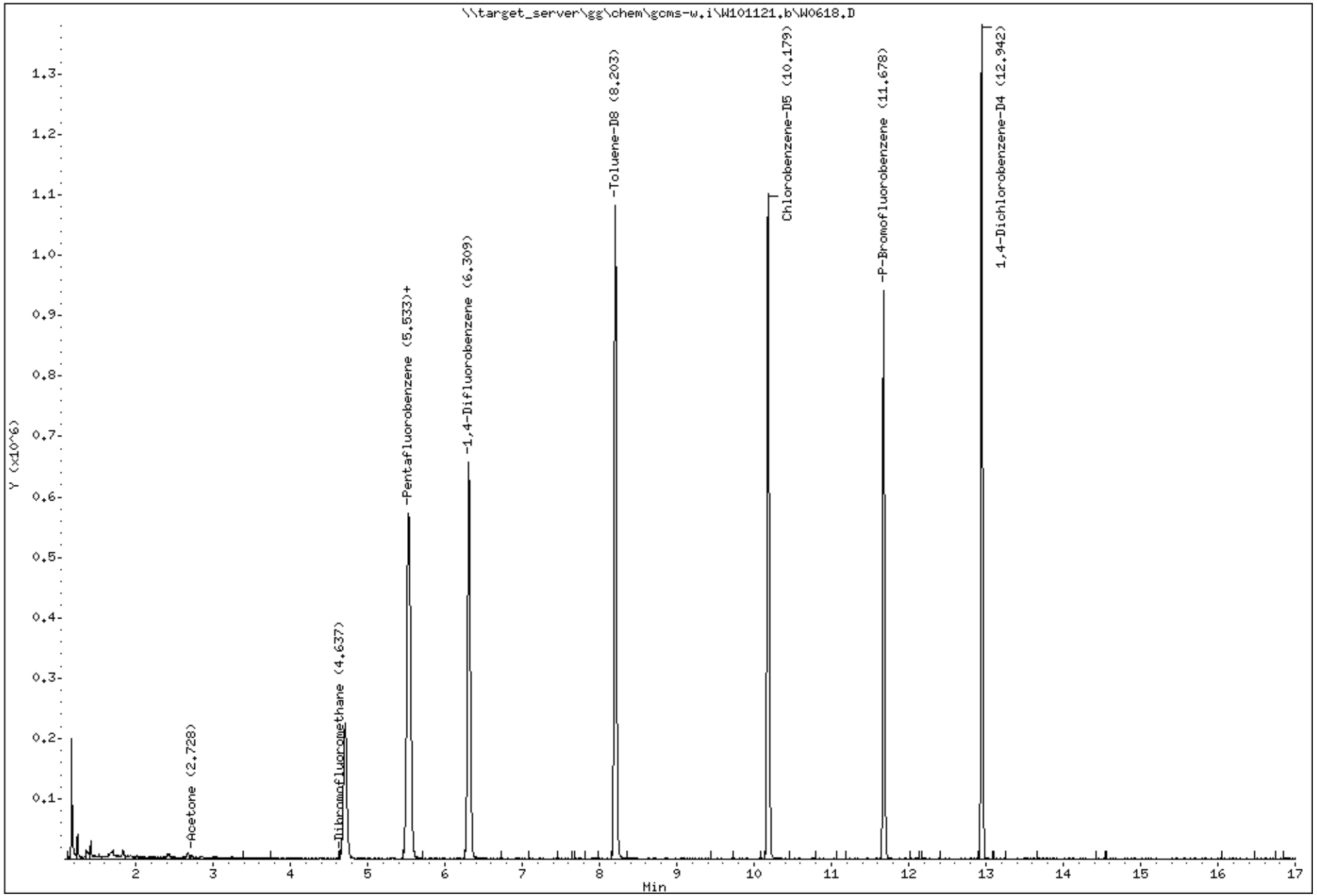
Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)	REVIEW CODE
	15 Acetone	43	2.728	2.725	(0.494)	4989	2.90843	2.9(a)	
$	34 Dibromofluoromethane	113	4.708	4.721	(0.852)	207377	55.9808	56.0	
*	41 Pentafluorobenzene	168	5.523	5.533	(1.000)	365843	50.0000		
$	42 1,2-Dichloroethane-D4	65	5.542	5.555	(1.003)	313984	60.7748	60.8	
*	48 1,4-Difluorobenzene	114	6.309	6.319	(1.000)	665935	50.0000		
$	58 Toluene-D8	98	8.202	8.212	(1.300)	809237	51.7240	51.7	
*	68 Chlorobenzene-D5	117	10.179	10.185	(1.000)	628292	50.0000		
$	77 P-Bromofluorobenzene	95	11.674	11.684	(1.850)	306067	49.3462	49.3	
*	93 1,4-Dichlorobenzene-D4	152	12.942	12.952	(1.000)	320073	50.0000		

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Data File: \\target_server\gg\chem\gcms-w.i\W101121.b\W0618.D
Date : 11-OCT-2021 15:28
Client ID: VA-SA-MW-70(2021100
Instrument: gcms-w.i
Sample Info: SO6709-12



Katahdin Analytical Services 1000087

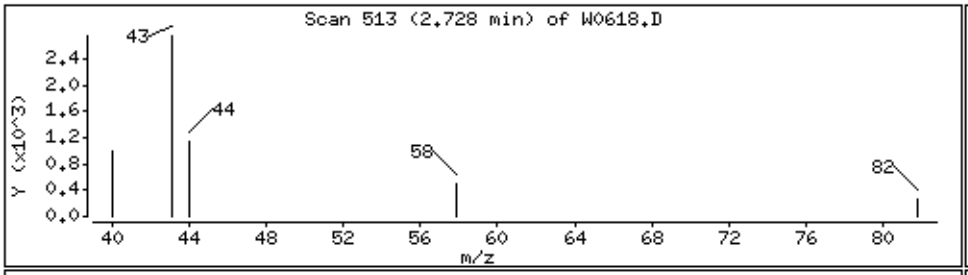
Data File: \\target_server\gg\chem\gcms-w.i\W101121.b\W0618.D

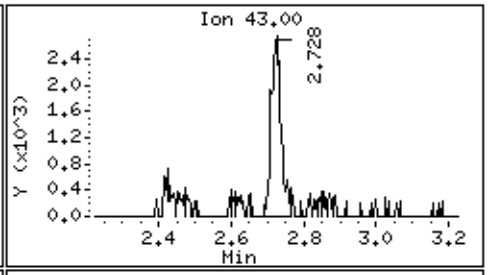
Date : 11-OCT-2021 15:28

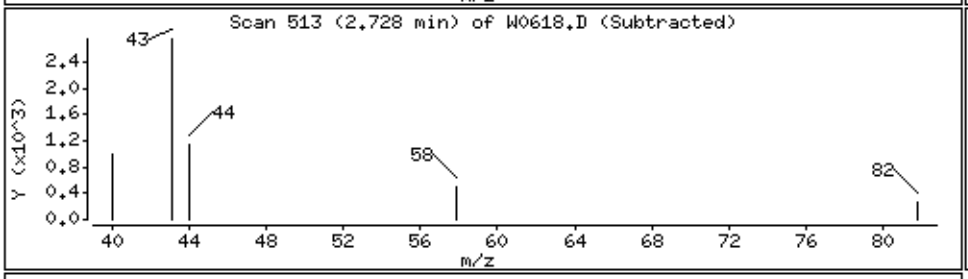
Client ID: VA-SA-MW-70(2021100 Instrument: gcms-w.i

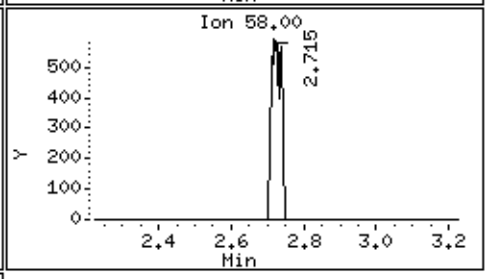
Sample Info: SO6709-12

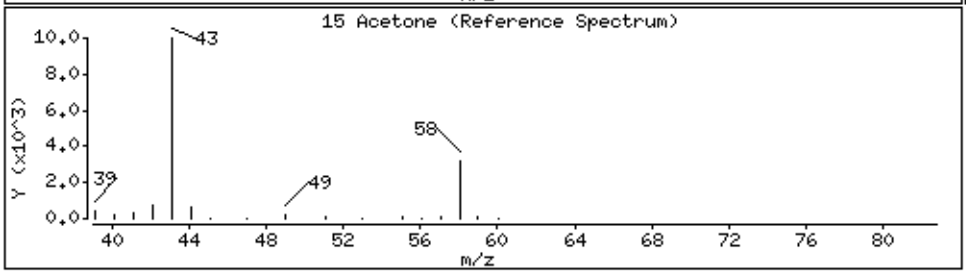
15 Acetone Concentration: 2.9 ug/l











Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-13
Client ID: B121-N(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: W0619.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 11-OCT-21
Extracted By: HG
Extraction Method: SW846 5030
Lab Prep Batch: WG307650

Analysis Date: 11-OCT-21
Analyst: HG
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	2.0	ug/L	1	2	2.0
Vinyl Chloride		26.	ug/L	1	2	2.0
Bromomethane	U	2.0	ug/L	1	2	2.0
Chloroethane	U	2.0	ug/L	1	2	2.0
Trichlorofluoromethane	U	2.0	ug/L	1	2	2.0
1,1-Dichloroethene	U	1.0	ug/L	1	1	1.0
Carbon Disulfide	U	1.0	ug/L	1	1	1.0
Methylene Chloride	U	5.0	ug/L	1	5	5.0
trans-1,2-Dichloroethene		1.1	ug/L	1	1	1.0
1,1-Dichloroethane	U	1.0	ug/L	1	1	1.0
cis-1,2-Dichloroethene		34.	ug/L	1	1	1.0
Chloroform	U	1.0	ug/L	1	1	1.0
Carbon Tetrachloride	U	1.0	ug/L	1	1	1.0
1,1,1-Trichloroethane	U	1.0	ug/L	1	1	1.0
2-Butanone	U	5.0	ug/L	1	5	5.0
Benzene	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethane	U	1.0	ug/L	1	1	1.0
Trichloroethene	U	1.0	ug/L	1	1	1.0
1,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Bromodichloromethane	U	1.0	ug/L	1	1	1.0
cis-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
Toluene	U	1.0	ug/L	1	1	1.0
4-Methyl-2-Pentanone	U	5.0	ug/L	1	5	5.0
Tetrachloroethene	U	1.0	ug/L	1	1	1.0
trans-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
1,1,2-Trichloroethane	U	1.0	ug/L	1	1	1.0
Dibromochloromethane	U	1.0	ug/L	1	1	1.0
Chlorobenzene	U	1.0	ug/L	1	1	1.0
Ethylbenzene	U	1.0	ug/L	1	1	1.0
m+p-Xylenes	U	2.0	ug/L	1	2	2.0
o-Xylene	U	1.0	ug/L	1	1	1.0
Bromoform	U	1.0	ug/L	1	1	1.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
P-Bromofluorobenzene		100.	%			
Toluene-d8		104.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-13
Client ID: B121-N(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: W0619.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 11-OCT-21
Extracted By: HG
Extraction Method: SW846 5030
Lab Prep Batch: WG307650

Analysis Date: 11-OCT-21
Analyst: HG
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		117.	%			
Dibromofluoromethane		111.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Data File: \\target_server\gg\chem\gcms-w.i\W101121.b\W0619.D
Report Date: 11-Nov-2021 17:26

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-w.i\W101121.b\W0619.D
Lab Smp Id: SO6709-13 Client Smp ID: B121-N(20211001)
Inj Date : 11-OCT-2021 15:59
Operator : HG Inst ID: gcms-w.i
Smp Info : SO6709-13
Misc Info : WG307650,WG307650-4
Comment : SW846 5030
Method : \\target_server\gg\chem\gcms-w.i\W101121.b\W8A05(11).m
Meth Date : 11-Oct-2021 08:15 hgould Quant Type: ISTD
Cal Date : 10-OCT-2021 12:35 Cal File: W0583.D
Als bottle: 19
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.12
Processing Host: VOA-WS

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

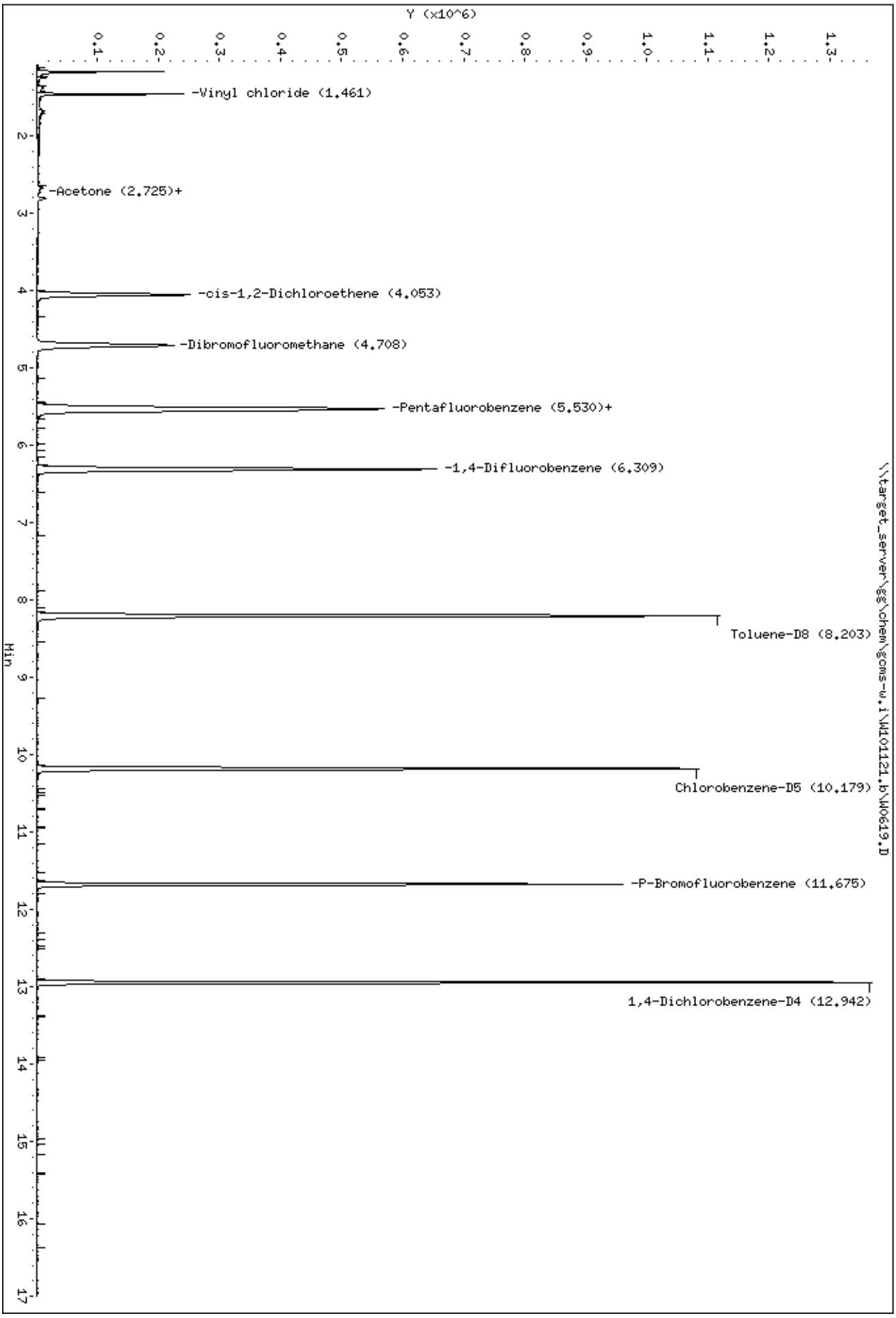
Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

3:34 pm, Nov 12, 2021

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)	REVIEW CODE
	3 Vinyl chloride	62	1.460	1.460	(0.264)	129217	26.2366	26.2(M)	M10
	15 Acetone	43	2.724	2.725	(0.493)	4525	2.59273	2.6(a)	
	16 trans-1,2-Dichloroethene	96	2.814	2.815	(0.510)	4220	1.07353	1.1	
	27 cis-1,2-Dichloroethene	96	4.053	4.062	(0.734)	132402	34.4586	34.4	
$	34 Dibromofluoromethane	113	4.708	4.721	(0.852)	209138	55.4887	55.5	
*	41 Pentafluorobenzene	168	5.523	5.533	(1.000)	372222	50.0000		
$	42 1,2-Dichloroethane-D4	65	5.545	5.555	(1.004)	308201	58.6331	58.6	
*	48 1,4-Difluorobenzene	114	6.309	6.319	(1.000)	665147	50.0000		
$	58 Toluene-D8	98	8.205	8.212	(1.301)	810734	51.8811	51.9	
*	68 Chlorobenzene-D5	117	10.179	10.185	(1.000)	621470	50.0000		
$	77 P-Bromofluorobenzene	95	11.674	11.684	(1.850)	309825	50.0113	50.0	
*	93 1,4-Dichlorobenzene-D4	152	12.942	12.952	(1.000)	318587	50.0000		
M	97 1,2-Dichloroethylene (total)	96				136622	35.5321	35.5	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.


Y (x10^6)
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0
1.1
1.2
1.3
Min
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
-Vinyl chloride (1.461)
-Acetone (2.725)+
-cis-1,2-Dichloroethene (4.053)
-Dibromofluoromethane (4.708)
-Pentafluorobenzene (5.530)+
-1,4-Difluorobenzene (6.309)
Toluene-D8 (8.203)
Chlorobenzene-D5 (10.179)
-P-Bromofluorobenzene (11.675)
1,4-Dichlorobenzene-D4 (12.942)
\\target_server\gg\chem\gcms-w.i\W101121.b\W0619.D
Data File: \\target_server\gg\chem\gcms-w.i\W101121.b\W0619.D
Date : 11-OCT-2021 15:59
Client ID: B121-N(20211001)
Sample Info: S06709-13
Instrument: gcms-w.i

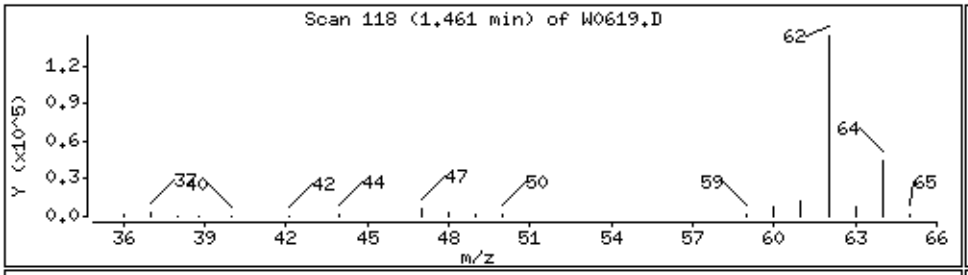
Data File: \\target_server\gg\chem\gcms-w.i\W101121.b\W0619.D

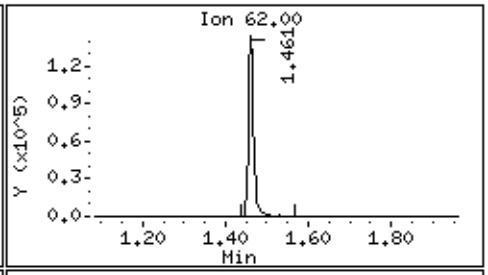
Date : 11-OCT-2021 15:59

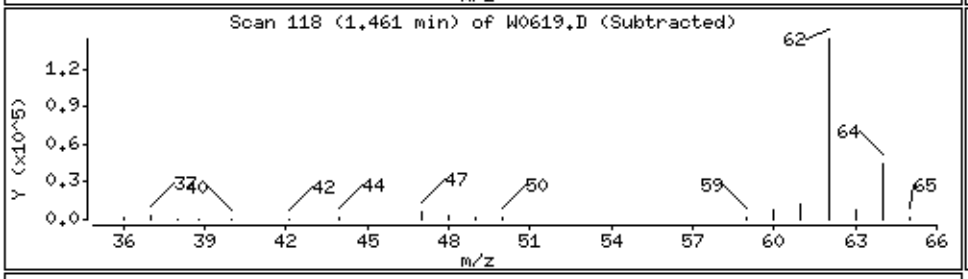
Client ID: B121-N(20211001) Instrument: gcms-w.i

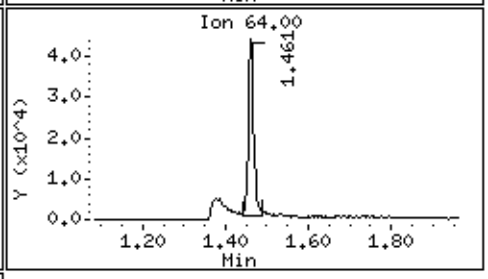
Sample Info: SO6709-13

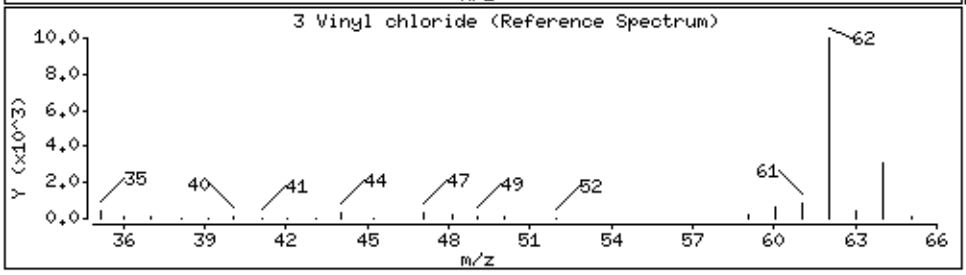
3 Vinyl chloride Concentration: 26.2 ug/l



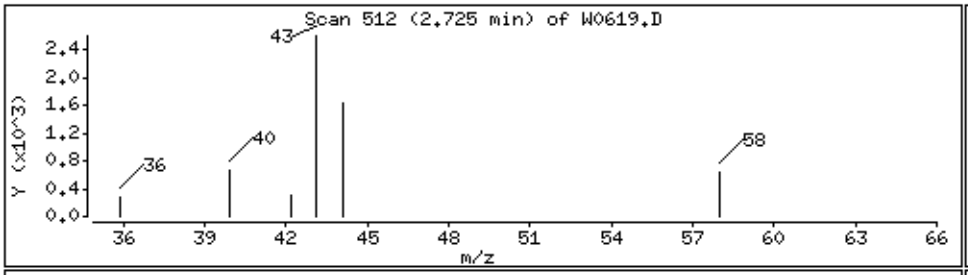


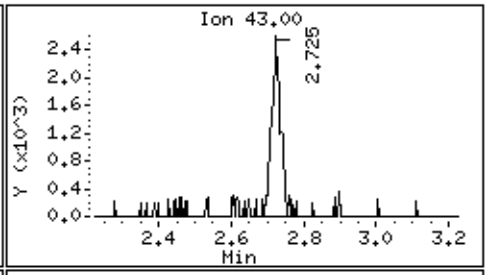


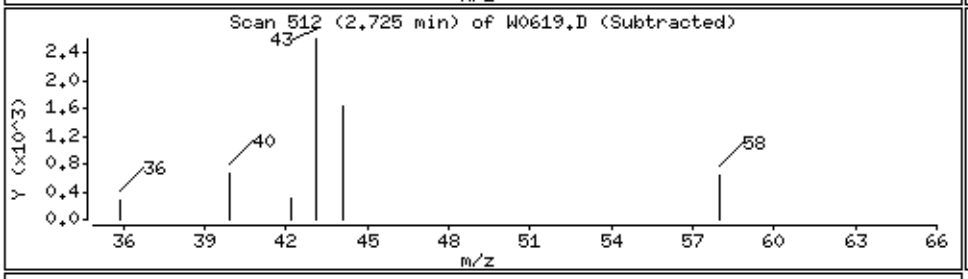


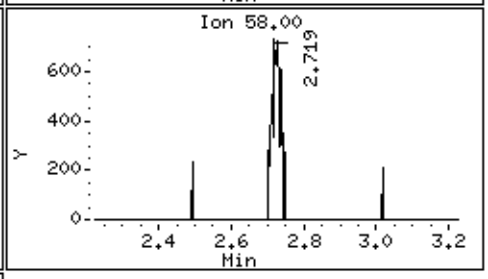


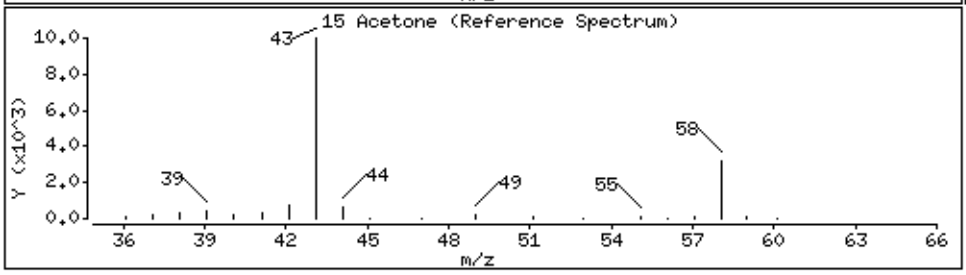
15 Acetone Concentration: 2.6 ug/l











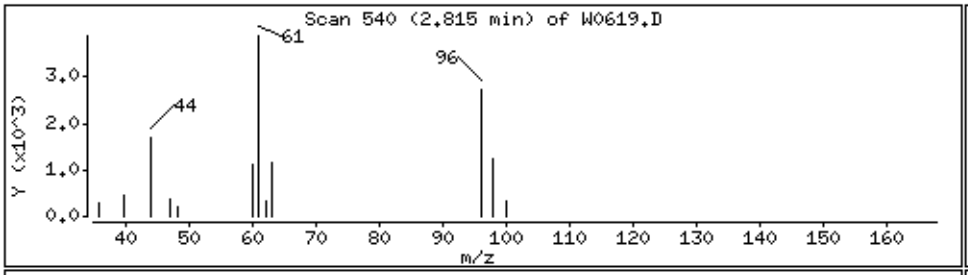
Data File: \\target_server\gg\chem\gcms-w.i\W101121.b\W0619.D

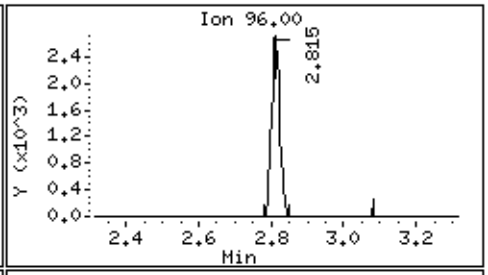
Date : 11-OCT-2021 15:59

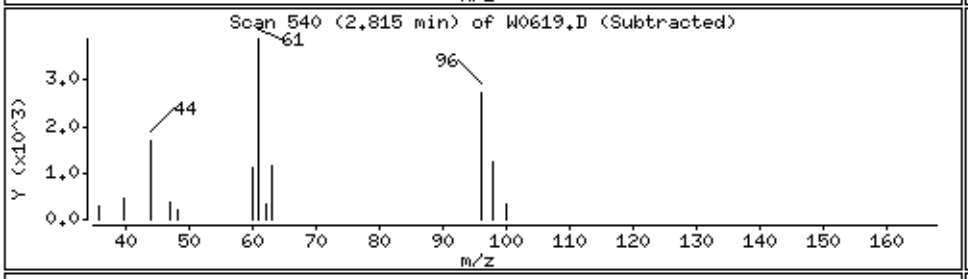
Client ID: B121-N(20211001) Instrument: gcms-w.i

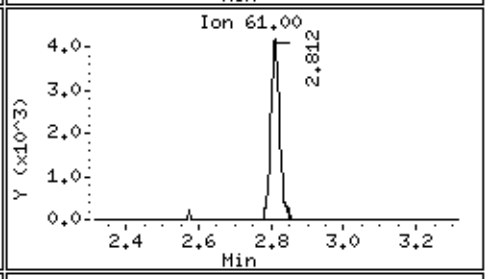
Sample Info: SO6709-13

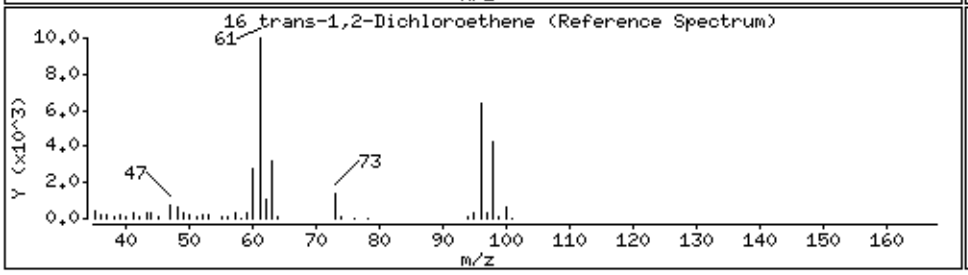
16 trans-1,2-Dichloroethene Concentration: 1.1 ug/l

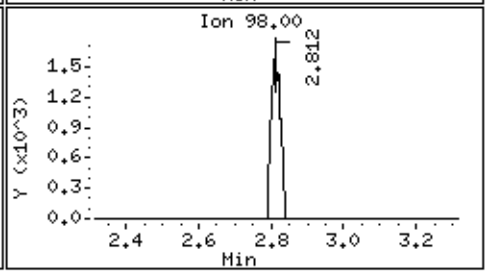




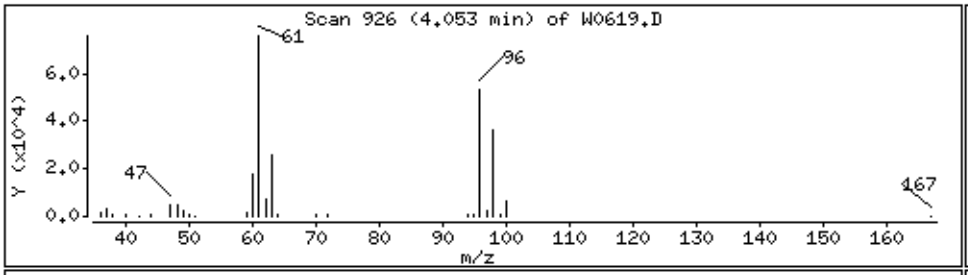


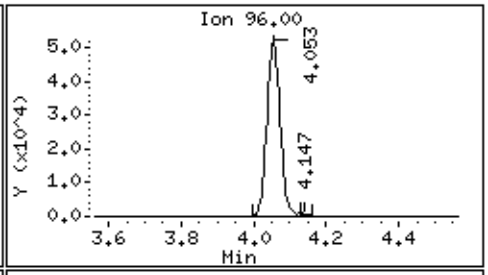


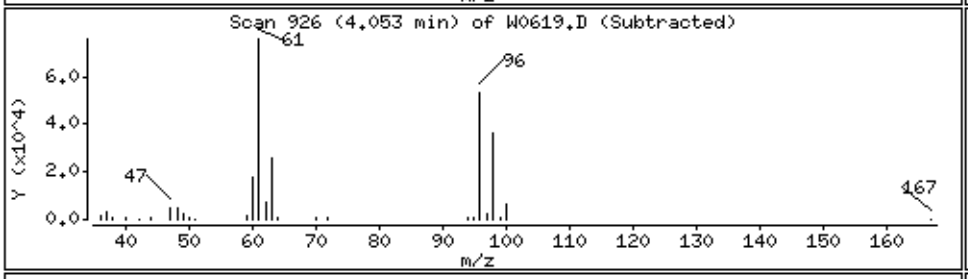


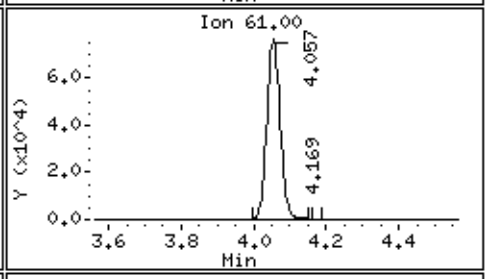


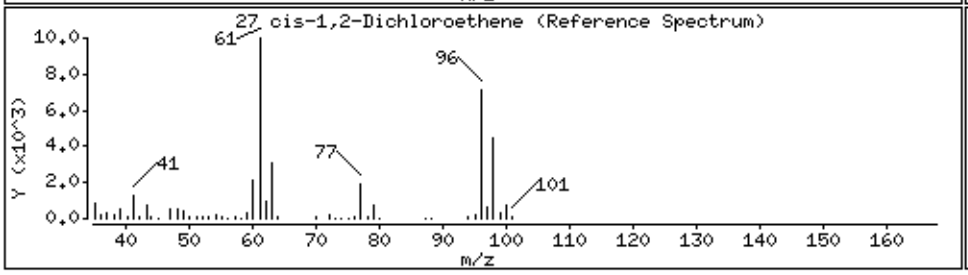
27 cis-1,2-Dichloroethene Concentration: 34.4 ug/l

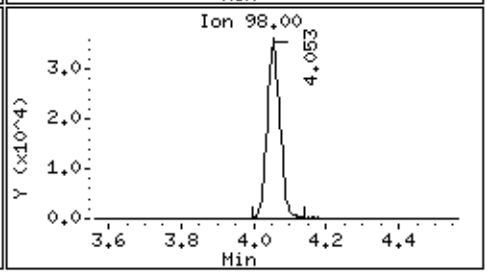








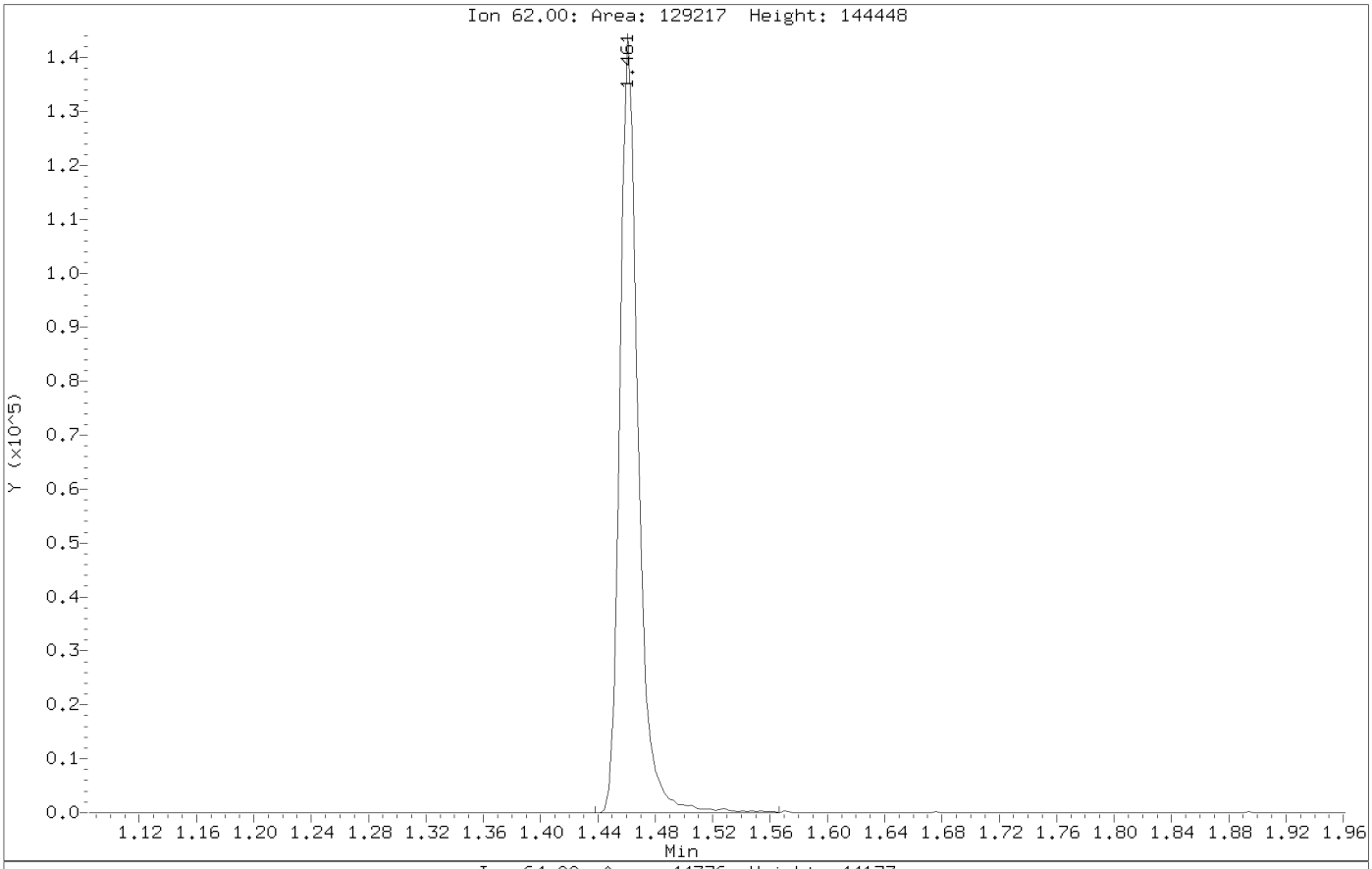


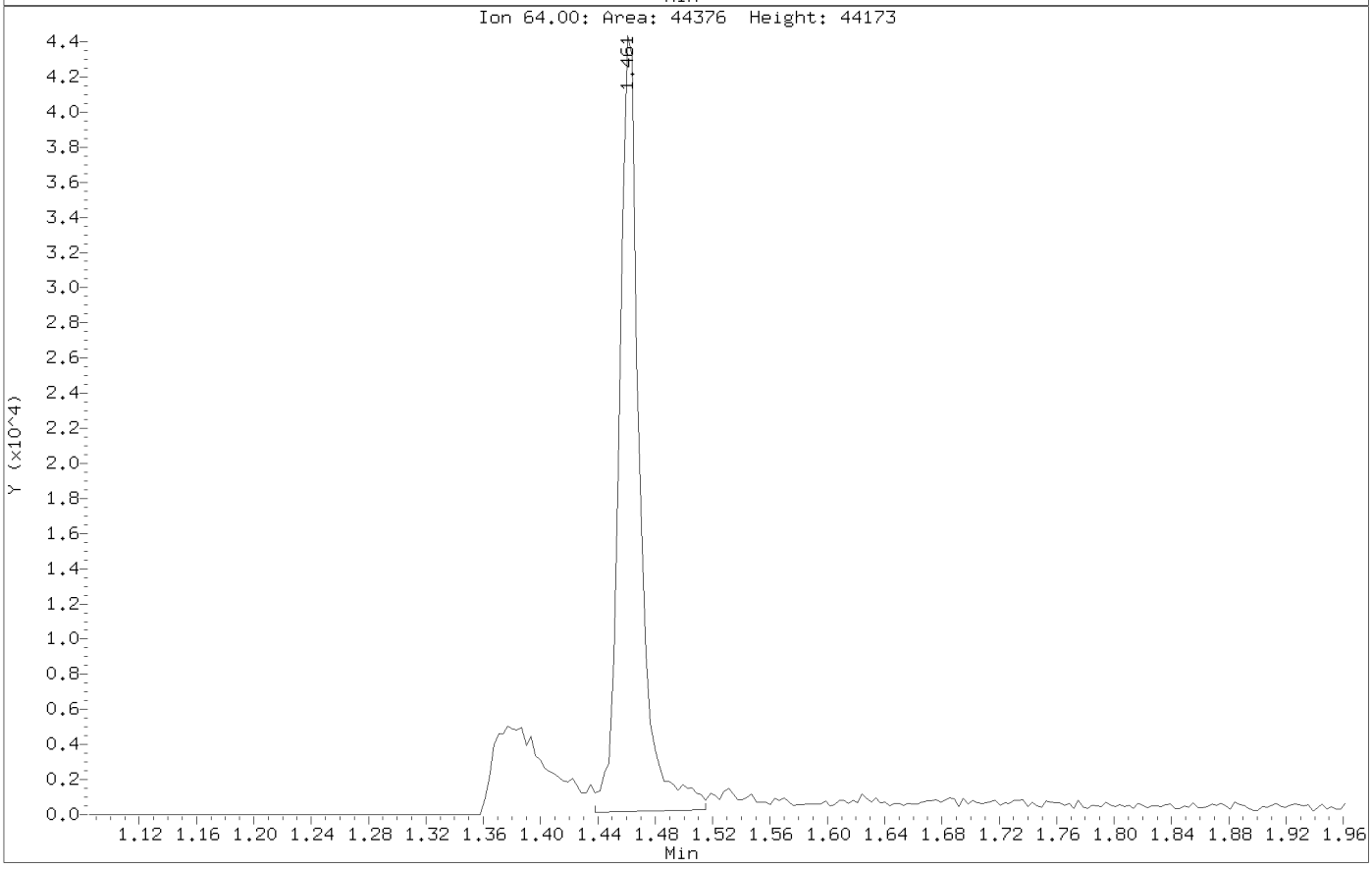


Data File: \\target_server\gg\chem\gcms-w.i\W101121.b\W0619.D
Injection Date: 11-OCT-2021 15:59
Instrument: gcms-w.i
Client Sample ID: B121-N(20211001)

Compound: Vinyl chloride
CAS Number: 75-01-4

BEFORE MANUAL INTEGRATION

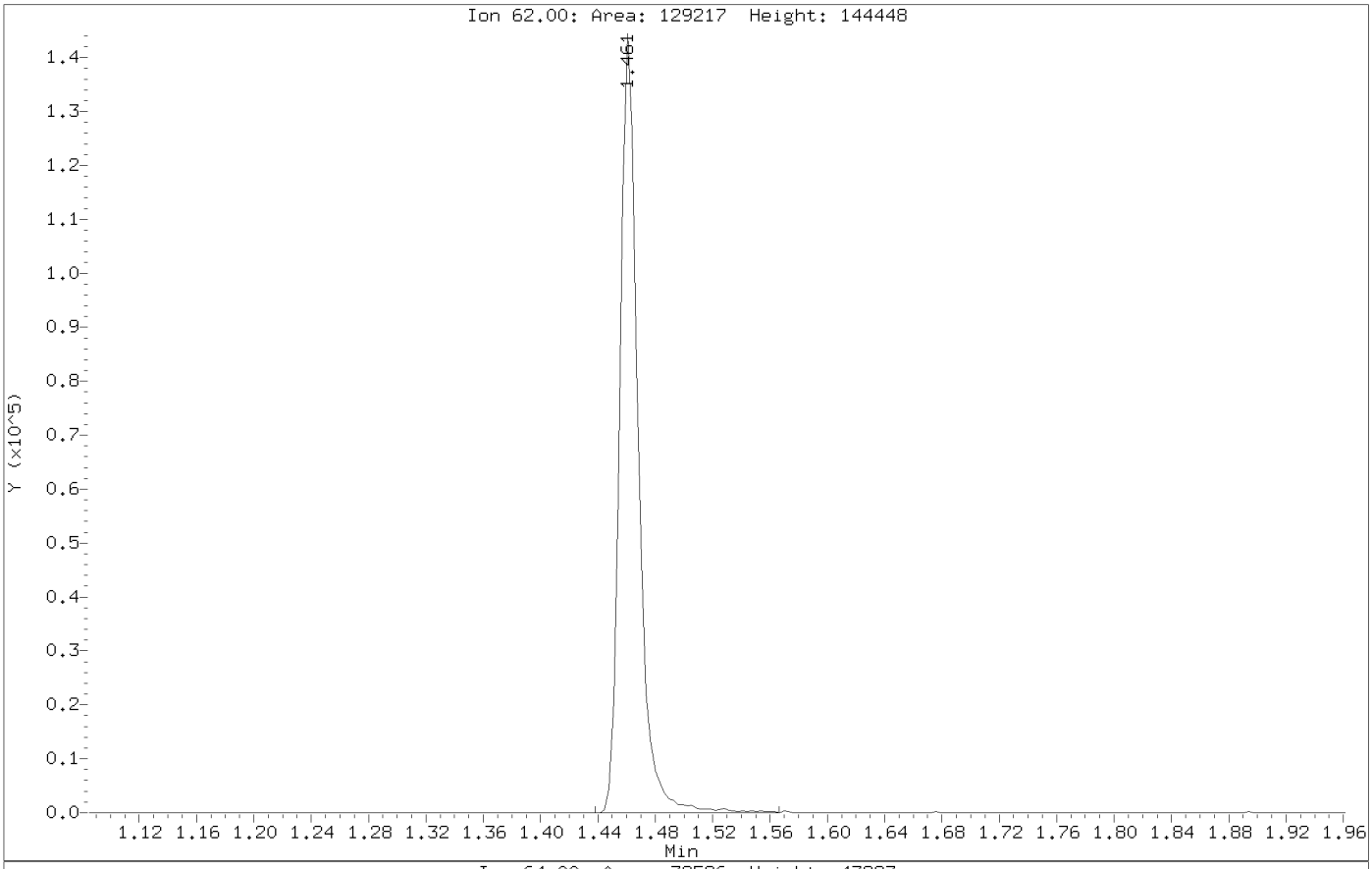


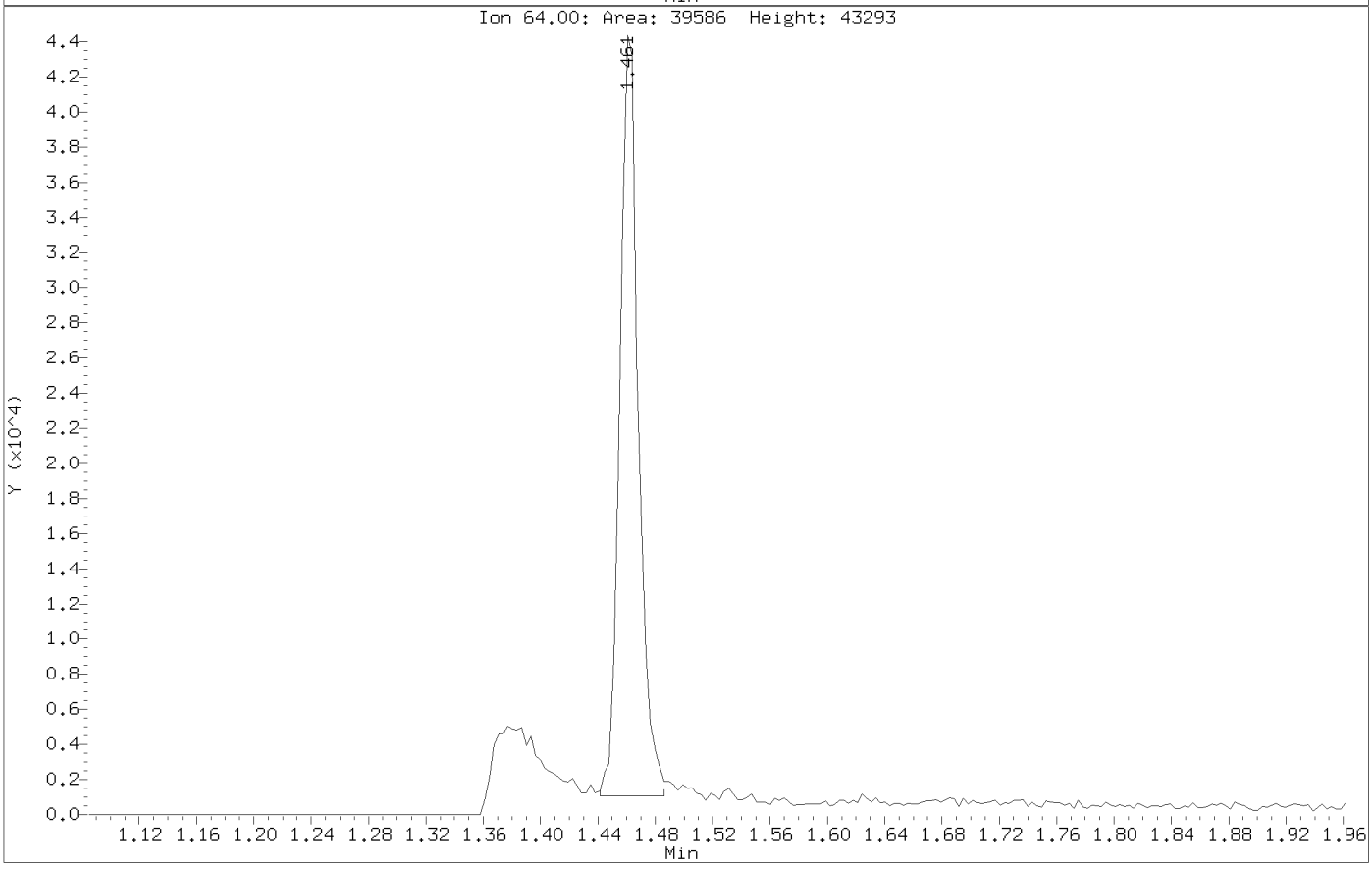


Data File: \\target_server\gg\chem\gcms-w.i\W101121.b\W0619.D
Injection Date: 11-OCT-2021 15:59
Instrument: gcms-w.i
Client Sample ID: B121-N(20211001)

Compound: Vinyl chloride
CAS Number: 75-01-4

AFTER MANUAL INTEGRATION





Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-14
Client ID: B121-S(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: W0620.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 11-OCT-21
Extracted By: HG
Extraction Method: SW846 5030
Lab Prep Batch: WG307650

Analysis Date: 11-OCT-21
Analyst: HG
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	2.0	ug/L	1	2	2.0
Vinyl Chloride	U	2.0	ug/L	1	2	2.0
Bromomethane	U	2.0	ug/L	1	2	2.0
Chloroethane	U	2.0	ug/L	1	2	2.0
Trichlorofluoromethane	U	2.0	ug/L	1	2	2.0
1,1-Dichloroethene	U	1.0	ug/L	1	1	1.0
Carbon Disulfide	U	1.0	ug/L	1	1	1.0
Methylene Chloride	U	5.0	ug/L	1	5	5.0
trans-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
1,1-Dichloroethane	U	1.0	ug/L	1	1	1.0
cis-1,2-Dichloroethene		2.0	ug/L	1	1	1.0
Chloroform	U	1.0	ug/L	1	1	1.0
Carbon Tetrachloride	U	1.0	ug/L	1	1	1.0
1,1,1-Trichloroethane	U	1.0	ug/L	1	1	1.0
2-Butanone	U	5.0	ug/L	1	5	5.0
Benzene	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethane	U	1.0	ug/L	1	1	1.0
Trichloroethene	U	1.0	ug/L	1	1	1.0
1,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Bromodichloromethane	U	1.0	ug/L	1	1	1.0
cis-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
Toluene	U	1.0	ug/L	1	1	1.0
4-Methyl-2-Pentanone	U	5.0	ug/L	1	5	5.0
Tetrachloroethene	U	1.0	ug/L	1	1	1.0
trans-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
1,1,2-Trichloroethane	U	1.0	ug/L	1	1	1.0
Dibromochloromethane	U	1.0	ug/L	1	1	1.0
Chlorobenzene	U	1.0	ug/L	1	1	1.0
Ethylbenzene	U	1.0	ug/L	1	1	1.0
m+p-Xylenes	U	2.0	ug/L	1	2	2.0
o-Xylene	U	1.0	ug/L	1	1	1.0
Bromoform	U	1.0	ug/L	1	1	1.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
P-Bromofluorobenzene		99.8	%			
Toluene-d8		103.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-14
Client ID: B121-S(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: W0620.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 11-OCT-21
Extracted By: HG
Extraction Method: SW846 5030
Lab Prep Batch: WG307650

Analysis Date: 11-OCT-21
Analyst: HG
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		121.	%			
Dibromofluoromethane		114.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Data File: \\target_server\gg\chem\gcms-w.i\W101121.b\W0620.D
Report Date: 11-Nov-2021 17:26

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-w.i\W101121.b\W0620.D
Lab Smp Id: SO6709-14 Client Smp ID: B121-S(20211001)
Inj Date : 11-OCT-2021 16:29
Operator : HG Inst ID: gcms-w.i
Smp Info : SO6709-14
Misc Info : WG307650,WG307650-4
Comment : SW846 5030
Method : \\target_server\gg\chem\gcms-w.i\W101121.b\W8A05(11).m
Meth Date : 11-Oct-2021 08:15 hgould Quant Type: ISTD
Cal Date : 10-OCT-2021 12:35 Cal File: W0583.D
Als bottle: 20
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.12
Processing Host: VOA-WS

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

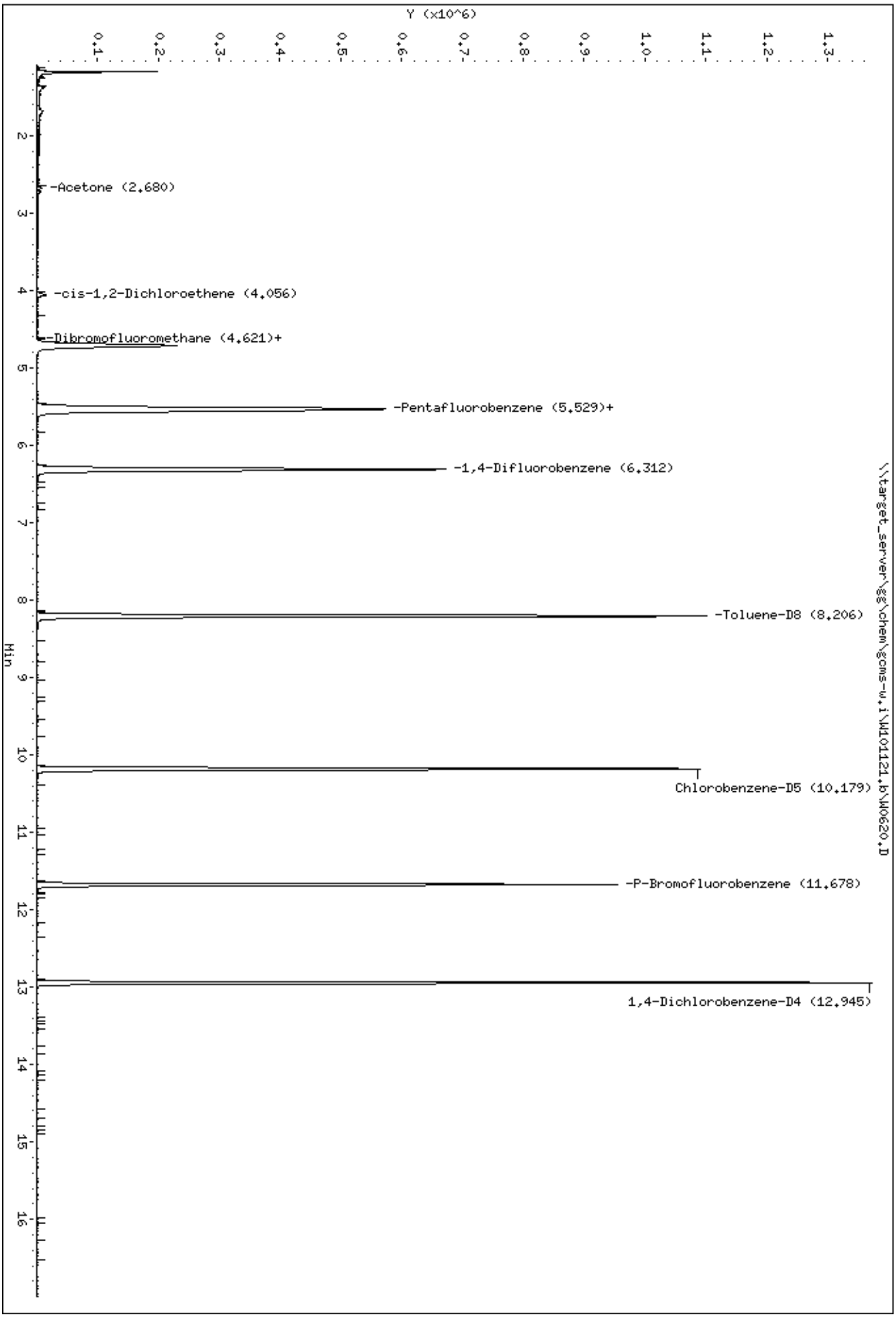
Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

3:34 pm, Nov 12, 2021

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)	REVIEW CODE
	15 Acetone	43	2.724	2.725	(0.493)	4005	2.33049	2.3(a)	
	27 cis-1,2-Dichloroethene	96	4.053	4.062	(0.734)	7705	2.03649	2.0	
$	34 Dibromofluoromethane	113	4.714	4.721	(0.854)	210952	56.8410	56.8	
	35 1,1,1-Trichloroethane	97	4.717	4.724	(0.854)	1858	0.31531	0.32(aM)	M9
*	41 Pentafluorobenzene	168	5.522	5.533	(1.000)	366518	50.0000		
$	42 1,2-Dichloroethane-D4	65	5.548	5.555	(1.005)	313072	60.4867	60.5	
*	48 1,4-Difluorobenzene	114	6.309	6.319	(1.000)	667521	50.0000		
$	58 Toluene-D8	98	8.202	8.212	(1.300)	809368	51.6095	51.6	
*	68 Chlorobenzene-D5	117	10.182	10.185	(1.000)	621497	50.0000		
$	77 P-Bromofluorobenzene	95	11.677	11.684	(1.851)	310114	49.8799	49.9	
*	93 1,4-Dichlorobenzene-D4	152	12.945	12.952	(1.000)	319627	50.0000		
M	97 1,2-Dichloroethylene (total)	96				7705	2.03649	2.0	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.


Data File: \\target_server\gg\chem\gcms-w.i\W101121.b\W0620.D
Date : 11-OCT-2021 16:29
Client ID: B121-S(20211001)
Sample Info: S06709-14
Instrument: gcms-w.i
\\target_server\gg\chem\gcms-w.i\W101121.b\W0620.D
Y (x10^6)
Min
-Acetone (2.680)
-cis-1,2-Dichloroethene (4.056)
-Dibromofluoromethane (4.621)+
-Pentafluorobenzene (5.529)+
-1,4-Difluorobenzene (6.312)
-Toluene-D8 (8.206)
Chlorobenzene-D5 (10.179)
-P-Bromofluorobenzene (11.678)
1,4-Dichlorobenzene-D4 (12.945)

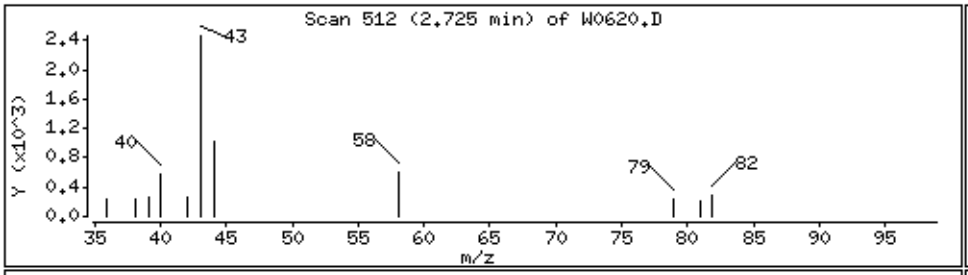
Data File: \\target_server\gg\chem\gcms-w.i\W101121.b\W0620.D

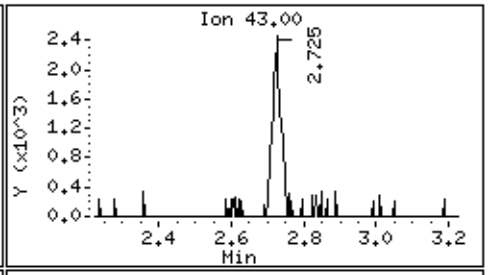
Date : 11-OCT-2021 16:29

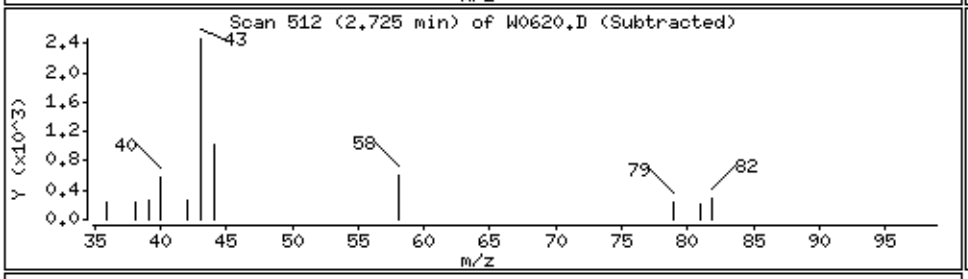
Client ID: B121-S(20211001) Instrument: gcms-w.i

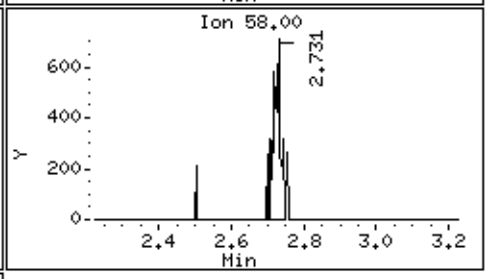
Sample Info: SO6709-14

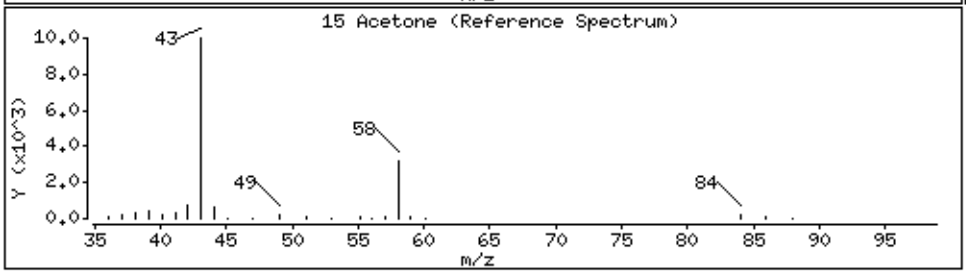
15 Acetone Concentration: 2.3 ug/l



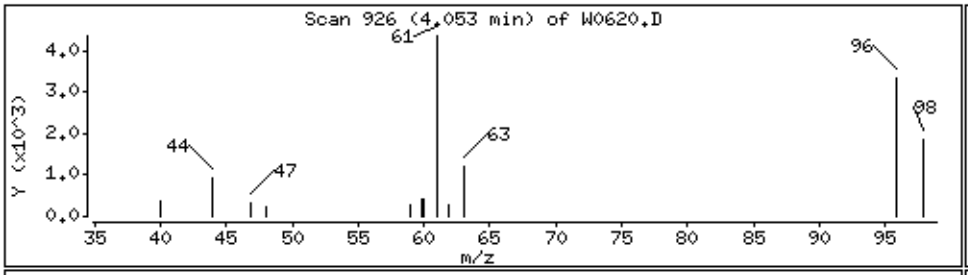


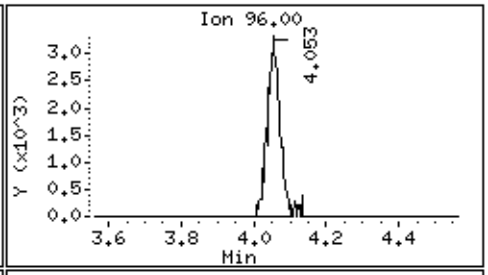


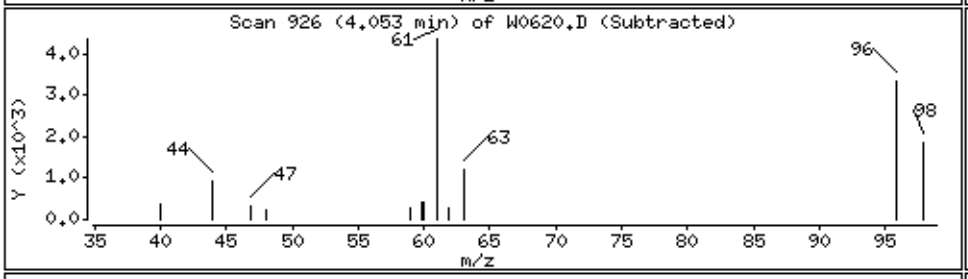


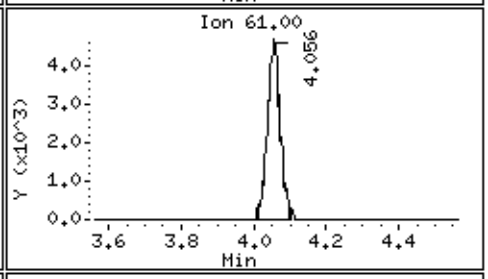


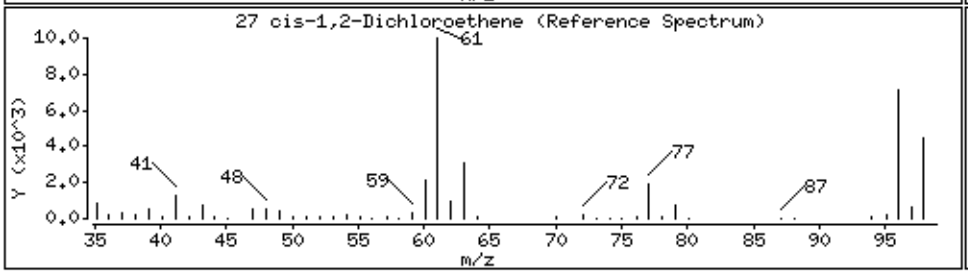
27 cis-1,2-Dichloroethene Concentration: 2.0 ug/l

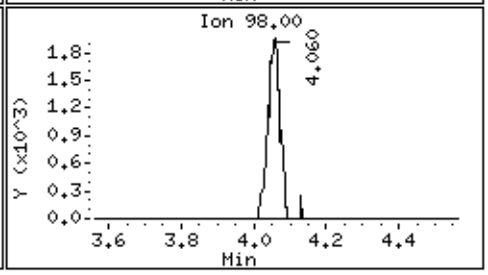












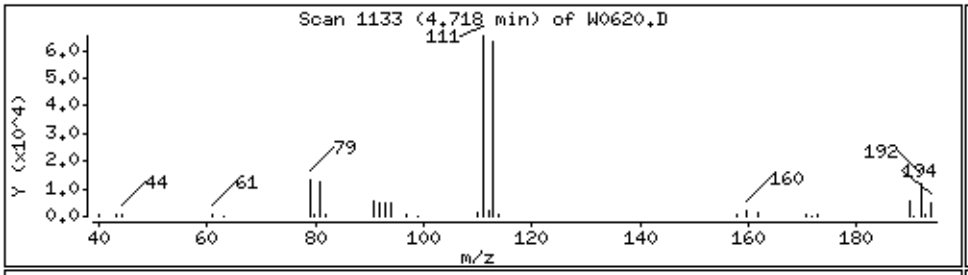
Data File: \\target_server\gg\chem\gcms-w.i\W101121.b\W0620.D

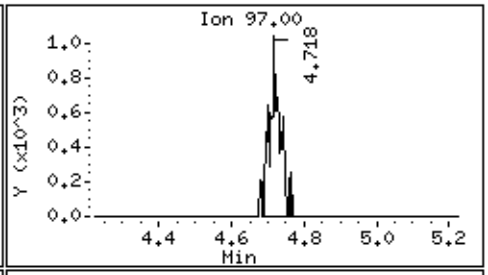
Date : 11-OCT-2021 16:29

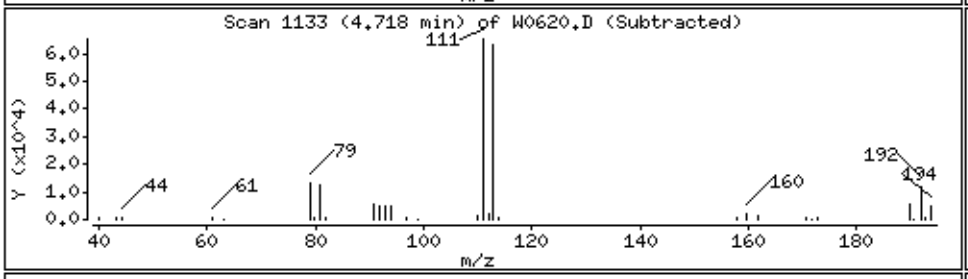
Client ID: B121-S(20211001) Instrument: gcms-w.i

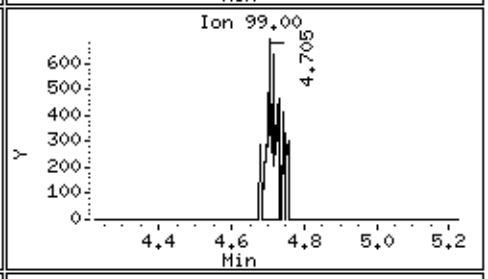
Sample Info: SO6709-14

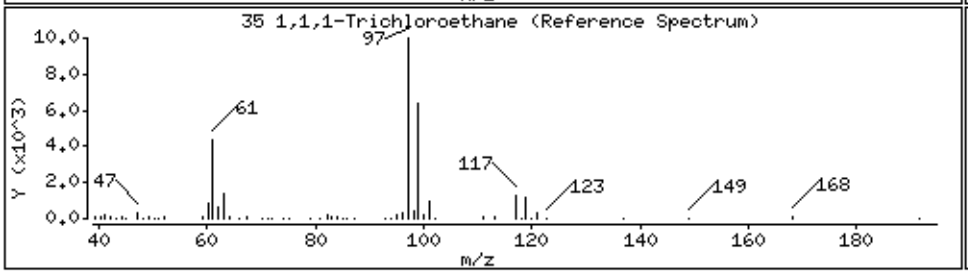
35 1,1,1-Trichloroethane Concentration: 0.32 ug/l

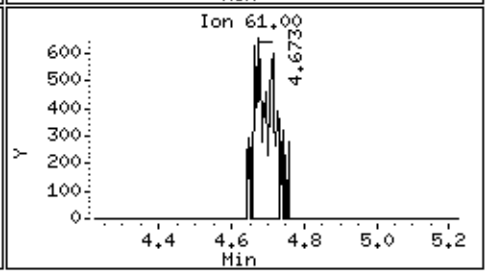








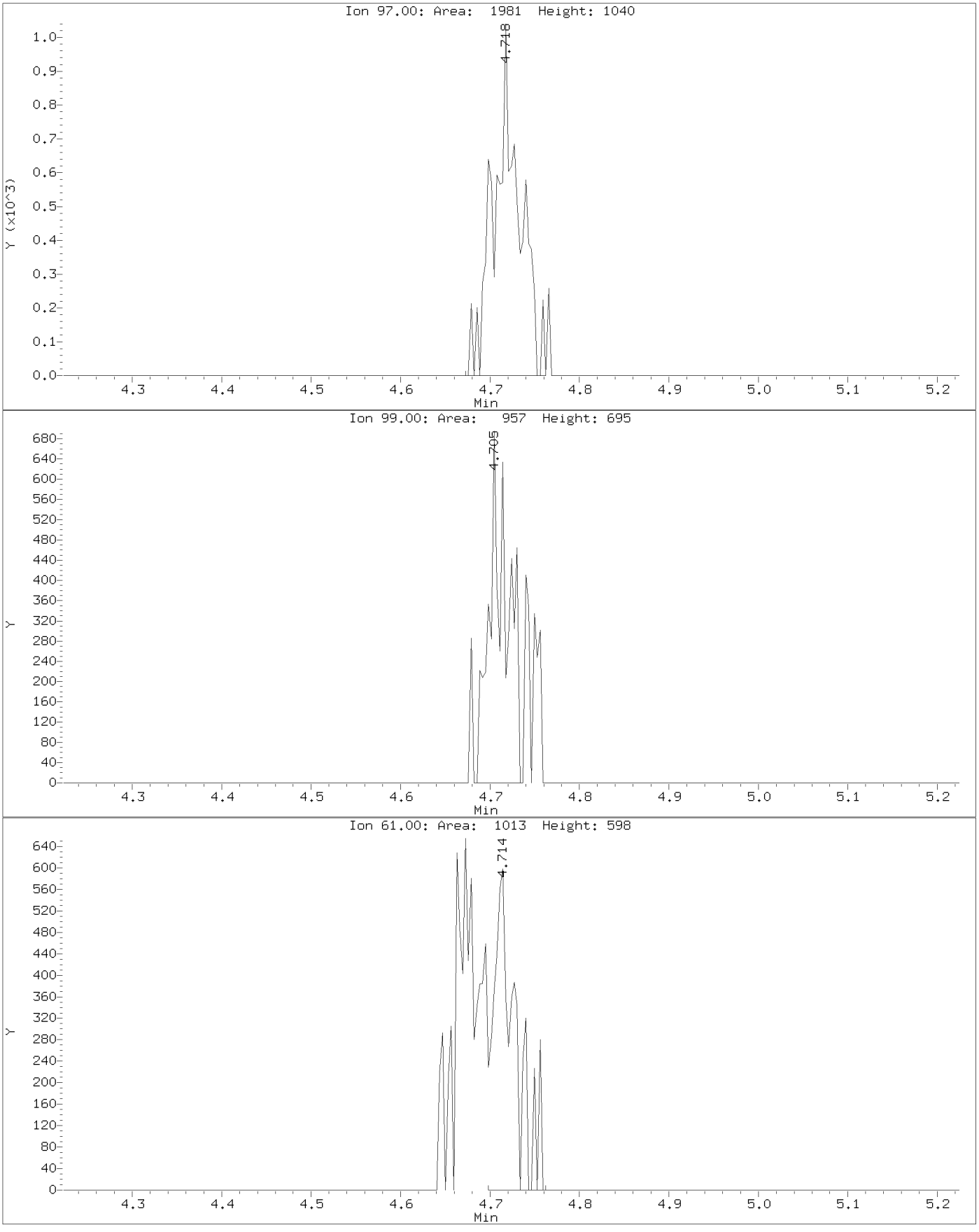




Data File: \\target_server\gg\chem\gcms-w.i\W101121.b\W0620.D
Injection Date: 11-OCT-2021 16:29
Instrument: gcms-w.i
Client Sample ID: B121-S(20211001)

Compound: 1,1,1-Trichloroethane
CAS Number: 71-55-6

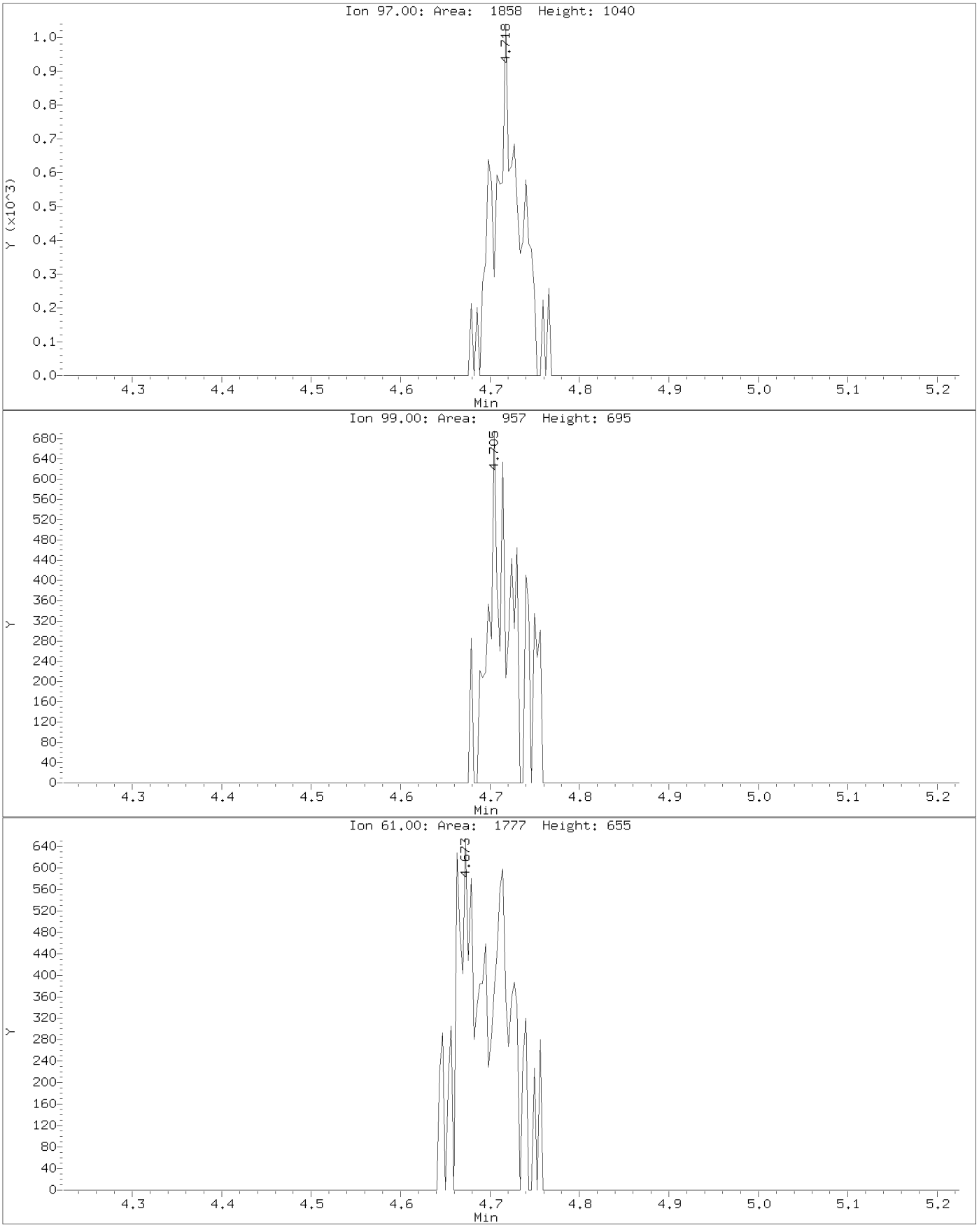
BEFORE MANUAL INTEGRATION



AFTER MANUAL INTEGRATION

Data File: \\target_server\gg\chem\gcms-w.i\W101121.b\W0620.D
Injection Date: 11-OCT-2021 16:29
Instrument: gcms-w.i
Client Sample ID: B121-S(20211001)

Compound: 1,1,1-Trichloroethane
CAS Number: 71-55-6



Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-15
Client ID: WVA-AW-MW-27(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: C1222.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 11-OCT-21
Extracted By: HG
Extraction Method: SW846 5030
Lab Prep Batch: WG307646

Analysis Date: 11-OCT-21
Analyst: HG
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	2.0	ug/L	1	2	2.0
Vinyl Chloride	U	2.0	ug/L	1	2	2.0
Bromomethane	U	2.0	ug/L	1	2	2.0
Chloroethane	U	2.0	ug/L	1	2	2.0
Trichlorofluoromethane	U	2.0	ug/L	1	2	2.0
1,1-Dichloroethene	U	1.0	ug/L	1	1	1.0
Carbon Disulfide	U	1.0	ug/L	1	1	1.0
Methylene Chloride	U	5.0	ug/L	1	5	5.0
trans-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
1,1-Dichloroethane	U	1.0	ug/L	1	1	1.0
cis-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
Chloroform	U	1.0	ug/L	1	1	1.0
Carbon Tetrachloride	U	1.0	ug/L	1	1	1.0
1,1,1-Trichloroethane	U	1.0	ug/L	1	1	1.0
2-Butanone	U	5.0	ug/L	1	5	5.0
Benzene	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethane	U	1.0	ug/L	1	1	1.0
Trichloroethene	U	1.0	ug/L	1	1	1.0
1,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Bromodichloromethane	U	1.0	ug/L	1	1	1.0
cis-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
Toluene	U	1.0	ug/L	1	1	1.0
4-Methyl-2-Pentanone	U	5.0	ug/L	1	5	5.0
Tetrachloroethene	U	1.0	ug/L	1	1	1.0
trans-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
1,1,2-Trichloroethane	U	1.0	ug/L	1	1	1.0
Dibromochloromethane	U	1.0	ug/L	1	1	1.0
Chlorobenzene	U	1.0	ug/L	1	1	1.0
Ethylbenzene	U	1.0	ug/L	1	1	1.0
m+p-Xylenes	U	2.0	ug/L	1	2	2.0
o-Xylene	U	1.0	ug/L	1	1	1.0
Bromoform	U	1.0	ug/L	1	1	1.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
P-Bromofluorobenzene		97.2	%			
Toluene-d8		103.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-15
Client ID: WVA-AW-MW-27(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: C1222.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 11-OCT-21
Extracted By: HG
Extraction Method: SW846 5030
Lab Prep Batch: WG307646

Analysis Date: 11-OCT-21
Analyst: HG
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		116.	%			
Dibromofluoromethane		112.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Data File: \\target_server\gg\chem\gcms-c.i\C101121.b\C1222.D
Report Date: 10-Nov-2021 14:57

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-c.i\C101121.b\C1222.D
Lab Smp Id: SO6709-15 Client Smp ID: VA-AW-MW-27(2021100
Inj Date : 11-OCT-2021 14:58
Operator : HG Inst ID: gcms-c.i
Smp Info : SO6709-15
Misc Info : WG307646,WG307646-4
Comment : SW846 5030
Method : \\target_server\gg\chem\gcms-c.i\C101121.b\C8A05(53).m
Meth Date : 12-Oct-2021 08:30 hgould Quant Type: ISTD
Cal Date : 04-OCT-2021 12:45 Cal File: C1017.D
Als bottle: 15
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.12
Processing Host: VOA-WS

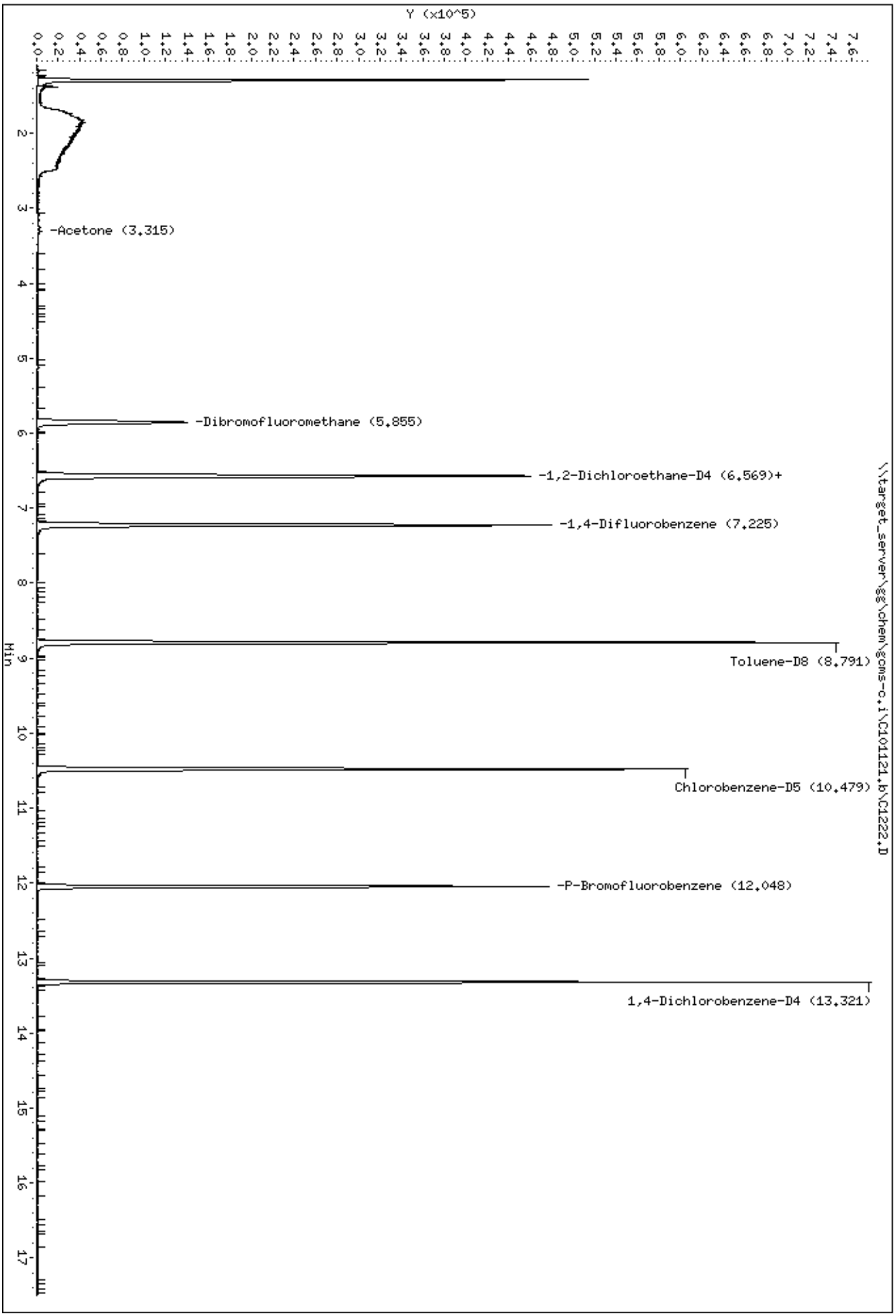
Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)	REVIEW CODE
	15 Acetone	43	3.315	3.312	(0.505)	2414	2.52441	2.5(a)	
$	35 Dibromofluoromethane	113	5.851	5.849	(0.891)	110108	55.9997	56.0	
$	41 1,2-Dichloroethane-D4	65	6.568	6.566	(1.000)	149671	58.1882	58.2	
*	42 Pentafluorobenzene	168	6.568	6.566	(1.000)	215443	50.0000		
*	48 1,4-Difluorobenzene	114	7.224	7.218	(1.000)	387140	50.0000		
$	56 Toluene-D8	98	8.790	8.787	(1.217)	456448	51.3844	51.4	
*	67 Chlorobenzene-D5	117	10.478	10.475	(1.000)	355135	50.0000		
$	76 P-Bromofluorobenzene	95	12.047	12.041	(1.668)	161105	48.6119	48.6	
*	91 1,4-Dichlorobenzene-D4	152	13.321	13.318	(1.000)	172999	50.0000		

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).



Data File: \\target_server\gg\chem\gcms-c.i\C101121.b\C1222.D
Date : 11-OCT-2021 14:58
Client ID: VA-AW-MW-27(2021100
Sample Info: SD6709-15

Instrument: gcms-c.i

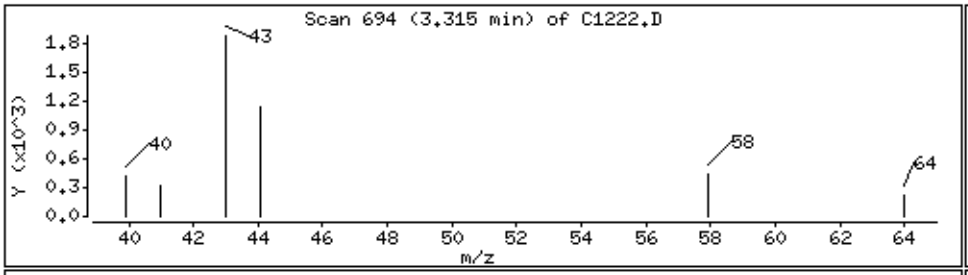
Data File: \\target_server\gg\chem\gcms-c.i\C101121.b\C1222.D

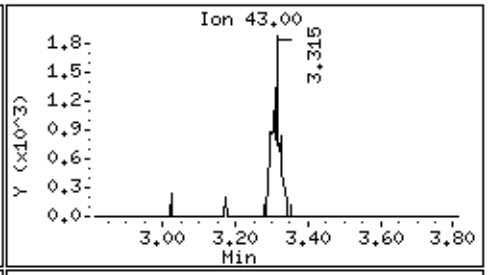
Date : 11-OCT-2021 14:58

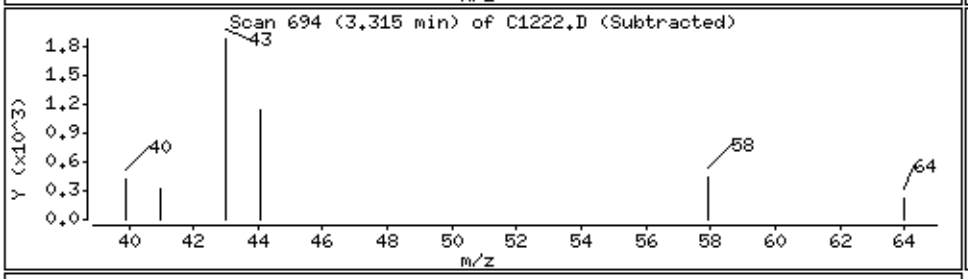
Client ID: VA-AW-MW-27(2021100 Instrument: gcms-c.i

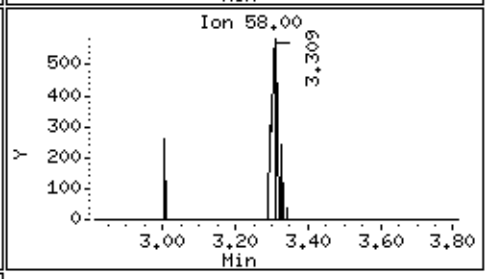
Sample Info: SO6709-15

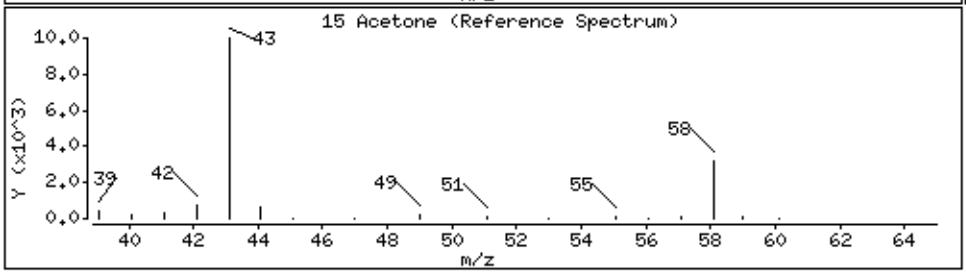
15 Acetone Concentration: 2.5 ug/l











Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-16
Client ID: WVA-AW-MW-26(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: W0636.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 12-OCT-21
Extracted By: HG
Extraction Method: SW846 5030
Lab Prep Batch: WG307697

Analysis Date: 12-OCT-21
Analyst: HG
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	2.0	ug/L	1	2	2.0
Vinyl Chloride	U	2.0	ug/L	1	2	2.0
Bromomethane	U	2.0	ug/L	1	2	2.0
Chloroethane	U	2.0	ug/L	1	2	2.0
Trichlorofluoromethane	U	2.0	ug/L	1	2	2.0
1,1-Dichloroethene	U	1.0	ug/L	1	1	1.0
Carbon Disulfide	U	1.0	ug/L	1	1	1.0
Methylene Chloride	U	5.0	ug/L	1	5	5.0
trans-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
1,1-Dichloroethane	U	1.0	ug/L	1	1	1.0
cis-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
Chloroform	U	1.0	ug/L	1	1	1.0
Carbon Tetrachloride	U	1.0	ug/L	1	1	1.0
1,1,1-Trichloroethane	U	1.0	ug/L	1	1	1.0
2-Butanone	U	5.0	ug/L	1	5	5.0
Benzene	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethane	U	1.0	ug/L	1	1	1.0
Trichloroethene	U	1.0	ug/L	1	1	1.0
1,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Bromodichloromethane	U	1.0	ug/L	1	1	1.0
cis-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
Toluene	U	1.0	ug/L	1	1	1.0
4-Methyl-2-Pentanone	U	5.0	ug/L	1	5	5.0
Tetrachloroethene	U	1.0	ug/L	1	1	1.0
trans-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
1,1,2-Trichloroethane	U	1.0	ug/L	1	1	1.0
Dibromochloromethane	U	1.0	ug/L	1	1	1.0
Chlorobenzene	U	1.0	ug/L	1	1	1.0
Ethylbenzene	U	1.0	ug/L	1	1	1.0
m+p-Xylenes	U	2.0	ug/L	1	2	2.0
o-Xylene	U	1.0	ug/L	1	1	1.0
Bromoform	U	1.0	ug/L	1	1	1.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
P-Bromofluorobenzene		102.	%			
Toluene-d8		104.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-16
Client ID: WVA-AW-MW-26(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: W0636.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 12-OCT-21
Extracted By: HG
Extraction Method: SW846 5030
Lab Prep Batch: WG307697

Analysis Date: 12-OCT-21
Analyst: HG
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		124.	%			
Dibromofluoromethane		114.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Data File: \\target_server\gg\chem\gcms-w.i\W101221.b\W0636.D
Report Date: 11-Nov-2021 17:35

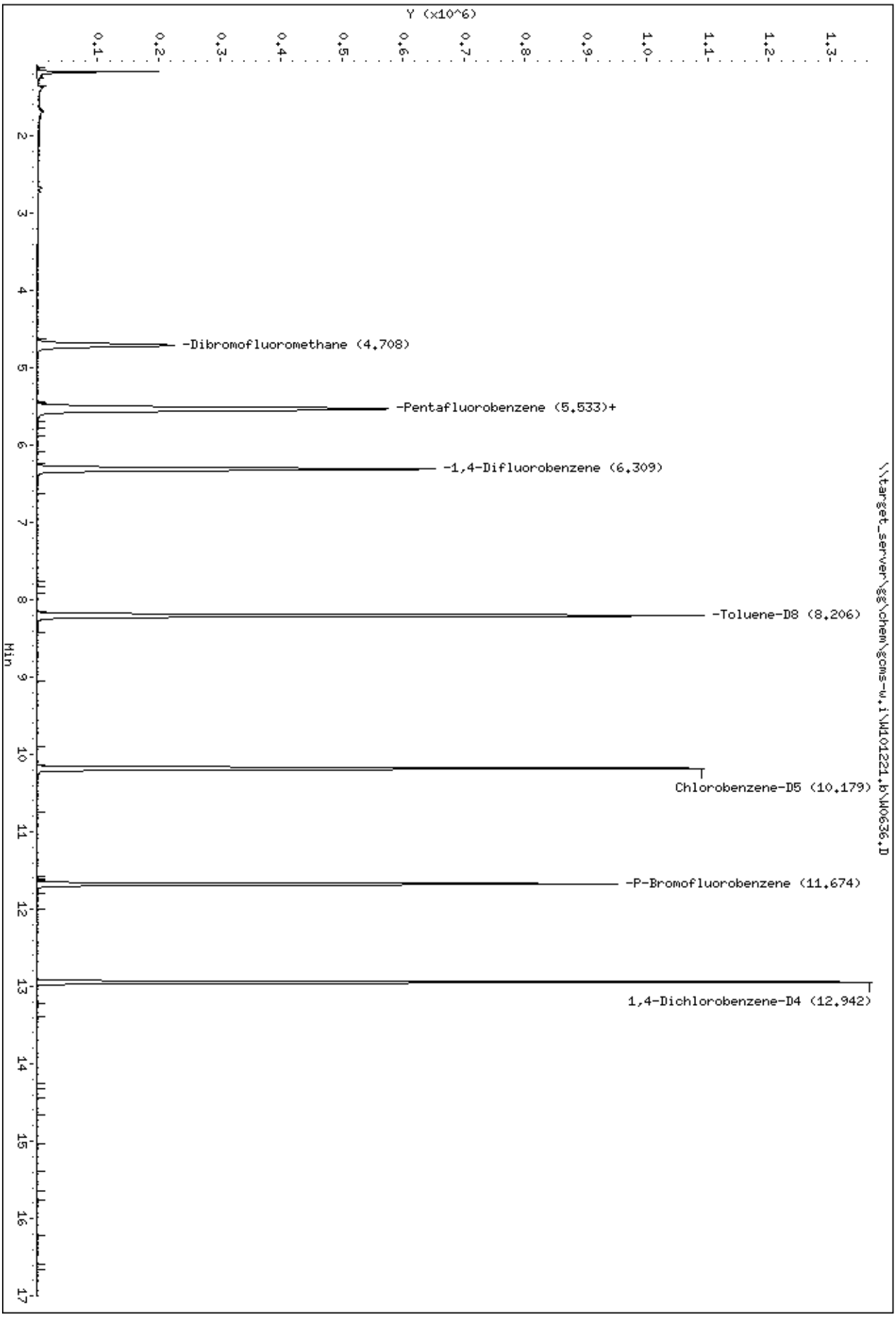
Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-w.i\W101221.b\W0636.D
Lab Smp Id: SO6709-16 Client Smp ID: VA-AW-MW-26(2021100
Inj Date : 12-OCT-2021 12:46
Operator : HG Inst ID: gcms-w.i
Smp Info : SO6709-16
Misc Info : WG307697,WG307697-4
Comment : SW846 5030
Method : \\target_server\gg\chem\gcms-w.i\W101221.b\W8A05(11).m
Meth Date : 12-Oct-2021 07:57 estroh Quant Type: ISTD
Cal Date : 10-OCT-2021 12:35 Cal File: W0583.D
Als bottle: 12
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.12
Processing Host: VOSTRO2

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)	REVIEW CODE
$	34 Dibromofluoromethane	113	4.704	4.721	(0.852)	209326	57.1699	57.2	
*	41 Pentafluorobenzene	168	5.523	5.533	(1.000)	361601	50.0000		
$	42 1,2-Dichloroethane-D4	65	5.542	5.555	(1.003)	315607	61.8056	61.8	
*	48 1,4-Difluorobenzene	114	6.312	6.319	(1.000)	658479	50.0000		
$	58 Toluene-D8	98	8.205	8.212	(1.300)	801685	51.8215	51.8	
*	68 Chlorobenzene-D5	117	10.179	10.185	(1.000)	623311	50.0000		
$	77 P-Bromofluorobenzene	95	11.674	11.684	(1.849)	311436	50.7804	50.8	
*	93 1,4-Dichlorobenzene-D4	152	12.945	12.952	(1.000)	316804	50.0000		


Data File: \\target_server\gg\chem\gcms-w.i\W101221.b\W0636.D
Date : 12-OCT-2021 12:46
Client ID: WA-AW-MW-26(2021100
Sample Info: SD6709-16
Instrument: gcms-w.i
\\target_server\gg\chem\gcms-w.i\W101221.b\W0636.D
Y (x10^6)
Min
-Dibromofluoromethane (4.708)
-Pentafluorobenzene (5.533)+
-1,4-Difluorobenzene (6.309)
-Toluene-D8 (8.206)
Chlorobenzene-D5 (10.179)
-P-Bromofluorobenzene (11.674)
1,4-Dichlorobenzene-D4 (12.942)

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-17
Client ID: 93EM-RW-2(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: C1223.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 11-OCT-21
Extracted By: HG
Extraction Method: SW846 5030
Lab Prep Batch: WG307646

Analysis Date: 11-OCT-21
Analyst: HG
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	2.0	ug/L	1	2	2.0
Vinyl Chloride	U	2.0	ug/L	1	2	2.0
Bromomethane	U	2.0	ug/L	1	2	2.0
Chloroethane	U	2.0	ug/L	1	2	2.0
Trichlorofluoromethane	U	2.0	ug/L	1	2	2.0
1,1-Dichloroethene	U	1.0	ug/L	1	1	1.0
Carbon Disulfide	U	1.0	ug/L	1	1	1.0
Methylene Chloride	U	5.0	ug/L	1	5	5.0
trans-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
1,1-Dichloroethane	U	1.0	ug/L	1	1	1.0
cis-1,2-Dichloroethene		63.	ug/L	1	1	1.0
Chloroform	U	1.0	ug/L	1	1	1.0
Carbon Tetrachloride	U	1.0	ug/L	1	1	1.0
1,1,1-Trichloroethane	U	1.0	ug/L	1	1	1.0
2-Butanone	U	5.0	ug/L	1	5	5.0
Benzene	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethane	U	1.0	ug/L	1	1	1.0
Trichloroethene		76.	ug/L	1	1	1.0
1,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Bromodichloromethane	U	1.0	ug/L	1	1	1.0
cis-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
Toluene	U	1.0	ug/L	1	1	1.0
4-Methyl-2-Pentanone	U	5.0	ug/L	1	5	5.0
Tetrachloroethene		35.	ug/L	1	1	1.0
trans-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
1,1,2-Trichloroethane	U	1.0	ug/L	1	1	1.0
Dibromochloromethane	U	1.0	ug/L	1	1	1.0
Chlorobenzene	U	1.0	ug/L	1	1	1.0
Ethylbenzene	U	1.0	ug/L	1	1	1.0
m+p-Xylenes	U	2.0	ug/L	1	2	2.0
o-Xylene	U	1.0	ug/L	1	1	1.0
Bromoform	U	1.0	ug/L	1	1	1.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
P-Bromofluorobenzene		87.0	%			
Toluene-d8		96.7	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-17
Client ID: 93EM-RW-2(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: C1223.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 11-OCT-21
Extracted By: HG
Extraction Method: SW846 5030
Lab Prep Batch: WG307646

Analysis Date: 11-OCT-21
Analyst: HG
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		114.	%			
Dibromofluoromethane		110.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Data File: \\target_server\gg\chem\gcms-c.i\C101121.b\C1223.D
Report Date: 10-Nov-2021 14:57

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-c.i\C101121.b\C1223.D
Lab Smp Id: SO6709-17 Client Smp ID: 93EM-RW-2(20211001)
Inj Date : 11-OCT-2021 15:29
Operator : HG Inst ID: gcms-c.i
Smp Info : SO6709-17
Misc Info : WG307646,WG307646-4
Comment : SW846 5030
Method : \\target_server\gg\chem\gcms-c.i\C101121.b\C8A05(53).m
Meth Date : 12-Oct-2021 08:30 hgould Quant Type: ISTD
Cal Date : 04-OCT-2021 12:45 Cal File: C1017.D
Als bottle: 16
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.12
Processing Host: VOA-WS

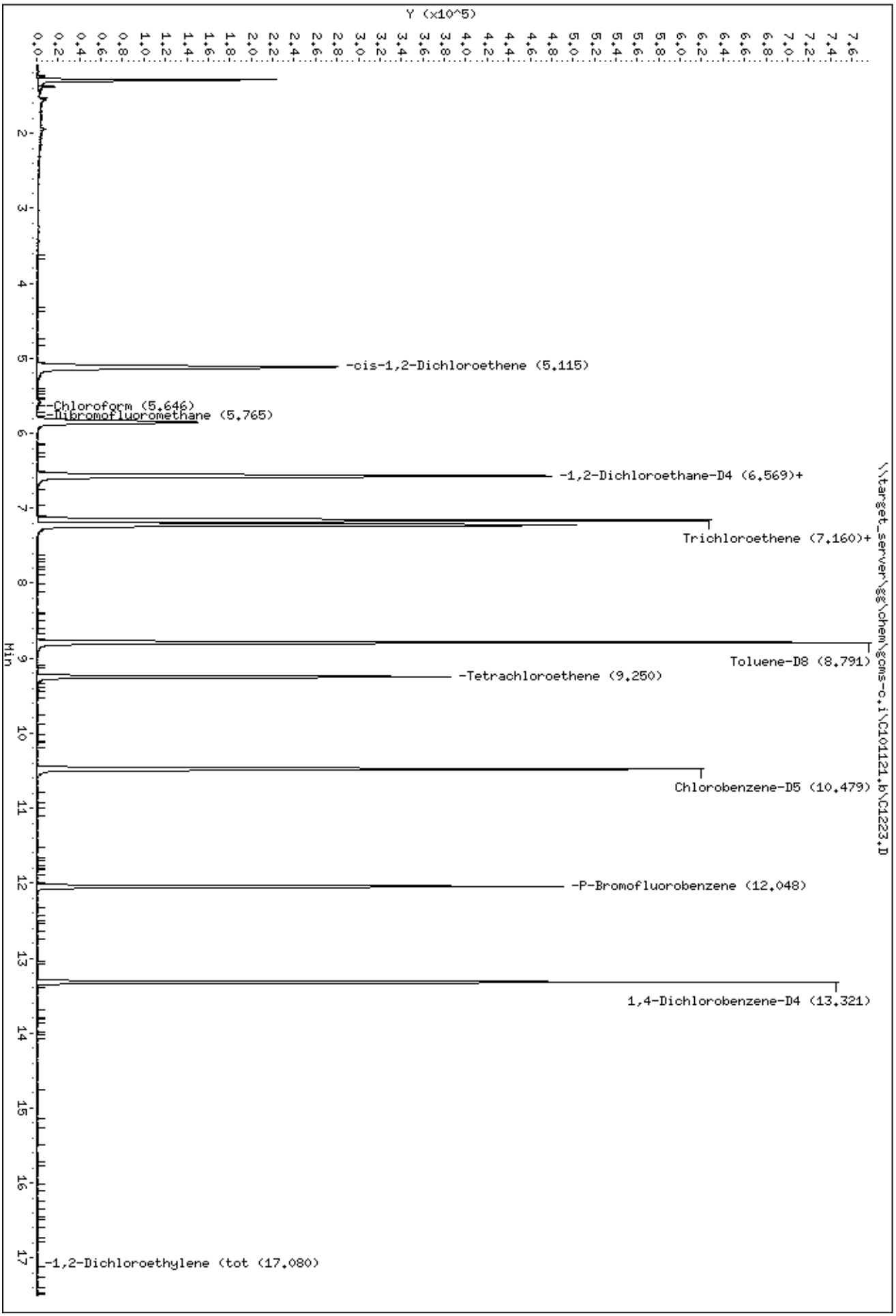
Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)	REVIEW CODE
	27 cis-1,2-Dichloroethene	96	5.115	5.109	(0.779)	182802	63.3983	63.4	
	31 Chloroform	83	5.594	5.579	(0.852)	3205	0.62664	0.63(a)	
$	35 Dibromofluoromethane	113	5.851	5.849	(0.891)	115711	55.2443	55.2	
$	41 1,2-Dichloroethane-D4	65	6.568	6.566	(1.000)	156304	57.0444	57.0	
*	42 Pentafluorobenzene	168	6.568	6.566	(1.000)	229502	50.0000		
	47 Trichloroethene	95	7.160	7.154	(0.991)	244548	76.0500	76.0	
*	48 1,4-Difluorobenzene	114	7.224	7.218	(1.000)	428826	50.0000		
$	56 Toluene-D8	98	8.790	8.787	(1.217)	475707	48.3467	48.3	
	58 Tetrachloroethene	164	9.250	9.244	(0.883)	85263	35.3655	35.4	
*	67 Chlorobenzene-D5	117	10.478	10.475	(1.000)	366960	50.0000		
$	76 P-Bromofluorobenzene	95	12.044	12.041	(1.667)	159730	43.5118	43.5	
*	91 1,4-Dichlorobenzene-D4	152	13.320	13.318	(1.000)	171455	50.0000		
M	103 1,2-Dichloroethylene (total)	96				182802	63.3983	63.4	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).


Y (x10^5)
Min
-cis-1,2-Dichloroethene (5.115)
-Chloroform (5.646)
-Dibromofluoromethane (5.765)
-1,2-Dichloroethane-D4 (6.569)+
Trichloroethene (7.160)+
Toluene-D8 (8.791)
-Tetrachloroethene (9.250)
Chlorobenzene-D5 (10.479)
-P-Bromofluorobenzene (12.048)
1,4-Dichlorobenzene-D4 (13.321)
-1,2-Dichloroethylene (tot (17.080)
\\target_server\gg\chem\gcms-c.i\C101121.b\C1223.D
Data File: \\target_server\gg\chem\gcms-c.i\C101121.b\C1223.D
Date : 11-OCT-2021 15:29
Client ID: 93EH-RW-2(20211001)
Sample Info: S06709-17
Instrument: gcms-c.i

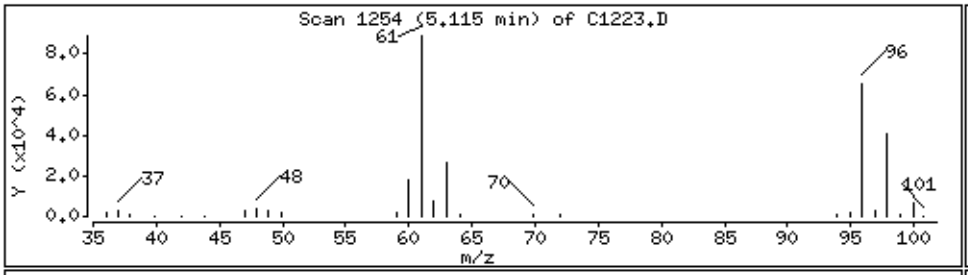
Data File: \\target_server\gg\chem\gcms-c.i\C101121.b\C1223.D

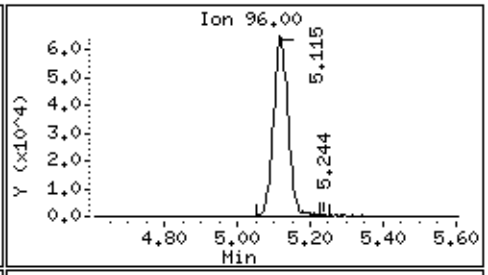
Date : 11-OCT-2021 15:29

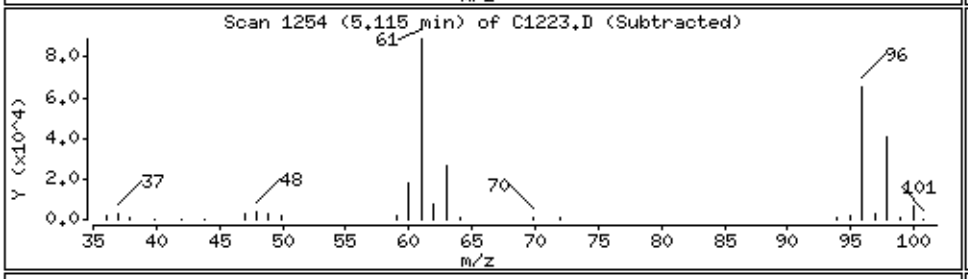
Client ID: 93EM-RW-2(20211001) Instrument: gcms-c.i

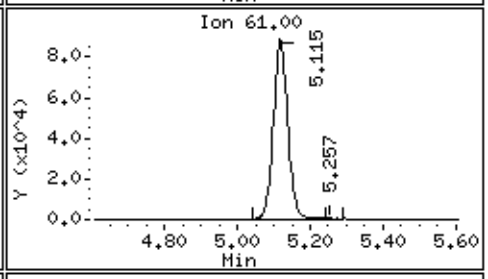
Sample Info: SO6709-17

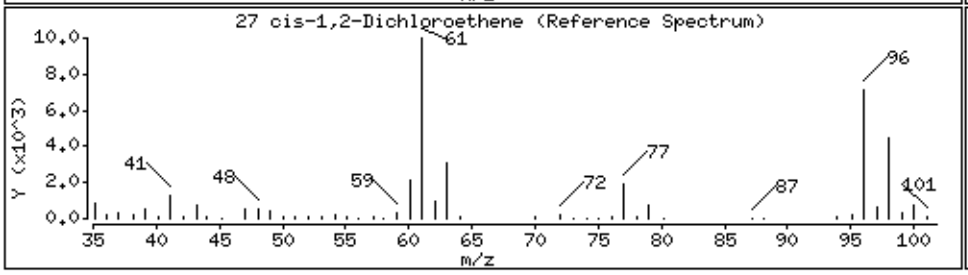
27 cis-1,2-Dichloroethene Concentration: 63.4 ug/l

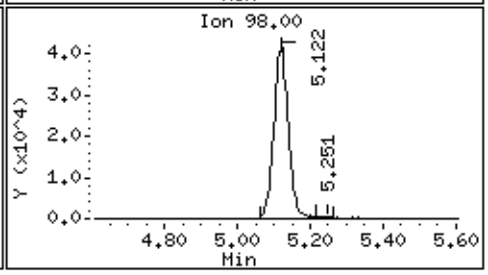




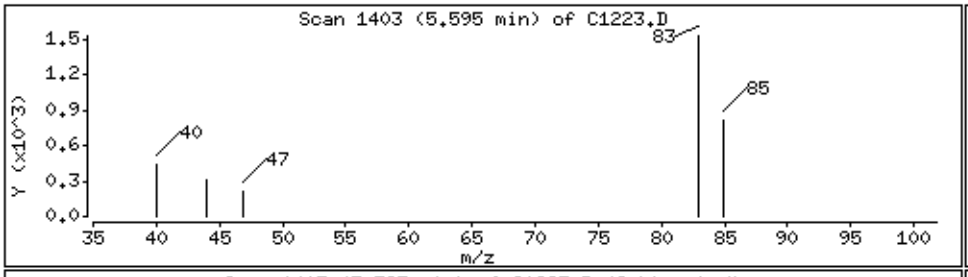


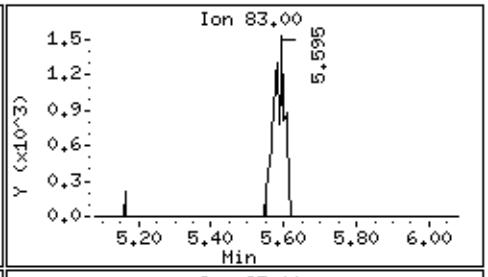


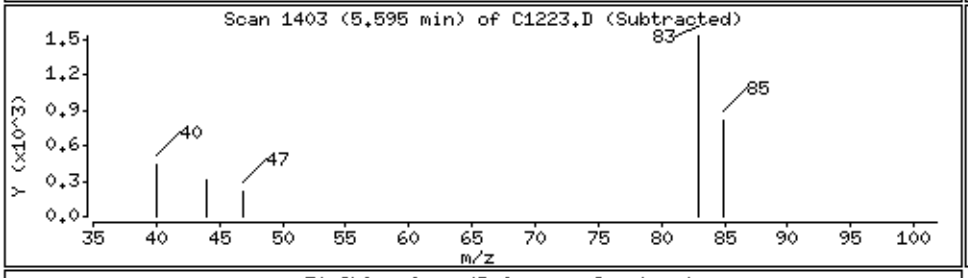


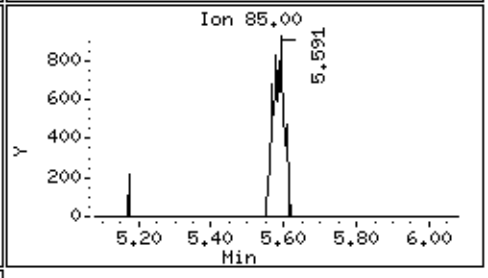


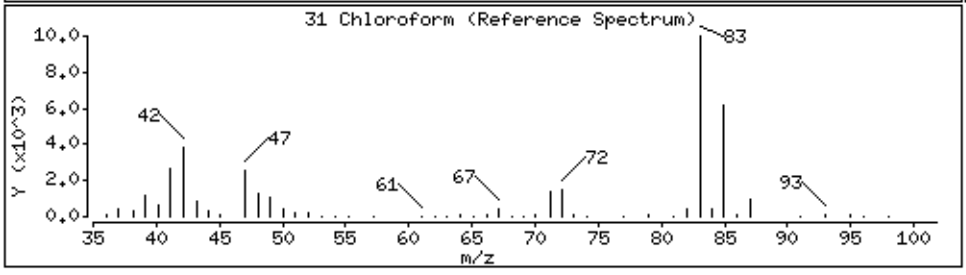
31 Chloroform Concentration: 0.63 ug/l











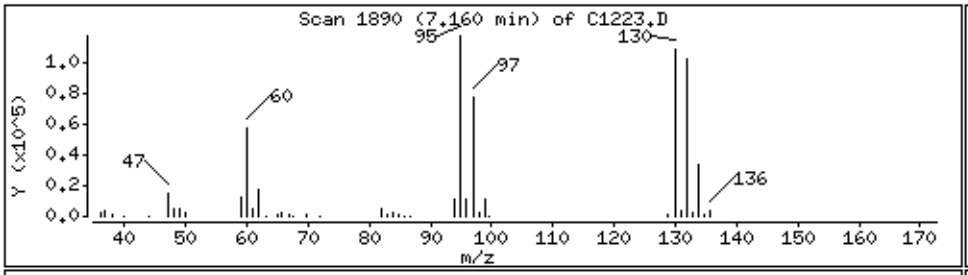
Data File: \\target_server\gg\chem\gcms-c.i\C101121.b\C1223.D

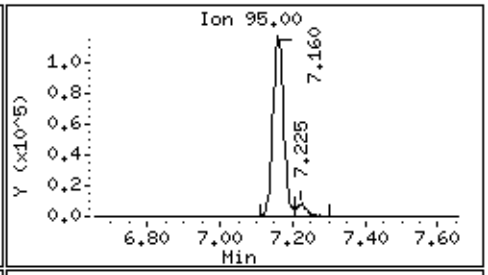
Date : 11-OCT-2021 15:29

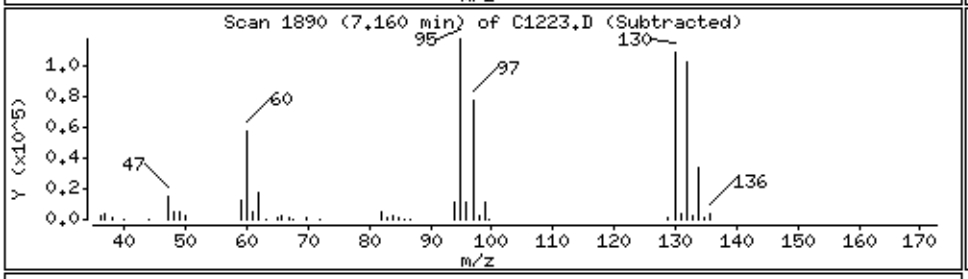
Client ID: 93EM-RW-2(20211001) Instrument: gcms-c.i

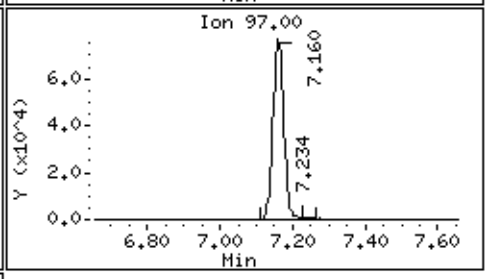
Sample Info: SO6709-17

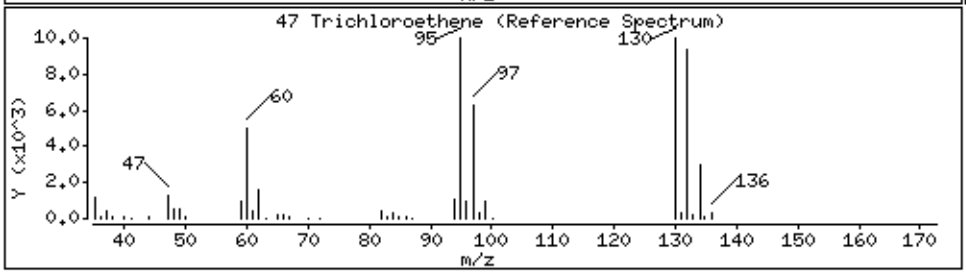
47 Trichloroethene Concentration: 76.0 ug/l



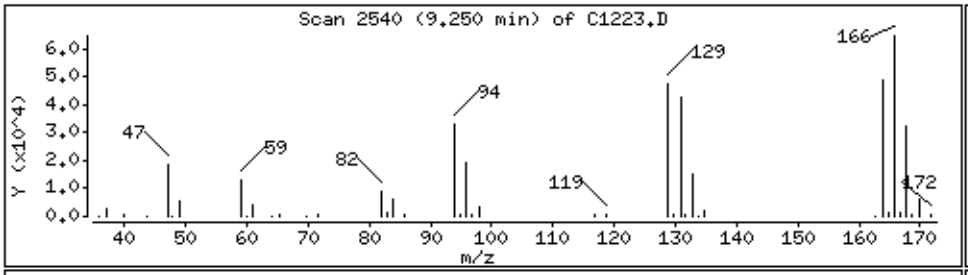


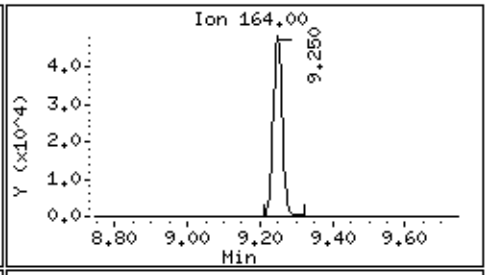


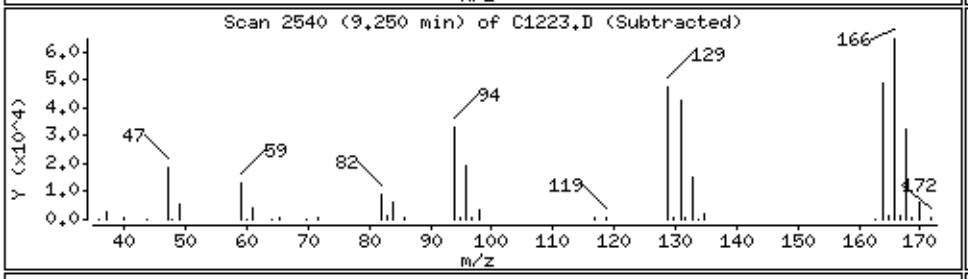


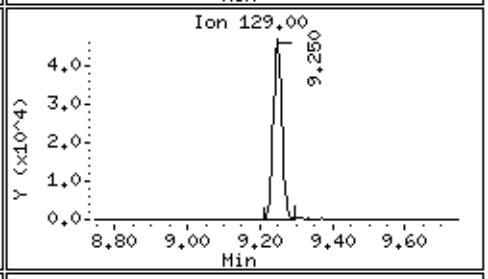


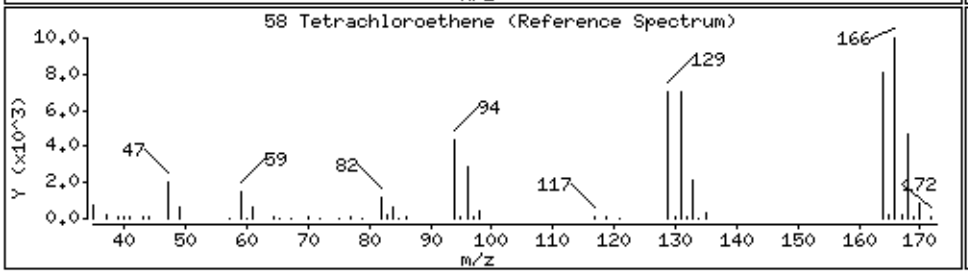
58 Tetrachloroethene Concentration: 35.4 ug/l

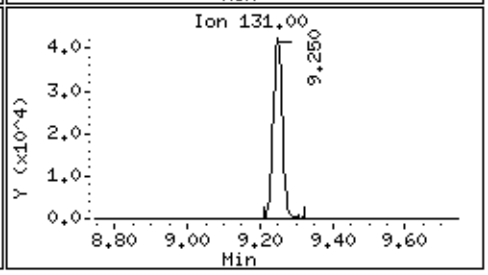












Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-18
Client ID: WVA-AW-MW-52(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: C1224.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 11-OCT-21
Extracted By: HG
Extraction Method: SW846 5030
Lab Prep Batch: WG307646

Analysis Date: 11-OCT-21
Analyst: HG
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	2.0	ug/L	1	2	2.0
Vinyl Chloride	U	2.0	ug/L	1	2	2.0
Bromomethane	U	2.0	ug/L	1	2	2.0
Chloroethane	U	2.0	ug/L	1	2	2.0
Trichlorofluoromethane	U	2.0	ug/L	1	2	2.0
1,1-Dichloroethene	U	1.0	ug/L	1	1	1.0
Carbon Disulfide	U	1.0	ug/L	1	1	1.0
Methylene Chloride	U	5.0	ug/L	1	5	5.0
trans-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
1,1-Dichloroethane	U	1.0	ug/L	1	1	1.0
cis-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
Chloroform	U	1.0	ug/L	1	1	1.0
Carbon Tetrachloride	U	1.0	ug/L	1	1	1.0
1,1,1-Trichloroethane	U	1.0	ug/L	1	1	1.0
2-Butanone	U	5.0	ug/L	1	5	5.0
Benzene	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethane	U	1.0	ug/L	1	1	1.0
Trichloroethene	U	1.0	ug/L	1	1	1.0
1,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Bromodichloromethane	U	1.0	ug/L	1	1	1.0
cis-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
Toluene	U	1.0	ug/L	1	1	1.0
4-Methyl-2-Pentanone	U	5.0	ug/L	1	5	5.0
Tetrachloroethene		7.4	ug/L	1	1	1.0
trans-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
1,1,2-Trichloroethane	U	1.0	ug/L	1	1	1.0
Dibromochloromethane	U	1.0	ug/L	1	1	1.0
Chlorobenzene	U	1.0	ug/L	1	1	1.0
Ethylbenzene	U	1.0	ug/L	1	1	1.0
m+p-Xylenes	U	2.0	ug/L	1	2	2.0
o-Xylene	U	1.0	ug/L	1	1	1.0
Bromoform	U	1.0	ug/L	1	1	1.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
P-Bromofluorobenzene		92.8	%			
Toluene-d8		102.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-18
Client ID: WVA-AW-MW-52(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: C1224.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 11-OCT-21
Extracted By: HG
Extraction Method: SW846 5030
Lab Prep Batch: WG307646

Analysis Date: 11-OCT-21
Analyst: HG
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		118.	%			
Dibromofluoromethane		112.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Data File: \\target_server\gg\chem\gcms-c.i\C101121.b\C1224.D
Report Date: 10-Nov-2021 14:57

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-c.i\C101121.b\C1224.D
Lab Smp Id: SO6709-18 Client Smp ID: VA-AW-MW-52(2021100
Inj Date : 11-OCT-2021 15:59
Operator : HG Inst ID: gcms-c.i
Smp Info : SO6709-18
Misc Info : WG307646,WG307646-4
Comment : SW846 5030
Method : \\target_server\gg\chem\gcms-c.i\C101121.b\C8A05(53).m
Meth Date : 12-Oct-2021 08:30 hgould Quant Type: ISTD
Cal Date : 04-OCT-2021 12:45 Cal File: C1017.D
Als bottle: 17
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.12
Processing Host: VOA-WS

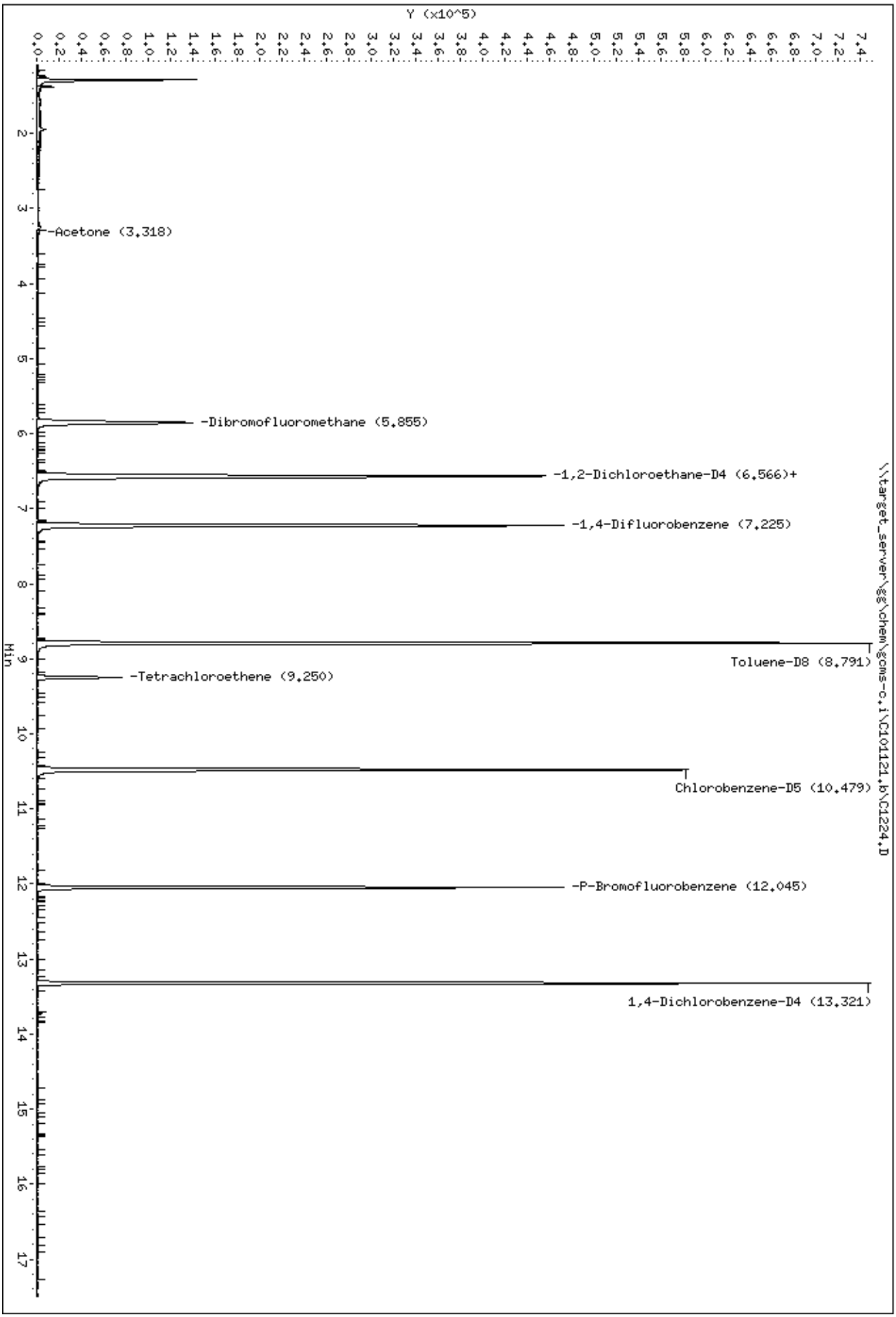
Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)	REVIEW CODE
	15 Acetone	43	3.308	3.312	(0.504)	2316	2.42995	2.4(a)	
$	35 Dibromofluoromethane	113	5.858	5.849	(0.892)	110120	56.1912	56.2	
$	41 1,2-Dichloroethane-D4	65	6.572	6.566	(1.000)	151110	58.9422	58.9	
*	42 Pentafluorobenzene	168	6.568	6.566	(1.000)	214732	50.0000		
*	48 1,4-Difluorobenzene	114	7.224	7.218	(1.000)	391676	50.0000		
$	56 Toluene-D8	98	8.790	8.787	(1.217)	459839	51.1667	51.2	
	58 Tetrachloroethene	164	9.250	9.244	(0.883)	17164	7.38792	7.4	
*	67 Chlorobenzene-D5	117	10.481	10.475	(1.000)	353618	50.0000		
$	76 P-Bromofluorobenzene	95	12.044	12.041	(1.667)	155629	46.4158	46.4	
*	91 1,4-Dichlorobenzene-D4	152	13.324	13.318	(1.000)	169595	50.0000		

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).



Data File: \\target_server\gg\chem\gcms-c.i\C101121.b\C1224.D
Date : 11-OCT-2021 15:59
Client ID: VA-AW-MW-52(2021100
Sample Info: SD6709-18

Instrument: gcms-c.i

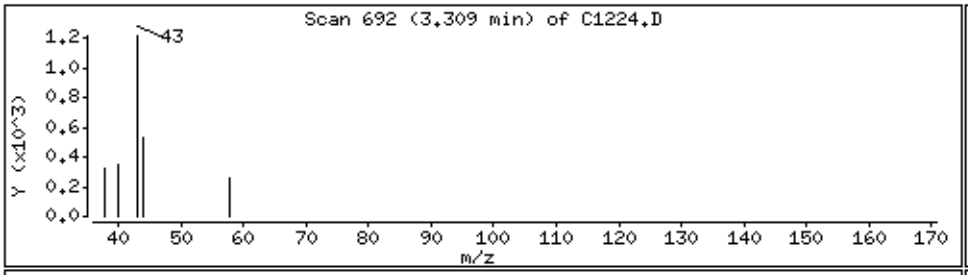
Data File: \\target_server\gg\chem\gcms-c.i\C101121.b\C1224.D

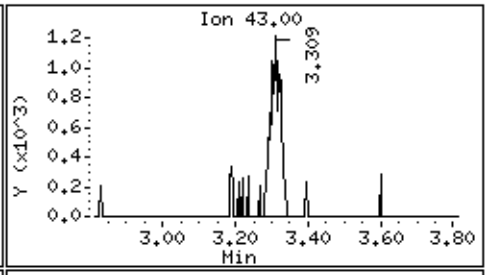
Date : 11-OCT-2021 15:59

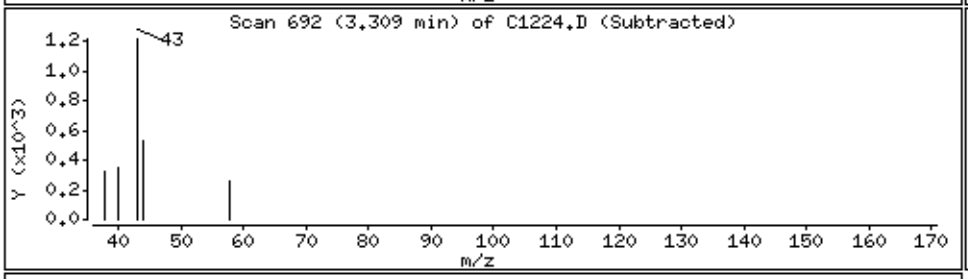
Client ID: VA-AW-MW-52(2021100 Instrument: gcms-c.i

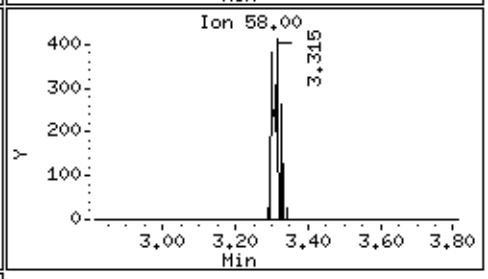
Sample Info: SO6709-18

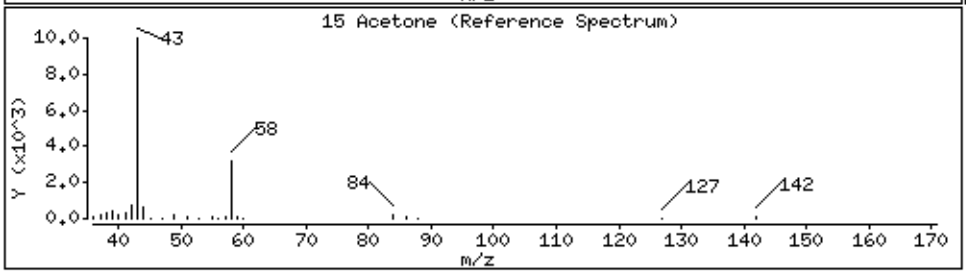
15 Acetone Concentration: 2.4 ug/l



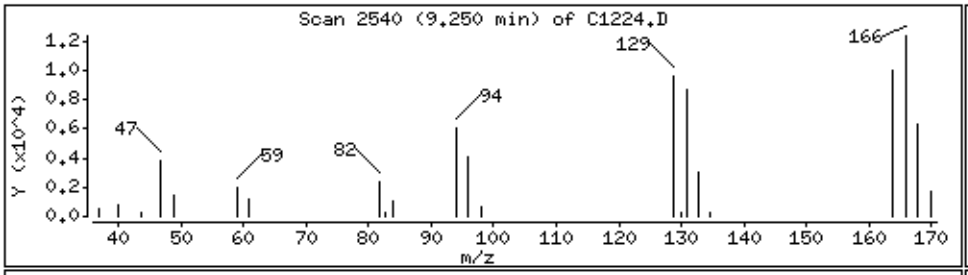


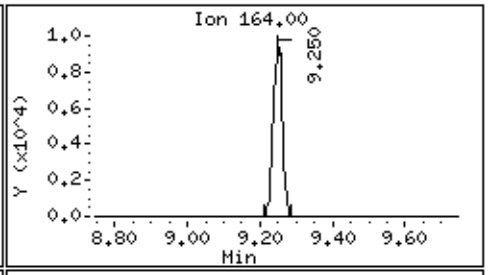


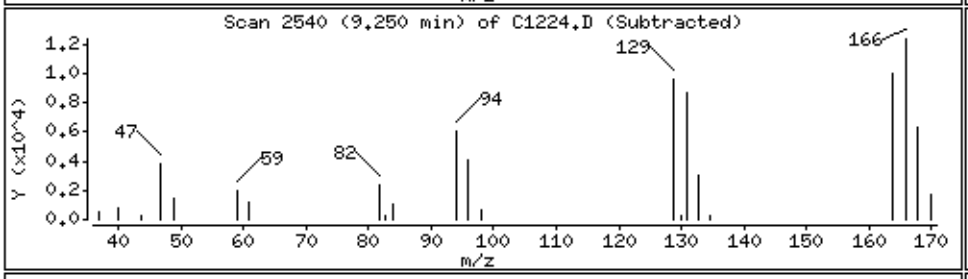


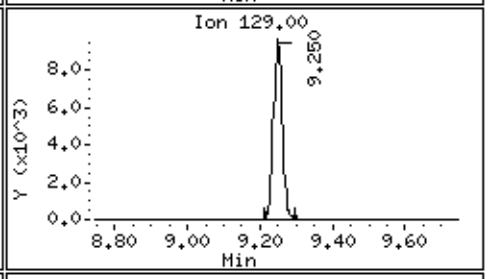


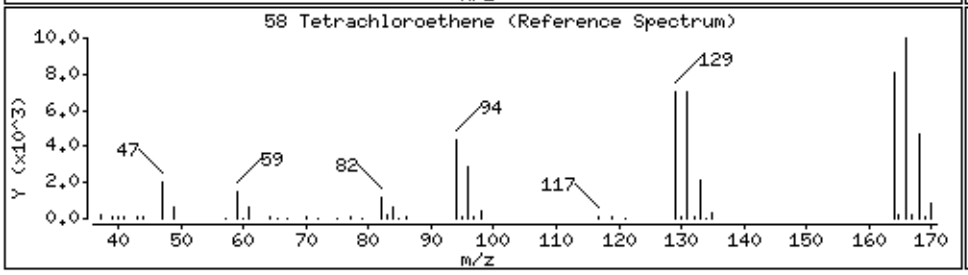
58 Tetrachloroethene Concentration: 7.4 ug/l

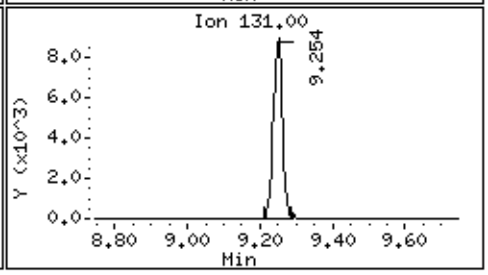












Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-19
Client ID: DUP-02(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: T3724.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 11-OCT-21
Extracted By: JSS
Extraction Method: SW846 5030
Lab Prep Batch: WG307648

Analysis Date: 11-OCT-21
Analyst: JSS
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	2.0	ug/L	1	2	2.0
Vinyl Chloride	U	2.0	ug/L	1	2	2.0
Bromomethane	U	2.0	ug/L	1	2	2.0
Chloroethane	U	2.0	ug/L	1	2	2.0
Trichlorofluoromethane	U	2.0	ug/L	1	2	2.0
1,1-Dichloroethene	U	1.0	ug/L	1	1	1.0
Carbon Disulfide	U	1.0	ug/L	1	1	1.0
Methylene Chloride	U	5.0	ug/L	1	5	5.0
trans-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
1,1-Dichloroethane	U	1.0	ug/L	1	1	1.0
cis-1,2-Dichloroethene		55.	ug/L	1	1	1.0
Chloroform	U	1.0	ug/L	1	1	1.0
Carbon Tetrachloride	U	1.0	ug/L	1	1	1.0
1,1,1-Trichloroethane	U	1.0	ug/L	1	1	1.0
2-Butanone	U	5.0	ug/L	1	5	5.0
Benzene	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethane	U	1.0	ug/L	1	1	1.0
Trichloroethene		50.	ug/L	1	1	1.0
1,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Bromodichloromethane	U	1.0	ug/L	1	1	1.0
cis-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
Toluene	U	1.0	ug/L	1	1	1.0
4-Methyl-2-Pentanone	U	5.0	ug/L	1	5	5.0
Tetrachloroethene		130	ug/L	1	1	1.0
trans-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
1,1,2-Trichloroethane	U	1.0	ug/L	1	1	1.0
Dibromochloromethane	U	1.0	ug/L	1	1	1.0
Chlorobenzene	U	1.0	ug/L	1	1	1.0
Ethylbenzene	U	1.0	ug/L	1	1	1.0
m+p-Xylenes	U	2.0	ug/L	1	2	2.0
o-Xylene	U	1.0	ug/L	1	1	1.0
Bromoform	U	1.0	ug/L	1	1	1.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
P-Bromofluorobenzene		101.	%			
Toluene-d8		99.5	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-19
Client ID: DUP-02(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: T3724.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 11-OCT-21
Extracted By: JSS
Extraction Method: SW846 5030
Lab Prep Batch: WG307648

Analysis Date: 11-OCT-21
Analyst: JSS
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		120.	%			
Dibromofluoromethane		111.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Data File: \\target_server\gg\chem\gcms-t.i\T101121.b\T3724.D
Report Date: 11-Nov-2021 17:08

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-t.i\T101121.b\T3724.D
Lab Smp Id: SO6709-19 Client Smp ID: DUP-02(20211001)
Inj Date : 11-OCT-2021 21:11
Operator : JSS Inst ID: gcms-t.i
Smp Info : SO6709-19
Misc Info : WG307648,WG307648-4
Comment : SW846 5030
Method : \\target_server\gg\chem\gcms-t.i\T101121.b\T8A05(01)shrt.m
Meth Date : 05-Nov-2021 14:30 hgould Quant Type: ISTD
Cal Date : 11-OCT-2021 14:13 Cal File: T3708.D
Als bottle: 25
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.12
Processing Host: VOA-WS

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

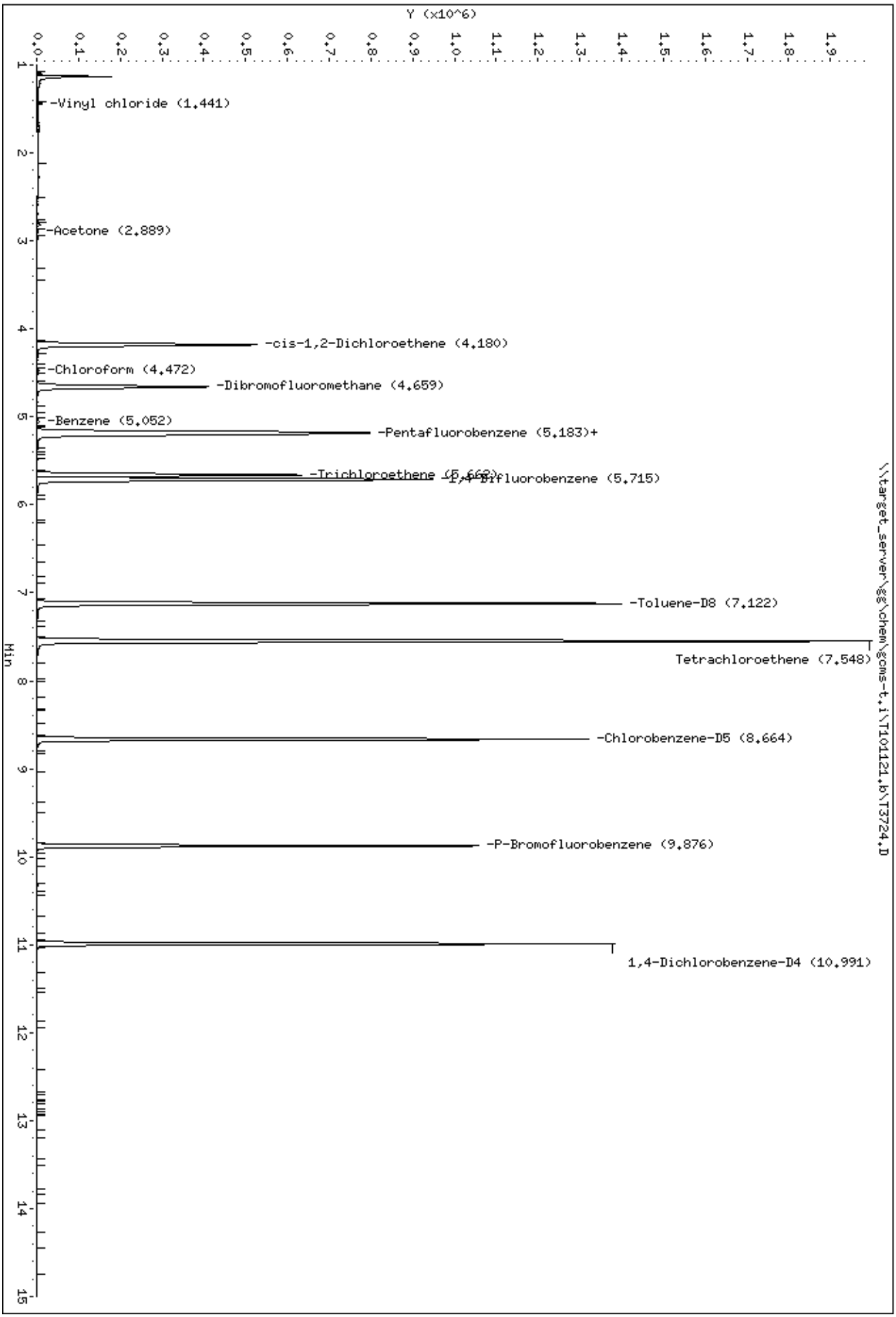
Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

3:35 pm, Nov 12, 2021

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)	REVIEW CODE
	3 Vinyl chloride	62	1.440	1.441	(0.278)	4823	1.33659	1.3	
	15 Acetone	43	2.885	2.882	(0.558)	3948	2.94350	2.9(a)	
	27 cis-1,2-Dichloroethene	96	4.180	4.179	(0.808)	218751	54.7361	54.7	
	31 Chloroform	83	4.468	4.476	(0.863)	3595	0.48622	0.49(a)	
$	34 Dibromofluoromethane	113	4.659	4.659	(0.900)	253228	55.5564	55.6	
	38 Benzene	78	5.048	5.052	(0.883)	4541	0.28984	0.29(aM)	M10
*	41 Pentafluorobenzene	168	5.175	5.176	(1.000)	452021	50.0000		
$	42 1,2-Dichloroethane-D4	65	5.198	5.202	(1.004)	348706	60.1713	60.2	
	47 Trichloroethene	95	5.662	5.662	(0.991)	207318	50.5363	50.5	
*	48 1,4-Difluorobenzene	114	5.714	5.714	(1.000)	741967	50.0000		
$	56 Toluene-D8	98	7.121	7.122	(1.246)	856192	49.7674	49.8	
	58 Tetrachloroethene	164	7.552	7.552	(0.872)	435420	133.322	133	
*	68 Chlorobenzene-D5	117	8.663	8.663	(1.000)	652147	50.0000		
$	77 P-Bromofluorobenzene	95	9.876	9.876	(1.728)	311547	50.3188	50.3	
*	93 1,4-Dichlorobenzene-D4	152	10.991	10.991	(1.000)	314106	50.0000		
M	103 1,2-Dichloroethylene (total)	96				218751	54.7361	54.7	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.


Y (x10^6)
0.0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0
1.1
1.2
1.3
1.4
1.5
1.6
1.7
1.8
1.9
Min
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
-Vinyl chloride (1.441)
-Acetone (2.889)
-cis-1,2-Dichloroethene (4.180)
-Chloroform (4.472)
-Dibromofluoromethane (4.659)
-Benzene (5.052)
-Pentafluorobenzene (5.183)+
-Trichloroethene (5.662)
-1,4-Difluorobenzene (5.715)
-Toluene-D8 (7.122)
Tetrachloroethene (7.548)
-Chlorobenzene-D5 (8.664)
-P-Bromofluorobenzene (9.876)
1,4-Dichlorobenzene-D4 (10.991)
\\target_server\gg\chem\gcms-t.i\T101121.b\T3724.D
Data File: \\target_server\gg\chem\gcms-t.i\T101121.b\T3724.D
Date : 11-OCT-2021 21:11
Client ID: DUP-02(20211001)
Sample Info: SD6709-19
Instrument: gcms-t.i

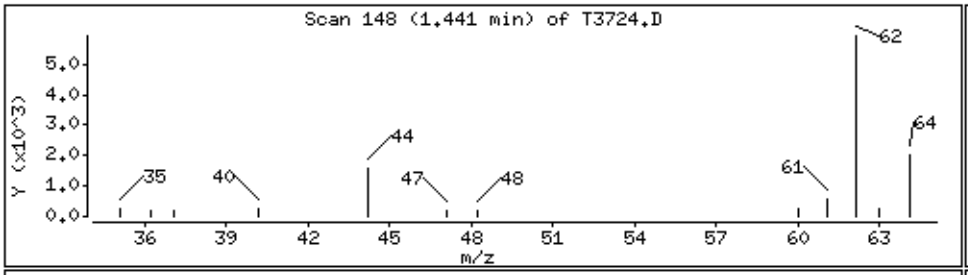
Data File: \\target_server\gg\chem\gcms-t.i\T101121.b\T3724.D

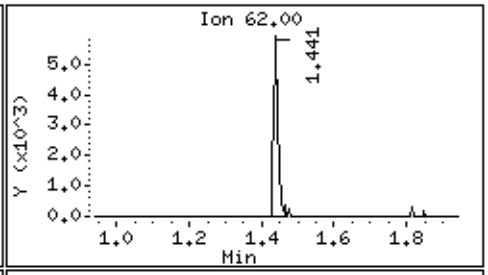
Date : 11-OCT-2021 21:11

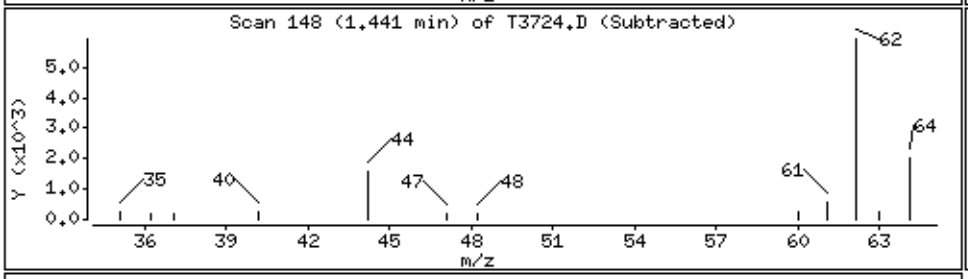
Client ID: DUP-02(20211001) Instrument: gcms-t.i

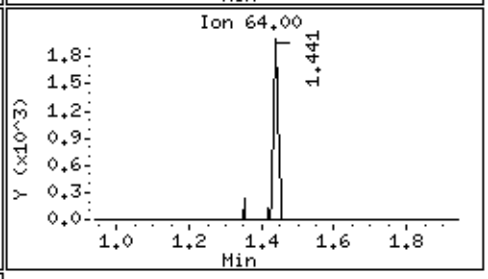
Sample Info: SO6709-19

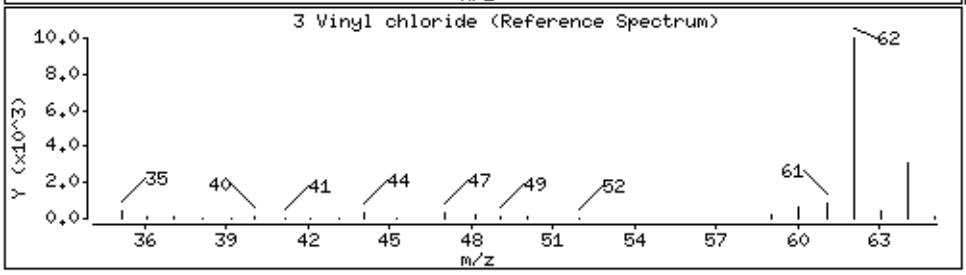
3 Vinyl chloride Concentration: 1.3 ug/l



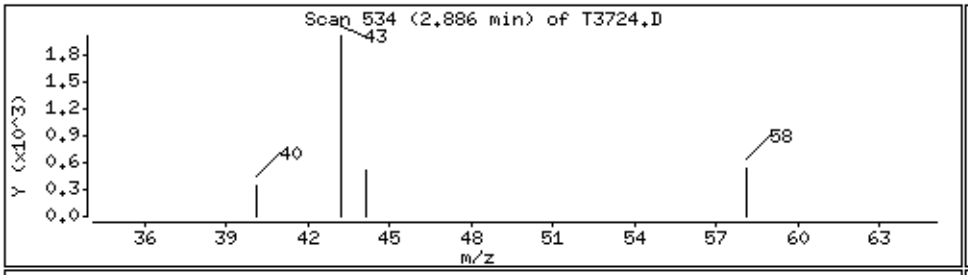


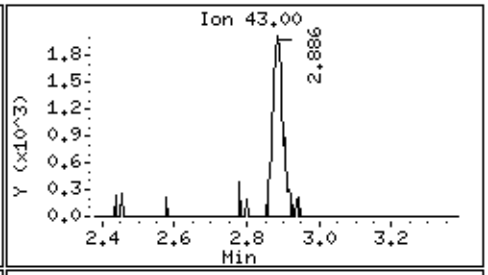


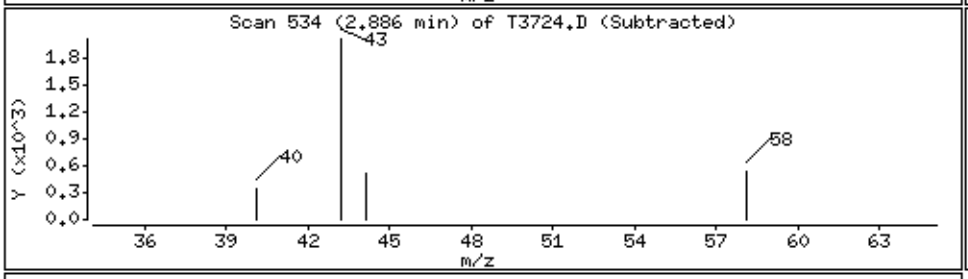


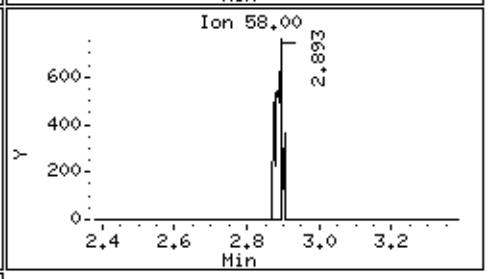


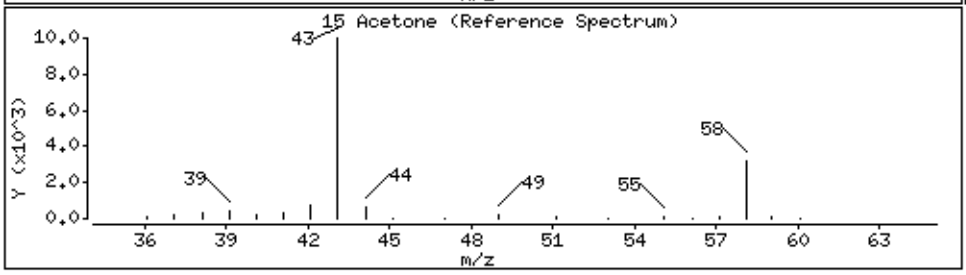
15 Acetone Concentration: 2.9 ug/l











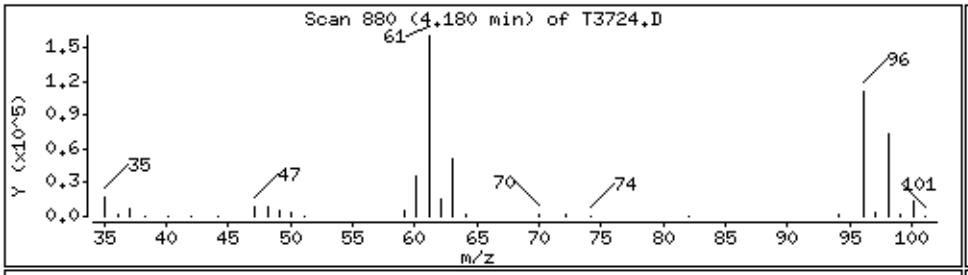
Data File: \\target_server\gg\chem\gcms-t.i\T101121.b\T3724.D

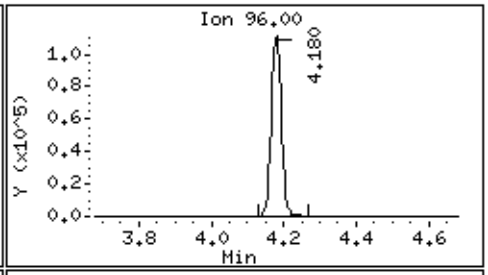
Date : 11-OCT-2021 21:11

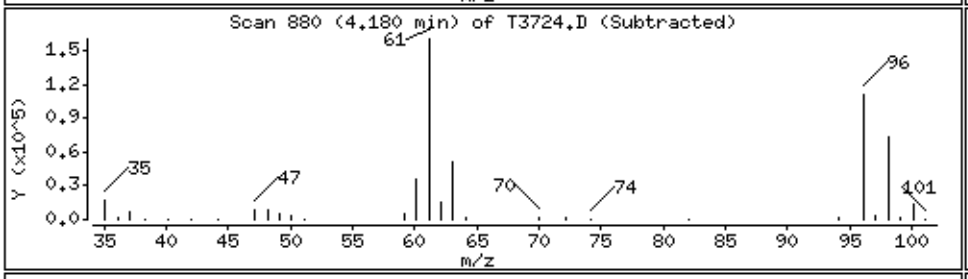
Client ID: DUP-02(20211001) Instrument: gcms-t.i

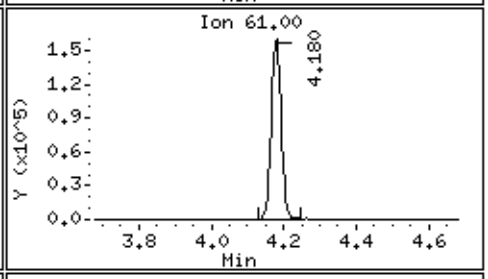
Sample Info: S06709-19

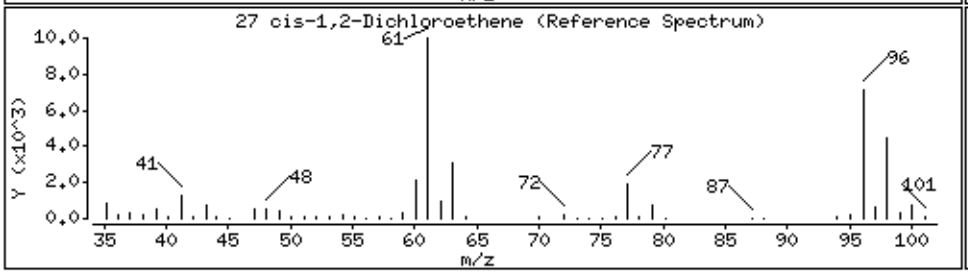
27 cis-1,2-Dichloroethene Concentration: 54.7 ug/l

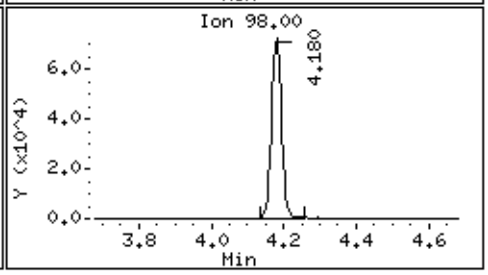




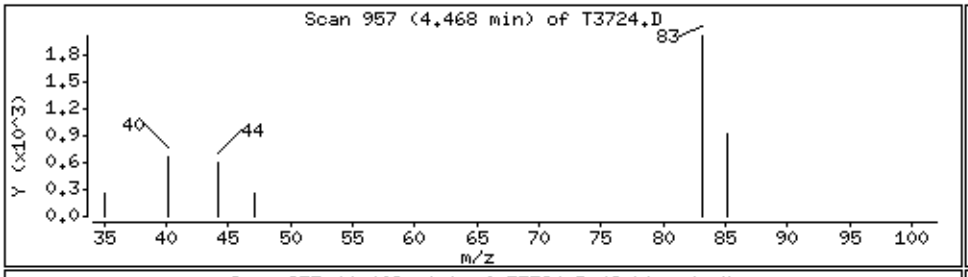


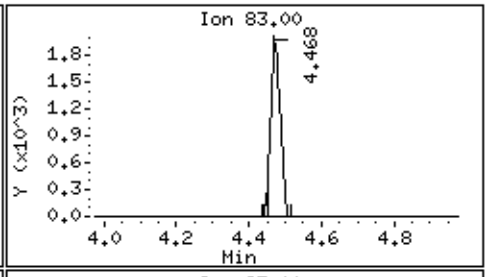


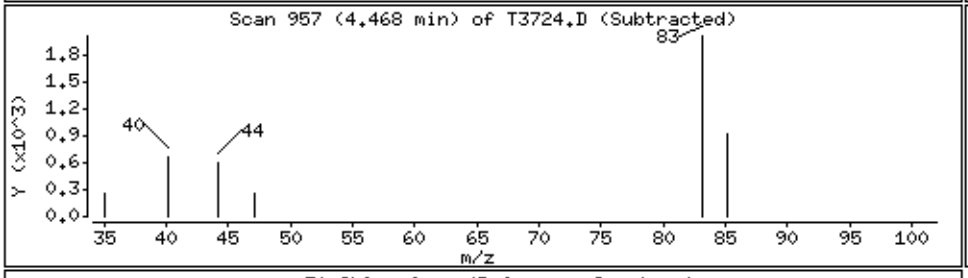


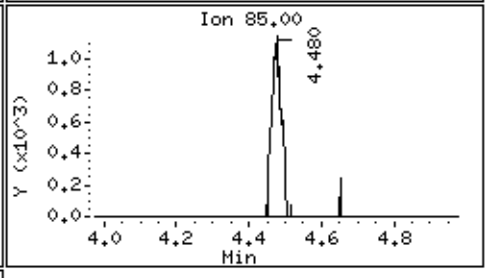


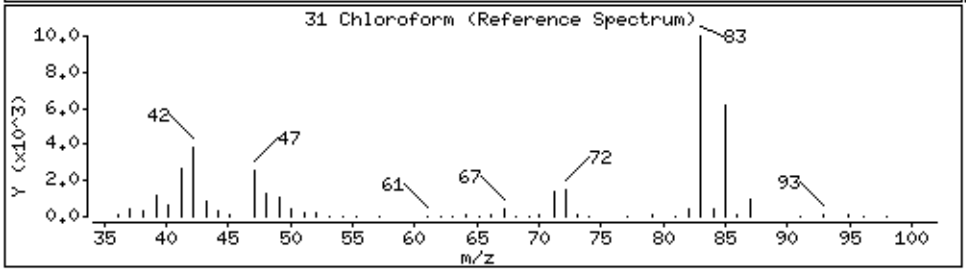
31 Chloroform Concentration: 0.49 ug/l











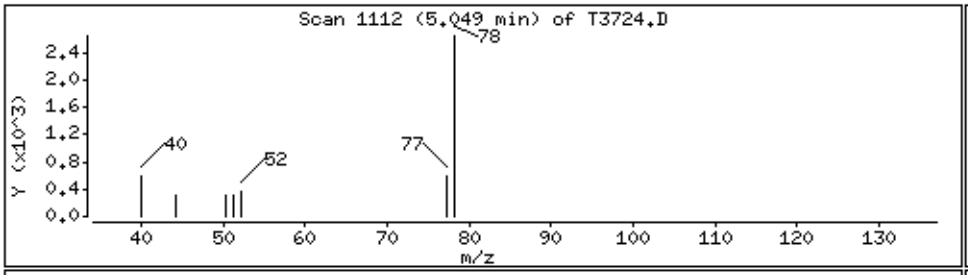
Data File: \\target_server\gg\chem\gcms-t.i\T101121.b\T3724.D

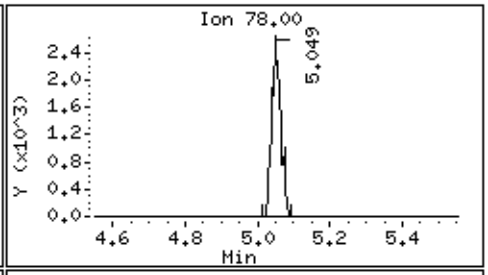
Date : 11-OCT-2021 21:11

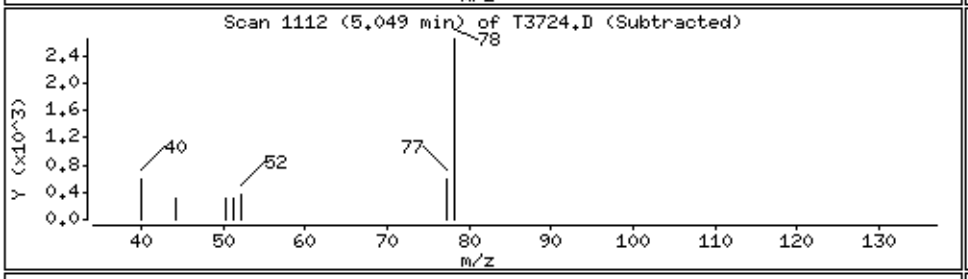
Client ID: DUP-02(20211001) Instrument: gcms-t.i

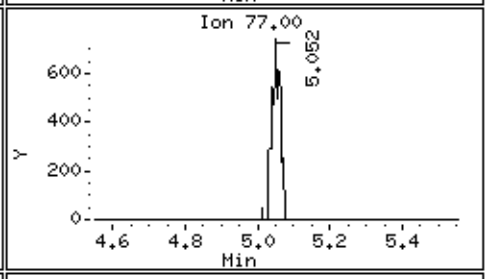
Sample Info: S06709-19

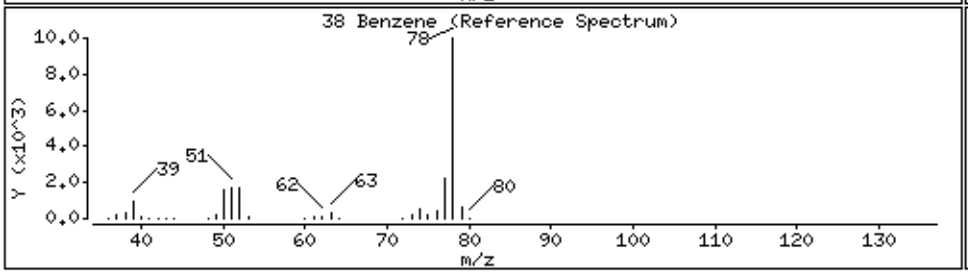
38 Benzene Concentration: 0.29 ug/l

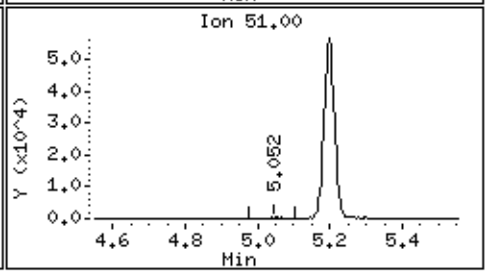




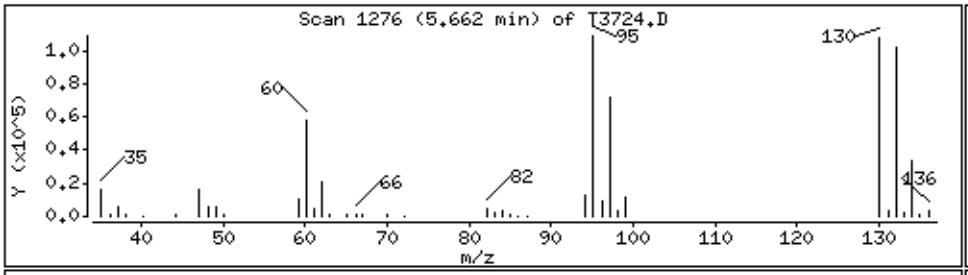


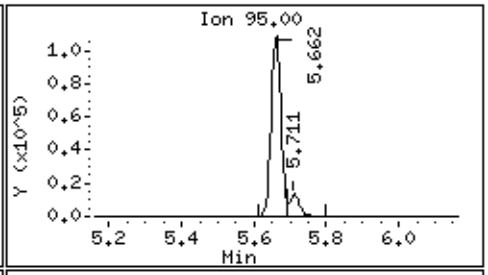


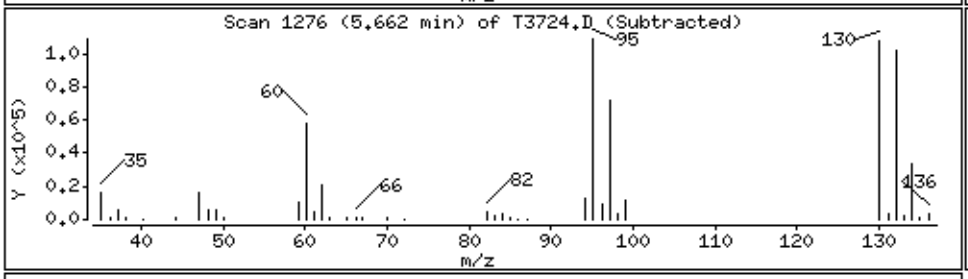


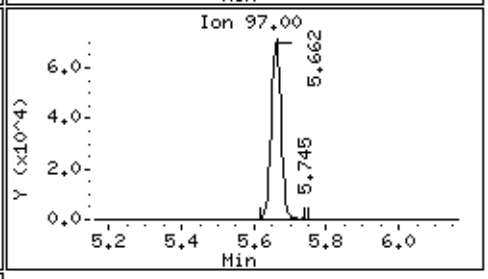


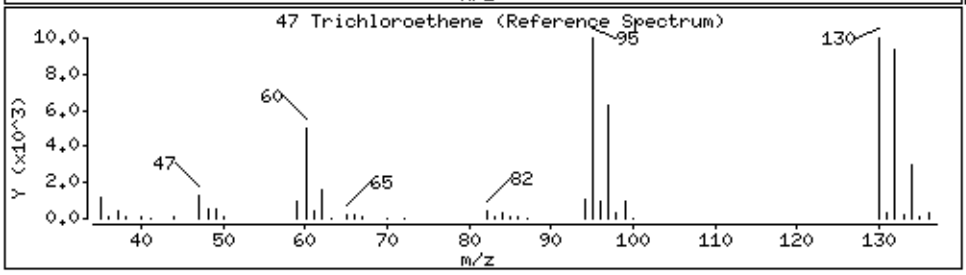
47 Trichloroethene Concentration: 50.5 ug/l











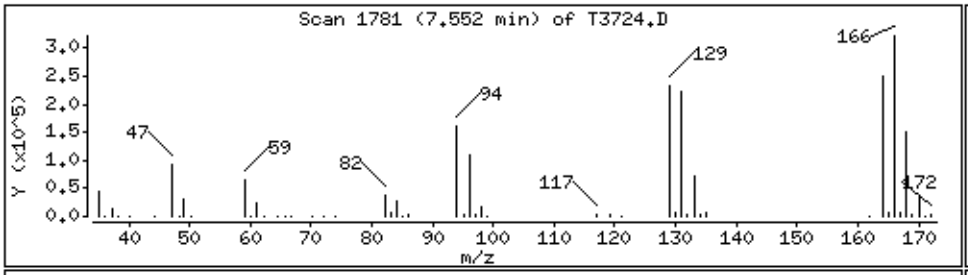
Data File: \\target_server\gg\chem\gcms-t.i\T101121.b\T3724.D

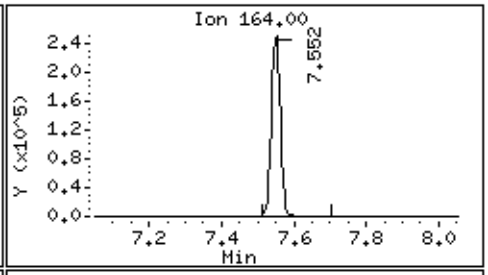
Date : 11-OCT-2021 21:11

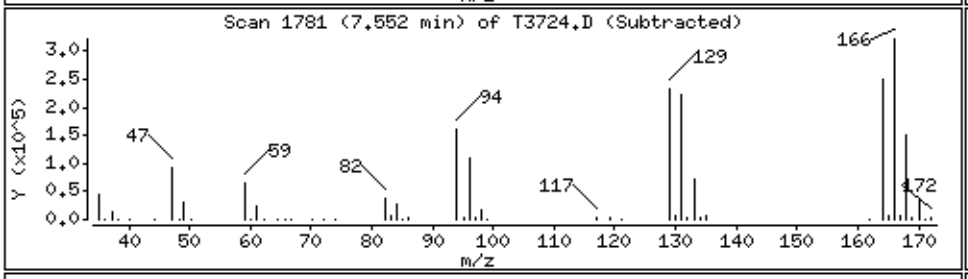
Client ID: DUP-02(20211001) Instrument: gcms-t.i

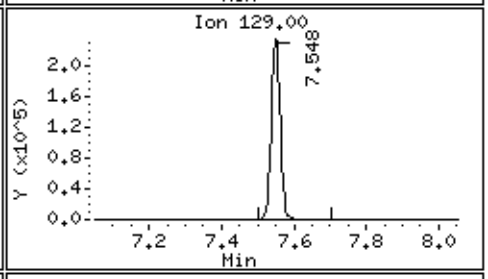
Sample Info: SO6709-19

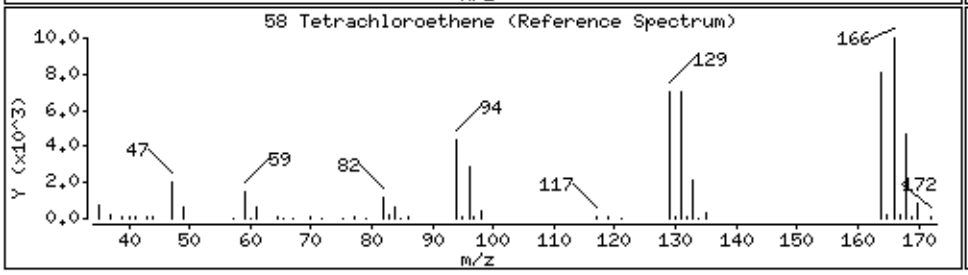
58 Tetrachloroethene Concentration: 133 ug/l

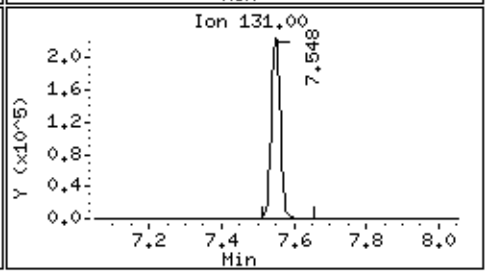








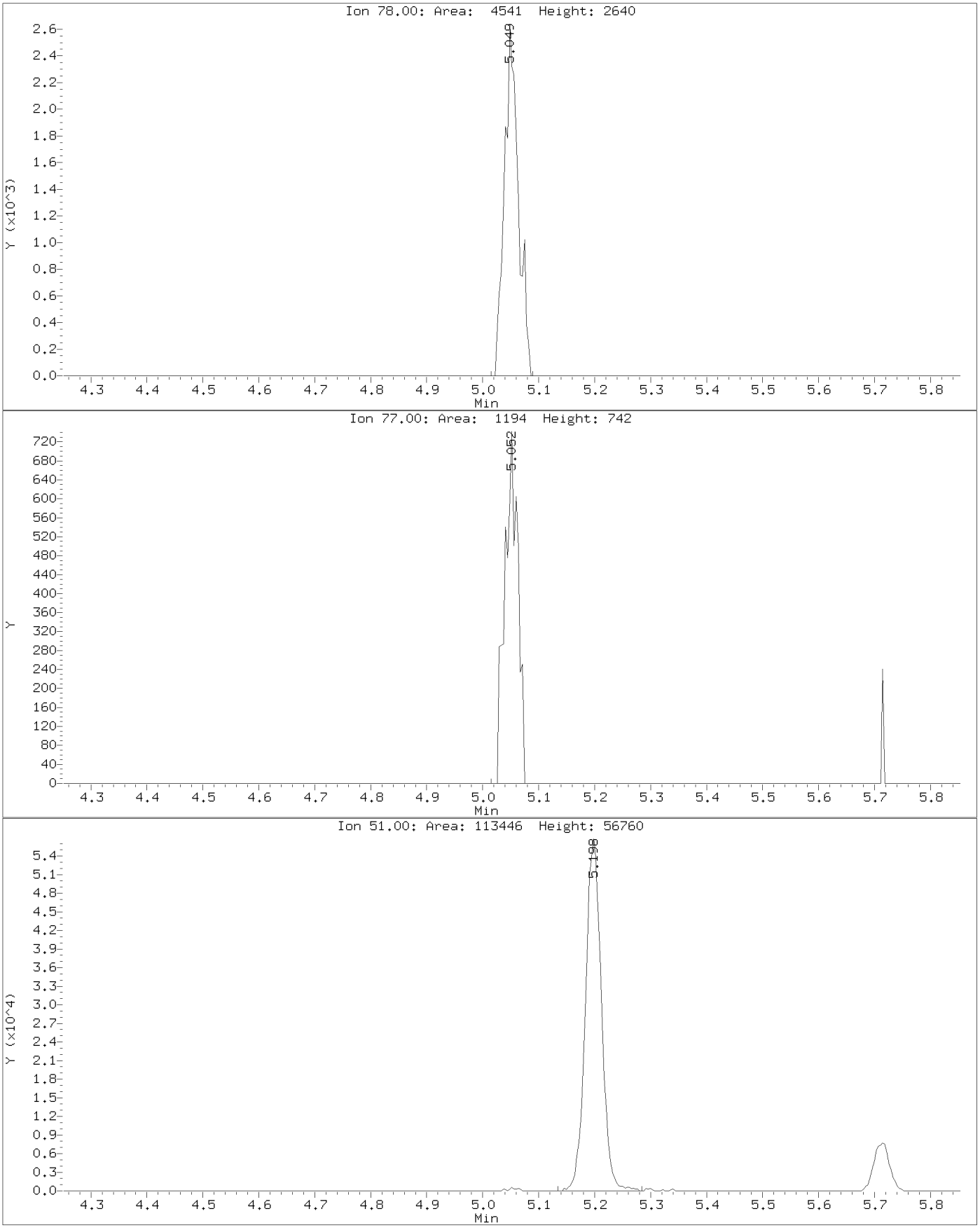




Data File: \\target_server\gg\chem\gcms-t.i\T101121.b\T3724.D
Injection Date: 11-OCT-2021 21:11
Instrument: gcms-t.i
Client Sample ID: DUP-02(20211001)

Compound: Benzene
CAS Number: 71-43-2

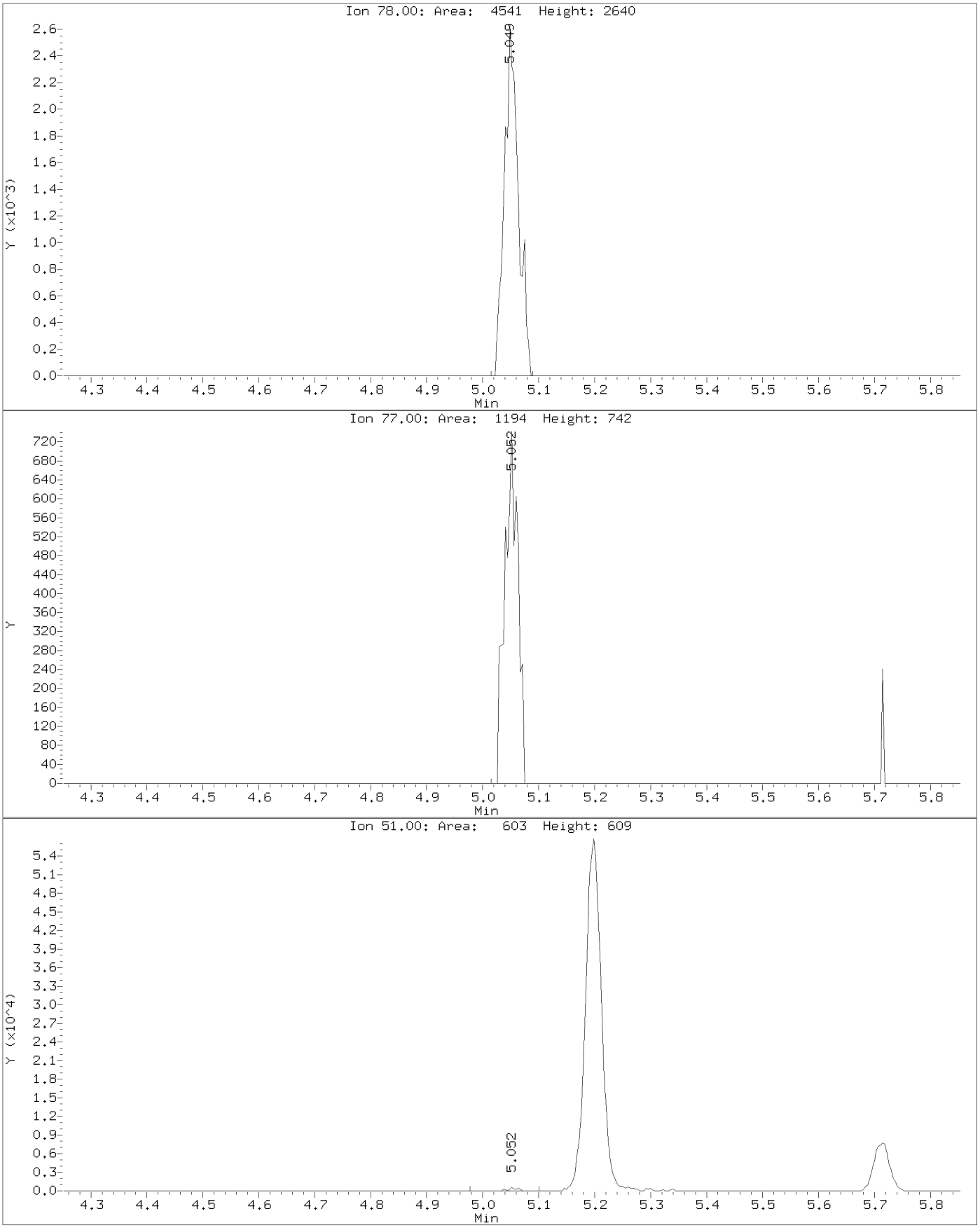
BEFORE MANUAL INTEGRATION



Data File: \\target_server\gg\chem\gcms-t.i\T101121.b\T3724.D
Injection Date: 11-OCT-2021 21:11
Instrument: gcms-t.i
Client Sample ID: DUP-02(20211001)

Compound: Benzene
CAS Number: 71-43-2

AFTER MANUAL INTEGRATION



Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-20
Client ID: WVA-AW-MW-64(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: W0639.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 12-OCT-21
Extracted By: HG
Extraction Method: SW846 5030
Lab Prep Batch: WG307697

Analysis Date: 12-OCT-21
Analyst: HG
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	2.0	ug/L	1	2	2.0
Vinyl Chloride	U	2.0	ug/L	1	2	2.0
Bromomethane	U	2.0	ug/L	1	2	2.0
Chloroethane	U	2.0	ug/L	1	2	2.0
Trichlorofluoromethane	U	2.0	ug/L	1	2	2.0
1,1-Dichloroethene	U	1.0	ug/L	1	1	1.0
Carbon Disulfide	U	1.0	ug/L	1	1	1.0
Methylene Chloride	U	5.0	ug/L	1	5	5.0
trans-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
1,1-Dichloroethane	U	1.0	ug/L	1	1	1.0
cis-1,2-Dichloroethene		56.	ug/L	1	1	1.0
Chloroform	U	1.0	ug/L	1	1	1.0
Carbon Tetrachloride	U	1.0	ug/L	1	1	1.0
1,1,1-Trichloroethane	U	1.0	ug/L	1	1	1.0
2-Butanone	U	5.0	ug/L	1	5	5.0
Benzene	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethane	U	1.0	ug/L	1	1	1.0
Trichloroethene		47.	ug/L	1	1	1.0
1,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Bromodichloromethane	U	1.0	ug/L	1	1	1.0
cis-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
Toluene	U	1.0	ug/L	1	1	1.0
4-Methyl-2-Pentanone	U	5.0	ug/L	1	5	5.0
Tetrachloroethene		130	ug/L	1	1	1.0
trans-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
1,1,2-Trichloroethane	U	1.0	ug/L	1	1	1.0
Dibromochloromethane	U	1.0	ug/L	1	1	1.0
Chlorobenzene	U	1.0	ug/L	1	1	1.0
Ethylbenzene	U	1.0	ug/L	1	1	1.0
m+p-Xylenes	U	2.0	ug/L	1	2	2.0
o-Xylene	U	1.0	ug/L	1	1	1.0
Bromoform	U	1.0	ug/L	1	1	1.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
P-Bromofluorobenzene		97.2	%			
Toluene-d8		99.5	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-20
Client ID: WVA-AW-MW-64(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: W0639.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 12-OCT-21
Extracted By: HG
Extraction Method: SW846 5030
Lab Prep Batch: WG307697

Analysis Date: 12-OCT-21
Analyst: HG
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		120.	%			
Dibromofluoromethane		110.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Data File: \\target_server\gg\chem\gcms-w.i\W101221.b\W0639.D
Report Date: 11-Nov-2021 17:35

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-w.i\W101221.b\W0639.D
Lab Smp Id: SO6709-20 Client Smp ID: VA-AW-MW-64(2021100
Inj Date : 12-OCT-2021 14:17
Operator : HG Inst ID: gcms-w.i
Smp Info : SO6709-20
Misc Info : WG307697,WG307697-4
Comment : SW846 5030
Method : \\target_server\gg\chem\gcms-w.i\W101221.b\W8A05(11).m
Meth Date : 12-Oct-2021 07:57 estroh Quant Type: ISTD
Cal Date : 10-OCT-2021 12:35 Cal File: W0583.D
Als bottle: 15
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.12
Processing Host: T7-O360

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

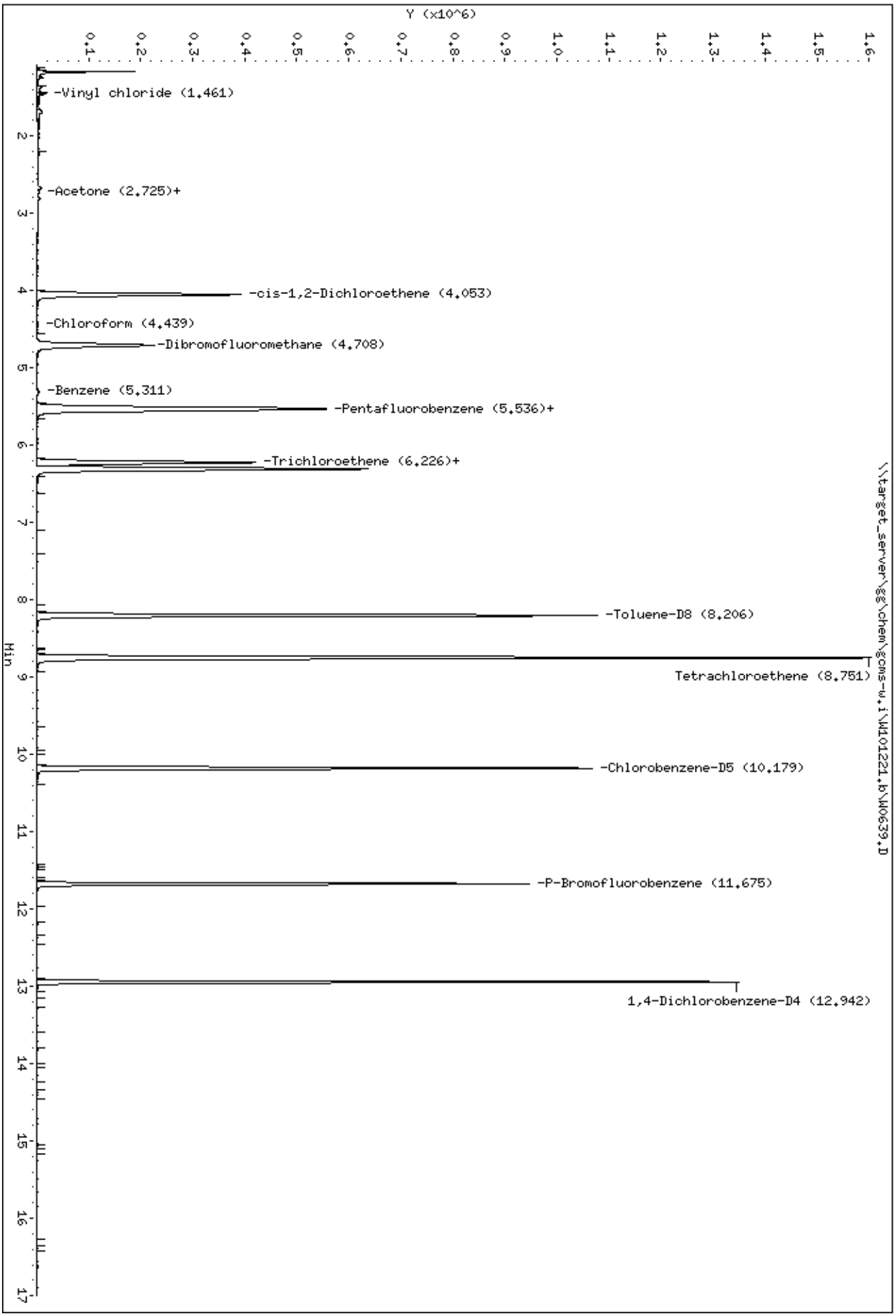
Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

3:36 pm, Nov 12, 2021

		Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)	REVIEW CODE
	3	Vinyl chloride	62	1.460	1.460	(0.264)	6304	1.31107	1.3(M)	M10
	15	Acetone	43	2.724	2.725	(0.493)	4101	2.40686	2.4(a)	
	16	trans-1,2-Dichloroethene	96	2.814	2.815	(0.510)	1053	0.27438	0.27(a)	
	27	cis-1,2-Dichloroethene	96	4.053	4.062	(0.734)	208686	55.6312	55.6	
	31	Chloroform	83	4.438	4.451	(0.804)	2994	0.45850	0.46(a)	
$	34	Dibromofluoromethane	113	4.708	4.721	(0.852)	202714	55.0906	55.1	
	38	Benzene	78	5.311	5.330	(0.841)	4210	0.27417	0.27(aM)	M10
*	41	Pentafluorobenzene	168	5.523	5.533	(1.000)	363396	50.0000		
$	42	1,2-Dichloroethane-D4	65	5.548	5.555	(1.005)	307682	59.9560	60.0	
	47	Trichloroethene	95	6.225	6.235	(0.986)	185112	47.0653	47.1	
*	48	1,4-Difluorobenzene	114	6.312	6.319	(1.000)	669229	50.0000		
$	58	Toluene-D8	98	8.202	8.212	(1.299)	782419	49.7637	49.8	
	60	Tetrachloroethene	164	8.751	8.761	(0.860)	407904	132.433	132	
*	68	Chlorobenzene-D5	117	10.179	10.185	(1.000)	612808	50.0000		
$	77	P-Bromofluorobenzene	95	11.674	11.684	(1.849)	302929	48.5999	48.6	
*	93	1,4-Dichlorobenzene-D4	152	12.942	12.952	(1.000)	308877	50.0000		
M	97	1,2-Dichloroethylene (total)	96				209739	55.9056	55.9	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.


Y (x10^6)
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0
1.1
1.2
1.3
1.4
1.5
1.6
Min
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
-Vinyl chloride (1.461)
-Acetone (2.725)+
-cis-1,2-Dichloroethene (4.053)
-Chloroform (4.439)
-Dibromofluoromethane (4.708)
-Benzene (5.311)
-Pentafluorobenzene (5.536)+
-Trichloroethene (6.226)+
-Toluene-D8 (8.206)
Tetrachloroethene (8.751)
-Chlorobenzene-D5 (10.179)
-P-Bromofluorobenzene (11.675)
1,4-Dichlorobenzene-D4 (12.942)
\\target_server\gg\chem\gcms-w.i\W101221.b\W0639.D
Data File: \\target_server\gg\chem\gcms-w.i\W101221.b\W0639.D
Date : 12-OCT-2021 14:17
Client ID: VA-AW-MW-64(2021100
Sample Info: SD6709-20
Instrument: gcms-w.i

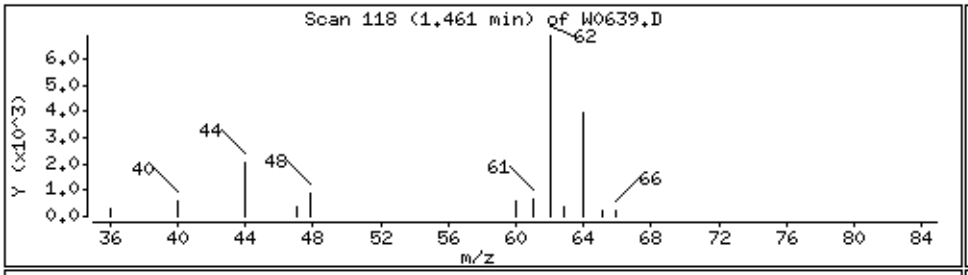
Data File: \\target_server\gg\chem\gcms-w.i\W101221.b\W0639.D

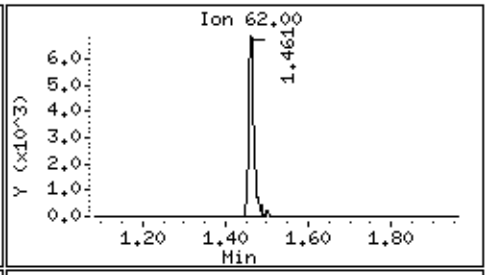
Date : 12-OCT-2021 14:17

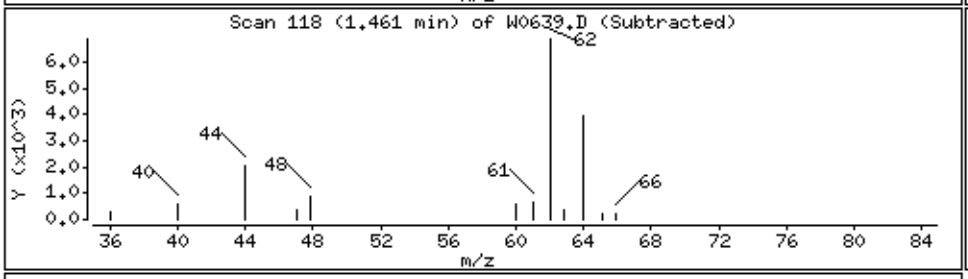
Client ID: VA-AW-MW-64(2021100 Instrument: gcms-w.i

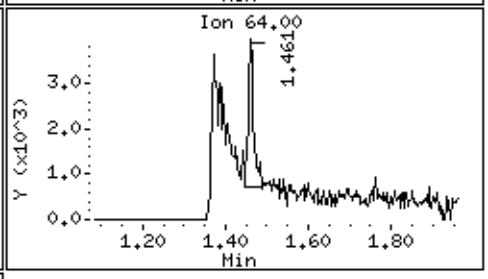
Sample Info: SO6709-20

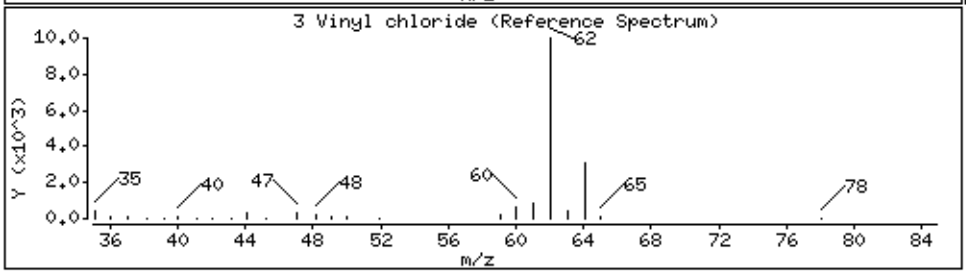
3 Vinyl chloride Concentration: 1.3 ug/l



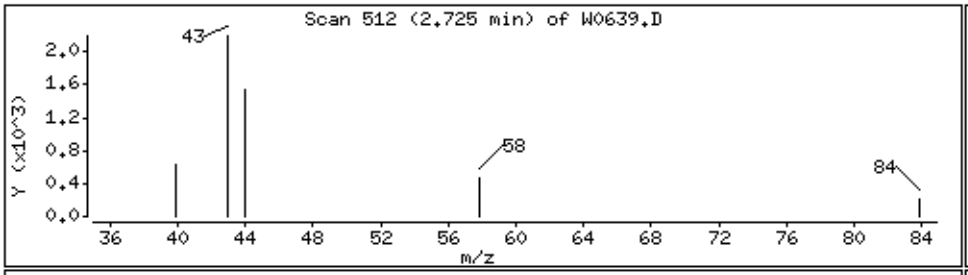


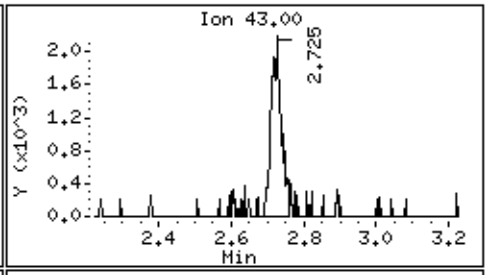


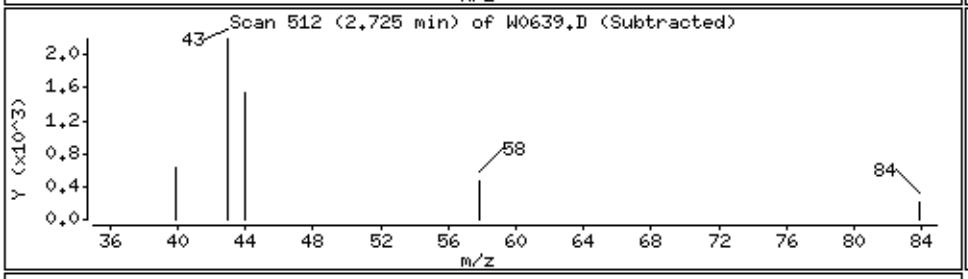


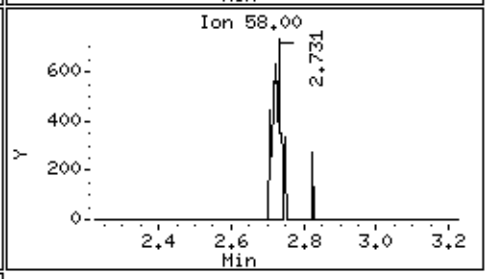


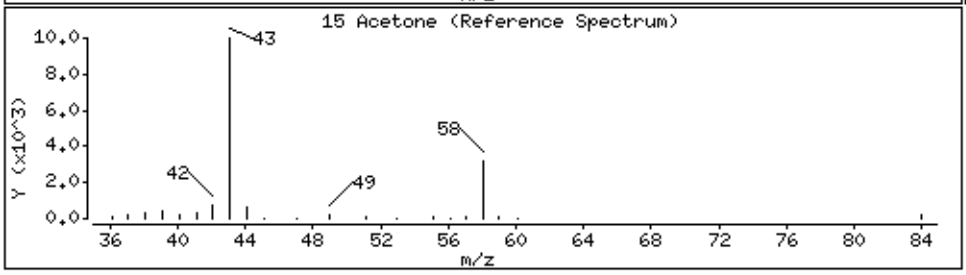
15 Acetone Concentration: 2.4 ug/l











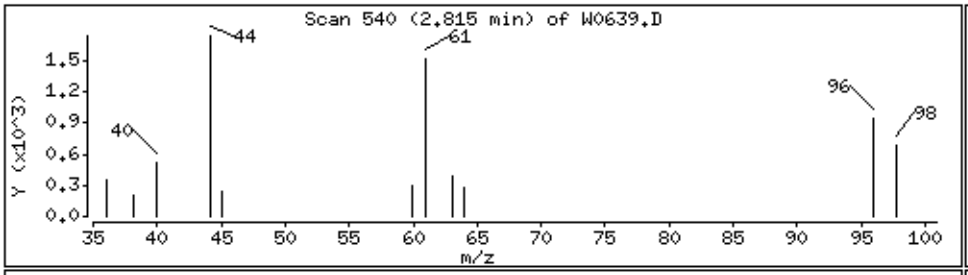
Data File: \\target_server\gg\chem\gcms-w.i\W101221.b\W0639.D

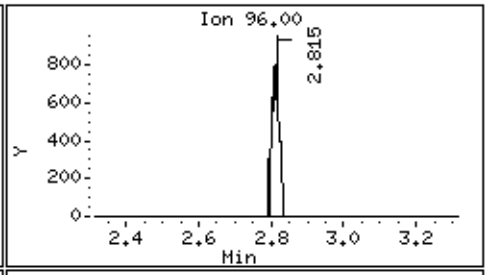
Date : 12-OCT-2021 14:17

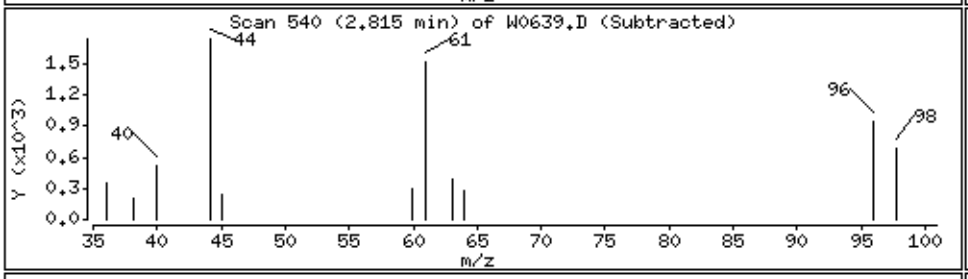
Client ID: VA-AW-MW-64(2021100 Instrument: gcms-w.i

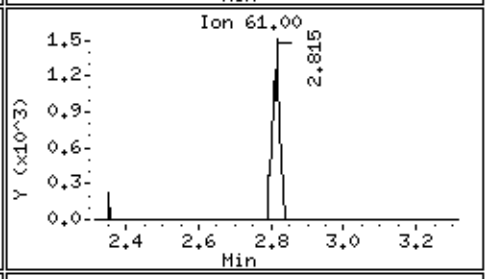
Sample Info: SO6709-20

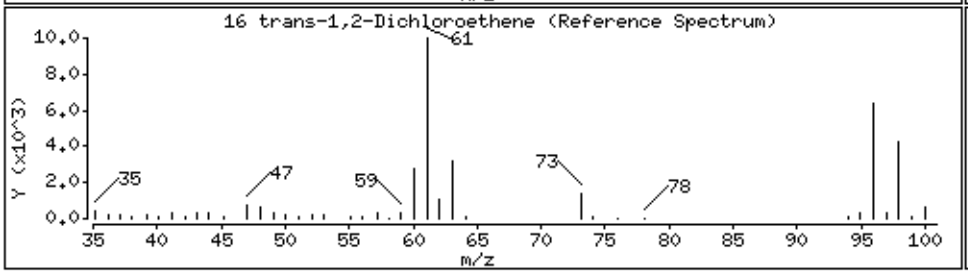
16 trans-1,2-Dichloroethene Concentration: 0.27 ug/l

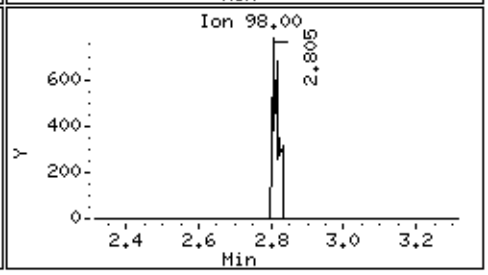




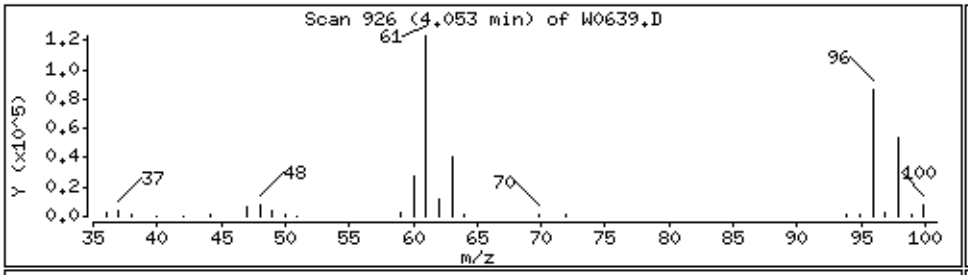


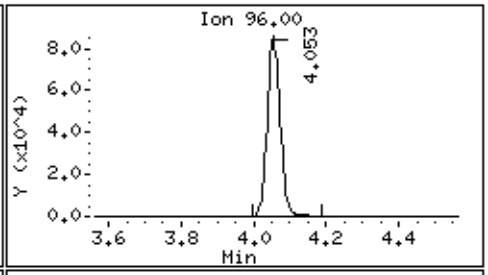


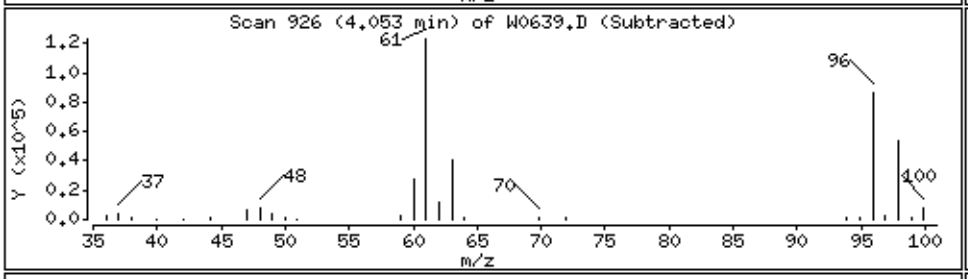


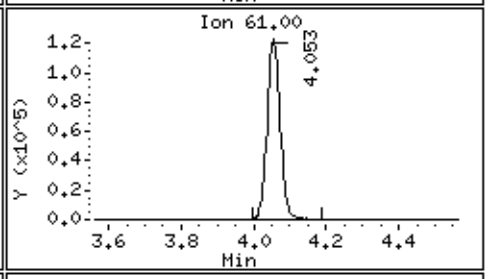


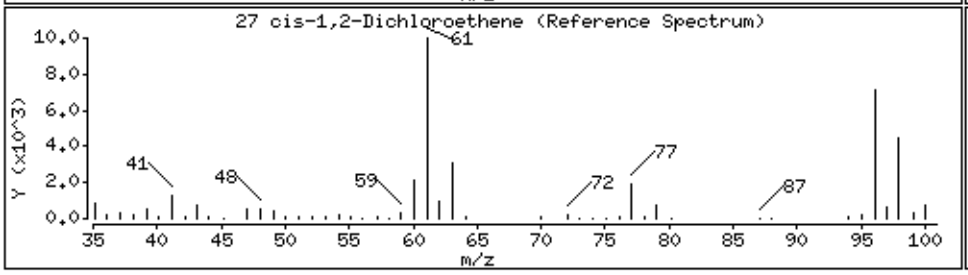
27 cis-1,2-Dichloroethene Concentration: 55.6 ug/l

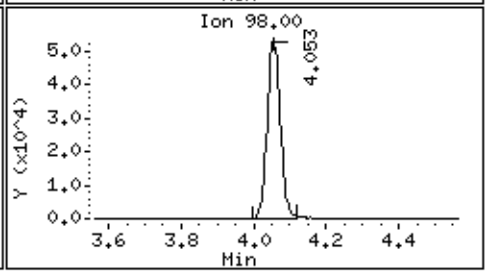












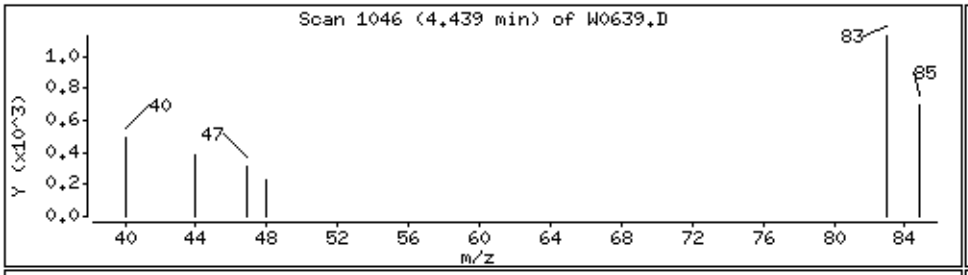
Data File: \\target_server\gg\chem\gcms-w.i\W101221.b\W0639.D

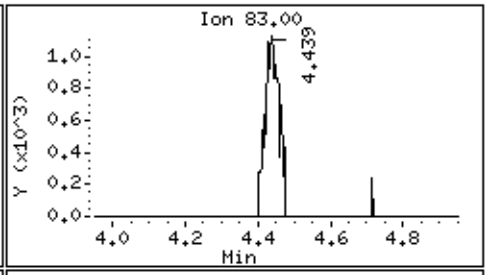
Date : 12-OCT-2021 14:17

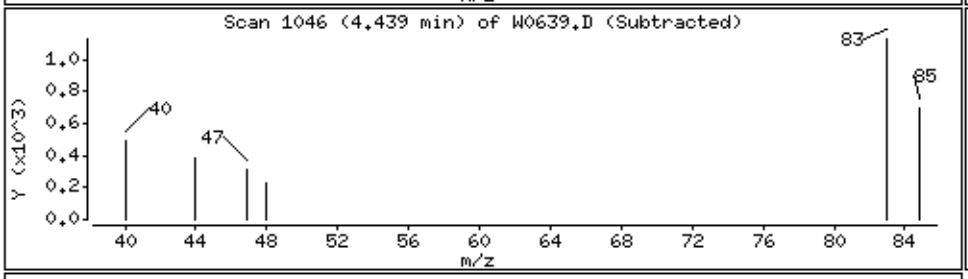
Client ID: VA-AW-MW-64(2021100 Instrument: gcms-w.i

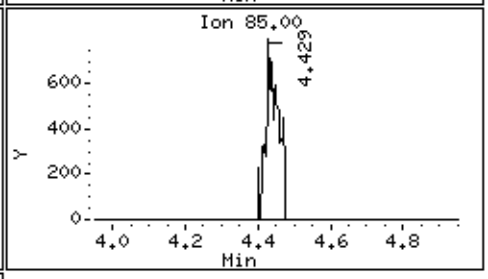
Sample Info: S06709-20

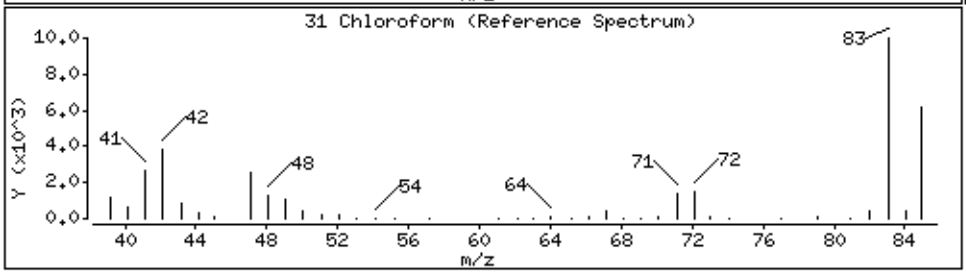
31 Chloroform Concentration: 0.46 ug/l



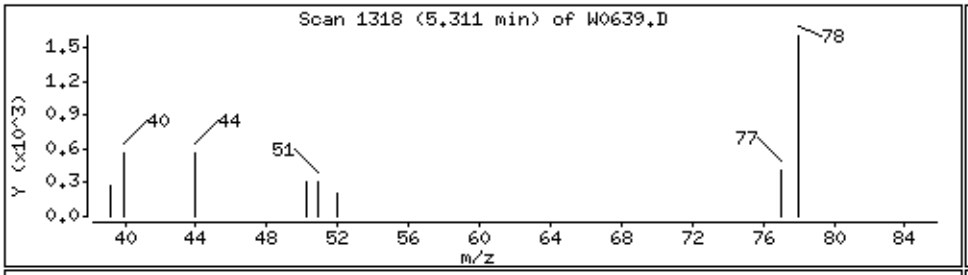


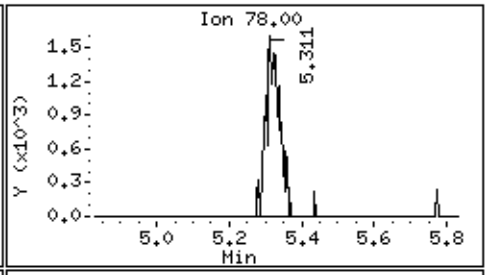


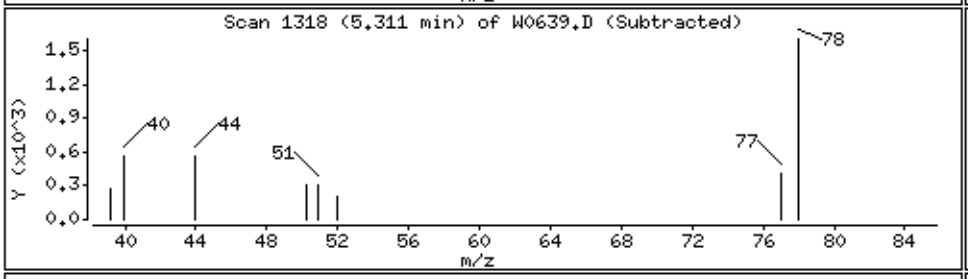


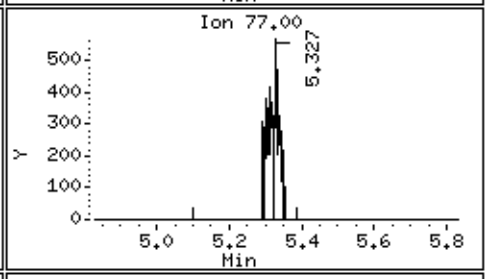


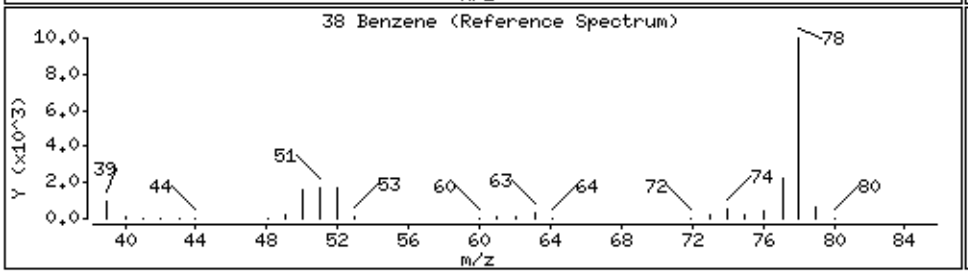
38 Benzene Concentration: 0.27 ug/l

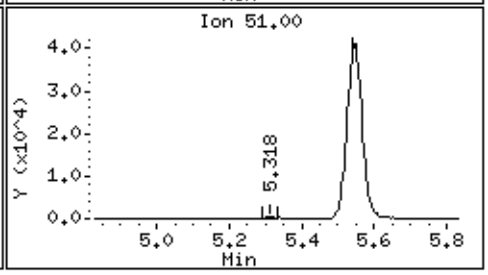












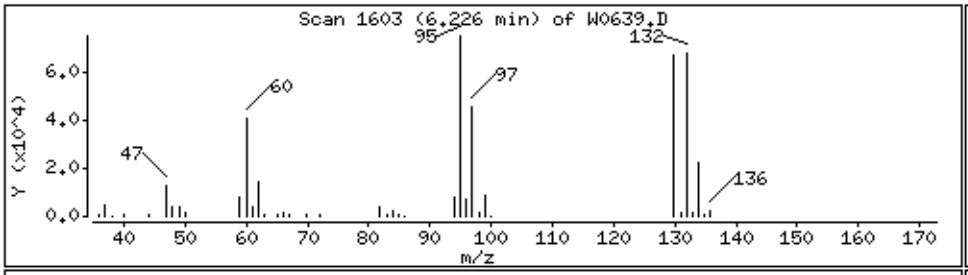
Data File: \\target_server\gg\chem\gcms-w.i\W101221.b\W0639.D

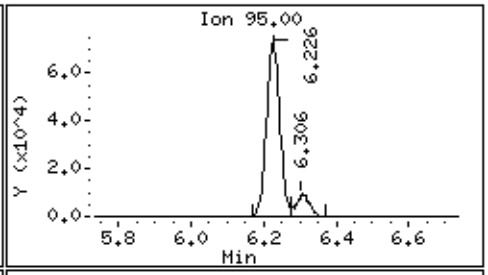
Date : 12-OCT-2021 14:17

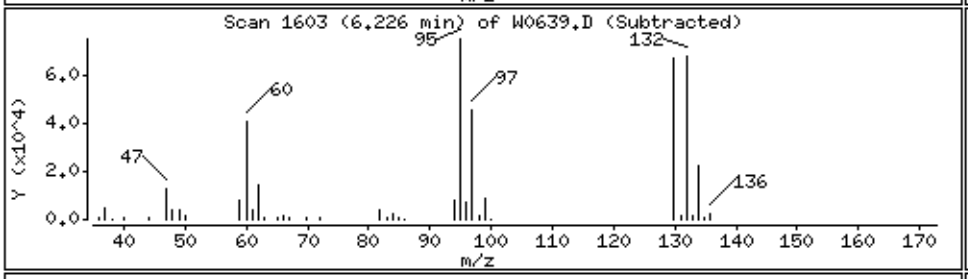
Client ID: VA-AW-MW-64(2021100 Instrument: gcms-w.i

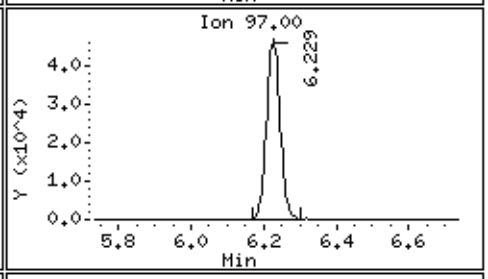
Sample Info: SO6709-20

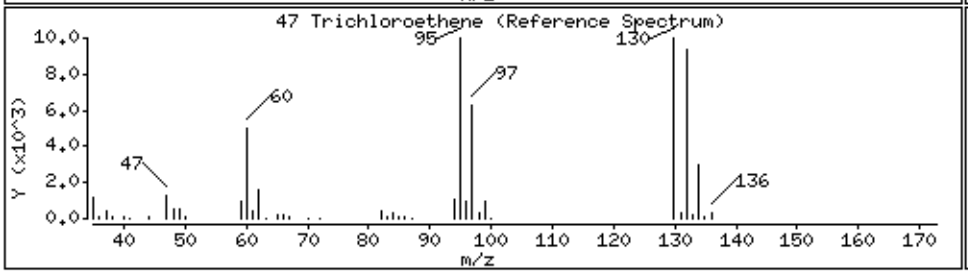
47 Trichloroethene Concentration: 47.1 ug/l

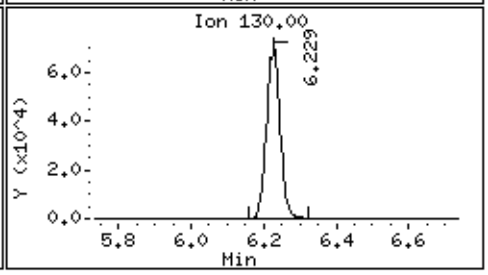




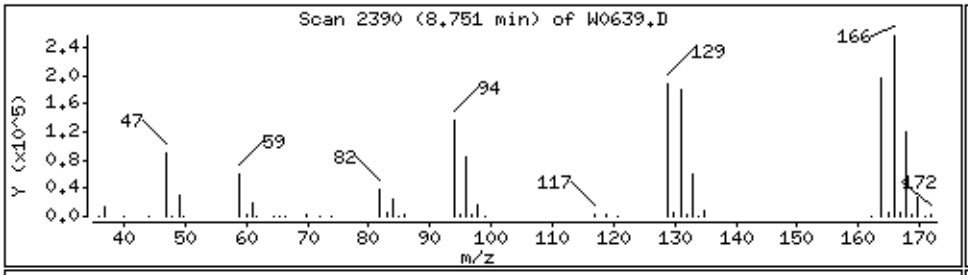


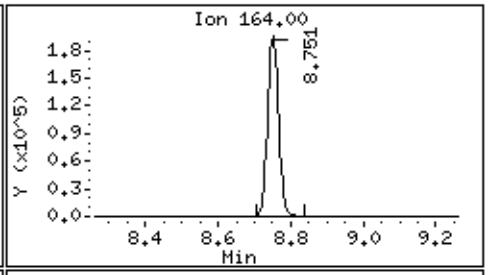


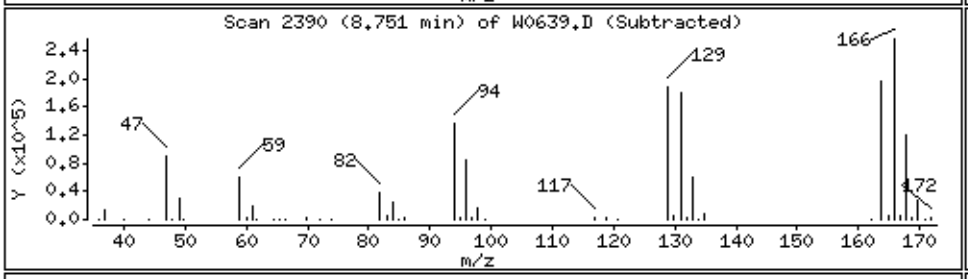


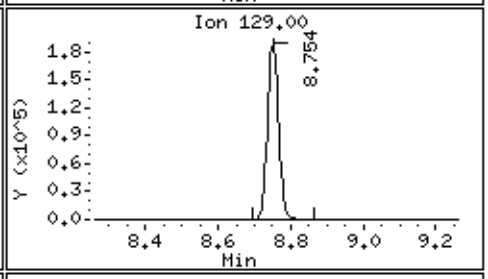


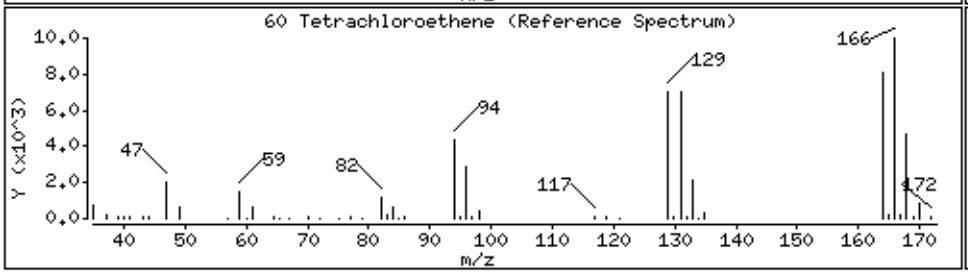
60 Tetrachloroethene Concentration: 132 ug/l

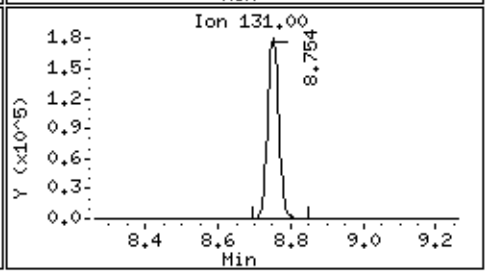








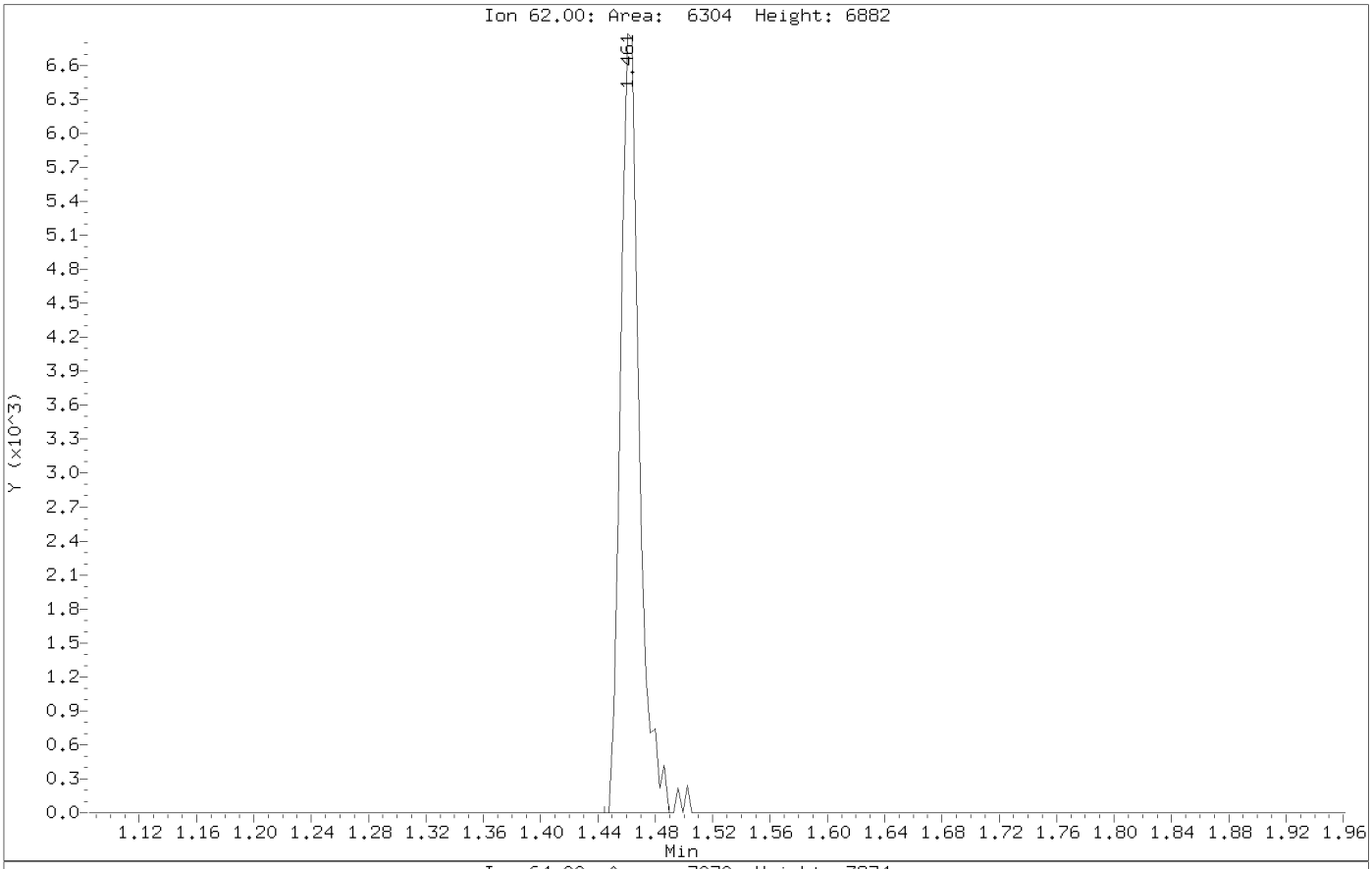


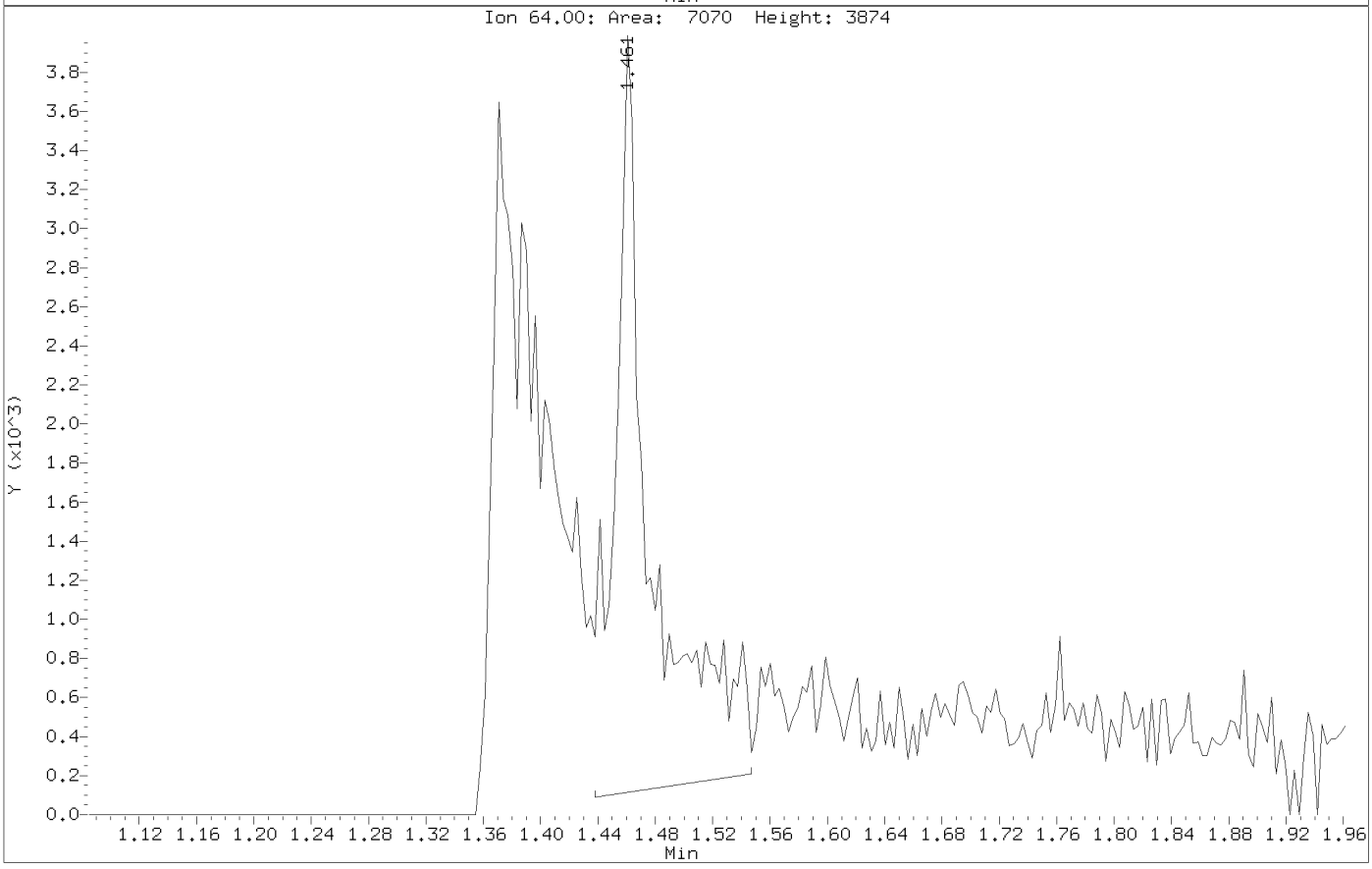


Data File: \\target_server\gg\chem\gcms-w.i\W101221.b\W0639.D
Injection Date: 12-OCT-2021 14:17
Instrument: gcms-w.i
Client Sample ID: VA-AW-MW-64(2021100

Compound: Vinyl chloride
CAS Number: 75-01-4

BEFORE MANUAL INTEGRATION

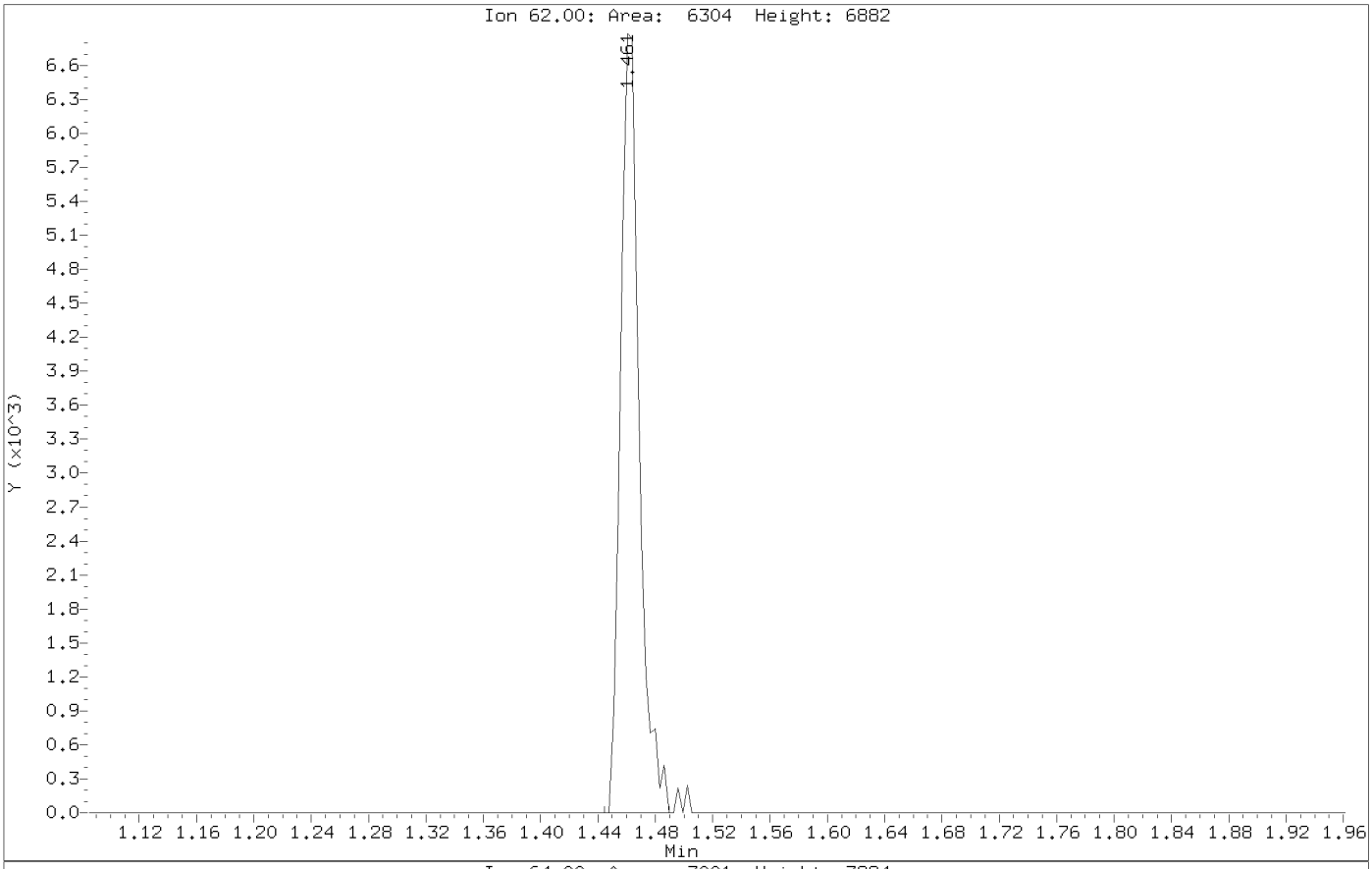


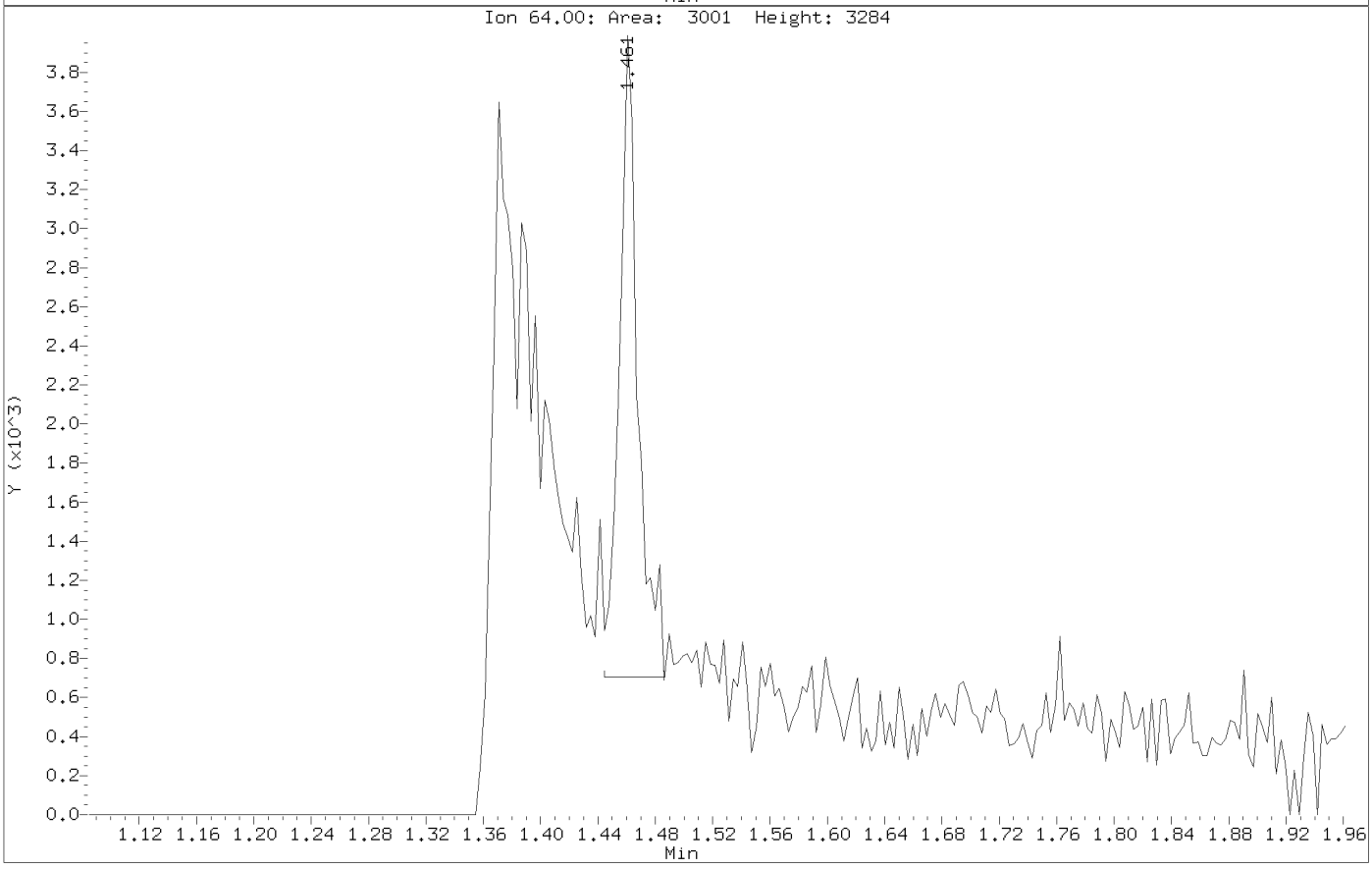


Data File: \\target_server\gg\chem\gcms-w.i\W101221.b\W0639.D
Injection Date: 12-OCT-2021 14:17
Instrument: gcms-w.i
Client Sample ID: VA-AW-MW-64(2021100

Compound: Vinyl chloride
CAS Number: 75-01-4

AFTER MANUAL INTEGRATION

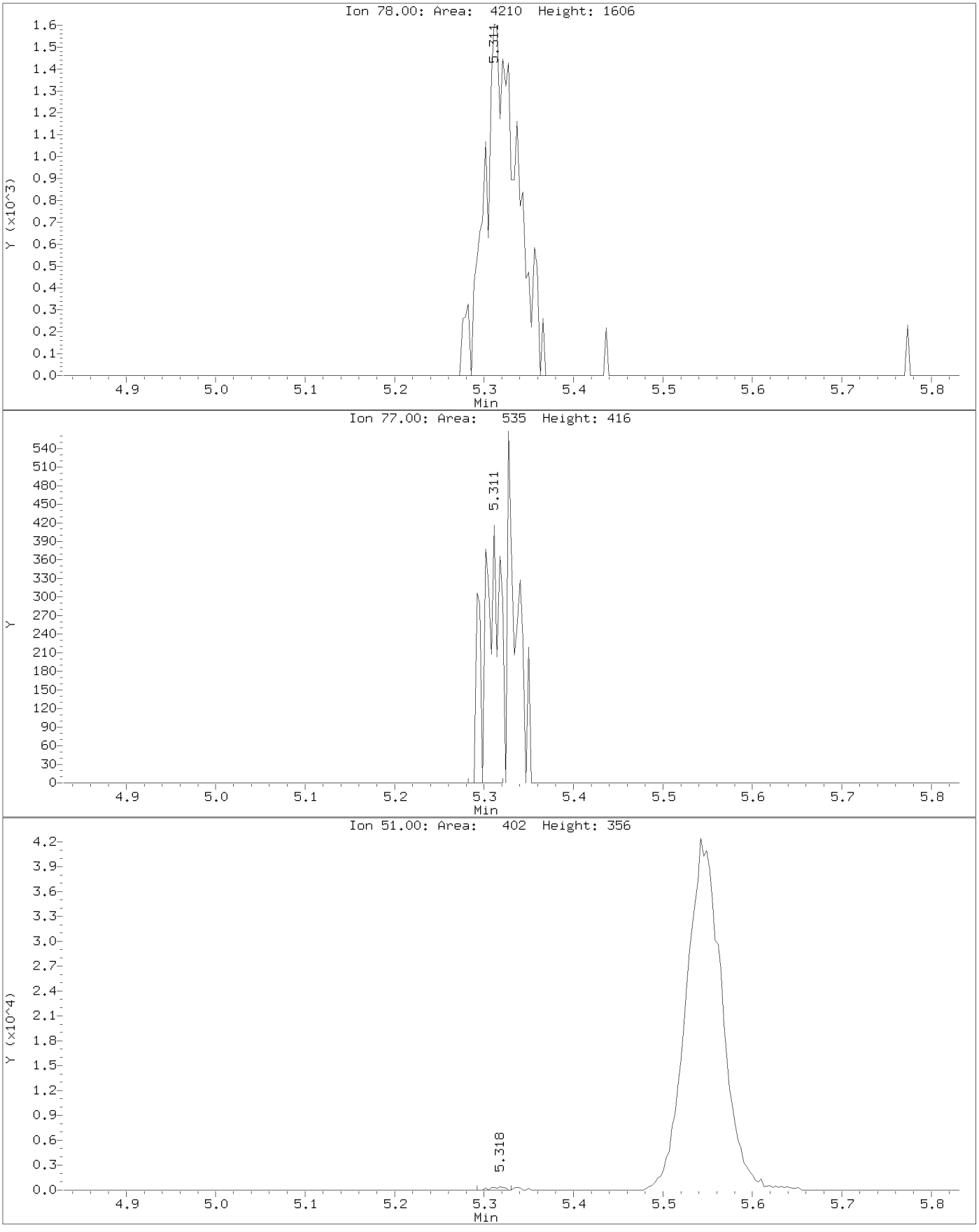




BEFORE MANUAL INTEGRATION

Data File: \\target_server\gg\chem\gcms-w.i\W101221.b\W0639.D
Injection Date: 12-OCT-2021 14:17
Instrument: gcms-w.i
Client Sample ID: VA-AW-MW-64(2021100

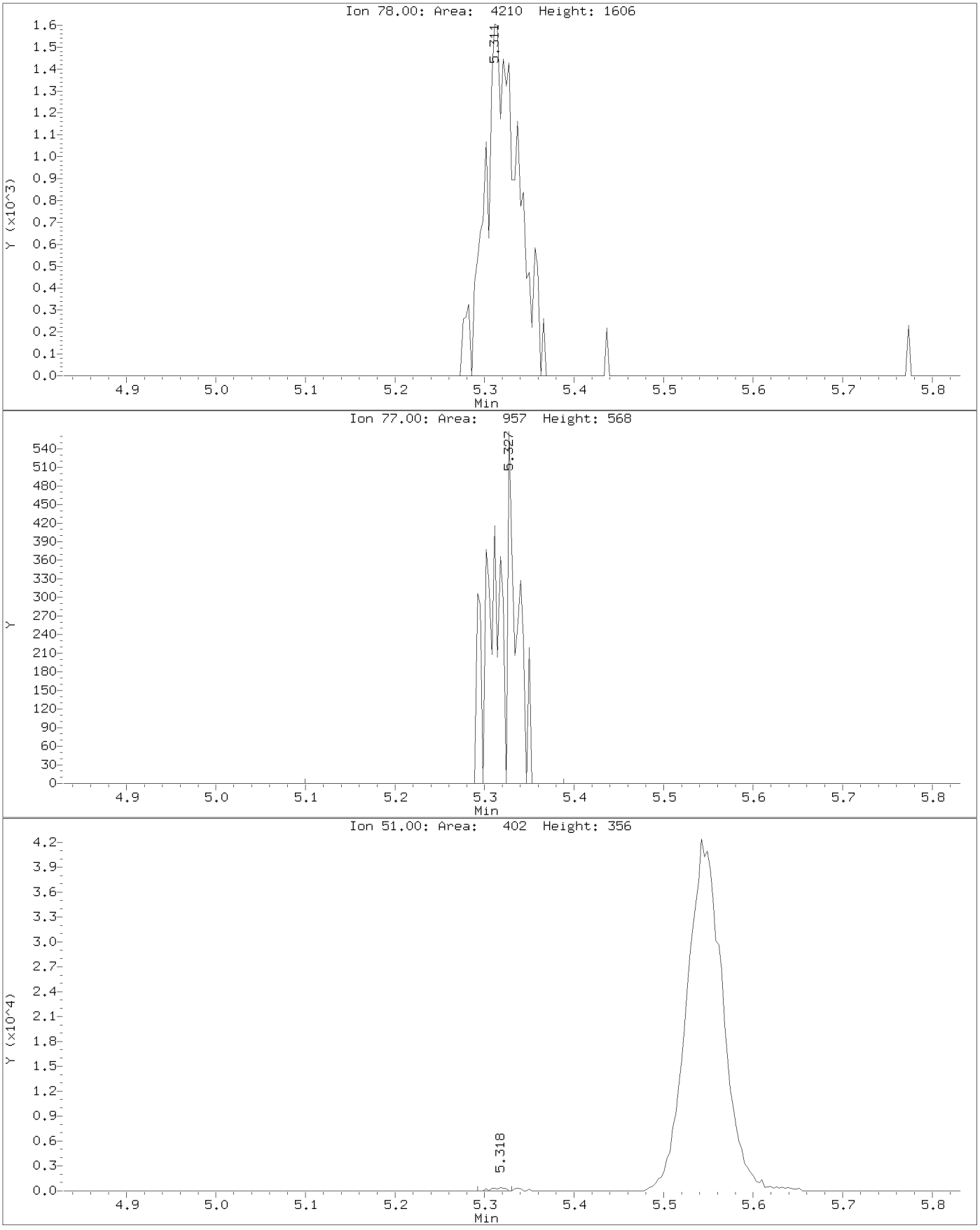
Compound: Benzene
CAS Number: 71-43-2



Data File: \\target_server\gg\chem\gcms-w.i\W101221.b\W0639.D
Injection Date: 12-OCT-2021 14:17
Instrument: gcms-w.i
Client Sample ID: VA-AW-MW-64(2021100

Compound: Benzene
CAS Number: 71-43-2

AFTER MANUAL INTEGRATION



Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-21
Client ID: 93EM-SP-13(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: T3725.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 11-OCT-21
Extracted By: JSS
Extraction Method: SW846 5030
Lab Prep Batch: WG307648

Analysis Date: 11-OCT-21
Analyst: JSS
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	2.0	ug/L	1	2	2.0
Vinyl Chloride	U	2.0	ug/L	1	2	2.0
Bromomethane	U	2.0	ug/L	1	2	2.0
Chloroethane	U	2.0	ug/L	1	2	2.0
Trichlorofluoromethane	U	2.0	ug/L	1	2	2.0
1,1-Dichloroethene	U	1.0	ug/L	1	1	1.0
Carbon Disulfide	U	1.0	ug/L	1	1	1.0
Methylene Chloride	U	5.0	ug/L	1	5	5.0
trans-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
1,1-Dichloroethane	U	1.0	ug/L	1	1	1.0
cis-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
Chloroform	U	1.0	ug/L	1	1	1.0
Carbon Tetrachloride	U	1.0	ug/L	1	1	1.0
1,1,1-Trichloroethane	U	1.0	ug/L	1	1	1.0
2-Butanone	U	5.0	ug/L	1	5	5.0
Benzene	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethane	U	1.0	ug/L	1	1	1.0
Trichloroethene		1.0	ug/L	1	1	1.0
1,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Bromodichloromethane	U	1.0	ug/L	1	1	1.0
cis-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
Toluene	U	1.0	ug/L	1	1	1.0
4-Methyl-2-Pentanone	U	5.0	ug/L	1	5	5.0
Tetrachloroethene	U	1.0	ug/L	1	1	1.0
trans-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
1,1,2-Trichloroethane	U	1.0	ug/L	1	1	1.0
Dibromochloromethane	U	1.0	ug/L	1	1	1.0
Chlorobenzene	U	1.0	ug/L	1	1	1.0
Ethylbenzene	U	1.0	ug/L	1	1	1.0
m+p-Xylenes	U	2.0	ug/L	1	2	2.0
o-Xylene	U	1.0	ug/L	1	1	1.0
Bromoform	U	1.0	ug/L	1	1	1.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
P-Bromofluorobenzene		103.	%			
Toluene-d8		101.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-21
Client ID: 93EM-SP-13(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: T3725.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 11-OCT-21
Extracted By: JSS
Extraction Method: SW846 5030
Lab Prep Batch: WG307648

Analysis Date: 11-OCT-21
Analyst: JSS
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		120.	%			
Dibromofluoromethane		110.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Data File: \\target_server\gg\chem\gcms-t.i\T101121.b\T3725.D
Report Date: 11-Nov-2021 17:08

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-t.i\T101121.b\T3725.D
Lab Smp Id: SO6709-21 Client Smp ID: 3EM-SP-13(20211001)
Inj Date : 11-OCT-2021 21:38
Operator : JSS Inst ID: gcms-t.i
Smp Info : SO6709-21
Misc Info : WG307648,WG307648-4
Comment : SW846 5030
Method : \\target_server\gg\chem\gcms-t.i\T101121.b\T8A05(01)shrt.m
Meth Date : 05-Nov-2021 14:30 hgould Quant Type: ISTD
Cal Date : 11-OCT-2021 14:13 Cal File: T3708.D
Als bottle: 26
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.12
Processing Host: VOA-WS

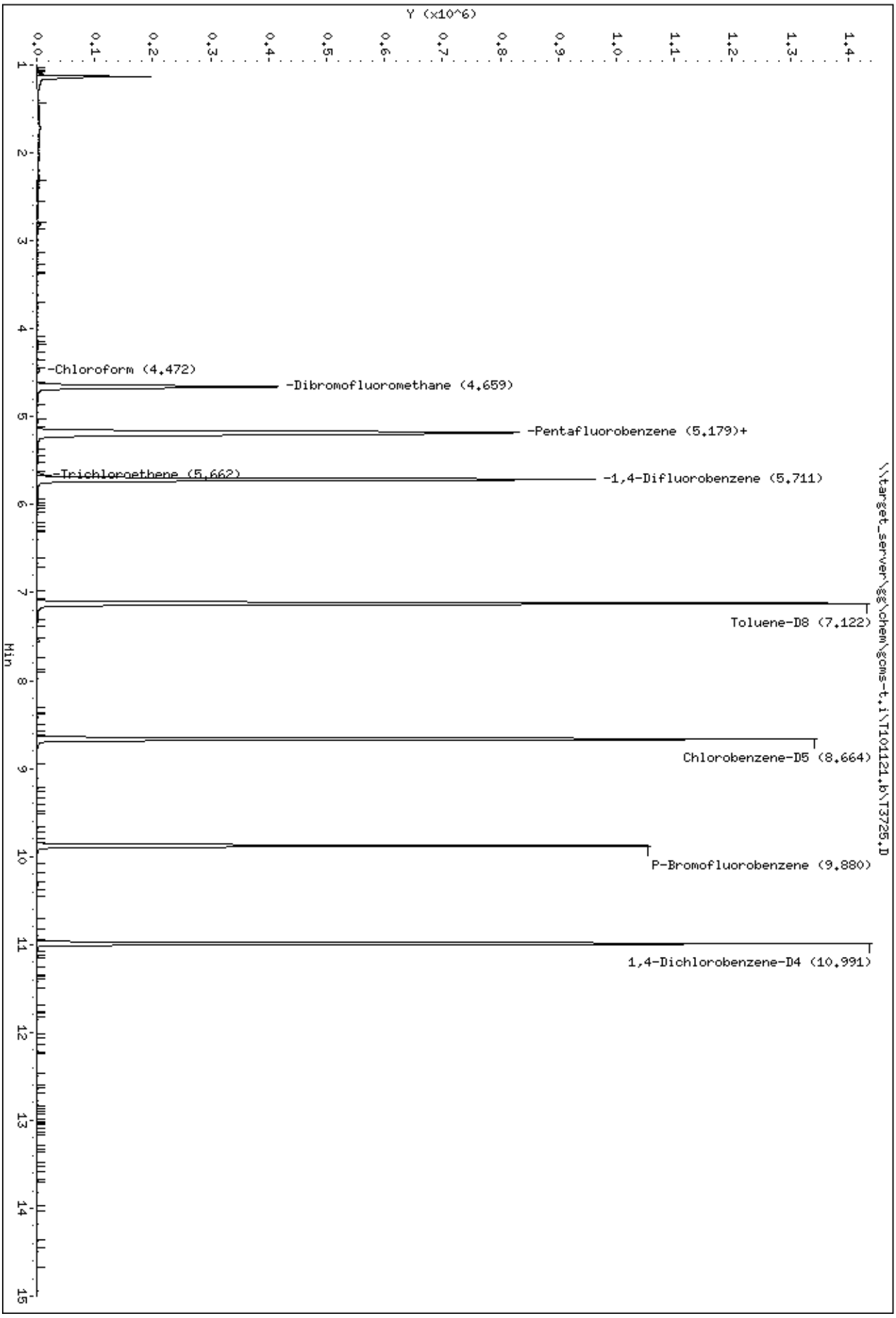
Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)	REVIEW CODE
	31 Chloroform	83	4.475	4.476	(0.865)	3655	0.48139	0.48(a)	
$	34 Dibromofluoromethane	113	4.659	4.659	(0.900)	257807	55.0797	55.1	
*	41 Pentafluorobenzene	168	5.175	5.176	(1.000)	464178	50.0000		
$	42 1,2-Dichloroethane-D4	65	5.198	5.202	(1.004)	358779	60.2880	60.3	
	47 Trichloroethene	95	5.662	5.662	(0.991)	4289	1.03501	1.0	
*	48 1,4-Difluorobenzene	114	5.710	5.714	(1.000)	749485	50.0000		
$	56 Toluene-D8	98	7.121	7.122	(1.247)	877534	50.4963	50.5	
*	68 Chlorobenzene-D5	117	8.663	8.663	(1.000)	662624	50.0000		
$	77 P-Bromofluorobenzene	95	9.879	9.876	(1.730)	322026	51.4895	51.5	
*	93 1,4-Dichlorobenzene-D4	152	10.991	10.991	(1.000)	318062	50.0000		

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).


Data File: \\target_server\gg\chem\gcms-t.i\T101121.b\T3725.D
Date : 11-OCT-2021 21:38
Client ID: 3EM-SP-13(20211001)
Sample Info: S06709-21
Instrument: gcms-t.i
\\target_server\gg\chem\gcms-t.i\T101121.b\T3725.D
Y (x10^6)
Min
-Chloroform (4.472)
-Dibromofluoromethane (4.659)
-Pentafluorobenzene (5.179)+
-Trichloroethene (5.662)
-1,4-Difluorobenzene (5.711)
Toluene-D8 (7.122)
Chlorobenzene-D5 (8.664)
P-Bromofluorobenzene (9.880)
1,4-Dichlorobenzene-D4 (10.991)

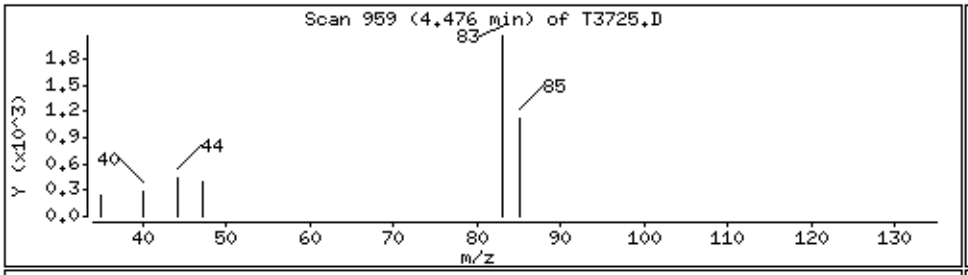
Data File: \\target_server\gg\chem\gcms-t.i\T101121.b\T3725.D

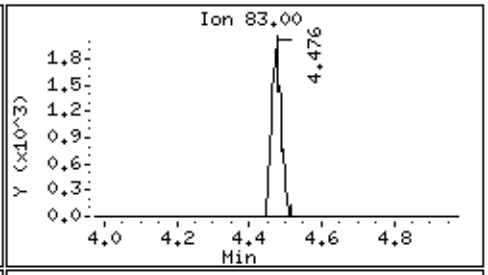
Date : 11-OCT-2021 21:38

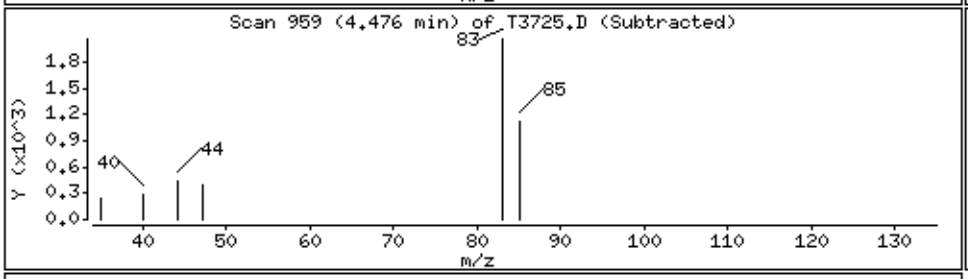
Client ID: 3EM-SP-13(20211001) Instrument: gcms-t.i

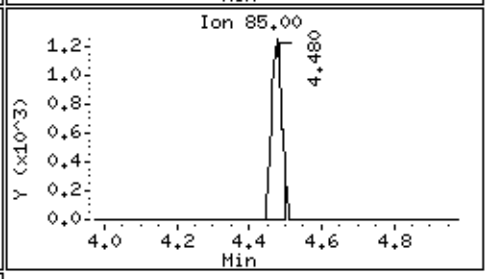
Sample Info: S06709-21

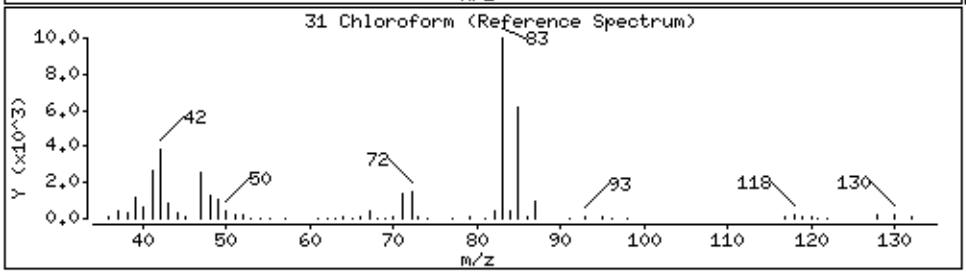
31 Chloroform Concentration: 0.48 ug/l



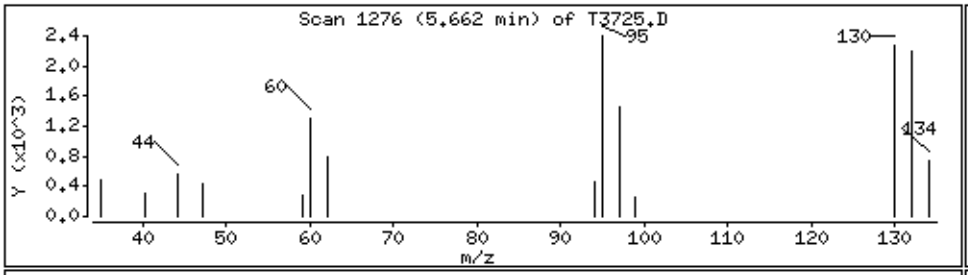


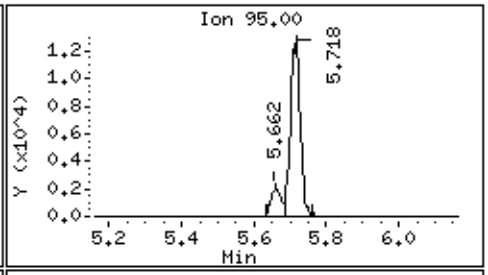


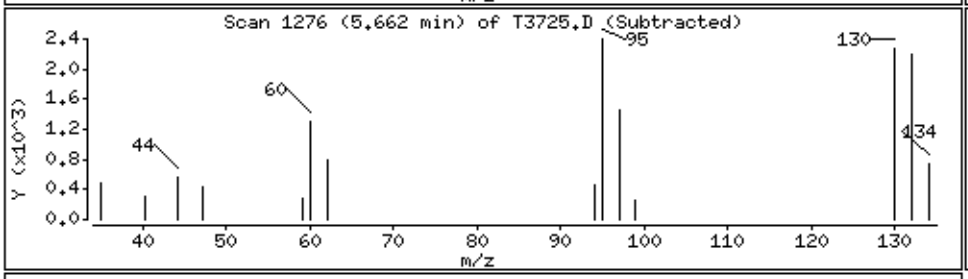


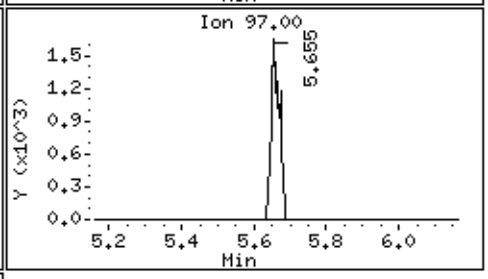


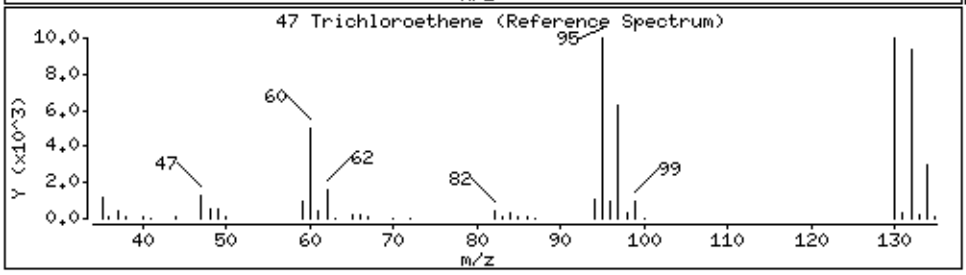
47 Trichloroethene Concentration: 1.0 ug/l











Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-22
Client ID: WVA-AW-135-MW-4(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: W0637.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 12-OCT-21
Extracted By: HG
Extraction Method: SW846 5030
Lab Prep Batch: WG307697

Analysis Date: 12-OCT-21
Analyst: HG
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	2.0	ug/L	1	2	2.0
Vinyl Chloride	U	2.0	ug/L	1	2	2.0
Bromomethane	U	2.0	ug/L	1	2	2.0
Chloroethane	U	2.0	ug/L	1	2	2.0
Trichlorofluoromethane	U	2.0	ug/L	1	2	2.0
1,1-Dichloroethene	U	1.0	ug/L	1	1	1.0
Carbon Disulfide	U	1.0	ug/L	1	1	1.0
Methylene Chloride	U	5.0	ug/L	1	5	5.0
trans-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
1,1-Dichloroethane	U	1.0	ug/L	1	1	1.0
cis-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
Chloroform	U	1.0	ug/L	1	1	1.0
Carbon Tetrachloride	U	1.0	ug/L	1	1	1.0
1,1,1-Trichloroethane	U	1.0	ug/L	1	1	1.0
2-Butanone	U	5.0	ug/L	1	5	5.0
Benzene	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethane	U	1.0	ug/L	1	1	1.0
Trichloroethene	U	1.0	ug/L	1	1	1.0
1,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Bromodichloromethane	U	1.0	ug/L	1	1	1.0
cis-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
Toluene	U	1.0	ug/L	1	1	1.0
4-Methyl-2-Pentanone	U	5.0	ug/L	1	5	5.0
Tetrachloroethene	U	1.0	ug/L	1	1	1.0
trans-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
1,1,2-Trichloroethane	U	1.0	ug/L	1	1	1.0
Dibromochloromethane	U	1.0	ug/L	1	1	1.0
Chlorobenzene	U	1.0	ug/L	1	1	1.0
Ethylbenzene	U	1.0	ug/L	1	1	1.0
m+p-Xylenes	U	2.0	ug/L	1	2	2.0
o-Xylene	U	1.0	ug/L	1	1	1.0
Bromoform	U	1.0	ug/L	1	1	1.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
P-Bromofluorobenzene		100.	%			
Toluene-d8		102.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-22
Client ID: WVA-AW-135-MW-4(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: W0637.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 12-OCT-21
Extracted By: HG
Extraction Method: SW846 5030
Lab Prep Batch: WG307697

Analysis Date: 12-OCT-21
Analyst: HG
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		121.	%			
Dibromofluoromethane		110.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Data File: \\target_server\gg\chem\gcms-w.i\W101221.b\W0637.D
Report Date: 11-Nov-2021 17:35

Katahdin Analytical Services

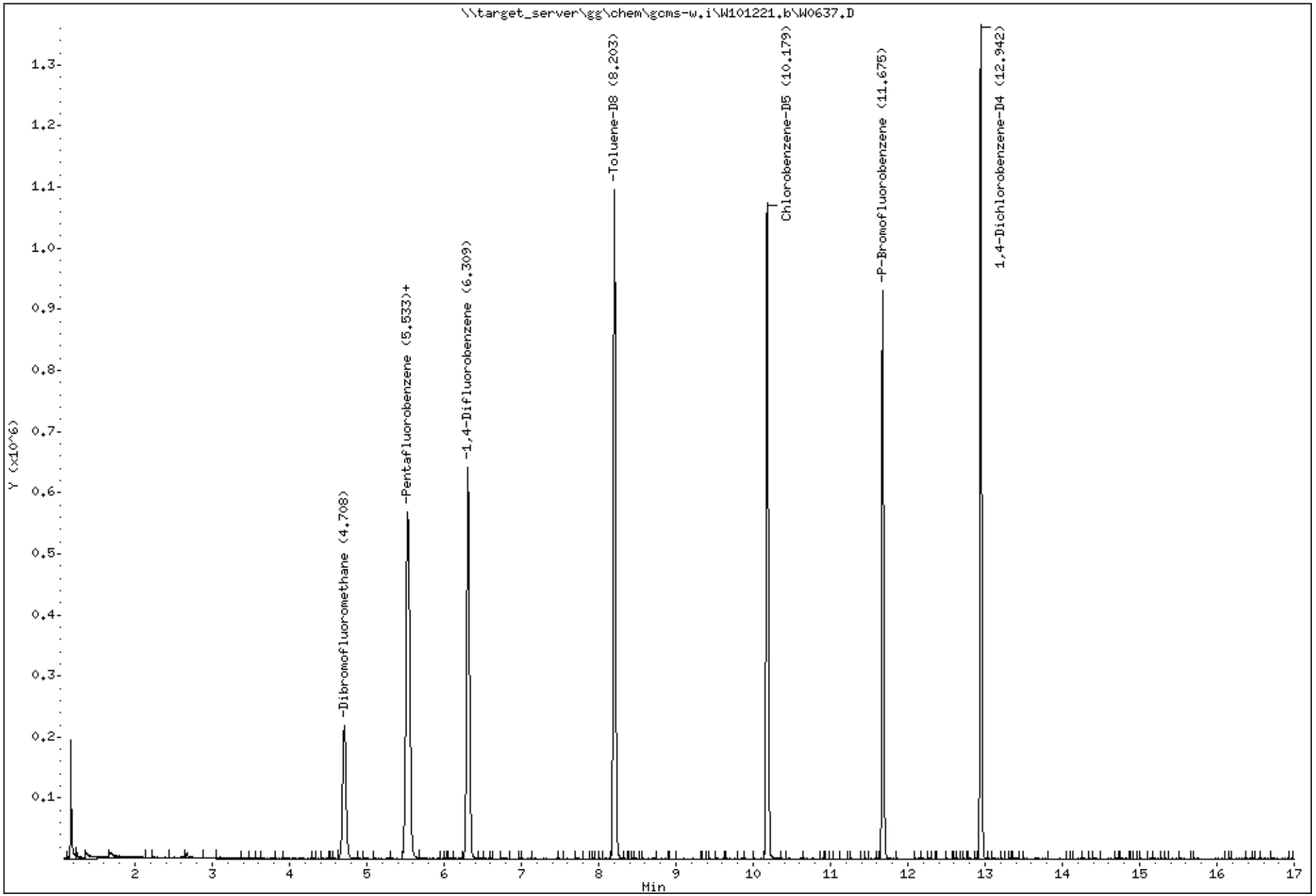
Data file : \\target_server\gg\chem\gcms-w.i\W101221.b\W0637.D
Lab Smp Id: SO6709-22 Client Smp ID: VA-AW-135-MW-4(2021
Inj Date : 12-OCT-2021 13:16
Operator : HG Inst ID: gcms-w.i
Smp Info : SO6709-22
Misc Info : WG307697,WG307697-4
Comment : SW846 5030
Method : \\target_server\gg\chem\gcms-w.i\W101221.b\W8A05(11).m
Meth Date : 12-Oct-2021 07:57 estroh Quant Type: ISTD
Cal Date : 10-OCT-2021 12:35 Cal File: W0583.D
Als bottle: 13
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.12
Processing Host: T7-O360

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)	REVIEW CODE
$	34 Dibromofluoromethane	113	4.711	4.721	(0.853)	200876	55.0420	55.0	
*	41 Pentafluorobenzene	168	5.523	5.533	(1.000)	360419	50.0000		
$	42 1,2-Dichloroethane-D4	65	5.545	5.555	(1.004)	308455	60.6031	60.6	
*	48 1,4-Difluorobenzene	114	6.306	6.319	(1.000)	656375	50.0000		
$	58 Toluene-D8	98	8.202	8.212	(1.301)	788353	51.1231	51.1	
*	68 Chlorobenzene-D5	117	10.179	10.185	(1.000)	614189	50.0000		
$	77 P-Bromofluorobenzene	95	11.674	11.684	(1.851)	306198	50.0864	50.1	
*	93 1,4-Dichlorobenzene-D4	152	12.942	12.952	(1.000)	314480	50.0000		

Data File: \\target_server\gg\chem\gcms-w.i\W101221.b\W0637.D
Date : 12-OCT-2021 13:16
Client ID: VA-AW-135-MW-4(2021
Instrument: gcms-w.i
Sample Info: SO6709-22



Katahdin Analytical Services 1000155

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-23
Client ID: WVA-AW-MW-38(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: T3713.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 11-OCT-21
Extracted By: JSS
Extraction Method: SW846 5030
Lab Prep Batch: WG307648

Analysis Date: 11-OCT-21
Analyst: JSS
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	2.0	ug/L	1	2	2.0
Vinyl Chloride	U	2.0	ug/L	1	2	2.0
Bromomethane	U	2.0	ug/L	1	2	2.0
Chloroethane	U	2.0	ug/L	1	2	2.0
Trichlorofluoromethane	U	2.0	ug/L	1	2	2.0
1,1-Dichloroethene	U	1.0	ug/L	1	1	1.0
Carbon Disulfide	U	1.0	ug/L	1	1	1.0
Methylene Chloride	U	5.0	ug/L	1	5	5.0
trans-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
1,1-Dichloroethane	U	1.0	ug/L	1	1	1.0
cis-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
Chloroform	U	1.0	ug/L	1	1	1.0
Carbon Tetrachloride	U	1.0	ug/L	1	1	1.0
1,1,1-Trichloroethane	U	1.0	ug/L	1	1	1.0
2-Butanone	U	5.0	ug/L	1	5	5.0
Benzene	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethane	U	1.0	ug/L	1	1	1.0
Trichloroethene	U	1.0	ug/L	1	1	1.0
1,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Bromodichloromethane	U	1.0	ug/L	1	1	1.0
cis-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
Toluene	U	1.0	ug/L	1	1	1.0
4-Methyl-2-Pentanone	U	5.0	ug/L	1	5	5.0
Tetrachloroethene	U	1.0	ug/L	1	1	1.0
trans-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
1,1,2-Trichloroethane	U	1.0	ug/L	1	1	1.0
Dibromochloromethane	U	1.0	ug/L	1	1	1.0
Chlorobenzene	U	1.0	ug/L	1	1	1.0
Ethylbenzene	U	1.0	ug/L	1	1	1.0
m+p-Xylenes	U	2.0	ug/L	1	2	2.0
o-Xylene	U	1.0	ug/L	1	1	1.0
Bromoform	U	1.0	ug/L	1	1	1.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
P-Bromofluorobenzene		99.7	%			
Toluene-d8		101.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-23
Client ID: WVA-AW-MW-38(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: T3713.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 11-OCT-21
Extracted By: JSS
Extraction Method: SW846 5030
Lab Prep Batch: WG307648

Analysis Date: 11-OCT-21
Analyst: JSS
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		101.	%			
Dibromofluoromethane		102.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Data File: \\target_server\gg\chem\gcms-t.i\T101121.b\T3713.D
Report Date: 11-Nov-2021 17:07

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-t.i\T101121.b\T3713.D
Lab Smp Id: SO6709-23 Client Smp ID: VA-AW-MW-38(2021100
Inj Date : 11-OCT-2021 16:23
Operator : JSS Inst ID: gcms-t.i
Smp Info : SO6709-23
Misc Info : WG307648,WG307648-4
Comment : SW846 5030
Method : \\target_server\gg\chem\gcms-t.i\T101121.b\T8A05(01)shrt.m
Meth Date : 05-Nov-2021 14:30 hgould Quant Type: ISTD
Cal Date : 11-OCT-2021 14:13 Cal File: T3708.D
Als bottle: 14
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.12
Processing Host: VOA-WS

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

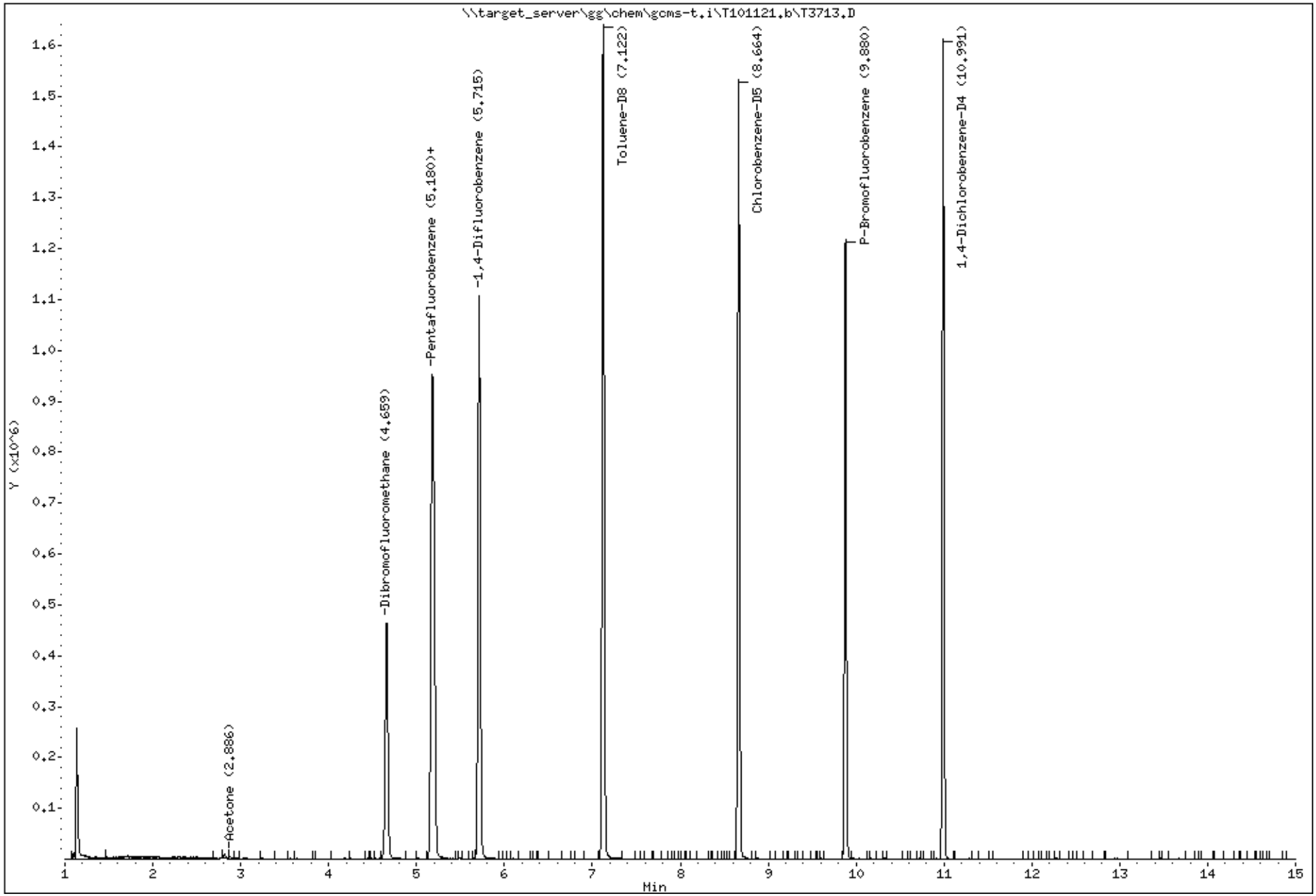
Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)	REVIEW CODE
	15 Acetone	43	2.878	2.882	(0.556)	5107	2.98702	3.0(a)	
$	34 Dibromofluoromethane	113	4.659	4.659	(0.900)	294921	50.7562	50.8	
*	41 Pentafluorobenzene	168	5.175	5.176	(1.000)	576233	50.0000		
$	42 1,2-Dichloroethane-D4	65	5.198	5.202	(1.004)	374386	50.6769	50.7	
*	48 1,4-Difluorobenzene	114	5.714	5.714	(1.000)	886325	50.0000		
$	56 Toluene-D8	98	7.121	7.122	(1.246)	1041076	50.6580	50.6	
*	68 Chlorobenzene-D5	117	8.663	8.663	(1.000)	778207	50.0000		
$	77 P-Bromofluorobenzene	95	9.879	9.876	(1.729)	368858	49.8721	49.9	
*	93 1,4-Dichlorobenzene-D4	152	10.991	10.991	(1.000)	370615	50.0000		

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Data File: \\target_server\gg\chem\gcms-t.i\T101121.b\T3713.D
Date : 11-OCT-2021 16:23
Client ID: VA-AW-MW-38(2021100
Instrument: gcms-t.i
Sample Info: SO6709-23



Katahdin Analytical Services 1000159

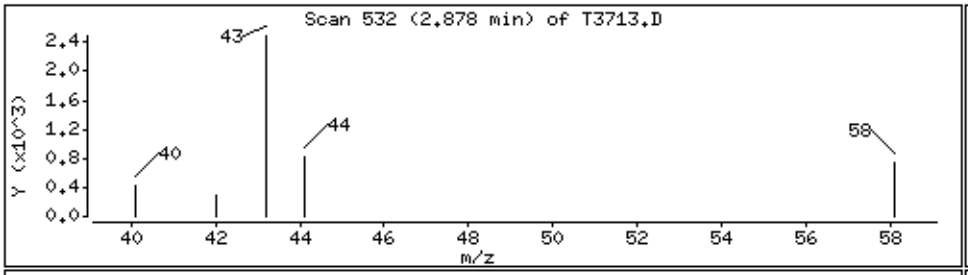
Data File: \\target_server\gg\chem\gcms-t.i\T101121.b\T3713.D

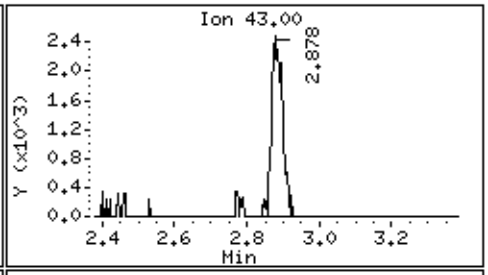
Date : 11-OCT-2021 16:23

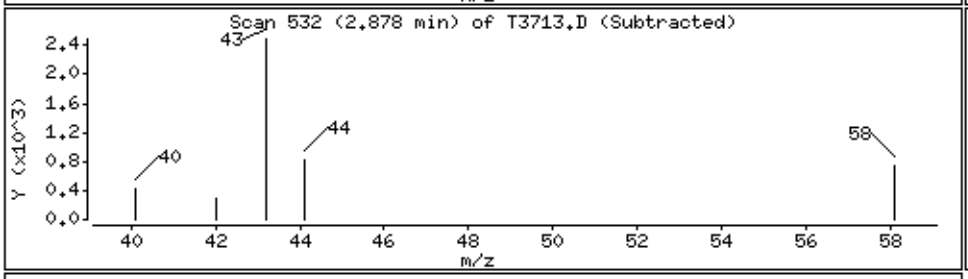
Client ID: VA-AW-MW-38(2021100 Instrument: gcms-t.i

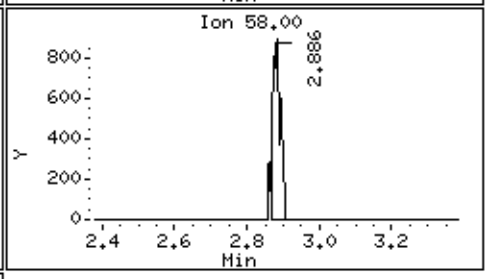
Sample Info: SO6709-23

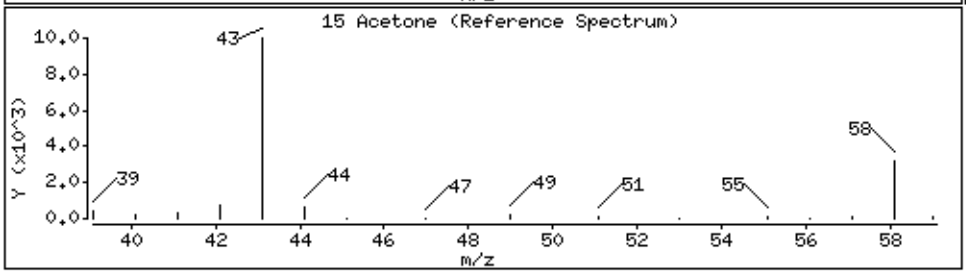
15 Acetone Concentration: 3.0 ug/l











Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-24
Client ID: WVA-B35-PW-1(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: T3714.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 11-OCT-21
Extracted By: JSS
Extraction Method: SW846 5030
Lab Prep Batch: WG307648

Analysis Date: 11-OCT-21
Analyst: JSS
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	2.0	ug/L	1	2	2.0
Vinyl Chloride	U	2.0	ug/L	1	2	2.0
Bromomethane	U	2.0	ug/L	1	2	2.0
Chloroethane	U	2.0	ug/L	1	2	2.0
Trichlorofluoromethane	U	2.0	ug/L	1	2	2.0
1,1-Dichloroethene	U	1.0	ug/L	1	1	1.0
Carbon Disulfide	U	1.0	ug/L	1	1	1.0
Methylene Chloride	U	5.0	ug/L	1	5	5.0
trans-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
1,1-Dichloroethane	U	1.0	ug/L	1	1	1.0
cis-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
Chloroform	U	1.0	ug/L	1	1	1.0
Carbon Tetrachloride	U	1.0	ug/L	1	1	1.0
1,1,1-Trichloroethane	U	1.0	ug/L	1	1	1.0
2-Butanone	U	5.0	ug/L	1	5	5.0
Benzene	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethane	U	1.0	ug/L	1	1	1.0
Trichloroethene	U	1.0	ug/L	1	1	1.0
1,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Bromodichloromethane	U	1.0	ug/L	1	1	1.0
cis-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
Toluene	U	1.0	ug/L	1	1	1.0
4-Methyl-2-Pentanone	U	5.0	ug/L	1	5	5.0
Tetrachloroethene	U	1.0	ug/L	1	1	1.0
trans-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
1,1,2-Trichloroethane	U	1.0	ug/L	1	1	1.0
Dibromochloromethane	U	1.0	ug/L	1	1	1.0
Chlorobenzene	U	1.0	ug/L	1	1	1.0
Ethylbenzene	U	1.0	ug/L	1	1	1.0
m+p-Xylenes	U	2.0	ug/L	1	2	2.0
o-Xylene	U	1.0	ug/L	1	1	1.0
Bromoform	U	1.0	ug/L	1	1	1.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
P-Bromofluorobenzene		99.7	%			
Toluene-d8		100.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-24
Client ID: WVA-B35-PW-1(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: T3714.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 11-OCT-21
Extracted By: JSS
Extraction Method: SW846 5030
Lab Prep Batch: WG307648

Analysis Date: 11-OCT-21
Analyst: JSS
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		106.	%			
Dibromofluoromethane		104.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://www.katahdinlab.com

Data File: \\target_server\gg\chem\gcms-t.i\T101121.b\T3714.D
Report Date: 11-Nov-2021 17:08

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-t.i\T101121.b\T3714.D
Lab Smp Id: SO6709-24 Client Smp ID: VA-B35-PW-1(2021100
Inj Date : 11-OCT-2021 16:50
Operator : JSS Inst ID: gcms-t.i
Smp Info : SO6709-24
Misc Info : WG307648,WG307648-4
Comment : SW846 5030
Method : \\target_server\gg\chem\gcms-t.i\T101121.b\T8A05(01)shrt.m
Meth Date : 05-Nov-2021 14:30 hgould Quant Type: ISTD
Cal Date : 11-OCT-2021 14:13 Cal File: T3708.D
Als bottle: 15
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.12
Processing Host: VOA-WS

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

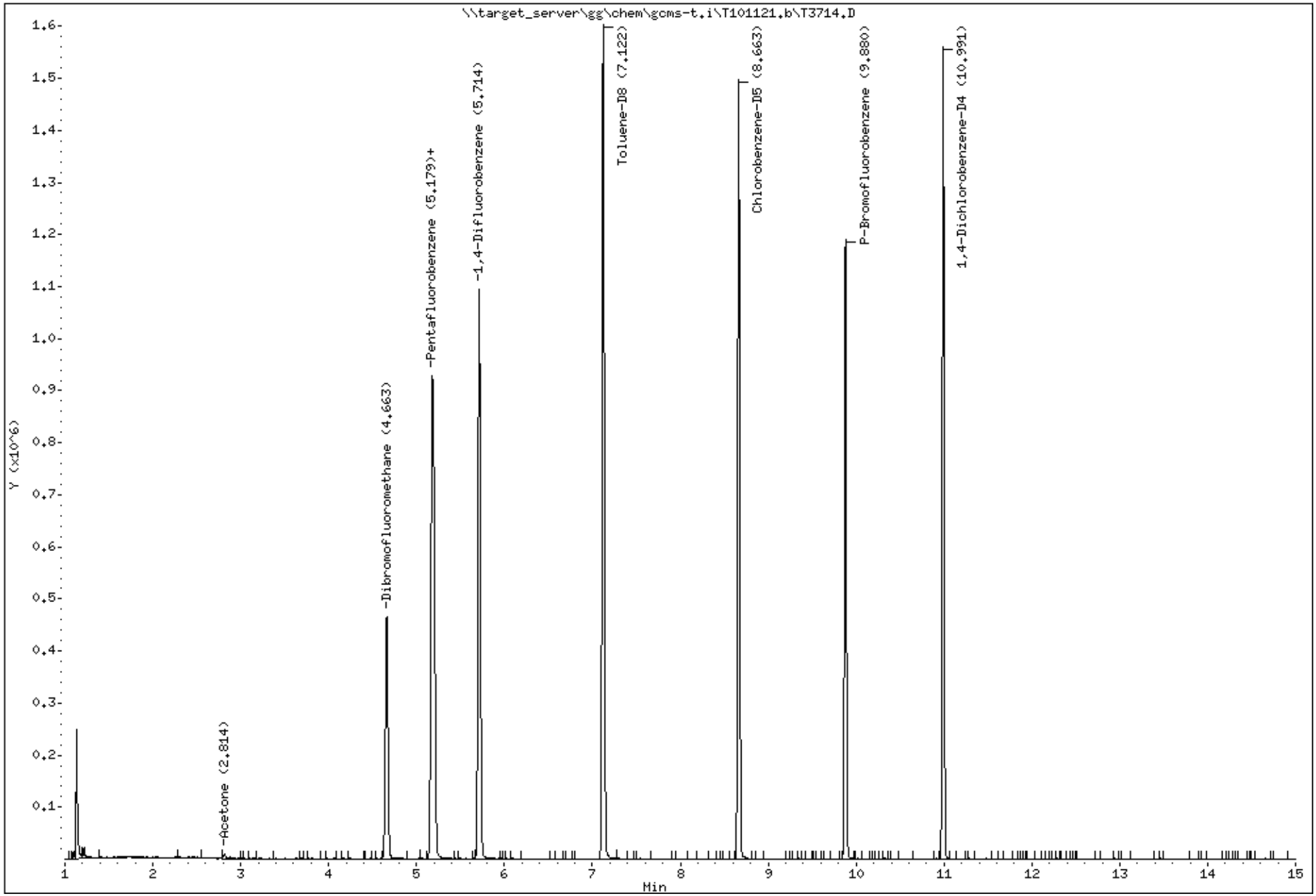
Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)	REVIEW CODE
	15 Acetone	43	2.881	2.882	(0.557)	3836	2.34345	2.3(a)	
$	34 Dibromofluoromethane	113	4.662	4.659	(0.901)	289217	52.0314	52.0	
*	41 Pentafluorobenzene	168	5.175	5.176	(1.000)	551238	50.0000		
$	42 1,2-Dichloroethane-D4	65	5.198	5.202	(1.004)	375325	53.1076	53.1	
*	48 1,4-Difluorobenzene	114	5.714	5.714	(1.000)	868759	50.0000		
$	56 Toluene-D8	98	7.125	7.122	(1.247)	1006933	49.9873	50.0	
*	68 Chlorobenzene-D5	117	8.663	8.663	(1.000)	762309	50.0000		
$	77 P-Bromofluorobenzene	95	9.879	9.876	(1.729)	361534	49.8702	49.9	
*	93 1,4-Dichlorobenzene-D4	152	10.991	10.991	(1.000)	364591	50.0000		

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Data File: \\target_server\gg\chem\gcms-t.i\T101121.b\T3714.D
Date : 11-OCT-2021 16:50
Client ID: VA-B35-PW-1(2021100
Instrument: gcms-t.i
Sample Info: SO6709-24



Katahdin Analytical Services 1000164

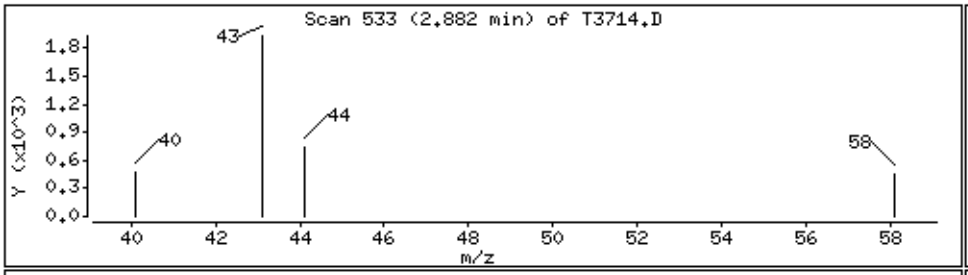
Data File: \\target_server\gg\chem\gcms-t.i\T101121.b\T3714.D

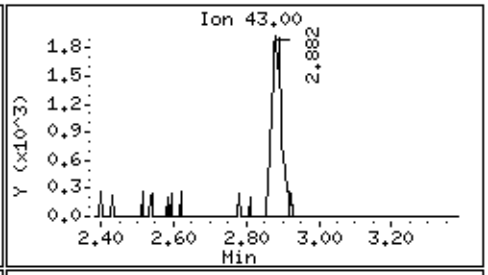
Date : 11-OCT-2021 16:50

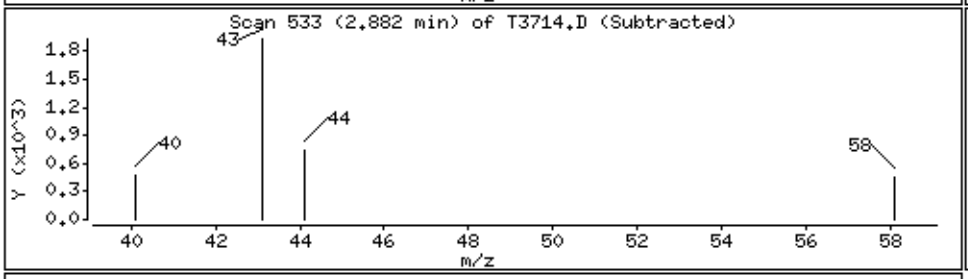
Client ID: VA-B35-PW-1(2021100 Instrument: gcms-t.i

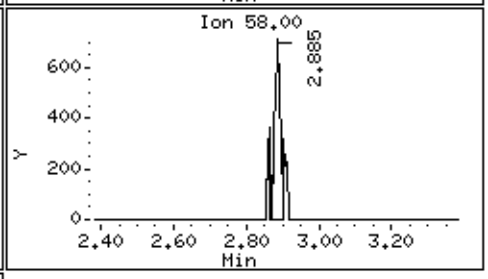
Sample Info: S06709-24

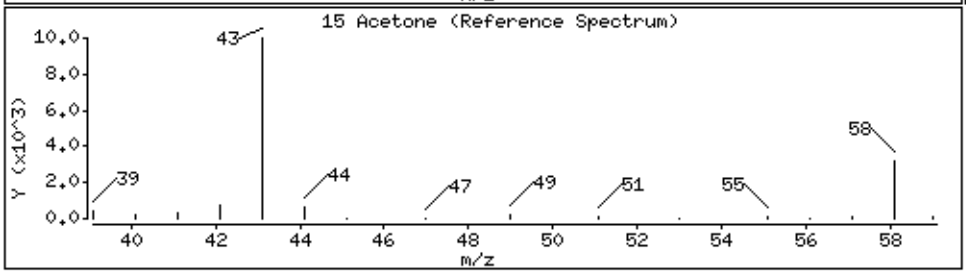
15 Acetone Concentration: 2.3 ug/l











Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-25
Client ID: WVA-AW-MW-BLD-110(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: T3715.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 11-OCT-21
Extracted By: JSS
Extraction Method: SW846 5030
Lab Prep Batch: WG307648

Analysis Date: 11-OCT-21
Analyst: JSS
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	2.0	ug/L	1	2	2.0
Vinyl Chloride	U	2.0	ug/L	1	2	2.0
Bromomethane	U	2.0	ug/L	1	2	2.0
Chloroethane	U	2.0	ug/L	1	2	2.0
Trichlorofluoromethane	U	2.0	ug/L	1	2	2.0
1,1-Dichloroethene	U	1.0	ug/L	1	1	1.0
Carbon Disulfide	U	1.0	ug/L	1	1	1.0
Methylene Chloride	U	5.0	ug/L	1	5	5.0
trans-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
1,1-Dichloroethane	U	1.0	ug/L	1	1	1.0
cis-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
Chloroform	U	1.0	ug/L	1	1	1.0
Carbon Tetrachloride	U	1.0	ug/L	1	1	1.0
1,1,1-Trichloroethane	U	1.0	ug/L	1	1	1.0
2-Butanone	U	5.0	ug/L	1	5	5.0
Benzene	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethane	U	1.0	ug/L	1	1	1.0
Trichloroethene	U	1.0	ug/L	1	1	1.0
1,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Bromodichloromethane	U	1.0	ug/L	1	1	1.0
cis-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
Toluene	U	1.0	ug/L	1	1	1.0
4-Methyl-2-Pentanone	U	5.0	ug/L	1	5	5.0
Tetrachloroethene	U	1.0	ug/L	1	1	1.0
trans-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
1,1,2-Trichloroethane	U	1.0	ug/L	1	1	1.0
Dibromochloromethane	U	1.0	ug/L	1	1	1.0
Chlorobenzene	U	1.0	ug/L	1	1	1.0
Ethylbenzene	U	1.0	ug/L	1	1	1.0
m+p-Xylenes	U	2.0	ug/L	1	2	2.0
o-Xylene	U	1.0	ug/L	1	1	1.0
Bromoform	U	1.0	ug/L	1	1	1.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
P-Bromofluorobenzene		101.	%			
Toluene-d8		100.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-25
Client ID: WVA-AW-MW-BLD-110(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: T3715.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 11-OCT-21
Extracted By: JSS
Extraction Method: SW846 5030
Lab Prep Batch: WG307648

Analysis Date: 11-OCT-21
Analyst: JSS
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		109.	%			
Dibromofluoromethane		106.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Data File: \\target_server\gg\chem\gcms-t.i\T101121.b\T3715.D
Report Date: 11-Nov-2021 17:08

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-t.i\T101121.b\T3715.D
Lab Smp Id: SO6709-25 Client Smp ID: VA-AW-MW-BLD-110(20
Inj Date : 11-OCT-2021 17:16
Operator : JSS Inst ID: gcms-t.i
Smp Info : SO6709-25
Misc Info : WG307648,WG307648-4
Comment : SW846 5030
Method : \\target_server\gg\chem\gcms-t.i\T101121.b\T8A05(01)shrt.m
Meth Date : 05-Nov-2021 14:30 hgould Quant Type: ISTD
Cal Date : 11-OCT-2021 14:13 Cal File: T3708.D
Als bottle: 16
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.12
Processing Host: VOA-WS

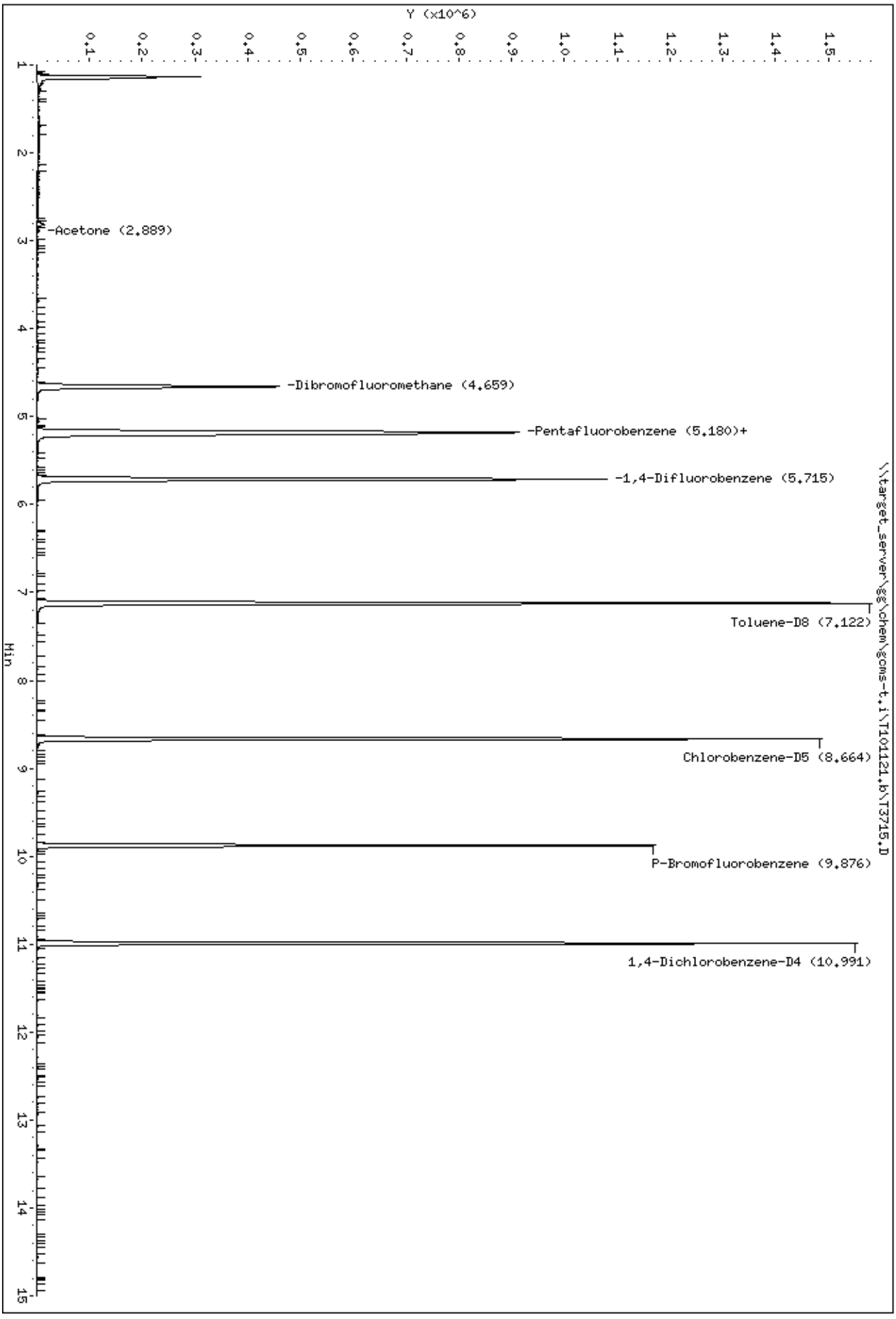
Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)	REVIEW CODE
	15 Acetone	43	2.878	2.882	(0.556)	3645	2.30596	2.3(a)	
$	34 Dibromofluoromethane	113	4.659	4.659	(0.900)	284452	52.9966	53.0	
*	41 Pentafluorobenzene	168	5.175	5.176	(1.000)	532282	50.0000		
$	42 1,2-Dichloroethane-D4	65	5.198	5.202	(1.004)	371644	54.4595	54.4	
*	48 1,4-Difluorobenzene	114	5.714	5.714	(1.000)	850220	50.0000		
$	56 Toluene-D8	98	7.121	7.122	(1.246)	985296	49.9797	50.0	
*	68 Chlorobenzene-D5	117	8.663	8.663	(1.000)	746107	50.0000		
$	77 P-Bromofluorobenzene	95	9.879	9.876	(1.729)	357547	50.3956	50.4	
*	93 1,4-Dichlorobenzene-D4	152	10.991	10.991	(1.000)	361409	50.0000		

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).


Data File: \\target_server\gg\chem\gcms-t.i\T101121.b\T3715.D
Date : 11-OCT-2021 17:16
Client ID: VA-AW-MW-BLD-110(20
Sample Info: SD6709-25
Instrument: gcms-t.i
Y (x10^6)
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0
1.1
1.2
1.3
1.4
1.5
Min
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
-Acetone (2.889)
-Dibromofluoromethane (4.659)
-Pentafluorobenzene (5.180)+
-1,4-Difluorobenzene (5.715)
Toluene-D8 (7.122)
Chlorobenzene-D5 (8.664)
P-Bromofluorobenzene (9.876)
1,4-Dichlorobenzene-D4 (10.991)
\\target_server\gg\chem\gcms-t.i\T101121.b\T3715.D

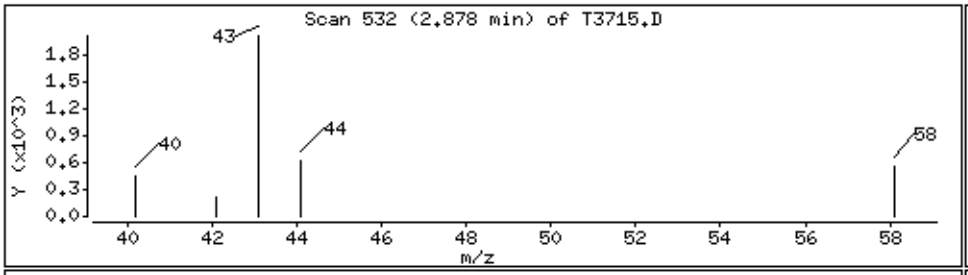
Data File: \\target_server\gg\chem\gcms-t.i\T101121.b\T3715.D

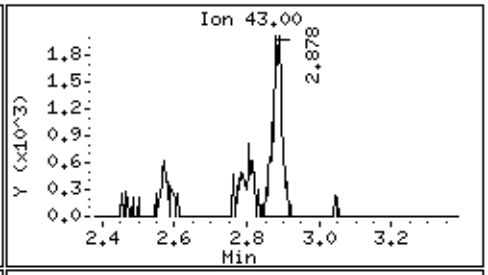
Date : 11-OCT-2021 17:16

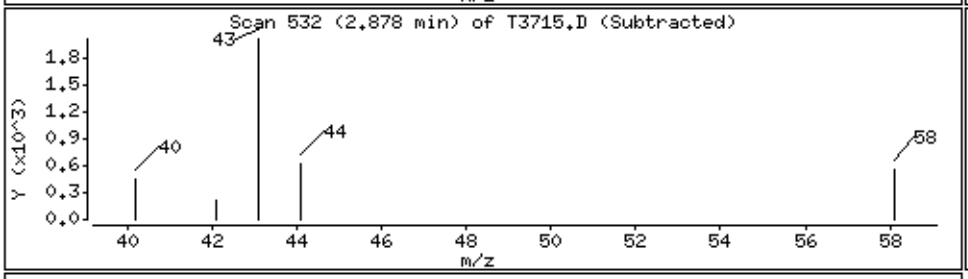
Client ID: VA-AW-MW-BLD-110(20 Instrument: gcms-t.i

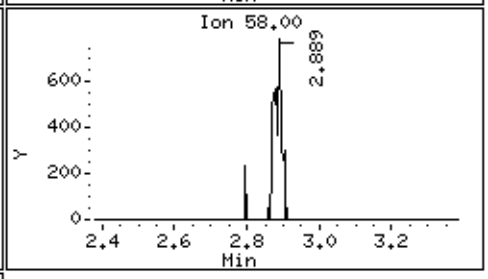
Sample Info: S06709-25

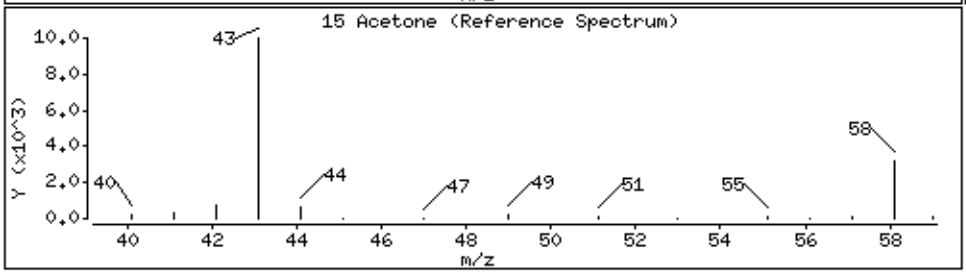
15 Acetone Concentration: 2.3 ug/l











Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-26
Client ID: 83DM-SP-4(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: T3716.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 11-OCT-21
Extracted By: JSS
Extraction Method: SW846 5030
Lab Prep Batch: WG307648

Analysis Date: 11-OCT-21
Analyst: JSS
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	2.0	ug/L	1	2	2.0
Vinyl Chloride	U	2.0	ug/L	1	2	2.0
Bromomethane	U	2.0	ug/L	1	2	2.0
Chloroethane	U	2.0	ug/L	1	2	2.0
Trichlorofluoromethane	U	2.0	ug/L	1	2	2.0
1,1-Dichloroethene	U	1.0	ug/L	1	1	1.0
Carbon Disulfide	U	1.0	ug/L	1	1	1.0
Methylene Chloride	U	5.0	ug/L	1	5	5.0
trans-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
1,1-Dichloroethane	U	1.0	ug/L	1	1	1.0
cis-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
Chloroform	U	1.0	ug/L	1	1	1.0
Carbon Tetrachloride	U	1.0	ug/L	1	1	1.0
1,1,1-Trichloroethane	U	1.0	ug/L	1	1	1.0
2-Butanone	U	5.0	ug/L	1	5	5.0
Benzene	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethane	U	1.0	ug/L	1	1	1.0
Trichloroethene	U	1.0	ug/L	1	1	1.0
1,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Bromodichloromethane	U	1.0	ug/L	1	1	1.0
cis-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
Toluene	U	1.0	ug/L	1	1	1.0
4-Methyl-2-Pentanone	U	5.0	ug/L	1	5	5.0
Tetrachloroethene	U	1.0	ug/L	1	1	1.0
trans-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
1,1,2-Trichloroethane	U	1.0	ug/L	1	1	1.0
Dibromochloromethane	U	1.0	ug/L	1	1	1.0
Chlorobenzene	U	1.0	ug/L	1	1	1.0
Ethylbenzene	U	1.0	ug/L	1	1	1.0
m+p-Xylenes	U	2.0	ug/L	1	2	2.0
o-Xylene	U	1.0	ug/L	1	1	1.0
Bromoform	U	1.0	ug/L	1	1	1.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
P-Bromofluorobenzene		98.1	%			
Toluene-d8		99.8	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-26
Client ID: 83DM-SP-4(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: T3716.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 11-OCT-21
Extracted By: JSS
Extraction Method: SW846 5030
Lab Prep Batch: WG307648

Analysis Date: 11-OCT-21
Analyst: JSS
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		108.	%			
Dibromofluoromethane		105.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Data File: \\target_server\gg\chem\gcms-t.i\T101121.b\T3716.D
Report Date: 11-Nov-2021 17:08

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-t.i\T101121.b\T3716.D
Lab Smp Id: SO6709-26 Client Smp ID: 83DM-SP-4(20211001)
Inj Date : 11-OCT-2021 17:42
Operator : JSS Inst ID: gcms-t.i
Smp Info : SO6709-26
Misc Info : WG307648,WG307648-4
Comment : SW846 5030
Method : \\target_server\gg\chem\gcms-t.i\T101121.b\T8A05(01)shrt.m
Meth Date : 05-Nov-2021 14:30 hgould Quant Type: ISTD
Cal Date : 11-OCT-2021 14:13 Cal File: T3708.D
Als bottle: 17
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.12
Processing Host: VOA-WS

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

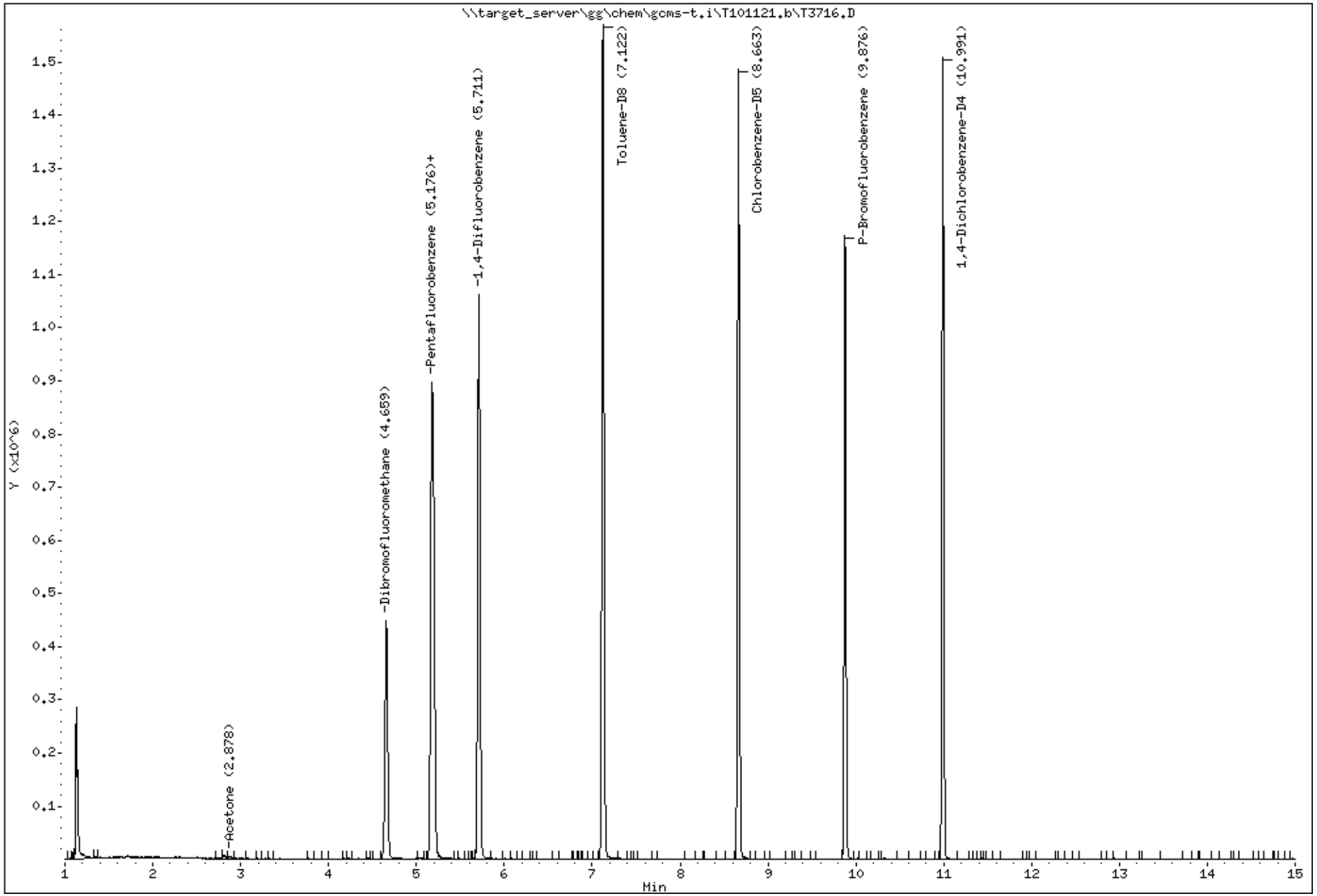
Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)	REVIEW CODE
	15 Acetone	43	2.881	2.882	(0.557)	5149	3.28959	3.3(a)	
$	34 Dibromofluoromethane	113	4.659	4.659	(0.901)	279025	52.4334	52.4	
*	41 Pentafluorobenzene	168	5.171	5.176	(1.000)	527735	50.0000		
$	42 1,2-Dichloroethane-D4	65	5.198	5.202	(1.005)	365844	54.0715	54.1	
*	48 1,4-Difluorobenzene	114	5.710	5.714	(1.000)	840658	50.0000		
$	56 Toluene-D8	98	7.121	7.122	(1.247)	972612	49.8975	49.9	
*	68 Chlorobenzene-D5	117	8.663	8.663	(1.000)	736348	50.0000		
$	77 P-Bromofluorobenzene	95	9.875	9.876	(1.729)	344119	49.0547	49.0	
*	93 1,4-Dichlorobenzene-D4	152	10.991	10.991	(1.000)	350757	50.0000		

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Data File: \\target_server\gg\chem\gcms-t.i\T101121.b\T3716.D
Date : 11-OCT-2021 17:42
Client ID: 83DM-SP-4(20211001)
Instrument: gcms-t.i
Sample Info: SO6709-26



Katahdin Analytical Services 1000174

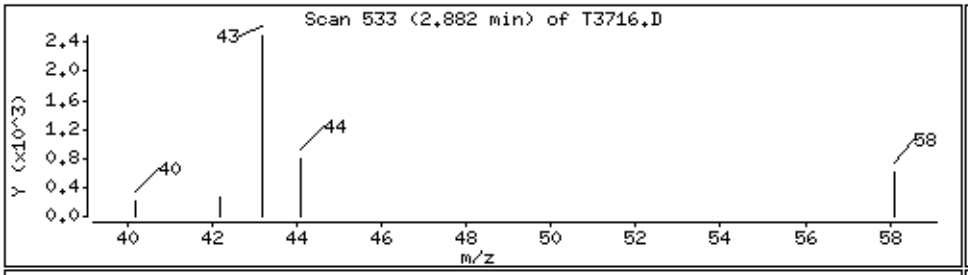
Data File: \\target_server\gg\chem\gcms-t.i\T101121.b\T3716.D

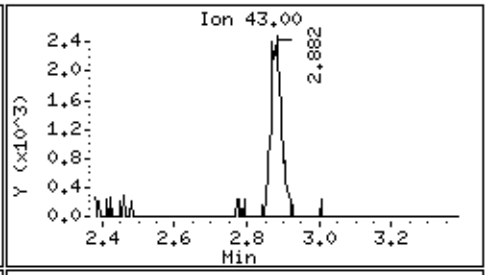
Date : 11-OCT-2021 17:42

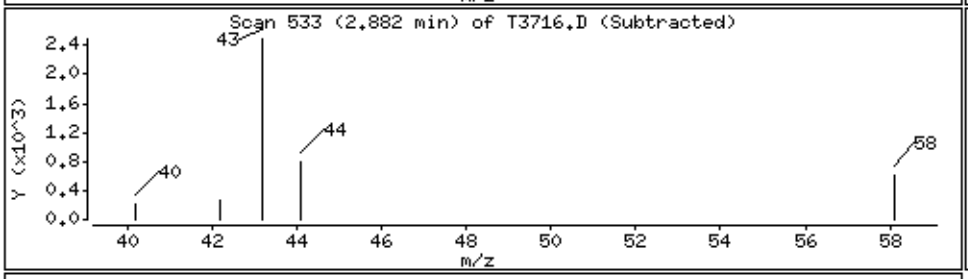
Client ID: 83DM-SP-4(20211001) Instrument: gcms-t.i

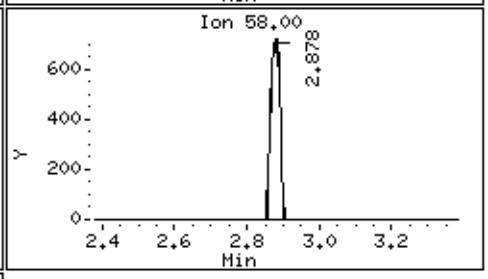
Sample Info: SO6709-26

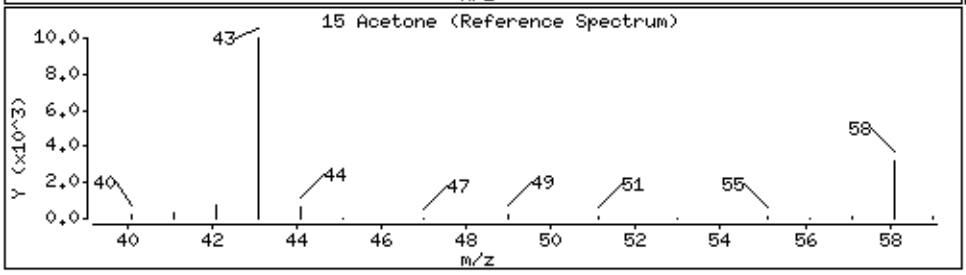
15 Acetone Concentration: 3.3 ug/l











Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-27
Client ID: WVA-AW-MW-35(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: T3717.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 11-OCT-21
Extracted By: JSS
Extraction Method: SW846 5030
Lab Prep Batch: WG307648

Analysis Date: 11-OCT-21
Analyst: JSS
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	2.0	ug/L	1	2	2.0
Vinyl Chloride	U	2.0	ug/L	1	2	2.0
Bromomethane	U	2.0	ug/L	1	2	2.0
Chloroethane	U	2.0	ug/L	1	2	2.0
Trichlorofluoromethane	U	2.0	ug/L	1	2	2.0
1,1-Dichloroethene	U	1.0	ug/L	1	1	1.0
Carbon Disulfide	U	1.0	ug/L	1	1	1.0
Methylene Chloride	U	5.0	ug/L	1	5	5.0
trans-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
1,1-Dichloroethane	U	1.0	ug/L	1	1	1.0
cis-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
Chloroform	U	1.0	ug/L	1	1	1.0
Carbon Tetrachloride	U	1.0	ug/L	1	1	1.0
1,1,1-Trichloroethane	U	1.0	ug/L	1	1	1.0
2-Butanone	U	5.0	ug/L	1	5	5.0
Benzene	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethane	U	1.0	ug/L	1	1	1.0
Trichloroethene	U	1.0	ug/L	1	1	1.0
1,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Bromodichloromethane	U	1.0	ug/L	1	1	1.0
cis-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
Toluene	U	1.0	ug/L	1	1	1.0
4-Methyl-2-Pentanone	U	5.0	ug/L	1	5	5.0
Tetrachloroethene	U	1.0	ug/L	1	1	1.0
trans-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
1,1,2-Trichloroethane	U	1.0	ug/L	1	1	1.0
Dibromochloromethane	U	1.0	ug/L	1	1	1.0
Chlorobenzene	U	1.0	ug/L	1	1	1.0
Ethylbenzene	U	1.0	ug/L	1	1	1.0
m+p-Xylenes	U	2.0	ug/L	1	2	2.0
o-Xylene	U	1.0	ug/L	1	1	1.0
Bromoform	U	1.0	ug/L	1	1	1.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
P-Bromofluorobenzene		100.	%			
Toluene-d8		99.3	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-27
Client ID: WVA-AW-MW-35(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: T3717.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 11-OCT-21
Extracted By: JSS
Extraction Method: SW846 5030
Lab Prep Batch: WG307648

Analysis Date: 11-OCT-21
Analyst: JSS
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		108.	%			
Dibromofluoromethane		105.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Data File: \\target_server\gg\chem\gcms-t.i\T101121.b\T3717.D
Report Date: 11-Nov-2021 17:08

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-t.i\T101121.b\T3717.D
Lab Smp Id: SO6709-27 Client Smp ID: VA-AW-MW-35(2021100
Inj Date : 11-OCT-2021 18:08
Operator : JSS Inst ID: gcms-t.i
Smp Info : SO6709-27
Misc Info : WG307648,WG307648-4
Comment : SW846 5030
Method : \\target_server\gg\chem\gcms-t.i\T101121.b\T8A05(01)shrt.m
Meth Date : 05-Nov-2021 14:30 hgould Quant Type: ISTD
Cal Date : 11-OCT-2021 14:13 Cal File: T3708.D
Als bottle: 18
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.12
Processing Host: VOA-WS

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

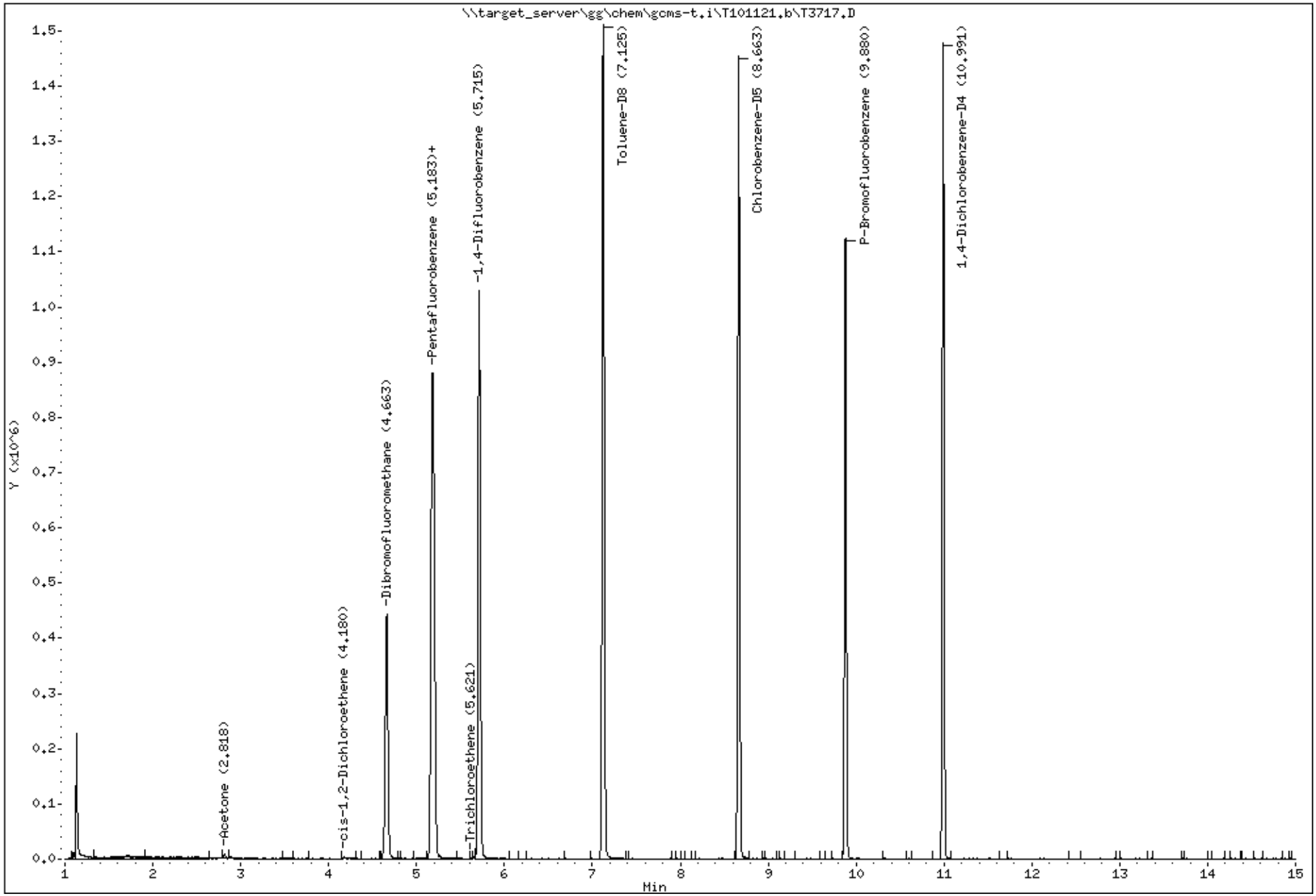
3:37 pm, Nov 12, 2021

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)	REVIEW CODE
15 Acetone	43	2.881	2.882	(0.557)	4215	2.73141	2.7(a)	
27 cis-1,2-Dichloroethene	96	4.180	4.179	(0.808)	1010	0.21972	0.22(a)	
$ 34 Dibromofluoromethane	113	4.663	4.659	(0.901)	275636	52.5748	52.6	
* 41 Pentafluorobenzene	168	5.175	5.176	(1.000)	519924	50.0000		
$ 42 1,2-Dichloroethane-D4	65	5.201	5.202	(1.005)	359415	53.9194	53.9	
47 Trichloroethene	95	5.654	5.662	(0.990)	1743	0.38544	0.38(aM)	M9
* 48 1,4-Difluorobenzene	114	5.714	5.714	(1.000)	817877	50.0000		
$ 56 Toluene-D8	98	7.125	7.122	(1.247)	941649	49.6546	49.6	
* 68 Chlorobenzene-D5	117	8.663	8.663	(1.000)	715575	50.0000		
$ 77 P-Bromofluorobenzene	95	9.875	9.876	(1.728)	343009	50.2584	50.2	
* 93 1,4-Dichlorobenzene-D4	152	10.991	10.991	(1.000)	338031	50.0000		
M 103 1,2-Dichloroethylene (total)	96				1010	0.21972	0.22(a)	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Data File: \\target_server\gg\chem\gcms-t.i\T101121.b\T3717.D
Date : 11-OCT-2021 18:08
Client ID: VA-AW-MW-35(2021100
Instrument: gcms-t.i
Sample Info: SO6709-27



Katahdin Analytical Services 1000179

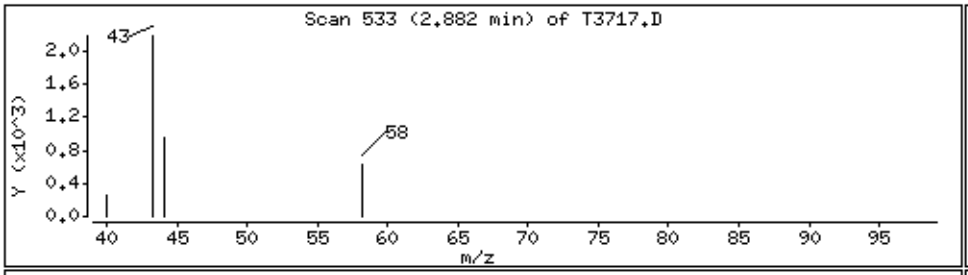
Data File: \\target_server\gg\chem\gcms-t.i\T101121.b\T3717.D

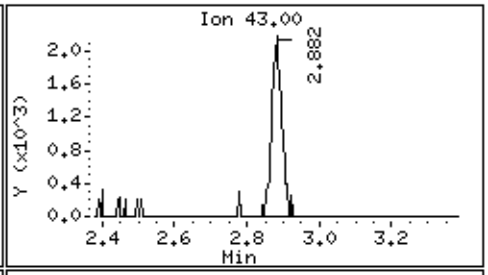
Date : 11-OCT-2021 18:08

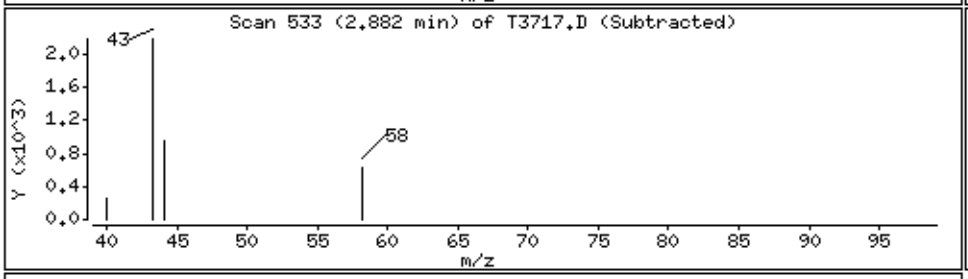
Client ID: VA-AW-MW-35(2021100 Instrument: gcms-t.i

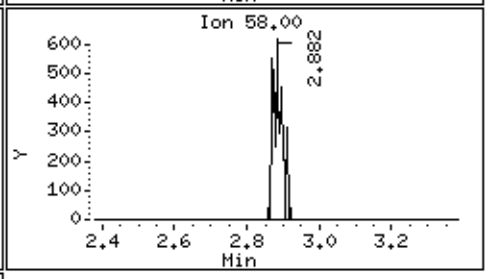
Sample Info: S06709-27

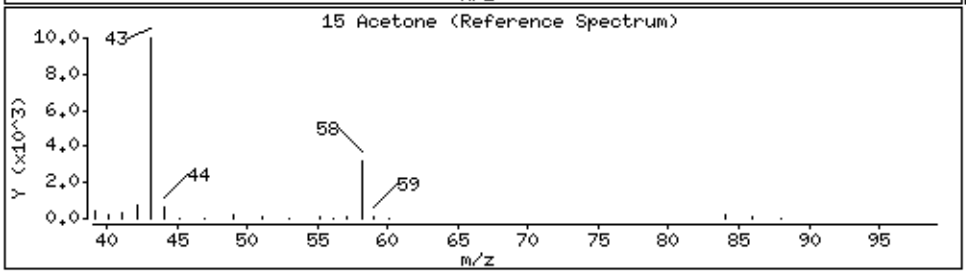
15 Acetone Concentration: 2.7 ug/l



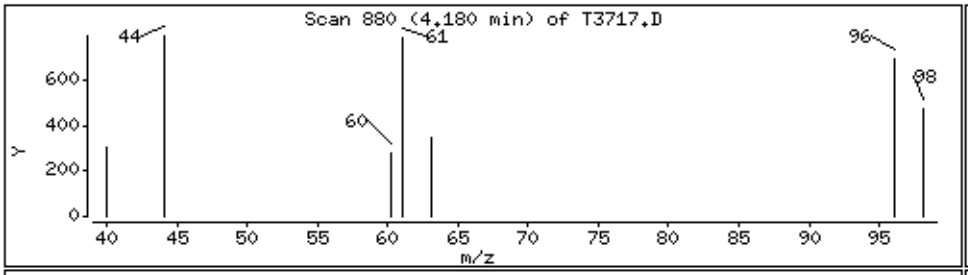


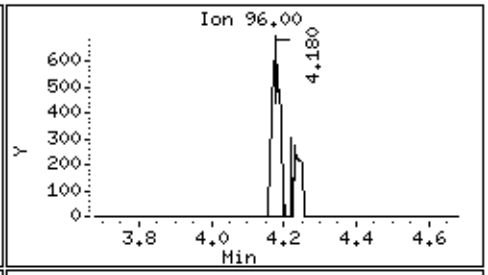


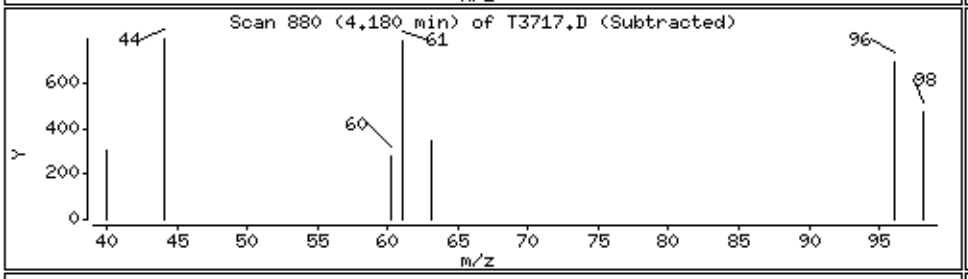


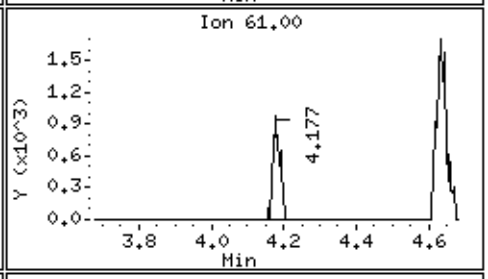


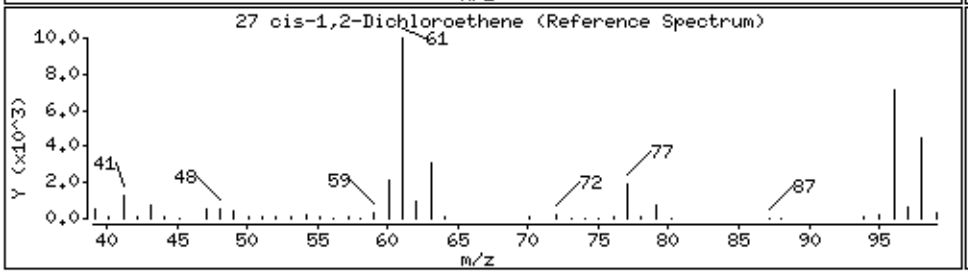
27 cis-1,2-Dichloroethene Concentration: 0.22 ug/l

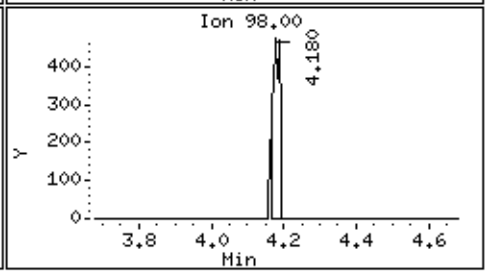












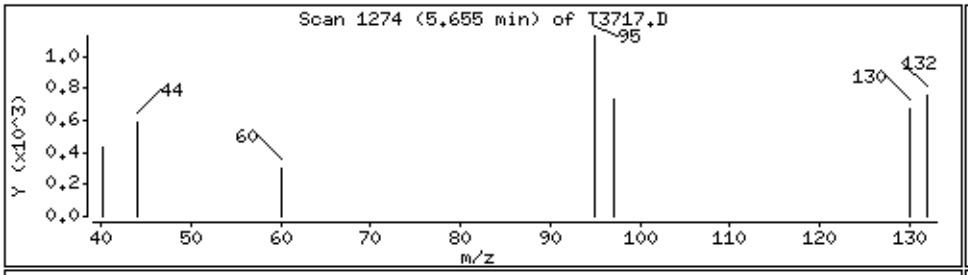
Data File: \\target_server\gg\chem\gcms-t.i\T101121.b\T3717.D

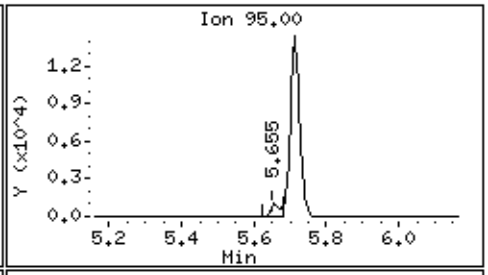
Date : 11-OCT-2021 18:08

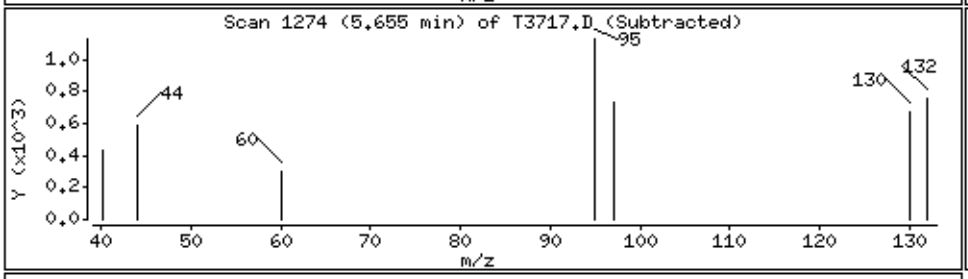
Client ID: VA-AW-MW-35(2021100 Instrument: gcms-t.i

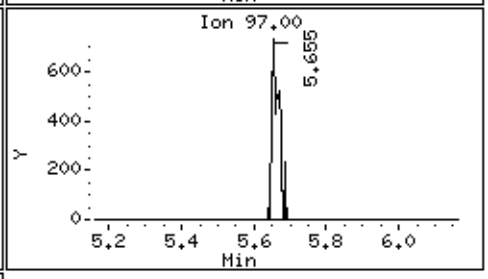
Sample Info: SO6709-27

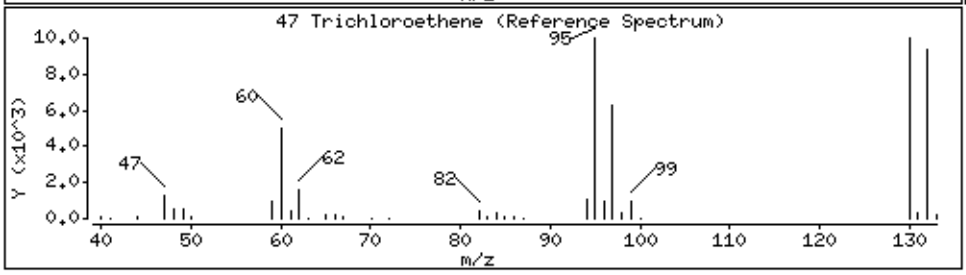
47 Trichloroethene Concentration: 0.38 ug/l







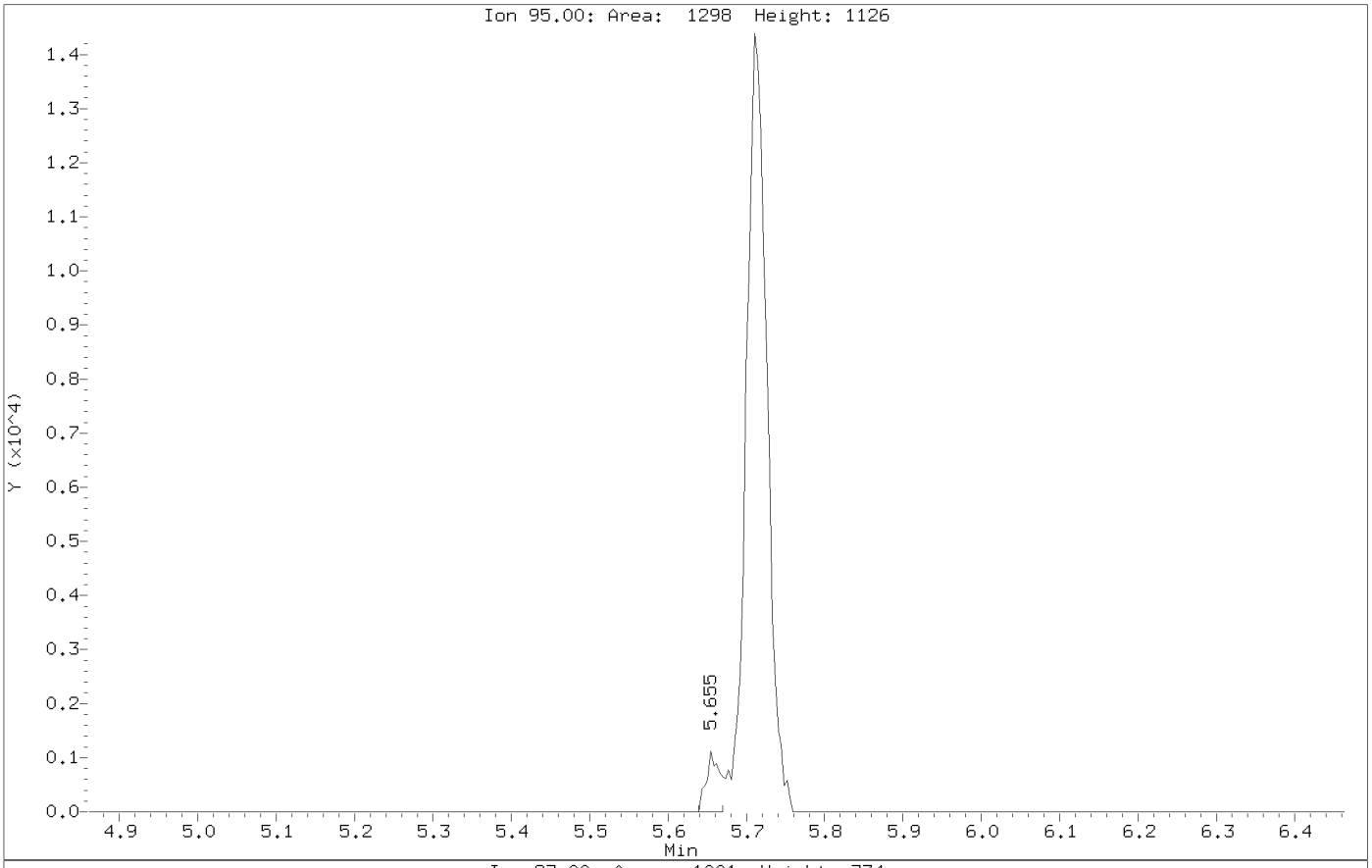


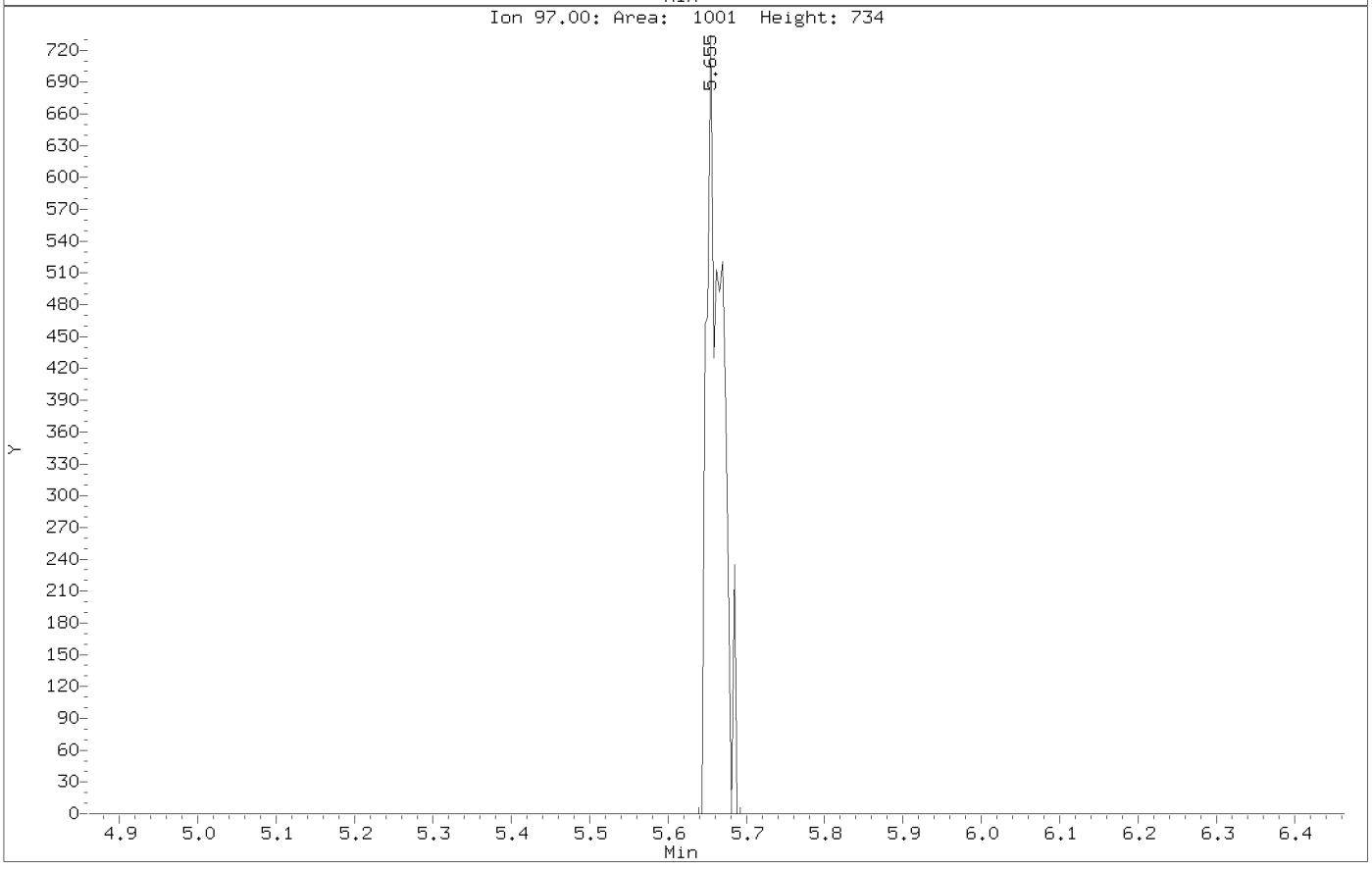


Data File: \\target_server\gg\chem\gcms-t.i\T101121.b\T3717.D
Injection Date: 11-OCT-2021 18:08
Instrument: gcms-t.i
Client Sample ID: VA-AW-MW-35(2021100

Compound: Trichloroethene
CAS Number: 79-01-6

BEFORE MANUAL INTEGRATION

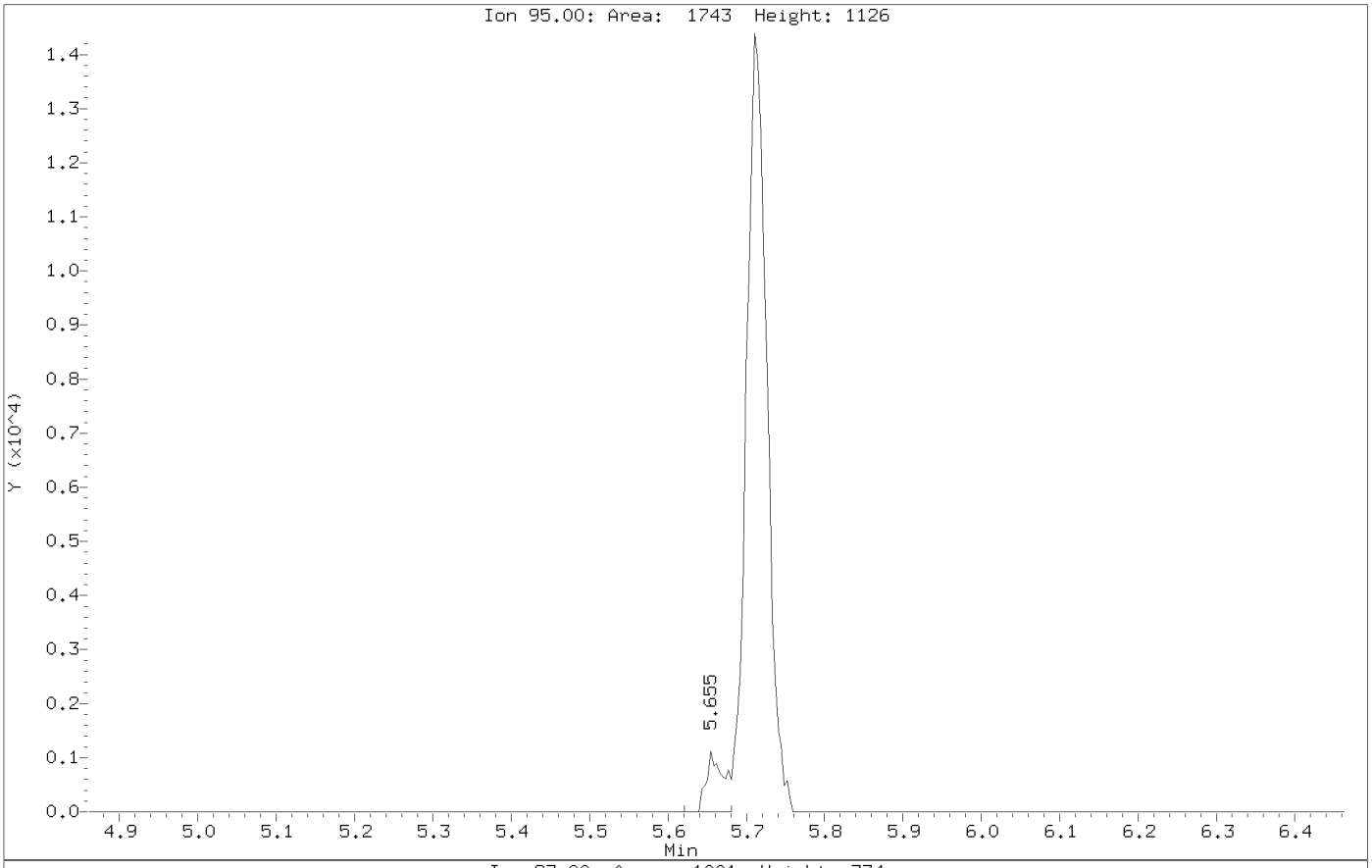


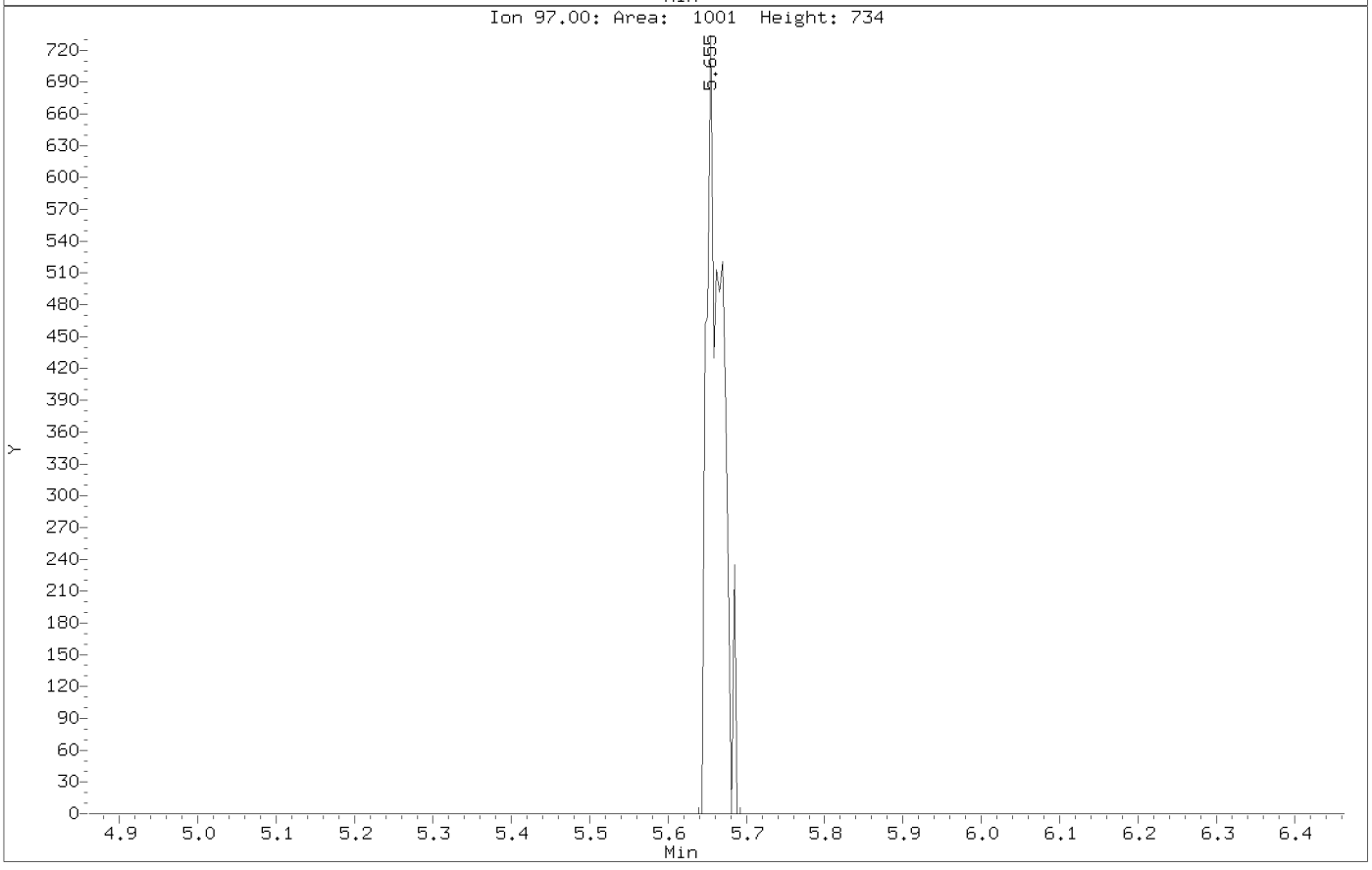


Data File: \\target_server\gg\chem\gcms-t.i\T101121.b\T3717.D
Injection Date: 11-OCT-2021 18:08
Instrument: gcms-t.i
Client Sample ID: VA-AW-MW-35(2021100

Compound: Trichloroethene
CAS Number: 79-01-6

AFTER MANUAL INTEGRATION





Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-28
Client ID: WVA-AW-25-MW-6(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: T3718.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 11-OCT-21
Extracted By: JSS
Extraction Method: SW846 5030
Lab Prep Batch: WG307648

Analysis Date: 11-OCT-21
Analyst: JSS
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	2.0	ug/L	1	2	2.0
Vinyl Chloride	U	2.0	ug/L	1	2	2.0
Bromomethane	U	2.0	ug/L	1	2	2.0
Chloroethane	U	2.0	ug/L	1	2	2.0
Trichlorofluoromethane	U	2.0	ug/L	1	2	2.0
1,1-Dichloroethene	U	1.0	ug/L	1	1	1.0
Carbon Disulfide	U	1.0	ug/L	1	1	1.0
Methylene Chloride	U	5.0	ug/L	1	5	5.0
trans-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
1,1-Dichloroethane	U	1.0	ug/L	1	1	1.0
cis-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
Chloroform	U	1.0	ug/L	1	1	1.0
Carbon Tetrachloride	U	1.0	ug/L	1	1	1.0
1,1,1-Trichloroethane	U	1.0	ug/L	1	1	1.0
2-Butanone	U	5.0	ug/L	1	5	5.0
Benzene	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethane	U	1.0	ug/L	1	1	1.0
Trichloroethene	U	1.0	ug/L	1	1	1.0
1,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Bromodichloromethane	U	1.0	ug/L	1	1	1.0
cis-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
Toluene	U	1.0	ug/L	1	1	1.0
4-Methyl-2-Pentanone	U	5.0	ug/L	1	5	5.0
Tetrachloroethene	U	1.0	ug/L	1	1	1.0
trans-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
1,1,2-Trichloroethane	U	1.0	ug/L	1	1	1.0
Dibromochloromethane	U	1.0	ug/L	1	1	1.0
Chlorobenzene	U	1.0	ug/L	1	1	1.0
Ethylbenzene	U	1.0	ug/L	1	1	1.0
m+p-Xylenes	U	2.0	ug/L	1	2	2.0
o-Xylene	U	1.0	ug/L	1	1	1.0
Bromoform	U	1.0	ug/L	1	1	1.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
P-Bromofluorobenzene		102.	%			
Toluene-d8		101.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-28
Client ID: WVA-AW-25-MW-6(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: T3718.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 11-OCT-21
Extracted By: JSS
Extraction Method: SW846 5030
Lab Prep Batch: WG307648

Analysis Date: 11-OCT-21
Analyst: JSS
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		114.	%			
Dibromofluoromethane		107.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Data File: \\target_server\gg\chem\gcms-t.i\T101121.b\T3718.D
Report Date: 11-Nov-2021 17:08

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-t.i\T101121.b\T3718.D
Lab Smp Id: SO6709-28 Client Smp ID: VA-AW-25-MW-6(20211
Inj Date : 11-OCT-2021 18:34
Operator : JSS Inst ID: gcms-t.i
Smp Info : SO6709-28
Misc Info : WG307648,WG307648-4
Comment : SW846 5030
Method : \\target_server\gg\chem\gcms-t.i\T101121.b\T8A05(01)shrt.m
Meth Date : 05-Nov-2021 14:30 hgould Quant Type: ISTD
Cal Date : 11-OCT-2021 14:13 Cal File: T3708.D
Als bottle: 19
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.12
Processing Host: VOA-WS

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

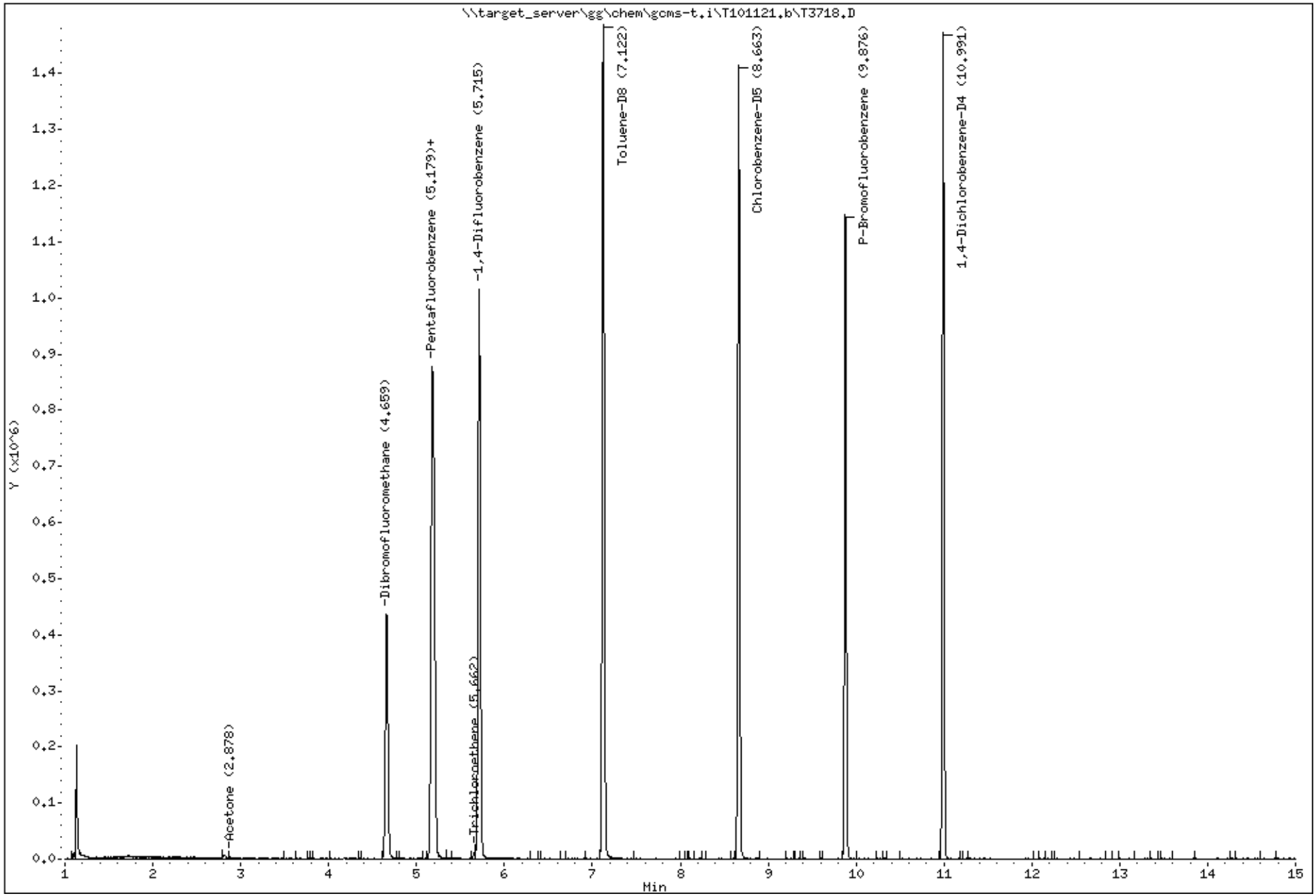
Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)	REVIEW CODE
	15 Acetone	43	2.877	2.882	(0.556)	3573	2.41591	2.4(a)	
$	34 Dibromofluoromethane	113	4.659	4.659	(0.900)	269204	53.5987	53.6	
*	41 Pentafluorobenzene	168	5.175	5.176	(1.000)	498091	50.0000		
$	42 1,2-Dichloroethane-D4	65	5.201	5.202	(1.005)	365524	57.2395	57.2	
	47 Trichloroethene	95	5.662	5.662	(0.991)	4294	0.97024	0.97(a)	
*	48 1,4-Difluorobenzene	114	5.714	5.714	(1.000)	800449	50.0000		
$	56 Toluene-D8	98	7.121	7.122	(1.246)	934750	50.3640	50.4	
*	68 Chlorobenzene-D5	117	8.663	8.663	(1.000)	702109	50.0000		
$	77 P-Bromofluorobenzene	95	9.875	9.876	(1.728)	340898	51.0366	51.0	
*	93 1,4-Dichlorobenzene-D4	152	10.991	10.991	(1.000)	336005	50.0000		

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Data File: \\target_server\gg\chem\gcms-t.i\T101121.b\T3718.D
Date : 11-OCT-2021 18:34
Client ID: VA-AW-25-MW-6(20211
Instrument: gcms-t.i
Sample Info: SO6709-28



Katahdin Analytical Services 1000187

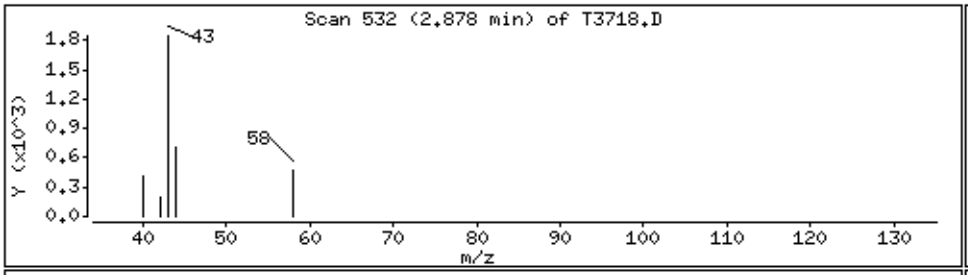
Data File: \\target_server\gg\chem\gcms-t.i\T101121.b\T3718.D

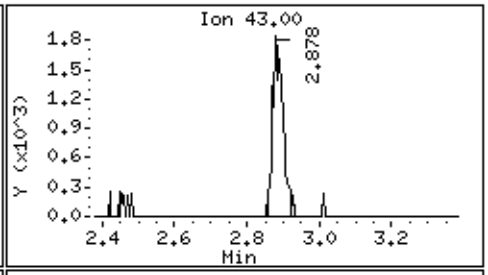
Date : 11-OCT-2021 18:34

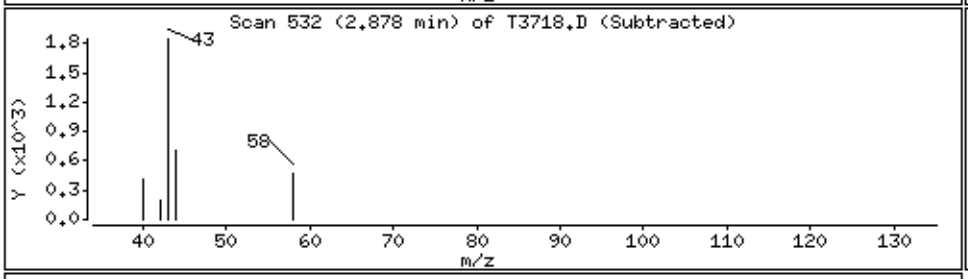
Client ID: VA-AW-25-MW-6(20211 Instrument: gcms-t.i

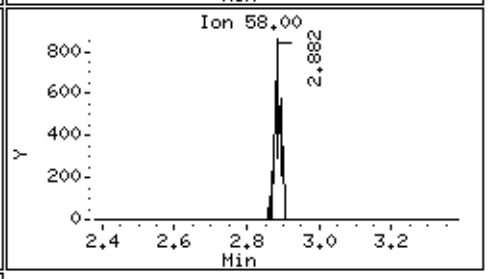
Sample Info: S06709-28

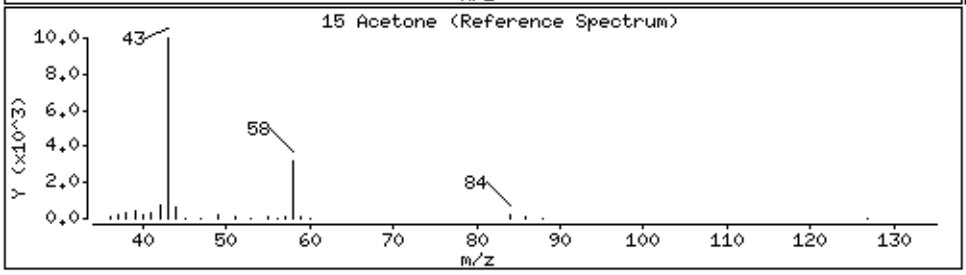
15 Acetone Concentration: 2.4 ug/l



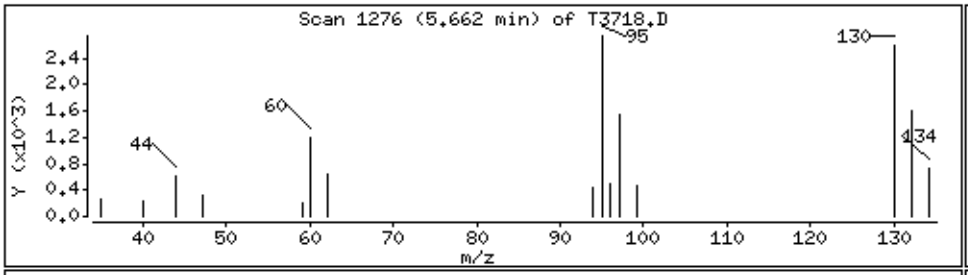


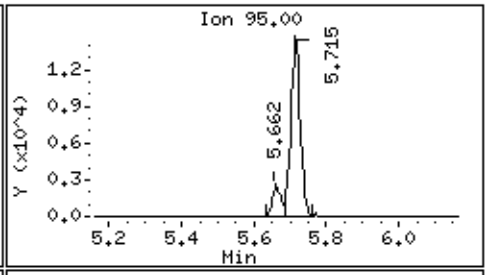


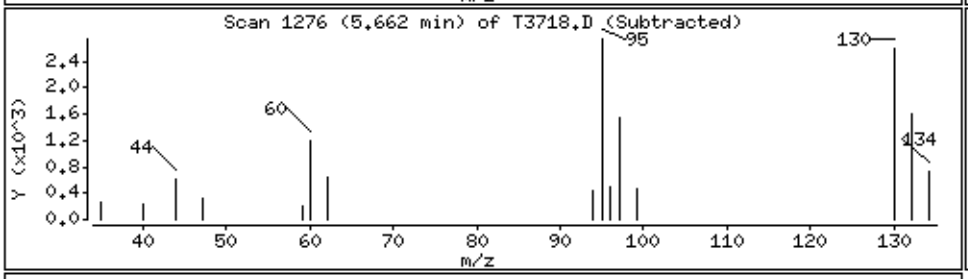


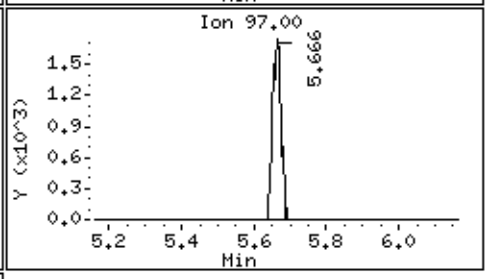


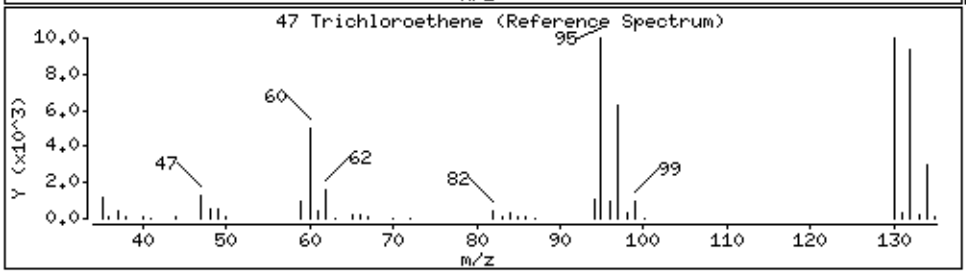
47 Trichloroethene Concentration: 0.97 ug/l











Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-29
Client ID: 86EM-SP-1A(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: T3719.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 11-OCT-21
Extracted By: JSS
Extraction Method: SW846 5030
Lab Prep Batch: WG307648

Analysis Date: 11-OCT-21
Analyst: JSS
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	2.0	ug/L	1	2	2.0
Vinyl Chloride	U	2.0	ug/L	1	2	2.0
Bromomethane	U	2.0	ug/L	1	2	2.0
Chloroethane	U	2.0	ug/L	1	2	2.0
Trichlorofluoromethane	U	2.0	ug/L	1	2	2.0
1,1-Dichloroethene	U	1.0	ug/L	1	1	1.0
Carbon Disulfide	U	1.0	ug/L	1	1	1.0
Methylene Chloride	U	5.0	ug/L	1	5	5.0
trans-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
1,1-Dichloroethane	U	1.0	ug/L	1	1	1.0
cis-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
Chloroform	U	1.0	ug/L	1	1	1.0
Carbon Tetrachloride	U	1.0	ug/L	1	1	1.0
1,1,1-Trichloroethane	U	1.0	ug/L	1	1	1.0
2-Butanone	U	5.0	ug/L	1	5	5.0
Benzene	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethane	U	1.0	ug/L	1	1	1.0
Trichloroethene		8.8	ug/L	1	1	1.0
1,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Bromodichloromethane	U	1.0	ug/L	1	1	1.0
cis-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
Toluene	U	1.0	ug/L	1	1	1.0
4-Methyl-2-Pentanone	U	5.0	ug/L	1	5	5.0
Tetrachloroethene	U	1.0	ug/L	1	1	1.0
trans-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
1,1,2-Trichloroethane	U	1.0	ug/L	1	1	1.0
Dibromochloromethane	U	1.0	ug/L	1	1	1.0
Chlorobenzene	U	1.0	ug/L	1	1	1.0
Ethylbenzene	U	1.0	ug/L	1	1	1.0
m+p-Xylenes	U	2.0	ug/L	1	2	2.0
o-Xylene	U	1.0	ug/L	1	1	1.0
Bromoform	U	1.0	ug/L	1	1	1.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
P-Bromofluorobenzene		99.3	%			
Toluene-d8		98.4	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-29
Client ID: 86EM-SP-1A(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: T3719.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 11-OCT-21
Extracted By: JSS
Extraction Method: SW846 5030
Lab Prep Batch: WG307648

Analysis Date: 11-OCT-21
Analyst: JSS
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		115.	%			
Dibromofluoromethane		107.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Data File: \\target_server\gg\chem\gcms-t.i\T101121.b\T3719.D
Report Date: 11-Nov-2021 17:08

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-t.i\T101121.b\T3719.D
Lab Smp Id: SO6709-29 Client Smp ID: 6EM-SP-1A(20211001)
Inj Date : 11-OCT-2021 19:01
Operator : JSS Inst ID: gcms-t.i
Smp Info : SO6709-29
Misc Info : WG307648,WG307648-4
Comment : SW846 5030
Method : \\target_server\gg\chem\gcms-t.i\T101121.b\T8A05(01)shrt.m
Meth Date : 05-Nov-2021 14:30 hgould Quant Type: ISTD
Cal Date : 11-OCT-2021 14:13 Cal File: T3708.D
Als bottle: 20
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.12
Processing Host: VOA-WS

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

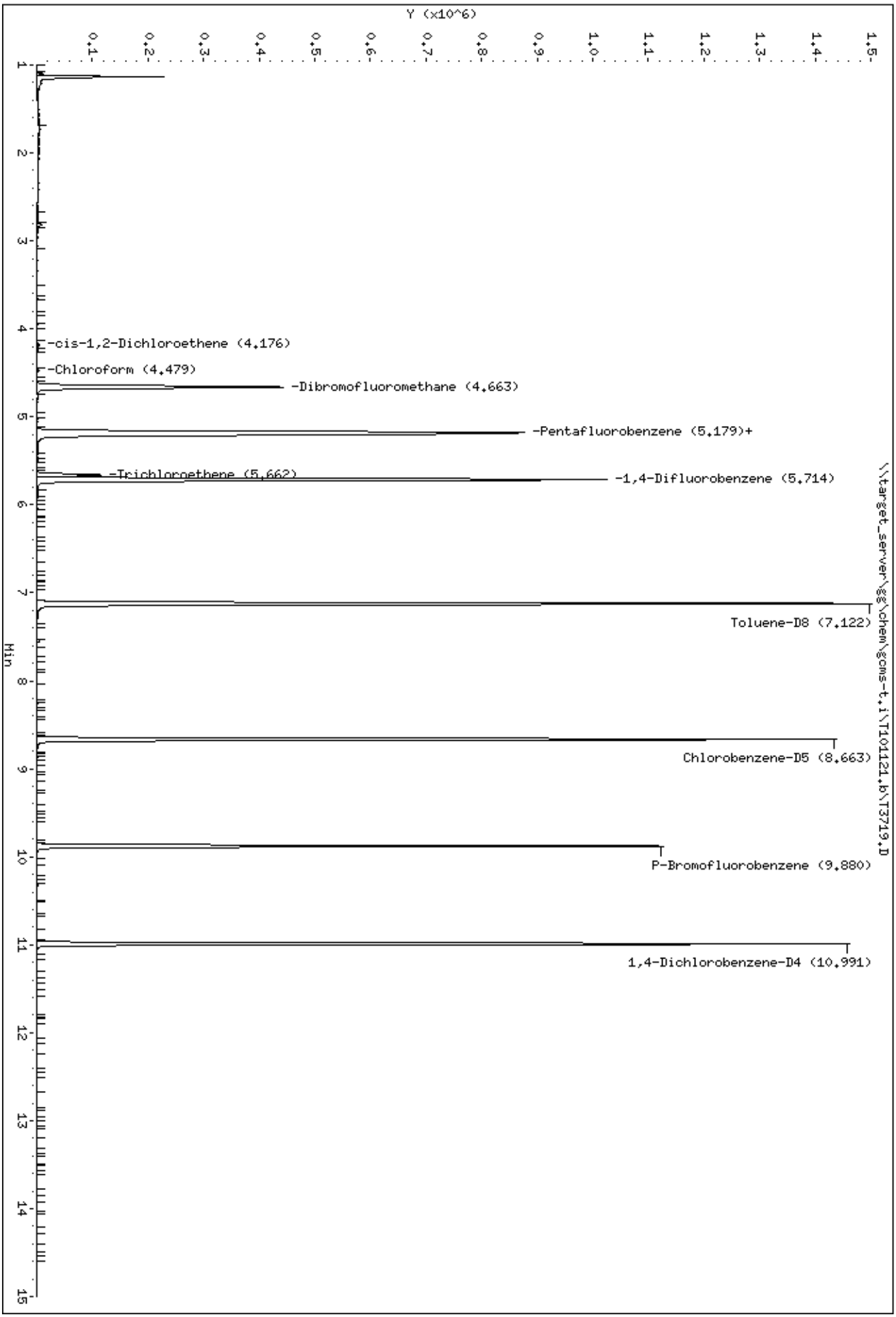
Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

3:37 pm, Nov 12, 2021

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)	REVIEW CODE
27 cis-1,2-Dichloroethene	96	4.180	4.179	(0.807)	1957	0.44197	0.44(aM)	M10
31 Chloroform	83	4.479	4.476	(0.865)	2706	0.33032	0.33(a)	
$ 34 Dibromofluoromethane	113	4.662	4.659	(0.900)	270529	53.5687	53.6	
* 41 Pentafluorobenzene	168	5.179	5.176	(1.000)	500823	50.0000		
$ 42 1,2-Dichloroethane-D4	65	5.197	5.202	(1.004)	368806	57.4384	57.4	
47 Trichloroethene	95	5.662	5.662	(0.991)	39290	8.81816	8.8	
* 48 1,4-Difluorobenzene	114	5.714	5.714	(1.000)	805852	50.0000		
$ 56 Toluene-D8	98	7.121	7.122	(1.246)	919686	49.2201	49.2	
* 68 Chlorobenzene-D5	117	8.663	8.663	(1.000)	700024	50.0000		
$ 77 P-Bromofluorobenzene	95	9.879	9.876	(1.729)	333832	49.6437	49.6	
* 93 1,4-Dichlorobenzene-D4	152	10.990	10.991	(1.000)	335053	50.0000		
M 103 1,2-Dichloroethylene (total)	96				1957	0.44197	0.44(a)	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.


Data File: \\target_server\gg\chem\gcms-t.i\T101121.b\T3719.D
Date : 11-OCT-2021 19:01
Client ID: 6EM-SP-1A(20211001)
Sample Info: SD6709-29
Instrument: gcms-t.i
\\target_server\gg\chem\gcms-t.i\T101121.b\T3719.D
Y (x10^6)
Min
-cis-1,2-Dichloroethene (4.176)
-Chloroform (4.479)
-Dibromofluoromethane (4.663)
-Pentafluorobenzene (5.179)+
-Trichloroethene (5.662)
-1,4-Difluorobenzene (5.714)
Toluene-D8 (7.122)
Chlorobenzene-D5 (8.663)
P-Bromofluorobenzene (9.880)
1,4-Dichlorobenzene-D4 (10.991)

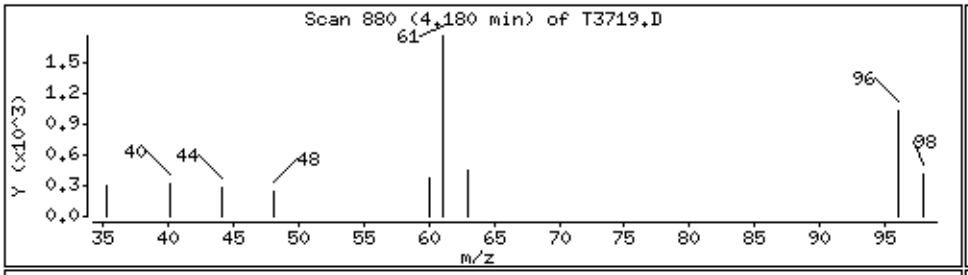
Data File: \\target_server\gg\chem\gcms-t.i\T101121.b\T3719.D

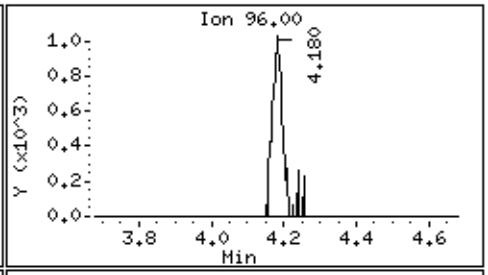
Date : 11-OCT-2021 19:01

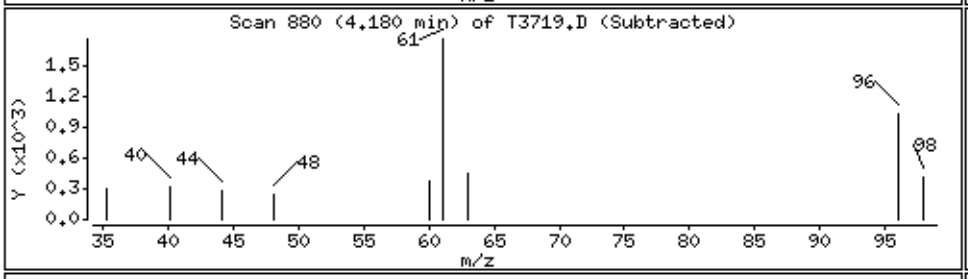
Client ID: 6EM-SP-1A(20211001) Instrument: gcms-t.i

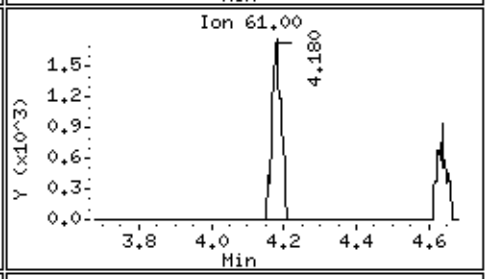
Sample Info: S06709-29

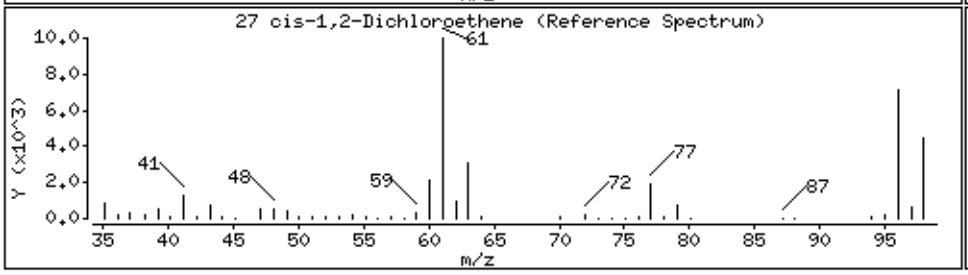
27 cis-1,2-Dichloroethene Concentration: 0.44 ug/l

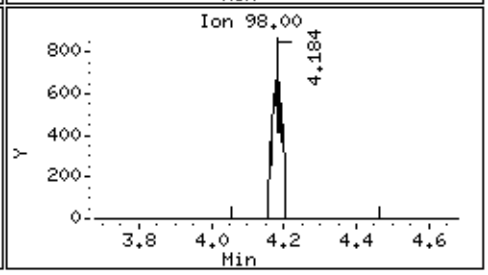




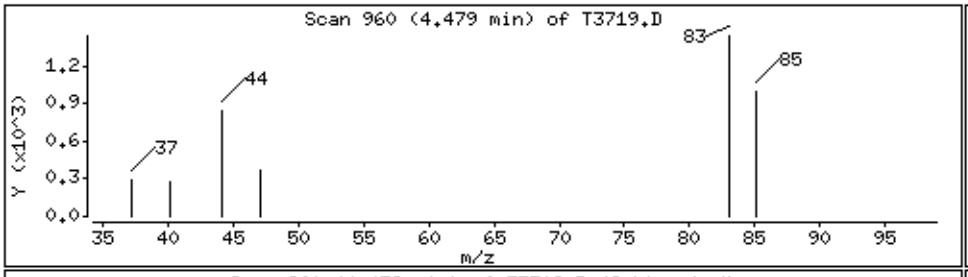


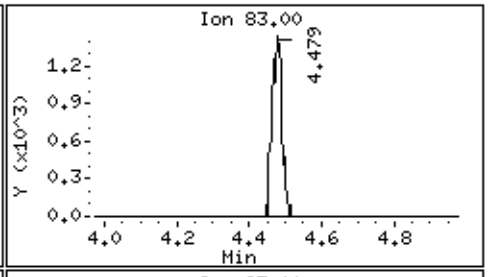


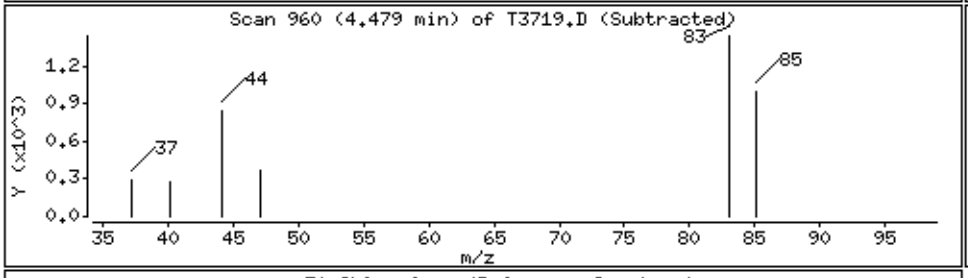


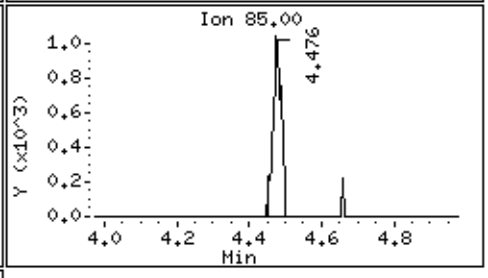


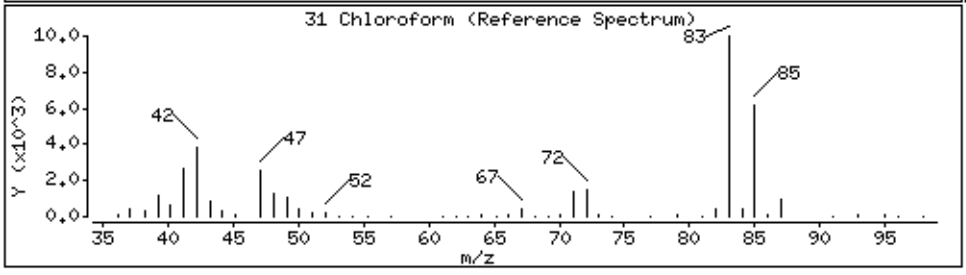
31 Chloroform Concentration: 0.33 ug/l











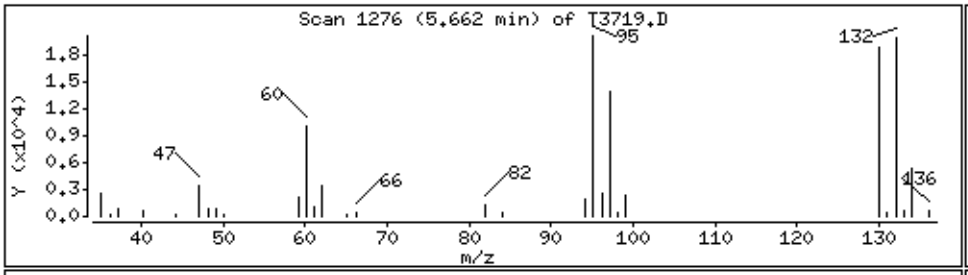
Data File: \\target_server\gg\chem\gcms-t.i\T101121.b\T3719.D

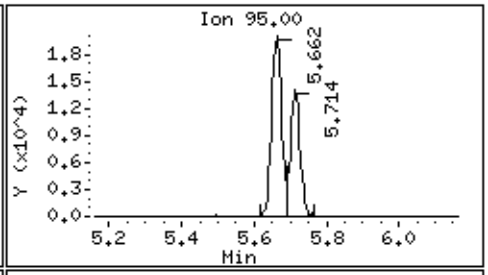
Date : 11-OCT-2021 19:01

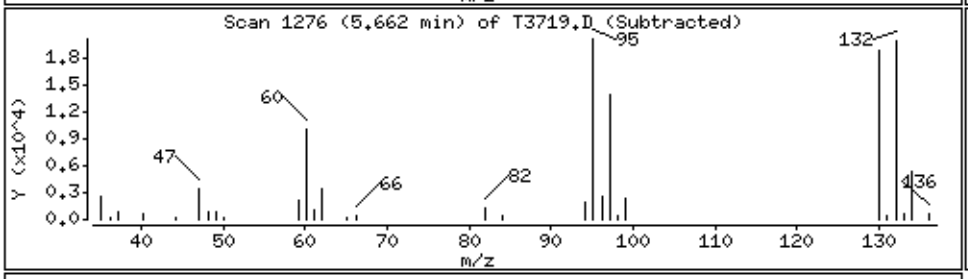
Client ID: 6EM-SP-1A(20211001) Instrument: gcms-t.i

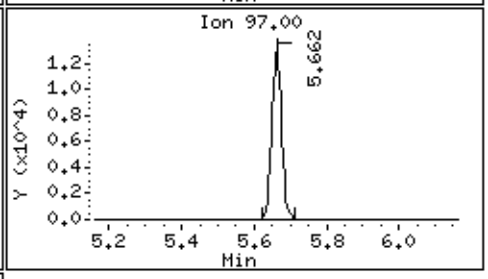
Sample Info: SO6709-29

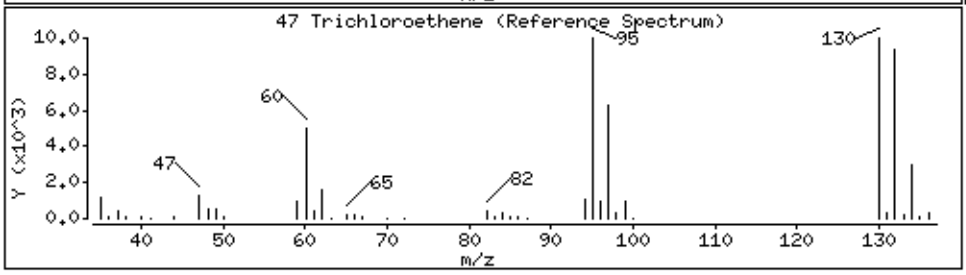
47 Trichloroethene Concentration: 8.8 ug/l







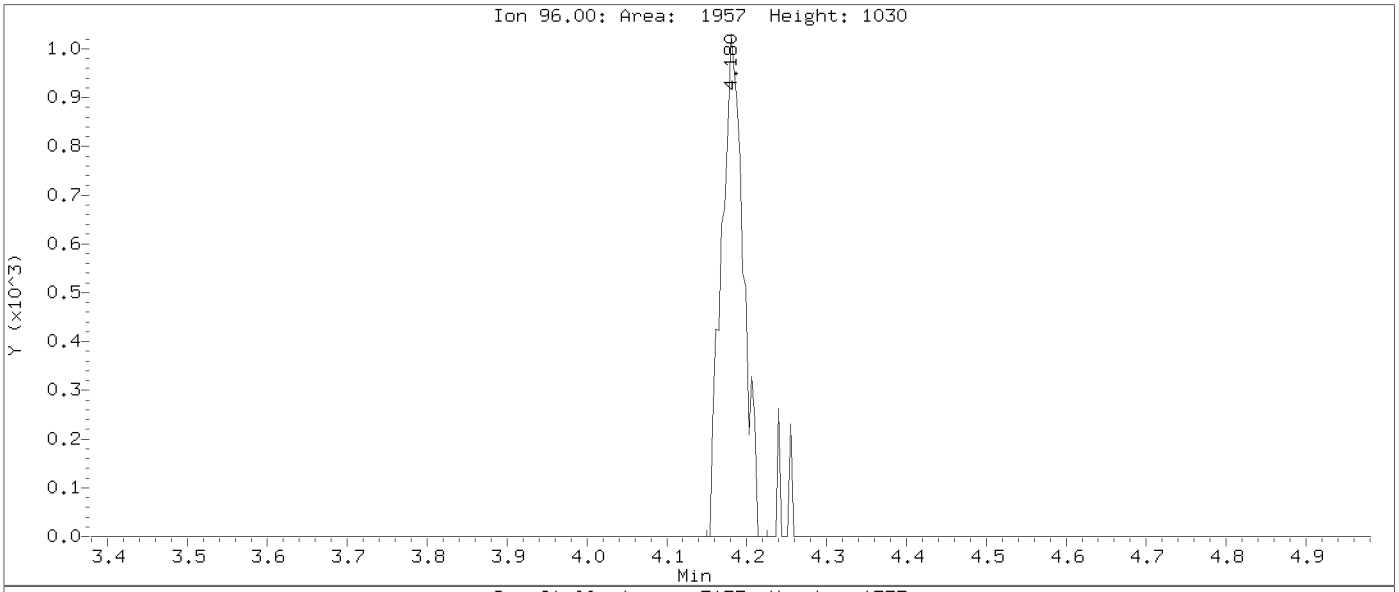


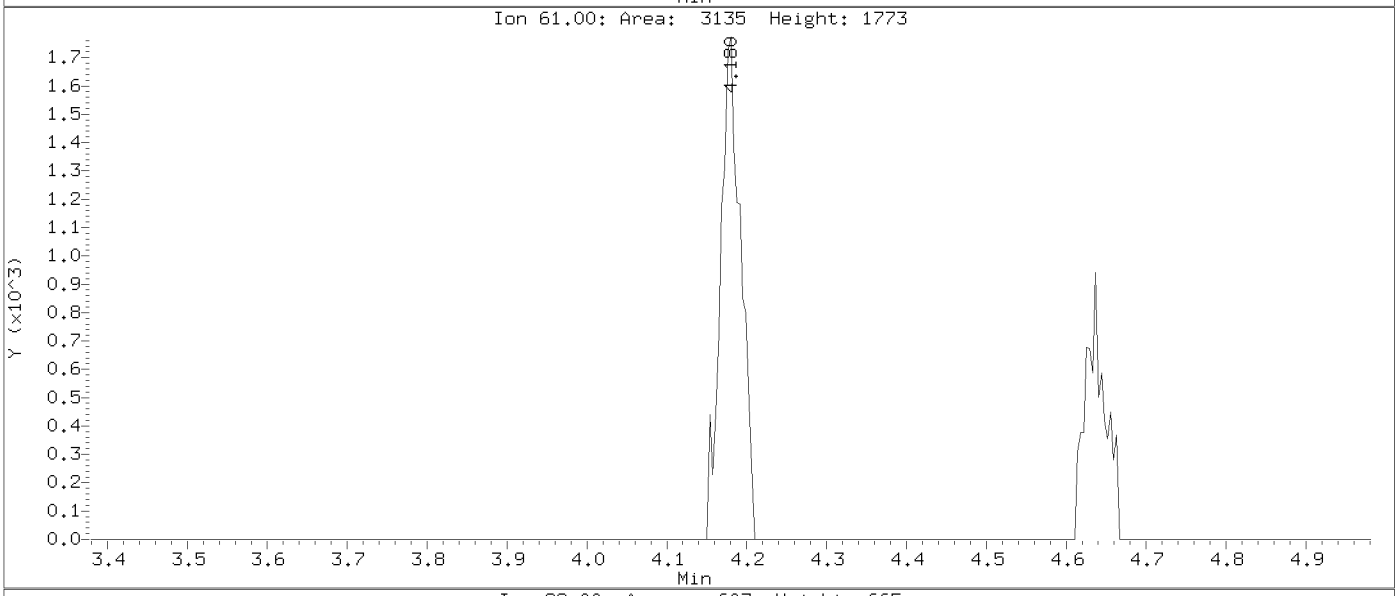


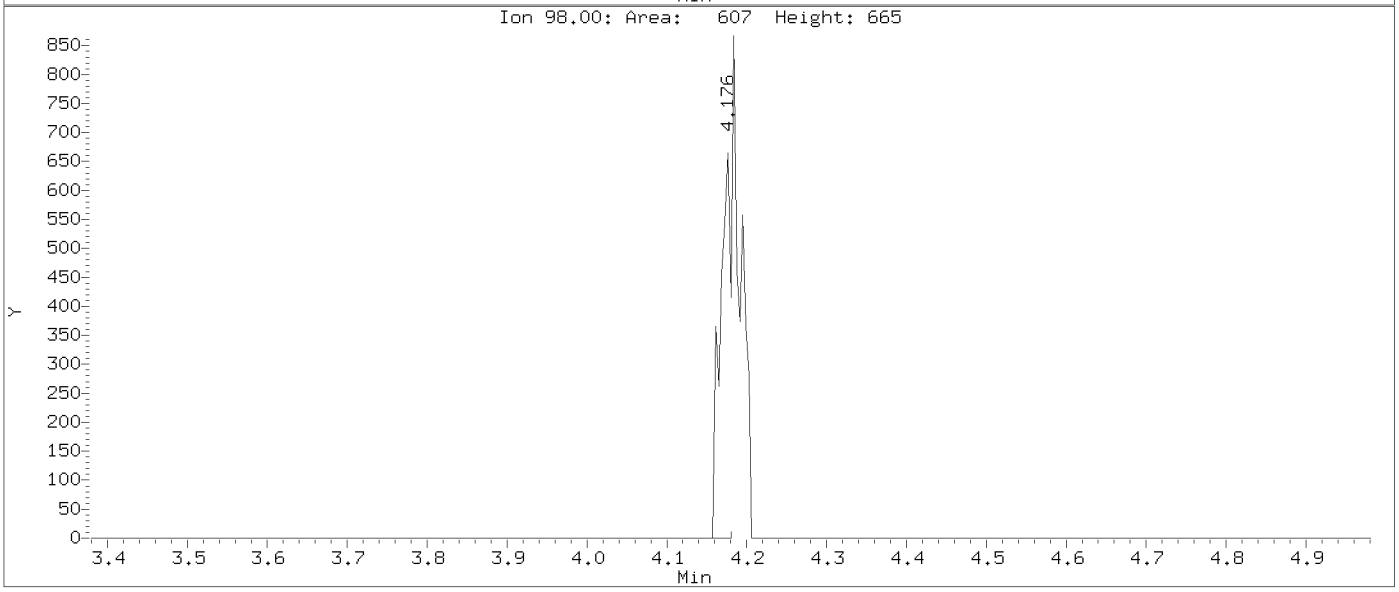
BEFORE MANUAL INTEGRATION

Data File: \\target_server\gg\chem\gcms-t.i\T101121.b\T3719.D
Injection Date: 11-OCT-2021 19:01
Instrument: gcms-t.i
Client Sample ID: 6EM-SP-1A(20211001)

Compound: cis-1,2-Dichloroethene
CAS Number: 156-59-2



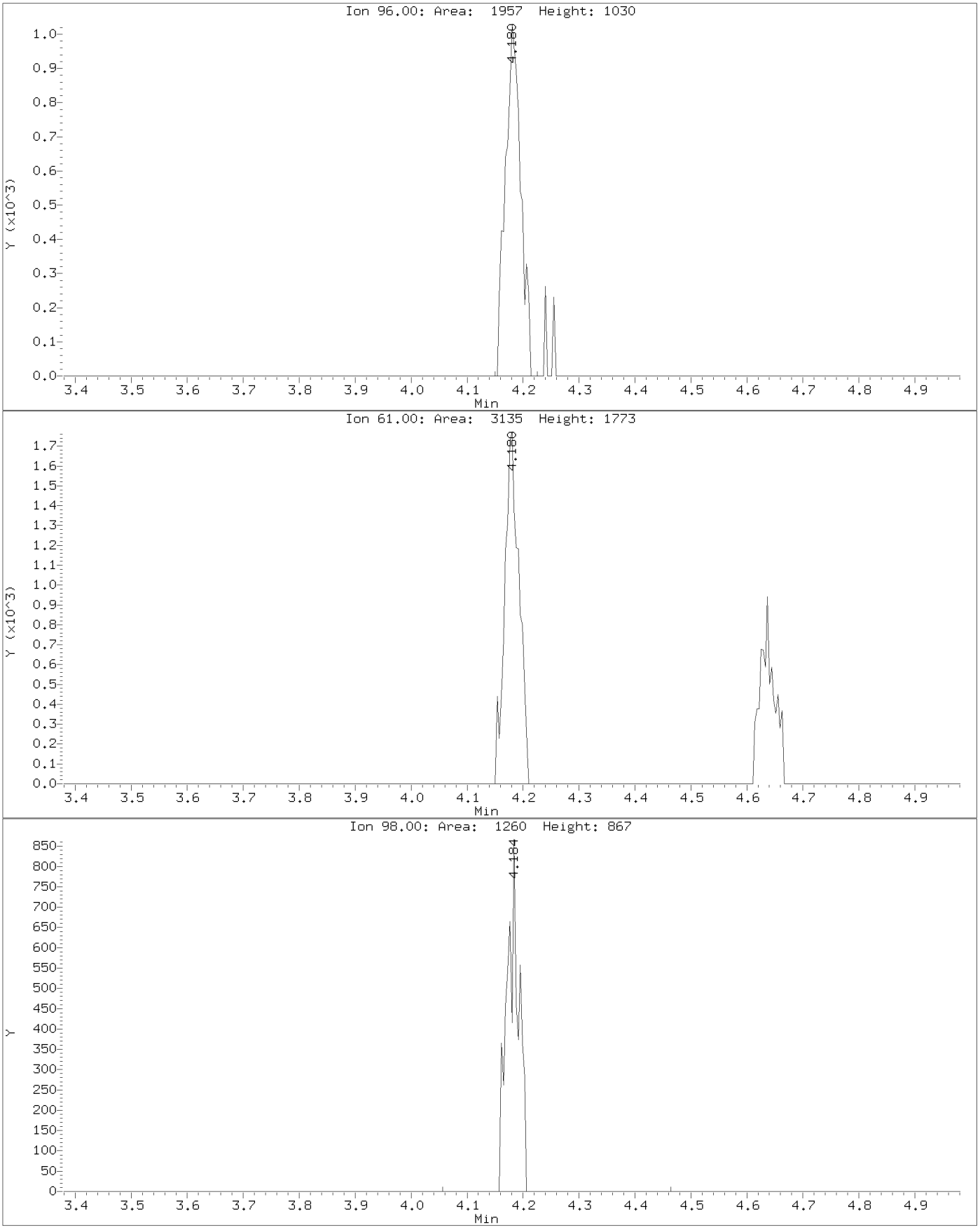




Data File: \\target_server\gg\chem\gcms-t.i\T101121.b\T3719.D
Injection Date: 11-OCT-2021 19:01
Instrument: gcms-t.i
Client Sample ID: 6EM-SP-1A(20211001)

Compound: cis-1,2-Dichloroethene
CAS Number: 156-59-2

AFTER MANUAL INTEGRATION



Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-30
Client ID: WVA-AW-25-MW-2(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: T3720.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 11-OCT-21
Extracted By: JSS
Extraction Method: SW846 5030
Lab Prep Batch: WG307648

Analysis Date: 11-OCT-21
Analyst: JSS
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	2.0	ug/L	1	2	2.0
Vinyl Chloride		14.	ug/L	1	2	2.0
Bromomethane	U	2.0	ug/L	1	2	2.0
Chloroethane	U	2.0	ug/L	1	2	2.0
Trichlorofluoromethane	U	2.0	ug/L	1	2	2.0
1,1-Dichloroethene	U	1.0	ug/L	1	1	1.0
Carbon Disulfide	U	1.0	ug/L	1	1	1.0
Methylene Chloride	U	5.0	ug/L	1	5	5.0
trans-1,2-Dichloroethene		1.8	ug/L	1	1	1.0
1,1-Dichloroethane		5.4	ug/L	1	1	1.0
cis-1,2-Dichloroethene		22.	ug/L	1	1	1.0
Chloroform	U	1.0	ug/L	1	1	1.0
Carbon Tetrachloride	U	1.0	ug/L	1	1	1.0
1,1,1-Trichloroethane	U	1.0	ug/L	1	1	1.0
2-Butanone	U	5.0	ug/L	1	5	5.0
Benzene	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethane	U	1.0	ug/L	1	1	1.0
Trichloroethene		1.2	ug/L	1	1	1.0
1,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Bromodichloromethane	U	1.0	ug/L	1	1	1.0
cis-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
Toluene	U	1.0	ug/L	1	1	1.0
4-Methyl-2-Pentanone	U	5.0	ug/L	1	5	5.0
Tetrachloroethene	U	1.0	ug/L	1	1	1.0
trans-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
1,1,2-Trichloroethane	U	1.0	ug/L	1	1	1.0
Dibromochloromethane	U	1.0	ug/L	1	1	1.0
Chlorobenzene	U	1.0	ug/L	1	1	1.0
Ethylbenzene	U	1.0	ug/L	1	1	1.0
m+p-Xylenes	U	2.0	ug/L	1	2	2.0
o-Xylene	U	1.0	ug/L	1	1	1.0
Bromoform	U	1.0	ug/L	1	1	1.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
P-Bromofluorobenzene		100.	%			
Toluene-d8		100.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-30
Client ID: WVA-AW-25-MW-2(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: T3720.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 11-OCT-21
Extracted By: JSS
Extraction Method: SW846 5030
Lab Prep Batch: WG307648

Analysis Date: 11-OCT-21
Analyst: JSS
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		114.	%			
Dibromofluoromethane		108.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Data File: \\target_server\gg\chem\gcms-t.i\T101121.b\T3720.D
Report Date: 11-Nov-2021 17:08

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-t.i\T101121.b\T3720.D
Lab Smp Id: SO6709-30 Client Smp ID: VA-AW-25-MW-2(20211
Inj Date : 11-OCT-2021 19:27
Operator : JSS Inst ID: gcms-t.i
Smp Info : SO6709-30
Misc Info : WG307648,WG307648-4
Comment : SW846 5030
Method : \\target_server\gg\chem\gcms-t.i\T101121.b\T8A05(01)shrt.m
Meth Date : 05-Nov-2021 14:30 hgould Quant Type: ISTD
Cal Date : 11-OCT-2021 14:13 Cal File: T3708.D
Als bottle: 21
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.12
Processing Host: VOA-WS

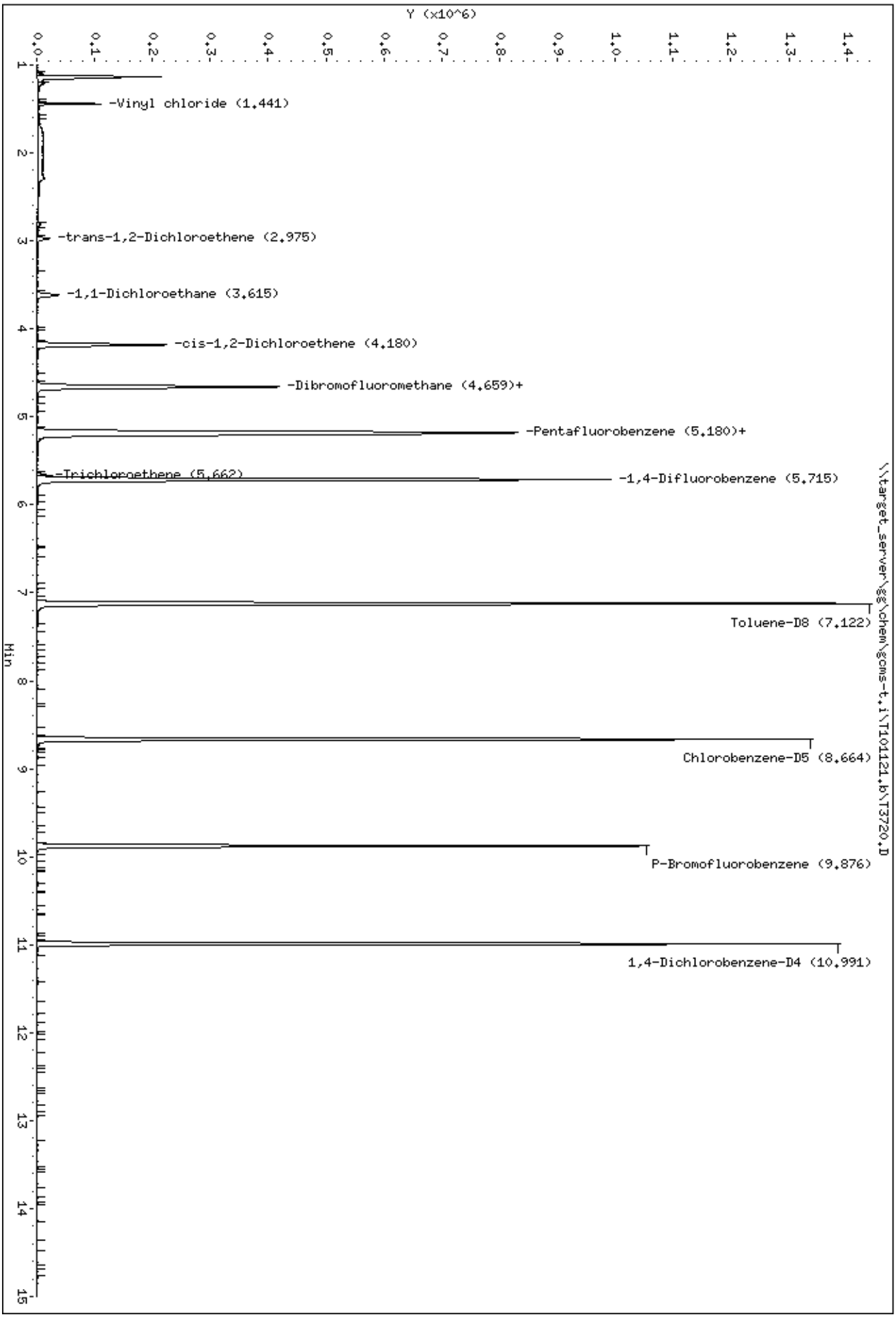
Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)	REVIEW CODE
	3 Vinyl chloride	62	1.441	1.441	(0.278)	51178	13.5789	13.6	
	16 trans-1,2-Dichloroethene	96	2.979	2.975	(0.576)	7231	1.85646	1.8	
	23 1,1-Dichloroethane	63	3.615	3.619	(0.698)	39092	5.37601	5.4	
	27 cis-1,2-Dichloroethene	96	4.180	4.179	(0.808)	91505	21.9214	21.9	
$	34 Dibromofluoromethane	113	4.659	4.659	(0.900)	257413	54.0696	54.1	
	35 1,1,1-Trichloroethane	97	4.674	4.667	(0.903)	4536	0.64381	0.64(a)	
*	41 Pentafluorobenzene	168	5.175	5.176	(1.000)	472127	50.0000		
$	42 1,2-Dichloroethane-D4	65	5.198	5.202	(1.004)	346732	57.2827	57.3	
	47 Trichloroethene	95	5.658	5.662	(0.990)	4861	1.15885	1.2	
*	48 1,4-Difluorobenzene	114	5.714	5.714	(1.000)	758667	50.0000		
$	56 Toluene-D8	98	7.121	7.122	(1.246)	880257	50.0400	50.0	
*	68 Chlorobenzene-D5	117	8.663	8.663	(1.000)	665005	50.0000		
$	77 P-Bromofluorobenzene	95	9.879	9.876	(1.729)	317458	50.1448	50.1	
*	93 1,4-Dichlorobenzene-D4	152	10.991	10.991	(1.000)	311107	50.0000		
M	103 1,2-Dichloroethylene (total)	96				98736	23.7779	23.8	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).


Y (x10^6)
0.0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0
1.1
1.2
1.3
1.4
Min
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
-Vinyl chloride (1.441)
-trans-1,2-Dichloroethene (2.975)
-1,1-Dichloroethane (3.615)
-cis-1,2-Dichloroethene (4.180)
-Dibromofluoromethane (4.659)+
-Pentafluorobenzene (5.180)+
-Trichloroethene (5.662)
-1,4-Difluorobenzene (5.715)
Toluene-D8 (7.122)
Chlorobenzene-D5 (8.664)
P-Bromofluorobenzene (9.876)
1,4-Dichlorobenzene-D4 (10.991)
\\target_server\gg\chem\gcms-t.i\T101121.b\T3720.D
Data File: \\target_server\gg\chem\gcms-t.i\T101121.b\T3720.D
Date : 11-OCT-2021 19:27
Client ID: VA-AW-25-MW-2(20211
Sample Info: SD6709-30
Instrument: gcms-t.i

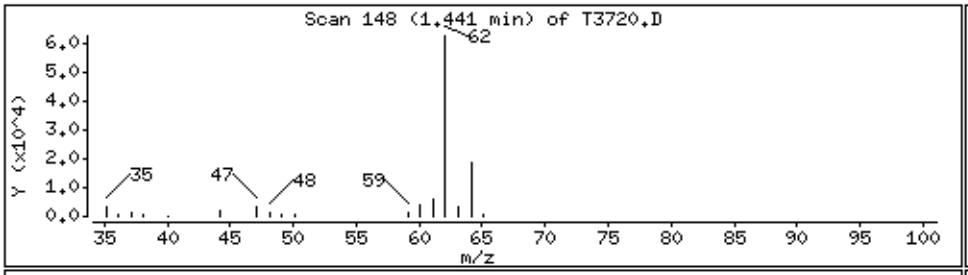
Data File: \\target_server\gg\chem\gcms-t.i\T101121.b\T3720.D

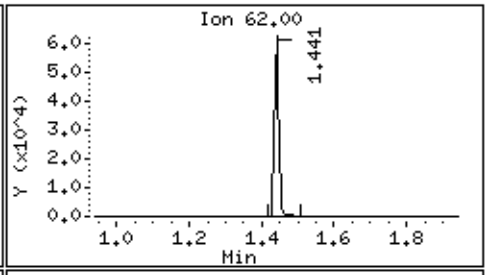
Date : 11-OCT-2021 19:27

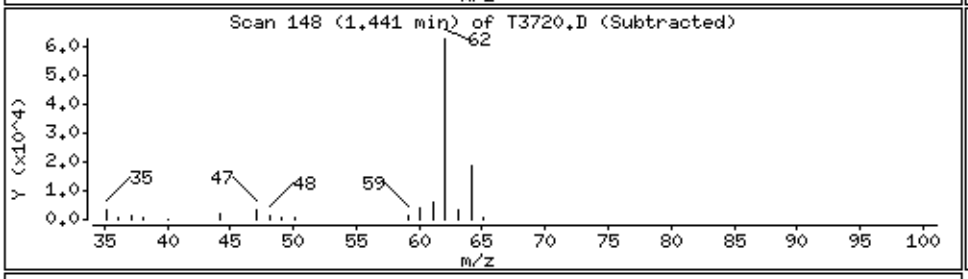
Client ID: VA-AW-25-MW-2(20211 Instrument: gcms-t.i

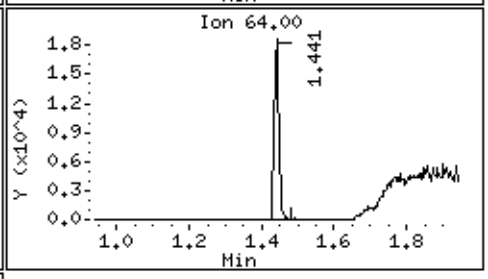
Sample Info: SO6709-30

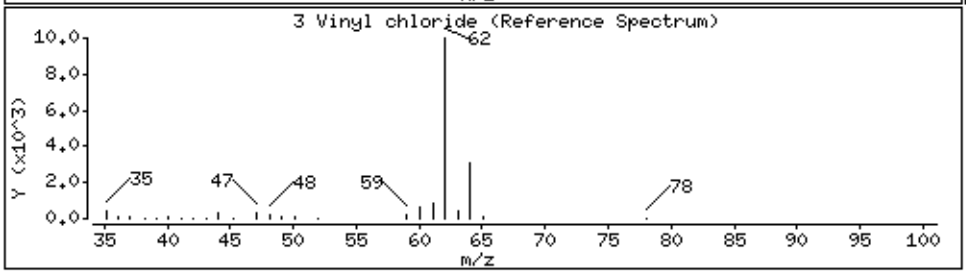
3 Vinyl chloride Concentration: 13.6 ug/l



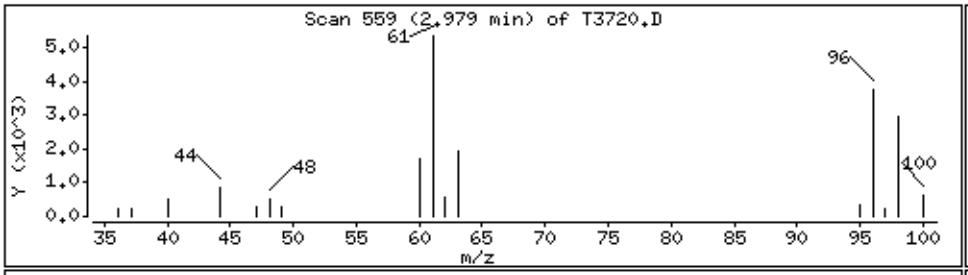


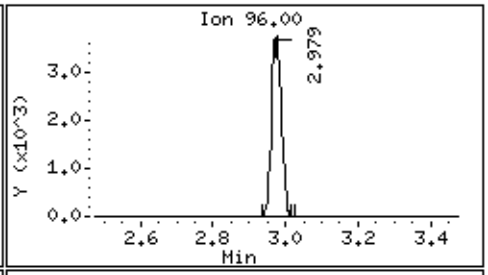


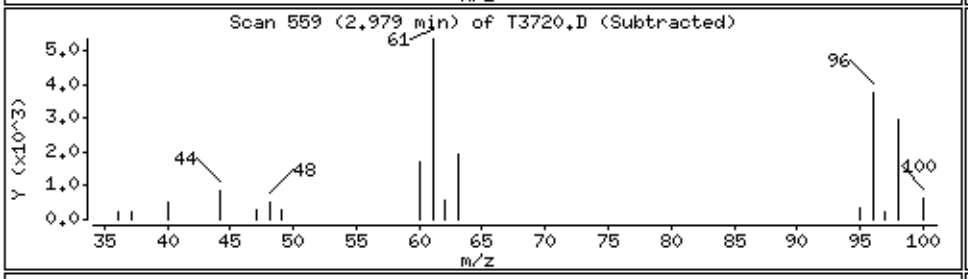


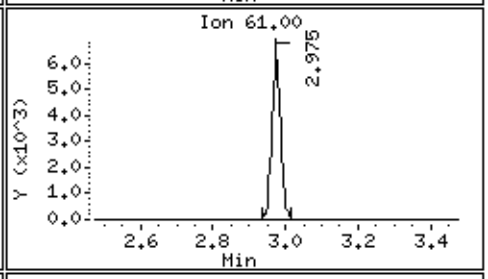


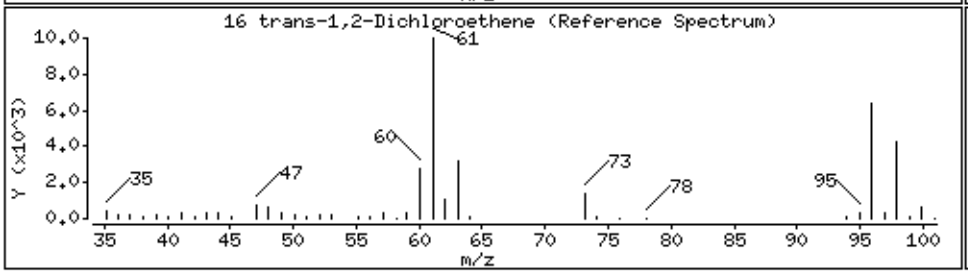
16 trans-1,2-Dichloroethene Concentration: 1.8 ug/l

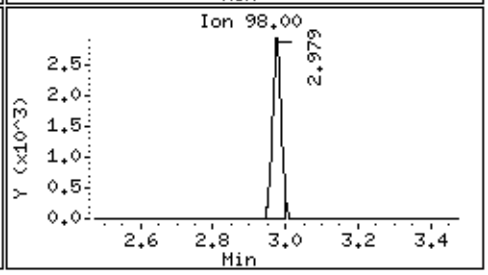












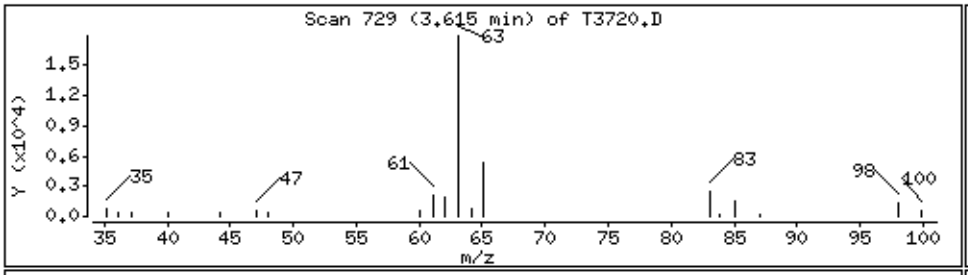
Data File: \\target_server\gg\chem\gcms-t.i\T101121.b\T3720.D

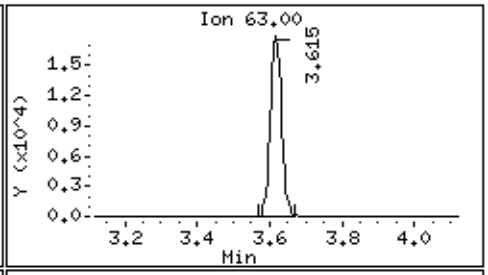
Date : 11-OCT-2021 19:27

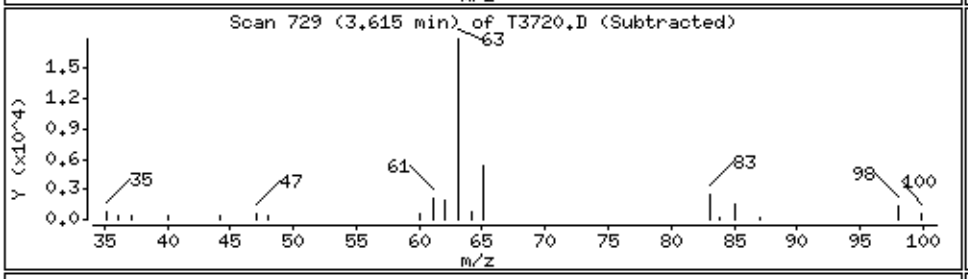
Client ID: VA-AW-25-MW-2(20211 Instrument: gcms-t.i

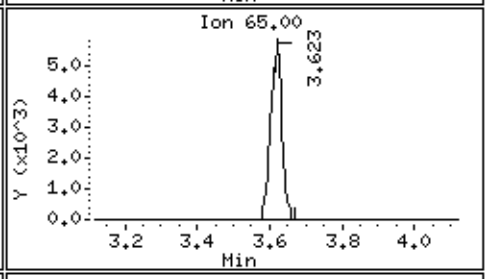
Sample Info: S06709-30

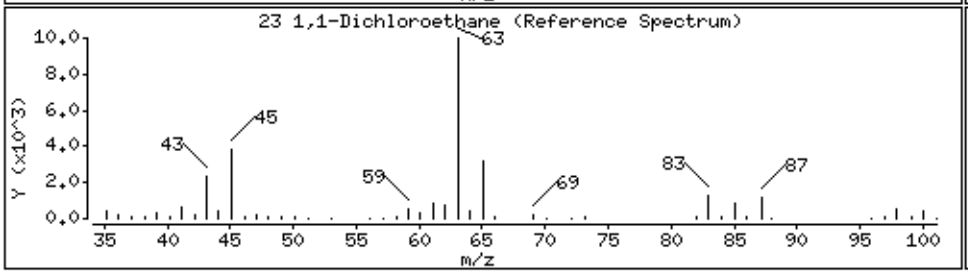
23 1,1-Dichloroethane Concentration: 5.4 ug/l

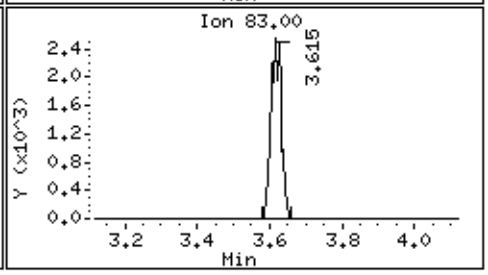




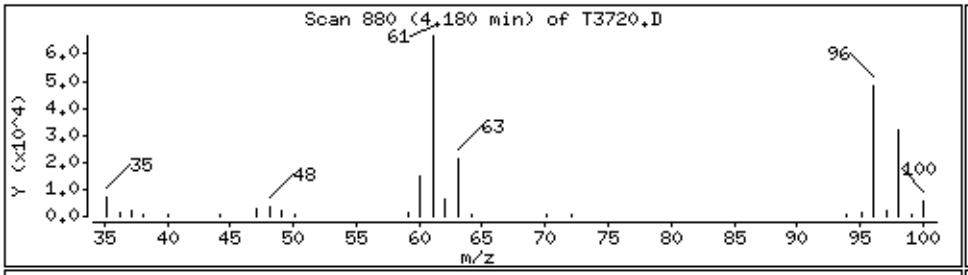


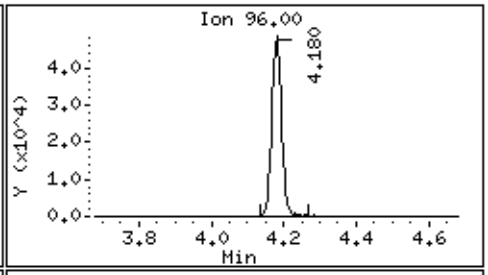


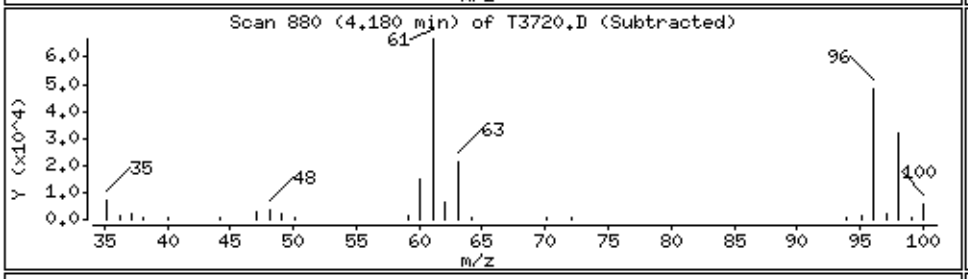


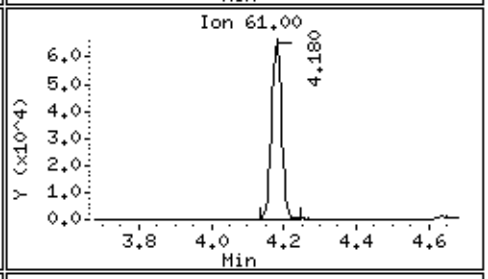


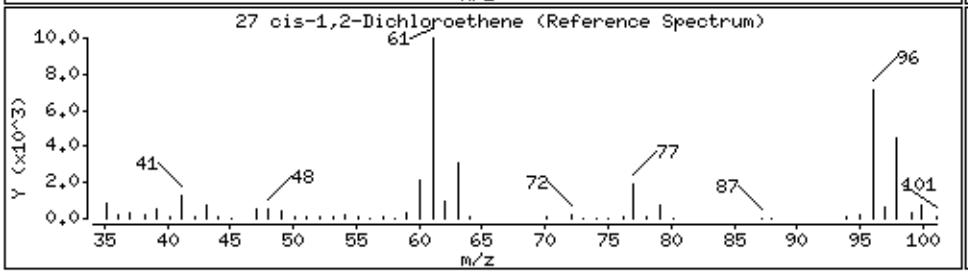
27 cis-1,2-Dichloroethene Concentration: 21.9 ug/l

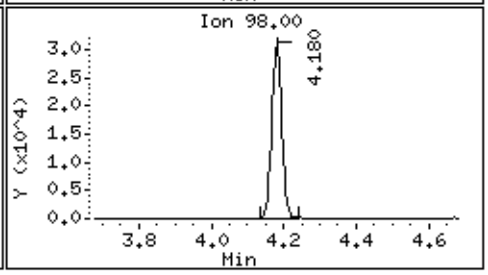












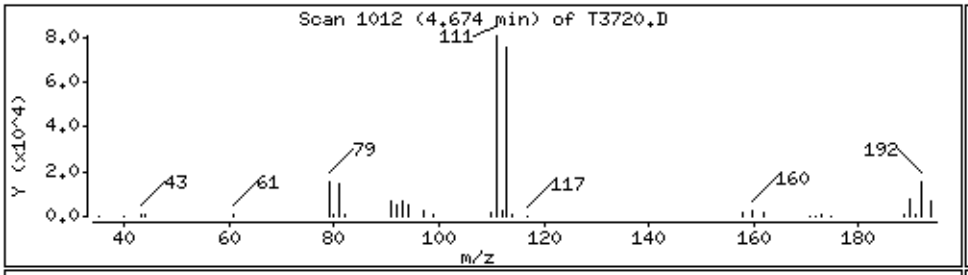
Data File: \\target_server\gg\chem\gcms-t.i\T101121.b\T3720.D

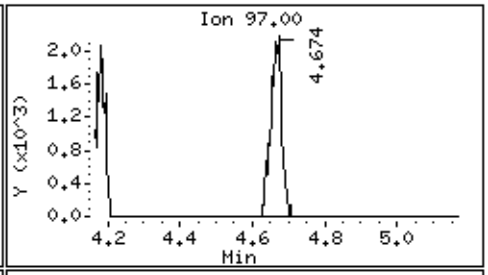
Date : 11-OCT-2021 19:27

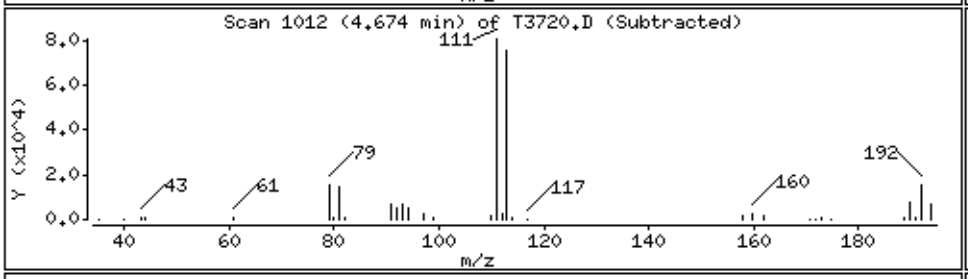
Client ID: VA-AW-25-MW-2(20211 Instrument: gcms-t.i

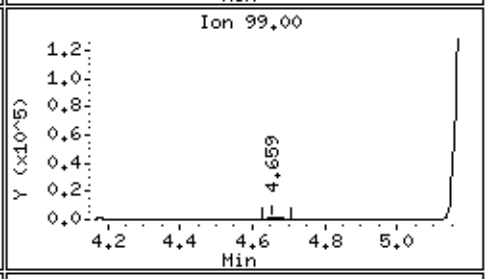
Sample Info: SO6709-30

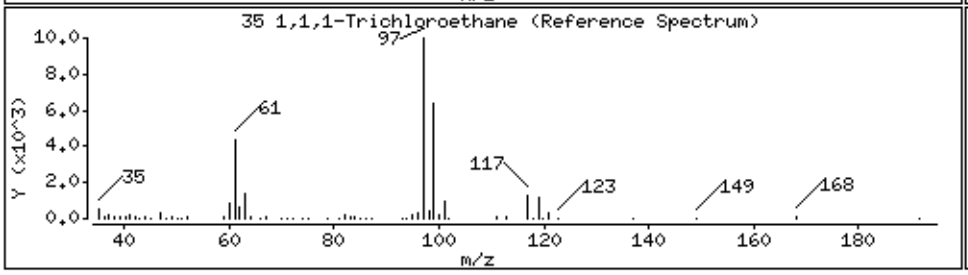
35 1,1,1-Trichloroethane Concentration: 0.64 ug/l

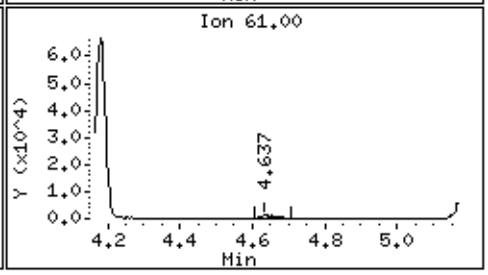




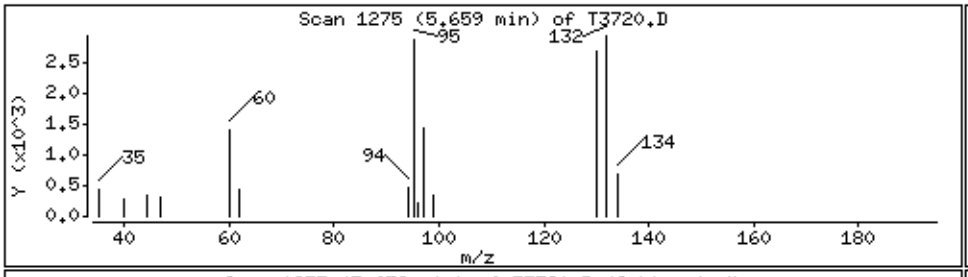


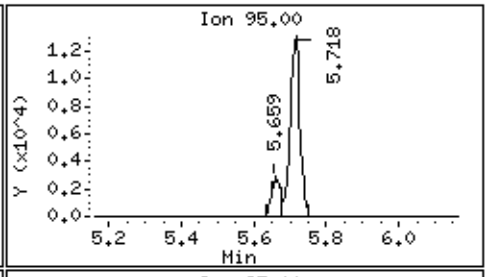


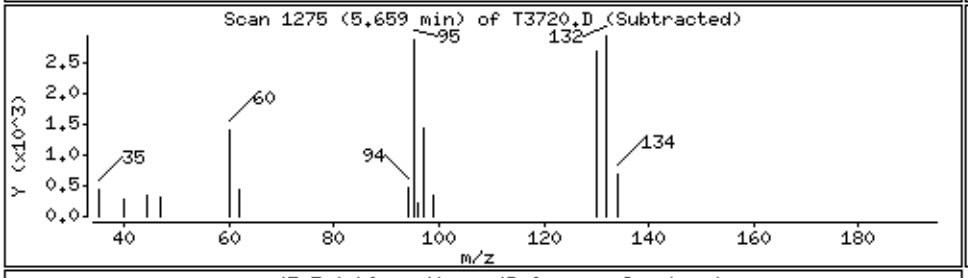


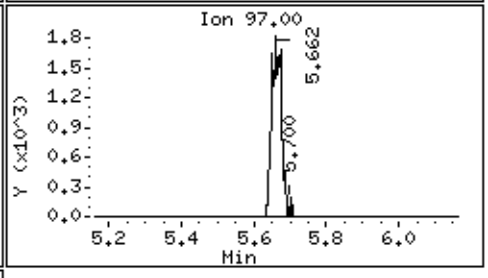


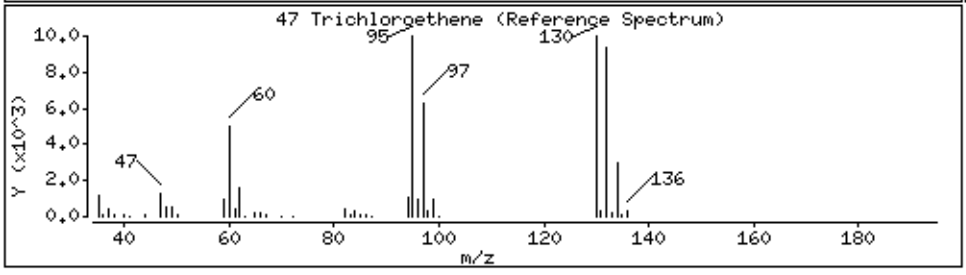
47 Trichloroethene Concentration: 1.2 ug/l











Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-31
Client ID: WVA-AW-25-MW-3(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: T3721.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 11-OCT-21
Extracted By: JSS
Extraction Method: SW846 5030
Lab Prep Batch: WG307648

Analysis Date: 11-OCT-21
Analyst: JSS
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	2.0	ug/L	1	2	2.0
Vinyl Chloride	U	2.0	ug/L	1	2	2.0
Bromomethane	U	2.0	ug/L	1	2	2.0
Chloroethane	U	2.0	ug/L	1	2	2.0
Trichlorofluoromethane	U	2.0	ug/L	1	2	2.0
1,1-Dichloroethene	U	1.0	ug/L	1	1	1.0
Carbon Disulfide	U	1.0	ug/L	1	1	1.0
Methylene Chloride	U	5.0	ug/L	1	5	5.0
trans-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
1,1-Dichloroethane	U	1.0	ug/L	1	1	1.0
cis-1,2-Dichloroethene		6.0	ug/L	1	1	1.0
Chloroform		1.7	ug/L	1	1	1.0
Carbon Tetrachloride	U	1.0	ug/L	1	1	1.0
1,1,1-Trichloroethane	U	1.0	ug/L	1	1	1.0
2-Butanone	U	5.0	ug/L	1	5	5.0
Benzene	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethane	U	1.0	ug/L	1	1	1.0
Trichloroethene	U	1.0	ug/L	1	1	1.0
1,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Bromodichloromethane	U	1.0	ug/L	1	1	1.0
cis-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
Toluene	U	1.0	ug/L	1	1	1.0
4-Methyl-2-Pentanone	U	5.0	ug/L	1	5	5.0
Tetrachloroethene	U	1.0	ug/L	1	1	1.0
trans-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
1,1,2-Trichloroethane	U	1.0	ug/L	1	1	1.0
Dibromochloromethane	U	1.0	ug/L	1	1	1.0
Chlorobenzene	U	1.0	ug/L	1	1	1.0
Ethylbenzene	U	1.0	ug/L	1	1	1.0
m+p-Xylenes	U	2.0	ug/L	1	2	2.0
o-Xylene	U	1.0	ug/L	1	1	1.0
Bromoform	U	1.0	ug/L	1	1	1.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
P-Bromofluorobenzene		102.	%			
Toluene-d8		100.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-31
Client ID: WVA-AW-25-MW-3(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: T3721.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 11-OCT-21
Extracted By: JSS
Extraction Method: SW846 5030
Lab Prep Batch: WG307648

Analysis Date: 11-OCT-21
Analyst: JSS
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		116.	%			
Dibromofluoromethane		109.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Data File: \\target_server\gg\chem\gcms-t.i\T101121.b\T3721.D
Report Date: 11-Nov-2021 17:08

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-t.i\T101121.b\T3721.D
Lab Smp Id: SO6709-31 Client Smp ID: VA-AW-25-MW-3(20211
Inj Date : 11-OCT-2021 19:53
Operator : JSS Inst ID: gcms-t.i
Smp Info : SO6709-31
Misc Info : WG307648,WG307648-4
Comment : SW846 5030
Method : \\target_server\gg\chem\gcms-t.i\T101121.b\T8A05(01)shrt.m
Meth Date : 05-Nov-2021 14:30 hgould Quant Type: ISTD
Cal Date : 11-OCT-2021 14:13 Cal File: T3708.D
Als bottle: 22
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.12
Processing Host: VOA-WS

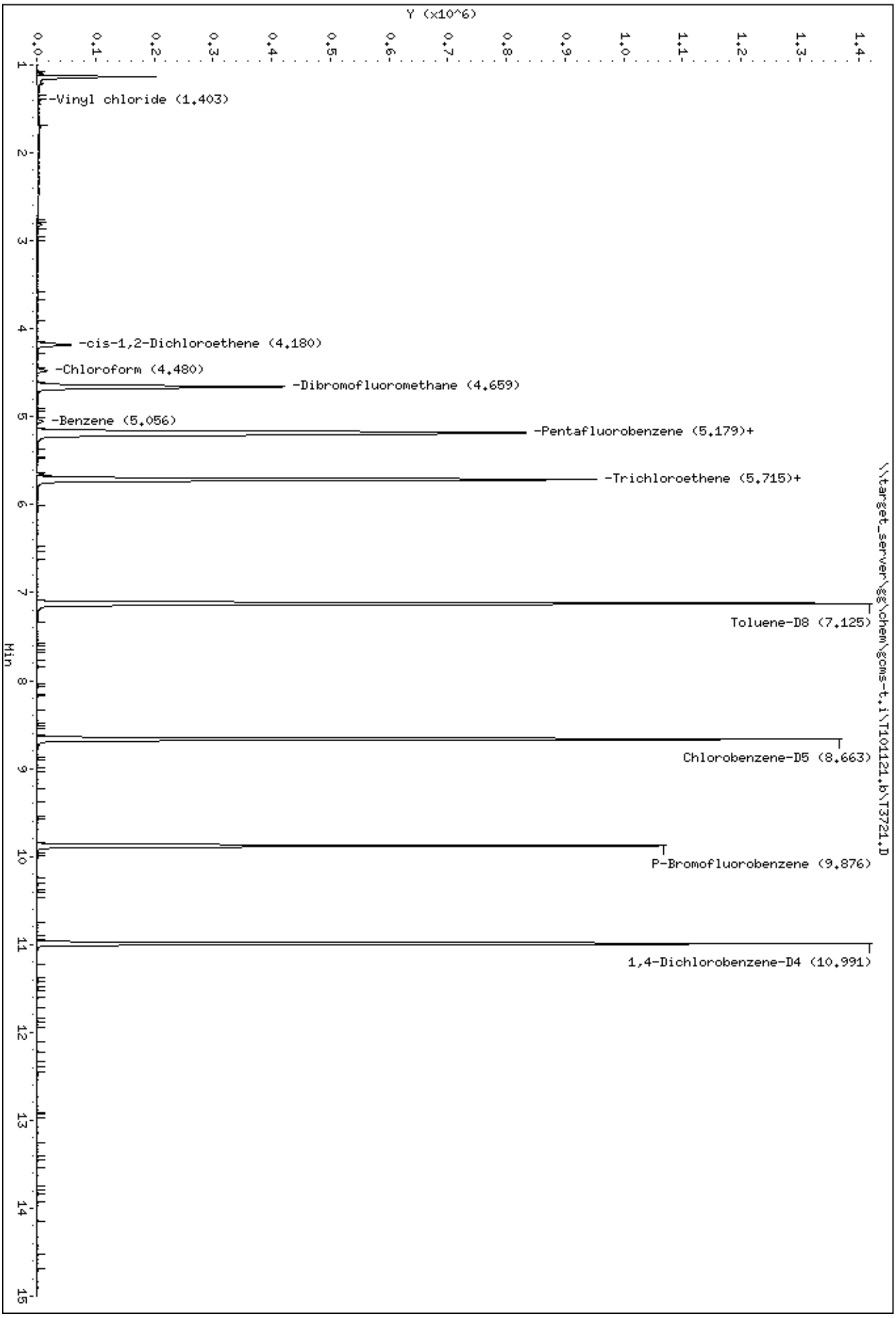
Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)	REVIEW CODE
	3 Vinyl chloride	62	1.440	1.441	(0.278)	1414	0.37365	0.37(a)	
	27 cis-1,2-Dichloroethene	96	4.183	4.179	(0.808)	25021	5.96991	6.0	
	31 Chloroform	83	4.472	4.476	(0.864)	13427	1.73162	1.7	
$	34 Dibromofluoromethane	113	4.659	4.659	(0.900)	259698	54.3288	54.3	
	38 Benzene	78	5.055	5.052	(0.885)	8099	0.51169	0.51(a)	
*	41 Pentafluorobenzene	168	5.175	5.176	(1.000)	474045	50.0000		
$	42 1,2-Dichloroethane-D4	65	5.201	5.202	(1.005)	353867	58.2249	58.2	
	47 Trichloroethene	95	5.665	5.662	(0.991)	3275	0.79022	0.79(a)	
*	48 1,4-Difluorobenzene	114	5.714	5.714	(1.000)	749574	50.0000		
$	56 Toluene-D8	98	7.125	7.122	(1.247)	872012	50.1726	50.2	
*	68 Chlorobenzene-D5	117	8.663	8.663	(1.000)	667917	50.0000		
$	77 P-Bromofluorobenzene	95	9.875	9.876	(1.728)	320339	51.2137	51.2	
*	93 1,4-Dichlorobenzene-D4	152	10.991	10.991	(1.000)	319813	50.0000		
M	103 1,2-Dichloroethylene (total)	96				25021	5.96991	6.0	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).


Data File: \\target_server\gg\chem\gcms-t.i\T101121.b\T3721.D
Date : 11-OCT-2021 19:53
Client ID: VA-AW-25-MW-3(20211
Sample Info: SD6709-31
Instrument: gcms-t.i
\\target_server\gg\chem\gcms-t.i\T101121.b\T3721.D
Y (x10^6)
Min
-Vinyl chloride (1.403)
-cis-1,2-Dichloroethene (4.180)
-Chloroform (4.480)
-Dibromofluoromethane (4.659)
-Benzene (5.056)
-Pentafluorobenzene (5.179)+
-Trichloroethene (5.715)+
Toluene-D8 (7.125)
Chlorobenzene-D5 (8.663)
P-Bromofluorobenzene (9.876)
1,4-Dichlorobenzene-D4 (10.991)

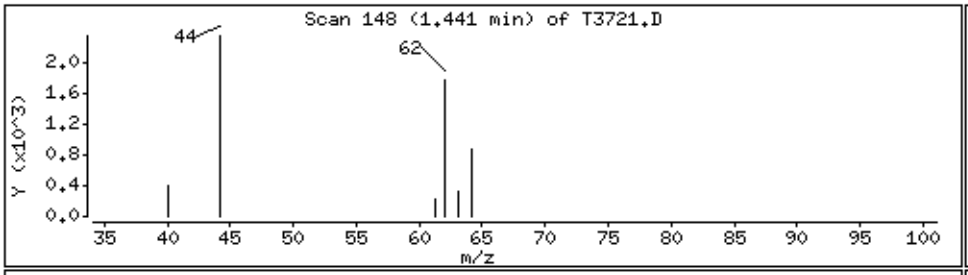
Data File: \\target_server\gg\chem\gcms-t.i\T101121.b\T3721.D

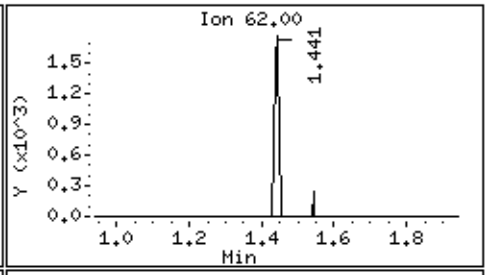
Date : 11-OCT-2021 19:53

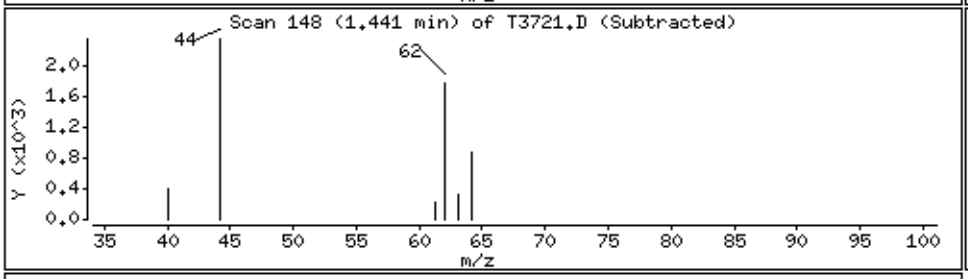
Client ID: VA-AW-25-MW-3(20211 Instrument: gcms-t.i

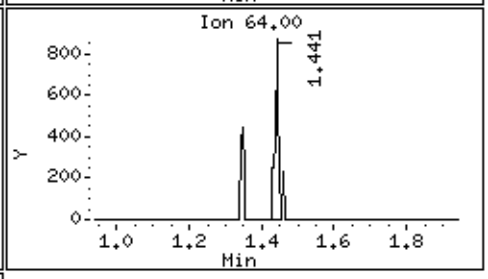
Sample Info: SO6709-31

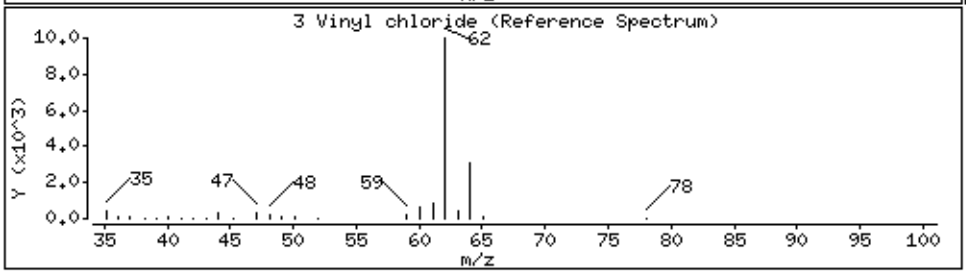
3 Vinyl chloride Concentration: 0.37 ug/l



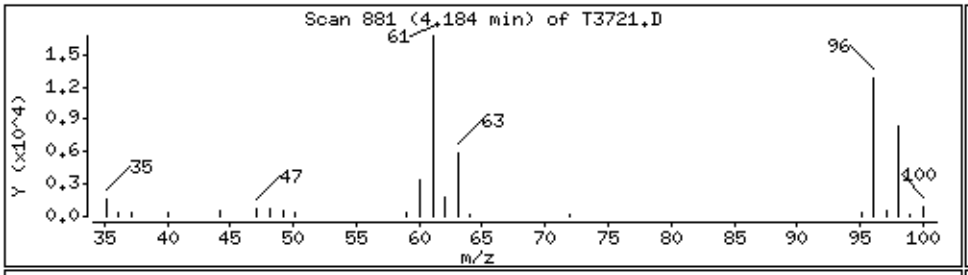


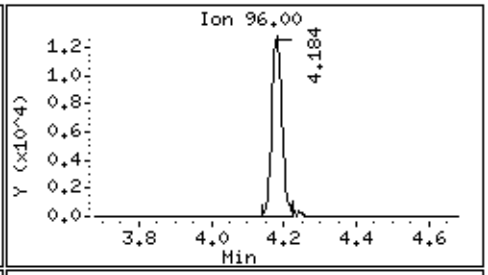


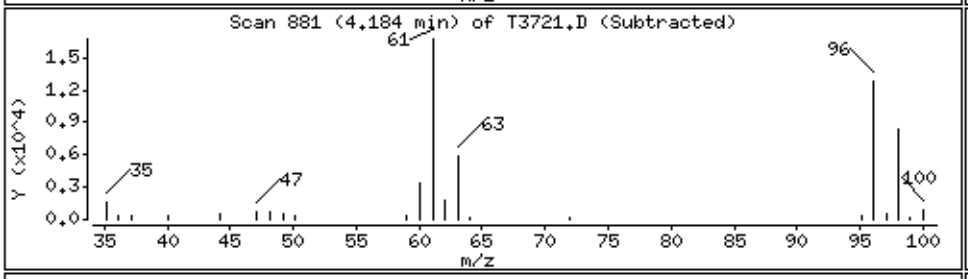


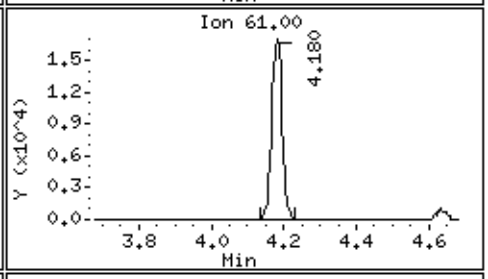


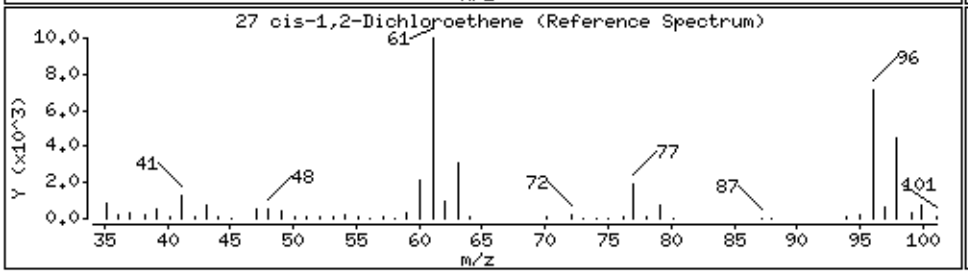
27 cis-1,2-Dichloroethene Concentration: 6.0 ug/l

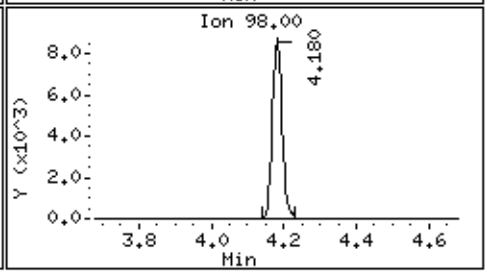












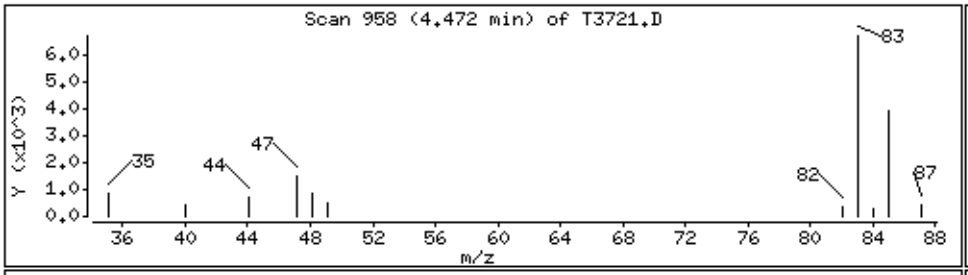
Data File: \\target_server\gg\chem\gcms-t.i\T101121.b\T3721.D

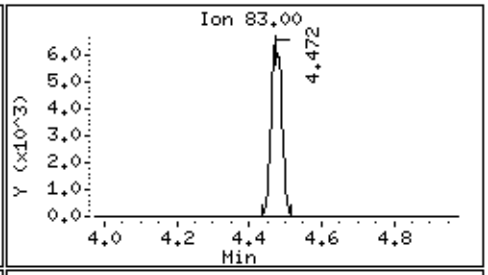
Date : 11-OCT-2021 19:53

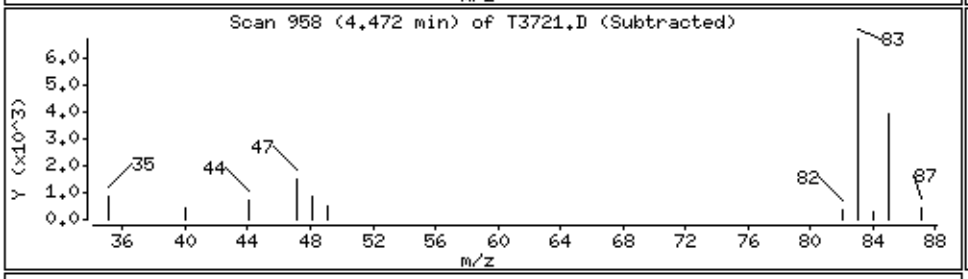
Client ID: VA-AW-25-MW-3(20211 Instrument: gcms-t.i

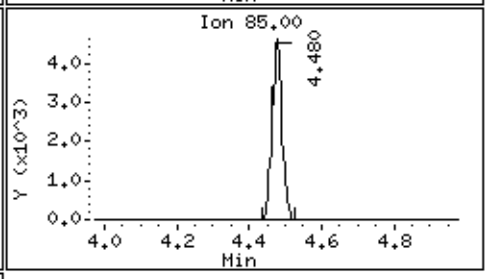
Sample Info: S06709-31

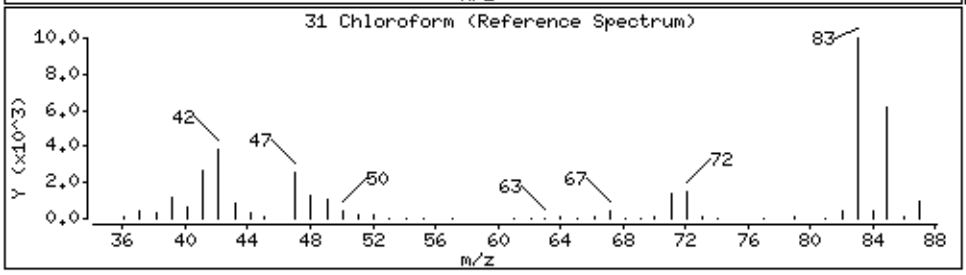
31 Chloroform Concentration: 1.7 ug/l



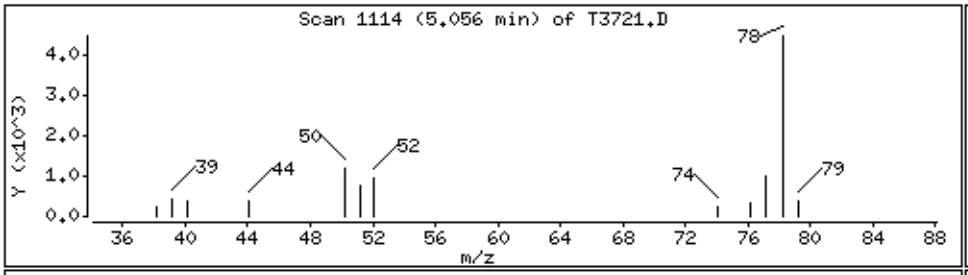


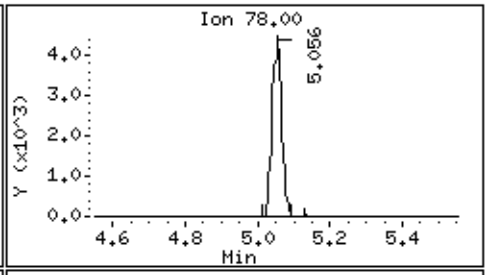


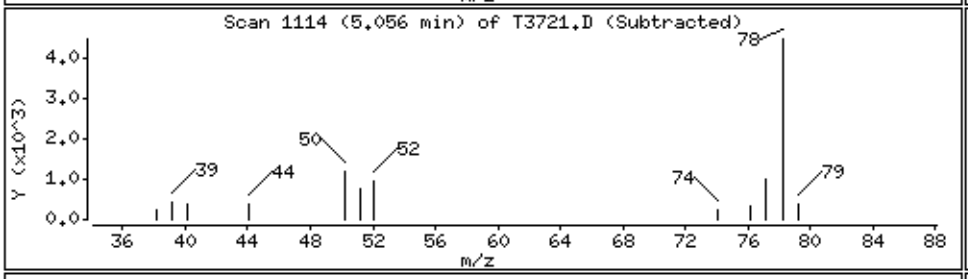


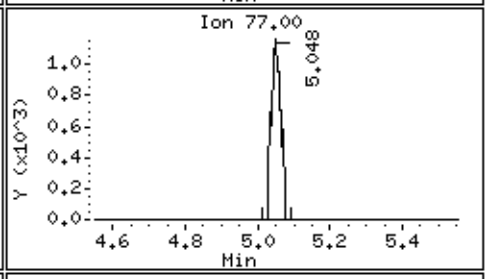


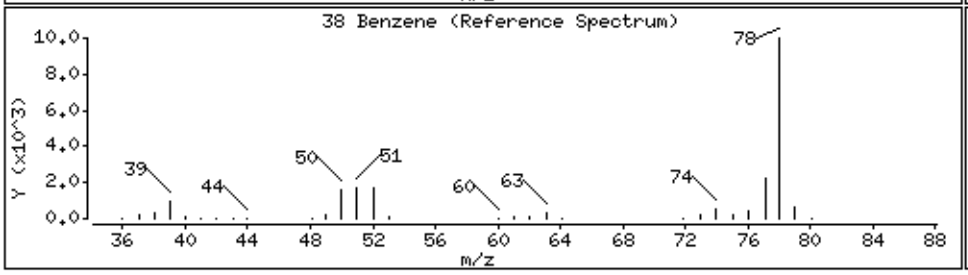
38 Benzene Concentration: 0.51 ug/l

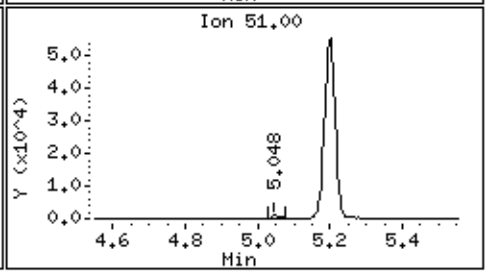












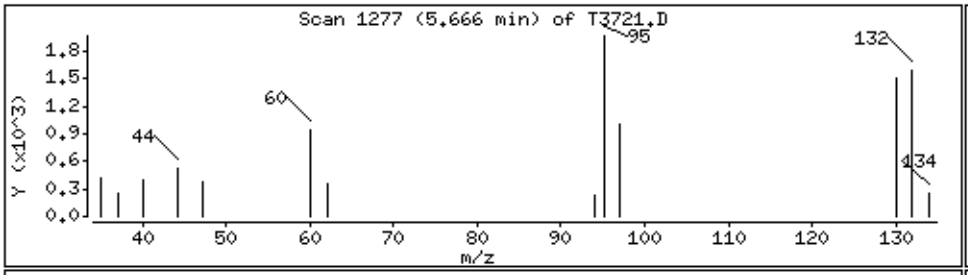
Data File: \\target_server\gg\chem\gcms-t.i\T101121.b\T3721.D

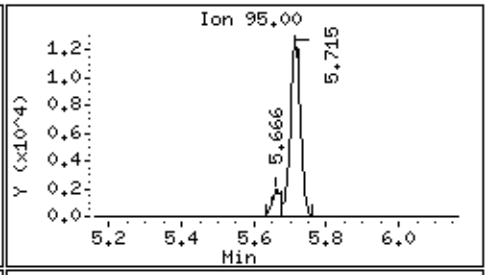
Date : 11-OCT-2021 19:53

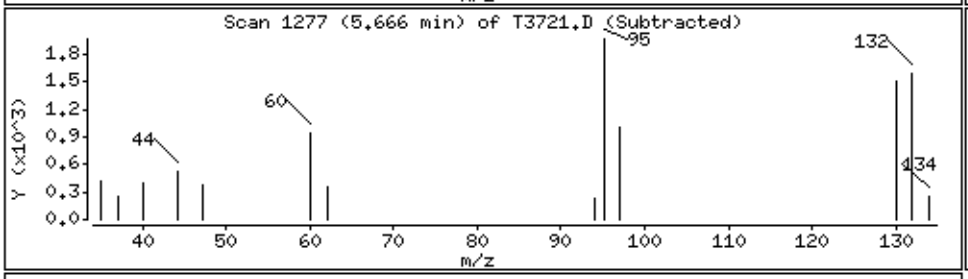
Client ID: VA-AW-25-MW-3(20211 Instrument: gcms-t.i

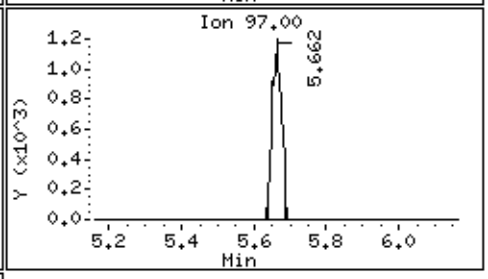
Sample Info: SO6709-31

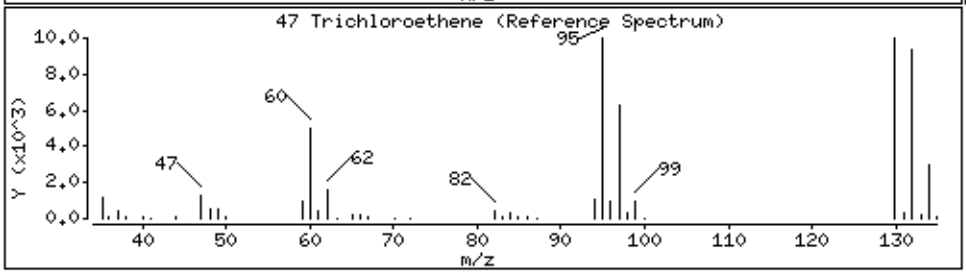
47 Trichloroethene Concentration: 0.79 ug/l











Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-32
Client ID: WVA-AW-MW-47(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: T3722.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 11-OCT-21
Extracted By: JSS
Extraction Method: SW846 5030
Lab Prep Batch: WG307648

Analysis Date: 11-OCT-21
Analyst: JSS
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	2.0	ug/L	1	2	2.0
Vinyl Chloride		3.2	ug/L	1	2	2.0
Bromomethane	U	2.0	ug/L	1	2	2.0
Chloroethane	U	2.0	ug/L	1	2	2.0
Trichlorofluoromethane	U	2.0	ug/L	1	2	2.0
1,1-Dichloroethene	U	1.0	ug/L	1	1	1.0
Carbon Disulfide	U	1.0	ug/L	1	1	1.0
Methylene Chloride	U	5.0	ug/L	1	5	5.0
trans-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
1,1-Dichloroethane	U	1.0	ug/L	1	1	1.0
cis-1,2-Dichloroethene		1.3	ug/L	1	1	1.0
Chloroform	U	1.0	ug/L	1	1	1.0
Carbon Tetrachloride	U	1.0	ug/L	1	1	1.0
1,1,1-Trichloroethane	U	1.0	ug/L	1	1	1.0
2-Butanone	U	5.0	ug/L	1	5	5.0
Benzene	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethane	U	1.0	ug/L	1	1	1.0
Trichloroethene	U	1.0	ug/L	1	1	1.0
1,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Bromodichloromethane	U	1.0	ug/L	1	1	1.0
cis-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
Toluene	U	1.0	ug/L	1	1	1.0
4-Methyl-2-Pentanone	U	5.0	ug/L	1	5	5.0
Tetrachloroethene	U	1.0	ug/L	1	1	1.0
trans-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
1,1,2-Trichloroethane	U	1.0	ug/L	1	1	1.0
Dibromochloromethane	U	1.0	ug/L	1	1	1.0
Chlorobenzene	U	1.0	ug/L	1	1	1.0
Ethylbenzene	U	1.0	ug/L	1	1	1.0
m+p-Xylenes	U	2.0	ug/L	1	2	2.0
o-Xylene	U	1.0	ug/L	1	1	1.0
Bromoform	U	1.0	ug/L	1	1	1.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
P-Bromofluorobenzene		103.	%			
Toluene-d8		102.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-32
Client ID: WVA-AW-MW-47(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: T3722.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 11-OCT-21
Extracted By: JSS
Extraction Method: SW846 5030
Lab Prep Batch: WG307648

Analysis Date: 11-OCT-21
Analyst: JSS
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		117.	%			
Dibromofluoromethane		109.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Data File: \\target_server\gg\chem\gcms-t.i\T101121.b\T3722.D
Report Date: 11-Nov-2021 17:08

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-t.i\T101121.b\T3722.D
Lab Smp Id: SO6709-32 Client Smp ID: VA-AW-MW-47(2021100
Inj Date : 11-OCT-2021 20:19
Operator : JSS Inst ID: gcms-t.i
Smp Info : SO6709-32
Misc Info : WG307648,WG307648-4
Comment : SW846 5030
Method : \\target_server\gg\chem\gcms-t.i\T101121.b\T8A05(01)shrt.m
Meth Date : 05-Nov-2021 14:30 hgould Quant Type: ISTD
Cal Date : 11-OCT-2021 14:13 Cal File: T3708.D
Als bottle: 23
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.12
Processing Host: VOA-WS

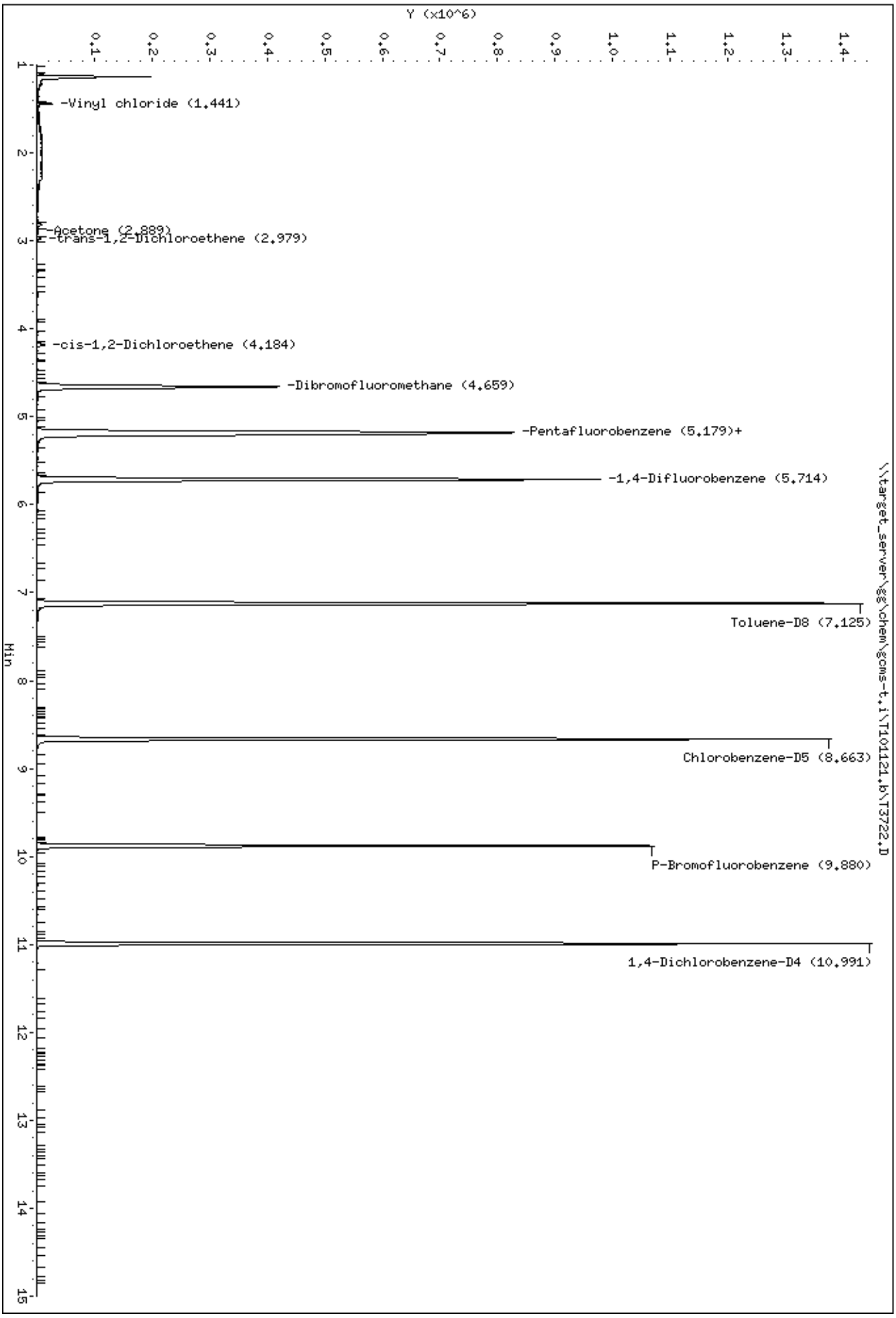
Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)	REVIEW CODE
3 Vinyl chloride	62	1.440	1.441	(0.278)	12172	3.25414	3.2	
15 Acetone	43	2.889	2.882	(0.558)	3193	2.29469	2.3(a)	
16 trans-1,2-Dichloroethene	96	2.978	2.975	(0.576)	1996	0.51635	0.52(a)	
27 cis-1,2-Dichloroethene	96	4.183	4.179	(0.808)	5234	1.26343	1.3	
$ 34 Dibromofluoromethane	113	4.662	4.659	(0.901)	256816	54.3549	54.4	
* 41 Pentafluorobenzene	168	5.175	5.176	(1.000)	468559	50.0000		
$ 42 1,2-Dichloroethane-D4	65	5.201	5.202	(1.005)	351866	58.5735	58.6	
* 48 1,4-Difluorobenzene	114	5.714	5.714	(1.000)	746565	50.0000		
$ 56 Toluene-D8	98	7.125	7.122	(1.247)	881537	50.9251	50.9	
* 68 Chlorobenzene-D5	117	8.663	8.663	(1.000)	663456	50.0000		
$ 77 P-Bromofluorobenzene	95	9.879	9.876	(1.729)	321585	51.6201	51.6	
* 93 1,4-Dichlorobenzene-D4	152	10.991	10.991	(1.000)	318279	50.0000		
M 103 1,2-Dichloroethylene (total)	96				7230	1.77978	1.8(a)	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).


Y (x10^6)
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0
1.1
1.2
1.3
1.4
Min
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
-Vinyl chloride (1,441)
-Acetone (2,889)
-trans-1,2-Dichloroethene (2,979)
-cis-1,2-Dichloroethene (4,184)
-Dibromofluoromethane (4,659)
-Pentafluorobenzene (5,179)+
-1,4-Difluorobenzene (5,714)
Toluene-D8 (7,125)
Chlorobenzene-D5 (8,663)
P-Bromofluorobenzene (9,880)
1,4-Dichlorobenzene-D4 (10,991)
\\target_server\gg\chem\gcms-t.i\T101121.b\T3722.D
Data File: \\target_server\gg\chem\gcms-t.i\T101121.b\T3722.D
Date : 11-OCT-2021 20:19
Client ID: VA-AW-MW-47(2021100
Sample Info: SD6709-32
Instrument: gcms-t.i

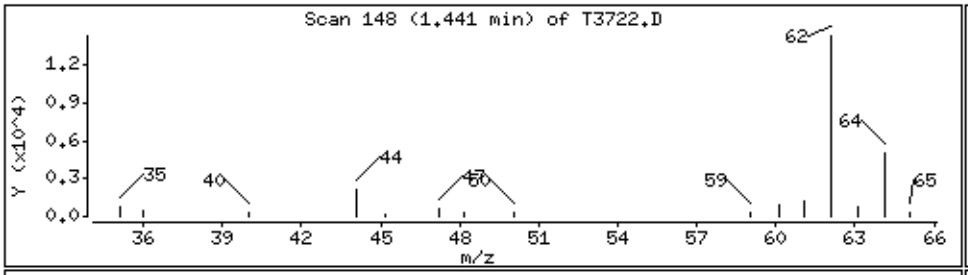
Data File: \\target_server\gg\chem\gcms-t.i\T101121.b\T3722.D

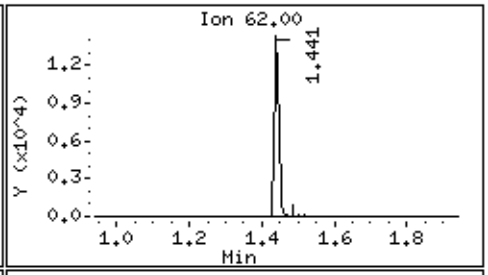
Date : 11-OCT-2021 20:19

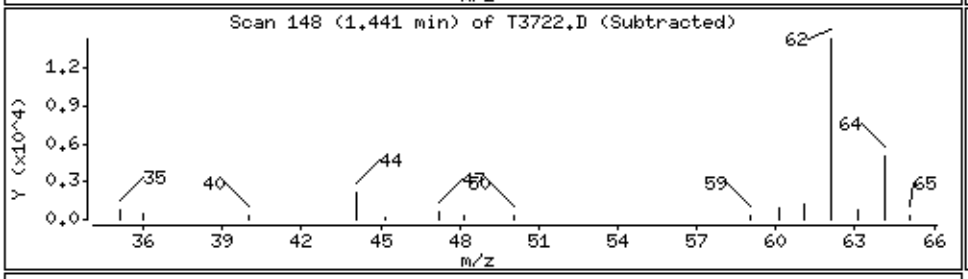
Client ID: VA-AW-MW-47(2021100 Instrument: gcms-t.i

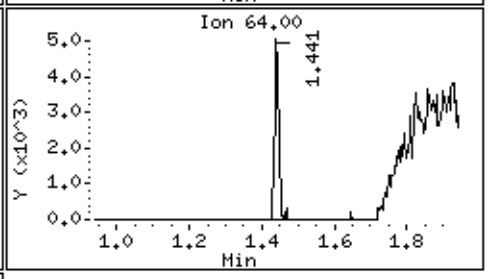
Sample Info: S06709-32

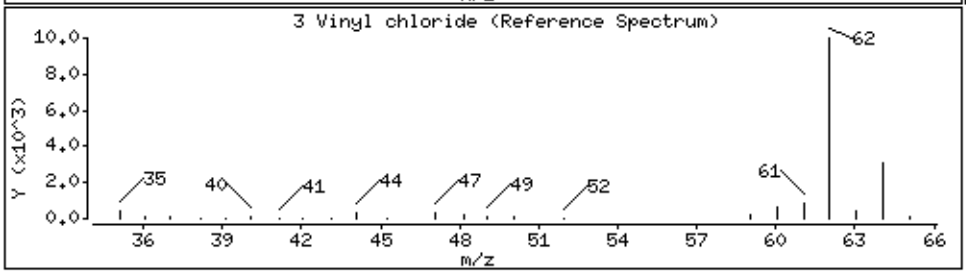
3 Vinyl chloride Concentration: 3.2 ug/l



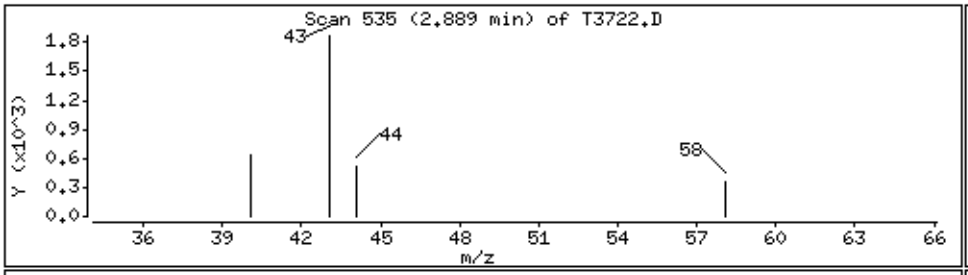


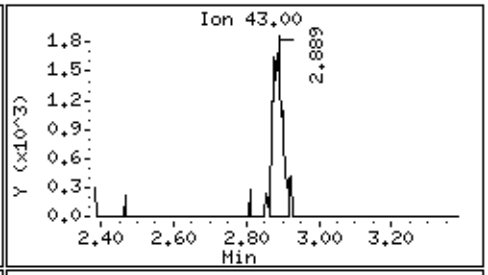


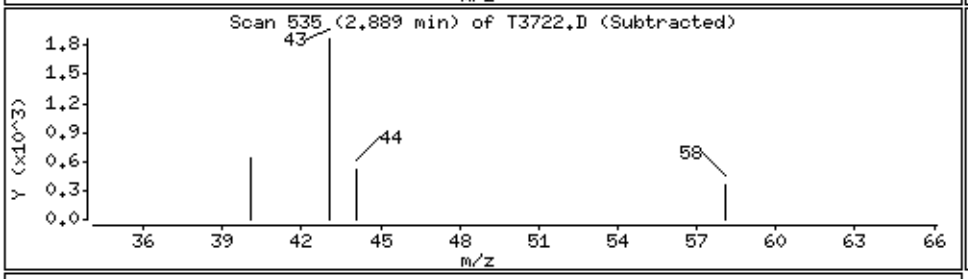


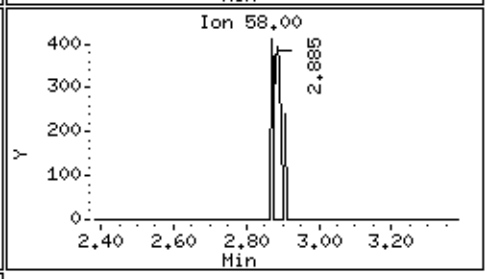


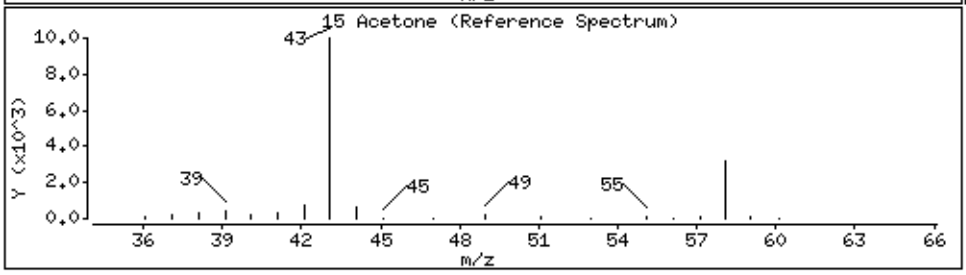
15 Acetone Concentration: 2.3 ug/l











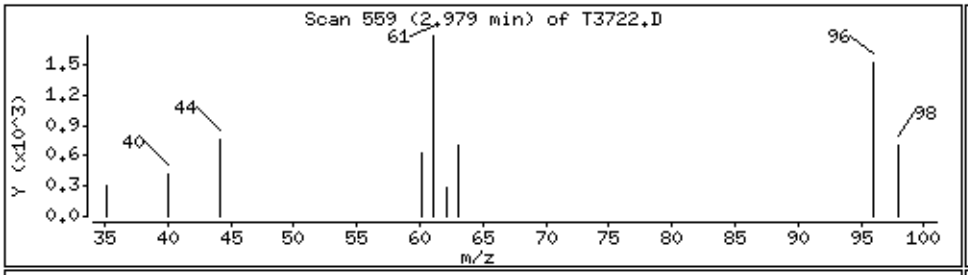
Data File: \\target_server\gg\chem\gcms-t.i\T101121.b\T3722.D

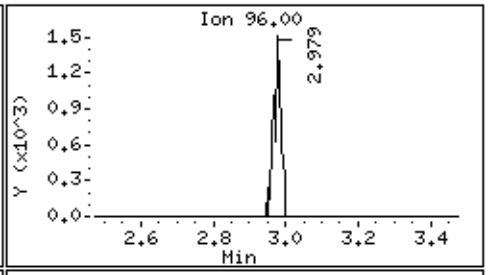
Date : 11-OCT-2021 20:19

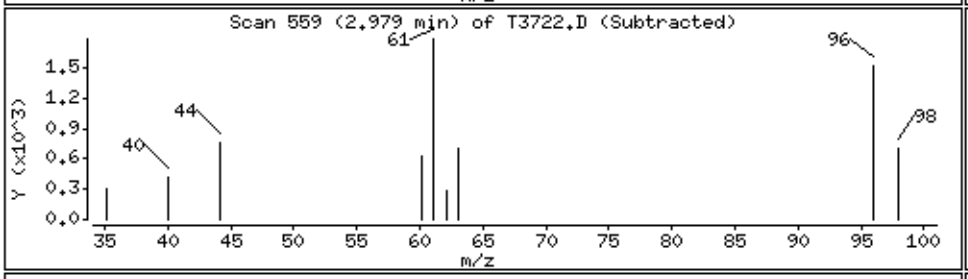
Client ID: VA-AW-MW-47(2021100 Instrument: gcms-t.i

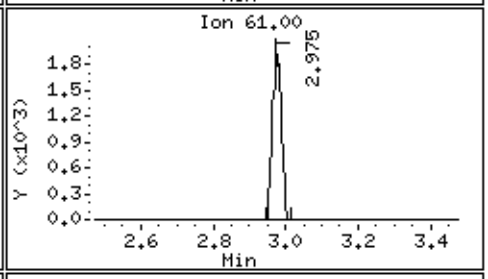
Sample Info: SO6709-32

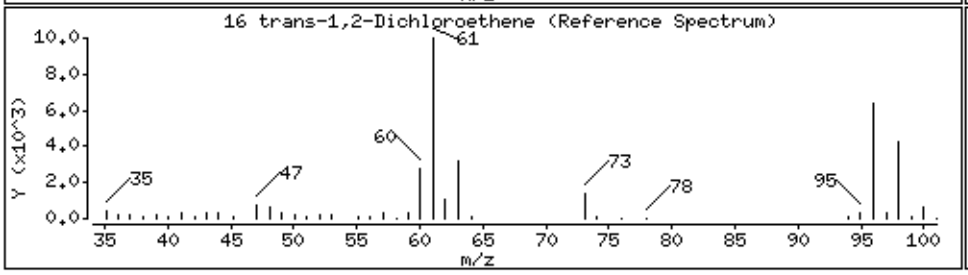
16 trans-1,2-Dichloroethene Concentration: 0.52 ug/l

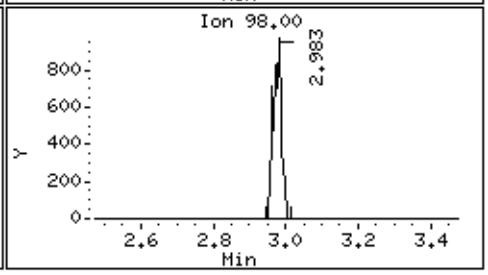




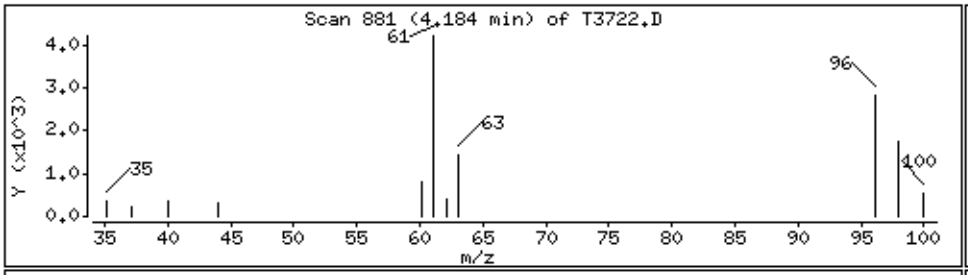


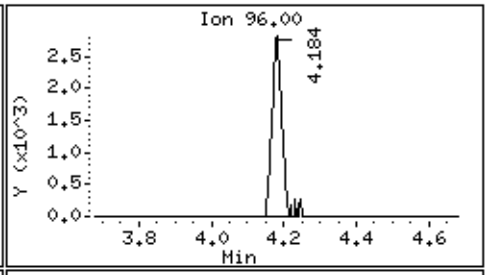


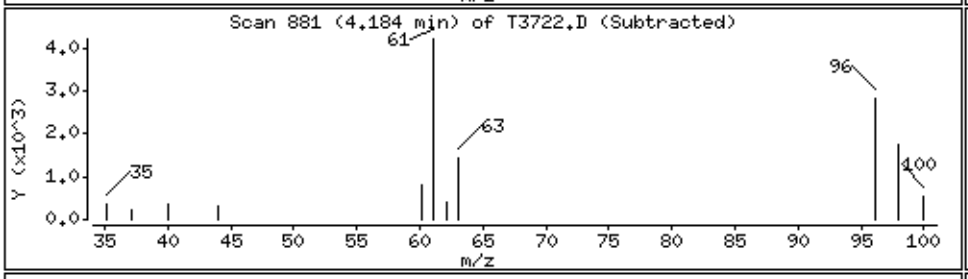


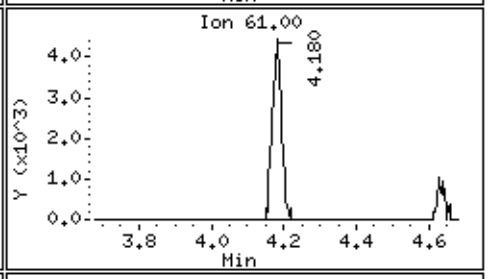


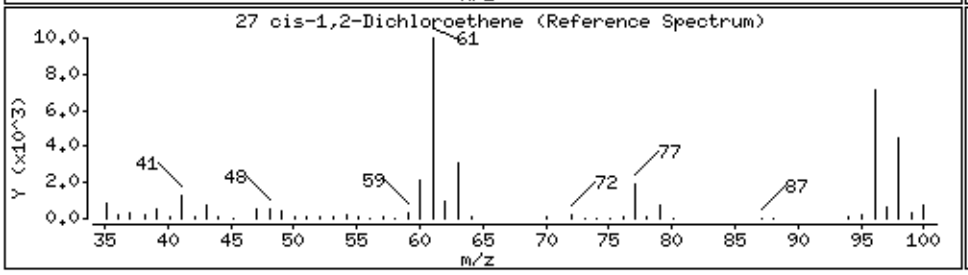
27 cis-1,2-Dichloroethene Concentration: 1.3 ug/l

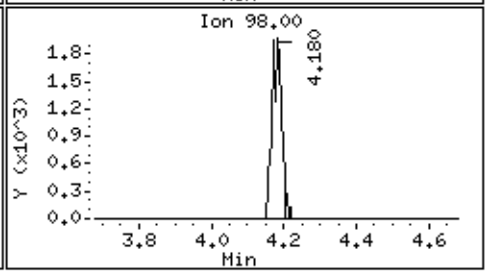












Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-33
Client ID: WVA-AW-MW-32(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: T3723.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 11-OCT-21
Extracted By: JSS
Extraction Method: SW846 5030
Lab Prep Batch: WG307648

Analysis Date: 11-OCT-21
Analyst: JSS
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	2.0	ug/L	1	2	2.0
Vinyl Chloride	U	2.0	ug/L	1	2	2.0
Bromomethane	U	2.0	ug/L	1	2	2.0
Chloroethane	U	2.0	ug/L	1	2	2.0
Trichlorofluoromethane	U	2.0	ug/L	1	2	2.0
1,1-Dichloroethene	U	1.0	ug/L	1	1	1.0
Carbon Disulfide	U	1.0	ug/L	1	1	1.0
Methylene Chloride	U	5.0	ug/L	1	5	5.0
trans-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
1,1-Dichloroethane	U	1.0	ug/L	1	1	1.0
cis-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
Chloroform	U	1.0	ug/L	1	1	1.0
Carbon Tetrachloride	U	1.0	ug/L	1	1	1.0
1,1,1-Trichloroethane	U	1.0	ug/L	1	1	1.0
2-Butanone	U	5.0	ug/L	1	5	5.0
Benzene	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethane	U	1.0	ug/L	1	1	1.0
Trichloroethene	U	1.0	ug/L	1	1	1.0
1,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Bromodichloromethane	U	1.0	ug/L	1	1	1.0
cis-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
Toluene	U	1.0	ug/L	1	1	1.0
4-Methyl-2-Pentanone	U	5.0	ug/L	1	5	5.0
Tetrachloroethene	U	1.0	ug/L	1	1	1.0
trans-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
1,1,2-Trichloroethane	U	1.0	ug/L	1	1	1.0
Dibromochloromethane	U	1.0	ug/L	1	1	1.0
Chlorobenzene	U	1.0	ug/L	1	1	1.0
Ethylbenzene	U	1.0	ug/L	1	1	1.0
m+p-Xylenes	U	2.0	ug/L	1	2	2.0
o-Xylene	U	1.0	ug/L	1	1	1.0
Bromoform	U	1.0	ug/L	1	1	1.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
P-Bromofluorobenzene		102.	%			
Toluene-d8		101.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-33
Client ID: WVA-AW-MW-32(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: T3723.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 11-OCT-21
Extracted By: JSS
Extraction Method: SW846 5030
Lab Prep Batch: WG307648

Analysis Date: 11-OCT-21
Analyst: JSS
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		119.	%			
Dibromofluoromethane		111.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Data File: \\target_server\gg\chem\gcms-t.i\T101121.b\T3723.D
Report Date: 11-Nov-2021 17:08

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-t.i\T101121.b\T3723.D
Lab Smp Id: SO6709-33 Client Smp ID: VA-AW-MW-32(2021100
Inj Date : 11-OCT-2021 20:45
Operator : JSS Inst ID: gcms-t.i
Smp Info : SO6709-33
Misc Info : WG307648,WG307648-4
Comment : SW846 5030
Method : \\target_server\gg\chem\gcms-t.i\T101121.b\T8A05(01)shrt.m
Meth Date : 05-Nov-2021 14:30 hgould Quant Type: ISTD
Cal Date : 11-OCT-2021 14:13 Cal File: T3708.D
Als bottle: 24
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.12
Processing Host: VOA-WS

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

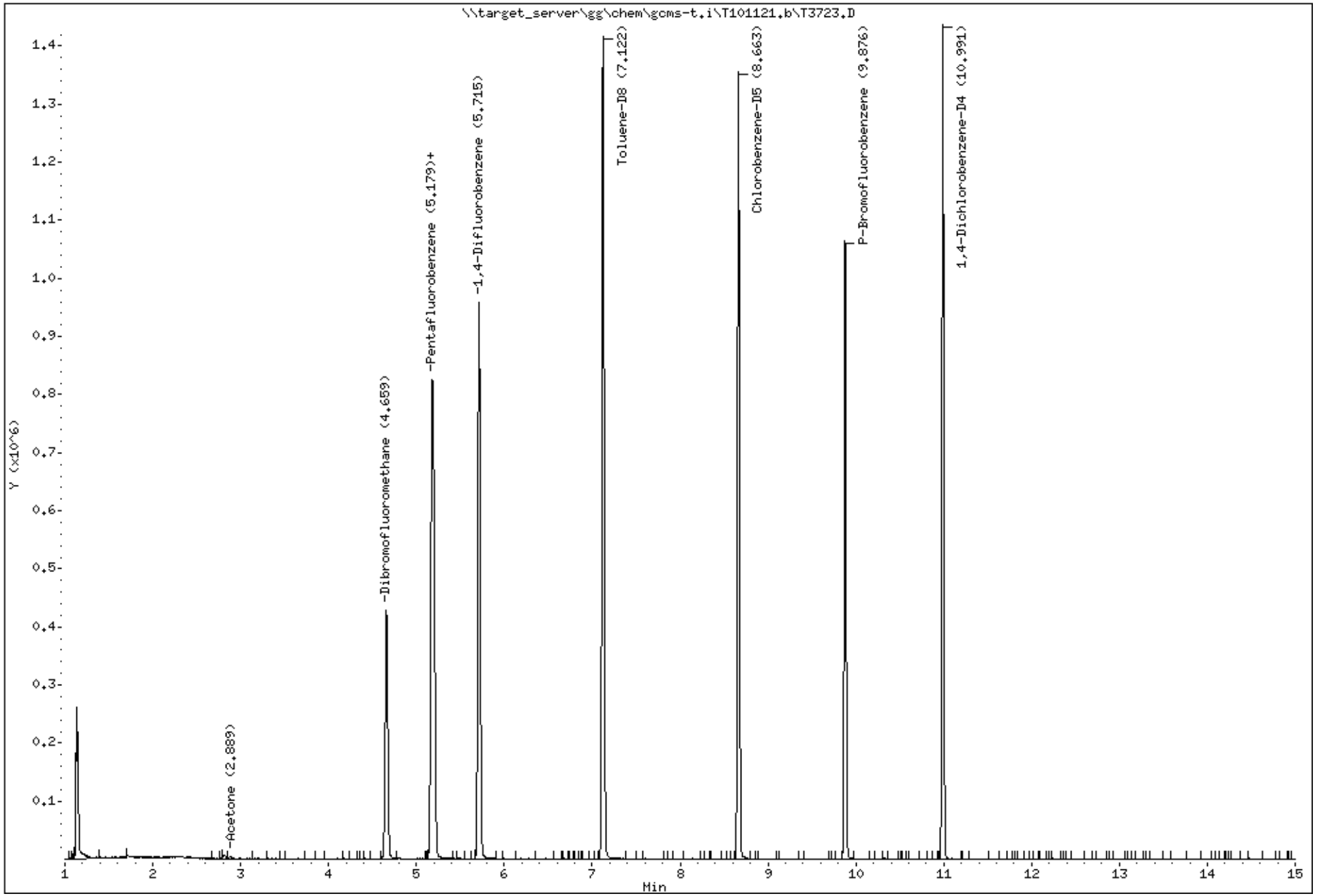
Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)	REVIEW CODE
	15 Acetone	43	2.889	2.882	(0.558)	5126	3.72479	3.7(a)	
$	34 Dibromofluoromethane	113	4.659	4.659	(0.900)	260319	55.6080	55.6	
*	41 Pentafluorobenzene	168	5.179	5.176	(1.000)	464248	50.0000		
$	42 1,2-Dichloroethane-D4	65	5.198	5.202	(1.004)	354170	59.5046	59.5	
*	48 1,4-Difluorobenzene	114	5.714	5.714	(1.000)	750037	50.0000		
$	56 Toluene-D8	98	7.121	7.122	(1.246)	880024	50.6023	50.6	
*	68 Chlorobenzene-D5	117	8.663	8.663	(1.000)	667543	50.0000		
$	77 P-Bromofluorobenzene	95	9.875	9.876	(1.728)	319814	51.0982	51.1	
*	93 1,4-Dichlorobenzene-D4	152	10.991	10.991	(1.000)	317291	50.0000		

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Data File: \\target_server\gg\chem\gcms-t.i\T101121.b\T3723.D
Date : 11-OCT-2021 20:45
Client ID: VA-AW-MW-32(2021100
Instrument: gcms-t.i
Sample Info: SO6709-33



Katahdin Analytical Services 1000220

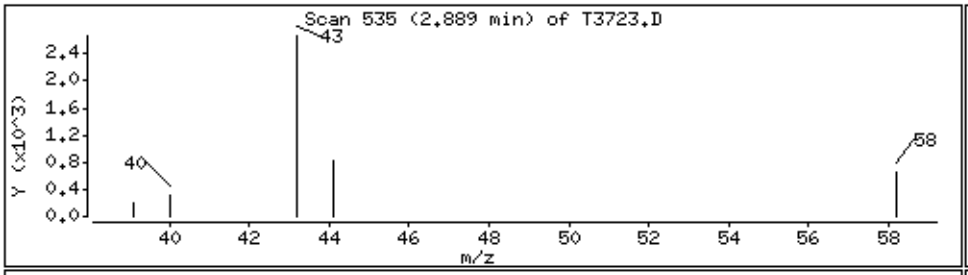
Data File: \\target_server\gg\chem\gcms-t.i\T101121.b\T3723.D

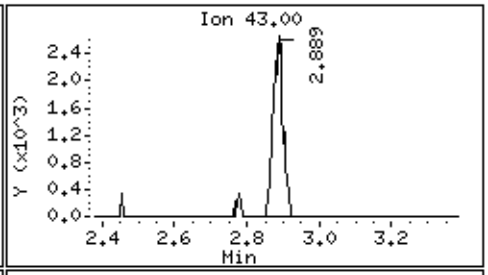
Date : 11-OCT-2021 20:45

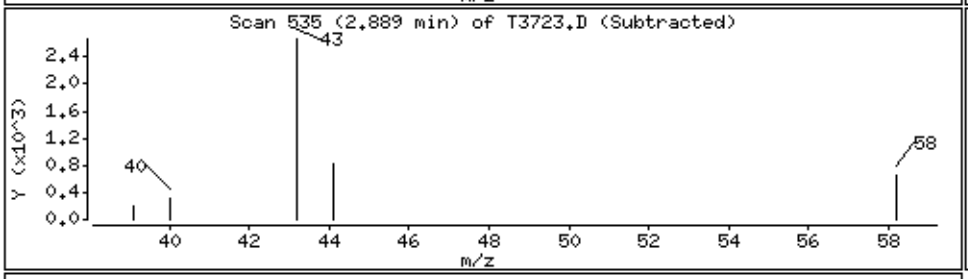
Client ID: VA-AW-MW-32(2021100 Instrument: gcms-t.i

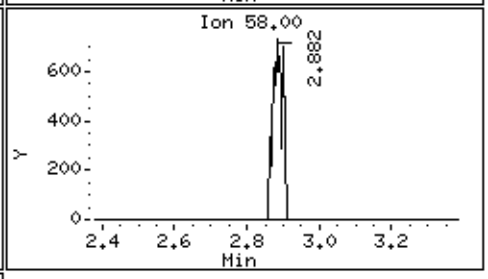
Sample Info: S06709-33

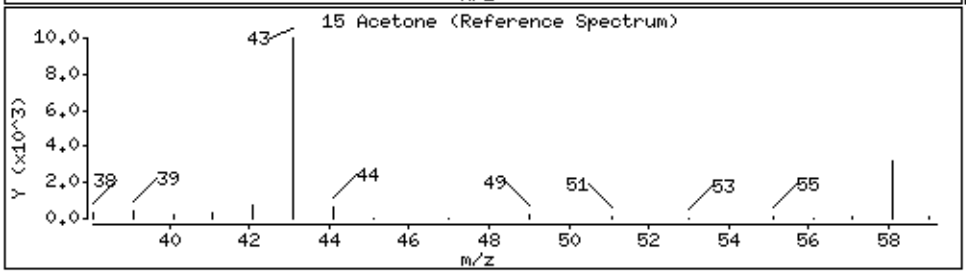
15 Acetone Concentration: 3.7 ug/l











Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-34
Client ID: 93EM-SP-9(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: W0638.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 12-OCT-21
Extracted By: HG
Extraction Method: SW846 5030
Lab Prep Batch: WG307697

Analysis Date: 12-OCT-21
Analyst: HG
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	2.0	ug/L	1	2	2.0
Vinyl Chloride	U	2.0	ug/L	1	2	2.0
Bromomethane	U	2.0	ug/L	1	2	2.0
Chloroethane	U	2.0	ug/L	1	2	2.0
Trichlorofluoromethane	U	2.0	ug/L	1	2	2.0
1,1-Dichloroethene	U	1.0	ug/L	1	1	1.0
Carbon Disulfide	U	1.0	ug/L	1	1	1.0
Methylene Chloride	U	5.0	ug/L	1	5	5.0
trans-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
1,1-Dichloroethane	U	1.0	ug/L	1	1	1.0
cis-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
Chloroform	U	1.0	ug/L	1	1	1.0
Carbon Tetrachloride	U	1.0	ug/L	1	1	1.0
1,1,1-Trichloroethane	U	1.0	ug/L	1	1	1.0
2-Butanone	U	5.0	ug/L	1	5	5.0
Benzene	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethane	U	1.0	ug/L	1	1	1.0
Trichloroethene	U	1.0	ug/L	1	1	1.0
1,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Bromodichloromethane	U	1.0	ug/L	1	1	1.0
cis-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
Toluene	U	1.0	ug/L	1	1	1.0
4-Methyl-2-Pentanone	U	5.0	ug/L	1	5	5.0
Tetrachloroethene	U	1.0	ug/L	1	1	1.0
trans-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
1,1,2-Trichloroethane	U	1.0	ug/L	1	1	1.0
Dibromochloromethane	U	1.0	ug/L	1	1	1.0
Chlorobenzene	U	1.0	ug/L	1	1	1.0
Ethylbenzene	U	1.0	ug/L	1	1	1.0
m+p-Xylenes	U	2.0	ug/L	1	2	2.0
o-Xylene	U	1.0	ug/L	1	1	1.0
Bromoform	U	1.0	ug/L	1	1	1.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
P-Bromofluorobenzene		100.	%			
Toluene-d8		102.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-34
Client ID: 93EM-SP-9(20211001)
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: W0638.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 12-OCT-21
Extracted By: HG
Extraction Method: SW846 5030
Lab Prep Batch: WG307697

Analysis Date: 12-OCT-21
Analyst: HG
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		122.	%			
Dibromofluoromethane		114.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Data File: \\target_server\gg\chem\gcms-w.i\W101221.b\W0638.D
Report Date: 11-Nov-2021 17:35

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-w.i\W101221.b\W0638.D
Lab Smp Id: SO6709-34 Client Smp ID: 93EM-SP-9(20211001)
Inj Date : 12-OCT-2021 13:47
Operator : HG Inst ID: gcms-w.i
Smp Info : SO6709-34
Misc Info : WG307697,WG307697-4
Comment : SW846 5030
Method : \\target_server\gg\chem\gcms-w.i\W101221.b\W8A05(11).m
Meth Date : 12-Oct-2021 07:57 estroh Quant Type: ISTD
Cal Date : 10-OCT-2021 12:35 Cal File: W0583.D
Als bottle: 14
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.12
Processing Host: T7-O360

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

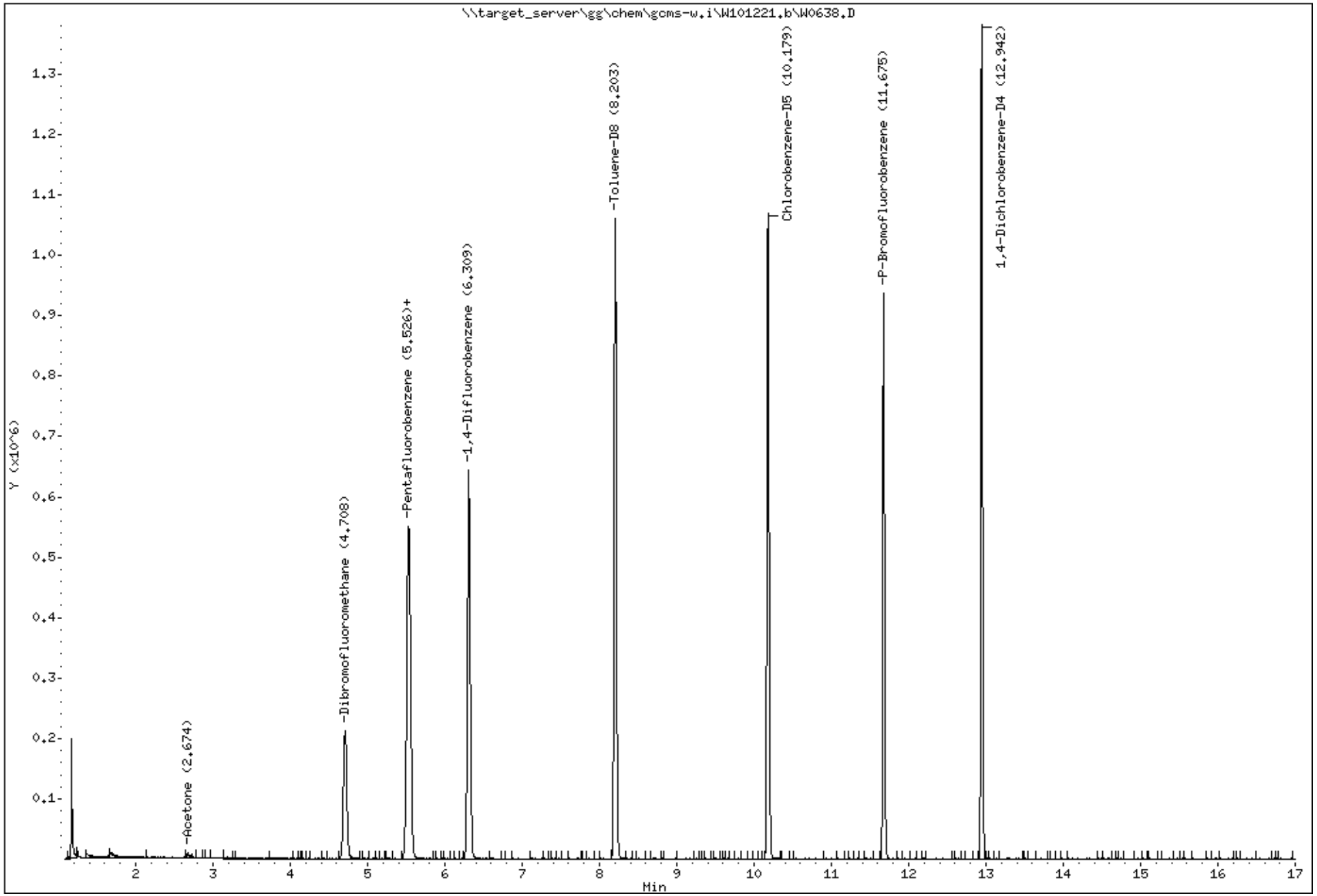
Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)	REVIEW CODE
	15 Acetone	43	2.728	2.725	(0.494)	7496	4.56619	4.6(a)	
$	34 Dibromofluoromethane	113	4.708	4.721	(0.852)	201363	56.7986	56.8	
*	41 Pentafluorobenzene	168	5.523	5.533	(1.000)	350119	50.0000		
$	42 1,2-Dichloroethane-D4	65	5.545	5.555	(1.004)	302485	61.1785	61.2	
*	48 1,4-Difluorobenzene	114	6.309	6.319	(1.000)	644181	50.0000		
$	58 Toluene-D8	98	8.205	8.212	(1.301)	774079	51.1476	51.1	
*	68 Chlorobenzene-D5	117	10.179	10.185	(1.000)	598390	50.0000		
$	77 P-Bromofluorobenzene	95	11.674	11.684	(1.850)	301005	50.1690	50.2	
*	93 1,4-Dichlorobenzene-D4	152	12.942	12.952	(1.000)	311022	50.0000		

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Data File: \\target_server\gg\chem\gcms-w.i\W101221.b\W0638.D
Date : 12-OCT-2021 13:47
Client ID: 93EM-SP-9(20211001)
Instrument: gcms-w.i
Sample Info: SO6709-34



Katahdin Analytical Services 1000225

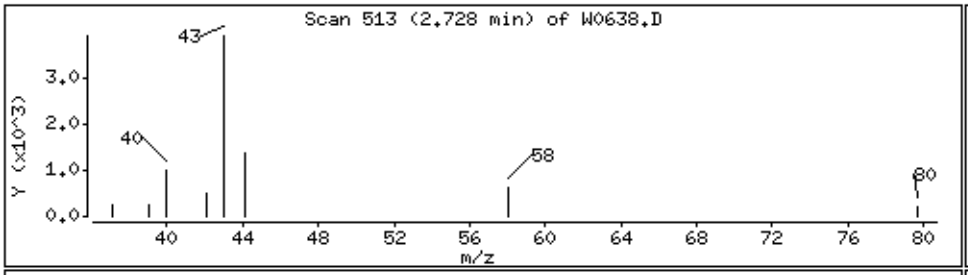
Data File: \\target_server\gg\chem\gcms-w.i\W101221.b\W0638.D

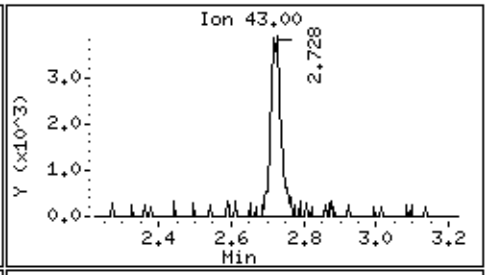
Date : 12-OCT-2021 13:47

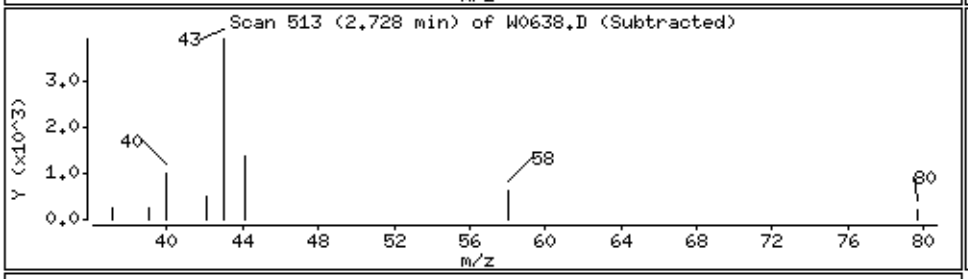
Client ID: 93EM-SP-9(20211001) Instrument: gcms-w.i

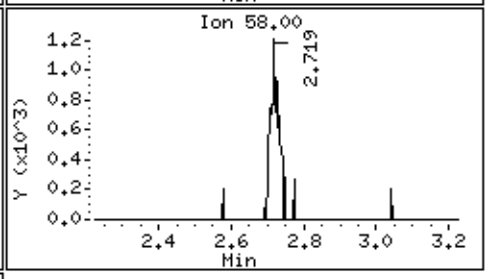
Sample Info: S06709-34

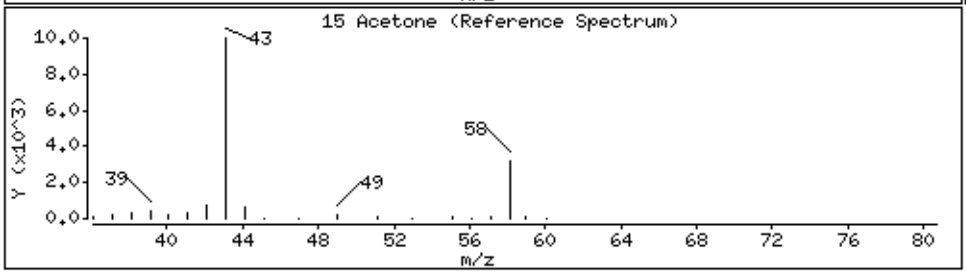
15 Acetone Concentration: 4.6 ug/l











Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-35
Client ID: TRIP BLANK
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: T3712.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 11-OCT-21
Extracted By: JSS
Extraction Method: SW846 5030
Lab Prep Batch: WG307648

Analysis Date: 11-OCT-21
Analyst: JSS
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	2.0	ug/L	1	2	2.0
Vinyl Chloride	U	2.0	ug/L	1	2	2.0
Bromomethane	U	2.0	ug/L	1	2	2.0
Chloroethane	U	2.0	ug/L	1	2	2.0
Trichlorofluoromethane	U	2.0	ug/L	1	2	2.0
1,1-Dichloroethene	U	1.0	ug/L	1	1	1.0
Carbon Disulfide	U	1.0	ug/L	1	1	1.0
Methylene Chloride	U	5.0	ug/L	1	5	5.0
trans-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
1,1-Dichloroethane	U	1.0	ug/L	1	1	1.0
cis-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
Chloroform	U	1.0	ug/L	1	1	1.0
Carbon Tetrachloride	U	1.0	ug/L	1	1	1.0
1,1,1-Trichloroethane	U	1.0	ug/L	1	1	1.0
2-Butanone	U	5.0	ug/L	1	5	5.0
Benzene	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethane	U	1.0	ug/L	1	1	1.0
Trichloroethene	U	1.0	ug/L	1	1	1.0
1,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Bromodichloromethane	U	1.0	ug/L	1	1	1.0
cis-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
Toluene	U	1.0	ug/L	1	1	1.0
4-Methyl-2-Pentanone	U	5.0	ug/L	1	5	5.0
Tetrachloroethene	U	1.0	ug/L	1	1	1.0
trans-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
1,1,2-Trichloroethane	U	1.0	ug/L	1	1	1.0
Dibromochloromethane	U	1.0	ug/L	1	1	1.0
Chlorobenzene	U	1.0	ug/L	1	1	1.0
Ethylbenzene	U	1.0	ug/L	1	1	1.0
m+p-Xylenes	U	2.0	ug/L	1	2	2.0
o-Xylene	U	1.0	ug/L	1	1	1.0
Bromoform	U	1.0	ug/L	1	1	1.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
P-Bromofluorobenzene		95.9	%			
Toluene-d8		98.2	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SO6709-35
Client ID: TRIP BLANK
Project: Watervliet Arsenal LTM
SDG: SO6709
Lab File ID: T3712.D

Sample Date: 01-OCT-21
Received Date: 04-OCT-21
Extract Date: 11-OCT-21
Extracted By: JSS
Extraction Method: SW846 5030
Lab Prep Batch: WG307648

Analysis Date: 11-OCT-21
Analyst: JSS
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		100.	%			
Dibromofluoromethane		100.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Data File: \\target_server\gg\chem\gcms-t.i\T101121.b\T3712.D
Report Date: 11-Nov-2021 17:07

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-t.i\T101121.b\T3712.D
Lab Smp Id: SO6709-35 Client Smp ID: TRIP BLANK
Inj Date : 11-OCT-2021 15:57
Operator : JSS Inst ID: gcms-t.i
Smp Info : SO6709-35
Misc Info : WG307648,WG307648-4
Comment : SW846 5030
Method : \\target_server\gg\chem\gcms-t.i\T101121.b\T8A05(01)shrt.m
Meth Date : 05-Nov-2021 14:30 hgould Quant Type: ISTD
Cal Date : 11-OCT-2021 14:13 Cal File: T3708.D
Als bottle: 13
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.12
Processing Host: VOA-WS

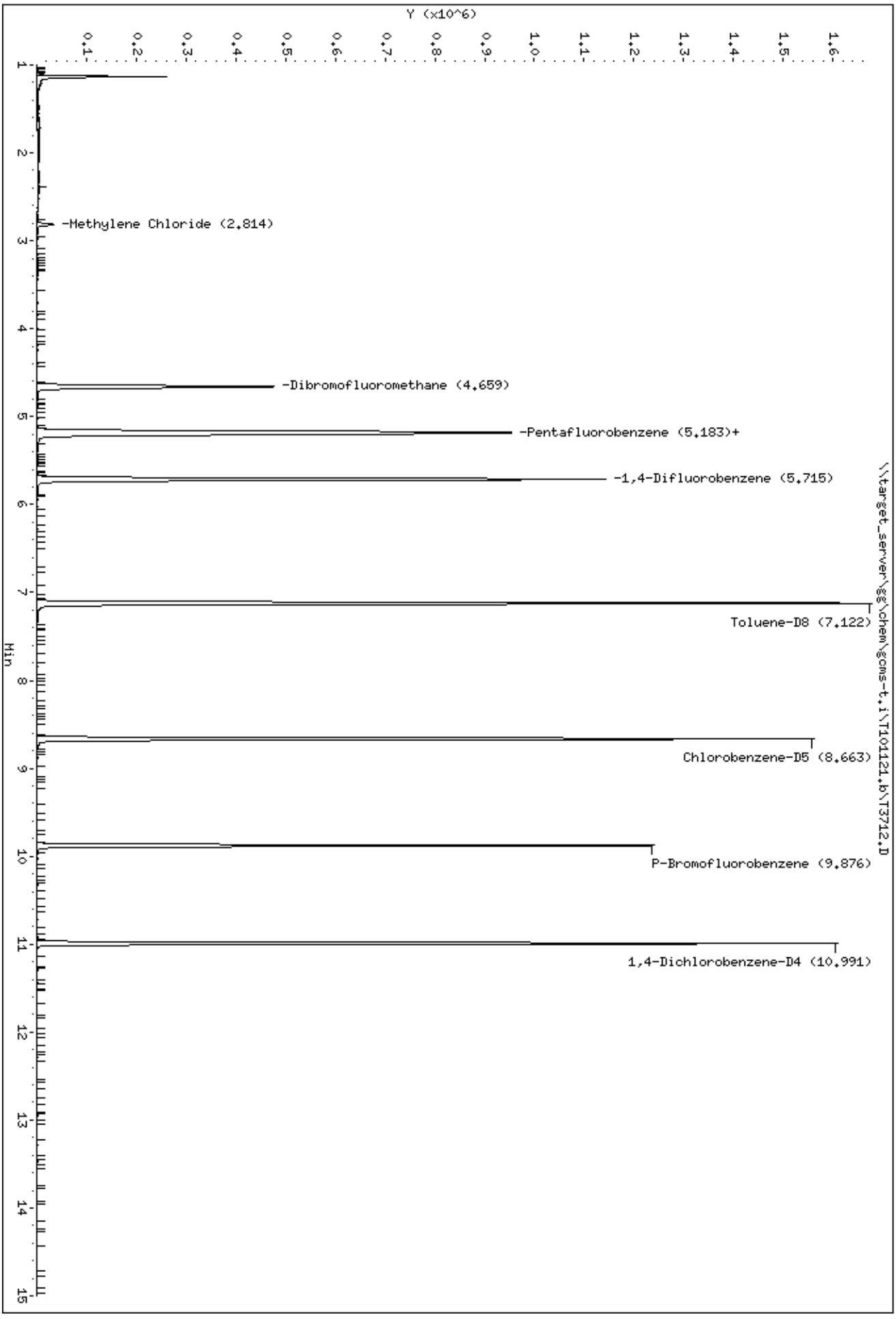
Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)	REVIEW CODE
	14 Methylene Chloride	84	2.818	2.818	(0.544)	14576	2.98520	3.0(a)	
$	34 Dibromofluoromethane	113	4.659	4.659	(0.900)	294887	50.0412	50.0	
*	41 Pentafluorobenzene	168	5.175	5.176	(1.000)	584399	50.0000		
$	42 1,2-Dichloroethane-D4	65	5.198	5.202	(1.004)	374511	49.9855	50.0	
*	48 1,4-Difluorobenzene	114	5.714	5.714	(1.000)	924184	50.0000		
$	56 Toluene-D8	98	7.121	7.122	(1.246)	1051926	49.0891	49.1	
*	68 Chlorobenzene-D5	117	8.663	8.663	(1.000)	793084	50.0000		
$	77 P-Bromofluorobenzene	95	9.875	9.876	(1.728)	369664	47.9336	47.9	
*	93 1,4-Dichlorobenzene-D4	152	10.991	10.991	(1.000)	377499	50.0000		

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).


Data File: \\target_server\gg\chem\gcms-t.i\T101121.b\T3712.D
Date : 11-OCT-2021 15:57
Client ID: TRIP BLANK
Sample Info: SD6709-35
Instrument: gcms-t.i
Y (x10^6)
Min
-Methylene Chloride (2.814)
-Dibromofluoromethane (4.659)
-Pentafluorobenzene (5.183)+
-1,4-Difluorobenzene (5.715)
Toluene-D8 (7.122)
Chlorobenzene-D5 (8.663)
P-Bromofluorobenzene (9.876)
1,4-Dichlorobenzene-D4 (10.991)
\\target_server\gg\chem\gcms-t.i\T101121.b\T3712.D

Data File: \\target_server\gg\chem\gcms-t.i\T101121.b\T3712.D

Date : 11-OCT-2021 15:57

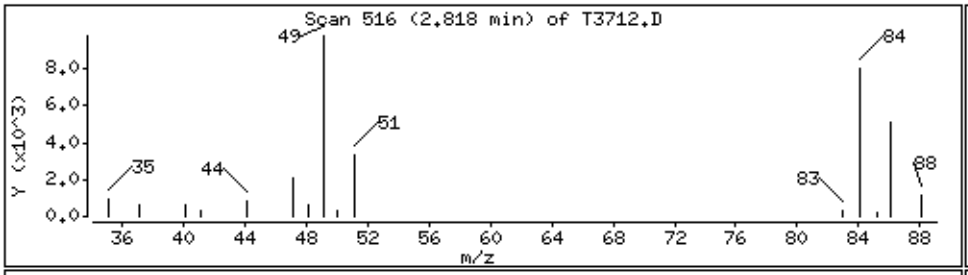
Client ID: TRIP BLANK

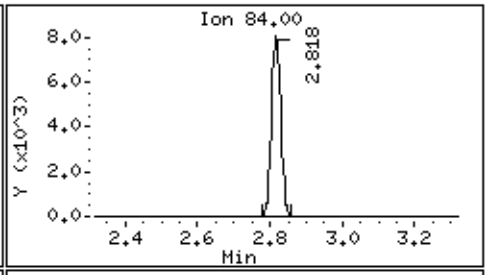
Instrument: gcms-t.i

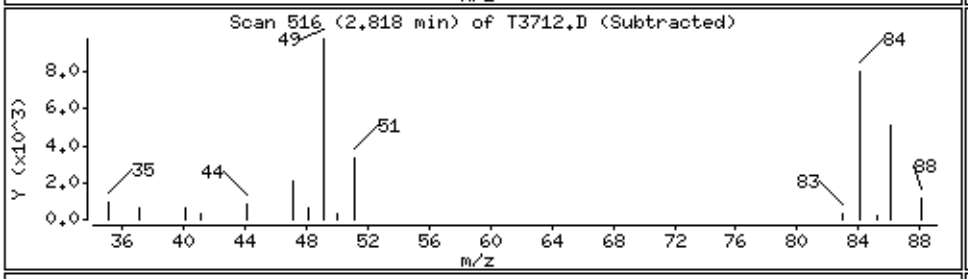
Sample Info: SO6709-35

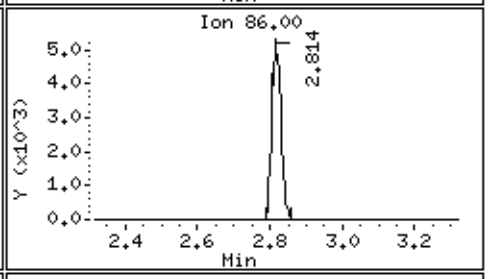
14 Methylene Chloride

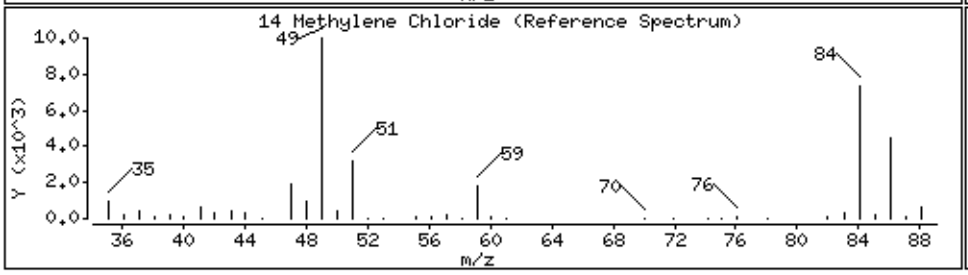
Concentration: 3.0 ug/l

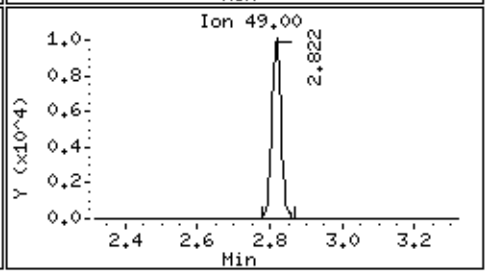












Standards Data Section

Katahdin
ANALYTICAL SERVICES

Form 6
Initial Calibration Summary

Lab Name : Katahdin Analytical Services
SDG: SO6709
Project : Watervliet Arsenal LTM
Instrument ID: GCMS-C
Lab File IDs : C1012.D C1011.D C1016.D C1008.D C1014.D C1013.D C1015.D C1017.D
Calibration Date(s): 04-OCT-21 08:06 04-OCT-21 12:45

	1.0000 Level 1	5.0000 Level 2	20.0000 Level 3	50.0000 Level 4	100.0000 Level 5	150.0000 Level 6	75.0000 Level 7	10.0000 Level 8	Curve Type	b	m1	m2	%RSD	MAX %RSD	
Chloromethane	1.02145	1.00773	0.89866	0.82506	0.82745	0.77128	0.84829	0.87102	AVG		.8839		10.05	15	O
Vinyl chloride	0.68614	0.76141	0.72799	0.67699	0.68091	0.64935	0.67867	0.66014	AVG		.6902		5.332	15	O
Bromomethane	0.46950	0.41606	0.36179	0.34260	0.34973	0.32999	0.34246	0.37019	AVG		.3728		12.64	15	O
Chloroethane	3580	16633	65644	138260	266596	306224	222566	29410	QUA	0	1.176	3.602	.9934	.99	O
Trichlorofluoromethane	1.03738	1.02879	0.99534	1.05907	0.94176	0.96042	0.93295	0.93020	AVG		.9857		5.206	15	O
1,1-Dichloroethene	0.49135	0.50485	0.48569	0.48768	0.46334	0.45856	0.45686	0.46339	AVG		.4765		3.793	15	O
Carbon Disulfide	1.15239	1.08133	1.00586	1.05884	1.02862	1.00525	1.00811	0.91703	AVG		1.032		6.636	15	O
Methylene Chloride	10486	31029	103621	229577	513544	628894	327901	52306	QUA	0	1.496	.2717	.9909	.99	O
trans-1,2-Dichloroethene	0.68247	0.67849	0.61766	0.59541	0.59372	0.58601	0.59623	0.58853	AVG		.6173		6.502	15	O
1,1-Dichloroethane	1.14408	1.22763	1.14922	1.18313	1.15326	1.13084	1.13575	1.09300	AVG		1.152		3.434	15	O
cis-1,2-Dichloroethene	0.57775	0.66994	0.63365	0.63787	0.64684	0.62833	0.63553	0.59556	AVG		.6282		4.613	15	O
Chloroform	1.10687	1.20968	1.09869	1.13015	1.11524	1.10603	1.09187	1.05571	AVG		1.114		3.963	15	O
Carbon Tetrachloride	0.40158	0.45181	0.47662	0.51201	0.50073	0.50084	0.48667	0.41862	AVG		.4686		8.694	15	O
1,1,1-Trichloroethane	0.83808	1.02760	1.02339	1.05245	1.06416	1.04710	1.03019	0.93302	AVG		1.002		7.729	15	O
2-Butanone	0.28866	0.32865	0.27654	0.31317	0.32662	0.31107	0.30837	0.27861	AVG		.304		6.704	15	O
Benzene	1.37743	1.61756	1.50869	1.53720	1.44866	1.36800	1.44146	1.42884	AVG		1.466		5.742	15	O
1,2-Dichloroethane	0.57227	0.53623	0.48792	0.52024	0.50190	0.49885	0.47518	0.48622	AVG		.5098		6.258	15	O
Trichloroethene	0.35547	0.39969	0.37191	0.39280	0.38187	0.37645	0.37510	0.34618	AVG		.3749		4.725	15	O
1,2-Dichloropropane	0.37073	0.38275	0.37618	0.39669	0.38530	0.38049	0.37909	0.36085	AVG		.379		2.775	15	O
Bromodichloromethane	0.35789	0.42782	0.43397	0.48829	0.48050	0.48293	0.46415	0.39308	AVG		.4411		10.67	15	O
cis-1,3-dichloropropene	4263	27605	141568	369517	870714	1249276	623220	57763	LNR	0	.5941		.9991	.99	O
Toluene	1.60057	1.77040	1.61058	1.64774	1.46858	1.35274	1.49366	1.54654	AVG		1.561		8.103	15	O
4-methyl-2-pentanone	0.25254	0.33408	0.33320	0.38277	0.34611	0.31621	0.34421	0.32672	AVG		.3295		11.16	15	O
Tetrachloroethene	0.31463	0.33848	0.32879	0.34437	0.33227	0.32098	0.32844	0.32001	AVG		.3285		3.015	15	O
trans-1,3-Dichloropropene	4222	25230	129381	336073	794845	1160342	568984	52381	LNR	0	.5475		.9989	.99	O
1,1,2-Trichloroethane	0.23856	0.28109	0.26700	0.28993	0.28038	0.27949	0.26915	0.26219	AVG		.271		5.867	15	O
Dibromochloromethane	2780	14835	78035	203977	489469	724523	349041	31082	LNR	0	.3864		.9985	.99	O
Chlorobenzene	1.15179	1.22626	1.12824	1.15563	1.09756	1.05105	1.08674	1.07354	AVG		1.121		5.016	15	O
Ethylbenzene	1.80170	2.13408	2.07880	2.17310	1.95240	1.78812	1.98573	1.94498	AVG		1.982		7.169	15	O
m+p-Xylenes	1.25844	1.60954	1.60349	1.64432	1.38914	1.22118	1.46087	1.50874	AVG		1.462		11.03	15	O
o-Xylene	1.01678	1.39831	1.56407	1.67060	1.56772	1.45908	1.57626	1.40716	AVG		1.458		13.8	15	O
Bromoform	1444	8581	47528	132677	327059	498539	234211	19165	LNR	0	.2622		.9963	.99	O
1,1,2,2-Tetrachloroethane	0.96520	1.01228	0.96555	1.05059	1.01538	0.99339	0.96096	0.97642	AVG		.9925		3.19	15	O
Dibromofluoromethane	0.46067	0.44343	0.45642	0.45843	0.45337	0.46638	0.46640	0.44547	AVG		.4563		1.886	15	
1,2-Dichloroethane-D4	0.65150	0.58593	0.57819	0.58821	0.59031	0.62547	0.59311	0.56290	AVG		.597		4.72	15	
Toluene-D8	1.15483	1.14800	1.14964	1.15609	1.13561	1.14697	1.14305	1.14388	AVG		1.147		.5766	15	

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://katahdinlab.com
sales@katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Form 6
Initial Calibration Summary

Lab Name : Katahdin Analytical Services
SDG: SO6709
Project : Watervliet Arsenal LTM
Instrument ID: GCMS-C
Lab File IDs : C1012.D C1011.D C1016.D C1008.D C1014.D C1013.D C1015.D C1017.D
Calibration Date(s): 04-OCT-21 08:06 04-OCT-21 12:45

P-Bromofluorobenzene	0.42211	0.42011	0.43551	0.43395	0.42317	0.43628	0.43057	0.42250	AVG		.428		1.574	15	

Legend: O = Kept Original Curve
Y = Failed Minimum RF
W = Failed %RSD Value

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://katahdinlab.com
sales@katahdinlab.com

Data File: \\target_server\gg\chem\gcms-c.i\C100421B.b\C1020a.D
Report Date: 09-Oct-2021 16:29

Katahdin Analytical Services

RECOVERY REPORT

Client Name: Client SDG: SDGa02236
Sample Matrix: LIQUID Fraction: VOA
Lab Smp Id: WG307227-8
Level: LOW Operator: HG
Data Type: MS DATA SampleType: LCS
SpikeList File: IND_CHECK.spk Quant Type: ISTD
Sublist File: all.sub
Method File: \\target_server\gg\chem\gcms-c.i\C100421B.b\C8A05(53).m
Misc Info: WG307227,WG307158-4

SPIKE	COMPOUND	CONC ADDED ug/l	CONC RECOVERED ug/l	% RECOVERED	LIMITS
1	Dichlorodifluorome	50.0	47.3	94.60	80-120
2	Chloromethane	50.0	39.8	79.59*	80-120
3	Vinyl chloride	50.0	49.7	99.45	80-120
4	Bromomethane	50.0	50.0	99.95	80-120
5	Chloroethane	50.0	47.9	95.82	80-120
6	Trichlorofluoromet	50.0	49.4	98.85	80-120
7	Diethyl Ether	50.0	53.3	106.58	80-120
19	Tertiary-butyl alc	250	230	91.89	80-120
8	1,1-Dichloroethene	50.0	49.3	98.58	80-120
9	Carbon Disulfide	50.0	56.2	112.48	80-120
10	Freon-113	50.0	55.2	110.35	80-120
11	Iodomethane	50.0	61.8	123.70*	80-120
12	Acrolein	250	248	99.01	80-120
14	Methylene Chloride	50.0	44.2	88.51	80-120
15	Acetone	50.0	42.3	84.64	80-120
44	Isobutyl Alcohol	1000	914	91.40	80-120
16	trans-1,2-Dichloro	50.0	43.1	86.13	80-120
13	Allyl Chloride	50.0	54.2	108.46	80-120
18	Methyl tert-butyl	50.0	71.5	142.95*	80-120
20	Acetonitrile	500	464	92.85	80-120
21	Di-isopropyl ether	50.0	54.4	108.84	80-120
22	Chloroprene	50.0	54.5	109.10	80-120
39	Propionitrile	500	452	90.36	80-120
40	Methacrylonitrile	500	495	99.08	80-120
23	1,1-Dichloroethane	50.0	51.2	102.51	80-120
24	Acrylonitrile	250	242	96.76	80-120
25	Ethyl tertiary-but	50.0	55.0	109.97	80-120
26	Vinyl Acetate	50.0	49.4	98.75	80-120
27	cis-1,2-Dichloroet	50.0	51.7	103.45	80-120
M 103	1,2-Dichloroethyle	100	94.8	94.79	80-120
53	Methyl Methacrylat	50.0	45.9	91.84	80-120
28	2,2-Dichloropropan	50.0	52.8	105.62	80-120
30	Bromochloromethane	50.0	54.4	108.86	80-120
31	Chloroform	50.0	50.3	100.60	80-120
32	Carbon Tetrachlori	50.0	51.7	103.33	80-120
33	Tetrahydrofuran	50.0	38.1	76.17*	80-120
34	1,1,1-Trichloroeth	50.0	52.3	104.62	80-120
36	1,1-Dichloropropen	50.0	53.5	107.08	80-120
37	2-Butanone	50.0	45.4	90.73	80-120
38	Benzene	50.0	53.0	106.10	80-120

Data File: \\target_server\gg\chem\gcms-c.i\C100421B.b\C1020a.D
Report Date: 09-Oct-2021 16:29

	SPIKE	COMPOUND	CONC ADDED ug/l	CONC RECOVERED ug/l	% RECOVERED	LIMITS
	29	Cyclohexane	50.0	59.8	119.60	80-120
	62	Ethyl Methacrylate	50.0	46.9	93.86	80-120
	43	Tertiary-amyl meth	50.0	52.2	104.46	80-120
	45	1,2-Dichloroethane	50.0	50.5	101.07	80-120
	47	Trichloroethene	50.0	53.7	107.49	80-120
	49	Dibromomethane	50.0	49.3	98.57	80-120
	50	1,2-Dichloropropan	50.0	52.7	105.37	80-120
	51	Bromodichlorometha	50.0	53.1	106.27	80-120
	55	cis-1,3-dichloropr	50.0	50.9	101.76	80-120
	52	1,4-Dioxane	1000	673	67.33*	80-120
	54	2-Chloroethylvinyl	50.0	60.5	121.01*	80-120
	57	Toluene	50.0	52.1	104.15	80-120
	59	4-methyl-2-pentano	50.0	47.6	95.24	80-120
	58	Tetrachloroethene	50.0	52.6	105.30	80-120
	60	trans-1,3-Dichloro	50.0	49.5	98.93	80-120
	61	1,1,2-Trichloroeth	50.0	52.4	104.80	80-120
	63	Dibromochlorometha	50.0	47.5	94.93	80-120
	64	1,3-Dichloropropan	50.0	51.9	103.88	80-120
	65	1,2-Dibromoethane	50.0	52.4	104.87	80-120
	66	2-Hexanone	50.0	43.6	87.21	80-120
	68	Chlorobenzene	50.0	52.5	104.94	80-120
	69	Ethylbenzene	50.0	55.9	111.74	80-120
	70	1,1,1,2-Tetrachlor	50.0	56.2	112.46	80-120
M	104	Xylenes (total)	150	172	114.99	80-120
	71	m+p-Xylenes	100	113	113.02	80-120
	72	o-Xylene	50.0	59.5	118.93	80-120
	74	Styrene	50.0	55.8	111.54	80-120
	73	Bromoform	50.0	44.4	88.82	80-120
	75	Isopropylbenzene	50.0	58.7	117.47	80-120
	78	cis-1,4-Dichloro-2	50.0	45.5	91.09	80-120
	84	trans-1,4-Dichloro	50.0	50.7	101.45	80-120
	77	Bromobenzene	50.0	53.3	106.58	80-120
	79	N-Propylbenzene	50.0	56.3	112.63	80-120
	80	1,1,2,2-Tetrachlor	50.0	51.0	101.96	80-120
	83	1,3,5-Trimethylben	50.0	57.6	115.25	80-120
	81	2-Chlorotoluene	50.0	54.5	108.94	80-120
	82	1,2,3-Trichloropro	50.0	49.7	99.33	80-120
	85	4-Chlorotoluene	50.0	55.2	110.43	80-120
	86	tert-Butylbenzene	50.0	57.0	114.11	80-120
	94	Pentachloroethane	50.0	0.00	*	80-120
	87	1,2,4-Trimethylben	50.0	56.9	113.79	80-120
	89	P-Isopropyltoluene	50.0	53.0	106.00	80-120
	90	1,3-Dichlorobenzen	50.0	52.9	105.72	80-120
	92	1,4-Dichlorobenzen	50.0	51.9	103.80	80-120
	95	N-Butylbenzene	50.0	59.1	118.12	80-120
	88	sec-Butylbenzene	50.0	59.0	118.09	80-120
	96	1,2-Dichlorobenzen	50.0	53.2	106.34	80-120
	97	1,2-Dibromo-3-Chlo	50.0	47.4	94.87	80-120
	98	1,3,5-Trichloroben	50.0	54.1	108.17	80-120
	100	Hexachlorobutadien	50.0	54.3	108.61	80-120
	99	1,2,4-Trichloroben	50.0	57.1	114.16	80-120
	93	1,2,3-Trimethylben	50.0	54.6	109.20	80-120
	101	Naphthalene	50.0	50.3	100.65	80-120
	102	1,2,3-Trichloroben	50.0	55.3	110.62	80-120

Data File: \\target_server\gg\chem\gcms-c.i\C100421B.b\C1020a.D
Report Date: 09-Oct-2021 16:29

SPIKE COMPOUND	CONC ADDED ug/l	CONC RECOVERED ug/l	% RECOVERED	LIMITS
17 Methyl Acetate	50.0	37.3	74.68*	80-120
46 Methylcyclohexane	50.0	50.5	101.06	80-120
M 105 Total Alkylbenzene	350	399	114.00	80-120

SURROGATE COMPOUND	AMOUNT ADDED ug/l	AMOUNT RECOVERED ug/l	% RECOVERED	LIMITS
$ 35 Dibromofluorometha	50.0	48.9	97.75	68-128
$ 41 1,2-Dichloroethane	50.0	48.1	96.16	67-135
$ 56 Toluene-D8	50.0	49.6	99.18	65-128
$ 76 P-Bromofluorobenze	50.0	49.4	98.70	56-133

Data File: \\target_server\gg\chem\gcms-c.i\C100421B.b\C1020a.D
Report Date: 09-Oct-2021 16:29

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-c.i\C100421B.b\C1020a.D
Lab Smp Id: WG307227-8
Inj Date : 04-OCT-2021 14:57
Operator : HG Inst ID: gcms-c.i
Smp Info : WG307227-8
Misc Info : WG307227,WG307158-4
Comment : SW846 5030
Method : \\target_server\gg\chem\gcms-c.i\C100421B.b\C8A05(53).m
Meth Date : 05-Oct-2021 06:53 jsampson Quant Type: ISTD
Cal Date : 04-OCT-2021 12:45 Cal File: C1017.D
Als bottle: 3 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.12
Processing Host: T7-O360

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)	REVIEW CODE
1	Dichlorodifluoromethane	85	1.411	1.412	(0.215)	312283	47.3014	47.3	
2	Chloromethane	50	1.575	1.579	(0.240)	273685	39.7939	39.8(R)	
3	Vinyl chloride	62	1.646	1.643	(0.251)	267045	49.7235	49.7	
4	Bromomethane	94	1.919	1.920	(0.292)	144968	49.9759	50.0	
5	Chloroethane	64	2.032	2.025	(0.309)	146973	47.9124	47.9	
6	Trichlorofluoromethane	101	2.157	2.154	(0.328)	379092	49.4237	49.4	
7	Diethyl Ether	59	2.446	2.444	(0.372)	180459	53.2919	53.3	
8	1,1-Dichloroethene	96	2.633	2.630	(0.401)	182736	49.2886	49.3	
9	Carbon Disulfide	76	2.659	2.656	(0.405)	451682	56.2380	56.2	
10	Freon-113	151	2.678	2.675	(0.408)	152352	55.1774	55.2	
11	Iodomethane	142	2.774	2.768	(0.422)	155156	61.8501	61.8(R)	
12	Acrolein	56	2.977	2.977	(0.453)	164110	247.514	248	
13	Allyl Chloride	41	3.131	3.129	(0.477)	279429	54.2303	54.2	
14	Methylene Chloride	84	3.250	3.244	(0.495)	209686	44.2571	44.2	
15	Acetone	43	3.308	3.312	(0.504)	73081	42.3197	42.3	
16	trans-1,2-Dichloroethene	96	3.443	3.434	(0.524)	206851	43.0628	43.1	
17	Methyl Acetate	43	3.469	3.473	(0.528)	148082	37.3406	37.3(R)	
18	Methyl tert-butyl ether	73	3.588	3.592	(0.546)	856565	71.4766	71.5(R)	
19	Tertiary-butyl alcohol	59	3.736	3.749	(0.569)	92836	229.727	230	
20	Acetonitrile	41	3.877	3.874	(0.590)	335148	464.245	464	
21	Di-isopropyl ether	45	4.122	4.119	(0.628)	749476	54.4183	54.4	
22	Chloroprene	53	4.221	4.215	(0.643)	401029	54.5482	54.5	
23	1,1-Dichloroethane	63	4.250	4.244	(0.647)	459507	51.2565	51.2	

Data File: \\target_server\gg\chem\gcms-c.i\C100421B.b\C1020a.D
Report Date: 09-Oct-2021 16:29

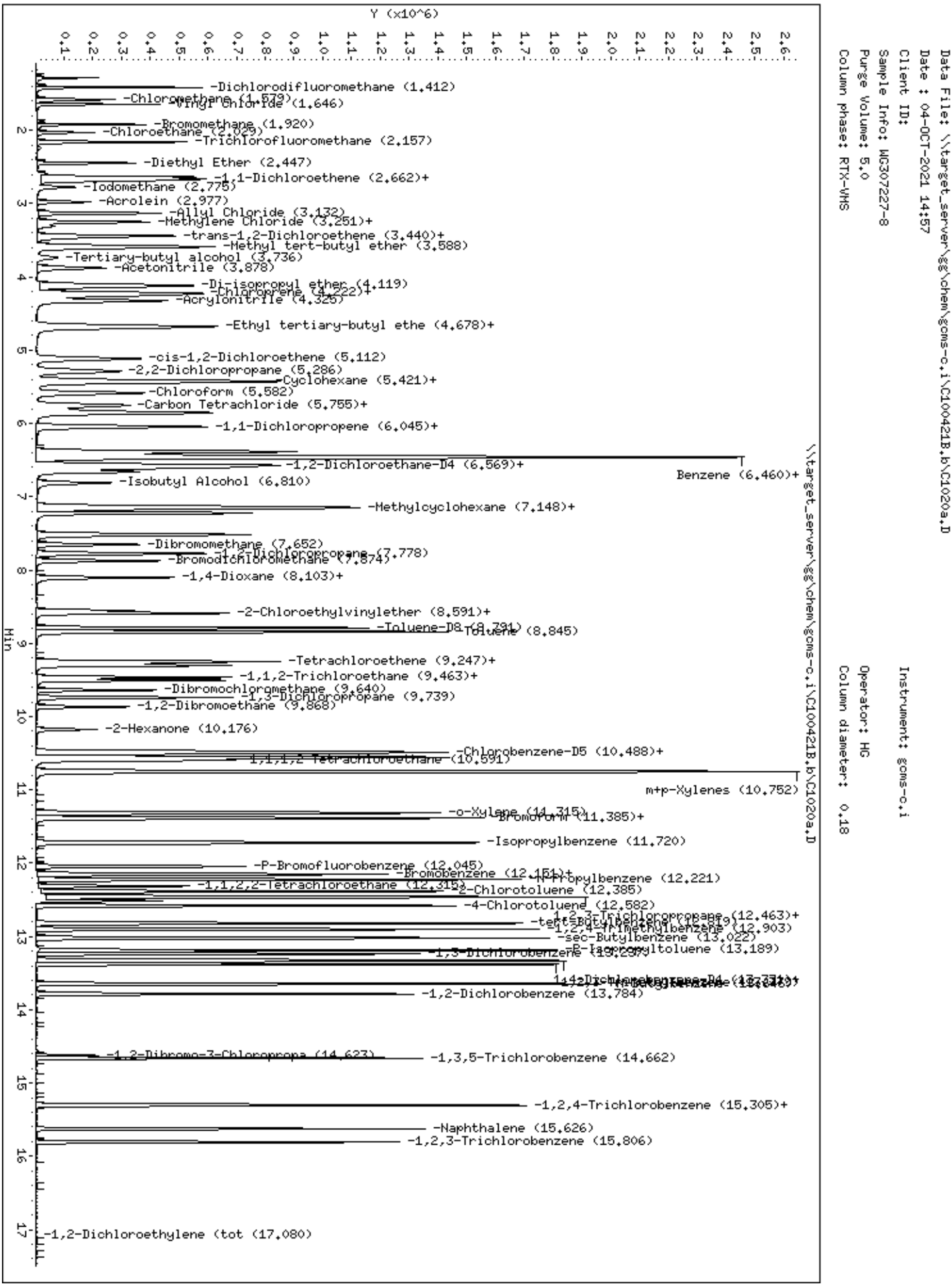
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)	REVIEW CODE
	24 Acrylonitrile	52	4.324	4.320	(0.658)	402019	241.888	242	
	25 Ethyl tertiary-butyl ether	59	4.678	4.678	(0.712)	667247	54.9865	55.0	
	26 Vinyl Acetate	43	4.678	4.678	(0.648)	445607	49.3773	49.4	
	27 cis-1,2-Dichloroethene	96	5.112	5.109	(0.778)	252844	51.7271	51.7	
	28 2,2-Dichloropropane	77	5.285	5.286	(0.805)	312084	52.8121	52.8	
	29 Cyclohexane	56	5.421	5.421	(0.825)	458103	59.8014	59.8	
	30 Bromochloromethane	128	5.430	5.427	(0.827)	105898	54.4302	54.4	
	31 Chloroform	83	5.581	5.579	(0.850)	436103	50.2976	50.3	
	32 Carbon Tetrachloride	117	5.755	5.752	(0.797)	317994	51.6669	51.7	
	33 Tetrahydrofuran	42	5.800	5.797	(0.883)	67210	38.0870	38.1(R)	
	34 1,1,1-Trichloroethane	97	5.855	5.852	(0.891)	407833	52.3080	52.3	
$	35 Dibromofluoromethane	113	5.851	5.849	(0.891)	173542	48.8749	48.9	
	36 1,1-Dichloropropene	75	6.044	6.042	(0.837)	368970	53.5389	53.5	
	37 2-Butanone	43	6.048	6.045	(0.921)	107291	45.3625	45.4	
	38 Benzene	78	6.382	6.382	(0.884)	1021448	53.0509	53.0	
	39 Propionitrile	54	6.427	6.427	(0.978)	366770	451.810	452	
	40 Methacrylonitrile	41	6.459	6.460	(0.983)	1426304	495.387	495	
$	41 1,2-Dichloroethane-D4	65	6.568	6.566	(1.000)	223332	48.0798	48.1	
*	42 Pentafluorobenzene	168	6.568	6.566	(1.000)	389061	50.0000		
	43 Tertiary-amyl methyl ether	73	6.601	6.601	(1.005)	562790	52.2314	52.2	
	44 Isobutyl Alcohol	43	6.806	6.810	(1.036)	198188	914.035	914	
	45 1,2-Dichloroethane	62	6.658	6.659	(0.922)	338403	50.5353	50.5	
	46 Methylcyclohexane	83	7.134	7.128	(1.086)	462480	50.5279	50.5	
	47 Trichloroethene	95	7.157	7.154	(0.991)	264666	53.7463	53.7	
*	48 1,4-Difluorobenzene	114	7.221	7.218	(1.000)	656698	50.0000		
	49 Dibromomethane	93	7.649	7.649	(1.059)	148777	49.2837	49.3	
	50 1,2-Dichloropropane	63	7.771	7.771	(1.076)	262267	52.6862	52.7	
	51 Bromodichloromethane	83	7.874	7.874	(1.090)	307817	53.1351	53.1	
	52 1,4-Dioxane	88	8.109	8.106	(1.123)	64831	673.257	673(R)	
	53 Methyl Methacrylate	41	8.099	8.096	(1.122)	203779	45.9197	45.9	
	54 2-Chloroethylvinylether	63	8.552	8.550	(1.184)	146290	60.5031	60.5(R)	
	55 cis-1,3-dichloropropene	75	8.591	8.587	(1.190)	397007	50.8775	50.9	
$	56 Toluene-D8	98	8.790	8.787	(1.217)	747250	49.5916	49.6	
	57 Toluene	91	8.845	8.842	(1.225)	1067907	52.0759	52.1	
	58 Tetrachloroethene	164	9.247	9.244	(0.883)	194267	52.6484	52.6	
	59 4-methyl-2-pentanone	43	9.276	9.270	(1.285)	206072	47.6204	47.6	
	60 trans-1,3-Dichloropropene	75	9.301	9.302	(1.288)	355674	49.4628	49.5	
	61 1,1,2-Trichloroethane	83	9.465	9.459	(1.311)	186492	52.4007	52.4	
	62 Ethyl Methacrylate	69	9.504	9.501	(1.316)	333809	46.9292	46.9	
	63 Dibromochloromethane	129	9.639	9.639	(0.920)	205986	47.4651	47.5	
	64 1,3-Dichloropropane	76	9.739	9.736	(0.930)	404774	51.9381	51.9	
	65 1,2-Dibromoethane	107	9.867	9.865	(1.366)	217170	52.4374	52.4	
	66 2-Hexanone	43	10.176	10.170	(0.971)	143577	43.6037	43.6	
*	67 Chlorobenzene-D5	117	10.475	10.475	(1.000)	561632	50.0000		
	68 Chlorobenzene	112	10.497	10.495	(1.002)	660927	52.4723	52.5	
	69 Ethylbenzene	91	10.555	10.553	(1.008)	1244050	55.8692	55.9	
	70 1,1,1,2-Tetrachloroethane	131	10.591	10.588	(1.011)	216272	56.2285	56.2	
	71 m+p-Xylenes	91	10.752	10.746	(1.026)	1856043	113.024	113	
	72 o-Xylene	91	11.314	11.308	(1.080)	973565	59.4668	59.5	
	73 Bromoform	173	11.395	11.392	(1.088)	130781	44.4081	44.4	
	74 Styrene	104	11.385	11.379	(1.087)	737446	55.7676	55.8	
	75 Isopropylbenzene	105	11.719	11.717	(0.880)	1179919	58.7344	58.7	
$	76 P-Bromofluorobenzene	95	12.044	12.041	(1.668)	277440	49.3521	49.4	
	77 Bromobenzene	156	12.153	12.151	(0.912)	263080	53.2887	53.3	

Data File: \\target_server\gg\chem\gcms-c.i\C100421B.b\C1020a.D
Report Date: 09-Oct-2021 16:29

			QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)	REVIEW CODE
	78	cis-1,4-Dichloro-2-Butene	53	12.141	12.138	(0.911)	86736	45.5442	45.5	
	79	N-Propylbenzene	91	12.221	12.221	(0.917)	1428435	56.3137	56.3	
	80	1,1,2,2-Tetrachloroethane	83	12.311	12.308	(0.924)	285319	50.9794	51.0	
	81	2-Chlorotoluene	91	12.385	12.382	(0.930)	837862	54.4718	54.5	
	82	1,2,3-Trichloropropane	75	12.449	12.446	(0.935)	258058	49.6644	49.7	
	83	1,3,5-Trimethylbenzene	105	12.465	12.463	(0.936)	958594	57.6227	57.6	
	84	trans-1,4-Dichloro-2-Butene	53	12.517	12.511	(0.940)	92362	50.7256	50.7	
	85	4-Chlorotoluene	91	12.581	12.578	(0.944)	888396	55.2128	55.2	
	86	tert-Butylbenzene	119	12.819	12.819	(0.962)	795093	57.0570	57.0	
	87	1,2,4-Trimethylbenzene	105	12.903	12.900	(0.969)	973284	56.8945	56.9	
	88	sec-Butylbenzene	105	13.022	13.019	(0.978)	1264459	59.0437	59.0	
	89	P-Isopropyltoluene	119	13.189	13.189	(0.990)	993428	52.9976	53.0	
	90	1,3-Dichlorobenzene	146	13.237	13.234	(0.994)	507709	52.8622	52.9	
*	91	1,4-Dichlorobenzene-D4	152	13.321	13.318	(1.000)	281960	50.0000		
	92	1,4-Dichlorobenzene	146	13.340	13.334	(1.001)	515015	51.9014	51.9	
	93	1,2,3-Trimethylbenzene	105	13.382	13.376	(1.005)	1000096	54.5988	54.6	
	95	N-Butylbenzene	91	13.648	13.646	(1.025)	1007853	59.0624	59.1	
	96	1,2-Dichlorobenzene	146	13.787	13.784	(1.035)	486918	53.1705	53.2	
	97	1,2-Dibromo-3-Chloropropane	157	14.623	14.623	(1.098)	49195	47.4358	47.4	
	98	1,3,5-Trichlorobenzene	180	14.661	14.659	(1.101)	365848	54.0861	54.1	
	99	1,2,4-Trichlorobenzene	180	15.308	15.308	(1.149)	331356	57.0819	57.1	
	100	Hexachlorobutadiene	225	15.295	15.295	(1.148)	144538	54.3048	54.3	
	101	Naphthalene	128	15.626	15.623	(1.173)	863099	50.3264	50.3	
	102	1,2,3-Trichlorobenzene	180	15.806	15.806	(1.187)	322429	55.3079	55.3	
M	103	1,2-Dichloroethylene (total)	96				459695	94.7900	94.8	
M	104	Xylenes (total)	91				2829608	172.491	172	
M	105	Total Alkylbenzenes	100				7421146	398.992	399	

QC Flag Legend

R - Spike/Surrogate failed recovery limits.


Data File: \\target_server\gg\chem\gcms-c.i\C100421B.b\C1020a.D
Date : 04-OCT-2021 14:57
Client ID:
Sample Info: WG307227-8
Purge Volume: 5.0
Column phase: RTX-VMS
Instrument: gcms-c.i
Operator: HG
Column diameter: 0.18
\\target_server\gg\chem\gcms-c.i\C100421B.b\C1020a.D
Y (x10^6)
Min
-Dichlorodifluoromethane (1.412)
-Chloromethane (1.579)
-Vinyl Chloride (1.646)
-Bromomethane (1.920)
-Chloroethane (2.029)
-Trichlorofluoromethane (2.157)
-Diethyl Ether (2.447)
-1,1-Dichloroethene (2.662)+
-Iodomethane (2.775)
-Acrolein (2.977)
-Allyl Chloride (3.132)
-Methylene Chloride (3.251)+
-trans-1,2-Dichloroethene (3.440)+
-Methyl tert-butyl ether (3.588)
-Tertiary-butyl alcohol (3.736)
-Acetonitrile (3.878)
-Di-isopropyl ether (4.119)
-Chloroprene (4.222)+
-Acrylonitrile (4.325)
-Ethyl tertiary-butyl ethe (4.678)+
-cis-1,2-Dichloroethene (5.112)
-2,2-Dichloropropane (5.286)
Cyclohexane (5.421)+
-Chloroform (5.582)
-Carbon Tetrachloride (5.755)+
-1,1-Dichloropropene (6.045)+
-1,2-Dichloroethane-D4 (6.569)+
Benzene (6.460)+
-Isobutyl Alcohol (6.810)
-Methylcyclohexane (7.148)+
-Dibromomethane (7.652)
-1,2-Dichloropropane (7.778)
-Bromodichloromethane (7.874)
-1,4-Dioxane (8.103)+
-2-Chloroethylvinylether (8.591)+
-Toluene-D8 (8.791)
Toluene (8.845)
-Tetrachloroethene (9.247)+
-1,1,2-Trichloroethane (9.463)+
-Dibromochloromethane (9.640)
-1,3-Dichloropropane (9.739)
-1,2-Dibromoethane (9.868)
-2-Hexanone (10.176)
-Chlorobenzene-D5 (10.488)+
1,1,1,2-Tetrachloroethane (10.591)
m+p-Xylenes (10.752)
-o-Xylene (11.315)
Bromoform (11.385)+
-Isopropylbenzene (11.720)
-P-Bromofluorobenzene (12.045)
-Bromobenzene (12.151)+
-n-Propylbenzene (12.221)
-1,1,2,2-Tetrachloroethane (12.315)
2-Chlorotoluene (12.385)
-4-Chlorotoluene (12.582)
1,2,3-Trichloropropane (12.463)+
-tert-Butylbenzene (12.819)
1,2,4-Trimethylbenzene (12.903)
-sec-Butylbenzene (13.022)
-p-Isopropyltoluene (13.189)
-1,3-Dichlorobenzene (13.297)
-1,2-Dichlorobenzene (13.784)
-1,2-Dibromo-3-Chloropropa (14.623)
-1,3,5-Trichlorobenzene (14.662)
-1,2,4-Trichlorobenzene (15.305)+
-Naphthalene (15.626)
-1,2,3-Trichlorobenzene (15.806)
-1,2-Dichloroethylene (tot (17.080)

Data File: \\target_server\gg\chem\gcms-c.i\C100421.b\C1008.D
Report Date: 09-Oct-2021 16:27

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-c.i\C100421.b\C1008.D
Lab Smp Id: WG307158-4
Inj Date : 04-OCT-2021 08:06
Operator : HG   Inst ID: gcms-c.i
Smp Info : WG307158-4
Misc Info :
Comment   : SW846 5030
Method   : \\target_server\gg\chem\gcms-c.i\C100421.b\C8A05(53).m
Meth Date : 04-Oct-2021 13:37 jsampson   Quant Type: ISTD
Cal Date : 04-OCT-2021 08:06   Cal File: C1008.D
Als bottle: 1   Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE   Compound Sublist: all.sub
Target Version: 4.12

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)		REVIEW CODE
1	Dichlorodifluoromethane	85	1.411	1.412	(0.215)	322775	50.0000		(a)	
2	Chloromethane	50	1.578	1.579	(0.240)	299883	50.0000		(a)	
3	Vinyl chloride	62	1.643	1.643	(0.250)	246067	50.0000		(a)	
4	Bromomethane	94	1.919	1.920	(0.292)	124526	50.0000		(a)	
5	Chloroethane	64	2.025	2.025	(0.309)	138260	50.0000		(a)	
6	Trichlorofluoromethane	101	2.154	2.154	(0.328)	384939	50.0000		(a)	
7	Diethyl Ether	59	2.443	2.444	(0.372)	160412	50.0000		(a)	
8	1,1-Dichloroethene	96	2.630	2.630	(0.401)	177256	50.0000		(a)	
9	Carbon Disulfide	76	2.655	2.656	(0.405)	384858	50.0000		(a)	
10	Freon-113	151	2.675	2.675	(0.407)	137106	50.0000		(a)	
11	Iodomethane	142	2.768	2.768	(0.422)	114443	50.0000		(a)	
12	Acrolein	56	2.977	2.977	(0.453)	151498	250.000		(a)	
13	Allyl Chloride	41	3.128	3.129	(0.476)	252073	50.0000		(a)	
14	Methylene Chloride	84	3.244	3.244	(0.494)	229577	50.0000		(a)	
15	Acetone	43	3.311	3.312	(0.504)	402792	250.000		(a)	
16	trans-1,2-Dichloroethene	96	3.433	3.434	(0.523)	216414	50.0000		(a)	
17	Methyl Acetate	43	3.472	3.473	(0.529)	182849	50.0000		(a)	
18	Methyl tert-butyl ether	73	3.591	3.592	(0.547)	571685	50.0000		(a)	
19	Tertiary-butyl alcohol	59	3.749	3.749	(0.571)	84212	250.000		(a)	
20	Acetonitrile	41	3.874	3.874	(0.590)	295572	500.000		(a)	
21	Di-isopropyl ether	45	4.118	4.119	(0.627)	668752	50.0000		(a)	
22	Chloroprene	53	4.215	4.215	(0.642)	375867	50.0000		(a)	
23	1,1-Dichloroethane	63	4.244	4.244	(0.646)	430031	50.0000		(a)	
24	Acrylonitrile	52	4.321	4.320	(0.658)	378630	250.000		(a)	

Data File: \\target_server\gg\chem\gcms-c.i\C100421.b\C1008.D
Report Date: 09-Oct-2021 16:27

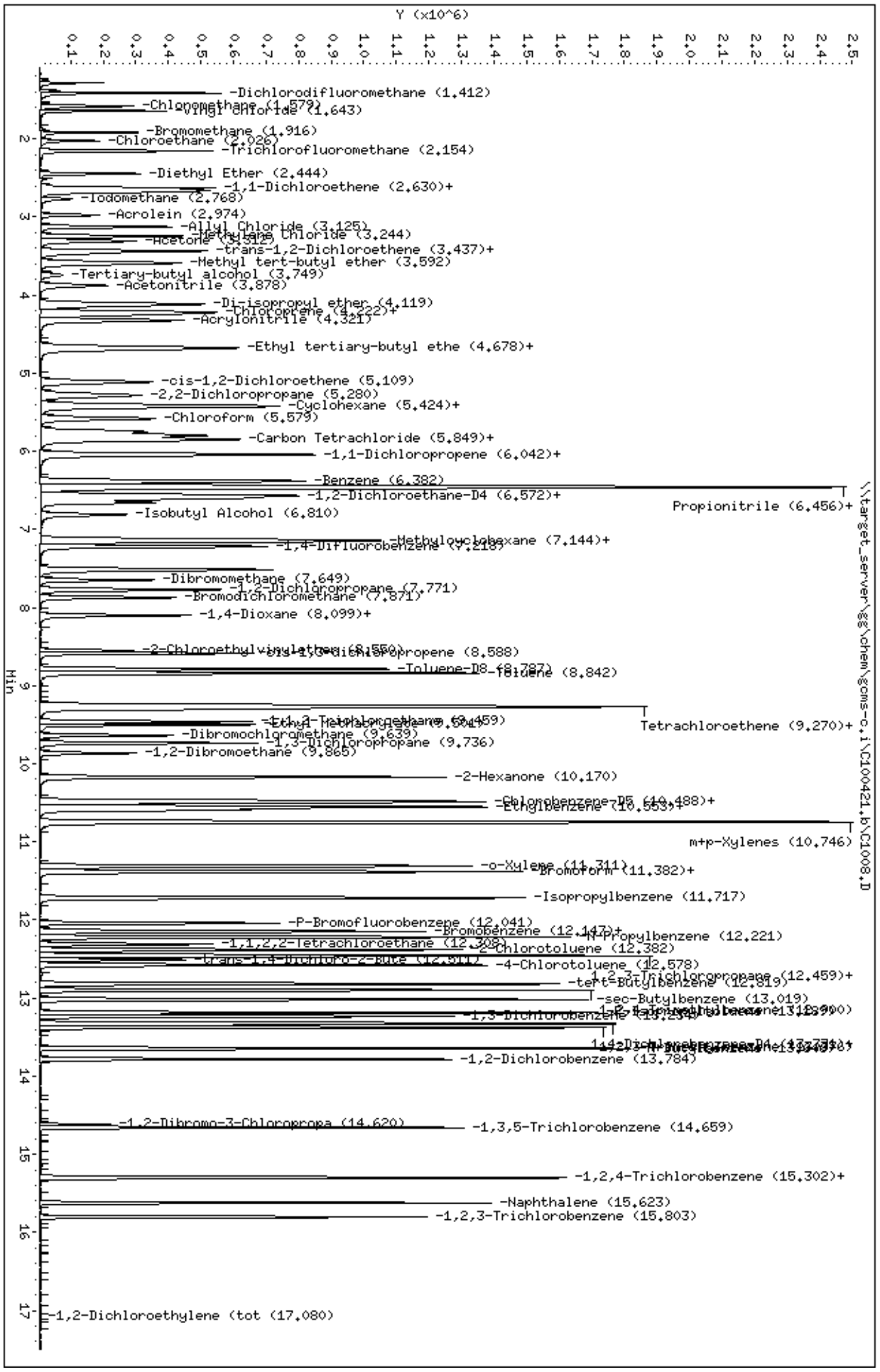
			QUANT SIG					AMOUNTS		
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)	REVIEW CODE
	25	Ethyl tertiary-butyl ether	59	4.678	4.678	(0.713)	604867	50.0000	(a)	
	26	Vinyl Acetate	43	4.678	4.678	(0.648)	491071	50.0000	(a)	
	27	cis-1,2-Dichloroethene	96	5.109	5.109	(0.778)	231846	50.0000	(a)	
	28	2,2-Dichloropropane	77	5.285	5.286	(0.805)	316093	50.0000	(a)	
	29	Cyclohexane	56	5.421	5.421	(0.826)	389985	50.0000	(a)	
	30	Bromochloromethane	128	5.427	5.427	(0.827)	96301	50.0000	(a)	
	31	Chloroform	83	5.578	5.579	(0.850)	410776	50.0000	(a)	
	32	Carbon Tetrachloride	117	5.752	5.752	(0.797)	310633	50.0000	(a)	
	33	Tetrahydrofuran	42	5.797	5.797	(0.883)	419617	250.000	(a)	
	34	1,1,1-Trichloroethane	97	5.851	5.852	(0.891)	382535	50.0000	(a)	
$	35	Dibromofluoromethane	113	5.848	5.849	(0.891)	166625	50.0000	(a)	
	36	1,1-Dichloropropene	75	6.041	6.042	(0.837)	340147	50.0000	(a)	
	37	2-Butanone	43	6.044	6.045	(0.921)	569146	250.000	(a)	
	38	Benzene	78	6.382	6.382	(0.884)	932615	50.0000	(a)	
	39	Propionitrile	54	6.427	6.427	(0.979)	343399	500.000	(a)	
	40	Methacrylonitrile	41	6.459	6.460	(0.984)	1445060	500.000	(a)	
$	41	1,2-Dichloroethane-D4	65	6.565	6.566	(1.000)	213796	50.0000	(a)	
*	42	Pentafluorobenzene	168	6.565	6.566	(1.000)	363470	50.0000		
	43	Tertiary-amyl methyl ether	73	6.601	6.601	(1.005)	533213	50.0000	(a)	
	44	Isobutyl Alcohol	43	6.810	6.810	(1.037)	187603	1000.00	(a)	
	45	1,2-Dichloroethane	62	6.658	6.659	(0.922)	315628	50.0000	(a)	
	46	Methylcyclohexane	83	7.128	7.128	(1.086)	432705	50.0000	(a)	
	47	Trichloroethene	95	7.154	7.154	(0.991)	238312	50.0000	(a)	
*	48	1,4-Difluorobenzene	114	7.218	7.218	(1.000)	606699	50.0000		
	49	Dibromomethane	93	7.649	7.649	(1.060)	143061	50.0000	(a)	
	50	1,2-Dichloropropane	63	7.771	7.771	(1.077)	240669	50.0000	(a)	
	51	Bromodichloromethane	83	7.874	7.874	(1.091)	296247	50.0000	(a)	
	52	1,4-Dioxane	88	8.105	8.106	(1.123)	56102	1000.00	(a)	
	53	Methyl Methacrylate	41	8.096	8.096	(1.122)	200690	50.0000	(a)	
	54	2-Chloroethylvinylether	63	8.549	8.550	(1.184)	121996	50.0000	(a)	
	55	cis-1,3-dichloropropene	75	8.588	8.587	(1.190)	369517	50.0000	(a)	
$	56	Toluene-D8	98	8.787	8.787	(1.217)	701396	50.0000	(a)	
	57	Toluene	91	8.842	8.842	(1.225)	999682	50.0000	(a)	
	58	Tetrachloroethene	164	9.244	9.244	(0.882)	183979	50.0000	(a)	
	59	4-methyl-2-pentanone	43	9.269	9.270	(1.284)	1161127	250.000	(a)	
	60	trans-1,3-Dichloropropene	75	9.301	9.302	(1.289)	336073	50.0000	(a)	
	61	1,1,2-Trichloroethane	83	9.459	9.459	(1.310)	175900	50.0000	(a)	
	62	Ethyl Methacrylate	69	9.501	9.501	(1.316)	329075	50.0000	(a)	
	63	Dibromochloromethane	129	9.639	9.639	(0.920)	203977	50.0000	(a)	
	64	1,3-Dichloropropane	76	9.735	9.736	(0.929)	389254	50.0000	(a)	
	65	1,2-Dibromoethane	107	9.864	9.865	(1.367)	204531	50.0000	(a)	
	66	2-Hexanone	43	10.170	10.170	(0.971)	839206	250.000	(a)	
*	67	Chlorobenzene-D5	117	10.475	10.475	(1.000)	534251	50.0000		
	68	Chlorobenzene	112	10.494	10.495	(1.002)	617396	50.0000	(a)	
	69	Ethylbenzene	91	10.552	10.553	(1.007)	1160979	50.0000	(a)	
	70	1,1,1,2-Tetrachloroethane	131	10.588	10.588	(1.011)	200242	50.0000	(a)	
	71	m+p-Xylenes	91	10.745	10.746	(1.026)	1756960	100.000	(a)	
	72	o-Xylene	91	11.308	11.308	(1.079)	892521	50.0000	(a)	
	73	Bromoform	173	11.391	11.392	(1.087)	132677	50.0000	(a)	
	74	Styrene	104	11.378	11.379	(1.086)	678574	50.0000	(a)	
	75	Isopropylbenzene	105	11.716	11.717	(0.880)	1099455	50.0000	(a)	
$	76	P-Bromofluorobenzene	95	12.041	12.041	(1.668)	263280	50.0000	(a)	
	77	Bromobenzene	156	12.150	12.151	(0.912)	242369	50.0000	(a)	
	78	cis-1,4-Dichloro-2-Butene	53	12.137	12.138	(0.911)	93871	50.0000	(a)	

Data File: \\target_server\gg\chem\gcms-c.i\C100421.b\C1008.D
Report Date: 09-Oct-2021 16:27

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)	REVIEW CODE
	79 N-Propylbenzene	91	12.221	12.221	(0.918)	1354342	50.0000	(a)	
	80 1,1,2,2-Tetrachloroethane	83	12.308	12.308	(0.924)	280089	50.0000	(a)	
	81 2-Chlorotoluene	91	12.382	12.382	(0.930)	797904	50.0000	(a)	
	82 1,2,3-Trichloropropane	75	12.446	12.446	(0.935)	258373	50.0000	(a)	
	83 1,3,5-Trimethylbenzene	105	12.462	12.463	(0.936)	901070	50.0000	(a)	
	84 trans-1,4-Dichloro-2-Butene	53	12.510	12.511	(0.939)	98061	50.0000	(a)	
	85 4-Chlorotoluene	91	12.578	12.578	(0.944)	834413	50.0000	(a)	
	86 tert-Butylbenzene	119	12.819	12.819	(0.963)	745172	50.0000	(a)	
	87 1,2,4-Trimethylbenzene	105	12.899	12.900	(0.969)	931367	50.0000	(a)	
	88 sec-Butylbenzene	105	13.018	13.019	(0.978)	1167860	50.0000	(a)	
	89 P-Isopropyltoluene	119	13.189	13.189	(0.990)	929071	50.0000	(a)	
	90 1,3-Dichlorobenzene	146	13.234	13.234	(0.994)	478156	50.0000	(a)	
*	91 1,4-Dichlorobenzene-D4	152	13.317	13.318	(1.000)	266602	50.0000		
	92 1,4-Dichlorobenzene	146	13.333	13.334	(1.001)	485117	50.0000	(a)	
	93 1,2,3-Trimethylbenzene	105	13.375	13.376	(1.004)	947024	50.0000	(a)	
	95 N-Butylbenzene	91	13.645	13.646	(1.025)	953672	50.0000	(a)	
	96 1,2-Dichlorobenzene	146	13.784	13.784	(1.035)	453120	50.0000	(a)	
	97 1,2-Dibromo-3-Chloropropane	157	14.623	14.623	(1.098)	48617	50.0000	(a)	
	98 1,3,5-Trichlorobenzene	180	14.658	14.659	(1.101)	347844	50.0000	(a)	
	99 1,2,4-Trichlorobenzene	180	15.308	15.308	(1.149)	310313	50.0000	(a)	
	100 Hexachlorobutadiene	225	15.295	15.295	(1.148)	139257	50.0000	(a)	
	101 Naphthalene	128	15.623	15.623	(1.173)	822549	50.0000	(a)	
	102 1,2,3-Trichlorobenzene	180	15.806	15.806	(1.187)	299722	50.0000	(a)	
M	103 1,2-Dichloroethylene (total)	96				448260	50.0000	(a)	
M	104 Xylenes (total)	91				2649481	150.000	(a)	
M	105 Total Alkylbenzenes	100				6982554	50.0000	(a)	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).


Data File: \\target_server\gg\chem\gcms-c.i\C100421.b\C1008.D
Date : 04-OCT-2021 08:06
Client ID:
Sample Info: WG307158-4
Purge Volume: 5.0
Column phase: RTX-VMS
Instrument: gcms-c.i
Operator: HG
Column diameter: 0.18
Y (x10^6)
Min
-Dichlorodifluoromethane (1.412)
-Chloromethane (1.579)
-Vinyl Chloride (1.643)
-Bromomethane (1.916)
-Chloroethane (2.026)
-Trichlorofluoromethane (2.154)
-Diethyl Ether (2.444)
-1,1-Dichloroethene (2.630)+
-Iodomethane (2.768)
-Acrolein (2.974)
-Allyl Chloride (3.125)
-Methylene Chloride (3.244)
-Acetone (3.312)
-trans-1,2-Dichloroethene (3.437)+
-Methyl tert-butyl ether (3.592)
-Tertiary-butyl alcohol (3.749)
-Acetonitrile (3.878)
-Di-isopropyl ether (4.119)
-Chloroprene (4.222)+
-Acrylonitrile (4.321)
-Ethyl tertiary-butyl ethe (4.678)+
-cis-1,2-Dichloroethene (5.109)
-2,2-Dichloropropane (5.280)
-Cyclohexane (5.424)+
-Chloroform (5.579)
-Carbon Tetrachloride (5.849)+
-1,1-Dichloropropene (6.042)+
-Benzene (6.382)
-1,2-Dichloroethane-D4 (6.572)+
Propionitrile (6.456)+
-Isobutyl Alcohol (6.810)
-Methylcyclohexane (7.144)+
-1,4-Difluorobenzene (7.218)
-Dibromomethane (7.649)
-1,2-Dichloropropane (7.771)
-Bromodichloromethane (7.871)
-1,4-Dioxane (8.099)+
-2-Chloroethyl vinyl ether (8.550)
-cis-1,3-Dichloropropene (8.588)
-Toluene-D8 (8.787)
-Toluene (8.842)
Tetrachloroethene (9.270)+
-1,1,2-Trichloroethane (9.459)
-Ethyl Methacrylate (9.504)
-Dibromochloromethane (9.639)
-1,3-Dichloropropane (9.736)
-1,2-Dibromoethane (9.865)
-2-Hexanone (10.170)
-Chlorobenzene-D5 (10.488)+
-Ethylbenzene (10.553)+
m+p-Xylenes (10.746)
-o-Xylene (11.211)
-Bromoform (11.382)+
-Isopropylbenzene (11.717)
-P-Bromofluorobenzene (12.041)
-Bromobenzene (12.147)+
-N-Propylbenzene (12.221)
-1,1,2,2-Tetrachloroethane (12.308)
-2-Chlorotoluene (12.382)
-trans-1,4-Dichloro-2-Bute (12.511)
-4-Chlorotoluene (12.578)
-1,2,3-Trichloropropane (12.459)+
-tert-Butylbenzene (12.819)
-sec-Butylbenzene (13.019)
-1,3-Dichlorobenzene (13.254)
-1,2-Dichlorobenzene (13.784)
-1,2-Dibromo-3-Chloropropa (14.620)
-1,3,5-Trichlorobenzene (14.659)
-1,2,4-Trichlorobenzene (15.302)+
-Naphthalene (15.623)
-1,2,3-Trichlorobenzene (15.803)
-1,2-Dichloroethylene (tot (17.080)

Data File: \\target_server\gg\chem\gcms-c.i\C100421.b\C1011.D
Report Date: 09-Oct-2021 16:27

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-c.i\C100421.b\C1011.D
Lab Smp Id: WG307158-2
Inj Date : 04-OCT-2021 09:39
Operator : HG   Inst ID: gcms-c.i
Smp Info : WG307158-2
Misc Info :
Comment   : SW846 5030
Method   : \\target_server\gg\chem\gcms-c.i\C100421.b\C8A05(53).m
Meth Date : 04-Oct-2021 13:37 jsampson   Quant Type: ISTD
Cal Date : 04-OCT-2021 09:39   Cal File: C1011.D
Als bottle: 4   Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE   Compound Sublist: all.sub
Target Version: 4.12

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)	REVIEW CODE
1	Dichlorodifluoromethane	85	1.411	1.412	(0.215)	31746	5.00000	4.9	
2	Chloromethane	50	1.578	1.579	(0.241)	36423	5.00000	6.1	
3	Vinyl chloride	62	1.642	1.643	(0.250)	27520	5.00000	5.6	
4	Bromomethane	94	1.919	1.920	(0.292)	15038	5.00000	6.1	
5	Chloroethane	64	2.031	2.025	(0.310)	16633	5.00000	6.0	
6	Trichlorofluoromethane	101	2.154	2.154	(0.328)	37184	5.00000	4.8	
7	Diethyl Ether	59	2.446	2.444	(0.373)	16416	5.00000	5.1	
8	1,1-Dichloroethene	96	2.626	2.630	(0.400)	18247	5.00000	5.2	
9	Carbon Disulfide	76	2.652	2.656	(0.404)	39083	5.00000	5.1	
10	Freon-113	151	2.675	2.675	(0.408)	13688	5.00000	5.0	
11	Iodomethane	142	2.774	2.768	(0.423)	8276	5.00000	3.6	
12	Acrolein	56	2.974	2.977	(0.453)	17619	25.0000	29.2	
13	Allyl Chloride	41	3.128	3.129	(0.477)	25464	5.00000	5.1	
14	Methylene Chloride	84	3.244	3.244	(0.494)	31029	5.00000	6.8	
15	Acetone	43	3.311	3.312	(0.505)	55298	25.0000	34.5	
16	trans-1,2-Dichloroethene	96	3.437	3.434	(0.524)	24523	5.00000	5.7	
17	Methyl Acetate	43	3.472	3.473	(0.529)	19489	5.00000	5.4	
18	Methyl tert-butyl ether	73	3.594	3.592	(0.548)	54271	5.00000	4.8	
19	Tertiary-butyl alcohol	59	3.739	3.749	(0.570)	18825	25.0000	56.2	
20	Acetonitrile	41	3.880	3.874	(0.591)	53946	50.0000	91.8	
21	Di-isopropyl ether	45	4.118	4.119	(0.628)	64221	5.00000	4.8	
22	Chloroprene	53	4.218	4.215	(0.643)	33557	5.00000	4.5	
23	1,1-Dichloroethane	63	4.247	4.244	(0.647)	44371	5.00000	5.2	
24	Acrylonitrile	52	4.321	4.320	(0.658)	41022	25.0000	27.2	

Data File: \\target_server\gg\chem\gcms-c.i\C100421.b\C1011.D
Report Date: 09-Oct-2021 16:27

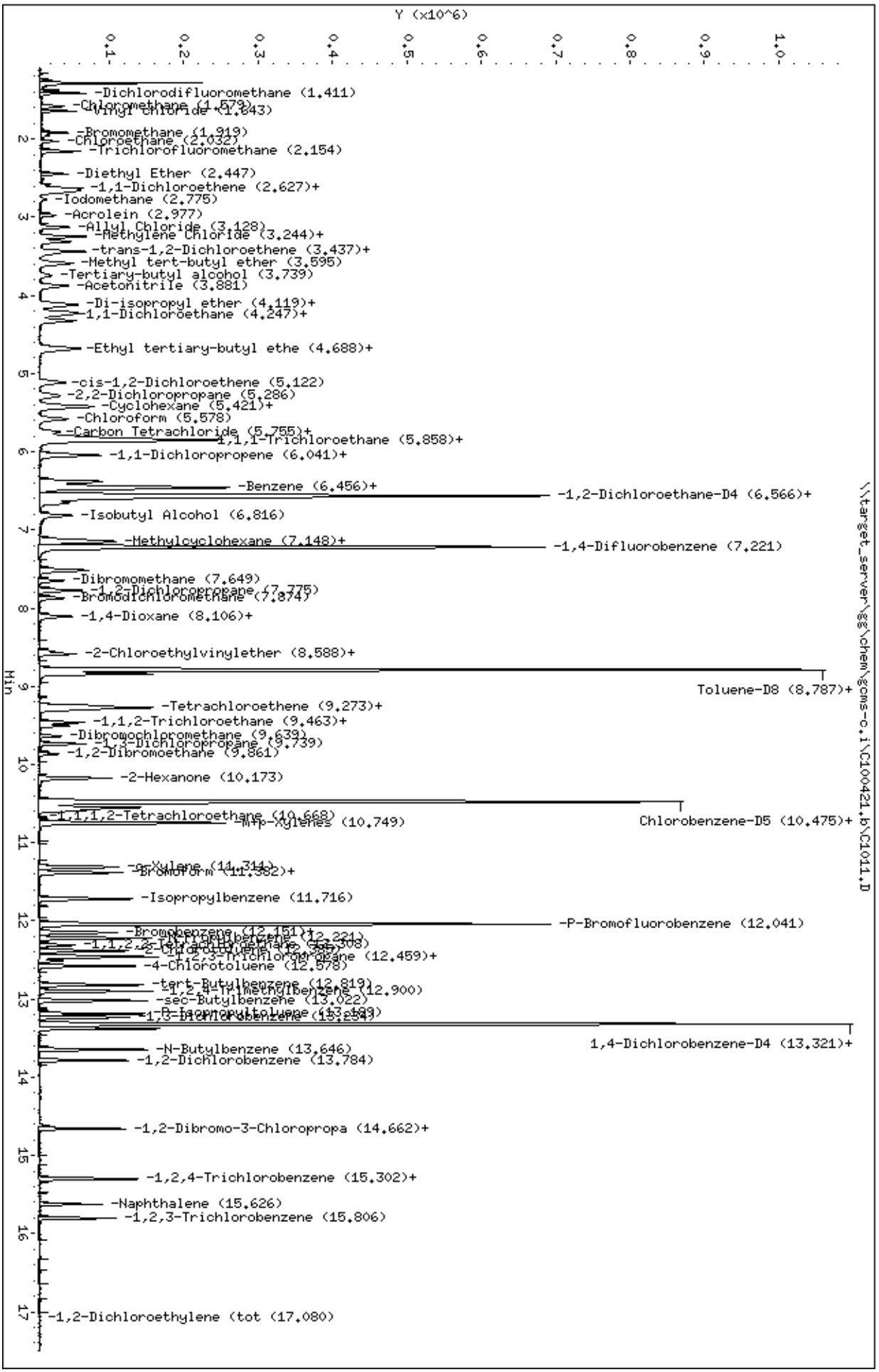
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)	REVIEW CODE
	25 Ethyl tertiary-butyl ether	59	4.687	4.678	(0.714)	53730	5.00000	4.5	
	26 Vinyl Acetate	43	4.684	4.678	(0.649)	37241	5.00000	3.9	
	27 cis-1,2-Dichloroethene	96	5.121	5.109	(0.780)	24214	5.00000	5.2	
	28 2,2-Dichloropropane	77	5.285	5.286	(0.805)	26176	5.00000	4.2	
	29 Cyclohexane	56	5.420	5.421	(0.826)	32887	5.00000	4.2	
	30 Bromochloromethane	128	5.430	5.427	(0.828)	10048	5.00000	5.2	
	31 Chloroform	83	5.578	5.579	(0.850)	43722	5.00000	5.4	
	32 Carbon Tetrachloride	117	5.755	5.752	(0.797)	26693	5.00000	4.4	
	33 Tetrahydrofuran	42	5.803	5.797	(0.884)	41932	25.0000	25.1	
	34 1,1,1-Trichloroethane	97	5.858	5.852	(0.893)	37141	5.00000	4.9	
$	35 Dibromofluoromethane	113	5.848	5.849	(0.891)	160272	50.0000	48.4	
	36 1,1-Dichloropropene	75	6.041	6.042	(0.837)	31418	5.00000	4.7	
	37 2-Butanone	43	6.044	6.045	(0.921)	59393	25.0000	26.2	
	38 Benzene	78	6.382	6.382	(0.884)	95566	5.00000	5.3	
	39 Propionitrile	54	6.427	6.427	(0.979)	47533	50.0000	69.6	
	40 Methacrylonitrile	41	6.459	6.460	(0.984)	149975	50.0000	52.2	
$	41 1,2-Dichloroethane-D4	65	6.565	6.566	(1.000)	211777	50.0000	49.8	
*	42 Pentafluorobenzene	168	6.562	6.566	(1.000)	361435	50.0000		
	43 Tertiary-amyl methyl ether	73	6.600	6.601	(1.006)	47594	5.00000	4.5	
	44 Isobutyl Alcohol	43	6.816	6.810	(1.039)	34469	100.000	185	
	45 1,2-Dichloroethane	62	6.658	6.659	(0.922)	31681	5.00000	5.2	
	46 Methylcyclohexane	83	7.134	7.128	(1.087)	36900	5.00000	4.3	
	47 Trichloroethene	95	7.157	7.154	(0.992)	23614	5.00000	5.1	
*	48 1,4-Difluorobenzene	114	7.218	7.218	(1.000)	590805	50.0000		
	49 Dibromomethane	93	7.649	7.649	(1.060)	14042	5.00000	5.0	
	50 1,2-Dichloropropane	63	7.774	7.771	(1.077)	22613	5.00000	4.8	
	51 Bromodichloromethane	83	7.874	7.874	(1.091)	25276	5.00000	4.4	
	52 1,4-Dioxane	88	8.108	8.106	(1.123)	13577	100.000	248	
	53 Methyl Methacrylate	41	8.096	8.096	(1.122)	15593	5.00000	4.0	
	54 2-Chloroethylvinylether	63	8.549	8.550	(1.184)	8147	5.00000	3.4	
	55 cis-1,3-dichloropropene	75	8.587	8.587	(1.190)	27605	5.00000	3.8	
$	56 Toluene-D8	98	8.787	8.787	(1.217)	678245	50.0000	49.6	
	57 Toluene	91	8.842	8.842	(1.225)	104596	5.00000	5.4	
	58 Tetrachloroethene	164	9.247	9.244	(0.883)	17599	5.00000	4.9	
	59 4-methyl-2-pentanone	43	9.272	9.270	(1.285)	98689	25.0000	21.8	
	60 trans-1,3-Dichloropropene	75	9.301	9.302	(1.289)	25230	5.00000	3.8	
	61 1,1,2-Trichloroethane	83	9.462	9.459	(1.311)	16607	5.00000	4.8	
	62 Ethyl Methacrylate	69	9.504	9.501	(1.317)	23082	5.00000	3.6	
	63 Dibromochloromethane	129	9.639	9.639	(0.920)	14835	5.00000	3.7	
	64 1,3-Dichloropropane	76	9.739	9.736	(0.930)	37220	5.00000	4.9	
	65 1,2-Dibromoethane	107	9.867	9.865	(1.367)	18681	5.00000	4.7	
	66 2-Hexanone	43	10.173	10.170	(0.971)	67812	25.0000	20.8	
*	67 Chlorobenzene-D5	117	10.475	10.475	(1.000)	519948	50.0000		
	68 Chlorobenzene	112	10.494	10.495	(1.002)	63759	5.00000	5.3	
	69 Ethylbenzene	91	10.549	10.553	(1.007)	110961	5.00000	4.9	
	70 1,1,1,2-Tetrachloroethane	131	10.591	10.588	(1.011)	17267	5.00000	4.4	
	71 m+p-Xylenes	91	10.748	10.746	(1.026)	167375	10.0000	9.8	
	72 o-Xylene	91	11.311	11.308	(1.080)	72705	5.00000	4.2	
	73 Bromoform	173	11.398	11.392	(1.088)	8581	5.00000	3.3	
	74 Styrene	104	11.382	11.379	(1.087)	52654	5.00000	4.0	
	75 Isopropylbenzene	105	11.719	11.717	(0.880)	91640	5.00000	4.4	
$	76 P-Bromofluorobenzene	95	12.041	12.041	(1.668)	248203	50.0000	48.4	
	77 Bromobenzene	156	12.153	12.151	(0.912)	24842	5.00000	5.5	
	78 cis-1,4-Dichloro-2-Butene	53	12.137	12.138	(0.911)	7329	5.00000	4.2	

Data File: \\target_server\gg\chem\gcms-c.i\C100421.b\C1011.D
Report Date: 09-Oct-2021 16:27

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)	REVIEW CODE
	79 N-Propylbenzene	91	12.221	12.221	(0.917)	124496	5.00000	4.9	
	80 1,1,2,2-Tetrachloroethane	83	12.314	12.308	(0.924)	25281	5.00000	4.8	
	81 2-Chlorotoluene	91	12.382	12.382	(0.930)	74179	5.00000	5.0	
	82 1,2,3-Trichloropropane	75	12.449	12.446	(0.935)	24841	5.00000	5.1	
	83 1,3,5-Trimethylbenzene	105	12.465	12.463	(0.936)	75669	5.00000	4.5	
	84 trans-1,4-Dichloro-2-Butene	53	12.513	12.511	(0.939)	7917	5.00000	4.3	
	85 4-Chlorotoluene	91	12.578	12.578	(0.944)	78590	5.00000	5.0	
	86 tert-Butylbenzene	119	12.819	12.819	(0.962)	62710	5.00000	4.5	
	87 1,2,4-Trimethylbenzene	105	12.899	12.900	(0.968)	80884	5.00000	4.6	
	88 sec-Butylbenzene	105	13.018	13.019	(0.977)	102119	5.00000	4.7	
	89 P-Isopropyltoluene	119	13.189	13.189	(0.990)	75132	5.00000	4.3	
	90 1,3-Dichlorobenzene	146	13.234	13.234	(0.993)	47299	5.00000	5.3	
*	91 1,4-Dichlorobenzene-D4	152	13.320	13.318	(1.000)	249743	50.0000		
	92 1,4-Dichlorobenzene	146	13.337	13.334	(1.001)	49247	5.00000	5.4	
	93 1,2,3-Trimethylbenzene	105	13.382	13.376	(1.005)	89851	5.00000	5.1	
	95 N-Butylbenzene	91	13.645	13.646	(1.024)	75162	5.00000	4.2	
	96 1,2-Dichlorobenzene	146	13.783	13.784	(1.035)	44752	5.00000	5.3	
	97 1,2-Dibromo-3-Chloropropane	157	14.623	14.623	(1.098)	3627	5.00000	4.0	
	98 1,3,5-Trichlorobenzene	180	14.658	14.659	(1.100)	31106	5.00000	4.8	
	99 1,2,4-Trichlorobenzene	180	15.307	15.308	(1.149)	24761	5.00000	4.2	
	100 Hexachlorobutadiene	225	15.291	15.295	(1.148)	12495	5.00000	4.8	
	101 Naphthalene	128	15.626	15.623	(1.173)	50477	5.00000	3.3	
	102 1,2,3-Trichlorobenzene	180	15.803	15.806	(1.186)	26037	5.00000	4.6	
M	103 1,2-Dichloroethylene (total)	96				48737	5.00000	(a)	
M	104 Xylenes (total)	91				240080	15.0000	(a)	
M	105 Total Alkylbenzenes	100				596172	5.00000	(a)	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).


Data File: \\target_server\gg\chem\gcms-c,i\C100421.b\C1011.D
Date : 04-OCT-2021 09:39
Client ID:
Sample Info: WG307158-2
Purge Volume: 5.0
Column phase: RTX-VMS
Instrument: gcms-c,i
Operator: HG
Column diameter: 0.18
Y (x10^6)
Min
\\target_server\gg\chem\gcms-c,i\C100421.b\C1011.D
-Dichlorodifluoromethane (1.411)
-Chloromethane (1.579)
-Vinyl Chloride (1.643)
-Bromomethane (1.919)
-Chloroethane (2.032)
-Trichlorofluoromethane (2.154)
-Diethyl Ether (2.447)
-1,1-Dichloroethene (2.627)+
-Iodomethane (2.775)
-Acrolein (2.977)
-Allyl Chloride (3.128)
-Methylene Chloride (3.244)+
-trans-1,2-Dichloroethene (3.437)+
-Methyl tert-butyl ether (3.595)
-Tertiary-butyl alcohol (3.739)
-Acetonitrile (3.881)
-Di-isopropyl ether (4.119)+
-1,1-Dichloroethane (4.247)+
-Ethyl tertiary-butyl ethe (4.688)+
-cis-1,2-Dichloroethene (5.122)
-2,2-Dichloropropane (5.286)
-Cyclohexane (5.421)+
-Chloroform (5.578)
-Carbon Tetrachloride (5.755)+
-1,1,1-Trichloroethane (5.858)+
-1,1-Dichloropropene (6.041)+
-Benzene (6.456)+
-1,2-Dichloroethane-D4 (6.566)+
-Isobutyl Alcohol (6.816)
-Methylcyclohexane (7.148)+
-1,4-Difluorobenzene (7.221)
-Dibromomethane (7.649)
-1,2-Dichloropropane (7.775)
-Bromodichloromethane (7.874)
-1,4-Dioxane (8.106)+
-2-Chloroethylvinylether (8.588)+
Toluene-D8 (8.787)+
-Tetrachloroethene (9.273)+
-1,1,2-Trichloroethane (9.463)+
-Dibromochloromethane (9.639)
-1,3-Dichloropropane (9.739)
-1,2-Dibromoethane (9.861)
-2-Hexanone (10.173)
-1,1,1,2-Tetrachloroethane (10.668)
-m&p-Xylenes (10.749)
Chlorobenzene-D5 (10.475)+
-o-Xylene (11.314)
-Bromoform (11.382)+
-Isopropylbenzene (11.716)
-P-Bromofluorobenzene (12.041)
-Bromobenzene (12.151)+
-1,1,2,2-Tetrachloroethane (12.221)
-n-Propylbenzene (12.308)
-2-Chlorotoluene (12.365)
-1,2,3-Trichloropropane (12.459)+
-4-Chlorotoluene (12.578)
-tert-Butylbenzene (12.819)
-1,2,4-Trimethylbenzene (12.900)
-sec-Butylbenzene (13.022)
-P-Isopropyltoluene (13.169)
-1,3-Dichlorobenzene (13.254)
1,4-Dichlorobenzene-D4 (13.321)+
-N-Butylbenzene (13.646)
-1,2-Dichlorobenzene (13.784)
-1,2-Dibromo-3-Chloropropa (14.662)+
-1,2,4-Trichlorobenzene (15.302)+
-Naphthalene (15.626)
-1,2,3-Trichlorobenzene (15.806)
-1,2-Dichloroethylene (tot (17.080)

Data File: \\target_server\gg\chem\gcms-c.i\C100421.b\C1012.D
Report Date: 09-Oct-2021 16:27

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-c.i\C100421.b\C1012.D
Lab Smp Id: WG307158-1
Inj Date : 04-OCT-2021 10:10
Operator : HG   Inst ID: gcms-c.i
Smp Info : WG307158-1
Misc Info :
Comment   : SW846 5030
Method   : \\target_server\gg\chem\gcms-c.i\C100421.b\C8A05(53).m
Meth Date : 04-Oct-2021 13:37 jsampson   Quant Type: ISTD
Cal Date : 04-OCT-2021 10:10   Cal File: C1012.D
Als bottle: 5   Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE   Compound Sublist: all.sub
Target Version: 4.12

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)	REVIEW CODE
1	Dichlorodifluoromethane	85	1.414	1.412	(0.216)	6175	1.00000	0.98(a)	
2	Chloromethane	50	1.575	1.579	(0.240)	7247	1.00000	1.1	
3	Vinyl chloride	62	1.643	1.643	(0.250)	4868	1.00000	0.95(a)	
4	Bromomethane	94	1.922	1.920	(0.293)	3331	1.00000	1.2	
5	Chloroethane	64	2.028	2.025	(0.309)	3580	1.00000	1.2	
6	Trichlorofluoromethane	101	2.160	2.154	(0.329)	7360	1.00000	0.99(a)	
7	Diethyl Ether	59	2.450	2.444	(0.374)	3164	1.00000	1.00	
8	1,1-Dichloroethene	96	2.633	2.630	(0.401)	3486	1.00000	0.99(a)	
9	Carbon Disulfide	76	2.655	2.656	(0.405)	8176	1.00000	1.1	
10	Freon-113	151	2.675	2.675	(0.408)	2227	1.00000	0.83(a)	
11	Iodomethane	142	2.774	2.768	(0.423)	1294	1.00000	0.67(a)	
12	Acrolein	56	2.974	2.977	(0.453)	2969	5.00000	4.6(a)	
13	Allyl Chloride	41	3.128	3.129	(0.477)	4968	1.00000	1.0	
14	Methylene Chloride	84	3.247	3.244	(0.495)	10486	1.00000	2.0(a)	
15	Acetone	43	3.311	3.312	(0.505)	10739	5.00000	5.7	
16	trans-1,2-Dichloroethene	96	3.437	3.434	(0.524)	4842	1.00000	1.1	
17	Methyl Acetate	43	3.472	3.473	(0.529)	3318	1.00000	0.90(a)	
18	Methyl tert-butyl ether	73	3.588	3.592	(0.547)	9748	1.00000	0.89(a)	
19	Tertiary-butyl alcohol	59	3.745	3.749	(0.571)	4034	5.00000	7.6	
20	Acetonitrile	41	3.887	3.874	(0.593)	11394	10.0000	13.9(a)	
21	Di-isopropyl ether	45	4.122	4.119	(0.628)	10781	1.00000	0.84(a)	
22	Chloroprene	53	4.215	4.215	(0.643)	5288	1.00000	0.76(a)	
23	1,1-Dichloroethane	63	4.253	4.244	(0.649)	8117	1.00000	0.95(a)	
24	Acrylonitrile	52	4.327	4.320	(0.660)	7754	5.00000	5.0	

Data File: \\target_server\gg\chem\gcms-c.i\C100421.b\C1012.D
Report Date: 09-Oct-2021 16:27

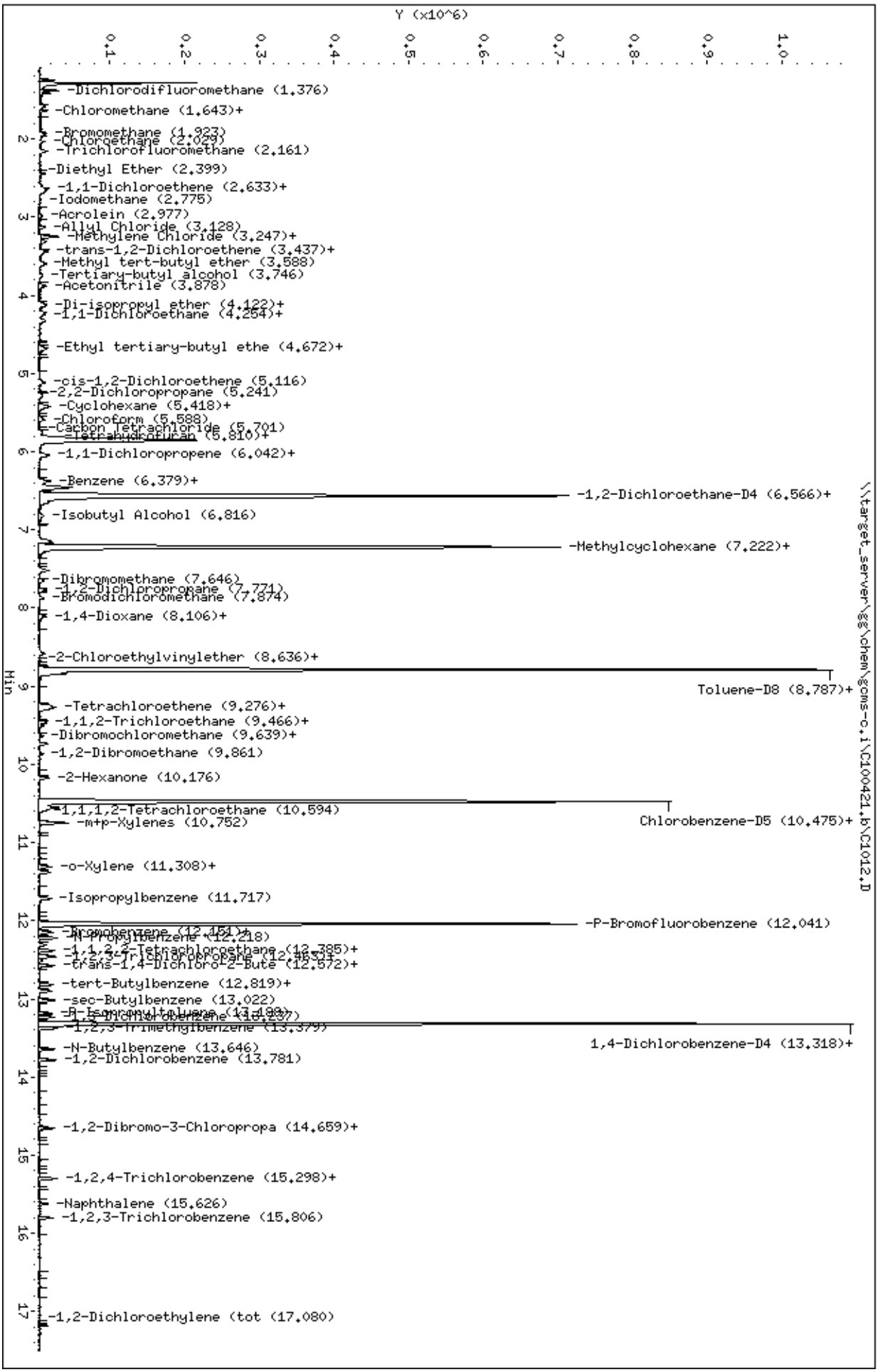
							AMOUNTS		
		QUANT SIG					CAL-AMT	ON-COL	
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/l)	(ug/l)	REVIEW CODE
	25 Ethyl tertiary-butyl ether	59	4.694	4.678	(0.716)	8464	1.00000	0.76(a)	
	26 Vinyl Acetate	43	4.678	4.678	(0.648)	6289	1.00000	0.73(a)	
	27 cis-1,2-Dichloroethene	96	5.115	5.109	(0.780)	4099	1.00000	0.88(a)	
	28 2,2-Dichloropropane	77	5.273	5.286	(0.804)	4203	1.00000	0.74(Ta)	
	29 Cyclohexane	56	5.417	5.421	(0.826)	4863	1.00000	0.69(a)	
	30 Bromochloromethane	128	5.437	5.427	(0.829)	1784	1.00000	0.93(a)	
	31 Chloroform	83	5.581	5.579	(0.851)	7853	1.00000	0.95(a)	
	32 Carbon Tetrachloride	117	5.745	5.752	(0.796)	4816	1.00000	0.83(a)	
	33 Tetrahydrofuran	42	5.810	5.797	(0.886)	8038	5.00000	4.9(a)	
	34 1,1,1-Trichloroethane	97	5.851	5.852	(0.892)	5946	1.00000	0.80(a)	
$	35 Dibromofluoromethane	113	5.848	5.849	(0.892)	163418	50.0000	51.1	
	36 1,1-Dichloropropene	75	6.041	6.042	(0.837)	5884	1.00000	0.90(a)	
	37 2-Butanone	43	6.041	6.045	(0.921)	10240	5.00000	4.5(a)	
	38 Benzene	78	6.379	6.382	(0.884)	16519	1.00000	0.87(a)	
	39 Propionitrile	54	6.433	6.427	(0.981)	7735	10.0000	9.6(a)	
	40 Methacrylonitrile	41	6.459	6.460	(0.985)	24440	10.0000	8.5(a)	
$	41 1,2-Dichloroethane-D4	65	6.572	6.566	(1.002)	231114	50.0000	55.5	
*	42 Pentafluorobenzene	168	6.559	6.566	(1.000)	354740	50.0000		
	43 Tertiary-amyl methyl ether	73	6.601	6.601	(1.006)	8669	1.00000	0.88(a)	
	44 Isobutyl Alcohol	43	6.816	6.810	(1.039)	5479	20.0000	21.0	
	45 1,2-Dichloroethane	62	6.655	6.659	(0.922)	6863	1.00000	1.1	
	46 Methylcyclohexane	83	7.128	7.128	(1.087)	4896	1.00000	0.62(a)	
	47 Trichloroethene	95	7.154	7.154	(0.991)	4263	1.00000	0.90(a)	
*	48 1,4-Difluorobenzene	114	7.218	7.218	(1.000)	599632	50.0000		
	49 Dibromomethane	93	7.652	7.649	(1.060)	2798	1.00000	0.98(a)	
	50 1,2-Dichloropropane	63	7.777	7.771	(1.078)	4446	1.00000	0.95(Ta)	
	51 Bromodichloromethane	83	7.874	7.874	(1.091)	4292	1.00000	0.78(Ta)	
	52 1,4-Dioxane	88	8.109	8.106	(1.123)	2825	20.0000	29.2	
	53 Methyl Methacrylate	41	8.092	8.096	(1.121)	2536	1.00000	0.71(a)	
	54 2-Chloroethylvinylether	63	8.546	8.550	(1.184)	1311	1.00000	0.64(a)	
	55 cis-1,3-dichloropropene	75	8.588	8.587	(1.190)	4263	1.00000	0.66(a)	
$	56 Toluene-D8	98	8.787	8.787	(1.217)	692475	50.0000	50.1	
	57 Toluene	91	8.838	8.842	(1.224)	19195	1.00000	0.94(a)	
	58 Tetrachloroethene	164	9.247	9.244	(0.883)	3307	1.00000	0.92(a)	
	59 4-methyl-2-pentanone	43	9.276	9.270	(1.285)	15143	5.00000	3.5(a)	
	60 trans-1,3-Dichloropropene	75	9.301	9.302	(1.289)	4222	1.00000	0.72(a)	
	61 1,1,2-Trichloroethane	83	9.465	9.459	(1.311)	2861	1.00000	0.84(a)	
	62 Ethyl Methacrylate	69	9.504	9.501	(1.317)	3192	1.00000	0.57(a)	
	63 Dibromochloromethane	129	9.639	9.639	(0.920)	2780	1.00000	0.79(a)	
	64 1,3-Dichloropropane	76	9.739	9.736	(0.930)	6947	1.00000	0.92(a)	
	65 1,2-Dibromoethane	107	9.861	9.865	(1.366)	3282	1.00000	0.84(Ta)	
	66 2-Hexanone	43	10.176	10.170	(0.972)	9342	5.00000	3.1(a)	
*	67 Chlorobenzene-D5	117	10.472	10.475	(1.000)	525532	50.0000		
	68 Chlorobenzene	112	10.494	10.495	(1.002)	12106	1.00000	0.97(a)	
	69 Ethylbenzene	91	10.555	10.553	(1.008)	18937	1.00000	0.84(a)	
	70 1,1,1,2-Tetrachloroethane	131	10.594	10.588	(1.012)	2980	1.00000	0.80(a)	
	71 m+p-Xylenes	91	10.751	10.746	(1.027)	26454	2.00000	1.5(a)	
	72 o-Xylene	91	11.308	11.308	(1.080)	10687	1.00000	0.66(a)	
	73 Bromoform	173	11.391	11.392	(1.088)	1444	1.00000	0.66(a)	
	74 Styrene	104	11.385	11.379	(1.087)	6943	1.00000	0.58(a)	
	75 Isopropylbenzene	105	11.716	11.717	(0.880)	12081	1.00000	0.60(a)	
$	76 P-Bromofluorobenzene	95	12.041	12.041	(1.668)	253109	50.0000	49.4	
	77 Bromobenzene	156	12.150	12.151	(0.912)	4195	1.00000	0.86(a)	
	78 cis-1,4-Dichloro-2-Butene	53	12.137	12.138	(0.911)	1111	1.00000	0.67(a)	

Data File: \\target_server\gg\chem\gcms-c.i\C100421.b\C1012.D
Report Date: 09-Oct-2021 16:27

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)	REVIEW CODE
	79 N-Propylbenzene	91	12.218	12.221	(0.917)	19429	1.00000	0.75(a)	
	80 1,1,2,2-Tetrachloroethane	83	12.308	12.308	(0.924)	4966	1.00000	0.94(a)	
	81 2-Chlorotoluene	91	12.385	12.382	(0.930)	12006	1.00000	0.78(a)	
	82 1,2,3-Trichloropropane	75	12.452	12.446	(0.935)	4305	1.00000	0.85(a)	
	83 1,3,5-Trimethylbenzene	105	12.468	12.463	(0.936)	10652	1.00000	0.65(a)	
	84 trans-1,4-Dichloro-2-Butene	53	12.517	12.511	(0.940)	1254	1.00000	0.71(a)	
	85 4-Chlorotoluene	91	12.584	12.578	(0.945)	12473	1.00000	0.77(a)	
	86 tert-Butylbenzene	119	12.816	12.819	(0.962)	8620	1.00000	0.63(a)	
	87 1,2,4-Trimethylbenzene	105	12.899	12.900	(0.968)	10279	1.00000	0.59(a)	
	88 sec-Butylbenzene	105	13.021	13.019	(0.978)	13513	1.00000	0.62(a)	
	89 P-Isopropyltoluene	119	13.189	13.189	(0.990)	9328	1.00000	0.56(a)	
	90 1,3-Dichlorobenzene	146	13.237	13.234	(0.994)	8491	1.00000	0.90(a)	
*	91 1,4-Dichlorobenzene-D4	152	13.321	13.318	(1.000)	257253	50.0000		
	92 1,4-Dichlorobenzene	146	13.337	13.334	(1.001)	9724	1.00000	1.00	
	93 1,2,3-Trimethylbenzene	105	13.372	13.376	(1.004)	14783	1.00000	0.80(a)	
	95 N-Butylbenzene	91	13.648	13.646	(1.025)	10998	1.00000	0.65(a)	
	96 1,2-Dichlorobenzene	146	13.780	13.784	(1.035)	8285	1.00000	0.92(a)	
	97 1,2-Dibromo-3-Chloropropane	157	14.619	14.623	(1.098)	717	1.00000	0.85(a)	
	98 1,3,5-Trichlorobenzene	180	14.658	14.659	(1.100)	5555	1.00000	0.85(a)	
	99 1,2,4-Trichlorobenzene	180	15.304	15.308	(1.149)	4129	1.00000	0.74(a)	
	100 Hexachlorobutadiene	225	15.291	15.295	(1.148)	1868	1.00000	0.71(a)	
	101 Naphthalene	128	15.626	15.623	(1.173)	7130	1.00000	0.54(a)	
	102 1,2,3-Trichlorobenzene	180	15.806	15.806	(1.187)	4555	1.00000	0.82(a)	
M	103 1,2-Dichloroethylene (total)	96				8941	1.00000	(a)	
M	104 Xylenes (total)	91				37141	5.00000	(a)	
M	105 Total Alkylbenzenes	100				82819	1.00000	(a)	

QC Flag Legend

T - Target compound detected outside RT window.
a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).


Data File: \\target_server\gg\chem\gcms-c,i\C100421.b\C1012.D
Date : 04-OCT-2021 10:10
Client ID:
Sample Info: WG307158-1
Purge Volume: 5.0
Column phase: RTX-VMS
Instrument: gcms-c,i
Operator: HG
Column diameter: 0.18
Y (x10^6)
Min
-Dichlorodifluoromethane (1.376)
-Chloromethane (1.643)+
-Bromomethane (1.923)
-Chloroethane (2.059)
-Trichlorofluoromethane (2.161)
-Diethyl Ether (2.399)
-1,1-Dichloroethene (2.633)+
-Iodomethane (2.775)
-Acrolein (2.977)
-Allyl Chloride (3.128)
-Methylene Chloride (3.247)+
-trans-1,2-Dichloroethene (3.437)+
-Methyl tert-butyl ether (3.588)
-Tertiary-butyl alcohol (3.746)
-Acetonitrile (3.878)
-Di-isopropyl ether (4.122)+
-1,1-Dichloroethane (4.254)+
-Ethyl tertiary-butyl ethe (4.672)+
-cis-1,2-Dichloroethene (5.116)
-2,2-Dichloropropane (5.241)
-Cyclohexane (5.418)+
-Chloroform (5.588)
-Carbon Tetrachloride (5.701)
-Tetrahydrofuran (5.810)+
-1,1-Dichloropropene (6.042)+
-Benzene (6.379)+
-1,2-Dichloroethane-D4 (6.566)+
-Isobutyl Alcohol (6.816)
-Methylcyclohexane (7.222)+
-Dibromomethane (7.646)
-1,2-Dichloropropane (7.771)
-Bromodichloromethane (7.874)
-1,4-Dioxane (8.106)+
-2-Chloroethylvinylether (8.636)+
Toluene-D8 (8.787)+
-Tetrachloroethene (9.276)+
-1,1,2-Trichloroethane (9.466)+
-Dibromochloromethane (9.639)+
-1,2-Dibromoethane (9.861)
-2-Hexanone (10.176)
-1,1,1,2-Tetrachloroethane (10.594)
-m+p-Xylenes (10.752)
Chlorobenzene-D5 (10.475)+
-o-Xylene (11.308)+
-Isopropylbenzene (11.717)
-P-Bromofluorobenzene (12.041)
-Bromobenzene (12.151)+
-N-Propylbenzene (12.218)
-1,1,2,2-Tetrachloroethane (12.385)+
-trans-1,4-Dichloro-2-Bute (12.572)+
-tert-Butylbenzene (12.819)+
-sec-Butylbenzene (13.022)
-1,2-Dichlorobenzene (13.237)
-1,2,3-Trimethylbenzene (13.379)
-N-Butylbenzene (13.646)
1,4-Dichlorobenzene-D4 (13.318)+
-1,2-Dichlorobenzene (13.781)
-1,2-Dibromo-3-Chloropropa (14.659)+
-1,2,4-Trichlorobenzene (15.298)+
-Naphthalene (15.626)
-1,2,3-Trichlorobenzene (15.806)
-1,2-Dichloroethylene (tot (17.080)
\\target_server\gg\chem\gcms-c,i\C100421.b\C1012.D

Data File: \\target_server\gg\chem\gcms-c.i\C100421.b\C1013.D
Report Date: 09-Oct-2021 16:27

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-c.i\C100421.b\C1013.D
Lab Smp Id: WG307158-6
Inj Date : 04-OCT-2021 10:41
Operator : HG   Inst ID: gcms-c.i
Smp Info : WG307158-6
Misc Info :
Comment   : SW846 5030
Method   : \\target_server\gg\chem\gcms-c.i\C100421.b\C8A05(53).m
Meth Date : 04-Oct-2021 13:37 jsampson   Quant Type: ISTD
Cal Date : 04-OCT-2021 10:41   Cal File: C1013.D
Als bottle: 6   Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE   Compound Sublist: all.sub
Target Version: 4.12
Processing Host: T7-O360

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)	REVIEW CODE
1	Dichlorodifluoromethane	85	1.411	1.412	(0.215)	962914	150.000	139	
2	Chloromethane	50	1.578	1.579	(0.240)	949252	150.000	131	
3	Vinyl chloride	62	1.643	1.643	(0.250)	799195	150.000	141	
4	Bromomethane	94	1.916	1.920	(0.292)	406141	150.000	132	
5	Chloroethane	64	2.012	2.025	(0.307)	306224	150.000	99.4	
6	Trichlorofluoromethane	101	2.147	2.154	(0.327)	1182038	150.000	145	
7	Diethyl Ether	59	2.443	2.444	(0.372)	522613	150.000	146	
8	1,1-Dichloroethene	96	2.626	2.630	(0.400)	564371	150.000	144	
9	Carbon Disulfide	76	2.655	2.656	(0.405)	1237214	150.000	143	
10	Freon-113	151	2.671	2.675	(0.407)	436901	150.000	150(A)	
11	Iodomethane	142	2.768	2.768	(0.422)	452242	150.000	187(A)	
12	Acrolein	56	2.977	2.977	(0.453)	510179	750.000	724	
13	Allyl Chloride	41	3.128	3.129	(0.476)	785517	150.000	142	
14	Methylene Chloride	84	3.247	3.244	(0.495)	628894	150.000	100	
15	Acetone	43	3.311	3.312	(0.504)	1343882	750.000	640	
16	trans-1,2-Dichloroethene	96	3.433	3.434	(0.523)	721237	150.000	141	
17	Methyl Acetate	43	3.469	3.473	(0.528)	648193	150.000	153(A)	
18	Methyl tert-butyl ether	73	3.591	3.592	(0.547)	1957327	150.000	154(A)	
19	Tertiary-butyl alcohol	59	3.749	3.749	(0.571)	319385	750.000	510	
20	Acetonitrile	41	3.880	3.874	(0.591)	1037448	1500.00	1150	
21	Di-isopropyl ether	45	4.122	4.119	(0.628)	2250255	150.000	153(A)	
22	Chloroprene	53	4.215	4.215	(0.642)	1231036	150.000	158(A)	
23	1,1-Dichloroethane	63	4.247	4.244	(0.647)	1391788	150.000	146	

Data File: \\target_server\gg\chem\gcms-c.i\C100421.b\C1013.D
Report Date: 09-Oct-2021 16:27

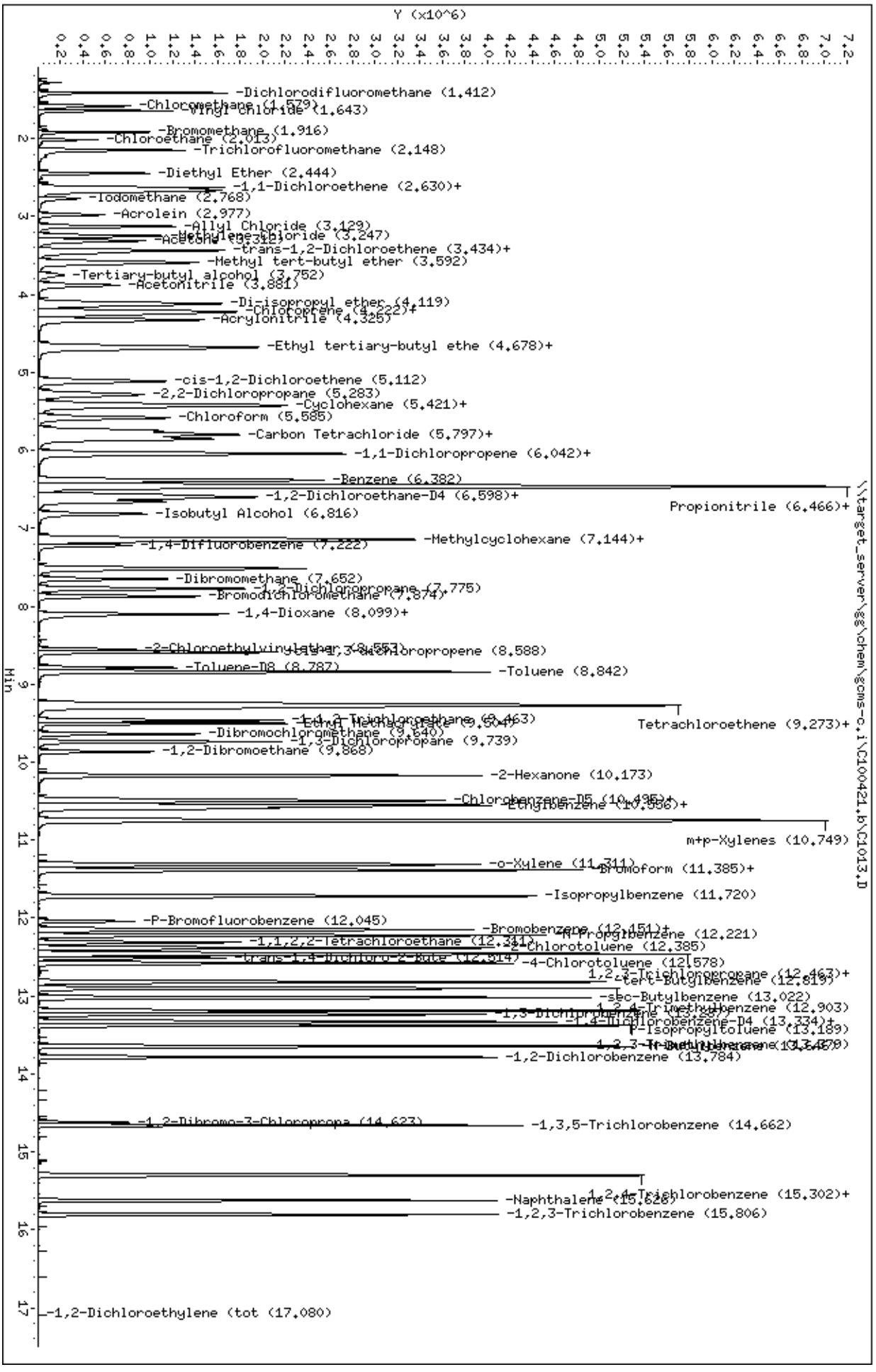
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)	REVIEW CODE
	24 Acrylonitrile	52	4.324	4.320	(0.659)	1324409	750.000	745	
	25 Ethyl tertiary-butyl ether	59	4.678	4.678	(0.713)	2087690	150.000	161(A)	
	26 Vinyl Acetate	43	4.681	4.678	(0.648)	1512000	150.000	161(A)	
	27 cis-1,2-Dichloroethene	96	5.112	5.109	(0.779)	773324	150.000	149	
	28 2,2-Dichloropropane	77	5.282	5.286	(0.805)	1011771	150.000	161(A)	
	29 Cyclohexane	56	5.421	5.421	(0.826)	1309564	150.000	164(A)	
	30 Bromochloromethane	128	5.430	5.427	(0.827)	274689	150.000	135	
	31 Chloroform	83	5.585	5.579	(0.851)	1361251	150.000	147	
	32 Carbon Tetrachloride	117	5.748	5.752	(0.796)	1050880	150.000	158(A)	
	33 Tetrahydrofuran	42	5.797	5.797	(0.883)	1453385	750.000	760(A)	
	34 1,1,1-Trichloroethane	97	5.855	5.852	(0.892)	1288725	150.000	156(A)	
$	35 Dibromofluoromethane	113	5.855	5.849	(0.892)	191332	50.0000	50.9	
	36 1,1-Dichloropropene	75	6.038	6.042	(0.836)	1115196	150.000	151(A)	
	37 2-Butanone	43	6.044	6.045	(0.921)	1914241	750.000	746	
	38 Benzene	78	6.382	6.382	(0.884)	2870370	150.000	140	
	39 Propionitrile	54	6.437	6.427	(0.980)	1195669	1500.00	1380	
	40 Methacrylonitrile	41	6.466	6.460	(0.985)	4118951	1500.00	1360	
$	41 1,2-Dichloroethane-D4	65	6.568	6.566	(1.000)	256600	50.0000	51.6	
*	42 Pentafluorobenzene	168	6.565	6.566	(1.000)	410251	50.0000		
	43 Tertiary-amyl methyl ether	73	6.604	6.601	(1.006)	1866049	150.000	160(A)	
	44 Isobutyl Alcohol	43	6.816	6.810	(1.038)	743759	3000.00	2620	
	45 1,2-Dichloroethane	62	6.655	6.659	(0.922)	1046706	150.000	145	
	46 Methylcyclohexane	83	7.134	7.128	(1.087)	1457913	150.000	166(A)	
	47 Trichloroethene	95	7.157	7.154	(0.991)	789867	150.000	148	
*	48 1,4-Difluorobenzene	114	7.221	7.218	(1.000)	699406	50.0000		
	49 Dibromomethane	93	7.649	7.649	(1.059)	484837	150.000	149	
	50 1,2-Dichloropropane	63	7.777	7.771	(1.077)	798361	150.000	149	
	51 Bromodichloromethane	83	7.874	7.874	(1.090)	1013284	150.000	161(A)	
	52 1,4-Dioxane	88	8.109	8.106	(1.123)	204190	3000.00	1970	
	53 Methyl Methacrylate	41	8.099	8.096	(1.122)	719334	150.000	170(A)	
	54 2-Chloroethylvinylether	63	8.552	8.550	(1.184)	382511	150.000	165(A)	
	55 cis-1,3-dichloropropene	75	8.588	8.587	(1.189)	1249276	150.000	167(A)	
$	56 Toluene-D8	98	8.787	8.787	(1.217)	802199	50.0000	50.0	
	57 Toluene	91	8.842	8.842	(1.224)	2838340	150.000	130	
	58 Tetrachloroethene	164	9.247	9.244	(0.883)	595033	150.000	146	
	59 4-methyl-2-pentanone	43	9.272	9.270	(1.284)	3317372	750.000	720	
	60 trans-1,3-Dichloropropene	75	9.301	9.302	(1.288)	1160342	150.000	168(A)	
	61 1,1,2-Trichloroethane	83	9.462	9.459	(1.310)	586435	150.000	154(A)	
	62 Ethyl Methacrylate	69	9.504	9.501	(1.316)	1143897	150.000	174(A)	
	63 Dibromochloromethane	129	9.639	9.639	(0.920)	724523	150.000	169(A)	
	64 1,3-Dichloropropane	76	9.739	9.736	(0.930)	1289327	150.000	149	
	65 1,2-Dibromoethane	107	9.867	9.865	(1.366)	692956	150.000	156(A)	
	66 2-Hexanone	43	10.173	10.170	(0.971)	2627800	750.000	778(A)	
*	67 Chlorobenzene-D5	117	10.475	10.475	(1.000)	617937	50.0000		
	68 Chlorobenzene	112	10.497	10.495	(1.002)	1948450	150.000	140	
	69 Ethylbenzene	91	10.552	10.553	(1.007)	3314838	150.000	136	
	70 1,1,1,2-Tetrachloroethane	131	10.591	10.588	(1.011)	683871	150.000	158(A)	
	71 m+p-Xylenes	91	10.748	10.746	(1.026)	4527675	300.000	256	
	72 o-Xylene	91	11.314	11.308	(1.080)	2704858	150.000	151(A)	
	73 Bromoform	173	11.391	11.392	(1.087)	498539	150.000	182(A)	
	74 Styrene	104	11.382	11.379	(1.087)	2116606	150.000	158(A)	
	75 Isopropylbenzene	105	11.719	11.717	(0.880)	3168395	150.000	144	
$	76 P-Bromofluorobenzene	95	12.044	12.041	(1.668)	305137	50.0000	51.0	
	77 Bromobenzene	156	12.153	12.151	(0.912)	786991	150.000	142	

Data File: \\target_server\gg\chem\gcms-c.i\C100421.b\C1013.D
Report Date: 09-Oct-2021 16:27

			QUANT SIG					AMOUNTS		
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)	REVIEW CODE
	78	cis-1,4-Dichloro-2-Butene	53	12.137	12.138	(0.911)	324364	150.000	165(A)	
	79	N-Propylbenzene	91	12.224	12.221	(0.918)	3594201	150.000	129	
	80	1,1,2,2-Tetrachloroethane	83	12.311	12.308	(0.924)	944647	150.000	149	
	81	2-Chlorotoluene	91	12.385	12.382	(0.930)	2391781	150.000	139	
	82	1,2,3-Trichloropropane	75	12.449	12.446	(0.935)	879712	150.000	149	
	83	1,3,5-Trimethylbenzene	105	12.465	12.463	(0.936)	2660355	150.000	145	
	84	trans-1,4-Dichloro-2-Butene	53	12.510	12.511	(0.939)	341730	150.000	164(A)	
	85	4-Chlorotoluene	91	12.581	12.578	(0.944)	2470298	150.000	138	
	86	tert-Butylbenzene	119	12.819	12.819	(0.962)	2310889	150.000	150	
	87	1,2,4-Trimethylbenzene	105	12.903	12.900	(0.969)	2704851	150.000	144	
	88	sec-Butylbenzene	105	13.022	13.019	(0.978)	3242652	150.000	138	
	89	P-Isopropyltoluene	119	13.189	13.189	(0.990)	2685964	150.000	147	
	90	1,3-Dichlorobenzene	146	13.237	13.234	(0.994)	1500742	150.000	139	
*	91	1,4-Dichlorobenzene-D4	152	13.321	13.318	(1.000)	316977	50.0000		
	92	1,4-Dichlorobenzene	146	13.337	13.334	(1.001)	1526999	150.000	136	
	93	1,2,3-Trimethylbenzene	105	13.378	13.376	(1.004)	2748938	150.000	135	
	95	N-Butylbenzene	91	13.645	13.646	(1.024)	2698432	150.000	143	
	96	1,2-Dichlorobenzene	146	13.784	13.784	(1.035)	1442922	150.000	140	
	97	1,2-Dibromo-3-Chloropropane	157	14.623	14.623	(1.098)	193071	150.000	173(A)	
	98	1,3,5-Trichlorobenzene	180	14.661	14.659	(1.101)	1131084	150.000	148	
	99	1,2,4-Trichlorobenzene	180	15.304	15.308	(1.149)	1015394	150.000	154(A)	
	100	Hexachlorobutadiene	225	15.295	15.295	(1.148)	458601	150.000	153(A)	
	101	Naphthalene	128	15.626	15.623	(1.173)	2488266	150.000	158(A)	
	102	1,2,3-Trichlorobenzene	180	15.806	15.806	(1.187)	998225	150.000	151(A)	
M	103	1,2-Dichloroethylene (total)	96				1494561	150.000	290	
M	104	Xylenes (total)	91				7232533	150.000	407	
M	105	Total Alkylbenzenes	100				19897344	150.000	996	

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.


Data File: \\target_server\gg\chem\gcms-c,i\C100421.b\C1013.D
Date : 04-OCT-2021 10:41
Client ID:
Sample Info: WG307158-6
Purge Volume: 5.0
Column phase: RTX-VMS
Instrument: gcms-c,i
Operator: HG
Column diameter: 0.18
Y (x10^6)
Min
-Dichlorodifluoromethane (1.412)
-Chloromethane (1.579)
-Vinyl chloride (1.643)
-Bromomethane (1.916)
-Chloroethane (2.013)
-Trichlorofluoromethane (2.148)
-Diethyl Ether (2.444)
-1,1-Dichloroethene (2.630)+
-Iodomethane (2.768)
-Acrolein (2.977)
-Allyl Chloride (3.129)
-Methylene chloride (3.247)
-Acetone (3.312)
-trans-1,2-Dichloroethene (3.434)+
-Methyl tert-butyl ether (3.592)
-Tertiary-butyl alcohol (3.752)
-Acetonitrile (3.881)
-Di-isopropyl ether (4.119)
-Chloroprene (4.222)+
-Acrylonitrile (4.325)
-Ethyl tertiary-butyl ethe (4.678)+
-cis-1,2-Dichloroethene (5.112)
-2,2-Dichloropropane (5.283)
-Cyclohexane (5.421)+
-Chloroform (5.585)
-Carbon Tetrachloride (5.797)+
-1,1-Dichloropropene (6.042)+
-Benzene (6.382)
-1,2-Dichloroethane-D4 (6.598)+
-Isobutyl Alcohol (6.816)
-Methylcyclohexane (7.144)+
-1,4-Difluorobenzene (7.222)
-Dibromomethane (7.652)
-1,4-Dichloropropane (7.775)
-Bromodichloromethane (7.874)
-1,4-Dioxane (8.099)+
-2-Chloroethylvinylether (8.553)
-cis-1,3-Dichloropropene (8.588)
-Toluene-D8 (8.787)
-Toluene (8.842)
-1,1,2-Trichloroethane (9.463)
-Ethyl Methacrylate (9.504)
-Dibromochloromethane (9.640)
-1,3-Dichloropropane (9.739)
-1,2-Dibromoethane (9.868)
-2-Hexanone (10.173)
-Chlorobenzene-D5 (10.495)+
-Ethylbenzene (10.596)+
m+p-Xylenes (10.749)
-o-Xylene (11.311)
-Bromoform (11.385)+
-Isopropylbenzene (11.720)
-P-Bromofluorobenzene (12.045)
-Bromobenzene (12.151)+
-N-Propylbenzene (12.221)
-1,1,2,2-Tetrachloroethane (12.341)
-2-Chlorotoluene (12.385)
-trans-1,4-Dichloro-2-Bute (12.514)
-4-Chlorotoluene (12.578)
1,2,3-Trichloropropane (12.463)+
-tert-Butylbenzene (12.819)
-sec-Butylbenzene (13.022)
1,2,4-Trimethylbenzene (12.903)
-1,3-Dichlorobenzene (13.128)
-1,4-Dichlorobenzene-D4 (13.334)+
P-Isopropyltoluene (13.189)
-1,2-Dichlorobenzene (13.784)
-1,2-Dibromo-3-Chloropropa (14.623)
-1,3,5-Trichlorobenzene (14.662)
1,2,4-Trichlorobenzene (15.302)+
-Naphthalene (15.628)
-1,2,3-Trichlorobenzene (15.806)
-1,2-Dichloroethylene (tot (17.080)
\\target_server\gg\chem\gcms-c,i\C100421.b\C1013.D
Propionitrile (6.466)+
Tetrachloroethene (9.273)+

Data File: \\target_server\gg\chem\gcms-c.i\C100421.b\C1014.D
Report Date: 09-Oct-2021 16:27

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-c.i\C100421.b\C1014.D
Lab Smp Id: WG307158-5
Inj Date : 04-OCT-2021 11:12
Operator : HG   Inst ID: gcms-c.i
Smp Info : WG307158-5
Misc Info :
Comment   : SW846 5030
Method   : \\target_server\gg\chem\gcms-c.i\C100421.b\C8A05(53).m
Meth Date : 04-Oct-2021 13:37 jsampson   Quant Type: ISTD
Cal Date : 04-OCT-2021 11:12   Cal File: C1014.D
Als bottle: 7   Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE   Compound Sublist: all.sub
Target Version: 4.12
Processing Host: T7-O360

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

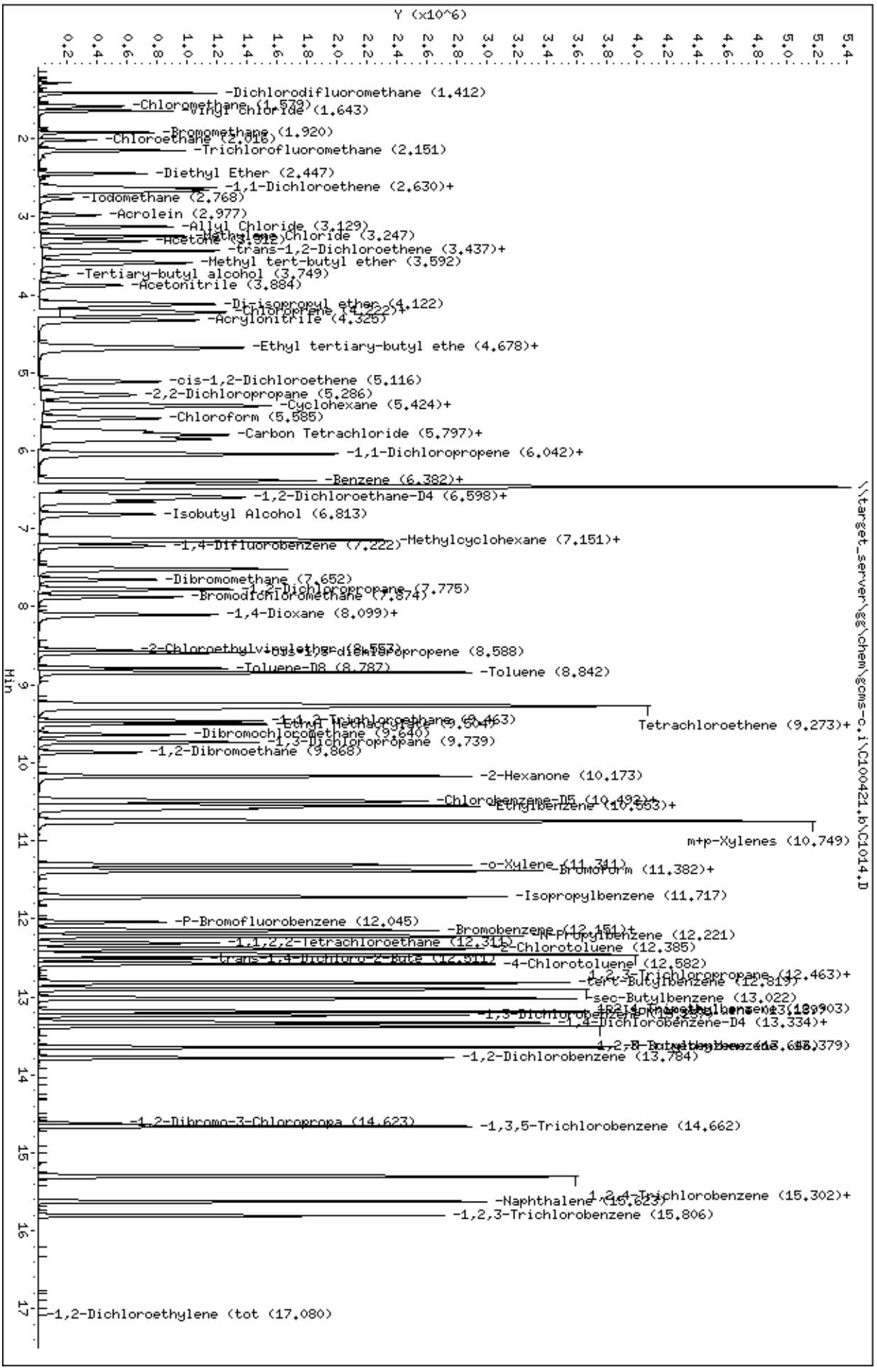
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)	REVIEW CODE
1	Dichlorodifluoromethane	85	1.411	1.412	(0.215)	694313	100.000	96.0	
2	Chloromethane	50	1.578	1.579	(0.240)	711585	100.000	93.6	
3	Vinyl chloride	62	1.643	1.643	(0.250)	585567	100.000	98.8	
4	Bromomethane	94	1.919	1.920	(0.292)	300759	100.000	93.2	
5	Chloroethane	64	2.016	2.025	(0.307)	266596	100.000	82.5	
6	Trichlorofluoromethane	101	2.151	2.154	(0.328)	809891	100.000	94.8	
7	Diethyl Ether	59	2.446	2.444	(0.373)	364930	100.000	97.5	
8	1,1-Dichloroethene	96	2.630	2.630	(0.401)	398464	100.000	97.1	
9	Carbon Disulfide	76	2.655	2.656	(0.405)	884594	100.000	97.4	
10	Freon-113	151	2.675	2.675	(0.407)	303955	100.000	99.9	
11	Iodomethane	142	2.771	2.768	(0.422)	295804	100.000	116	
12	Acrolein	56	2.977	2.977	(0.453)	368943	500.000	499	
13	Allyl Chloride	41	3.128	3.129	(0.476)	563921	100.000	97.5	
14	Methylene Chloride	84	3.247	3.244	(0.495)	513544	100.000	78.0	
15	Acetone	43	3.308	3.312	(0.504)	1007012	500.000	458	
16	trans-1,2-Dichloroethene	96	3.433	3.434	(0.523)	510587	100.000	95.4	
17	Methyl Acetate	43	3.469	3.473	(0.528)	466451	100.000	105	
18	Methyl tert-butyl ether	73	3.588	3.592	(0.547)	1417582	100.000	106	
19	Tertiary-butyl alcohol	59	3.745	3.749	(0.571)	265067	500.000	404	
20	Acetonitrile	41	3.880	3.874	(0.591)	803154	1000.00	850	
21	Di-isopropyl ether	45	4.122	4.119	(0.628)	1620061	100.000	105	
22	Chloroprene	53	4.218	4.215	(0.643)	868677	100.000	106	
23	1,1-Dichloroethane	63	4.247	4.244	(0.647)	991781	100.000	99.2	

Data File: \\target_server\gg\chem\gcms-c.i\C100421.b\C1014.D
Report Date: 09-Oct-2021 16:27

			QUANT SIG					AMOUNTS		
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)	REVIEW CODE
	24	Acrylonitrile	52	4.327	4.320	(0.659)	951341	500.000	510	
	25	Ethyl tertiary-butyl ether	59	4.681	4.678	(0.713)	1492724	100.000	110	
	26	Vinyl Acetate	43	4.678	4.678	(0.648)	1033790	100.000	106	
	27	cis-1,2-Dichloroethene	96	5.115	5.109	(0.779)	556266	100.000	102	
	28	2,2-Dichloropropane	77	5.285	5.286	(0.805)	706230	100.000	107	
	29	Cyclohexane	56	5.421	5.421	(0.826)	908778	100.000	109	
	30	Bromochloromethane	128	5.430	5.427	(0.827)	200277	100.000	93.7	
	31	Chloroform	83	5.585	5.579	(0.851)	959084	100.000	99.0	
	32	Carbon Tetrachloride	117	5.752	5.752	(0.797)	726724	100.000	105	
	33	Tetrahydrofuran	42	5.797	5.797	(0.883)	1040757	500.000	519	
	34	1,1,1-Trichloroethane	97	5.851	5.852	(0.891)	915153	100.000	105	
$	35	Dibromofluoromethane	113	5.851	5.849	(0.891)	194945	50.0000	49.5	
	36	1,1-Dichloropropene	75	6.041	6.042	(0.837)	772270	100.000	101	
	37	2-Butanone	43	6.044	6.045	(0.921)	1404431	500.000	522	
	38	Benzene	78	6.382	6.382	(0.884)	2102481	100.000	98.9	
	39	Propionitrile	54	6.430	6.427	(0.979)	881056	1000.00	969	
	40	Methacrylonitrile	41	6.462	6.460	(0.984)	3120097	1000.00	982	
$	41	1,2-Dichloroethane-D4	65	6.572	6.566	(1.001)	253828	50.0000	48.7	
*	42	Pentafluorobenzene	168	6.565	6.566	(1.000)	429989	50.0000		
	43	Tertiary-amyl methyl ether	73	6.601	6.601	(1.005)	1296986	100.000	106	
	44	Isobutyl Alcohol	43	6.813	6.810	(1.038)	590748	2000.00	1980	
	45	1,2-Dichloroethane	62	6.658	6.659	(0.922)	728415	100.000	97.0	
	46	Methylcyclohexane	83	7.134	7.128	(1.087)	1012869	100.000	110	
	47	Trichloroethene	95	7.157	7.154	(0.991)	554218	100.000	100	
*	48	1,4-Difluorobenzene	114	7.221	7.218	(1.000)	725663	50.0000		
	49	Dibromomethane	93	7.652	7.649	(1.060)	336358	100.000	99.7	
	50	1,2-Dichloropropane	63	7.774	7.771	(1.077)	559189	100.000	101	
	51	Bromodichloromethane	83	7.874	7.874	(1.090)	697361	100.000	107	
	52	1,4-Dioxane	88	8.109	8.106	(1.123)	174626	2000.00	1620	
	53	Methyl Methacrylate	41	8.099	8.096	(1.122)	493882	100.000	113	
	54	2-Chloroethylvinylether	63	8.552	8.550	(1.184)	276180	100.000	115	
	55	cis-1,3-dichloropropene	75	8.588	8.587	(1.189)	870714	100.000	112	
$	56	Toluene-D8	98	8.787	8.787	(1.217)	824072	50.0000	49.5	
	57	Toluene	91	8.842	8.842	(1.224)	2131392	100.000	94.4	
	58	Tetrachloroethene	164	9.247	9.244	(0.883)	418861	100.000	101	
	59	4-methyl-2-pentanone	43	9.272	9.270	(1.284)	2511595	500.000	525	
	60	trans-1,3-Dichloropropene	75	9.301	9.302	(1.288)	794845	100.000	111	
	61	1,1,2-Trichloroethane	83	9.462	9.459	(1.310)	406920	100.000	103	
	62	Ethyl Methacrylate	69	9.504	9.501	(1.316)	793847	100.000	116	
	63	Dibromochloromethane	129	9.639	9.639	(0.920)	489469	100.000	112	
	64	1,3-Dichloropropane	76	9.739	9.736	(0.930)	896907	100.000	101	
	65	1,2-Dibromoethane	107	9.867	9.865	(1.366)	482964	100.000	104	
	66	2-Hexanone	43	10.173	10.170	(0.971)	1937238	500.000	562	
*	67	Chlorobenzene-D5	117	10.475	10.475	(1.000)	630304	50.0000		
	68	Chlorobenzene	112	10.497	10.495	(1.002)	1383590	100.000	97.3	
	69	Ethylbenzene	91	10.555	10.553	(1.008)	2461215	100.000	99.0	
	70	1,1,1,2-Tetrachloroethane	131	10.591	10.588	(1.011)	472087	100.000	107	
	71	m+p-Xylenes	91	10.752	10.746	(1.026)	3502327	200.000	194	
	72	o-Xylene	91	11.311	11.308	(1.080)	1976286	100.000	108	
	73	Bromoform	173	11.391	11.392	(1.087)	327059	100.000	117	
	74	Styrene	104	11.382	11.379	(1.087)	1527862	100.000	112	
	75	Isopropylbenzene	105	11.719	11.717	(0.880)	2337824	100.000	106	
$	76	P-Bromofluorobenzene	95	12.041	12.041	(1.667)	307076	50.0000	49.5	
	77	Bromobenzene	156	12.153	12.151	(0.912)	546082	100.000	97.9	

Data File: \\target_server\gg\chem\gcms-c.i\C100421.b\C1014.D
Report Date: 09-Oct-2021 16:27

			QUANT SIG					AMOUNTS		
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)	REVIEW CODE
	78	cis-1,4-Dichloro-2-Butene	53	12.141	12.138	(0.911)	218225	100.000	111	
	79	N-Propylbenzene	91	12.221	12.221	(0.917)	2738954	100.000	97.9	
	80	1,1,2,2-Tetrachloroethane	83	12.311	12.308	(0.924)	646471	100.000	102	
	81	2-Chlorotoluene	91	12.385	12.382	(0.930)	1729237	100.000	100	
	82	1,2,3-Trichloropropane	75	12.449	12.446	(0.935)	601758	100.000	102	
	83	1,3,5-Trimethylbenzene	105	12.462	12.463	(0.936)	1935715	100.000	105	
	84	trans-1,4-Dichloro-2-Butene	53	12.510	12.511	(0.939)	228407	100.000	109	
	85	4-Chlorotoluene	91	12.581	12.578	(0.944)	1801508	100.000	100	
	86	tert-Butylbenzene	119	12.819	12.819	(0.962)	1658079	100.000	107	
	87	1,2,4-Trimethylbenzene	105	12.903	12.900	(0.969)	1988966	100.000	105	
	88	sec-Butylbenzene	105	13.022	13.019	(0.978)	2412529	100.000	102	
	89	P-Isopropyltoluene	119	13.189	13.189	(0.990)	1979054	100.000	108	
	90	1,3-Dichlorobenzene	146	13.237	13.234	(0.994)	1066620	100.000	98.2	
*	91	1,4-Dichlorobenzene-D4	152	13.321	13.318	(1.000)	318338	50.0000		
	92	1,4-Dichlorobenzene	146	13.337	13.334	(1.001)	1073669	100.000	95.2	
	93	1,2,3-Trimethylbenzene	105	13.378	13.376	(1.004)	2026537	100.000	99.0	
	95	N-Butylbenzene	91	13.645	13.646	(1.024)	1992244	100.000	105	
	96	1,2-Dichlorobenzene	146	13.784	13.784	(1.035)	1018811	100.000	98.2	
	97	1,2-Dibromo-3-Chloropropane	157	14.626	14.623	(1.098)	129884	100.000	116	
	98	1,3,5-Trichlorobenzene	180	14.661	14.659	(1.101)	790459	100.000	103	
	99	1,2,4-Trichlorobenzene	180	15.308	15.308	(1.149)	705547	100.000	107	
	100	Hexachlorobutadiene	225	15.295	15.295	(1.148)	310524	100.000	103	
	101	Naphthalene	128	15.626	15.623	(1.173)	1850163	100.000	117	
	102	1,2,3-Trichlorobenzene	180	15.806	15.806	(1.187)	693544	100.000	105	
M	103	1,2-Dichloroethylene (total)	96				1066853	100.000	198	
M	104	Xylenes (total)	91				5478613	100.000	302	
M	105	Total Alkylbenzenes	100				14705541	100.000	730	


Data File: \\target_server\gg\chem\gcms-c,i\C100421.b\C1014.D
Date : 04-OCT-2021 11:12
Client ID:
Sample Info: WG307158-5
Purge Volume: 5.0
Column phase: RTX-VMS
Instrument: gcms-c,i
Operator: HG
Column diameter: 0.18
\\target_server\gg\chem\gcms-c,i\C100421.b\C1014.D
Y (x10^6)
Min
-Dichlorodifluoromethane (1.412)
-Chloromethane (1.573)
-Vinyl Chloride (1.643)
-Bromomethane (1.920)
-Chloroethane (2.016)
-Trichlorofluoromethane (2.151)
-Diethyl Ether (2.447)
-1,1-Dichloroethene (2.630)+
-Iodomethane (2.768)
-Acrolein (2.977)
-Allyl Chloride (3.129)
-Methylene Chloride (3.247)
-Acetone (3.312)
-trans-1,2-Dichloroethene (3.437)+
-Methyl tert-butyl ether (3.592)
-Tertiary-butyl alcohol (3.749)
-Acetonitrile (3.884)
-Di-isopropyl ether (4.122)
-Chloroprene (4.222)+
-Acrylonitrile (4.325)
-Ethyl tertiary-butyl ethe (4.678)+
-cis-1,2-Dichloroethene (5.116)
-2,2-Dichloropropane (5.286)
-Cyclohexane (5.424)+
-Chloroform (5.585)
-Carbon Tetrachloride (5.797)+
-1,1-Dichloropropene (6.042)+
-Benzene (6.382)+
-1,2-Dichloroethane-D4 (6.598)+
-Isobutyl Alcohol (6.813)
-Methylcyclohexane (7.151)+
-1,4-Difluorobenzene (7.222)
-Dibromomethane (7.652)
-1,2-Dichloropropane (7.775)
-Bromodichloromethane (7.874)
-1,4-Dioxane (8.099)+
-2-Chloroethylvinylether (8.557)
-cis-1,3-Dichloropropene (8.588)
-Toluene-D8 (8.787)
-Toluene (8.842)
-1,1,2-Trichloroethane (9.463)
Ethyl Methacrylate (9.504)
Tetrachloroethene (9.273)+
-Dibromochloromethane (9.640)
-1,3-Dichloropropane (9.739)
-1,2-Dibromoethane (9.868)
-2-Hexanone (10.173)
-Chlorobenzene-D5 (10.492)+
-Ethylbenzene (10.553)+
m+p-Xylenes (10.749)
-o-Xylene (11.341)
-Bromoform (11.382)+
-Isopropylbenzene (11.717)
-P-Bromofluorobenzene (12.045)
-Bromobenzene (12.151)+
-N-Propylbenzene (12.221)
-1,1,2,2-Tetrachloroethane (12.311)
2-Chlorotoluene (12.385)
-trans-1,4-Dichloro-2-Bute (12.511)
-4-Chlorotoluene (12.582)
1,2,3-Trichloropropane (12.463)+
-tert-Butylbenzene (12.819)
sec-Butylbenzene (13.022)
-1,3-Dichlorobenzene (13.228)
-1,4-Dichlorobenzene-D4 (13.334)+
-1,2-Dichlorobenzene (13.784)
-1,2-Dibromo-3-Chloropropa (14.623)
-1,3,5-Trichlorobenzene (14.662)
1,2,4-Trichlorobenzene (15.302)+
-Naphthalene (15.623)
-1,2,3-Trichlorobenzene (15.806)
-1,2-Dichloroethylene (tot (17.080)

Data File: \\target_server\gg\chem\gcms-c.i\C100421.b\C1015.D
Report Date: 09-Oct-2021 16:27

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-c.i\C100421.b\C1015.D
Lab Smp Id: WG307158-7
Inj Date : 04-OCT-2021 11:43
Operator : HG   Inst ID: gcms-c.i
Smp Info : WG307158-7
Misc Info :
Comment   : SW846 5030
Method   : \\target_server\gg\chem\gcms-c.i\C100421.b\C8A05(53).m
Meth Date : 04-Oct-2021 13:37 jsampson   Quant Type: ISTD
Cal Date : 04-OCT-2021 11:43   Cal File: C1015.D
Als bottle: 8   Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE   Compound Sublist: all.sub
Target Version: 4.12
Processing Host: T7-O360

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

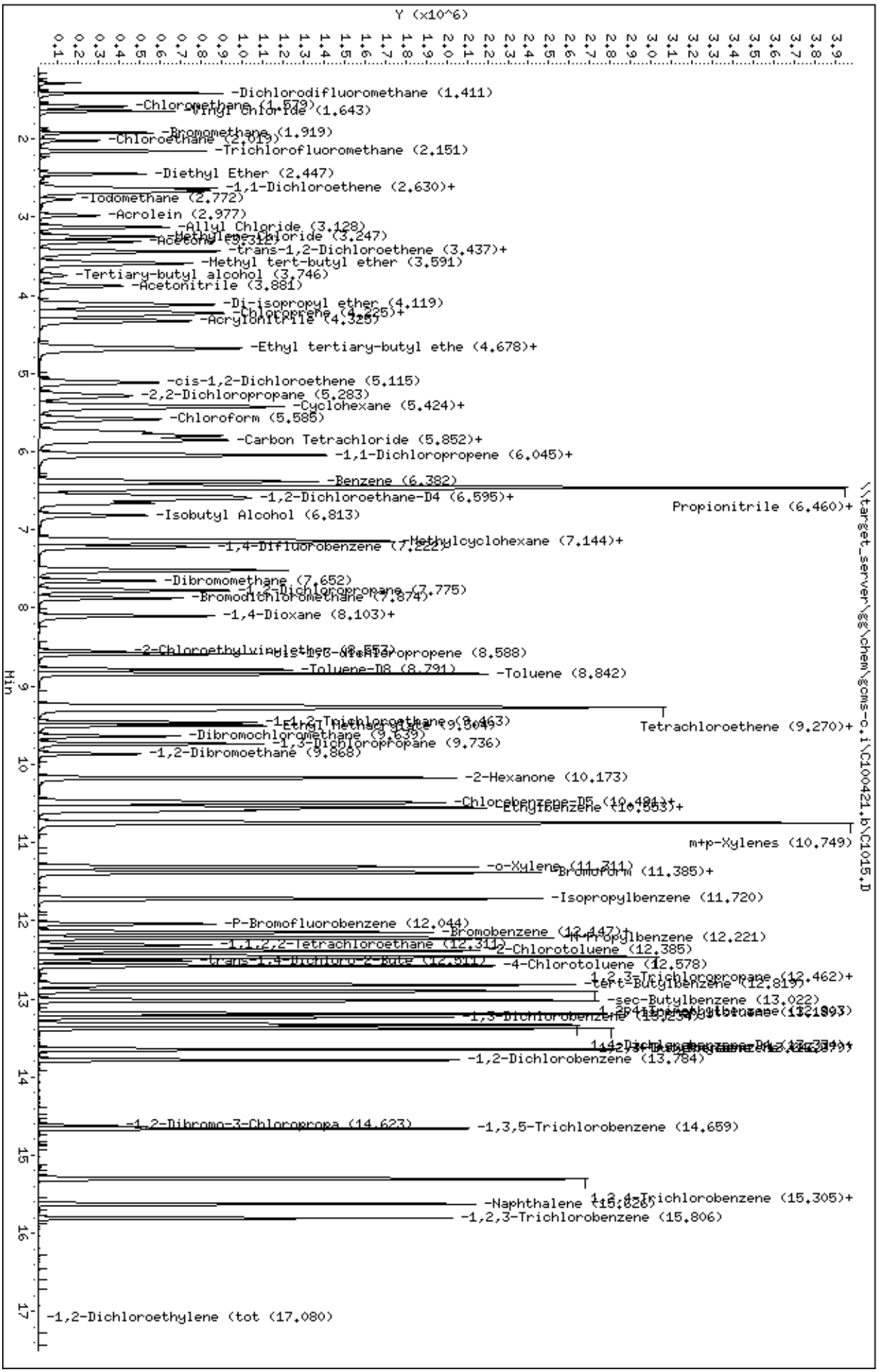
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)	REVIEW CODE
1	Dichlorodifluoromethane	85	1.411	1.412	(0.215)	523877	75.0000	73.3	
2	Chloromethane	50	1.581	1.579	(0.241)	540607	75.0000	72.0	
3	Vinyl chloride	62	1.642	1.643	(0.250)	432511	75.0000	73.9	
4	Bromomethane	94	1.919	1.920	(0.292)	218243	75.0000	68.5	
5	Chloroethane	64	2.019	2.025	(0.308)	222566	75.0000	69.7	
6	Trichlorofluoromethane	101	2.154	2.154	(0.328)	594558	75.0000	70.4	
7	Diethyl Ether	59	2.446	2.444	(0.373)	267565	75.0000	72.4	
8	1,1-Dichloroethene	96	2.630	2.630	(0.401)	291152	75.0000	71.8	
9	Carbon Disulfide	76	2.655	2.656	(0.405)	642455	75.0000	71.6	
10	Freon-113	151	2.675	2.675	(0.407)	219349	75.0000	73.0	
11	Iodomethane	142	2.771	2.768	(0.422)	212141	75.0000	84.6	
12	Acrolein	56	2.977	2.977	(0.453)	261885	375.000	359	
13	Allyl Chloride	41	3.128	3.129	(0.476)	409437	75.0000	71.6	
14	Methylene Chloride	84	3.247	3.244	(0.495)	327901	75.0000	50.4	
15	Acetone	43	3.311	3.312	(0.504)	683541	375.000	314	
16	trans-1,2-Dichloroethene	96	3.437	3.434	(0.524)	379972	75.0000	71.9	
17	Methyl Acetate	43	3.469	3.473	(0.528)	324843	75.0000	74.3	
18	Methyl tert-butyl ether	73	3.591	3.592	(0.547)	1039461	75.0000	78.8	
19	Tertiary-butyl alcohol	59	3.749	3.749	(0.571)	178312	375.000	275	
20	Acetonitrile	41	3.877	3.874	(0.591)	575598	750.000	616	
21	Di-isopropyl ether	45	4.118	4.119	(0.627)	1196407	75.0000	78.8	
22	Chloroprene	53	4.218	4.215	(0.643)	627503	75.0000	77.7	
23	1,1-Dichloroethane	63	4.250	4.244	(0.647)	723803	75.0000	73.3	

Data File: \\target_server\gg\chem\gcms-c.i\C100421.b\C1015.D
Report Date: 09-Oct-2021 16:27

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)	REVIEW CODE
	24 Acrylonitrile	52	4.324	4.320	(0.659)	668422	375.000	363	
	25 Ethyl tertiary-butyl ether	59	4.678	4.678	(0.713)	1073900	75.0000	80.2	
	26 Vinyl Acetate	43	4.678	4.678	(0.648)	737224	75.0000	76.3	
	27 cis-1,2-Dichloroethene	96	5.115	5.109	(0.779)	405015	75.0000	75.3	
	28 2,2-Dichloropropane	77	5.289	5.286	(0.806)	485416	75.0000	74.6	
	29 Cyclohexane	56	5.417	5.421	(0.825)	668465	75.0000	80.8	
	30 Bromochloromethane	128	5.430	5.427	(0.827)	153406	75.0000	72.6	
	31 Chloroform	83	5.584	5.579	(0.851)	695834	75.0000	72.7	
	32 Carbon Tetrachloride	117	5.752	5.752	(0.797)	524942	75.0000	76.7	
	33 Tetrahydrofuran	42	5.800	5.797	(0.883)	733903	375.000	371	
	34 1,1,1-Trichloroethane	97	5.855	5.852	(0.892)	656527	75.0000	76.5	
$	35 Dibromofluoromethane	113	5.851	5.849	(0.891)	198155	50.0000	50.9	
	36 1,1-Dichloropropene	75	6.041	6.042	(0.837)	567647	75.0000	74.6	
	37 2-Butanone	43	6.044	6.045	(0.921)	982599	375.000	370	
	38 Benzene	78	6.382	6.382	(0.884)	1554821	75.0000	73.8	
	39 Propionitrile	54	6.430	6.427	(0.979)	634339	750.000	706	
	40 Methacrylonitrile	41	6.462	6.460	(0.984)	2314347	750.000	737	
$	41 1,2-Dichloroethane-D4	65	6.565	6.566	(1.000)	251987	50.0000	49.0	
*	42 Pentafluorobenzene	168	6.565	6.566	(1.000)	424859	50.0000		
	43 Tertiary-amyl methyl ether	73	6.604	6.601	(1.006)	935253	75.0000	77.7	
	44 Isobutyl Alcohol	43	6.813	6.810	(1.038)	394853	1500.00	1340	
	45 1,2-Dichloroethane	62	6.658	6.659	(0.922)	512547	75.0000	68.9	
	46 Methylcyclohexane	83	7.137	7.128	(1.087)	727467	75.0000	80.2	
	47 Trichloroethene	95	7.157	7.154	(0.991)	404593	75.0000	74.0	
*	48 1,4-Difluorobenzene	114	7.221	7.218	(1.000)	719094	50.0000		
	49 Dibromomethane	93	7.649	7.649	(1.059)	242281	75.0000	72.5	
	50 1,2-Dichloropropane	63	7.774	7.771	(1.077)	408907	75.0000	74.3	
	51 Bromodichloromethane	83	7.874	7.874	(1.090)	500646	75.0000	77.3	
	52 1,4-Dioxane	88	8.108	8.106	(1.123)	122809	1500.00	1150	
	53 Methyl Methacrylate	41	8.099	8.096	(1.122)	346099	75.0000	79.8	
	54 2-Chloroethylvinylether	63	8.552	8.550	(1.184)	187148	75.0000	78.5	
	55 cis-1,3-dichloropropene	75	8.588	8.587	(1.189)	623220	75.0000	81.1	
$	56 Toluene-D8	98	8.790	8.787	(1.217)	821962	50.0000	49.8	
	57 Toluene	91	8.842	8.842	(1.224)	1611127	75.0000	72.0	
	58 Tetrachloroethene	164	9.247	9.244	(0.882)	308757	75.0000	74.7	
	59 4-methyl-2-pentanone	43	9.269	9.270	(1.284)	1856413	375.000	392	
	60 trans-1,3-Dichloropropene	75	9.301	9.302	(1.288)	568984	75.0000	80.2	
	61 1,1,2-Trichloroethane	83	9.462	9.459	(1.310)	290311	75.0000	73.9	
	62 Ethyl Methacrylate	69	9.504	9.501	(1.316)	565167	75.0000	83.7	
	63 Dibromochloromethane	129	9.639	9.639	(0.920)	349041	75.0000	80.2	
	64 1,3-Dichloropropane	76	9.735	9.736	(0.929)	654362	75.0000	74.4	
	65 1,2-Dibromoethane	107	9.867	9.865	(1.366)	344788	75.0000	75.3	
	66 2-Hexanone	43	10.173	10.170	(0.971)	1394762	375.000	407	
*	67 Chlorobenzene-D5	117	10.478	10.475	(1.000)	626705	50.0000		
	68 Chlorobenzene	112	10.497	10.495	(1.002)	1021599	75.0000	72.2	
	69 Ethylbenzene	91	10.552	10.553	(1.007)	1866704	75.0000	75.5	
	70 1,1,1,2-Tetrachloroethane	131	10.591	10.588	(1.011)	338773	75.0000	77.4	
	71 m+p-Xylenes	91	10.748	10.746	(1.026)	2746604	150.000	153	
	72 o-Xylene	91	11.314	11.308	(1.080)	1481779	75.0000	81.6	
	73 Bromoform	173	11.391	11.392	(1.087)	234211	75.0000	84.4	
	74 Styrene	104	11.382	11.379	(1.086)	1137665	75.0000	83.7	
	75 Isopropylbenzene	105	11.719	11.717	(0.880)	1786902	75.0000	80.0	
$	76 P-Bromofluorobenzene	95	12.044	12.041	(1.668)	309618	50.0000	50.3	
	77 Bromobenzene	156	12.150	12.151	(0.912)	409701	75.0000	72.8	

Data File: \\target_server\gg\chem\gcms-c.i\C100421.b\C1015.D
Report Date: 09-Oct-2021 16:27

			QUANT SIG					AMOUNTS		
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)	REVIEW CODE
	78	cis-1,4-Dichloro-2-Butene	53	12.140	12.138	(0.911)	150005	75.0000	75.4	
	79	N-Propylbenzene	91	12.224	12.221	(0.918)	2142977	75.0000	75.9	
	80	1,1,2,2-Tetrachloroethane	83	12.311	12.308	(0.924)	463235	75.0000	72.1	
	81	2-Chlorotoluene	91	12.385	12.382	(0.930)	1313073	75.0000	75.4	
	82	1,2,3-Trichloropropane	75	12.449	12.446	(0.935)	434254	75.0000	72.8	
	83	1,3,5-Trimethylbenzene	105	12.462	12.463	(0.936)	1473946	75.0000	79.2	
	84	trans-1,4-Dichloro-2-Butene	53	12.510	12.511	(0.939)	157774	75.0000	74.6	
	85	4-Chlorotoluene	91	12.578	12.578	(0.944)	1363021	75.0000	75.0	
	86	tert-Butylbenzene	119	12.819	12.819	(0.962)	1240204	75.0000	79.4	
	87	1,2,4-Trimethylbenzene	105	12.902	12.900	(0.969)	1501154	75.0000	78.7	
	88	sec-Butylbenzene	105	13.021	13.019	(0.978)	1868734	75.0000	78.7	
	89	P-Isopropyltoluene	119	13.189	13.189	(0.990)	1494243	75.0000	80.4	
	90	1,3-Dichlorobenzene	146	13.234	13.234	(0.993)	791833	75.0000	72.2	
*	91	1,4-Dichlorobenzene-D4	152	13.320	13.318	(1.000)	321368	50.0000		
	92	1,4-Dichlorobenzene	146	13.337	13.334	(1.001)	797123	75.0000	70.0	
	93	1,2,3-Trimethylbenzene	105	13.378	13.376	(1.004)	1537732	75.0000	74.4	
	95	N-Butylbenzene	91	13.645	13.646	(1.024)	1531837	75.0000	80.0	
	96	1,2-Dichlorobenzene	146	13.783	13.784	(1.035)	751336	75.0000	71.7	
	97	1,2-Dibromo-3-Chloropropane	157	14.626	14.623	(1.098)	88535	75.0000	78.1	
	98	1,3,5-Trichlorobenzene	180	14.661	14.659	(1.101)	576710	75.0000	74.2	
	99	1,2,4-Trichlorobenzene	180	15.308	15.308	(1.149)	524115	75.0000	78.6	
	100	Hexachlorobutadiene	225	15.291	15.295	(1.148)	229919	75.0000	75.8	
	101	Naphthalene	128	15.626	15.623	(1.173)	1392047	75.0000	87.2	
	102	1,2,3-Trichlorobenzene	180	15.806	15.806	(1.187)	509584	75.0000	76.1	
M	103	1,2-Dichloroethylene (total)	96				784987	75.0000	147	
M	104	Xylenes (total)	91				4228383	75.0000	235	
M	105	Total Alkylbenzenes	100				11253095	75.0000	552	


Data File: \\target_server\gg\chem\gcms-c.i\C100421.b\C1015.D
Date : 04-OCT-2021 11:43
Client ID:
Sample Info: WG307158-7
Purge Volume: 5.0
Column phase: RTX-VMS
Instrument: gcms-c.i
Operator: HG
Column diameter: 0.18
Y (x10^6)
Min
\\target_server\gg\chem\gcms-c.i\C100421.b\C1015.D
-Dichlorodifluoromethane (1.411)
-Chloromethane (1.579)
-Vinyl Chloride (1.643)
-Bromomethane (1.919)
-Chloroethane (2.009)
-Trichlorofluoromethane (2.151)
-Diethyl Ether (2.447)
-1,1-Dichloroethene (2.630)+
-Iodomethane (2.772)
-Acrolein (2.977)
-Allyl Chloride (3.128)
-Methylene Chloride (3.247)
-Acetone (3.312)
-trans-1,2-Dichloroethene (3.437)+
-Methyl tert-butyl ether (3.591)
-Tertiary-butyl alcohol (3.746)
-Acetonitrile (3.881)
-Di-isopropyl ether (4.119)
-Chloroprene (4.225)+
-Acrylonitrile (4.325)
-Ethyl tertiary-butyl ethe (4.678)+
-cis-1,2-Dichloroethene (5.115)
-2,2-Dichloropropane (5.283)
-Cyclohexane (5.424)+
-Chloroform (5.585)
-Carbon Tetrachloride (5.852)+
-1,1-Dichloropropene (6.045)+
-Benzene (6.382)
-1,2-Dichloroethane-D4 (6.595)+
Propionitrile (6.460)+
-Isobutyl Alcohol (6.813)
-Methylcyclohexane (7.144)+
-1,4-Difluorobenzene (7.222)
-Dibromomethane (7.652)
-1,2-Dichloropropane (7.775)
-Bromodichloromethane (7.874)
-1,4-Dioxane (8.103)+
-2-Chloroethylvinylether (8.557)
-cis-1,3-Dichloropropene (8.588)
-Toluene-D8 (8.791)
-Toluene (8.842)
Tetrachloroethene (9.270)+
-1,1,2-Trichloroethane (9.463)
-Ethyl Methacrylate (9.504)
-Dibromochloromethane (9.639)
-1,3-Dichloropropane (9.736)
-1,2-Dibromoethane (9.868)
-2-Hexanone (10.173)
-Chlorobenzene-D5 (10.484)+
-Ethylbenzene (10.553)+
m+p-Xylenes (10.749)
-o-Xylene (11.211)
-Bromoform (11.385)+
-Isopropylbenzene (11.720)
-P-Bromofluorobenzene (12.044)
-Bromobenzene (12.147)
-n-Propylbenzene (12.221)
-1,1,2,2-Tetrachloroethane (12.311)
-2-Chlorotoluene (12.385)
-trans-1,4-Dichloro-2-Bute (12.511)
-4-Chlorotoluene (12.578)
-1,2,3-Trichloropropane (12.462)+
-tert-Butylbenzene (12.819)
-sec-Butylbenzene (13.022)
-1,3-Dichlorobenzene (13.234)
-1,4-Dichlorobenzene-D4 (13.334)+
-1,2-Dichlorobenzene (13.784)
-1,2-Dibromo-3-Chloropropa (14.623)
-1,3,5-Trichlorobenzene (14.659)
-1,2,4-Trichlorobenzene (15.305)+
-Naphthalene (15.826)
-1,2,3-Trichlorobenzene (15.806)
-1,2-Dichloroethylene (tot (17.080)

Data File: \\target_server\gg\chem\gcms-c.i\C100421.b\C1016.D
Report Date: 09-Oct-2021 16:27

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-c.i\C100421.b\C1016.D
Lab Smp Id: WG307158-3
Inj Date : 04-OCT-2021 12:14
Operator : HG   Inst ID: gcms-c.i
Smp Info : WG307158-3
Misc Info :
Comment   : SW846 5030
Method   : \\target_server\gg\chem\gcms-c.i\C100421.b\C8A05(53).m
Meth Date : 04-Oct-2021 13:37 jsampson   Quant Type: ISTD
Cal Date : 04-OCT-2021 12:14   Cal File: C1016.D
Als bottle: 9   Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE   Compound Sublist: all.sub
Target Version: 4.12
Processing Host: T7-O360

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

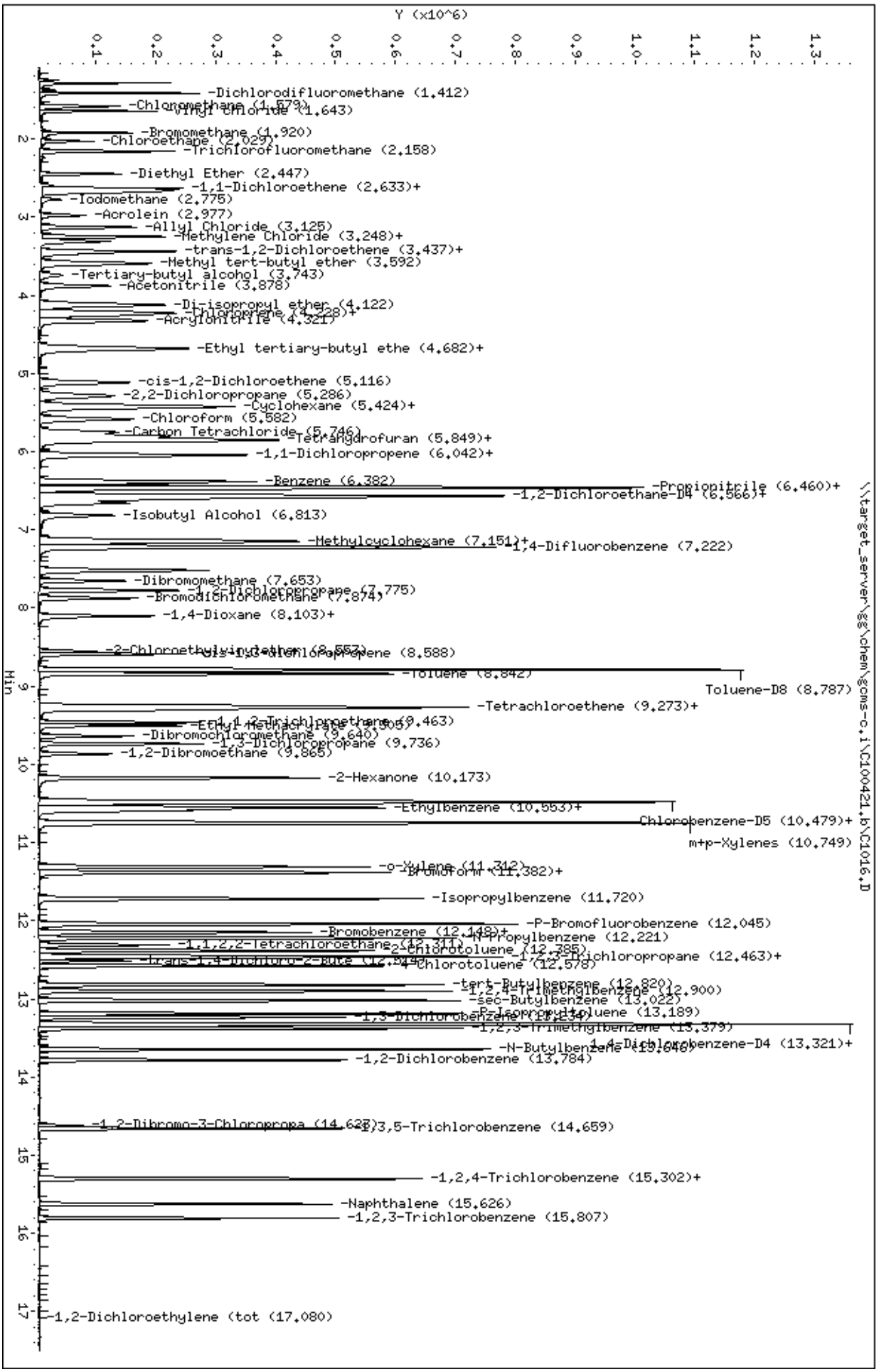
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)	REVIEW CODE
1	Dichlorodifluoromethane	85	1.411	1.412	(0.215)	145544	20.0000	21.1	
2	Chloromethane	50	1.578	1.579	(0.241)	145821	20.0000	20.3	
3	Vinyl chloride	62	1.643	1.643	(0.250)	118127	20.0000	21.0	
4	Bromomethane	94	1.919	1.920	(0.293)	58705	20.0000	19.4	
5	Chloroethane	64	2.028	2.025	(0.309)	65644	20.0000	21.3	
6	Trichlorofluoromethane	101	2.157	2.154	(0.329)	161509	20.0000	20.0	
7	Diethyl Ether	59	2.446	2.444	(0.373)	69330	20.0000	19.7	
8	1,1-Dichloroethene	96	2.633	2.630	(0.401)	78810	20.0000	20.3	
9	Carbon Disulfide	76	2.655	2.656	(0.405)	163215	20.0000	19.2	
10	Freon-113	151	2.678	2.675	(0.408)	59456	20.0000	20.6	
11	Iodomethane	142	2.774	2.768	(0.423)	40846	20.0000	17.4	
12	Acrolein	56	2.977	2.977	(0.454)	64576	100.000	93.6	
13	Allyl Chloride	41	3.128	3.129	(0.477)	102846	20.0000	19.0	
14	Methylene Chloride	84	3.247	3.244	(0.495)	103621	20.0000	17.1	
15	Acetone	43	3.311	3.312	(0.505)	153149	100.000	77.2	
16	trans-1,2-Dichloroethene	96	3.434	3.434	(0.523)	100224	20.0000	19.9	
17	Methyl Acetate	43	3.475	3.473	(0.530)	78605	20.0000	19.0	
18	Methyl tert-butyl ether	73	3.591	3.592	(0.547)	246467	20.0000	19.6	
19	Tertiary-butyl alcohol	59	3.742	3.749	(0.570)	47186	100.000	79.3	
20	Acetonitrile	41	3.877	3.874	(0.591)	160831	200.000	183	
21	Di-isopropyl ether	45	4.122	4.119	(0.628)	277105	20.0000	19.2	
22	Chloroprene	53	4.215	4.215	(0.642)	153623	20.0000	19.9	
23	1,1-Dichloroethane	63	4.250	4.244	(0.648)	186478	20.0000	19.8	

Data File: \\target_server\gg\chem\gcms-c.i\C100421.b\C1016.D
Report Date: 09-Oct-2021 16:27

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)	REVIEW CODE
	24 Acrylonitrile	52	4.324	4.320	(0.659)	160978	100.000	92.7	
	25 Ethyl tertiary-butyl ether	59	4.678	4.678	(0.713)	248814	20.0000	19.5	
	26 Vinyl Acetate	43	4.681	4.678	(0.649)	194696	20.0000	21.3	
	27 cis-1,2-Dichloroethene	96	5.112	5.109	(0.779)	102819	20.0000	20.0	
	28 2,2-Dichloropropane	77	5.279	5.286	(0.804)	129334	20.0000	20.7	
	29 Cyclohexane	56	5.421	5.421	(0.826)	170008	20.0000	21.3	
	30 Bromochloromethane	128	5.433	5.427	(0.828)	41949	20.0000	20.7	
	31 Chloroform	83	5.581	5.579	(0.851)	178279	20.0000	19.6	
	32 Carbon Tetrachloride	117	5.745	5.752	(0.796)	127735	20.0000	20.0	
	33 Tetrahydrofuran	42	5.800	5.797	(0.884)	165448	100.000	89.1	
	34 1,1,1-Trichloroethane	97	5.848	5.852	(0.891)	166060	20.0000	20.2	
$	35 Dibromofluoromethane	113	5.851	5.849	(0.892)	185151	50.0000	49.8	
	36 1,1-Dichloropropene	75	6.044	6.042	(0.837)	144261	20.0000	20.3	
	37 2-Butanone	43	6.048	6.045	(0.922)	224362	100.000	89.9	
	38 Benzene	78	6.382	6.382	(0.884)	404335	20.0000	20.5	
	39 Propionitrile	54	6.430	6.427	(0.980)	162217	200.000	191	
	40 Methacrylonitrile	41	6.459	6.460	(0.984)	584185	200.000	196	
$	41 1,2-Dichloroethane-D4	65	6.572	6.566	(1.001)	234551	50.0000	48.0	
*	42 Pentafluorobenzene	168	6.562	6.566	(1.000)	405662	50.0000		
	43 Tertiary-amyl methyl ether	73	6.601	6.601	(1.006)	208800	20.0000	18.4	
	44 Isobutyl Alcohol	43	6.813	6.810	(1.038)	96723	400.000	351	
	45 1,2-Dichloroethane	62	6.662	6.659	(0.923)	130765	20.0000	19.0	
	46 Methylcyclohexane	83	7.131	7.128	(1.087)	175930	20.0000	20.3	
	47 Trichloroethene	95	7.154	7.154	(0.991)	99673	20.0000	19.6	
*	48 1,4-Difluorobenzene	114	7.218	7.218	(1.000)	670011	50.0000		
	49 Dibromomethane	93	7.649	7.649	(1.060)	60376	20.0000	19.5	
	50 1,2-Dichloropropane	63	7.774	7.771	(1.077)	100818	20.0000	19.7	
	51 Bromodichloromethane	83	7.874	7.874	(1.091)	116307	20.0000	19.4	
	52 1,4-Dioxane	88	8.109	8.106	(1.123)	37858	400.000	384	
	53 Methyl Methacrylate	41	8.102	8.096	(1.122)	72789	20.0000	18.3	
	54 2-Chloroethylvinylether	63	8.552	8.550	(1.185)	40762	20.0000	18.6	
	55 cis-1,3-dichloropropene	75	8.588	8.587	(1.190)	141568	20.0000	19.8	
$	56 Toluene-D8	98	8.787	8.787	(1.217)	770271	50.0000	50.1	
	57 Toluene	91	8.842	8.842	(1.225)	431643	20.0000	20.6	
	58 Tetrachloroethene	164	9.247	9.244	(0.883)	77698	20.0000	19.9	
	59 4-methyl-2-pentanone	43	9.273	9.270	(1.285)	446501	100.000	101	
	60 trans-1,3-Dichloropropene	75	9.301	9.302	(1.289)	129381	20.0000	19.6	
	61 1,1,2-Trichloroethane	83	9.462	9.459	(1.311)	71557	20.0000	19.6	
	62 Ethyl Methacrylate	69	9.504	9.501	(1.317)	120713	20.0000	19.3	
	63 Dibromochloromethane	129	9.639	9.639	(0.920)	78035	20.0000	19.2	
	64 1,3-Dichloropropane	76	9.736	9.736	(0.929)	160354	20.0000	19.4	
	65 1,2-Dibromoethane	107	9.864	9.865	(1.367)	84087	20.0000	19.8	
	66 2-Hexanone	43	10.173	10.170	(0.971)	305986	100.000	95.4	
*	67 Chlorobenzene-D5	117	10.475	10.475	(1.000)	590781	50.0000		
	68 Chlorobenzene	112	10.498	10.495	(1.002)	266616	20.0000	20.0	
	69 Ethylbenzene	91	10.555	10.553	(1.008)	491247	20.0000	20.9	
	70 1,1,1,2-Tetrachloroethane	131	10.588	10.588	(1.011)	78736	20.0000	19.2	
	71 m+p-Xylenes	91	10.748	10.746	(1.026)	757848	40.0000	44.1	
	72 o-Xylene	91	11.311	11.308	(1.080)	369608	20.0000	21.4	
	73 Bromoform	173	11.391	11.392	(1.087)	47528	20.0000	18.4	
	74 Styrene	104	11.382	11.379	(1.087)	273519	20.0000	21.1	
	75 Isopropylbenzene	105	11.719	11.717	(0.880)	467635	20.0000	22.5	
$	76 P-Bromofluorobenzene	95	12.044	12.041	(1.669)	291797	50.0000	50.8	
	77 Bromobenzene	156	12.153	12.151	(0.913)	103230	20.0000	20.1	

Data File: \\target_server\gg\chem\gcms-c.i\C100421.b\C1016.D
Report Date: 09-Oct-2021 16:27

			QUANT SIG					AMOUNTS		
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)	REVIEW CODE
	78	cis-1,4-Dichloro-2-Butene	53	12.137	12.138	(0.911)	31522	20.0000	17.7	
	79	N-Propylbenzene	91	12.221	12.221	(0.918)	580073	20.0000	22.1	
	80	1,1,2,2-Tetrachloroethane	83	12.311	12.308	(0.924)	113214	20.0000	19.4	
	81	2-Chlorotoluene	91	12.385	12.382	(0.930)	333394	20.0000	20.8	
	82	1,2,3-Trichloropropane	75	12.449	12.446	(0.935)	104858	20.0000	19.4	
	83	1,3,5-Trimethylbenzene	105	12.462	12.463	(0.936)	372863	20.0000	21.6	
	84	trans-1,4-Dichloro-2-Butene	53	12.510	12.511	(0.939)	34720	20.0000	18.3	
	85	4-Chlorotoluene	91	12.578	12.578	(0.944)	351052	20.0000	21.0	
	86	tert-Butylbenzene	119	12.819	12.819	(0.963)	316483	20.0000	21.8	
	87	1,2,4-Trimethylbenzene	105	12.899	12.900	(0.969)	387603	20.0000	21.9	
	88	sec-Butylbenzene	105	13.022	13.019	(0.978)	494348	20.0000	22.4	
	89	P-Isopropyltoluene	119	13.189	13.189	(0.990)	381032	20.0000	22.1	
	90	1,3-Dichlorobenzene	146	13.234	13.234	(0.994)	199234	20.0000	19.9	
*	91	1,4-Dichlorobenzene-D4	152	13.317	13.318	(1.000)	293134	50.0000		
	92	1,4-Dichlorobenzene	146	13.337	13.334	(1.001)	206172	20.0000	19.9	
	93	1,2,3-Trimethylbenzene	105	13.378	13.376	(1.005)	387826	20.0000	20.5	
	95	N-Butylbenzene	91	13.645	13.646	(1.025)	388855	20.0000	21.9	
	96	1,2-Dichlorobenzene	146	13.784	13.784	(1.035)	190433	20.0000	19.9	
	97	1,2-Dibromo-3-Chloropropane	157	14.623	14.623	(1.098)	16932	20.0000	16.8	
	98	1,3,5-Trichlorobenzene	180	14.661	14.659	(1.101)	137983	20.0000	19.5	
	99	1,2,4-Trichlorobenzene	180	15.308	15.308	(1.149)	121796	20.0000	20.0	
	100	Hexachlorobutadiene	225	15.295	15.295	(1.148)	55629	20.0000	20.1	
	101	Naphthalene	128	15.626	15.623	(1.173)	308081	20.0000	21.0	
	102	1,2,3-Trichlorobenzene	180	15.806	15.806	(1.187)	122727	20.0000	20.1	
M	103	1,2-Dichloroethylene (total)	96				203043	20.0000	39.9	
M	104	Xylenes (total)	91				1127456	60.0000	65.4	
M	105	Total Alkylbenzenes	100				2921257	20.0000	154	


Y (x10^6)
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0
1.1
1.2
1.3
Min
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
-Dichlorodifluoromethane (1.412)
-Chloromethane (1.579)
Vinyl Chloride (1.643)
-Bromomethane (1.920)
-Chloroethane (2.029)
-Trichlorofluoromethane (2.158)
-Diethyl Ether (2.447)
-1,1-Dichloroethene (2.633)+
-Iodomethane (2.775)
-Acrolein (2.977)
-Allyl Chloride (3.125)
-Methylene Chloride (3.248)+
-trans-1,2-Dichloroethene (3.437)+
-Methyl tert-butyl ether (3.592)
-Tertiary-butyl alcohol (3.743)
-Acetonitrile (3.878)
-Di-isopropyl ether (4.122)
-Chloroprene (4.228)+
-Acrylonitrile (4.321)
-Ethyl tertiary-butyl ethe (4.682)+
-cis-1,2-Dichloroethene (5.116)
-2,2-Dichloropropane (5.286)
-Cyclohexane (5.424)+
-Chloroform (5.582)
-Carbon Tetrachloride (5.746)
-Tetrahydrofuran (5.849)+
-1,1-Dichloropropene (6.042)+
-Benzene (6.382)
-Propionitrile (6.460)+
-1,2-Dichloroethane-D4 (6.566)+
-Isobutyl Alcohol (6.813)
-Methylcyclohexane (7.151)+
1,4-Difluorobenzene (7.222)
-Dibromomethane (7.653)
-1,2-Dichloropropane (7.775)
-Bromodichloromethane (7.874)
-1,4-Dioxane (8.103)+
-2-Chloroethylvinylether (8.553)
cis-1,3-Dichloropropene (8.588)
-Toluene (8.842)
Toluene-D8 (8.787)
-Tetrachloroethene (9.273)+
-1,1,2-Trichloroethane (9.463)
-Ethyl Methacrylate (9.505)
-Dibromochloromethane (9.640)
-1,3-Dichloropropane (9.736)
-1,2-Dibromoethane (9.865)
-2-Hexanone (10.173)
-Ethylbenzene (10.553)+
Chlorobenzene-D5 (10.479)+
m+p-Xylenes (10.749)
-o-Xylene (11.312)
-Bromoform (11.382)+
-Isopropylbenzene (11.720)
-P-Bromofluorobenzene (12.045)
-Bromobenzene (12.148)+
-N-Propylbenzene (12.221)
-1,1,2,2-Tetrachloroethane (12.311)
-2-Chlorotoluene (12.385)
-1,2,3-Trichloropropane (12.463)+
-trans-1,4-Dichloro-2-Bute (12.544)
-4-Chlorotoluene (12.578)
-tert-Butylbenzene (12.820)
-1,2,4-Trimethylbenzene (12.900)
-sec-Butylbenzene (13.022)
-P-Isopropyltoluene (13.189)
-1,3-Dichlorobenzene (13.234)
-1,2,3-Trimethylbenzene (13.379)
1,4-Dichlorobenzene-D4 (13.321)+
-N-Butylbenzene (13.646)
-1,2-Dichlorobenzene (13.784)
-1,2-Dibromo-3-Chloropropa (14.627)
1,3,5-Trichlorobenzene (14.659)
-1,2,4-Trichlorobenzene (15.302)+
-Naphthalene (15.626)
-1,2,3-Trichlorobenzene (15.807)
-1,2-Dichloroethylene (tot (17.080)
\\target_server\gg\chem\gcms-c.i\C100421.b\C1016.D
Data File: \\target_server\gg\chem\gcms-c.i\C100421.b\C1016.D
Date : 04-OCT-2021 12:14
Client ID:
Sample Info: WG307158-3
Purge Volume: 5.0
Column phase: RTX-VMS
Instrument: gcms-c.i
Operator: HG
Column diameter: 0.18

Data File: \\target_server\gg\chem\gcms-c.i\C100421.b\C1017.D
Report Date: 09-Oct-2021 16:27

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-c.i\C100421.b\C1017.D
Lab Smp Id: WG307158-8
Inj Date : 04-OCT-2021 12:45
Operator : HG   Inst ID: gcms-c.i
Smp Info : WG307158-8
Misc Info :
Comment   : SW846 5030
Method   : \\target_server\gg\chem\gcms-c.i\C100421.b\C8A05(53).m
Meth Date : 04-Oct-2021 13:37 jsampson   Quant Type: ISTD
Cal Date : 04-OCT-2021 12:45   Cal File: C1017.D
Als bottle: 10   Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: HP RTE   Compound Sublist: all.sub
Target Version: 4.12
Processing Host: T7-O360

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

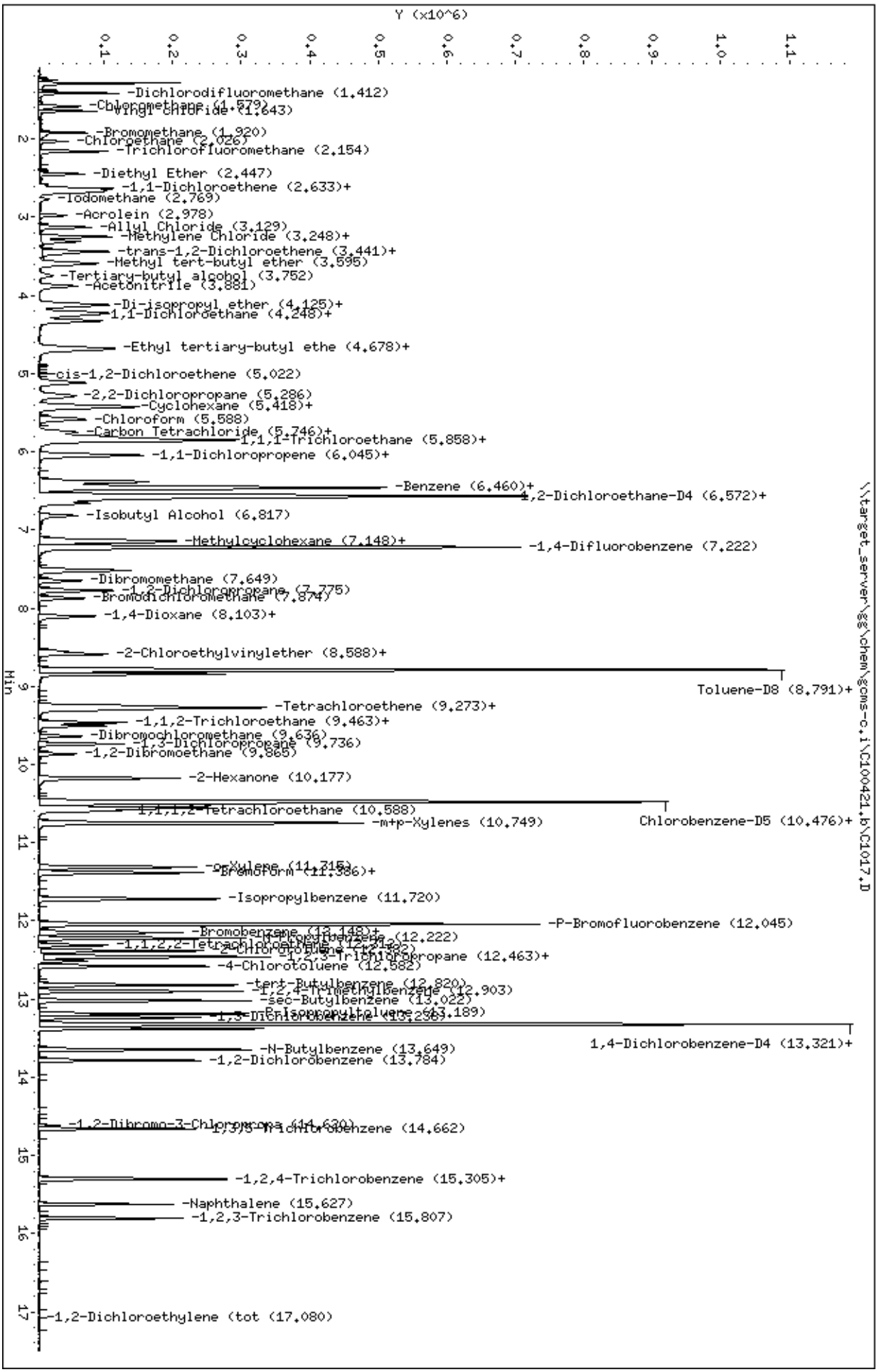
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)	REVIEW CODE
1	Dichlorodifluoromethane	85	1.411	1.412	(0.215)	63695	10.0000	9.9	
2	Chloromethane	50	1.578	1.579	(0.240)	65879	10.0000	9.8	
3	Vinyl chloride	62	1.643	1.643	(0.250)	49929	10.0000	9.6	
4	Bromomethane	94	1.919	1.920	(0.292)	27999	10.0000	9.9	
5	Chloroethane	64	2.029	2.025	(0.309)	29410	10.0000	5.7	
6	Trichlorofluoromethane	101	2.154	2.154	(0.328)	70355	10.0000	9.4	
7	Diethyl Ether	59	2.450	2.444	(0.373)	33572	10.0000	10.2	
8	1,1-Dichloroethene	96	2.633	2.630	(0.401)	35048	10.0000	9.7	
9	Carbon Disulfide	76	2.655	2.656	(0.404)	69359	10.0000	8.9	
10	Freon-113	151	2.681	2.675	(0.408)	26465	10.0000	9.9	
11	Iodomethane	142	2.768	2.768	(0.421)	14528	10.0000	6.3	
12	Acrolein	56	2.977	2.977	(0.453)	32763	50.0000	50.8	
13	Allyl Chloride	41	3.128	3.129	(0.476)	47572	10.0000	9.5	
14	Methylene Chloride	84	3.250	3.244	(0.495)	52306	10.0000	9.3	
15	Acetone	43	3.311	3.312	(0.504)	77292	50.0000	46.0	
16	trans-1,2-Dichloroethene	96	3.437	3.434	(0.523)	44513	10.0000	9.5	
17	Methyl Acetate	43	3.475	3.473	(0.529)	38124	10.0000	9.9	
18	Methyl tert-butyl ether	73	3.594	3.592	(0.547)	112219	10.0000	9.6	
19	Tertiary-butyl alcohol	59	3.752	3.749	(0.571)	23346	50.0000	63.7	
20	Acetonitrile	41	3.881	3.874	(0.591)	76801	100.000	116	
21	Di-isopropyl ether	45	4.125	4.119	(0.628)	130556	10.0000	9.8	
22	Chloroprene	53	4.225	4.215	(0.643)	68746	10.0000	9.6	
23	1,1-Dichloroethane	63	4.247	4.244	(0.647)	82668	10.0000	9.5	

Data File: \\target_server\gg\chem\gcms-c.i\C100421.b\C1017.D
Report Date: 09-Oct-2021 16:27

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)	REVIEW CODE
	24 Acrylonitrile	52	4.324	4.320	(0.658)	79477	50.0000	49.2	
	25 Ethyl tertiary-butyl ether	59	4.678	4.678	(0.712)	112067	10.0000	9.5	
	26 Vinyl Acetate	43	4.678	4.678	(0.648)	86528	10.0000	10.1	
	27 cis-1,2-Dichloroethene	96	5.122	5.109	(0.780)	45045	10.0000	9.5	
	28 2,2-Dichloropropane	77	5.286	5.286	(0.805)	51972	10.0000	9.0	
	29 Cyclohexane	56	5.417	5.421	(0.825)	74884	10.0000	10.0	
	30 Bromochloromethane	128	5.421	5.427	(0.825)	18951	10.0000	10.0	
	31 Chloroform	83	5.588	5.579	(0.851)	79848	10.0000	9.5	
	32 Carbon Tetrachloride	117	5.745	5.752	(0.796)	52504	10.0000	8.9	
	33 Tetrahydrofuran	42	5.803	5.797	(0.884)	80278	50.0000	46.8	
	34 1,1,1-Trichloroethane	97	5.858	5.852	(0.892)	70568	10.0000	9.3	
$	35 Dibromofluoromethane	113	5.851	5.849	(0.891)	168465	50.0000	48.8	
	36 1,1-Dichloropropene	75	6.041	6.042	(0.837)	61021	10.0000	9.3	
	37 2-Butanone	43	6.048	6.045	(0.921)	105362	50.0000	45.8	
	38 Benzene	78	6.382	6.382	(0.884)	179208	10.0000	9.7	
	39 Propionitrile	54	6.427	6.427	(0.978)	75999	100.000	96.3	
	40 Methacrylonitrile	41	6.459	6.460	(0.983)	289281	100.000	103	
$	41 1,2-Dichloroethane-D4	65	6.572	6.566	(1.000)	212872	50.0000	47.1	
*	42 Pentafluorobenzene	168	6.569	6.566	(1.000)	378171	50.0000		
	43 Tertiary-amyl methyl ether	73	6.604	6.601	(1.005)	97833	10.0000	9.3	
	44 Isobutyl Alcohol	43	6.816	6.810	(1.038)	41398	200.000	214	
	45 1,2-Dichloroethane	62	6.662	6.659	(0.923)	60983	10.0000	9.5	
	46 Methylcyclohexane	83	7.134	7.128	(1.086)	79679	10.0000	9.0	
	47 Trichloroethene	95	7.157	7.154	(0.991)	43419	10.0000	9.2	
*	48 1,4-Difluorobenzene	114	7.221	7.218	(1.000)	627111	50.0000		
	49 Dibromomethane	93	7.652	7.649	(1.060)	27499	10.0000	9.5	
	50 1,2-Dichloropropane	63	7.774	7.771	(1.077)	45259	10.0000	9.5	
	51 Bromodichloromethane	83	7.874	7.874	(1.090)	49301	10.0000	8.9	
	52 1,4-Dioxane	88	8.109	8.106	(1.123)	17871	200.000	194	
	53 Methyl Methacrylate	41	8.099	8.096	(1.122)	32015	10.0000	7.6	
	54 2-Chloroethylvinylether	63	8.556	8.550	(1.185)	18527	10.0000	8.0	
	55 cis-1,3-dichloropropene	75	8.591	8.587	(1.190)	57763	10.0000	7.8	
$	56 Toluene-D8	98	8.790	8.787	(1.217)	717340	50.0000	49.8	
	57 Toluene	91	8.842	8.842	(1.224)	193971	10.0000	9.9	
	58 Tetrachloroethene	164	9.247	9.244	(0.883)	35143	10.0000	9.7	
	59 4-methyl-2-pentanone	43	9.273	9.270	(1.284)	204891	50.0000	49.6	
	60 trans-1,3-Dichloropropene	75	9.298	9.302	(1.288)	52381	10.0000	7.6	
	61 1,1,2-Trichloroethane	83	9.466	9.459	(1.311)	32885	10.0000	9.7	
	62 Ethyl Methacrylate	69	9.504	9.501	(1.316)	53337	10.0000	7.8	
	63 Dibromochloromethane	129	9.639	9.639	(0.920)	31082	10.0000	8.4	
	64 1,3-Dichloropropane	76	9.739	9.736	(0.930)	72864	10.0000	9.6	
	65 1,2-Dibromoethane	107	9.864	9.865	(1.366)	37527	10.0000	9.5	
	66 2-Hexanone	43	10.176	10.170	(0.971)	141570	50.0000	44.0	
*	67 Chlorobenzene-D5	117	10.475	10.475	(1.000)	549084	50.0000		
	68 Chlorobenzene	112	10.498	10.495	(1.002)	117893	10.0000	9.6	
	69 Ethylbenzene	91	10.552	10.553	(1.007)	213591	10.0000	9.8	
	70 1,1,1,2-Tetrachloroethane	131	10.588	10.588	(1.011)	34263	10.0000	9.1	
	71 m+p-Xylenes	91	10.752	10.746	(1.026)	331370	20.0000	20.6	
	72 o-Xylene	91	11.314	11.308	(1.080)	154530	10.0000	9.6	
	73 Bromoform	173	11.391	11.392	(1.087)	19165	10.0000	6.6	
	74 Styrene	104	11.382	11.379	(1.087)	112770	10.0000	8.7	
	75 Isopropylbenzene	105	11.723	11.717	(0.880)	194940	10.0000	8.2	
$	76 P-Bromofluorobenzene	95	12.044	12.041	(1.668)	264952	50.0000	49.4	
	77 Bromobenzene	156	12.147	12.151	(0.912)	46294	10.0000	9.9	

Data File: \\target_server\gg\chem\gcms-c.i\C100421.b\C1017.D
Report Date: 09-Oct-2021 16:27

			QUANT SIG					AMOUNTS		
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)	REVIEW CODE
	78	cis-1,4-Dichloro-2-Butene	53	12.144	12.138	(0.912)	14602	10.0000	8.1	
	79	N-Propylbenzene	91	12.221	12.221	(0.917)	248772	10.0000	10.4	
	80	1,1,2,2-Tetrachloroethane	83	12.311	12.308	(0.924)	52023	10.0000	9.8	
	81	2-Chlorotoluene	91	12.385	12.382	(0.930)	145229	10.0000	10	
	82	1,2,3-Trichloropropane	75	12.449	12.446	(0.935)	48239	10.0000	9.8	
	83	1,3,5-Trimethylbenzene	105	12.465	12.463	(0.936)	162205	10.0000	10.3	
	84	trans-1,4-Dichloro-2-Butene	53	12.510	12.511	(0.939)	16677	10.0000	9.7	
	85	4-Chlorotoluene	91	12.578	12.578	(0.944)	153272	10.0000	10.1	
	86	tert-Butylbenzene	119	12.819	12.819	(0.962)	132192	10.0000	10.0	
	87	1,2,4-Trimethylbenzene	105	12.903	12.900	(0.969)	167843	10.0000	8.5	
	88	sec-Butylbenzene	105	13.022	13.019	(0.978)	212760	10.0000	8.2	
	89	P-Isopropyltoluene	119	13.189	13.189	(0.990)	158721	10.0000	8.0	
	90	1,3-Dichlorobenzene	146	13.237	13.234	(0.994)	90157	10.0000	9.9	
*	91	1,4-Dichlorobenzene-D4	152	13.321	13.318	(1.000)	266396	50.0000		
	92	1,4-Dichlorobenzene	146	13.337	13.334	(1.001)	90122	10.0000	9.6	
	93	1,2,3-Trimethylbenzene	105	13.379	13.376	(1.004)	180669	10.0000	10.4	
	95	N-Butylbenzene	91	13.649	13.646	(1.025)	161051	10.0000	10	
	96	1,2-Dichlorobenzene	146	13.784	13.784	(1.035)	84678	10.0000	9.8	
	97	1,2-Dibromo-3-Chloropropane	157	14.620	14.623	(1.098)	6921	10.0000	7.3	
	98	1,3,5-Trichlorobenzene	180	14.661	14.659	(1.101)	61903	10.0000	9.7	
	99	1,2,4-Trichlorobenzene	180	15.308	15.308	(1.149)	51958	10.0000	9.5	
	100	Hexachlorobutadiene	225	15.292	15.295	(1.148)	24975	10.0000	9.9	
	101	Naphthalene	128	15.629	15.623	(1.173)	126431	10.0000	7.2	
	102	1,2,3-Trichlorobenzene	180	15.803	15.806	(1.186)	51964	10.0000	9.4	
M	103	1,2-Dichloroethylene (total)	96				89558	10.0000	19.0	
M	104	Xylenes (total)	91				485900	10.0000	30.3	
M	105	Total Alkylbenzenes	100				1243544	10.0000	65.5	


Data File: \\target_server\gg\chem\gcms-c.i\C100421.b\C1017.D
Date : 04-OCT-2021 12:45
Client ID:
Sample Info: WG307158-8
Purge Volume: 5.0
Column phase: RTX-VMS
Instrument: gcms-c.i
Operator: HG
Column diameter: 0.18
\\target_server\gg\chem\gcms-c.i\C100421.b\C1017.D
Y (x10^6)
Min
-Dichlorodifluoromethane (1.412)
-Chloromethane (1.579)
Vinyl chloride (1.643)
-Bromomethane (1.920)
-Chloroethane (2.026)
-Trichlorofluoromethane (2.154)
-Diethyl Ether (2.447)
-1,1-Dichloroethene (2.633)+
-Iodomethane (2.769)
-Acrolein (2.978)
-Allyl Chloride (3.129)
-Methylene Chloride (3.248)+
-trans-1,2-Dichloroethene (3.441)+
-Methyl tert-butyl ether (3.595)
-Tertiary-butyl alcohol (3.752)
-Acetonitrile (3.881)
-Di-isopropyl ether (4.125)+
1,1-Dichloroethane (4.248)+
-Ethyl tertiary-butyl ethe (4.678)+
-cis-1,2-Dichloroethene (5.022)
-2,2-Dichloropropane (5.286)
-Cyclohexane (5.418)+
-Chloroform (5.588)
-Carbon Tetrachloride (5.746)+
1,1,1-Trichloroethane (5.858)+
-1,1-Dichloropropene (6.045)+
-Benzene (6.460)+
4,2-Dichloroethane-D4 (6.572)+
-Isobutyl Alcohol (6.817)
-Methylcyclohexane (7.148)+
-1,4-Difluorobenzene (7.222)
-Dibromomethane (7.649)
-1,2-Dichloropropane (7.775)
-Bromodichloromethane (7.874)
-1,4-Dioxane (8.103)+
-2-Chloroethylvinylether (8.588)+
Toluene-D8 (8.791)+
-Tetrachloroethene (9.273)+
-1,1,2-Trichloroethane (9.463)+
-Dibromochloromethane (9.636)
-1,3-Dichloropropane (9.736)
-1,2-Dibromoethane (9.865)
-2-Hexanone (10.177)
1,1,1,2-Tetrachloroethane (10.588)
-m+p-Xylenes (10.749)
Chlorobenzene-D5 (10.476)+
-o-Xylene (11.215)
-Bromoform (11.386)+
-Isopropylbenzene (11.720)
-P-Bromofluorobenzene (12.045)
-Bromobenzene (12.148)+
-n-Propylbenzene (12.222)
-1,1,2,2-Tetrachloroethane (12.314)
-2-Chlorotoluene (12.388)
-1,2,3-Trichloropropane (12.463)+
-4-Chlorotoluene (12.582)
-tert-Butylbenzene (12.820)
-1,2,4-Trimethylbenzene (12.903)
-sec-Butylbenzene (13.022)
-p-Isopropyltoluene (13.189)
-1,3-Dichlorobenzene (13.236)
1,4-Dichlorobenzene-D4 (13.321)+
-N-Butylbenzene (13.649)
-1,2-Dichlorobenzene (13.784)
-1,2-Dibromo-3-Chloropropa (14.620)
1,3,5-Trichlorobenzene (14.662)
-1,2,4-Trichlorobenzene (15.305)+
-Naphthalene (15.627)
-1,2,3-Trichlorobenzene (15.807)
-1,2-Dichloroethylene (tot (17.080)

Katahdin
ANALYTICAL SERVICES

Form 6
Initial Calibration Summary

Lab Name : Katahdin Analytical Services
SDG: SO6709
Project : Watervliet Arsenal LTM
Instrument ID: GCMS-T
Lab File IDs : T3704.D T3703.D T3701.D T3708.D T3706.D T3705.D T3707.D T3702.D
Calibration Date(s): 11-OCT-21 11:10, 11-OCT-21 14:13

	1.0000 Level 1	5.0000 Level 2	20.0000 Level 3	50.0000 Level 4	100.0000 Level 5	150.0000 Level 6	75.0000 Level 7	10.0000 Level 8	Curve Type	b	m1	m2	%RSD	MAX %RSD	
Chloromethane	0.42972	0.49234	0.43470	0.44888	0.43322	0.42634	0.44298	0.44452	AVG		.4441		4.724	15	O
Vinyl chloride	0.37613	0.43080	0.41043	0.40481	0.38972	0.40170	0.38382	0.39576	AVG		.3992		4.269	15	O
Bromomethane	3289	12548	45540	123230	232257	336867	180151	24217	LNR	0	.1954		.9998	.99	O
Chloroethane	0.20225	0.22701	0.19414	0.16409	+++++	+++++	+++++	0.20753	AVG		.199		11.54	15	O
Trichlorofluoromethane	0.54435	0.59853	0.58415	0.51692	0.51521	0.55293	0.47595	0.58460	AVG		.5466		7.717	15	O
1,1-Dichloroethene	0.33860	0.31897	0.30819	0.30255	0.29783	0.30455	0.28526	0.31304	AVG		.3086		5.111	15	O
Carbon Disulfide	0.60844	0.62566	0.65653	0.61576	0.63012	0.64504	0.61455	0.62375	AVG		.6275		2.586	15	O
Methylene Chloride	7817	29320	98580	268597	505542	707566	394067	52680	LNR	0	.4178		.9989	.99	O
trans-1,2-Dichloroethene	0.39668	0.44597	0.40670	0.41895	0.41237	0.40061	0.41500	0.40371	AVG		.4125		3.745	15	O
1,1-Dichloroethane	0.72245	0.83961	0.76369	0.76980	0.76748	0.76049	0.76340	0.77377	AVG		.7701		4.194	15	O
cis-1,2-Dichloroethene	0.41464	0.47097	0.44410	0.44382	0.44381	0.43032	0.44517	0.44371	AVG		.4421		3.575	15	O
Chloroform	0.78268	0.88445	0.81412	0.80521	0.80806	0.80983	0.81613	0.82238	AVG		.8179		3.589	15	O
Carbon Tetrachloride	0.33571	0.40708	0.42770	0.40792	0.42256	0.43107	0.40280	0.39117	AVG		.4032		7.55	15	O
1,1,1-Trichloroethane	0.65988	0.78782	0.75617	0.74824	0.76600	0.76715	0.74014	0.74384	AVG		.7462		5.106	15	O
2-Butanone	0.17076	0.16987	0.16909	0.16182	0.16322	0.14171	0.16451	0.16421	AVG		.1632		5.687	15	O
Benzene	0.97505	1.13590	1.09116	1.05373	1.03629	1.02226	1.06641	1.06562	AVG		1.056		4.515	15	O
1,2-Dichloroethane	0.45925	0.46156	0.41527	0.38843	0.39388	0.39912	0.39575	0.42642	AVG		.4175		7.003	15	O
Trichloroethene	0.25872	0.30604	0.28603	0.27421	0.27357	0.27535	0.26960	0.26808	AVG		.2764		5.14	15	O
1,2-Dichloropropane	0.23351	0.25928	0.25752	0.24871	0.24882	0.24980	0.25760	0.25429	AVG		.2512		3.305	15	O
Bromodichloromethane	0.33301	0.39028	0.39635	0.38039	0.39964	0.40749	0.39699	0.37796	AVG		.3853		6.043	15	O
cis-1,3-dichloropropene	0.33701	0.41220	0.45042	0.44011	0.45141	0.45865	0.45835	0.42259	AVG		.4288		9.497	15	O
Toluene	0.63469	0.69862	0.67738	0.66257	0.64803	0.65382	0.66711	0.65134	AVG		.6617		2.981	15	O
4-methyl-2-pentanone	0.15604	0.20351	0.21117	0.20865	0.20853	0.19510	0.21651	0.19605	AVG		.1994		9.525	15	O
Tetrachloroethene	0.22280	0.26104	0.25261	0.25659	0.25850	0.25422	0.25649	0.24095	AVG		.2504		5.063	15	O
trans-1,3-Dichloropropene	0.33236	0.38918	0.41437	0.40050	0.42253	0.42975	0.42449	0.38554	AVG		.3998		7.965	15	O
1,1,2-Trichloroethane	0.17174	0.20362	0.19565	0.19042	0.19307	0.19054	0.19736	0.19227	AVG		.1918		4.8	15	O
Dibromochloromethane	0.25781	0.29623	0.31668	0.31647	0.32835	0.32980	0.33086	0.30692	AVG		.3104		7.866	15	O
Chlorobenzene	0.82446	0.84973	0.79678	0.79035	0.78199	0.76773	0.79486	0.79664	AVG		.8003		3.195	15	O
Ethylbenzene	1.27719	1.48939	1.42691	1.40582	1.39592	1.34921	1.41445	1.38043	AVG		1.392		4.424	15	O
m+p-Xylenes	0.88974	1.11751	1.10197	1.07775	1.04639	0.97056	1.06626	1.07383	AVG		1.043		7.291	15	O
o-Xylene	0.83328	1.09416	1.09545	1.12201	1.09879	1.07437	1.11782	1.07244	AVG		1.064		8.904	15	O
Bromoform	0.14422	0.17137	0.19313	0.19827	0.21269	0.20931	0.20869	0.18638	AVG		.1905		12.18	15	O
1,1,2,2-Tetrachloroethane	0.59448	0.68279	0.64469	0.65731	0.66333	0.62028	0.65791	0.64917	AVG		.6462		4.238	15	O
Dibromofluoromethane	0.51035	0.50871	0.49476	0.50247	0.50507	0.51100	0.49450	0.50663	AVG		.5042		1.293	15	
1,2-Dichloroethane-D4	0.65353	0.64861	0.64452	0.61478	0.63145	0.65539	0.62283	0.65716	AVG		.641		2.505	15	
Toluene-D8	1.14862	1.18697	1.18703	1.15131	1.14662	1.15778	1.14643	1.14998	AVG		1.159		1.504	15	

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://katahdinlab.com
sales@katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Form 6
Initial Calibration Summary

Lab Name : Katahdin Analytical Services
SDG: SO6709
Project : Watervliet Arsenal LTM
Instrument ID: GCMS-T
Lab File IDs : T3704.D T3703.D T3701.D T3708.D T3706.D T3705.D T3707.D T3702.D
Calibration Date(s): 11-OCT-21 11:10 11-OCT-21 14:13

P-Bromofluorobenzene	0.41695	0.42639	0.43373	0.41016	0.40611	0.41721	0.40839	0.41893	AVG		.4172		2.239	15	

Legend: O = Kept Original Curve
Y = Failed Minimum RF
W = Failed %RSD Value

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://katahdinlab.com
sales@katahdinlab.com

Data File: \\target_server\gg\chem\gcms-t.i\T101121.b\T3709a.D
Report Date: 05-Nov-2021 13:08

Katahdin Analytical Services

RECOVERY REPORT

Client Name: Client SDG: SDGa02236
Sample Matrix: LIQUID Fraction: VOA
Lab Smp Id: WG307648-9
Level: LOW Operator: JSS
Data Type: MS DATA SampleType: LCS
SpikeList File: IND_CHECK.spk Quant Type: ISTD
Sublist File: all.sub
Method File: \\target_server\gg\chem\gcms-t.i\T101121.b\T8A05(01)shrt.m
Misc Info: WG307648,WG307648-4

SPIKE	COMPOUND	CONC ADDED ug/l	CONC RECOVERED ug/l	% RECOVERED	LIMITS
1	Dichlorodifluorome	50.0	48.6	97.22	80-120
2	Chloromethane	50.0	42.6	85.28	80-120
3	Vinyl chloride	50.0	47.5	95.08	80-120
4	Bromomethane	50.0	52.6	105.25	80-120
5	Chloroethane	50.0	39.7	79.42*	80-120
6	Trichlorofluoromet	50.0	47.1	94.27	80-120
7	Diethyl Ether	50.0	48.5	97.10	80-120
19	Tertiary-butyl alc	250	216	86.34	80-120
8	1,1-Dichloroethene	50.0	43.4	86.82	80-120
10	Carbon Disulfide	50.0	53.3	106.69	80-120
9	Freon-113	50.0	49.4	98.87	80-120
11	Iodomethane	50.0	53.1	106.25	80-120
12	Acrolein	250	289	115.53	80-120
14	Methylene Chloride	50.0	49.3	98.68	80-120
15	Acetone	50.0	52.0	104.06	80-120
45	Isobutyl Alcohol	1000	952	95.18	80-120
16	trans-1,2-Dichloro	50.0	47.6	95.18	80-120
13	Allyl Chloride	50.0	52.6	105.18	80-120
18	Methyl tert-butyl	50.0	52.6	105.29	80-120
20	Acetonitrile	500	427	85.49	80-120
21	Di-isopropyl ether	50.0	53.3	106.57	80-120
22	Chloroprene	50.0	52.9	105.75	80-120
39	Propionitrile	500	464	92.80	80-120
40	Methacrylonitrile	500	501	100.27	80-120
23	1,1-Dichloroethane	50.0	48.8	97.52	80-120
24	Acrylonitrile	250	249	99.47	80-120
25	Ethyl tertiary-but	50.0	52.9	105.72	80-120
26	Vinyl Acetate	50.0	52.4	104.91	80-120
27	cis-1,2-Dichloroet	50.0	48.2	96.38	80-120
M 103	1,2-Dichloroethyle	100	95.8	95.78	80-120
52	Methyl Methacrylat	50.0	51.9	103.89	80-120
28	2,2-Dichloropropan	50.0	44.1	88.30	80-120
30	Bromochloromethane	50.0	54.2	108.38	80-120
31	Chloroform	50.0	47.7	95.42	80-120
32	Carbon Tetrachlori	50.0	47.1	94.29	80-120
33	Tetrahydrofuran	50.0	50.3	100.62	80-120
35	1,1,1-Trichloroeth	50.0	47.7	95.33	80-120
36	1,1-Dichloropropen	50.0	48.6	97.30	80-120
37	2-Butanone	50.0	56.5	112.94	80-120
38	Benzene	50.0	49.5	99.04	80-120

Data File: \\target_server\gg\chem\gcms-t.i\T101121.b\T3709a.D
Report Date: 05-Nov-2021 13:08

	SPIKE COMPOUND	CONC ADDED ug/l	CONC RECOVERED ug/l	% RECOVERED	LIMITS
	29 Cyclohexane	50.0	58.0	115.97	80-120
	62 Ethyl Methacrylate	50.0	48.4	96.79	80-120
	43 Tertiary-amyl meth	50.0	52.5	104.95	80-120
	44 1,2-Dichloroethane	50.0	45.8	91.71	80-120
	47 Trichloroethene	50.0	49.0	98.09	80-120
	49 Dibromomethane	50.0	46.4	92.91	80-120
	50 1,2-Dichloropropan	50.0	48.8	97.54	80-120
	51 Bromodichlorometha	50.0	48.0	96.05	80-120
	55 cis-1,3-dichloropr	50.0	50.8	101.57	80-120
	53 1,4-Dioxane	1000	832	83.25	80-120
	54 2-Chloroethylvinyl	50.0	61.6	123.24*	80-120
	57 Toluene	50.0	49.6	99.24	80-120
	59 4-methyl-2-pentano	50.0	49.8	99.54	80-120
	58 Tetrachloroethene	50.0	48.5	96.93	80-120
	60 trans-1,3-Dichloro	50.0	49.6	99.18	80-120
	61 1,1,2-Trichloroeth	50.0	49.2	98.51	80-120
	63 Dibromochlorometha	50.0	48.0	96.01	80-120
	64 1,3-Dichloropropan	50.0	48.0	95.93	80-120
	65 1,2-Dibromoethane	50.0	49.6	99.19	80-120
	67 2-Hexanone	50.0	52.5	104.93	80-120
	69 Chlorobenzene	50.0	49.1	98.22	80-120
	70 Ethylbenzene	50.0	50.8	101.62	80-120
	71 1,1,1,2-Tetrachlor	50.0	52.2	104.38	80-120
M	105 Xylenes (total)	150	154	102.60	80-120
	72 m+p-Xylenes	100	101	101.46	80-120
	73 o-Xylene	50.0	52.4	104.87	80-120
	74 Styrene	50.0	53.5	107.09	80-120
	75 Bromoform	50.0	49.3	98.60	80-120
	76 Isopropylbenzene	50.0	52.3	104.67	80-120
	79 cis-1,4-Dichloro-2	50.0	48.8	97.63	80-120
	85 trans-1,4-Dichloro	50.0	49.0	98.02	80-120
	78 Bromobenzene	50.0	49.4	98.90	80-120
	80 N-Propylbenzene	50.0	51.3	102.67	80-120
	81 1,1,2,2-Tetrachlor	50.0	49.1	98.25	80-120
	84 1,3,5-Trimethylben	50.0	52.1	104.29	80-120
	82 2-Chlorotoluene	50.0	50.0	99.99	80-120
	83 1,2,3-Trichloropro	50.0	47.4	94.81	80-120
	86 4-Chlorotoluene	50.0	49.7	99.45	80-120
	87 tert-Butylbenzene	50.0	51.8	103.69	80-120
	88 Pentachloroethane	50.0	0.00	*	80-120
	89 1,2,4-Trimethylben	50.0	51.6	103.17	80-120
	91 P-Isopropyltoluene	50.0	53.0	105.94	80-120
	92 1,3-Dichlorobenzen	50.0	50.3	100.54	80-120
	94 1,4-Dichlorobenzen	50.0	48.6	97.21	80-120
	96 N-Butylbenzene	50.0	52.6	105.15	80-120
	90 sec-Butylbenzene	50.0	52.7	105.37	80-120
	97 1,2-Dichlorobenzen	50.0	50.5	100.99	80-120
	98 1,2-Dibromo-3-Chlo	50.0	47.1	94.16	80-120
	99 1,3,5-Trichloroben	50.0	52.3	104.56	80-120
	100 Hexachlorobutadien	50.0	48.6	97.26	80-120
	101 1,2,4-Trichloroben	50.0	52.0	104.09	80-120
	95 1,2,3-Trimethylben	50.0	52.1	104.20	80-120
	102 Naphthalene	50.0	47.1	94.30	80-120
	104 1,2,3-Trichloroben	50.0	50.8	101.54	80-120

Data File: \\target_server\gg\chem\gcms-t.i\T101121.b\T3709a.D
Report Date: 05-Nov-2021 13:08

	SPIKE COMPOUND	CONC ADDED ug/l	CONC RECOVERED ug/l	% RECOVERED	LIMITS
	17 Methyl Acetate	50.0	48.5	97.07	80-120
	46 Methylcyclohexane	50.0	54.8	109.56	80-120
M	66 Total Alkylbenzene	350	365	104.32	80-120

	SURROGATE COMPOUND	AMOUNT ADDED ug/l	AMOUNT RECOVERED ug/l	% RECOVERED	LIMITS
$	34 Dibromofluorometha	50.0	49.6	99.19	68-128
$	42 1,2-Dichloroethane	50.0	47.9	95.72	67-135
$	56 Toluene-D8	50.0	49.1	98.28	65-128
$	77 P-Bromofluorobenze	50.0	48.6	97.23	56-133

Data File: \\target_server\gg\chem\gcms-t.i\T101121.b\T3709a.D
Report Date: 05-Nov-2021 13:08

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-t.i\T101121.b\T3709a.D
Lab Smp Id: WG307648-9
Inj Date : 11-OCT-2021 14:39
Operator : JSS Inst ID: gcms-t.i
Smp Info : WG307648-9
Misc Info : WG307648,WG307648-4
Comment : SW846 5030
Method : \\target_server\gg\chem\gcms-t.i\T101121.b\T8A05(01)shrt.m
Meth Date : 14-Oct-2021 06:06 hgould Quant Type: ISTD
Cal Date : 11-OCT-2021 14:13 Cal File: T3708.D
Als bottle: 10 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.12
Processing Host: T7-O360

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)	REVIEW CODE
1	Dichlorodifluoromethane	85	1.242	1.246	(0.240)	319681	48.6085	48.6	
2	Chloromethane	50	1.384	1.388	(0.268)	230626	42.6414	42.6	
3	Vinyl chloride	62	1.441	1.441	(0.278)	231095	47.5390	47.5	
4	Bromomethane	94	1.676	1.677	(0.324)	125255	52.6252	52.6	
5	Chloroethane	64	1.762	1.763	(0.341)	96243	39.7099	39.7(R)	
6	Trichlorofluoromethane	101	1.875	1.875	(0.362)	313773	47.1360	47.1	
7	Diethyl Ether	59	2.125	2.126	(0.411)	137425	48.5479	48.5	
8	1,1-Dichloroethene	96	2.283	2.283	(0.441)	163173	43.4119	43.4	
9	Freon-113	151	2.324	2.324	(0.449)	133724	49.4371	49.4	
10	Carbon Disulfide	76	2.301	2.302	(0.445)	407660	53.3443	53.3	
11	Iodomethane	142	2.406	2.406	(0.465)	176774	53.1238	53.1	
12	Acrolein	56	2.593	2.590	(0.501)	142192	288.832	289	
13	Allyl Chloride	41	2.713	2.713	(0.524)	340223	52.5919	52.6	
14	Methylene Chloride	84	2.818	2.818	(0.544)	251047	49.3424	49.3	
15	Acetone	43	2.881	2.882	(0.557)	88820	52.0311	52.0	
16	trans-1,2-Dichloroethene	96	2.975	2.975	(0.575)	239085	47.5904	47.6	
17	Methyl Acetate	43	3.009	3.013	(0.581)	157403	48.5332	48.5	
18	Methyl tert-butyl ether	73	3.102	3.106	(0.599)	672968	52.6474	52.6	
19	Tertiary-butyl alcohol	59	3.237	3.237	(0.625)	97269	215.843	216	
20	Acetonitrile	41	3.357	3.361	(0.649)	263798	427.450	427	
21	Di-isopropyl ether	45	3.510	3.510	(0.678)	736774	53.2853	53.3	
22	Chloroprene	53	3.592	3.593	(0.694)	393341	52.8740	52.9	
23	1,1-Dichloroethane	63	3.619	3.619	(0.699)	457314	48.7603	48.8	

Data File: \\target_server\gg\chem\gcms-t.i\T101121.b\T3709a.D
Report Date: 05-Nov-2021 13:08

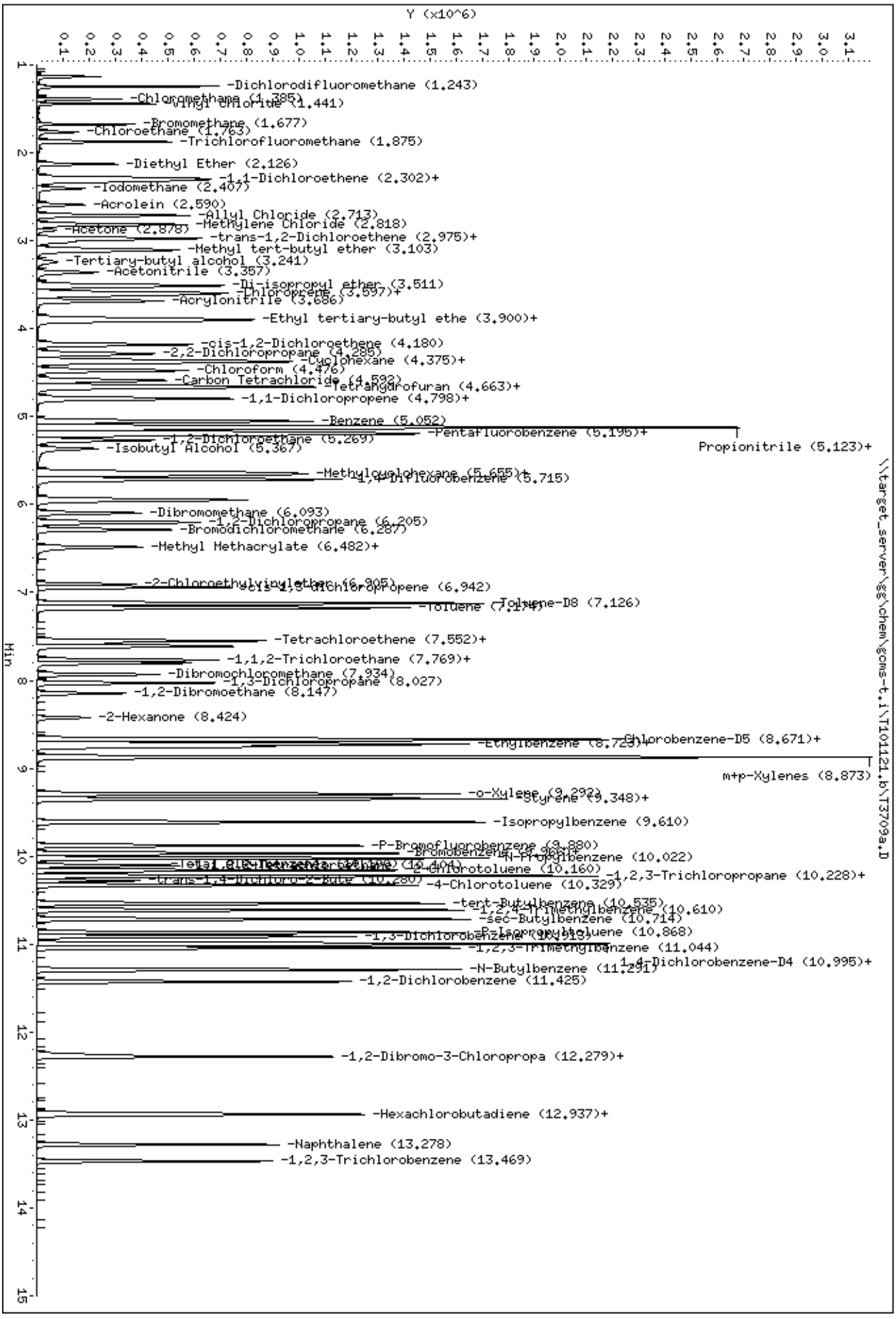
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)	REVIEW CODE
	24 Acrylonitrile	52	3.686	3.686	(0.712)	315567	248.683	249	
	25 Ethyl tertiary-butyl ether	59	3.895	3.896	(0.753)	685102	52.8607	52.9	
	26 Vinyl Acetate	43	3.907	3.911	(0.684)	514078	52.4527	52.4	
	27 cis-1,2-Dichloroethene	96	4.180	4.179	(0.808)	259455	48.1910	48.2	
	28 2,2-Dichloropropane	77	4.285	4.288	(0.828)	335976	44.1490	44.1	
	29 Cyclohexane	56	4.367	4.367	(0.844)	378363	57.9861	58.0	
	30 Bromochloromethane	128	4.382	4.382	(0.847)	121148	54.1919	54.2	
	31 Chloroform	83	4.476	4.476	(0.865)	475214	47.7093	47.7	
	32 Carbon Tetrachloride	117	4.588	4.588	(0.803)	358566	47.1453	47.1	
	33 Tetrahydrofuran	42	4.633	4.629	(0.895)	71907	50.3121	50.3	
$	34 Dibromofluoromethane	113	4.659	4.659	(0.900)	304546	49.5970	49.6	
	35 1,1,1-Trichloroethane	97	4.663	4.667	(0.901)	433156	47.6657	47.7	
	36 1,1-Dichloropropene	75	4.797	4.794	(0.840)	359781	48.6515	48.6	
	37 2-Butanone	43	4.809	4.805	(0.929)	112208	56.4722	56.5	
	38 Benzene	78	5.052	5.052	(0.884)	986121	49.5214	49.5	
	39 Propionitrile	54	5.104	5.104	(0.986)	285898	464.003	464	
	40 Methacrylonitrile	41	5.123	5.123	(0.990)	1287005	501.344	501	
*	41 Pentafluorobenzene	168	5.175	5.176	(1.000)	608946	50.0000		
$	42 1,2-Dichloroethane-D4	65	5.201	5.202	(1.005)	373665	47.8621	47.9	
	43 Tertiary-amyl methyl ether	73	5.201	5.202	(1.005)	617278	52.4731	52.5	
	44 1,2-Dichloroethane	62	5.269	5.269	(0.922)	361050	45.8560	45.8	
	45 Isobutyl Alcohol	43	5.362	5.359	(1.036)	138039	951.824	952	
	46 Methylcyclohexane	83	5.636	5.640	(1.089)	401946	54.7786	54.8	
	47 Trichloroethene	95	5.666	5.662	(0.991)	255713	49.0432	49.0	
*	48 1,4-Difluorobenzene	114	5.714	5.714	(1.000)	943029	50.0000		
	49 Dibromomethane	93	6.096	6.092	(1.067)	155617	46.4536	46.4	
	50 1,2-Dichloropropane	63	6.201	6.201	(1.085)	231048	48.7693	48.8	
	51 Bromodichloromethane	83	6.287	6.287	(1.100)	348967	48.0255	48.0	
	52 Methyl Methacrylate	41	6.481	6.482	(1.134)	186921	51.9436	51.9	
	53 1,4-Dioxane	88	6.504	6.500	(1.138)	51691	832.508	832	
	54 2-Chloroethylvinylether	63	6.904	6.901	(1.208)	160848	61.6182	61.6(R)	
	55 cis-1,3-dichloropropene	75	6.942	6.942	(1.215)	410762	50.7852	50.8	
$	56 Toluene-D8	98	7.125	7.122	(1.247)	1074498	49.1405	49.1	
	57 Toluene	92	7.174	7.174	(1.255)	619235	49.6184	49.6	
	58 Tetrachloroethene	164	7.552	7.552	(0.872)	198563	48.4656	48.5	
	59 4-methyl-2-pentanone	43	7.589	7.586	(1.328)	187220	49.7706	49.8	
	60 trans-1,3-Dichloropropene	75	7.612	7.612	(1.332)	373979	49.5911	49.6	
	61 1,1,2-Trichloroethane	83	7.769	7.765	(1.360)	178212	49.2558	49.2	
	62 Ethyl Methacrylate	69	7.799	7.803	(1.365)	287636	48.3931	48.4	
	63 Dibromochloromethane	129	7.933	7.934	(0.916)	243789	48.0036	48.0	
	64 1,3-Dichloropropane	76	8.027	8.031	(0.927)	383499	47.9658	48.0	
	65 1,2-Dibromoethane	107	8.147	8.147	(1.426)	218967	49.5946	49.6	
M	66 Total Alkylbenzenes	100				6551678	365.135	365	
	67 2-Hexanone	43	8.424	8.423	(0.972)	130783	52.4668	52.5	
*	68 Chlorobenzene-D5	117	8.663	8.663	(1.000)	818092	50.0000		
	69 Chlorobenzene	112	8.678	8.678	(1.002)	643094	49.1112	49.1	
	70 Ethylbenzene	91	8.723	8.723	(1.007)	1157583	50.8103	50.8	
	71 1,1,1,2-Tetrachloroethane	131	8.753	8.753	(1.010)	242191	52.1910	52.2	
	72 m+p-Xylenes	91	8.869	8.873	(1.024)	1731502	101.463	101	
	73 o-Xylene	91	9.292	9.292	(1.073)	912477	52.4368	52.4	
	74 Styrene	104	9.348	9.348	(1.079)	692786	53.5441	53.5	
	75 Bromoform	173	9.355	9.356	(1.080)	153667	49.2985	49.3	
	76 Isopropylbenzene	105	9.610	9.610	(0.874)	1100939	52.3348	52.3	
$	77 P-Bromofluorobenzene	95	9.879	9.876	(1.729)	382569	48.6156	48.6	

Data File: \\target_server\gg\chem\gcms-t.i\T101121.b\T3709a.D
Report Date: 05-Nov-2021 13:08

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)	REVIEW CODE
	78 Bromobenzene	156	9.969	9.969	(0.907)	262984	49.4515	49.4	
	79 cis-1,4-Dichloro-2-Butene	53	9.962	9.966	(0.906)	77301	48.8133	48.8	
	80 N-Propylbenzene	91	10.022	10.022	(0.912)	1284072	51.3330	51.3	
	81 1,1,2,2-Tetrachloroethane	83	10.108	10.108	(0.920)	254537	49.1274	49.1	
	82 2-Chlorotoluene	91	10.160	10.160	(0.924)	752271	49.9959	50.0	
	83 1,2,3-Trichloropropane	75	10.224	10.224	(0.930)	219328	47.4064	47.4	
	84 1,3,5-Trimethylbenzene	105	10.227	10.228	(0.931)	868442	52.1444	52.1	
	85 trans-1,4-Dichloro-2-Butene	53	10.276	10.276	(0.935)	76503	49.0125	49.0	
	86 4-Chlorotoluene	91	10.328	10.329	(0.940)	777325	49.7271	49.7	
	87 tert-Butylbenzene	119	10.538	10.534	(0.959)	713006	51.8453	51.8	
	89 1,2,4-Trimethylbenzene	105	10.609	10.609	(0.965)	873049	51.5846	51.6	
	90 sec-Butylbenzene	105	10.714	10.714	(0.975)	1106298	52.6863	52.7	
	91 P-Isopropyltoluene	119	10.867	10.868	(0.989)	875683	52.9686	53.0	
	92 1,3-Dichlorobenzene	146	10.912	10.912	(0.993)	474351	50.2704	50.3	
*	93 1,4-Dichlorobenzene-D4	152	10.991	10.991	(1.000)	400867	50.0000		
	94 1,4-Dichlorobenzene	146	11.006	11.006	(1.001)	479394	48.6063	48.6	
	95 1,2,3-Trimethylbenzene	105	11.043	11.043	(1.005)	868398	52.0979	52.1	
	96 N-Butylbenzene	91	11.290	11.290	(1.027)	831128	52.5728	52.6	
	97 1,2-Dichlorobenzene	146	11.425	11.425	(1.039)	442579	50.4975	50.5	
	98 1,2-Dibromo-3-Chloropropane	157	12.248	12.245	(1.114)	46986	47.0785	47.1	
	99 1,3,5-Trichlorobenzene	180	12.274	12.278	(1.117)	322607	52.2786	52.3	
	100 Hexachlorobutadiene	225	12.925	12.926	(1.176)	124470	48.6309	48.6	
	101 1,2,4-Trichlorobenzene	180	12.940	12.941	(1.177)	281563	52.0460	52.0	
	102 Naphthalene	128	13.277	13.278	(1.208)	629460	47.1485	47.1	
M	103 1,2-Dichloroethylene (total)	96				498540	95.7814	95.8	
	104 1,2,3-Trichlorobenzene	180	13.468	13.468	(1.225)	249438	50.7683	50.8	
M	105 Xylenes (total)	91				2643979	153.899	154	

QC Flag Legend

R - Spike/Surrogate failed recovery limits.


Y (x10^6)
Min
Data File: \\target_server\gg\chem\gcms-t.i\T101121.b\T3709a.D
Date : 11-OCT-2021 14:39
Client ID:
Sample Info: WG307648-9
Instrument: gcms-t.i
-Dichlorodifluoromethane (1.243)
-Chloromethane (1.385)
-Vinyl Chloride (1.441)
-Bromomethane (1.677)
-Chloroethane (1.763)
-Trichlorofluoromethane (1.875)
-Diethyl Ether (2.126)
-1,1-Dichloroethene (2.302)+
-Iodomethane (2.407)
-Acrolein (2.590)
-Allyl Chloride (2.713)
-Methylene Chloride (2.818)
-Acetone (2.878)
-trans-1,2-Dichloroethene (2.975)+
-Methyl tert-butyl ether (3.103)
-Tertiary-butyl alcohol (3.241)
-Acetonitrile (3.357)
-Di-isopropyl ether (3.511)
-Chloroprene (3.597)+
-Acrylonitrile (3.686)
-Ethyl tertiary-butyl ethe (3.900)+
-cis-1,2-Dichloroethene (4.180)
-2,2-Dichloropropane (4.285)
-Cyclohexane (4.375)+
-Chloroform (4.476)
-Carbon Tetrachloride (4.592)
-Tetrahydrofuran (4.663)+
-1,1-Dichloropropene (4.798)+
-Benzene (5.052)
-Pentafluorobenzene (5.195)+
-1,2-Dichloroethane (5.269)
-Isobutyl Alcohol (5.367)
Propionitrile (5.123)+
-Methylcyclohexane (5.655)+
1,4-Difluorobenzene (5.715)
-Dibromomethane (6.093)
-1,2-Dichloropropane (6.205)
-Bromodichloromethane (6.287)
-Methyl Methacrylate (6.482)+
-2-Chloroethylvinylether (6.905)
-cis-1,3-Dichloropropene (6.942)
-Toluene (7.174)
Toluene-D8 (7.126)
-Tetrachloroethene (7.552)+
-1,1,2-Trichloroethane (7.769)+
-Dibromochloromethane (7.934)
-1,3-Dichloropropane (8.027)
-1,2-Dibromoethane (8.147)
-2-Hexanone (8.424)
-Ethylbenzene (8.723)
Chlorobenzene-D5 (8.671)+
m+p-Xylenes (8.873)
-o-Xylene (9.292)
Styrene (9.348)+
-Isopropylbenzene (9.610)
-P-Bromofluorobenzene (9.880)
-Bromobenzene (9.907)
-N-Propylbenzene (10.022)
-2-Chlorotoluene (10.160)
-1,2,3-Trichloropropane (10.228)+
-4-Chlorotoluene (10.329)
-tert-Butylbenzene (10.535)
-1,2,4-Trimethylbenzene (10.610)
-sec-Butylbenzene (10.714)
-P-Isopropyltoluene (10.868)
-1,3-Dichlorobenzene (10.915)
-1,2,3-Trimethylbenzene (11.044)
1,4-Dichlorobenzene-D4 (10.995)+
-N-Butylbenzene (11.291)
-1,2-Dichlorobenzene (11.425)
-1,2-Dibromo-3-Chloropropa (12.279)+
-Hexachlorobutadiene (12.937)+
-Naphthalene (13.278)
-1,2,3-Trichlorobenzene (13.469)
\\target_server\gg\chem\gcms-t.i\T101121.b\T3709a.D

Data File: \\target_server\gg\chem\gcms-t.i\T101121.b\T3701.D
Report Date: 05-Nov-2021 14:10

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-t.i\T101121.b\T3701.D
Lab Smp Id: WG307648-3
Inj Date : 11-OCT-2021 11:10
Operator : JSS   Inst ID: gcms-t.i
Smp Info : WG307648-3
Misc Info :
Comment   : SW846 5030
Method   : \\target_server\gg\chem\gcms-t.i\T101121.b\T8A05(01)shrt.m
Meth Date : 05-Nov-2021 14:10 gcms-t.i   Quant Type: ISTD
Cal Date : 11-OCT-2021 11:10   Cal File: T3701.D
Als bottle: 2   Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE   Compound Sublist: all.sub
Target Version: 4.12

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)	REVIEW CODE
1	Dichlorodifluoromethane	85	1.242	1.246	(0.240)	124940	20.0000	(a)	
2	Chloromethane	50	1.384	1.388	(0.268)	98513	20.0000	(a)	
3	Vinyl chloride	62	1.440	1.441	(0.278)	93012	20.0000	(a)	
4	Bromomethane	94	1.676	1.677	(0.324)	45540	20.0000	(a)	
5	Chloroethane	64	1.766	1.763	(0.341)	43996	20.0000	(a)	
6	Trichlorofluoromethane	101	1.875	1.875	(0.362)	132381	20.0000	(a)	
7	Diethyl Ether	59	2.125	2.126	(0.411)	54657	20.0000	(a)	
8	1,1-Dichloroethene	96	2.283	2.283	(0.441)	69843	20.0000	(a)	
9	Freon-113	151	2.324	2.324	(0.449)	53192	20.0000	(a)	
10	Carbon Disulfide	76	2.301	2.302	(0.445)	148785	20.0000	(a)	
11	Iodomethane	142	2.406	2.406	(0.465)	54461	20.0000	(a)	
12	Acrolein	56	2.589	2.590	(0.500)	42762	100.000	(a)	
13	Allyl Chloride	41	2.709	2.713	(0.524)	125008	20.0000	(a)	
14	Methylene Chloride	84	2.818	2.818	(0.544)	98580	20.0000	(a)	
15	Acetone	43	2.878	2.882	(0.556)	146158	100.000	(a)	
16	trans-1,2-Dichloroethene	96	2.975	2.975	(0.575)	92168	20.0000	(a)	
17	Methyl Acetate	43	3.008	3.013	(0.581)	60129	20.0000	(a)	
18	Methyl tert-butyl ether	73	3.098	3.106	(0.599)	238062	20.0000	(a)	
19	Tertiary-butyl alcohol	59	3.241	3.237	(0.626)	41599	100.000	(a)	
20	Acetonitrile	41	3.360	3.361	(0.649)	111896	200.000	(a)	
21	Di-isopropyl ether	45	3.506	3.510	(0.678)	263959	20.0000	(a)	
22	Chloroprene	53	3.589	3.593	(0.693)	145965	20.0000	(a)	
23	1,1-Dichloroethane	63	3.615	3.619	(0.698)	173070	20.0000	(a)	
24	Acrylonitrile	52	3.682	3.686	(0.712)	120414	100.000	(a)	

Data File: \\target_server\gg\chem\gcms-t.i\T101121.b\T3701.D
Report Date: 05-Nov-2021 14:10

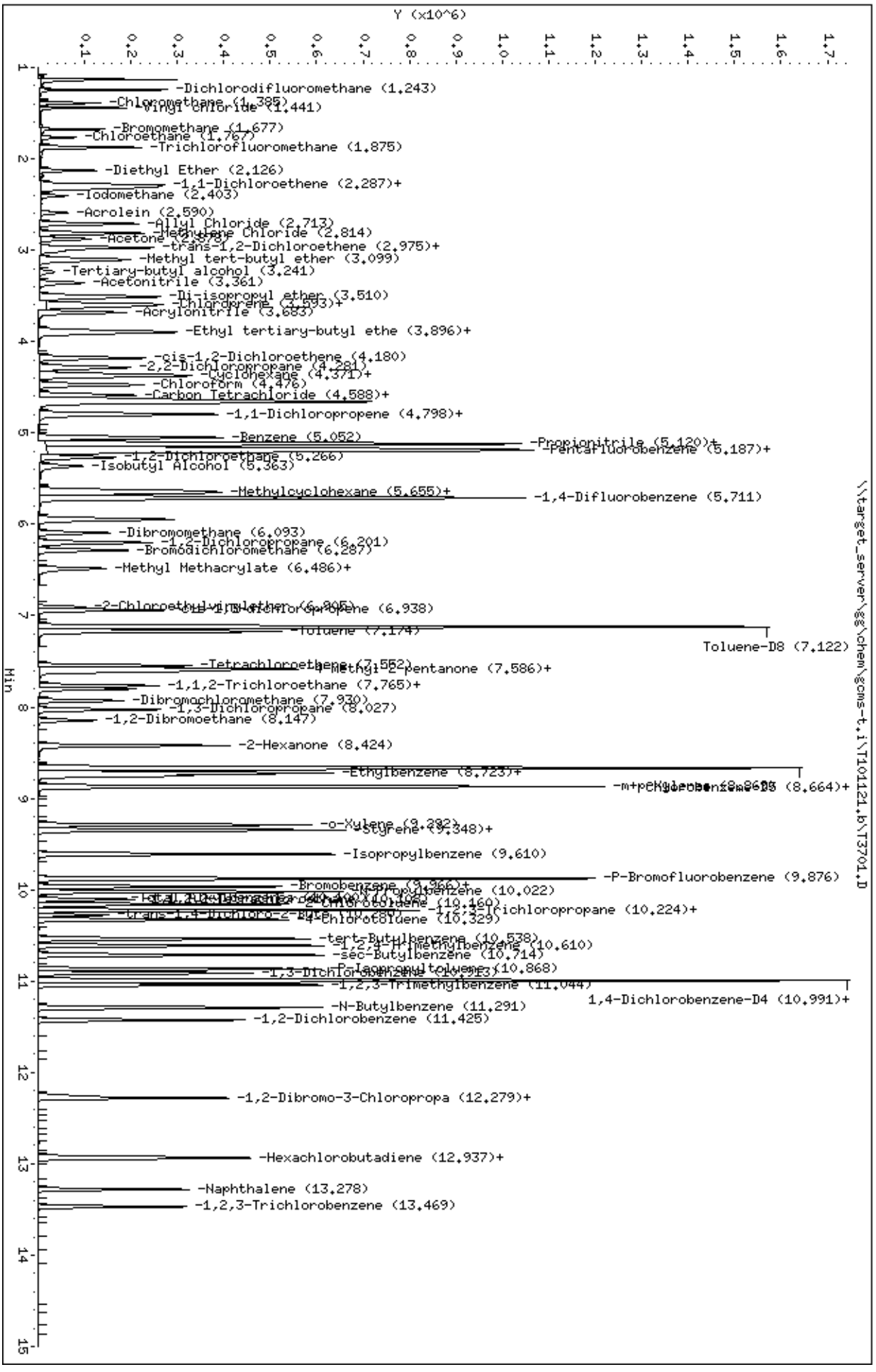
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)	REVIEW CODE
	25 Ethyl tertiary-butyl ether	59	3.892	3.896	(0.752)	249836	20.0000	(a)	
	26 Vinyl Acetate	43	3.907	3.911	(0.684)	185451	20.0000	(a)	
	27 cis-1,2-Dichloroethene	96	4.176	4.179	(0.807)	100642	20.0000	(a)	
	28 2,2-Dichloropropane	77	4.281	4.288	(0.827)	149272	20.0000	(a)	
	29 Cyclohexane	56	4.367	4.367	(0.844)	126249	20.0000	(a)	
	30 Bromochloromethane	128	4.382	4.382	(0.847)	41162	20.0000	(a)	
	31 Chloroform	83	4.472	4.476	(0.864)	184498	20.0000	(a)	
	32 Carbon Tetrachloride	117	4.588	4.588	(0.803)	142857	20.0000	(a)	
	33 Tetrahydrofuran	42	4.629	4.629	(0.894)	131776	100.000	(a)	
$	34 Dibromofluoromethane	113	4.659	4.659	(0.900)	280306	50.0000	(a)	
	35 1,1,1-Trichloroethane	97	4.663	4.667	(0.901)	171365	20.0000	(a)	
	36 1,1-Dichloropropene	75	4.794	4.794	(0.839)	136752	20.0000	(a)	
	37 2-Butanone	43	4.805	4.805	(0.928)	191599	100.000	(a)	
	38 Benzene	78	5.048	5.052	(0.884)	364457	20.0000	(a)	
	39 Propionitrile	54	5.100	5.104	(0.986)	118018	200.000	(a)	
	40 Methacrylonitrile	41	5.119	5.123	(0.989)	499837	200.000	(a)	
*	41 Pentafluorobenzene	168	5.175	5.176	(1.000)	566555	50.0000		
$	42 1,2-Dichloroethane-D4	65	5.198	5.202	(1.004)	365155	50.0000	(a)	
	43 Tertiary-amyl methyl ether	73	5.198	5.202	(1.004)	222970	20.0000	(a)	
	44 1,2-Dichloroethane	62	5.269	5.269	(0.923)	138703	20.0000	(a)	
	45 Isobutyl Alcohol	43	5.362	5.359	(1.036)	61529	400.000	(a)	
	46 Methylcyclohexane	83	5.636	5.640	(1.089)	142983	20.0000	(a)	
	47 Trichloroethene	95	5.662	5.662	(0.991)	95538	20.0000	(a)	
*	48 1,4-Difluorobenzene	114	5.710	5.714	(1.000)	835024	50.0000		
	49 Dibromomethane	93	6.092	6.092	(1.067)	59939	20.0000	(a)	
	50 1,2-Dichloropropane	63	6.201	6.201	(1.086)	86013	20.0000	(a)	
	51 Bromodichloromethane	83	6.283	6.287	(1.100)	132384	20.0000	(a)	
	52 Methyl Methacrylate	41	6.481	6.482	(1.135)	68158	20.0000	(a)	
	53 1,4-Dioxane	88	6.504	6.500	(1.139)	25281	400.000	(a)	
	54 2-Chloroethylvinylether	63	6.900	6.901	(1.208)	43295	20.0000	(a)	
	55 cis-1,3-dichloropropene	75	6.938	6.942	(1.215)	150446	20.0000	(a)	
$	56 Toluene-D8	98	7.121	7.122	(1.247)	991196	50.0000	(a)	
	57 Toluene	92	7.174	7.174	(1.256)	226252	20.0000	(a)	
	58 Tetrachloroethene	164	7.552	7.552	(0.872)	75501	20.0000	(a)	
	59 4-methyl-2-pentanone	43	7.585	7.586	(1.328)	352671	100.000	(a)	
	60 trans-1,3-Dichloropropene	75	7.611	7.612	(1.333)	138405	20.0000	(a)	
	61 1,1,2-Trichloroethane	83	7.765	7.765	(1.360)	65348	20.0000	(a)	
	62 Ethyl Methacrylate	69	7.802	7.803	(1.366)	102893	20.0000	(a)	
	63 Dibromochloromethane	129	7.930	7.934	(0.915)	94651	20.0000	(a)	
	64 1,3-Dichloropropane	76	8.031	8.031	(0.927)	147134	20.0000	(a)	
	65 1,2-Dibromoethane	107	8.147	8.147	(1.427)	80498	20.0000	(a)	
M	66 Total Alkylbenzenes	100				2434361	20.0000	(a)	
	67 2-Hexanone	43	8.424	8.423	(0.972)	242894	100.000	(a)	
*	68 Chlorobenzene-D5	117	8.663	8.663	(1.000)	747216	50.0000		
	69 Chlorobenzene	112	8.678	8.678	(1.002)	238147	20.0000	(a)	
	70 Ethylbenzene	91	8.723	8.723	(1.007)	426484	20.0000	(a)	
	71 1,1,1,2-Tetrachloroethane	131	8.753	8.753	(1.010)	86364	20.0000	(a)	
	72 m+p-Xylenes	91	8.869	8.873	(1.024)	658729	40.0000	(a)	
	73 o-Xylene	91	9.292	9.292	(1.073)	327415	20.0000	(a)	
	74 Styrene	104	9.348	9.348	(1.079)	248164	20.0000	(a)	
	75 Bromoform	173	9.359	9.356	(1.080)	57725	20.0000	(a)	
	76 Isopropylbenzene	105	9.610	9.610	(0.874)	404397	20.0000	(a)	
$	77 P-Bromofluorobenzene	95	9.876	9.876	(1.729)	362174	50.0000	(a)	
	78 Bromobenzene	156	9.969	9.969	(0.907)	96020	20.0000	(a)	

Data File: \\target_server\gg\chem\gcms-t.i\T101121.b\T3701.D
Report Date: 05-Nov-2021 14:10

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)	REVIEW CODE
	79 cis-1,4-Dichloro-2-Butene	53	9.962	9.966	(0.906)	30050	20.0000	(a)	
	80 N-Propylbenzene	91	10.021	10.022	(0.912)	481117	20.0000	(a)	
	81 1,1,2,2-Tetrachloroethane	83	10.104	10.108	(0.919)	95645	20.0000	(a)	
	82 2-Chlorotoluene	91	10.160	10.160	(0.924)	284747	20.0000	(a)	
	83 1,2,3-Trichloropropane	75	10.224	10.224	(0.930)	84150	20.0000	(a)	
	84 1,3,5-Trimethylbenzene	105	10.227	10.228	(0.931)	324475	20.0000	(a)	
	85 trans-1,4-Dichloro-2-Butene	53	10.276	10.276	(0.935)	29368	20.0000	(a)	
	86 4-Chlorotoluene	91	10.328	10.329	(0.940)	295709	20.0000	(a)	
	87 tert-Butylbenzene	119	10.538	10.534	(0.959)	263833	20.0000	(a)	
	89 1,2,4-Trimethylbenzene	105	10.609	10.609	(0.965)	324682	20.0000	(a)	
	90 sec-Butylbenzene	105	10.714	10.714	(0.975)	408687	20.0000	(a)	
	91 P-Isopropyltoluene	119	10.867	10.868	(0.989)	321937	20.0000	(a)	
	92 1,3-Dichlorobenzene	146	10.916	10.912	(0.993)	172948	20.0000	(a)	
*	93 1,4-Dichlorobenzene-D4	152	10.991	10.991	(1.000)	370894	50.0000		
	94 1,4-Dichlorobenzene	146	11.006	11.006	(1.001)	176996	20.0000	(a)	
	95 1,2,3-Trimethylbenzene	105	11.043	11.043	(1.005)	324189	20.0000	(a)	
	96 N-Butylbenzene	91	11.290	11.290	(1.027)	309630	20.0000	(a)	
	97 1,2-Dichlorobenzene	146	11.425	11.425	(1.039)	161077	20.0000	(a)	
	98 1,2-Dibromo-3-Chloropropane	157	12.248	12.245	(1.114)	15917	20.0000	(a)	
	99 1,3,5-Trichlorobenzene	180	12.278	12.278	(1.117)	118622	20.0000	(a)	
	100 Hexachlorobutadiene	225	12.922	12.926	(1.176)	46818	20.0000	(a)	
	101 1,2,4-Trichlorobenzene	180	12.940	12.941	(1.177)	98460	20.0000	(a)	
	102 Naphthalene	128	13.277	13.278	(1.208)	217037	20.0000	(a)	
M	103 1,2-Dichloroethylene (total)	96				192810	20.0000	(a)	
	104 1,2,3-Trichlorobenzene	180	13.472	13.468	(1.226)	90763	20.0000	(a)	
M	105 Xylenes (total)	91				986144	60.0000	(a)	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).


Data File: \\target_server\gg\chem\gcms-t.i\T101121.b\T3701.D
Date : 11-OCT-2021 11:10
Client ID:
Sample Info: WG307648-3
Purge Volume: 5.0
Column phase: RTX-VMS
Instrument: gcms-t.i
Operator: JSS
Column diameter: 0.18
Y (x10^6)
Min
\\target_server\gg\chem\gcms-t.i\T101121.b\T3701.D
-Dichlorodifluoromethane (1.243)
-Chloromethane (1.385)
-Vinyl Chloride (1.441)
-Bromomethane (1.677)
-Chloroethane (1.767)
-Trichlorofluoromethane (1.875)
-Diethyl Ether (2.126)
-1,1-Dichloroethene (2.287)+
-Iodomethane (2.403)
-Acrolein (2.590)
-Allyl Chloride (2.713)
-Methylene Chloride (2.814)
-Acetone (2.978)
-trans-1,2-Dichloroethene (2.975)+
-Methyl tert-butyl ether (3.099)
-Tertiary-butyl alcohol (3.241)
-Acetonitrile (3.361)
-Di-isopropyl ether (3.510)
-Chloroprene (3.593)+
-Acrylonitrile (3.683)
-Ethyl tertiary-butyl ethe (3.896)+
-cis-1,2-Dichloroethene (4.180)
-2,2-Dichloropropane (4.281)
-Cyclohexane (4.371)+
-Chloroform (4.476)
-Carbon Tetrachloride (4.588)+
-1,1-Dichloropropene (4.798)+
-Benzene (5.052)
-Propionitrile (5.120)+
-Pentafluorobenzene (5.187)+
-1,2-Dichloroethane (5.266)
-Isobutyl Alcohol (5.363)
-Methylcyclohexane (5.655)+
-1,4-Difluorobenzene (5.711)
-Dibromomethane (6.093)
-1,2-Dichloropropane (6.201)
-Bromodichloromethane (6.287)
-Methyl Methacrylate (6.486)+
-2-Chloroethyl vinyl ether (6.805)
cis-1,3-Dichloropropene (6.938)
-Toluene (7.174)
Toluene-D8 (7.122)
-Tetrachloroethene (7.552)
-4-Methyl-2-pentanone (7.586)+
-1,1,2-Trichloroethane (7.765)+
-Dibromochloromethane (7.930)
-1,3-Dichloropropane (8.027)
-1,2-Dibromoethane (8.147)
-2-Hexanone (8.424)
-Ethylbenzene (8.723)+
-m+p-Xylene (8.664)+
-o-Xylene (9.282)
-Styrene (9.348)+
-Isopropylbenzene (9.610)
-P-Bromofluorobenzene (9.876)
-Bromobenzene (9.966)+
-n-Propylbenzene (10.022)
-2-Chlorotoluene (10.160)
-1,2,3-Trichloropropane (10.224)+
-4-Chlorotoluene (10.329)
-tert-Butylbenzene (10.538)
-1,2,4-Trimethylbenzene (10.610)
-sec-Butylbenzene (10.714)
-p-Isopropyltoluene (10.868)
-1,3-Dichlorobenzene (10.913)
-1,2,3-Trimethylbenzene (11.044)
1,4-Dichlorobenzene-D4 (10.991)+
-N-Butylbenzene (11.291)
-1,2-Dichlorobenzene (11.425)
-1,2-Dibromo-3-Chloropropa (12.279)+
-Hexachlorobutadiene (12.937)+
-Naphthalene (13.278)
-1,2,3-Trichlorobenzene (13.469)

Data File: \\target_server\gg\chem\gcms-t.i\T101121.b\T3702.D
Report Date: 05-Nov-2021 14:10

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-t.i\T101121.b\T3702.D
Lab Smp Id: WG307648-8
Inj Date : 11-OCT-2021 11:36
Operator : JSS   Inst ID: gcms-t.i
Smp Info : WG307648-8
Misc Info :
Comment   : SW846 5030
Method   : \\target_server\gg\chem\gcms-t.i\T101121.b\T8A05(01)shrt.m
Meth Date : 05-Nov-2021 14:10 gcms-t.i   Quant Type: ISTD
Cal Date : 11-OCT-2021 11:36   Cal File: T3702.D
Als bottle: 3   Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: HP RTE   Compound Sublist: all.sub
Target Version: 4.12

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)	REVIEW CODE
1	Dichlorodifluoromethane	85	1.242	1.246	(0.240)	61369	10.0000	10	
2	Chloromethane	50	1.388	1.388	(0.268)	49639	10.0000	10.2	
3	Vinyl chloride	62	1.440	1.441	(0.278)	44194	10.0000	9.6	
4	Bromomethane	94	1.676	1.677	(0.324)	24217	10.0000	10.8	
5	Chloroethane	64	1.773	1.763	(0.343)	23175	10.0000	10.7	
6	Trichlorofluoromethane	101	1.878	1.875	(0.363)	65281	10.0000	10.0	
7	Diethyl Ether	59	2.125	2.126	(0.411)	28256	10.0000	10.5	
8	1,1-Dichloroethene	96	2.286	2.283	(0.442)	34957	10.0000	10.2	
9	Freon-113	151	2.327	2.324	(0.450)	28389	10.0000	10.8	
10	Carbon Disulfide	76	2.305	2.302	(0.445)	69653	10.0000	9.5	
11	Iodomethane	142	2.406	2.406	(0.465)	23783	10.0000	8.9	
12	Acrolein	56	2.589	2.590	(0.500)	22698	50.0000	53.9	
13	Allyl Chloride	41	2.713	2.713	(0.524)	53800	10.0000	8.7	
14	Methylene Chloride	84	2.817	2.818	(0.544)	52680	10.0000	10.8	
15	Acetone	43	2.877	2.882	(0.556)	72153	50.0000	50.1	
16	trans-1,2-Dichloroethene	96	2.975	2.975	(0.575)	45082	10.0000	9.9	
17	Methyl Acetate	43	3.008	3.013	(0.581)	30668	10.0000	10.4	
18	Methyl tert-butyl ether	73	3.102	3.106	(0.599)	118984	10.0000	10.1	
19	Tertiary-butyl alcohol	59	3.248	3.237	(0.628)	19461	50.0000	47.5	
20	Acetonitrile	41	3.360	3.361	(0.649)	57797	100.000	105	
21	Di-isopropyl ether	45	3.513	3.510	(0.679)	132808	10.0000	10.2	
22	Chloroprene	53	3.592	3.593	(0.694)	72310	10.0000	10.0	
23	1,1-Dichloroethane	63	3.618	3.619	(0.699)	86405	10.0000	10.1	
24	Acrylonitrile	52	3.686	3.686	(0.712)	61193	50.0000	51.6	

Data File: \\target_server\gg\chem\gcms-t.i\T101121.b\T3702.D
Report Date: 05-Nov-2021 14:10

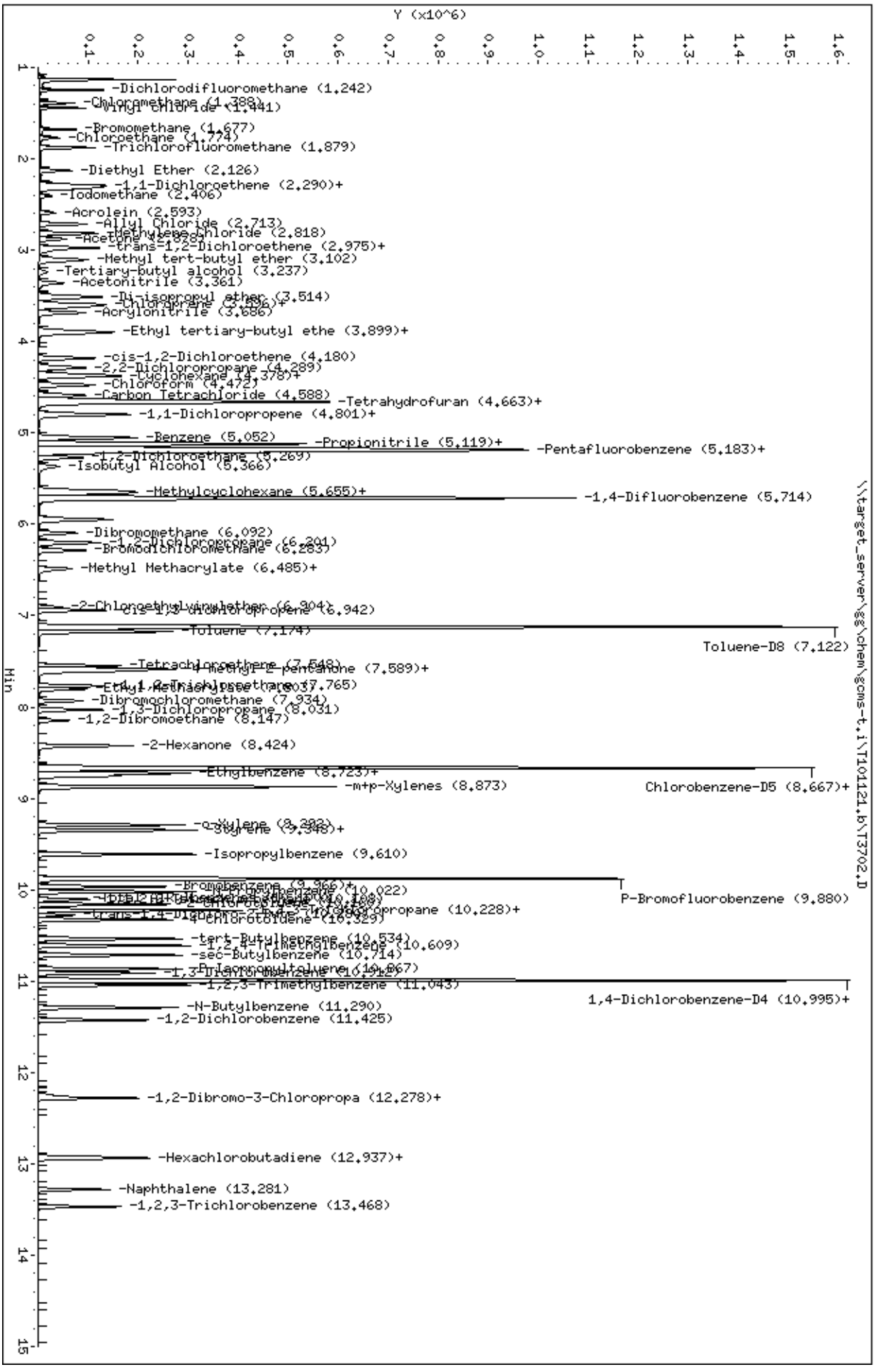
			QUANT SIG					AMOUNTS		
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)	REVIEW CODE
	25	Ethyl tertiary-butyl ether	59	3.895	3.896	(0.753)	123812	10.0000	10.0	
	26	Vinyl Acetate	43	3.910	3.911	(0.684)	91707	10.0000	9.6	
	27	cis-1,2-Dichloroethene	96	4.183	4.179	(0.808)	49548	10.0000	10	
	28	2,2-Dichloropropane	77	4.284	4.288	(0.828)	71403	10.0000	9.7	
	29	Cyclohexane	56	4.367	4.367	(0.844)	60429	10.0000	9.7	
	30	Bromochloromethane	128	4.382	4.382	(0.847)	22384	10.0000	11.0	
	31	Chloroform	83	4.471	4.476	(0.864)	91833	10.0000	10.1	
	32	Carbon Tetrachloride	117	4.591	4.588	(0.804)	67257	10.0000	9.1	
	33	Tetrahydrofuran	42	4.629	4.629	(0.894)	66521	50.0000	51.2	
$	34	Dibromofluoromethane	113	4.662	4.659	(0.901)	282871	50.0000	51.2	
	35	1,1,1-Trichloroethane	97	4.666	4.667	(0.902)	83063	10.0000	9.8	
	36	1,1-Dichloropropene	75	4.793	4.794	(0.839)	66556	10.0000	9.4	
	37	2-Butanone	43	4.805	4.805	(0.928)	91684	50.0000	48.6	
	38	Benzene	78	5.048	5.052	(0.883)	183223	10.0000	9.8	
	39	Propionitrile	54	5.104	5.104	(0.986)	60002	100.000	103	
	40	Methacrylonitrile	41	5.119	5.123	(0.989)	254625	100.000	103	
*	41	Pentafluorobenzene	168	5.175	5.176	(1.000)	558340	50.0000		
$	42	1,2-Dichloroethane-D4	65	5.197	5.202	(1.004)	366921	50.0000	51.0	
	43	Tertiary-amyl methyl ether	73	5.201	5.202	(1.005)	109681	10.0000	10	
	44	1,2-Dichloroethane	62	5.272	5.269	(0.923)	73319	10.0000	10.3	
	45	Isobutyl Alcohol	43	5.366	5.359	(1.037)	28436	200.000	188	
	46	Methylcyclohexane	83	5.632	5.640	(1.088)	74101	10.0000	10.5	
	47	Trichloroethene	95	5.665	5.662	(0.991)	46094	10.0000	9.4	
*	48	1,4-Difluorobenzene	114	5.714	5.714	(1.000)	859701	50.0000		
	49	Dibromomethane	93	6.092	6.092	(1.066)	29938	10.0000	9.7	
	50	1,2-Dichloropropane	63	6.200	6.201	(1.085)	43722	10.0000	9.9	
	51	Bromodichloromethane	83	6.283	6.287	(1.100)	64987	10.0000	9.5	
	52	Methyl Methacrylate	41	6.485	6.482	(1.135)	33337	10.0000	9.5	
	53	1,4-Dioxane	88	6.507	6.500	(1.139)	12070	200.000	185	
	54	2-Chloroethylvinylether	63	6.904	6.901	(1.208)	20503	10.0000	9.2	
	55	cis-1,3-dichloropropene	75	6.938	6.942	(1.214)	72660	10.0000	9.4	
$	56	Toluene-D8	98	7.121	7.122	(1.246)	988636	50.0000	48.4	
	57	Toluene	92	7.173	7.174	(1.255)	111992	10.0000	9.6	
	58	Tetrachloroethene	164	7.548	7.552	(0.871)	36155	10.0000	9.5	
	59	4-methyl-2-pentanone	43	7.585	7.586	(1.327)	168548	50.0000	46.4	
	60	trans-1,3-Dichloropropene	75	7.615	7.612	(1.333)	66290	10.0000	9.3	
	61	1,1,2-Trichloroethane	83	7.765	7.765	(1.359)	33059	10.0000	9.8	
	62	Ethyl Methacrylate	69	7.806	7.803	(1.366)	48931	10.0000	9.2	
	63	Dibromochloromethane	129	7.933	7.934	(0.916)	46054	10.0000	9.7	
	64	1,3-Dichloropropane	76	8.030	8.031	(0.927)	74092	10.0000	10.0	
	65	1,2-Dibromoethane	107	8.146	8.147	(1.426)	40462	10.0000	9.8	
M	66	Total Alkylbenzenes	100				1164884	10.0000	(a)	
	67	2-Hexanone	43	8.423	8.423	(0.972)	114951	50.0000	47.1	
*	68	Chlorobenzene-D5	117	8.663	8.663	(1.000)	750255	50.0000		
	69	Chlorobenzene	112	8.678	8.678	(1.002)	119537	10.0000	10	
	70	Ethylbenzene	91	8.723	8.723	(1.007)	207135	10.0000	9.7	
	71	1,1,1,2-Tetrachloroethane	131	8.753	8.753	(1.010)	41516	10.0000	9.6	
	72	m+p-Xylenes	91	8.872	8.873	(1.024)	322258	20.0000	19.5	
	73	o-Xylene	91	9.292	9.292	(1.073)	160920	10.0000	9.8	
	74	Styrene	104	9.344	9.348	(1.079)	117691	10.0000	9.4	
	75	Bromoform	173	9.355	9.356	(1.080)	27967	10.0000	9.6	
	76	Isopropylbenzene	105	9.610	9.610	(0.874)	198732	10.0000	9.8	
$	77	P-Bromofluorobenzene	95	9.879	9.876	(1.729)	360155	50.0000	48.3	
	78	Bromobenzene	156	9.965	9.969	(0.907)	49009	10.0000	10.1	

Data File: \\target_server\gg\chem\gcms-t.i\T101121.b\T3702.D
Report Date: 05-Nov-2021 14:10

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)	REVIEW CODE
	79 cis-1,4-Dichloro-2-Butene	53	9.965	9.966	(0.907)	14986	10.0000	9.9	
	80 N-Propylbenzene	91	10.021	10.022	(0.912)	234977	10.0000	9.7	
	81 1,1,2,2-Tetrachloroethane	83	10.107	10.108	(0.920)	48434	10.0000	10.1	
	82 2-Chlorotoluene	91	10.160	10.160	(0.924)	138309	10.0000	9.6	
	83 1,2,3-Trichloropropane	75	10.223	10.224	(0.930)	42236	10.0000	10	
	84 1,3,5-Trimethylbenzene	105	10.227	10.228	(0.931)	156239	10.0000	9.6	
	85 trans-1,4-Dichloro-2-Butene	53	10.279	10.276	(0.935)	14517	10.0000	9.8	
	86 4-Chlorotoluene	91	10.328	10.329	(0.940)	142771	10.0000	9.6	
	87 tert-Butylbenzene	119	10.534	10.534	(0.958)	127922	10.0000	9.6	
	89 1,2,4-Trimethylbenzene	105	10.609	10.609	(0.965)	156978	10.0000	9.6	
	90 sec-Butylbenzene	105	10.714	10.714	(0.975)	194657	10.0000	9.5	
	91 P-Isopropyltoluene	119	10.867	10.868	(0.989)	150382	10.0000	9.3	
	92 1,3-Dichlorobenzene	146	10.912	10.912	(0.993)	87860	10.0000	10.1	
*	93 1,4-Dichlorobenzene-D4	152	10.990	10.991	(1.000)	373045	50.0000		
	94 1,4-Dichlorobenzene	146	11.005	11.006	(1.001)	90691	10.0000	10.2	
	95 1,2,3-Trimethylbenzene	105	11.043	11.043	(1.005)	160599	10.0000	9.8	
	96 N-Butylbenzene	91	11.290	11.290	(1.027)	143729	10.0000	9.2	
	97 1,2-Dichlorobenzene	146	11.425	11.425	(1.039)	82101	10.0000	10.1	
	98 1,2-Dibromo-3-Chloropropane	157	12.248	12.245	(1.114)	7916	10.0000	9.9	
	99 1,3,5-Trichlorobenzene	180	12.278	12.278	(1.117)	57471	10.0000	9.6	
	100 Hexachlorobutadiene	225	12.921	12.926	(1.176)	23298	10.0000	9.9	
	101 1,2,4-Trichlorobenzene	180	12.940	12.941	(1.177)	48177	10.0000	9.7	
	102 Naphthalene	128	13.281	13.278	(1.208)	95769	10.0000	8.8	
M	103 1,2-Dichloroethylene (total)	96				94630	10.0000	(a)	
	104 1,2,3-Trichlorobenzene	180	13.468	13.468	(1.225)	44648	10.0000	9.8	
M	105 Xylenes (total)	91				483178	10.0000	(a)	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).



Data File: \\target_server\gg\chem\gcms-t.i\T101121.b\T3702.D
Date : 11-OCT-2021 11:36
Client ID:
Sample Info: WG307648-8
Purge Volume: 5.0
Column phase: RTX-VMS

Instrument: gcms-t.i
Operator: JSS
Column diameter: 0.18

\\target_server\gg\chem\gcms-t.i\T101121.b\T3702.D

Data File: \\target_server\gg\chem\gcms-t.i\T101121.b\T3703.D
Report Date: 05-Nov-2021 14:10

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-t.i\T101121.b\T3703.D
Lab Smp Id: WG307648-2
Inj Date : 11-OCT-2021 12:02
Operator : JSS   Inst ID: gcms-t.i
Smp Info : WG307648-2
Misc Info :
Comment   : SW846 5030
Method   : \\target_server\gg\chem\gcms-t.i\T101121.b\T8A05(01)shrt.m
Meth Date : 05-Nov-2021 14:10 gcms-t.i   Quant Type: ISTD
Cal Date : 11-OCT-2021 12:02   Cal File: T3703.D
Als bottle: 4   Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE   Compound Sublist: all.sub
Target Version: 4.12

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)	REVIEW CODE
1	Dichlorodifluoromethane	85	1.242	1.246	(0.240)	31761	5.00000	5.2	
2	Chloromethane	50	1.388	1.388	(0.268)	27095	5.00000	5.6	
3	Vinyl chloride	62	1.440	1.441	(0.278)	23708	5.00000	5.3	
4	Bromomethane	94	1.676	1.677	(0.324)	12548	5.00000	5.6	
5	Chloroethane	64	1.770	1.763	(0.342)	12493	5.00000	5.6	
6	Trichlorofluoromethane	101	1.878	1.875	(0.363)	32939	5.00000	5.1	
7	Diethyl Ether	59	2.125	2.126	(0.411)	13186	5.00000	4.8	
8	1,1-Dichloroethene	96	2.286	2.283	(0.442)	17554	5.00000	5.1	
9	Freon-113	151	2.320	2.324	(0.448)	11859	5.00000	4.4	
10	Carbon Disulfide	76	2.301	2.302	(0.445)	34432	5.00000	4.9	
11	Iodomethane	142	2.406	2.406	(0.465)	11280	5.00000	4.4	
12	Acrolein	56	2.589	2.590	(0.500)	10515	25.0000	24.4	
13	Allyl Chloride	41	2.713	2.713	(0.524)	28547	5.00000	5.0	
14	Methylene Chloride	84	2.818	2.818	(0.544)	29320	5.00000	6.0	
15	Acetone	43	2.881	2.882	(0.557)	37608	25.0000	26.5	
16	trans-1,2-Dichloroethene	96	2.979	2.975	(0.576)	24543	5.00000	5.5	
17	Methyl Acetate	43	3.012	3.013	(0.582)	14190	5.00000	4.8	
18	Methyl tert-butyl ether	73	3.102	3.106	(0.599)	56682	5.00000	4.9	
19	Tertiary-butyl alcohol	59	3.237	3.237	(0.625)	9947	25.0000	25.2	
20	Acetonitrile	41	3.360	3.361	(0.649)	28228	50.0000	50.7	
21	Di-isopropyl ether	45	3.510	3.510	(0.678)	59584	5.00000	4.6	
22	Chloroprene	53	3.592	3.593	(0.694)	32687	5.00000	4.6	
23	1,1-Dichloroethane	63	3.618	3.619	(0.699)	46206	5.00000	5.5	
24	Acrylonitrile	52	3.686	3.686	(0.712)	28467	25.0000	24.0	

Data File: \\target_server\gg\chem\gcms-t.i\T101121.b\T3703.D
Report Date: 05-Nov-2021 14:10

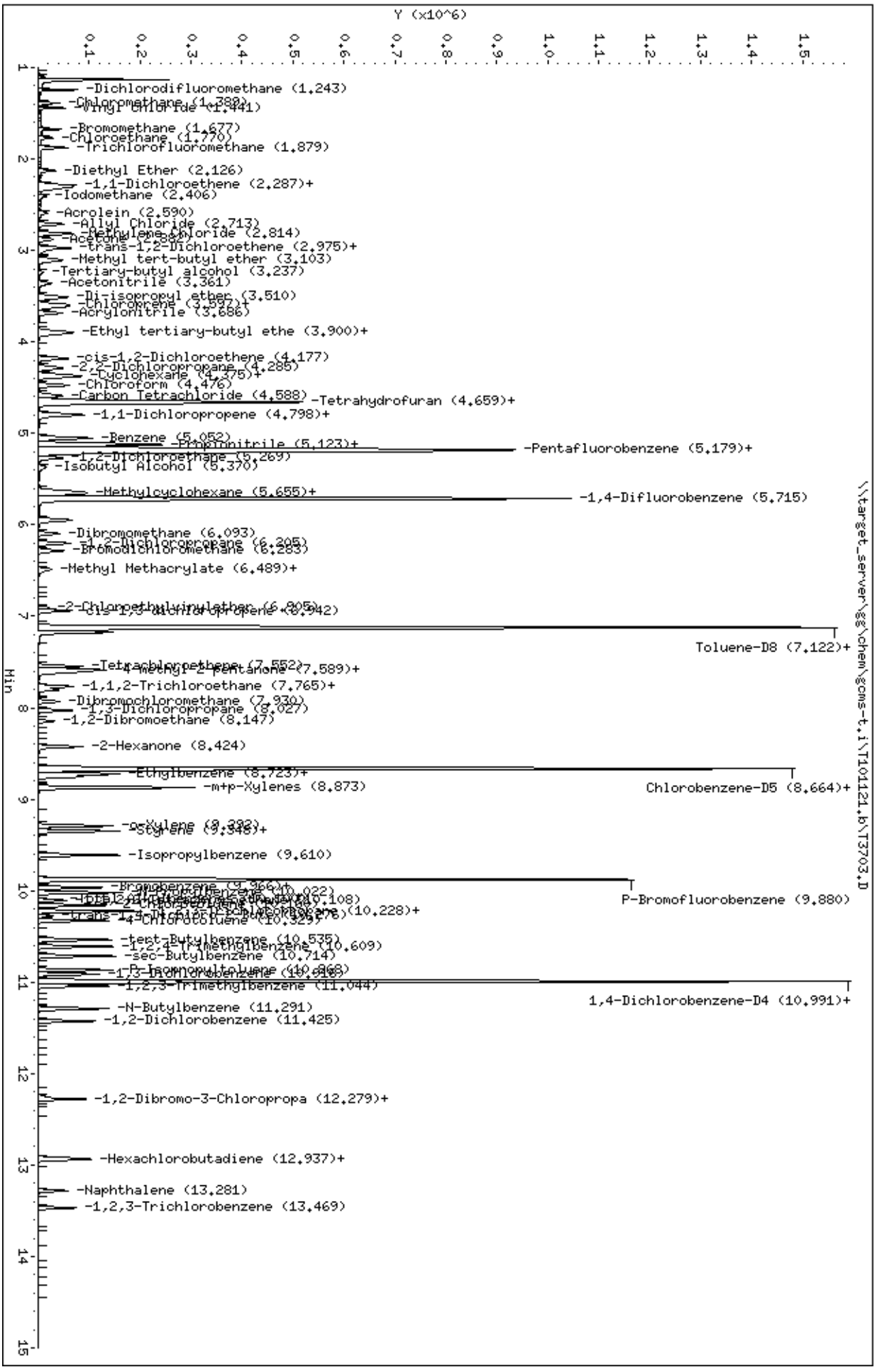
		Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)	REVIEW CODE
	25	Ethyl tertiary-butyl ether	59	3.895	3.896	(0.753)	54719	5.00000	4.5	
	26	Vinyl Acetate	43	3.910	3.911	(0.684)	43049	5.00000	4.8	
	27	cis-1,2-Dichloroethene	96	4.176	4.179	(0.807)	25919	5.00000	5.3	
	28	2,2-Dichloropropane	77	4.285	4.288	(0.828)	35487	5.00000	5.0	
	29	Cyclohexane	56	4.367	4.367	(0.844)	30256	5.00000	5.0	
	30	Bromochloromethane	128	4.378	4.382	(0.846)	10624	5.00000	5.0	
	31	Chloroform	83	4.472	4.476	(0.864)	48674	5.00000	5.4	
	32	Carbon Tetrachloride	117	4.588	4.588	(0.803)	33872	5.00000	5.0	
	33	Tetrahydrofuran	42	4.633	4.629	(0.895)	32309	25.0000	24.9	
$	34	Dibromofluoromethane	113	4.659	4.659	(0.900)	279958	50.0000	50.8	
	35	1,1,1-Trichloroethane	97	4.663	4.667	(0.901)	43356	5.00000	5.2	
	36	1,1-Dichloropropene	75	4.797	4.794	(0.840)	33683	5.00000	5.1	
	37	2-Butanone	43	4.809	4.805	(0.929)	46741	25.0000	25.5	
	38	Benzene	78	5.052	5.052	(0.884)	94515	5.00000	5.3	
	39	Propionitrile	54	5.104	5.104	(0.986)	28930	50.0000	49.7	
	40	Methacrylonitrile	41	5.123	5.123	(0.990)	117697	50.0000	47.7	
*	41	Pentafluorobenzene	168	5.175	5.176	(1.000)	550329	50.0000		
$	42	1,2-Dichloroethane-D4	65	5.198	5.202	(1.004)	356951	50.0000	49.8	
	43	Tertiary-amyl methyl ether	73	5.201	5.202	(1.005)	48689	5.00000	4.5	
	44	1,2-Dichloroethane	62	5.269	5.269	(0.922)	38405	5.00000	5.5	
	45	Isobutyl Alcohol	43	5.370	5.359	(1.038)	9621	100.000	66.4	
	46	Methylcyclohexane	83	5.639	5.640	(1.090)	30660	5.00000	4.3	
	47	Trichloroethene	95	5.662	5.662	(0.991)	25465	5.00000	5.5	
*	48	1,4-Difluorobenzene	114	5.714	5.714	(1.000)	832073	50.0000		
	49	Dibromomethane	93	6.096	6.092	(1.067)	15541	5.00000	5.3	
	50	1,2-Dichloropropane	63	6.204	6.201	(1.086)	21574	5.00000	5.1	
	51	Bromodichloromethane	83	6.283	6.287	(1.100)	32474	5.00000	5.0	
	52	Methyl Methacrylate	41	6.485	6.482	(1.135)	13199	5.00000	4.0	
	53	1,4-Dioxane	88	6.507	6.500	(1.139)	5492	100.000	90.5	
	54	2-Chloroethylvinylether	63	6.904	6.901	(1.208)	9226	5.00000	4.3	
	55	cis-1,3-dichloropropene	75	6.942	6.942	(1.215)	34298	5.00000	4.7	
$	56	Toluene-D8	98	7.121	7.122	(1.246)	987647	50.0000	50.8	
	57	Toluene	92	7.174	7.174	(1.255)	58130	5.00000	5.2	
	58	Tetrachloroethene	164	7.552	7.552	(0.872)	19333	5.00000	5.3	
	59	4-methyl-2-pentanone	43	7.589	7.586	(1.328)	84667	25.0000	25.0	
	60	trans-1,3-Dichloropropene	75	7.611	7.612	(1.332)	32383	5.00000	4.9	
	61	1,1,2-Trichloroethane	83	7.765	7.765	(1.359)	16943	5.00000	5.2	
	62	Ethyl Methacrylate	69	7.806	7.803	(1.366)	19316	5.00000	3.8	
	63	Dibromochloromethane	129	7.933	7.934	(0.916)	21939	5.00000	4.8	
	64	1,3-Dichloropropane	76	8.027	8.031	(0.927)	36841	5.00000	5.0	
	65	1,2-Dibromoethane	107	8.147	8.147	(1.426)	19593	5.00000	4.9	
M	66	Total Alkylbenzenes	100				586625	5.00000		(a)
	67	2-Hexanone	43	8.424	8.423	(0.972)	54942	25.0000	23.5	
*	68	Chlorobenzene-D5	117	8.663	8.663	(1.000)	740614	50.0000		
	69	Chlorobenzene	112	8.682	8.678	(1.002)	62932	5.00000	5.3	
	70	Ethylbenzene	91	8.723	8.723	(1.007)	110306	5.00000	5.3	
	71	1,1,1,2-Tetrachloroethane	131	8.753	8.753	(1.010)	22131	5.00000	5.3	
	72	m+p-Xylenes	91	8.873	8.873	(1.024)	165528	10.0000	10.3	
	73	o-Xylene	91	9.292	9.292	(1.073)	81035	5.00000	5.0	
	74	Styrene	104	9.348	9.348	(1.079)	58987	5.00000	4.9	
	75	Bromoform	173	9.355	9.356	(1.080)	12692	5.00000	4.5	
	76	Isopropylbenzene	105	9.610	9.610	(0.874)	97810	5.00000	5.0	
$	77	P-Bromofluorobenzene	95	9.879	9.876	(1.729)	354785	50.0000	50.0	
	78	Bromobenzene	156	9.969	9.969	(0.907)	25288	5.00000	5.4	

Data File: \\target_server\gg\chem\gcms-t.i\T101121.b\T3703.D
Report Date: 05-Nov-2021 14:10

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)	REVIEW CODE
	79 cis-1,4-Dichloro-2-Butene	53	9.962	9.966	(0.906)	6392	5.00000	4.4	
	80 N-Propylbenzene	91	10.021	10.022	(0.912)	119067	5.00000	5.2	
	81 1,1,2,2-Tetrachloroethane	83	10.108	10.108	(0.920)	24632	5.00000	5.3	
	82 2-Chlorotoluene	91	10.160	10.160	(0.924)	71959	5.00000	5.3	
	83 1,2,3-Trichloropropane	75	10.224	10.224	(0.930)	21962	5.00000	5.4	
	84 1,3,5-Trimethylbenzene	105	10.227	10.228	(0.931)	77617	5.00000	5.0	
	85 trans-1,4-Dichloro-2-Butene	53	10.276	10.276	(0.935)	6253	5.00000	4.4	
	86 4-Chlorotoluene	91	10.332	10.329	(0.940)	76763	5.00000	5.4	
	87 tert-Butylbenzene	119	10.534	10.534	(0.958)	64368	5.00000	5.1	
	89 1,2,4-Trimethylbenzene	105	10.609	10.609	(0.965)	81283	5.00000	5.2	
	90 sec-Butylbenzene	105	10.714	10.714	(0.975)	98920	5.00000	5.1	
	91 P-Isopropyltoluene	119	10.867	10.868	(0.989)	75264	5.00000	5.0	
	92 1,3-Dichlorobenzene	146	10.912	10.912	(0.993)	44350	5.00000	5.2	
*	93 1,4-Dichlorobenzene-D4	152	10.991	10.991	(1.000)	360754	50.0000		
	94 1,4-Dichlorobenzene	146	11.006	11.006	(1.001)	47193	5.00000	5.4	
	95 1,2,3-Trimethylbenzene	105	11.043	11.043	(1.005)	74315	5.00000	4.7	
	96 N-Butylbenzene	91	11.294	11.290	(1.028)	70106	5.00000	4.8	
	97 1,2-Dichlorobenzene	146	11.425	11.425	(1.039)	39902	5.00000	5.0	
	98 1,2-Dibromo-3-Chloropropane	157	12.244	12.245	(1.114)	3583	5.00000	4.6	
	99 1,3,5-Trichlorobenzene	180	12.278	12.278	(1.117)	25990	5.00000	4.6	
	100 Hexachlorobutadiene	225	12.925	12.926	(1.176)	11593	5.00000	5.1	
	101 1,2,4-Trichlorobenzene	180	12.940	12.941	(1.177)	22777	5.00000	4.8	
	102 Naphthalene	128	13.281	13.278	(1.208)	41537	5.00000	4.0	
M	103 1,2-Dichloroethylene (total)	96				50462	5.00000	(a)	
	104 1,2,3-Trichlorobenzene	180	13.468	13.468	(1.225)	21515	5.00000	4.9	
M	105 Xylenes (total)	91				246563	15.0000	(a)	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).


Data File: \\target_server\gg\chem\gcms-t.i\T101121.b\T3703.D
Date : 11-OCT-2021 12:02
Client ID:
Sample Info: WG307648-2
Purge Volume: 5.0
Column phase: RTX-VMS
Instrument: gcms-t.i
Operator: JSS
Column diameter: 0.18
Y (x10^6)
Min
\\target_server\gg\chem\gcms-t.i\T101121.b\T3703.D
-Dichlorodifluoromethane (1,243)
-Chloromethane (1,389)
-Vinyl Chloride (1,441)
-Bromomethane (1,677)
-Chloroethane (1,770)
-Trichlorofluoromethane (1,879)
-Diethyl Ether (2,126)
-1,1-Dichloroethene (2,287)+
-Iodomethane (2,406)
-Acrolein (2,590)
-Allyl Chloride (2,713)
-Methylene Chloride (2,814)
-Acetone (2,927)
-trans-1,2-Dichloroethene (2,975)+
-Methyl tert-butyl ether (3,103)
-Tertiary-butyl alcohol (3,237)
-Acetonitrile (3,361)
-Di-isopropyl ether (3,510)
-Chloroprene (3,597)+
-Acrylonitrile (3,686)
-Ethyl tertiary-butyl ethe (3,900)+
-cis-1,2-Dichloroethene (4,177)
-2,2-Dichloropropane (4,285)
-Cyclohexane (4,375)+
-Chloroform (4,476)
-Carbon Tetrachloride (4,588)
-Tetrahydrofuran (4,659)+
-1,1-Dichloropropene (4,798)+
-Benzene (5,052)
-Propionitrile (5,123)+
-Pentafluorobenzene (5,179)+
-1,2-Dichloroethane (5,269)
-Isobutyl Alcohol (5,370)
-Methylcyclohexane (5,655)+
-1,4-Difluorobenzene (5,715)
-Dibromomethane (6,093)
-1,2-Dichloropropane (6,205)
-Bromodichloromethane (6,283)
-Methyl Methacrylate (6,489)+
-2-Chloroethylvinylether (6,805)
-cis-1,3-Dichloropropene (6,942)
Toluene-D8 (7,122)+
-Tetrachloroethene (7,552)
-4-Methyl-2-pentanone (7,589)+
-1,1,2-Trichloroethane (7,765)+
-Dibromochloromethane (7,930)
-1,3-Dichloropropane (8,027)
-1,2-Dibromoethane (8,147)
-2-Hexanone (8,424)
-Ethylbenzene (8,723)+
-m+p-Xylenes (8,873)
Chlorobenzene-D5 (8,664)+
-o-Xylene (9,232)
-Styrene (9,348)+
-Isopropylbenzene (9,610)
-Bromobenzene (9,766)+
P-Bromofluorobenzene (9,880)
-trans-1,4-Dichloro-2-butene (10,228)+
-4-Chlorotoluene (10,329)
-tert-Butylbenzene (10,535)
-1,2,4-Trimethylbenzene (10,609)
-sec-Butylbenzene (10,714)
-1,3-Dichlorobenzene (10,818)
-1,2,3-Trimethylbenzene (11,044)
1,4-Dichlorobenzene-D4 (10,991)+
-N-Butylbenzene (11,291)
-1,2-Dichlorobenzene (11,425)
-1,2-Dibromo-3-Chloropropa (12,279)+
-Hexachlorobutadiene (12,937)+
-Naphthalene (13,281)
-1,2,3-Trichlorobenzene (13,469)

Data File: \\target_server\gg\chem\gcms-t.i\T101121.b\T3704.D
Report Date: 05-Nov-2021 14:10

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-t.i\T101121.b\T3704.D
Lab Smp Id: WG307648-1
Inj Date : 11-OCT-2021 12:28
Operator : JSS   Inst ID: gcms-t.i
Smp Info : WG307648-1
Misc Info :
Comment   : SW846 5030
Method   : \\target_server\gg\chem\gcms-t.i\T101121.b\T8A05(01)shrt.m
Meth Date : 05-Nov-2021 14:10 gcms-t.i   Quant Type: ISTD
Cal Date : 11-OCT-2021 12:28   Cal File: T3704.D
Als bottle: 5   Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE   Compound Sublist: all.sub
Target Version: 4.12

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)	REVIEW CODE
1	Dichlorodifluoromethane	85	1.242	1.246	(0.240)	6201	1.00000	1.00	
2	Chloromethane	50	1.388	1.388	(0.268)	4787	1.00000	0.94(a)	
3	Vinyl chloride	62	1.440	1.441	(0.278)	4190	1.00000	0.91(a)	
4	Bromomethane	94	1.676	1.677	(0.324)	3289	1.00000	1.4	
5	Chloroethane	64	1.774	1.763	(0.343)	2253	1.00000	0.96(a)	
6	Trichlorofluoromethane	101	1.878	1.875	(0.363)	6064	1.00000	0.92(a)	
7	Diethyl Ether	59	2.125	2.126	(0.411)	2453	1.00000	0.90(a)	
8	1,1-Dichloroethene	96	2.286	2.283	(0.442)	3772	1.00000	1.1	
9	Freon-113	151	2.320	2.324	(0.448)	2311	1.00000	0.88(a)	
10	Carbon Disulfide	76	2.301	2.302	(0.445)	6778	1.00000	0.96(a)	
11	Iodomethane	142	2.410	2.406	(0.466)	2025	1.00000	0.92(a)	
12	Acrolein	56	2.589	2.590	(0.500)	1946	5.00000	4.5(a)	
13	Allyl Chloride	41	2.717	2.713	(0.525)	5669	1.00000	0.98(a)	
14	Methylene Chloride	84	2.810	2.818	(0.543)	7817	1.00000	1.6(a)	
15	Acetone	43	2.878	2.882	(0.556)	10448	5.00000	7.0	
16	trans-1,2-Dichloroethene	96	2.975	2.975	(0.575)	4419	1.00000	0.95(a)	
17	Methyl Acetate	43	3.012	3.013	(0.582)	2965	1.00000	1.0	
18	Methyl tert-butyl ether	73	3.098	3.106	(0.599)	10173	1.00000	0.87(a)	
19	Tertiary-butyl alcohol	59	3.237	3.237	(0.625)	2598	5.00000	6.5	
20	Acetonitrile	41	3.357	3.361	(0.649)	7346	10.0000	13.0(a)	
21	Di-isopropyl ether	45	3.510	3.510	(0.678)	11195	1.00000	0.88(a)	
22	Chloroprene	53	3.592	3.593	(0.694)	5357	1.00000	0.76(a)	
23	1,1-Dichloroethane	63	3.618	3.619	(0.699)	8048	1.00000	0.91(a)	
24	Acrylonitrile	52	3.686	3.686	(0.712)	5412	5.00000	4.6(a)	

Data File: \\target_server\gg\chem\gcms-t.i\T101121.b\T3704.D
Report Date: 05-Nov-2021 14:10

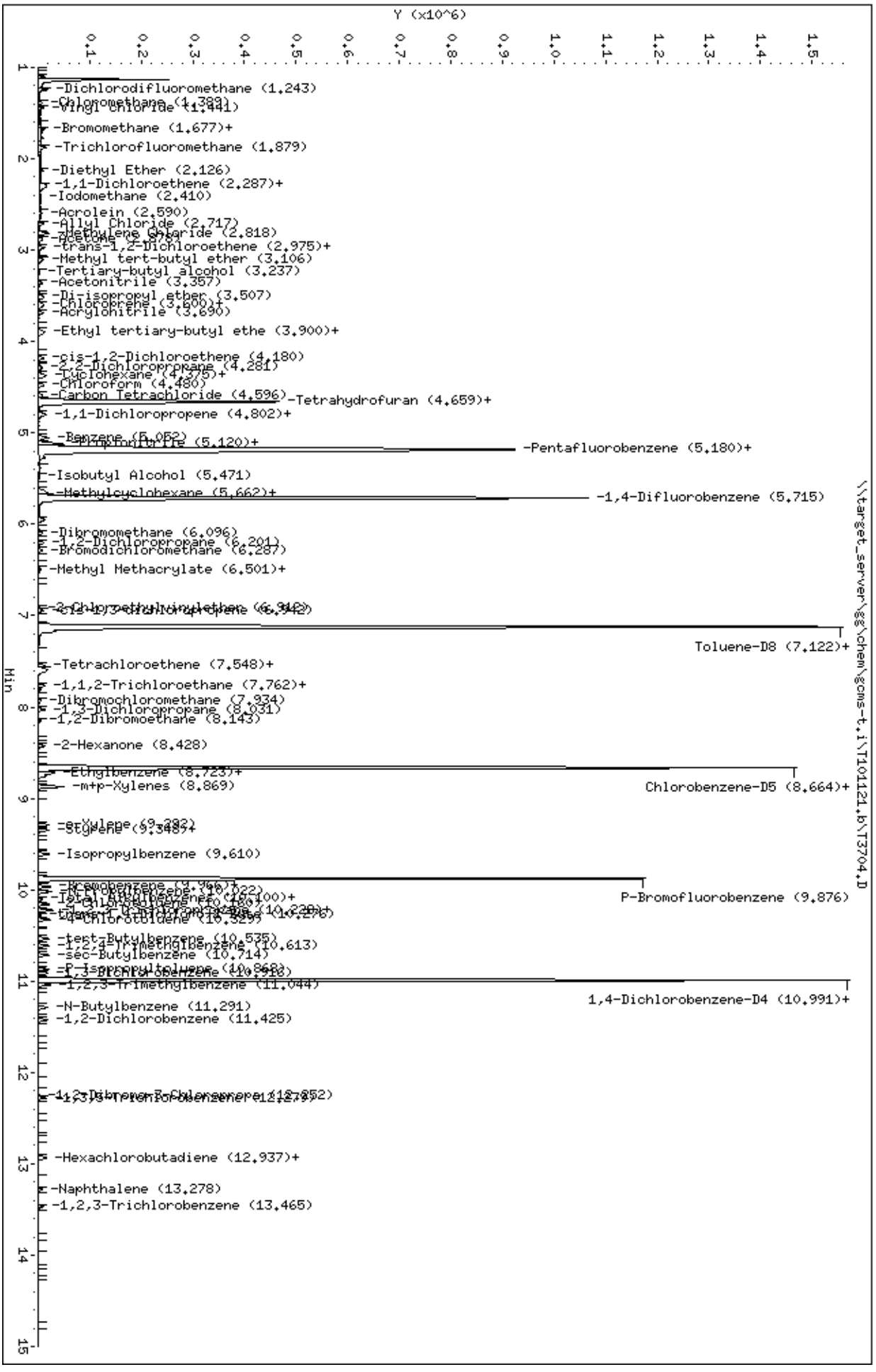
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)	REVIEW CODE
	25 Ethyl tertiary-butyl ether	59	3.899	3.896	(0.753)	9696	1.00000	0.81(a)	
	26 Vinyl Acetate	43	3.914	3.911	(0.685)	6566	1.00000	0.72(Ta)	
	27 cis-1,2-Dichloroethene	96	4.176	4.179	(0.807)	4619	1.00000	0.92(a)	
	28 2,2-Dichloropropane	77	4.285	4.288	(0.828)	5839	1.00000	0.81(a)	
	29 Cyclohexane	56	4.363	4.367	(0.843)	5053	1.00000	0.82(a)	
	30 Bromochloromethane	128	4.382	4.382	(0.847)	1919	1.00000	0.90(a)	
	31 Chloroform	83	4.479	4.476	(0.866)	8719	1.00000	0.93(a)	
	32 Carbon Tetrachloride	117	4.595	4.588	(0.804)	5712	1.00000	0.82(a)	
	33 Tetrahydrofuran	42	4.640	4.629	(0.897)	6926	5.00000	5.3	
$	34 Dibromofluoromethane	113	4.659	4.659	(0.900)	284261	50.0000	50.7	
	35 1,1,1-Trichloroethane	97	4.666	4.667	(0.902)	7351	1.00000	0.86(a)	
	36 1,1-Dichloropropene	75	4.801	4.794	(0.840)	5966	1.00000	0.88(a)	
	37 2-Butanone	43	4.812	4.805	(0.930)	9511	5.00000	5.1	
	38 Benzene	78	5.052	5.052	(0.884)	16590	1.00000	0.89(a)	
	39 Propionitrile	54	5.104	5.104	(0.986)	6740	10.0000	11.5	
	40 Methacrylonitrile	41	5.119	5.123	(0.989)	21498	10.0000	8.7(a)	
*	41 Pentafluorobenzene	168	5.175	5.176	(1.000)	556994	50.0000		
$	42 1,2-Dichloroethane-D4	65	5.198	5.202	(1.004)	364013	50.0000	50.3	
	43 Tertiary-amyl methyl ether	73	5.198	5.202	(1.004)	9435	1.00000	0.89(a)	
	44 1,2-Dichloroethane	62	5.269	5.269	(0.922)	7814	1.00000	1.0	
	45 Isobutyl Alcohol	43	5.377	5.359	(1.039)	2418	20.0000	18.6(a)	
	46 Methylcyclohexane	83	5.639	5.640	(1.090)	5461	1.00000	0.79(a)	
	47 Trichloroethene	95	5.665	5.662	(0.991)	4402	1.00000	0.90(a)	
*	48 1,4-Difluorobenzene	114	5.714	5.714	(1.000)	850726	50.0000		
	49 Dibromomethane	93	6.096	6.092	(1.067)	3068	1.00000	1.0	
	50 1,2-Dichloropropane	63	6.197	6.201	(1.084)	3973	1.00000	0.91(Ta)	
	51 Bromodichloromethane	83	6.283	6.287	(1.100)	5666	1.00000	0.86(a)	
	52 Methyl Methacrylate	41	6.489	6.482	(1.136)	2318	1.00000	0.73(a)	
	53 1,4-Dioxane	88	6.508	6.500	(1.139)	1525	20.0000	25.4	
	54 2-Chloroethylvinylether	63	6.915	6.901	(1.210)	1394	1.00000	0.64(Ta)	
	55 cis-1,3-dichloropropene	75	6.942	6.942	(1.215)	5734	1.00000	0.79(a)	
$	56 Toluene-D8	98	7.121	7.122	(1.246)	977161	50.0000	48.9	
	57 Toluene	92	7.174	7.174	(1.255)	10799	1.00000	0.94(a)	
	58 Tetrachloroethene	164	7.555	7.552	(0.872)	3309	1.00000	0.88(a)	
	59 4-methyl-2-pentanone	43	7.593	7.586	(1.329)	13275	5.00000	3.8(a)	
	60 trans-1,3-Dichloropropene	75	7.608	7.612	(1.331)	5655	1.00000	0.84(a)	
	61 1,1,2-Trichloroethane	83	7.761	7.765	(1.358)	2922	1.00000	0.87(a)	
	62 Ethyl Methacrylate	69	7.802	7.803	(1.365)	2763	1.00000	0.54(a)	
	63 Dibromochloromethane	129	7.933	7.934	(0.916)	3829	1.00000	0.84(a)	
	64 1,3-Dichloropropane	76	8.027	8.031	(0.927)	6917	1.00000	0.94(a)	
	65 1,2-Dibromoethane	107	8.143	8.147	(1.425)	3583	1.00000	0.89(Ta)	
M	66 Total Alkylbenzenes	100				85525	1.00000	(a)	
	67 2-Hexanone	43	8.427	8.423	(0.973)	7722	5.00000	3.4(a)	
*	68 Chlorobenzene-D5	117	8.663	8.663	(1.000)	742607	50.0000		
	69 Chlorobenzene	112	8.678	8.678	(1.002)	12245	1.00000	1.0	
	70 Ethylbenzene	91	8.723	8.723	(1.007)	18969	1.00000	0.89(a)	
	71 1,1,1,2-Tetrachloroethane	131	8.757	8.753	(1.011)	3488	1.00000	0.82(a)	
	72 m+p-Xylenes	91	8.873	8.873	(1.024)	26429	2.00000	1.6(a)	
	73 o-Xylene	91	9.292	9.292	(1.073)	12376	1.00000	0.77(a)	
	74 Styrene	104	9.348	9.348	(1.079)	8397	1.00000	0.70(a)	
	75 Bromoform	173	9.352	9.356	(1.079)	2142	1.00000	0.78(a)	
	76 Isopropylbenzene	105	9.606	9.610	(0.874)	14542	1.00000	0.75(a)	
$	77 P-Bromofluorobenzene	95	9.876	9.876	(1.728)	354711	50.0000	48.9	
	78 Bromobenzene	156	9.965	9.969	(0.907)	4761	1.00000	0.99(a)	

Data File: \\target_server\gg\chem\gcms-t.i\T101121.b\T3704.D
Report Date: 05-Nov-2021 14:10

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)	REVIEW CODE
	79 cis-1,4-Dichloro-2-Butene	53	9.958	9.966	(0.906)	1128	1.00000	0.81(a)	
	80 N-Propylbenzene	91	10.021	10.022	(0.912)	18755	1.00000	0.81(a)	
	81 1,1,2,2-Tetrachloroethane	83	10.104	10.108	(0.919)	4277	1.00000	0.90(a)	
	82 2-Chlorotoluene	91	10.160	10.160	(0.924)	11655	1.00000	0.84(a)	
	83 1,2,3-Trichloropropane	75	10.224	10.224	(0.930)	4131	1.00000	0.99(a)	
	84 1,3,5-Trimethylbenzene	105	10.227	10.228	(0.931)	11061	1.00000	0.72(a)	
	85 trans-1,4-Dichloro-2-Butene	53	10.276	10.276	(0.935)	1205	1.00000	0.89(a)	
	86 4-Chlorotoluene	91	10.332	10.329	(0.940)	12333	1.00000	0.85(a)	
	87 tert-Butylbenzene	119	10.538	10.534	(0.959)	9040	1.00000	0.71(a)	
	89 1,2,4-Trimethylbenzene	105	10.613	10.609	(0.966)	11031	1.00000	0.70(a)	
	90 sec-Butylbenzene	105	10.714	10.714	(0.975)	15060	1.00000	0.77(a)	
	91 P-Isopropyltoluene	119	10.867	10.868	(0.989)	10764	1.00000	0.72(a)	
	92 1,3-Dichlorobenzene	146	10.916	10.912	(0.993)	7960	1.00000	0.93(a)	
*	93 1,4-Dichlorobenzene-D4	152	10.991	10.991	(1.000)	359725	50.0000		
	94 1,4-Dichlorobenzene	146	11.009	11.006	(1.002)	9015	1.00000	1.0	
	95 1,2,3-Trimethylbenzene	105	11.043	11.043	(1.005)	11865	1.00000	0.77(a)	
	96 N-Butylbenzene	91	11.290	11.290	(1.027)	9814	1.00000	0.69(a)	
	97 1,2-Dichlorobenzene	146	11.421	11.425	(1.039)	7172	1.00000	0.91(a)	
	98 1,2-Dibromo-3-Chloropropane	157	12.244	12.245	(1.114)	313	1.00000	0.41(a)	
	99 1,3,5-Trichlorobenzene	180	12.282	12.278	(1.117)	4488	1.00000	0.82(a)	
	100 Hexachlorobutadiene	225	12.925	12.926	(1.176)	2141	1.00000	0.94(a)	
	101 1,2,4-Trichlorobenzene	180	12.948	12.941	(1.178)	3726	1.00000	0.80(a)	
	102 Naphthalene	128	13.281	13.278	(1.208)	5469	1.00000	0.54(a)	
M	103 1,2-Dichloroethylene (total)	96				9038	1.00000	(a)	
	104 1,2,3-Trichlorobenzene	180	13.464	13.468	(1.225)	3278	1.00000	0.76(a)	
M	105 Xylenes (total)	91				38805	5.00000	(a)	

QC Flag Legend

T - Target compound detected outside RT window.
a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).


Data File: \\target_server\gg\chem\gcms-t.i\T101121.b\T3704.D
Date : 11-OCT-2021 12:28
Client ID:
Sample Info: WG307648-1
Purge Volume: 5.0
Column phase: RTX-VMS
Instrument: gcms-t.i
Operator: JSS
Column diameter: 0.18
\\target_server\gg\chem\gcms-t.i\T101121.b\T3704.D
Y (x10^6)
Min
-Dichlorodifluoromethane (1.243)
-Chloromethane (1.389)
-Vinyl chloride (1.441)
-Bromomethane (1.677)+
-Trichlorofluoromethane (1.879)
-Diethyl Ether (2.126)
-1,1-Dichloroethene (2.287)+
-Iodomethane (2.410)
-Acrolein (2.590)
-Allyl Chloride (2.717)
-Methylene Chloride (2.818)
-trans-1,2-Dichloroethene (2.975)+
-Methyl tert-butyl ether (3.106)
-Tertiary-butyl alcohol (3.237)
-Acetonitrile (3.357)
-Di-isopropyl ether (3.507)
-Chloroprene (3.600)+
-Acrylonitrile (3.690)
-Ethyl tertiary-butyl ethe (3.900)+
-cis-1,2-Dichloroethene (4.180)
-2,2-Dichloropropane (4.281)
-Cyclohexane (4.375)+
-Chloroform (4.480)
-Carbon Tetrachloride (4.596)
-Tetrahydrofuran (4.659)+
-1,1-Dichloropropene (4.802)+
-Benzene (5.052)
-Pentafluorobenzene (5.180)+
-Isobutyl Alcohol (5.471)
-Methylcyclohexane (5.662)+
-1,4-Difluorobenzene (5.715)
-Dibromomethane (6.096)
-1,2-Dichloropropane (6.201)
-Bromodichloromethane (6.287)
-Methyl Methacrylate (6.501)+
Toluene-D8 (7.122)+
-Tetrachloroethene (7.548)+
-1,1,2-Trichloroethane (7.762)+
-Dibromochloromethane (7.934)
-1,3-Dichloropropane (8.031)
-1,2-Dibromoethane (8.143)
-2-Hexanone (8.428)
-Ethylbenzene (8.723)+
-m+p-Xylenes (8.869)
Chlorobenzene-D5 (8.664)+
-o-Xylene (9.282)
-Styrene (9.348)+
-Isopropylbenzene (9.610)
P-Bromofluorobenzene (9.876)
-Bromobenzene (9.906)
-n-Propylbenzene (10.022)
-2-Chlorotoluene (10.100)+
-4-Chlorotoluene (10.339)
-tert-Butylbenzene (10.535)
-1,2,4-Trimethylbenzene (10.613)
-sec-Butylbenzene (10.714)
-P-Isopropyltoluene (10.868)
-1,3-Dichlorobenzene (10.918)
-1,2,3-Trimethylbenzene (11.044)
1,4-Dichlorobenzene-D4 (10.991)+
-N-Butylbenzene (11.291)
-1,2-Dichlorobenzene (11.425)
-1,2-Dibromo-3-Chloropropane (12.852)
-1,2,4-Trichlorobenzene (12.978)
-Hexachlorobutadiene (12.937)+
-Naphthalene (13.278)
-1,2,3-Trichlorobenzene (13.465)

Data File: \\target_server\gg\chem\gcms-t.i\T101121.b\T3705.D
Report Date: 05-Nov-2021 14:10

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-t.i\T101121.b\T3705.D
Lab Smp Id: WG307648-6
Inj Date : 11-OCT-2021 12:54
Operator : JSS   Inst ID: gcms-t.i
Smp Info : WG307648-6
Misc Info :
Comment   : SW846 5030
Method   : \\target_server\gg\chem\gcms-t.i\T101121.b\T8A05(01)shrt.m
Meth Date : 05-Nov-2021 14:10 gcms-t.i   Quant Type: ISTD
Cal Date : 11-OCT-2021 12:54   Cal File: T3705.D
Als bottle: 6   Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE   Compound Sublist: all.sub
Target Version: 4.12

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)	REVIEW CODE
1	Dichlorodifluoromethane	85	1.242	1.246	(0.240)	943648	150.000	147	
2	Chloromethane	50	1.384	1.388	(0.267)	735848	150.000	142	
3	Vinyl chloride	62	1.440	1.441	(0.278)	693331	150.000	149	
4	Bromomethane	94	1.676	1.677	(0.324)	336867	150.000	142	
5	Chloroethane	64	1.758	1.763	(0.340)	198927	150.000	83.2	
6	Trichlorofluoromethane	101	1.867	1.875	(0.361)	954347	150.000	144	
7	Diethyl Ether	59	2.125	2.126	(0.410)	391237	150.000	142	
8	1,1-Dichloroethene	96	2.282	2.283	(0.441)	525644	150.000	143	
9	Freon-113	151	2.320	2.324	(0.448)	396701	150.000	151(A)	
10	Carbon Disulfide	76	2.301	2.302	(0.444)	1113323	150.000	154(A)	
11	Iodomethane	142	2.402	2.406	(0.464)	560676	150.000	(a)	
12	Acrolein	56	2.589	2.590	(0.500)	327881	750.000	752(A)	
13	Allyl Chloride	41	2.713	2.713	(0.524)	936394	150.000	158(A)	
14	Methylene Chloride	84	2.814	2.818	(0.543)	707566	150.000	137	
15	Acetone	43	2.877	2.882	(0.556)	789607	750.000	643	
16	trans-1,2-Dichloroethene	96	2.971	2.975	(0.574)	691447	150.000	145	
17	Methyl Acetate	43	3.008	3.013	(0.581)	433411	150.000	142	
18	Methyl tert-butyl ether	73	3.098	3.106	(0.598)	1846552	150.000	158(A)	
19	Tertiary-butyl alcohol	59	3.240	3.237	(0.626)	217338	750.000	489	
20	Acetonitrile	41	3.356	3.361	(0.648)	597221	1500.00	951	
21	Di-isopropyl ether	45	3.510	3.510	(0.678)	1977481	150.000	155(A)	
22	Chloroprene	53	3.588	3.593	(0.693)	1103576	150.000	162(A)	
23	1,1-Dichloroethane	63	3.615	3.619	(0.698)	1312589	150.000	147	
24	Acrylonitrile	52	3.686	3.686	(0.712)	831301	750.000	694	

Data File: \\target_server\gg\chem\gcms-t.i\T101121.b\T3705.D
Report Date: 05-Nov-2021 14:10

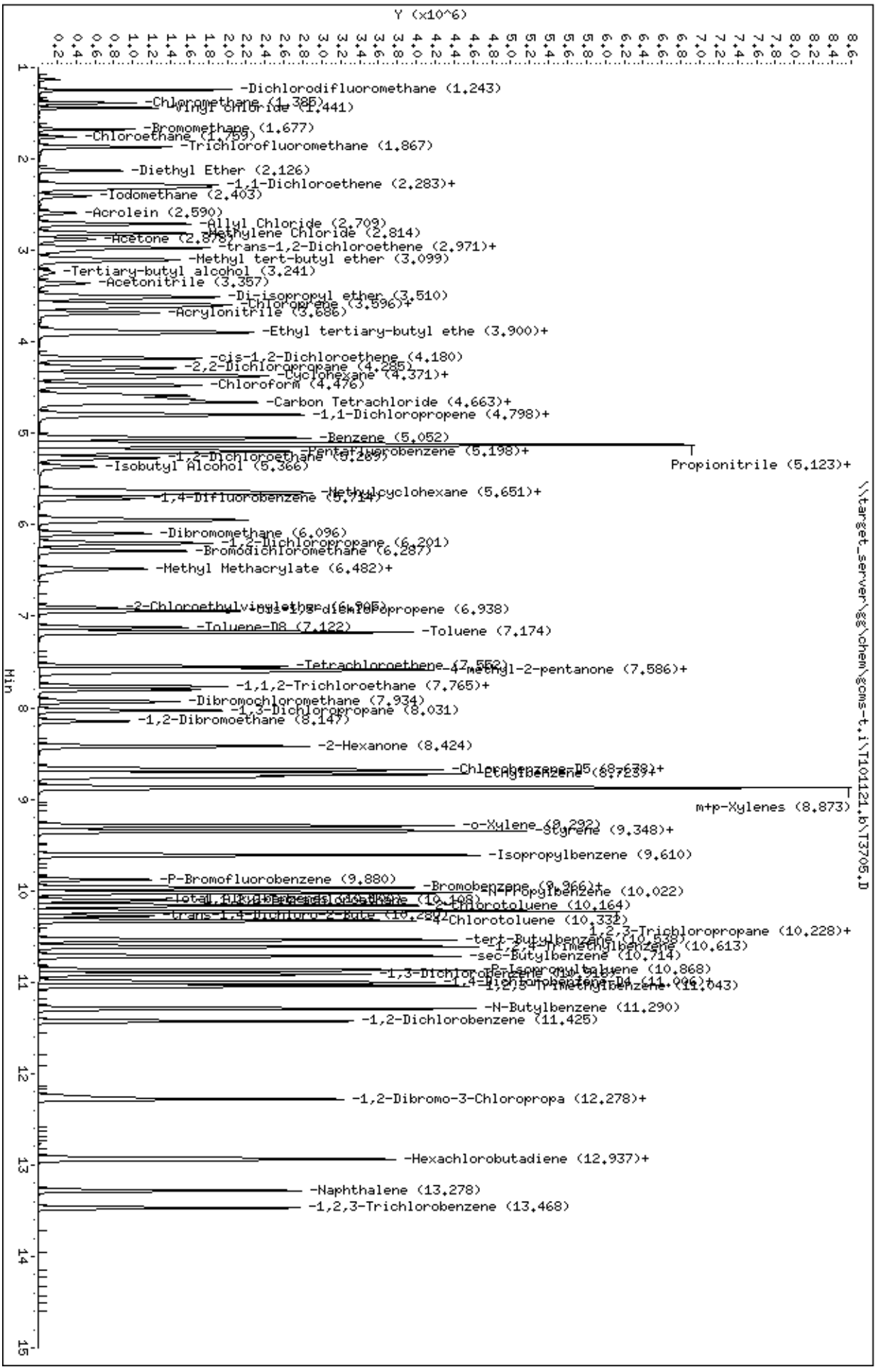
			QUANT SIG					AMOUNTS		
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)	REVIEW CODE
	25	Ethyl tertiary-butyl ether	59	3.892	3.896	(0.751)	1890455	150.000	161(A)	
	26	Vinyl Acetate	43	3.906	3.911	(0.684)	1409097	150.000	162(A)	
	27	cis-1,2-Dichloroethene	96	4.180	4.179	(0.807)	742728	150.000	146	
	28	2,2-Dichloropropane	77	4.284	4.288	(0.827)	1118333	150.000	158(A)	
	29	Cyclohexane	56	4.363	4.367	(0.842)	954039	150.000	158(A)	
	30	Bromochloromethane	128	4.382	4.382	(0.846)	300362	150.000	140	
	31	Chloroform	83	4.475	4.476	(0.864)	1397759	150.000	147	
	32	Carbon Tetrachloride	117	4.588	4.588	(0.803)	1130182	150.000	166(A)	
	33	Tetrahydrofuran	42	4.629	4.629	(0.894)	899101	750.000	655	
$	34	Dibromofluoromethane	113	4.662	4.659	(0.900)	293991	50.0000	50.6	
	35	1,1,1-Trichloroethane	97	4.662	4.667	(0.900)	1324080	150.000	156(A)	
	36	1,1-Dichloropropene	75	4.793	4.794	(0.839)	1042282	150.000	154(A)	
	37	2-Butanone	43	4.805	4.805	(0.928)	1222964	750.000	631	
	38	Benzene	78	5.052	5.052	(0.884)	2680170	150.000	144	
	39	Propionitrile	54	5.108	5.104	(0.986)	687364	1500.00	1090	
	40	Methacrylonitrile	41	5.123	5.123	(0.989)	3333904	1500.00	1350	
*	41	Pentafluorobenzene	168	5.179	5.176	(1.000)	575328	50.0000		
$	42	1,2-Dichloroethane-D4	65	5.198	5.202	(1.004)	377066	50.0000	50.3	
	43	Tertiary-amyl methyl ether	73	5.201	5.202	(1.004)	1723928	150.000	162(A)	
	44	1,2-Dichloroethane	62	5.269	5.269	(0.922)	1046416	150.000	136	
	45	Isobutyl Alcohol	43	5.362	5.359	(1.035)	346382	3000.00	2620	
	46	Methylcyclohexane	83	5.635	5.640	(1.088)	1103723	150.000	164(A)	
	47	Trichloroethene	95	5.662	5.662	(0.991)	721910	150.000	148	
*	48	1,4-Difluorobenzene	114	5.714	5.714	(1.000)	873939	50.0000		
	49	Dibromomethane	93	6.096	6.092	(1.067)	459997	150.000	146	
	50	1,2-Dichloropropane	63	6.200	6.201	(1.085)	654941	150.000	149	
	51	Bromodichloromethane	83	6.287	6.287	(1.100)	1068360	150.000	163(A)	
	52	Methyl Methacrylate	41	6.481	6.482	(1.134)	543384	150.000	179(A)	
	53	1,4-Dioxane	88	6.504	6.500	(1.138)	103022	3000.00	1560	
	54	2-Chloroethylvinylether	63	6.904	6.901	(1.208)	362343	150.000	163(A)	
	55	cis-1,3-dichloropropene	75	6.938	6.942	(1.214)	1202500	150.000	170(A)	
$	56	Toluene-D8	98	7.121	7.122	(1.246)	1011827	50.0000	49.6	
	57	Toluene	92	7.173	7.174	(1.255)	1714188	150.000	147	
	58	Tetrachloroethene	164	7.551	7.552	(0.872)	587084	150.000	156(A)	
	59	4-methyl-2-pentanone	43	7.585	7.586	(1.327)	2557582	750.000	763(A)	
	60	trans-1,3-Dichloropropene	75	7.611	7.612	(1.332)	1126737	150.000	169(A)	
	61	1,1,2-Trichloroethane	83	7.765	7.765	(1.359)	499560	150.000	150	
	62	Ethyl Methacrylate	69	7.802	7.803	(1.365)	824878	150.000	157(A)	
	63	Dibromochloromethane	129	7.933	7.934	(0.916)	761644	150.000	168(A)	
	64	1,3-Dichloropropane	76	8.030	8.031	(0.927)	1109759	150.000	148	
	65	1,2-Dibromoethane	107	8.146	8.147	(1.426)	619934	150.000	154(A)	
M	66	Total Alkylbenzenes	100				18031573	150.000	(a)	
	67	2-Hexanone	43	8.423	8.423	(0.972)	1739538	750.000	796(A)	
*	68	Chlorobenzene-D5	117	8.663	8.663	(1.000)	769797	50.0000		
	69	Chlorobenzene	112	8.682	8.678	(1.002)	1772978	150.000	141	
	70	Ethylbenzene	91	8.723	8.723	(1.007)	3115842	150.000	145	
	71	1,1,1,2-Tetrachloroethane	131	8.753	8.753	(1.010)	684714	150.000	162(A)	
	72	m+p-Xylenes	91	8.872	8.873	(1.024)	4482827	300.000	278	
	73	o-Xylene	91	9.292	9.292	(1.073)	2481144	150.000	157(A)	
	74	Styrene	104	9.348	9.348	(1.079)	1877725	150.000	164(A)	
	75	Bromoform	173	9.359	9.356	(1.080)	483380	150.000	181(A)	
	76	Isopropylbenzene	105	9.610	9.610	(0.874)	2959273	150.000	153(A)	
$	77	P-Bromofluorobenzene	95	9.879	9.876	(1.729)	364617	50.0000	49.2	
	78	Bromobenzene	156	9.969	9.969	(0.907)	734730	150.000	144	

Data File: \\target_server\gg\chem\gcms-t.i\T101121.b\T3705.D
Report Date: 05-Nov-2021 14:10

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)	REVIEW CODE
	79 cis-1,4-Dichloro-2-Butene	53	9.965	9.966	(0.907)	238870	150.000	170(A)	
	80 N-Propylbenzene	91	10.021	10.022	(0.912)	3448897	150.000	147	
	81 1,1,2,2-Tetrachloroethane	83	10.107	10.108	(0.920)	709570	150.000	145	
	82 2-Chlorotoluene	91	10.164	10.160	(0.925)	2108810	150.000	150	
	83 1,2,3-Trichloropropane	75	10.223	10.224	(0.930)	628140	150.000	142	
	84 1,3,5-Trimethylbenzene	105	10.227	10.228	(0.931)	2377891	150.000	156(A)	
	85 trans-1,4-Dichloro-2-Butene	53	10.280	10.276	(0.935)	231194	150.000	165(A)	
	86 4-Chlorotoluene	91	10.332	10.329	(0.940)	2183241	150.000	148	
	87 tert-Butylbenzene	119	10.538	10.534	(0.959)	1988149	150.000	160(A)	
	89 1,2,4-Trimethylbenzene	105	10.613	10.609	(0.966)	2424212	150.000	157(A)	
	90 sec-Butylbenzene	105	10.717	10.714	(0.975)	2971697	150.000	153(A)	
	91 P-Isopropyltoluene	119	10.867	10.868	(0.989)	2423163	150.000	164(A)	
	92 1,3-Dichlorobenzene	146	10.916	10.912	(0.993)	1324898	150.000	148	
*	93 1,4-Dichlorobenzene-D4	152	10.991	10.991	(1.000)	381317	50.0000		
	94 1,4-Dichlorobenzene	146	11.009	11.006	(1.002)	1366755	150.000	144	
	95 1,2,3-Trimethylbenzene	105	11.043	11.043	(1.005)	2416126	150.000	157(A)	
	96 N-Butylbenzene	91	11.290	11.290	(1.027)	2397564	150.000	172(A)	
	97 1,2-Dichlorobenzene	146	11.425	11.425	(1.039)	1261218	150.000	154(A)	
	98 1,2-Dibromo-3-Chloropropane	157	12.248	12.245	(1.114)	138255	150.000	170(A)	
	99 1,3,5-Trichlorobenzene	180	12.278	12.278	(1.117)	924069	150.000	166(A)	
	100 Hexachlorobutadiene	225	12.925	12.926	(1.176)	383892	150.000	161(A)	
	101 1,2,4-Trichlorobenzene	180	12.940	12.941	(1.177)	853421	150.000	182(A)	
	102 Naphthalene	128	13.277	13.278	(1.208)	1874093	150.000	173(A)	
M	103 1,2-Dichloroethylene (total)	96				1434175	150.000	(a)	
	104 1,2,3-Trichlorobenzene	180	13.468	13.468	(1.225)	762123	150.000	177(A)	
M	105 Xylenes (total)	91				6963971	150.000	(a)	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount
exceeded maximum amount.


Data File: \\target_server\gg\chem\gcms-t.i\T101121.b\T3705.D
Date : 11-OCT-2021 12:54
Client ID:
Sample Info: WG307648-6
Purge Volume: 5.0
Column phase: RTX-VMS
Instrument: gcms-t.i
Operator: JSS
Column diameter: 0.18
\\target_server\gg\chem\gcms-t.i\T101121.b\T3705.D
Y (x10^6)
Min
-Dichlorodifluoromethane (1.243)
-Chloromethane (1.385)
-Vinyl chloride (1.441)
-Bromomethane (1.677)
-Chloroethane (1.759)
-Trichlorofluoromethane (1.867)
-Diethyl Ether (2.126)
-1,1-Dichloroethene (2.283)+
-Iodomethane (2.403)
-Acrolein (2.590)
-Allyl Chloride (2.709)
-Methylene Chloride (2.814)
-Acetone (2.878)
-trans-1,2-Dichloroethene (2.971)+
-Methyl tert-butyl ether (3.099)
-Tertiary-butyl alcohol (3.241)
-Acetonitrile (3.357)
-Di-isopropyl ether (3.510)
-Chloroprene (3.596)+
-Acrylonitrile (3.686)
-Ethyl tertiary-butyl ethe (3.900)+
-cis-1,2-Dichloroethene (4.180)
-2,2-Dichloropropane (4.285)
-Cyclohexane (4.371)+
-Chloroform (4.476)
-Carbon Tetrachloride (4.663)+
-1,1-Dichloropropene (4.798)+
-Benzene (5.052)
-Pentafluorobenzene (5.198)+
-1,2-Dichloroethane (5.289)
Propionitrile (5.123)+
-Isobutyl Alcohol (5.366)
-Methylcyclohexane (5.651)+
-1,4-Difluorobenzene (5.714)
-Dibromomethane (6.096)
-1,2-Dichloropropane (6.201)
-Bromodichloromethane (6.287)
-Methyl Methacrylate (6.482)+
-2-Chloroethylvinylether (6.905)
-cis-1,3-dichloropropene (6.938)
-Toluene-D8 (7.122)
-Toluene (7.174)
-Tetrachloroethene (7.552)
-4-methyl-2-pentanone (7.586)+
-1,1,2-Trichloroethane (7.765)+
-Dibromochloromethane (7.934)
-1,3-Dichloropropane (8.031)
-1,2-Dibromoethane (8.147)
-2-Hexanone (8.424)
-Chlorobenzene-D5 (8.678)+
Ethylbenzene (8.723)+
m+p-Xylenes (8.873)
-o-Xylene (9.292)
Styrene (9.348)+
-Isopropylbenzene (9.610)
-P-Bromofluorobenzene (9.880)
-Bromobenzene (9.966)+
-n-Propylbenzene (10.022)
-2-Chlorotoluene (10.164)
4-Chlorotoluene (10.332)
1,2,3-Trichloropropane (10.228)+
-tert-Butylbenzene (10.538)
-1,2,4-Trimethylbenzene (10.613)
-sec-Butylbenzene (10.714)
-p-Isopropyltoluene (10.868)
-1,3-Dichlorobenzene (10.916)
-1,4-Dichlorobenzene-D4 (11.096)+
1,2,3-Trimethylbenzene (11.043)
-N-Butylbenzene (11.290)
-1,2-Dichlorobenzene (11.425)
-1,2-Dibromo-3-Chloropropa (12.278)+
-Hexachlorobutadiene (12.937)+
-Naphthalene (13.278)
-1,2,3-Trichlorobenzene (13.468)

Data File: \\target_server\gg\chem\gcms-t.i\T101121.b\T3706.D
Report Date: 05-Nov-2021 14:10

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-t.i\T101121.b\T3706.D
Lab Smp Id: WG307648-5
Inj Date : 11-OCT-2021 13:20
Operator : JSS   Inst ID: gcms-t.i
Smp Info : WG307648-5
Misc Info :
Comment   : SW846 5030
Method   : \\target_server\gg\chem\gcms-t.i\T101121.b\T8A05(01)shrt.m
Meth Date : 05-Nov-2021 14:10 gcms-t.i   Quant Type: ISTD
Cal Date : 11-OCT-2021 13:20   Cal File: T3706.D
Als bottle: 7   Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE   Compound Sublist: all.sub
Target Version: 4.12

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)	REVIEW CODE
1	Dichlorodifluoromethane	85	1.242	1.246	(0.240)	654216	100.000	98.2	
2	Chloromethane	50	1.388	1.388	(0.268)	518755	100.000	97.2	
3	Vinyl chloride	62	1.440	1.441	(0.278)	466667	100.000	96.7	
4	Bromomethane	94	1.676	1.677	(0.324)	232257	100.000	99.2	
5	Chloroethane	64	1.759	1.763	(0.340)	132758	100.000	53.4	
6	Trichlorofluoromethane	101	1.871	1.875	(0.362)	616933	100.000	89.9	
7	Diethyl Ether	59	2.125	2.126	(0.411)	270285	100.000	95.6	
8	1,1-Dichloroethene	96	2.282	2.283	(0.441)	356636	100.000	94.0	
9	Freon-113	151	2.316	2.324	(0.448)	270316	100.000	98.9	
10	Carbon Disulfide	76	2.301	2.302	(0.445)	754533	100.000	99.7	
11	Iodomethane	142	2.402	2.406	(0.464)	350086	100.000	105	
12	Acrolein	56	2.589	2.590	(0.500)	300100	500.000	661	
13	Allyl Chloride	41	2.709	2.713	(0.524)	661042	100.000	106	
14	Methylene Chloride	84	2.814	2.818	(0.544)	505542	100.000	103	
15	Acetone	43	2.877	2.882	(0.556)	649156	500.000	549	
16	trans-1,2-Dichloroethene	96	2.971	2.975	(0.574)	493783	100.000	100	
17	Methyl Acetate	43	3.008	3.013	(0.581)	328549	100.000	104	
18	Methyl tert-butyl ether	73	3.102	3.106	(0.599)	1308189	100.000	106	
19	Tertiary-butyl alcohol	59	3.240	3.237	(0.626)	203305	500.000	440	
20	Acetonitrile	41	3.356	3.361	(0.649)	525078	1000.00	803	
21	Di-isopropyl ether	45	3.506	3.510	(0.678)	1391946	100.000	104	
22	Chloroprene	53	3.588	3.593	(0.693)	769475	100.000	107	
23	1,1-Dichloroethane	63	3.615	3.619	(0.698)	919012	100.000	99.4	
24	Acrylonitrile	52	3.682	3.686	(0.712)	642455	500.000	523	

Data File: \\target_server\gg\chem\gcms-t.i\T101121.b\T3706.D
Report Date: 05-Nov-2021 14:10

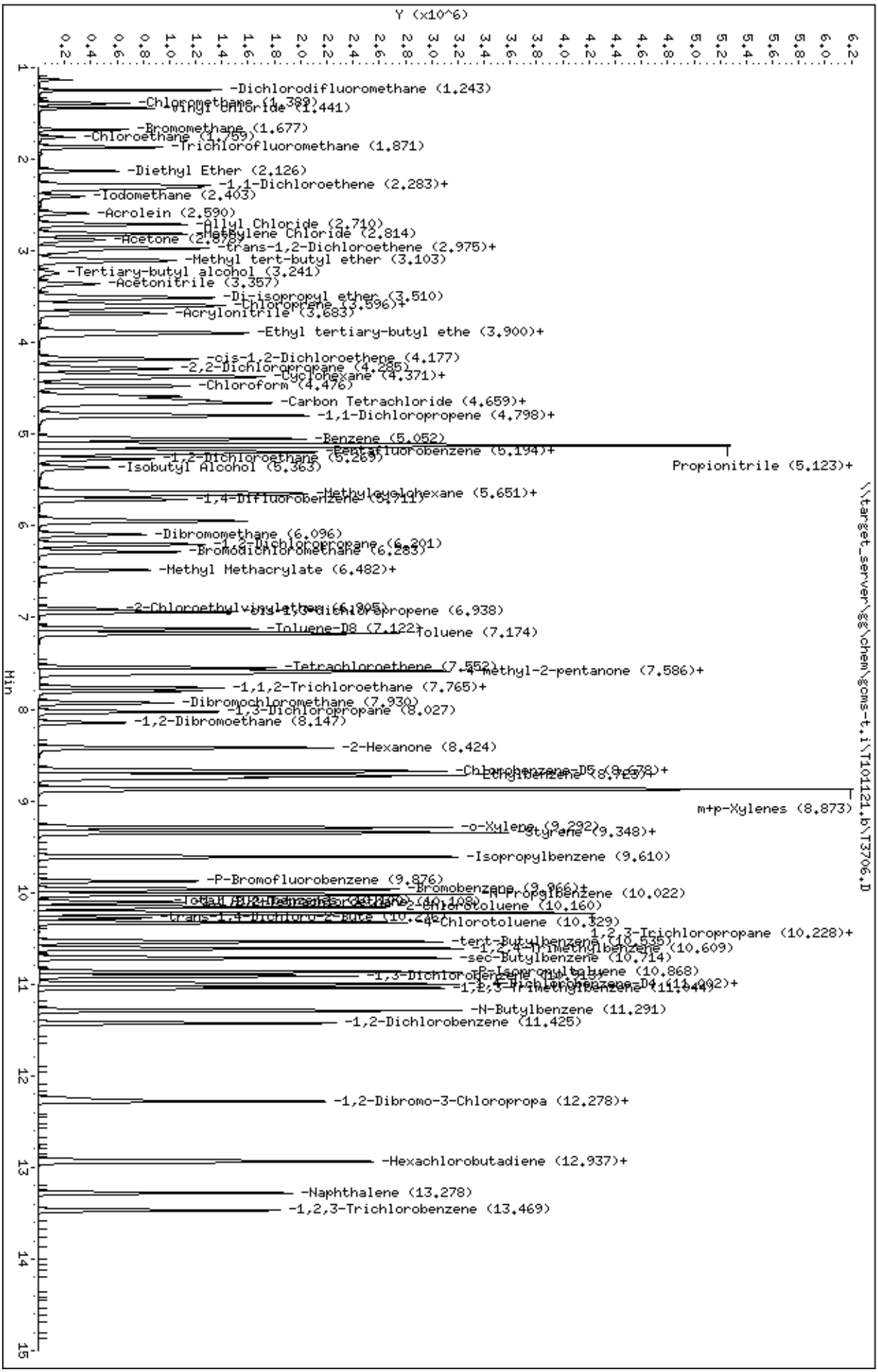
		Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)	REVIEW CODE
	25	Ethyl tertiary-butyl ether	59	3.892	3.896	(0.752)	1342434	100.000	108	
	26	Vinyl Acetate	43	3.907	3.911	(0.684)	1004358	100.000	108	
	27	cis-1,2-Dichloroethene	96	4.180	4.179	(0.808)	531436	100.000	101	
	28	2,2-Dichloropropane	77	4.285	4.288	(0.828)	770151	100.000	103	
	29	Cyclohexane	56	4.363	4.367	(0.843)	683176	100.000	107	
	30	Bromochloromethane	128	4.378	4.382	(0.846)	215139	100.000	97.5	
	31	Chloroform	83	4.475	4.476	(0.865)	967600	100.000	98.2	
	32	Carbon Tetrachloride	117	4.588	4.588	(0.803)	776329	100.000	106	
	33	Tetrahydrofuran	42	4.625	4.629	(0.894)	712776	500.000	512	
$	34	Dibromofluoromethane	113	4.663	4.659	(0.901)	302394	50.0000	49.9	
	35	1,1,1-Trichloroethane	97	4.663	4.667	(0.901)	917235	100.000	103	
	36	1,1-Dichloropropene	75	4.790	4.794	(0.838)	729849	100.000	102	
	37	2-Butanone	43	4.801	4.805	(0.928)	977213	500.000	500	
	38	Benzene	78	5.052	5.052	(0.884)	1903851	100.000	97.9	
	39	Propionitrile	54	5.104	5.104	(0.986)	573191	1000.00	925	
	40	Methacrylonitrile	41	5.123	5.123	(0.990)	2525089	1000.00	1000	
*	41	Pentafluorobenzene	168	5.175	5.176	(1.000)	598720	50.0000		
$	42	1,2-Dichloroethane-D4	65	5.201	5.202	(1.005)	378059	50.0000	48.4	
	43	Tertiary-amyl methyl ether	73	5.201	5.202	(1.005)	1223922	100.000	109	
	44	1,2-Dichloroethane	62	5.269	5.269	(0.922)	723635	100.000	91.1	
	45	Isobutyl Alcohol	43	5.359	5.359	(1.035)	319285	2000.00	2380	
	46	Methylcyclohexane	83	5.636	5.640	(1.089)	781253	100.000	109	
	47	Trichloroethene	95	5.662	5.662	(0.991)	502595	100.000	98.1	
*	48	1,4-Difluorobenzene	114	5.714	5.714	(1.000)	918593	50.0000		
	49	Dibromomethane	93	6.096	6.092	(1.067)	324102	100.000	98.4	
	50	1,2-Dichloropropane	63	6.201	6.201	(1.085)	457123	100.000	99.2	
	51	Bromodichloromethane	83	6.283	6.287	(1.100)	734216	100.000	105	
	52	Methyl Methacrylate	41	6.481	6.482	(1.134)	388244	100.000	117	
	53	1,4-Dioxane	88	6.500	6.500	(1.138)	104590	2000.00	1670	
	54	2-Chloroethylvinylether	63	6.904	6.901	(1.208)	254417	100.000	100	
	55	cis-1,3-dichloropropene	75	6.938	6.942	(1.214)	829324	100.000	108	
$	56	Toluene-D8	98	7.121	7.122	(1.246)	1053276	50.0000	49.2	
	57	Toluene	92	7.174	7.174	(1.255)	1190552	100.000	97.7	
	58	Tetrachloroethene	164	7.548	7.552	(0.871)	410086	100.000	105	
	59	4-methyl-2-pentanone	43	7.585	7.586	(1.327)	1915538	500.000	542	
	60	trans-1,3-Dichloropropene	75	7.611	7.612	(1.332)	776275	100.000	108	
	61	1,1,2-Trichloroethane	83	7.765	7.765	(1.359)	354699	100.000	101	
	62	Ethyl Methacrylate	69	7.799	7.803	(1.365)	579863	100.000	100	
	63	Dibromochloromethane	129	7.929	7.934	(0.915)	520895	100.000	109	
	64	1,3-Dichloropropane	76	8.027	8.031	(0.927)	782586	100.000	102	
	65	1,2-Dibromoethane	107	8.150	8.147	(1.426)	433912	100.000	102	
M	66	Total Alkylbenzenes	100				12694967	100.000	(a)	
	67	2-Hexanone	43	8.423	8.423	(0.972)	1327844	500.000	582	
*	68	Chlorobenzene-D5	117	8.663	8.663	(1.000)	793202	50.0000		
	69	Chlorobenzene	112	8.678	8.678	(1.002)	1240556	100.000	96.9	
	70	Ethylbenzene	91	8.723	8.723	(1.007)	2214489	100.000	101	
	71	1,1,1,2-Tetrachloroethane	131	8.753	8.753	(1.010)	465962	100.000	105	
	72	m+p-Xylenes	91	8.873	8.873	(1.024)	3319998	200.000	203	
	73	o-Xylene	91	9.292	9.292	(1.073)	1743117	100.000	106	
	74	Styrene	104	9.348	9.348	(1.079)	1332825	100.000	111	
	75	Bromoform	173	9.355	9.356	(1.080)	337419	100.000	118	
	76	Isopropylbenzene	105	9.610	9.610	(0.874)	2105653	100.000	108	
$	77	P-Bromofluorobenzene	95	9.875	9.876	(1.728)	373051	50.0000	48.0	
	78	Bromobenzene	156	9.969	9.969	(0.907)	511017	100.000	100	

Data File: \\target_server\gg\chem\gcms-t.i\T101121.b\T3706.D
Report Date: 05-Nov-2021 14:10

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)	REVIEW CODE
	79 cis-1,4-Dichloro-2-Butene	53	9.962	9.966	(0.906)	167992	100.000	115	
	80 N-Propylbenzene	91	10.021	10.022	(0.912)	2444116	100.000	104	
	81 1,1,2,2-Tetrachloroethane	83	10.107	10.108	(0.920)	511040	100.000	104	
	82 2-Chlorotoluene	91	10.160	10.160	(0.924)	1466613	100.000	103	
	83 1,2,3-Trichloropropane	75	10.223	10.224	(0.930)	452836	100.000	102	
	84 1,3,5-Trimethylbenzene	105	10.227	10.228	(0.931)	1683526	100.000	109	
	85 trans-1,4-Dichloro-2-Butene	53	10.276	10.276	(0.935)	164603	100.000	114	
	86 4-Chlorotoluene	91	10.328	10.329	(0.940)	1514777	100.000	102	
	87 tert-Butylbenzene	119	10.534	10.534	(0.958)	1400637	100.000	110	
	89 1,2,4-Trimethylbenzene	105	10.609	10.609	(0.965)	1711997	100.000	109	
	90 sec-Butylbenzene	105	10.714	10.714	(0.975)	2095987	100.000	106	
	91 P-Isopropyltoluene	119	10.867	10.868	(0.989)	1704628	100.000	112	
	92 1,3-Dichlorobenzene	146	10.912	10.912	(0.993)	922611	100.000	102	
*	93 1,4-Dichlorobenzene-D4	152	10.991	10.991	(1.000)	385210	50.0000		
	94 1,4-Dichlorobenzene	146	11.006	11.006	(1.001)	950336	100.000	100	
	95 1,2,3-Trimethylbenzene	105	11.043	11.043	(1.005)	1675810	100.000	107	
	96 N-Butylbenzene	91	11.290	11.290	(1.027)	1654076	100.000	114	
	97 1,2-Dichlorobenzene	146	11.425	11.425	(1.039)	860117	100.000	104	
	98 1,2-Dibromo-3-Chloropropane	157	12.248	12.245	(1.114)	101831	100.000	110	
	99 1,3,5-Trichlorobenzene	180	12.278	12.278	(1.117)	641128	100.000	112	
	100 Hexachlorobutadiene	225	12.922	12.926	(1.176)	256187	100.000	105	
	101 1,2,4-Trichlorobenzene	180	12.940	12.941	(1.177)	575458	100.000	116	
	102 Naphthalene	128	13.277	13.278	(1.208)	1323043	100.000	105	
M	103 1,2-Dichloroethylene (total)	96				1025219	100.000	(a)	
	104 1,2,3-Trichlorobenzene	180	13.468	13.468	(1.225)	521151	100.000	115	
M	105 Xylenes (total)	91				5063115	100.000	(a)	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).


Y (x10^6)
Min
Data File: \\target_server\gg\chem\gcms-t.i\T101121.b\T3706.D
Date : 11-OCT-2021 13:20
Client ID:
Sample Info: WG307648-5
Purge Volume: 5.0
Column phase: RTX-VMS
Instrument: gcms-t.i
Operator: JSS
Column diameter: 0.18
\\target_server\gg\chem\gcms-t.i\T101121.b\T3706.D
-Dichlorodifluoromethane (1.243)
-Chloromethane (1.389)
-Vinyl Chloride (1.441)
-Bromomethane (1.677)
-Chloroethane (1.759)
-Trichlorofluoromethane (1.871)
-Diethyl Ether (2.126)
-1,1-Dichloroethene (2.283)+
-Iodomethane (2.403)
-Acrolein (2.590)
-Allyl Chloride (2.710)
-Methylene Chloride (2.814)
-Acetone (2.879)
-trans-1,2-Dichloroethene (2.975)+
-Methyl tert-butyl ether (3.103)
-Tertiary-butyl alcohol (3.241)
-Acetonitrile (3.357)
-Di-isopropyl ether (3.510)
-Chloroprene (3.596)+
-Acrylonitrile (3.683)
-Ethyl tertiary-butyl ethe (3.900)+
-cis-1,2-Dichloroethene (4.177)
-2,2-Dichloropropane (4.285)
-Cyclohexane (4.371)+
-Chloroform (4.476)
-Carbon Tetrachloride (4.659)+
-1,1-Dichloropropene (4.798)+
-Benzene (5.052)
-Pentafluorobenzene (5.194)+
-1,2-Dichloroethane (5.269)
-Isobutyl Alcohol (5.363)
Propionitrile (5.123)+
-Methylcyclohexane (5.651)+
-1,4-Difluorobenzene (5.711)
-Dibromomethane (6.096)
-1,2-Dichloropropane (6.201)
-Bromodichloromethane (6.283)
-Methyl Methacrylate (6.482)+
-2-Chloroethyl vinyl ether (6.805)
-cis-1,3-Dichloropropene (6.938)
-Toluene-D8 (7.122)
Toluene (7.174)
-Tetrachloroethene (7.552)
-4-methyl-2-pentanone (7.586)+
-1,1,2-Trichloroethane (7.765)+
-Dibromochloromethane (7.930)
-1,3-Dichloropropane (8.027)
-1,2-Dibromoethane (8.147)
-2-Hexanone (8.424)
-Chlorobenzene-D5 (8.678)+
Ethylbenzene (8.729)+
m+p-Xylenes (8.873)
-o-Xylene (9.292)
Styrene (9.348)+
-Isopropylbenzene (9.610)
-P-Bromofluorobenzene (9.876)
-Bromobenzene (9.966)+
-n-Propylbenzene (10.022)
-2-Chlorotoluene (10.160)
-4-Chlorotoluene (10.329)
-trans-1,4-Dichloro-2-Bute (10.242)
1,2,3-Trichloropropane (10.228)+
-tert-Butylbenzene (10.535)
-1,2,4-Trimethylbenzene (10.609)
-sec-Butylbenzene (10.714)
-p-Isopropyltoluene (10.868)
-1,3-Dichlorobenzene (11.015)
-1,4-Dichlorobenzene-D4 (11.092)+
-1,2,3-Trimethylbenzene (11.044)
-N-Butylbenzene (11.291)
-1,2-Dichlorobenzene (11.425)
-1,2-Dibromo-3-Chloropropa (12.278)+
-Hexachlorobutadiene (12.937)+
-Naphthalene (13.278)
-1,2,3-Trichlorobenzene (13.469)

Data File: \\target_server\gg\chem\gcms-t.i\T101121.b\T3707.D
Report Date: 05-Nov-2021 14:10

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-t.i\T101121.b\T3707.D
Lab Smp Id: WG307648-7
Inj Date : 11-OCT-2021 13:47
Operator : JSS   Inst ID: gcms-t.i
Smp Info : WG307648-7
Misc Info :
Comment   : SW846 5030
Method   : \\target_server\gg\chem\gcms-t.i\T101121.b\T8A05(01)shrt.m
Meth Date : 05-Nov-2021 14:10 gcms-t.i   Quant Type: ISTD
Cal Date : 11-OCT-2021 13:47   Cal File: T3707.D
Als bottle: 8   Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE   Compound Sublist: all.sub
Target Version: 4.12

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)	REVIEW CODE
1	Dichlorodifluoromethane	85	1.242	1.246	(0.240)	425019	75.0000	63.0	
2	Chloromethane	50	1.388	1.388	(0.268)	404337	75.0000	74.9	
3	Vinyl chloride	62	1.440	1.441	(0.278)	350338	75.0000	71.8	
4	Bromomethane	94	1.676	1.677	(0.324)	180151	75.0000	75.9	
5	Chloroethane	64	1.759	1.763	(0.340)	124396	75.0000	49.2	
6	Trichlorofluoromethane	101	1.871	1.875	(0.362)	434437	75.0000	63.4	
7	Diethyl Ether	59	2.125	2.126	(0.411)	207918	75.0000	72.9	
8	1,1-Dichloroethene	96	2.282	2.283	(0.441)	260375	75.0000	68.2	
9	Freon-113	151	2.316	2.324	(0.448)	175000	75.0000	63.1	
10	Carbon Disulfide	76	2.301	2.302	(0.445)	560946	75.0000	73.0	
11	Iodomethane	142	2.402	2.406	(0.464)	260264	75.0000	76.9	
12	Acrolein	56	2.589	2.590	(0.500)	216178	375.000	445	
13	Allyl Chloride	41	2.709	2.713	(0.524)	496496	75.0000	77.6	
14	Methylene Chloride	84	2.814	2.818	(0.544)	394067	75.0000	78.1	
15	Acetone	43	2.878	2.882	(0.556)	507123	375.000	362	
16	trans-1,2-Dichloroethene	96	2.975	2.975	(0.575)	378803	75.0000	75.7	
17	Methyl Acetate	43	3.012	3.013	(0.582)	249148	75.0000	77.3	
18	Methyl tert-butyl ether	73	3.102	3.106	(0.599)	1003409	75.0000	79.5	
19	Tertiary-butyl alcohol	59	3.241	3.237	(0.626)	163386	375.000	356	
20	Acetonitrile	41	3.357	3.361	(0.649)	417802	750.000	654	
21	Di-isopropyl ether	45	3.510	3.510	(0.678)	1075324	75.0000	78.5	
22	Chloroprene	53	3.592	3.593	(0.694)	554183	75.0000	74.9	
23	1,1-Dichloroethane	63	3.615	3.619	(0.698)	696807	75.0000	74.2	
24	Acrylonitrile	52	3.686	3.686	(0.712)	497599	375.000	396	

Data File: \\target_server\gg\chem\gcms-t.i\T101121.b\T3707.D
Report Date: 05-Nov-2021 14:10

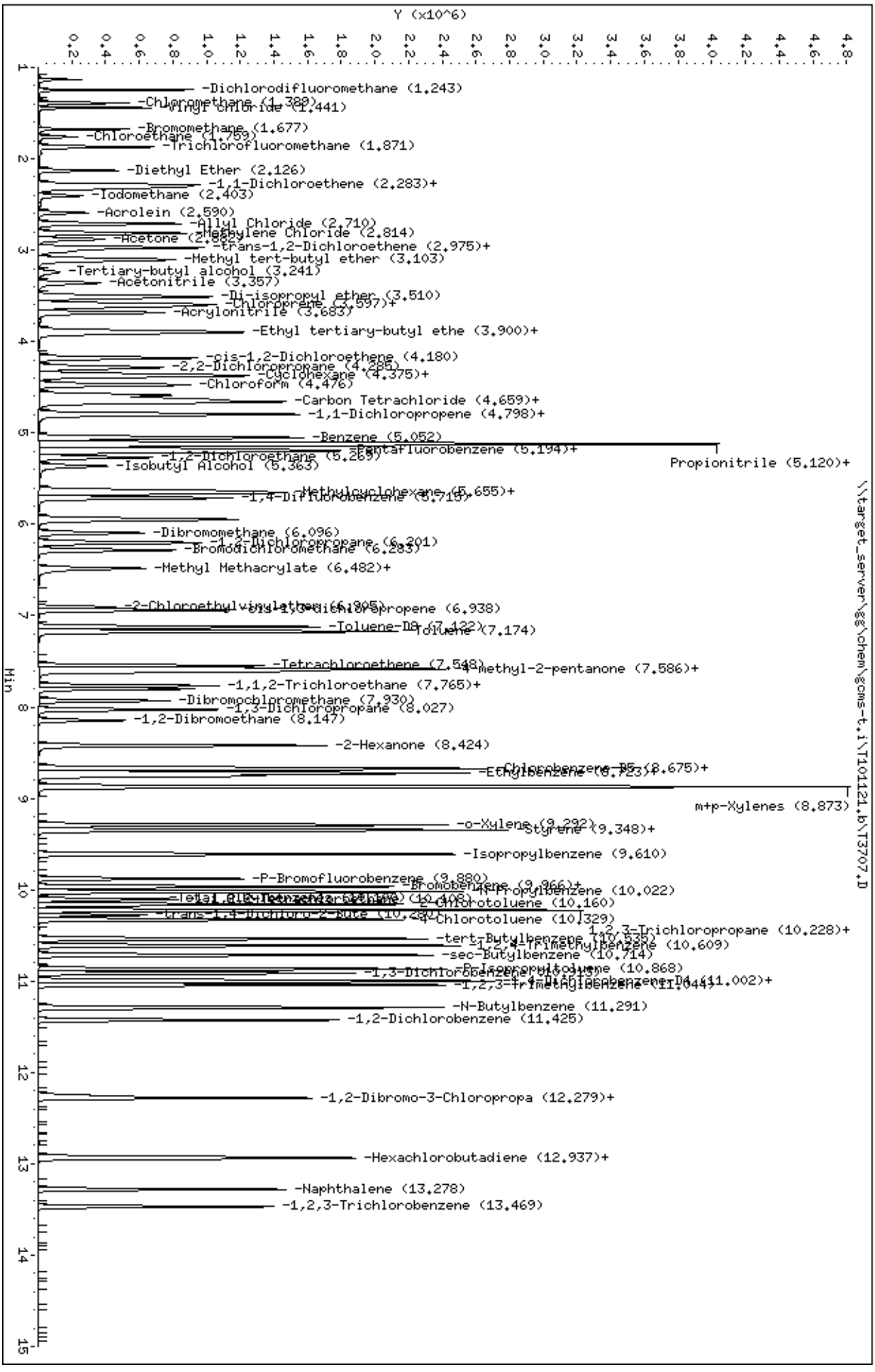
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)	REVIEW CODE
	25 Ethyl tertiary-butyl ether	59	3.892	3.896	(0.752)	1025044	75.0000	80.3	
	26 Vinyl Acetate	43	3.907	3.911	(0.684)	761847	75.0000	80.2	
	27 cis-1,2-Dichloroethene	96	4.180	4.179	(0.808)	406339	75.0000	75.7	
	28 2,2-Dichloropropane	77	4.285	4.288	(0.828)	562874	75.0000	73.8	
	29 Cyclohexane	56	4.363	4.367	(0.843)	460078	75.0000	70.3	
	30 Bromochloromethane	128	4.382	4.382	(0.847)	168228	75.0000	75.3	
	31 Chloroform	83	4.475	4.476	(0.865)	744939	75.0000	74.6	
	32 Carbon Tetrachloride	117	4.588	4.588	(0.803)	559383	75.0000	75.0	
	33 Tetrahydrofuran	42	4.625	4.629	(0.894)	548330	375.000	386	
$	34 Dibromofluoromethane	113	4.659	4.659	(0.900)	300909	50.0000	48.8	
	35 1,1,1-Trichloroethane	97	4.663	4.667	(0.901)	675584	75.0000	74.3	
	36 1,1-Dichloropropene	75	4.794	4.794	(0.839)	547499	75.0000	75.6	
	37 2-Butanone	43	4.805	4.805	(0.928)	750793	375.000	378	
	38 Benzene	78	5.052	5.052	(0.884)	1480974	75.0000	75.8	
	39 Propionitrile	54	5.104	5.104	(0.986)	444608	750.000	715	
	40 Methacrylonitrile	41	5.123	5.123	(0.990)	1957260	750.000	766	
*	41 Pentafluorobenzene	168	5.175	5.176	(1.000)	608515	50.0000		
$	42 1,2-Dichloroethane-D4	65	5.198	5.202	(1.004)	378999	50.0000	48.0	
	43 Tertiary-amyl methyl ether	73	5.201	5.202	(1.005)	929554	75.0000	80.1	
	44 1,2-Dichloroethane	62	5.269	5.269	(0.922)	549603	75.0000	69.7	
	45 Isobutyl Alcohol	43	5.362	5.359	(1.036)	238909	1500.00	1700	
	46 Methylcyclohexane	83	5.636	5.640	(1.089)	509452	75.0000	69.1	
	47 Trichloroethene	95	5.658	5.662	(0.990)	374411	75.0000	72.7	
*	48 1,4-Difluorobenzene	114	5.714	5.714	(1.000)	925831	50.0000		
	49 Dibromomethane	93	6.096	6.092	(1.067)	246405	75.0000	74.4	
	50 1,2-Dichloropropane	63	6.201	6.201	(1.085)	357735	75.0000	77.1	
	51 Bromodichloromethane	83	6.283	6.287	(1.100)	551318	75.0000	77.5	
	52 Methyl Methacrylate	41	6.481	6.482	(1.134)	294900	75.0000	86.0	
	53 1,4-Dioxane	88	6.507	6.500	(1.139)	86366	1500.00	1410	
	54 2-Chloroethylvinylether	63	6.904	6.901	(1.208)	195676	75.0000	76.5	
	55 cis-1,3-dichloropropene	75	6.938	6.942	(1.214)	636536	75.0000	81.4	
$	56 Toluene-D8	98	7.121	7.122	(1.246)	1061401	50.0000	49.3	
	57 Toluene	92	7.174	7.174	(1.255)	926443	75.0000	75.7	
	58 Tetrachloroethene	164	7.548	7.552	(0.871)	310579	75.0000	77.4	
	59 4-methyl-2-pentanone	43	7.585	7.586	(1.327)	1503365	375.000	416	
	60 trans-1,3-Dichloropropene	75	7.611	7.612	(1.332)	589504	75.0000	80.5	
	61 1,1,2-Trichloroethane	83	7.765	7.765	(1.359)	274083	75.0000	77.4	
	62 Ethyl Methacrylate	69	7.799	7.803	(1.365)	444922	75.0000	76.3	
	63 Dibromochloromethane	129	7.930	7.934	(0.915)	400638	75.0000	81.1	
	64 1,3-Dichloropropane	76	8.031	8.031	(0.927)	604502	75.0000	76.8	
	65 1,2-Dibromoethane	107	8.147	8.147	(1.426)	339947	75.0000	79.0	
M	66 Total Alkylbenzenes	100				9707788	75.0000	(a)	
	67 2-Hexanone	43	8.424	8.423	(0.972)	1019390	375.000	428	
*	68 Chlorobenzene-D5	117	8.663	8.663	(1.000)	807263	50.0000		
	69 Chlorobenzene	112	8.678	8.678	(1.002)	962489	75.0000	74.2	
	70 Ethylbenzene	91	8.723	8.723	(1.007)	1712750	75.0000	76.5	
	71 1,1,1,2-Tetrachloroethane	131	8.753	8.753	(1.010)	355767	75.0000	78.2	
	72 m+p-Xylenes	91	8.873	8.873	(1.024)	2582256	150.000	155	
	73 o-Xylene	91	9.292	9.292	(1.073)	1353562	75.0000	80.2	
	74 Styrene	104	9.348	9.348	(1.079)	1033546	75.0000	83.0	
	75 Bromoform	173	9.355	9.356	(1.080)	252696	75.0000	84.1	
	76 Isopropylbenzene	105	9.610	9.610	(0.874)	1629204	75.0000	80.2	
$	77 P-Bromofluorobenzene	95	9.879	9.876	(1.729)	378101	50.0000	48.6	
	78 Bromobenzene	156	9.969	9.969	(0.907)	397372	75.0000	76.1	

Data File: \\target_server\gg\chem\gcms-t.i\T101121.b\T3707.D
Report Date: 05-Nov-2021 14:10

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)	REVIEW CODE
	79 cis-1,4-Dichloro-2-Butene	53	9.962	9.966	(0.906)	127071	75.0000	83.0	
	80 N-Propylbenzene	91	10.021	10.022	(0.912)	1902348	75.0000	78.2	
	81 1,1,2,2-Tetrachloroethane	83	10.104	10.108	(0.919)	389352	75.0000	76.8	
	82 2-Chlorotoluene	91	10.160	10.160	(0.924)	1146097	75.0000	78.3	
	83 1,2,3-Trichloropropane	75	10.224	10.224	(0.930)	344754	75.0000	75.9	
	84 1,3,5-Trimethylbenzene	105	10.227	10.228	(0.931)	1289223	75.0000	80.1	
	85 trans-1,4-Dichloro-2-Butene	53	10.276	10.276	(0.935)	123395	75.0000	81.6	
	86 4-Chlorotoluene	91	10.332	10.329	(0.940)	1179930	75.0000	77.2	
	87 tert-Butylbenzene	119	10.538	10.534	(0.959)	1063546	75.0000	80.2	
	89 1,2,4-Trimethylbenzene	105	10.609	10.609	(0.965)	1320807	75.0000	80.9	
	90 sec-Butylbenzene	105	10.714	10.714	(0.975)	1591739	75.0000	78.0	
	91 P-Isopropyltoluene	119	10.867	10.868	(0.989)	1293810	75.0000	81.3	
	92 1,3-Dichlorobenzene	146	10.916	10.912	(0.993)	707421	75.0000	76.5	
*	93 1,4-Dichlorobenzene-D4	152	10.991	10.991	(1.000)	394537	50.0000		
	94 1,4-Dichlorobenzene	146	11.006	11.006	(1.001)	728844	75.0000	74.9	
	95 1,2,3-Trimethylbenzene	105	11.043	11.043	(1.005)	1271942	75.0000	78.4	
	96 N-Butylbenzene	91	11.290	11.290	(1.027)	1246315	75.0000	82.0	
	97 1,2-Dichlorobenzene	146	11.425	11.425	(1.039)	672078	75.0000	78.5	
	98 1,2-Dibromo-3-Chloropropane	157	12.248	12.245	(1.114)	75683	75.0000	77.2	
	99 1,3,5-Trichlorobenzene	180	12.278	12.278	(1.117)	480704	75.0000	80.3	
	100 Hexachlorobutadiene	225	12.925	12.926	(1.176)	187325	75.0000	74.4	
	101 1,2,4-Trichlorobenzene	180	12.940	12.941	(1.177)	437865	75.0000	84.2	
	102 Naphthalene	128	13.277	13.278	(1.208)	1011997	75.0000	77.2	
M	103 1,2-Dichloroethylene (total)	96				785142	75.0000	(a)	
	104 1,2,3-Trichlorobenzene	180	13.468	13.468	(1.225)	393224	75.0000	82.9	
M	105 Xylenes (total)	91				3935818	75.0000	(a)	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).


Data File: \\target_server\gg\chem\gcms-t.i\T101121.b\T3707.D
Date : 11-OCT-2021 13:47
Client ID:
Sample Info: WG307648-7
Purge Volume: 5.0
Column phase: RTX-VMS
Instrument: gcms-t.i
Operator: JSS
Column diameter: 0.18
\\target_server\gg\chem\gcms-t.i\T101121.b\T3707.D
Y (x10^6)
Min
-Dichlorodifluoromethane (1.243)
-Chloromethane (1.389)
-Vinyl Chloride (1.441)
-Bromomethane (1.677)
-Chloroethane (1.759)
-Trichlorofluoromethane (1.871)
-Diethyl Ether (2.126)
-1,1-Dichloroethene (2.283)+
-Iodomethane (2.403)
-Acrolein (2.590)
-Allyl Chloride (2.710)
-Methylene Chloride (2.814)
-Acetone (2.882)
-trans-1,2-Dichloroethene (2.975)+
-Methyl tert-butyl ether (3.103)
-Tertiary-butyl alcohol (3.241)
-Acetonitrile (3.357)
-Di-isopropyl ether (3.510)
-Chloroprene (3.597)+
-Acrylonitrile (3.683)
-Ethyl tertiary-butyl ethe (3.900)+
-cis-1,2-Dichloroethene (4.180)
-2,2-Dichloropropane (4.285)
-Cyclohexane (4.375)+
-Chloroform (4.476)
-Carbon Tetrachloride (4.659)+
-1,1-Dichloropropene (4.798)+
-Benzene (5.052)
-Pentafluorobenzene (5.194)+
-1,2-Dichloroethane (5.269)
-Isobutyl Alcohol (5.363)
Propionitrile (5.120)+
Methylcyclohexane (5.655)+
-1,4-Difluorobenzene (5.719)
-Dibromomethane (6.096)
-1,2-Dichloropropane (6.201)
-Bromodichloromethane (6.283)
-Methyl Methacrylate (6.482)+
-2-Chloroethyl vinyl ether (6.905)
-cis-1,3-Dichloropropene (6.938)
-Toluene-D8 (7.122)
Toluene (7.174)
-Tetrachloroethene (7.548)
4-methyl-2-pentanone (7.586)+
-1,1,2-Trichloroethane (7.765)+
-Dibromochloromethane (7.930)
-1,3-Dichloropropane (8.027)
-1,2-Dibromoethane (8.147)
-2-Hexanone (8.424)
-Chlorobenzene-D5 (8.675)+
-Ethylbenzene (8.723)+
m+p-Xylenes (8.873)
-o-Xylene (9.292)
Styrene (9.348)+
-Isopropylbenzene (9.610)
-P-Bromofluorobenzene (9.880)
-Bromobenzene (9.966)+
-n-Propylbenzene (10.022)
-Tetrachloroethane-D2 (10.108)
-2-Chlorotoluene (10.160)
-trans-1,4-Dichloro-2-Bute (10.282)
-4-Chlorotoluene (10.329)
1,2,3-Trichloropropane (10.228)+
-tert-Butylbenzene (10.535)
-1,2,4-Trimethylbenzene (10.609)
-sec-Butylbenzene (10.714)
-p-Isopropyltoluene (10.868)
-1,3-Dichlorobenzene (10.913)
-1,4-Dichlorobenzene-D4 (11.002)+
-1,2,3-Trimethylbenzene (11.044)
-N-Butylbenzene (11.291)
-1,2-Dichlorobenzene (11.425)
-1,2-Dibromo-3-Chloropropa (12.279)+
-Hexachlorobutadiene (12.937)+
-Naphthalene (13.278)
-1,2,3-Trichlorobenzene (13.469)

Data File: \\target_server\gg\chem\gcms-t.i\T101121.b\T3708.D
Report Date: 05-Nov-2021 14:10

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-t.i\T101121.b\T3708.D
Lab Smp Id: WG307648-4
Inj Date : 11-OCT-2021 14:13
Operator : JSS   Inst ID: gcms-t.i
Smp Info : WG307648-4
Misc Info :
Comment   : SW846 5030
Method   : \\target_server\gg\chem\gcms-t.i\T101121.b\T8A05(01)shrt.m
Meth Date : 05-Nov-2021 14:10 gcms-t.i   Quant Type: ISTD
Cal Date : 11-OCT-2021 14:13   Cal File: T3708.D
Als bottle: 9   Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE   Compound Sublist: all.sub
Target Version: 4.12

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)	REVIEW CODE
1	Dichlorodifluoromethane	85	1.246	1.246	(0.241)	329670	50.0000	48.6	
2	Chloromethane	50	1.388	1.388	(0.268)	280989	50.0000	50.6	
3	Vinyl chloride	62	1.440	1.441	(0.278)	253402	50.0000	50.8	
4	Bromomethane	94	1.676	1.677	(0.324)	123230	50.0000	50.4	
5	Chloroethane	64	1.762	1.763	(0.341)	102716	50.0000	39.5	
6	Trichlorofluoromethane	101	1.874	1.875	(0.362)	323578	50.0000	46.9	
7	Diethyl Ether	59	2.125	2.126	(0.411)	140979	50.0000	48.2	
8	1,1-Dichloroethene	96	2.282	2.283	(0.441)	189389	50.0000	48.9	
9	Freon-113	151	2.324	2.324	(0.449)	136213	50.0000	48.8	
10	Carbon Disulfide	76	2.301	2.302	(0.445)	385448	50.0000	48.9	
11	Iodomethane	142	2.406	2.406	(0.465)	172620	50.0000	50.8	
12	Acrolein	56	2.589	2.590	(0.500)	113775	250.000	222	
13	Allyl Chloride	41	2.713	2.713	(0.524)	344191	50.0000	52.0	
14	Methylene Chloride	84	2.817	2.818	(0.544)	268597	50.0000	51.4	
15	Acetone	43	2.881	2.882	(0.557)	342387	250.000	214	
16	trans-1,2-Dichloroethene	96	2.975	2.975	(0.575)	262252	50.0000	50.9	
17	Methyl Acetate	43	3.012	3.013	(0.582)	167735	50.0000	50.4	
18	Methyl tert-butyl ether	73	3.106	3.106	(0.600)	673361	50.0000	51.4	
19	Tertiary-butyl alcohol	59	3.237	3.237	(0.625)	109229	250.000	234	
20	Acetonitrile	41	3.360	3.361	(0.649)	292449	500.000	455	
21	Di-isopropyl ether	45	3.510	3.510	(0.678)	722760	50.0000	51.0	
22	Chloroprene	53	3.592	3.593	(0.694)	394999	50.0000	51.9	
23	1,1-Dichloroethane	63	3.618	3.619	(0.699)	481877	50.0000	50.0	
24	Acrylonitrile	52	3.686	3.686	(0.712)	326737	250.000	250	

Data File: \\target_server\gg\chem\gcms-t.i\T101121.b\T3708.D
Report Date: 05-Nov-2021 14:10

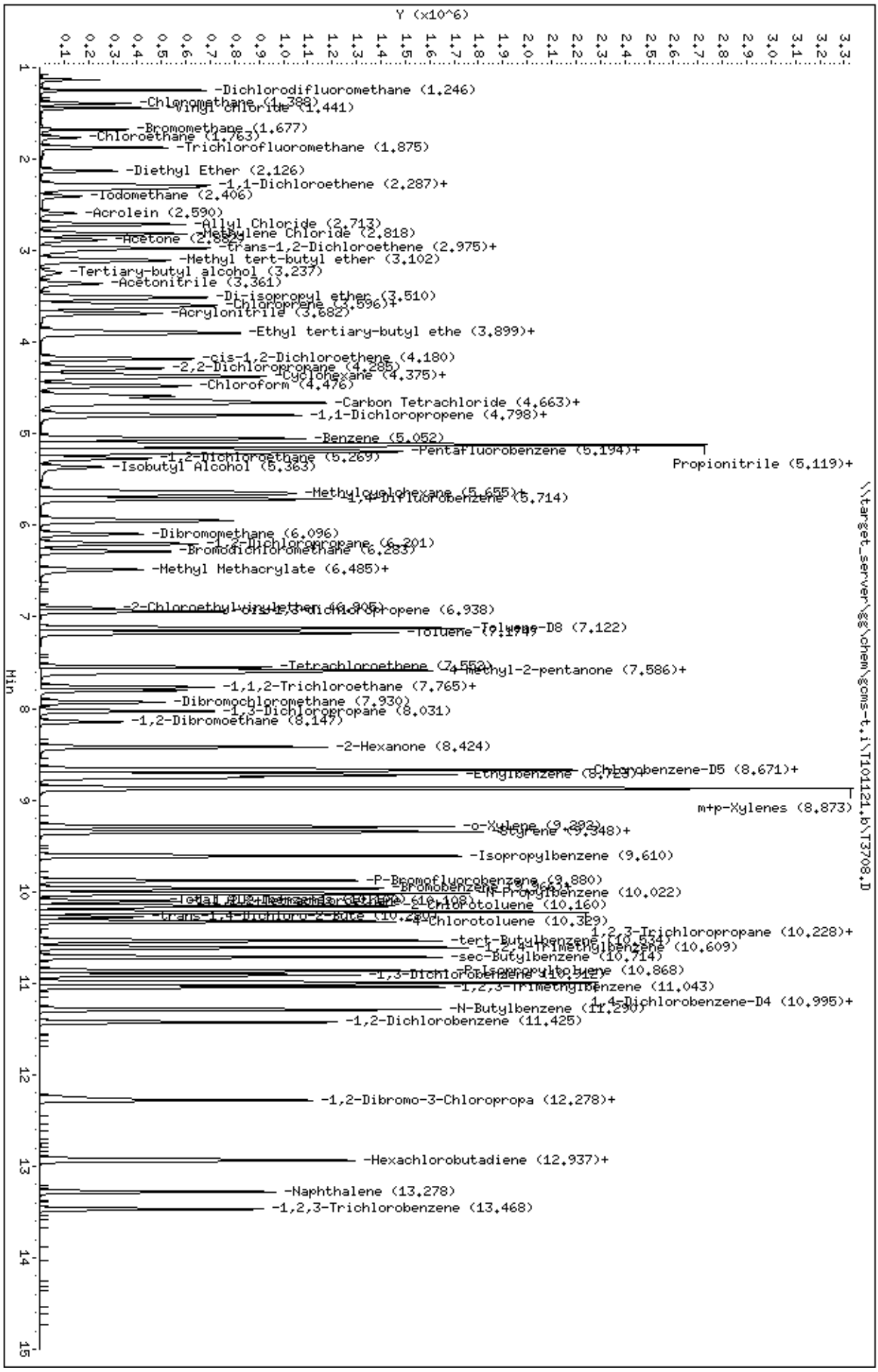
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)	REVIEW CODE
	25 Ethyl tertiary-butyl ether	59	3.895	3.896	(0.753)	687427	50.0000	51.8	
	26 Vinyl Acetate	43	3.910	3.911	(0.684)	510812	50.0000	51.4	
	27 cis-1,2-Dichloroethene	96	4.180	4.179	(0.808)	277818	50.0000	50.2	
	28 2,2-Dichloropropane	77	4.288	4.288	(0.829)	390589	50.0000	49.9	
	29 Cyclohexane	56	4.367	4.367	(0.844)	348791	50.0000	52.3	
	30 Bromochloromethane	128	4.382	4.382	(0.847)	114600	50.0000	49.8	
	31 Chloroform	83	4.475	4.476	(0.865)	504042	50.0000	49.1	
	32 Carbon Tetrachloride	117	4.588	4.588	(0.803)	391258	50.0000	50.7	
	33 Tetrahydrofuran	42	4.629	4.629	(0.894)	370061	250.000	252	
$	34 Dibromofluoromethane	113	4.659	4.659	(0.900)	314531	50.0000	49.8	
	35 1,1,1-Trichloroethane	97	4.666	4.667	(0.902)	468382	50.0000	50.2	
	36 1,1-Dichloropropene	75	4.793	4.794	(0.839)	379557	50.0000	50.5	
	37 2-Butanone	43	4.805	4.805	(0.928)	506484	250.000	248	
	38 Benzene	78	5.052	5.052	(0.884)	1010693	50.0000	49.9	
	39 Propionitrile	54	5.104	5.104	(0.986)	309559	500.000	487	
	40 Methacrylonitrile	41	5.123	5.123	(0.990)	1329397	500.000	504	
*	41 Pentafluorobenzene	168	5.175	5.176	(1.000)	625975	50.0000		
$	42 1,2-Dichloroethane-D4	65	5.201	5.202	(1.005)	384840	50.0000	47.7	
	43 Tertiary-amyl methyl ether	73	5.201	5.202	(1.005)	619826	50.0000	51.4	
	44 1,2-Dichloroethane	62	5.269	5.269	(0.922)	372566	50.0000	46.1	
	45 Isobutyl Alcohol	43	5.358	5.359	(1.035)	161608	1000.00	1100	
	46 Methylcyclohexane	83	5.639	5.640	(1.090)	393111	50.0000	52.4	
	47 Trichloroethene	95	5.662	5.662	(0.991)	263013	50.0000	49.5	
*	48 1,4-Difluorobenzene	114	5.714	5.714	(1.000)	959155	50.0000		
	49 Dibromomethane	93	6.092	6.092	(1.066)	163992	50.0000	47.9	
	50 1,2-Dichloropropane	63	6.200	6.201	(1.085)	238547	50.0000	49.4	
	51 Bromodichloromethane	83	6.287	6.287	(1.100)	364852	50.0000	49.3	
	52 Methyl Methacrylate	41	6.481	6.482	(1.134)	194355	50.0000	53.6	
	53 1,4-Dioxane	88	6.500	6.500	(1.138)	64071	1000.00	1020	
	54 2-Chloroethylvinylether	63	6.900	6.901	(1.208)	130806	50.0000	49.2	
	55 cis-1,3-dichloropropene	75	6.941	6.942	(1.215)	422130	50.0000	51.5	
$	56 Toluene-D8	98	7.121	7.122	(1.246)	1104285	50.0000	49.6	
	57 Toluene	92	7.173	7.174	(1.255)	635506	50.0000	50.1	
	58 Tetrachloroethene	164	7.551	7.552	(0.872)	214781	50.0000	51.4	
	59 4-methyl-2-pentanone	43	7.585	7.586	(1.327)	1000628	250.000	263	
	60 trans-1,3-Dichloropropene	75	7.611	7.612	(1.332)	384142	50.0000	50.1	
	61 1,1,2-Trichloroethane	83	7.765	7.765	(1.359)	182647	50.0000	49.6	
	62 Ethyl Methacrylate	69	7.802	7.803	(1.365)	296012	50.0000	48.9	
	63 Dibromochloromethane	129	7.933	7.934	(0.916)	264904	50.0000	51.1	
	64 1,3-Dichloropropane	76	8.030	8.031	(0.927)	407592	50.0000	49.8	
	65 1,2-Dibromoethane	107	8.146	8.147	(1.426)	223422	50.0000	49.7	
M	66 Total Alkylbenzenes	100				6724685	50.0000	(a)	
	67 2-Hexanone	43	8.423	8.423	(0.972)	687441	250.000	272	
*	68 Chlorobenzene-D5	117	8.663	8.663	(1.000)	837049	50.0000		
	69 Chlorobenzene	112	8.678	8.678	(1.002)	661560	50.0000	49.3	
	70 Ethylbenzene	91	8.723	8.723	(1.007)	1176739	50.0000	50.6	
	71 1,1,1,2-Tetrachloroethane	131	8.753	8.753	(1.010)	239066	50.0000	50.4	
	72 m+p-Xylenes	91	8.872	8.873	(1.024)	1804263	100.000	104	
	73 o-Xylene	91	9.292	9.292	(1.073)	939175	50.0000	53.2	
	74 Styrene	104	9.348	9.348	(1.079)	705627	50.0000	53.8	
	75 Bromoform	173	9.355	9.356	(1.080)	165962	50.0000	52.3	
	76 Isopropylbenzene	105	9.610	9.610	(0.874)	1132753	50.0000	53.8	
$	77 P-Bromofluorobenzene	95	9.875	9.876	(1.728)	393403	50.0000	49.0	
	78 Bromobenzene	156	9.969	9.969	(0.907)	268466	50.0000	49.9	

Data File: \\target_server\gg\chem\gcms-t.i\T101121.b\T3708.D
Report Date: 05-Nov-2021 14:10

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)	REVIEW CODE
	79 cis-1,4-Dichloro-2-Butene	53	9.965	9.966	(0.907)	81519	50.0000	51.1	
	80 N-Propylbenzene	91	10.021	10.022	(0.912)	1320273	50.0000	52.6	
	81 1,1,2,2-Tetrachloroethane	83	10.107	10.108	(0.920)	266297	50.0000	51.0	
	82 2-Chlorotoluene	91	10.160	10.160	(0.924)	787014	50.0000	52.0	
	83 1,2,3-Trichloropropane	75	10.223	10.224	(0.930)	235320	50.0000	50.4	
	84 1,3,5-Trimethylbenzene	105	10.227	10.228	(0.931)	893739	50.0000	53.6	
	85 trans-1,4-Dichloro-2-Butene	53	10.276	10.276	(0.935)	80987	50.0000	51.5	
	86 4-Chlorotoluene	91	10.328	10.329	(0.940)	802437	50.0000	50.9	
	87 tert-Butylbenzene	119	10.534	10.534	(0.958)	743834	50.0000	54.1	
	89 1,2,4-Trimethylbenzene	105	10.609	10.609	(0.965)	905851	50.0000	53.4	
	90 sec-Butylbenzene	105	10.714	10.714	(0.975)	1112252	50.0000	52.8	
	91 P-Isopropyltoluene	119	10.867	10.868	(0.989)	895850	50.0000	54.2	
	92 1,3-Dichlorobenzene	146	10.912	10.912	(0.993)	480236	50.0000	50.4	
*	93 1,4-Dichlorobenzene-D4	152	10.991	10.991	(1.000)	405132	50.0000		
	94 1,4-Dichlorobenzene	146	11.006	11.006	(1.001)	490941	50.0000	49.1	
	95 1,2,3-Trimethylbenzene	105	11.043	11.043	(1.005)	870662	50.0000	51.9	
	96 N-Butylbenzene	91	11.290	11.290	(1.027)	852886	50.0000	53.9	
	97 1,2-Dichlorobenzene	146	11.425	11.425	(1.039)	446355	50.0000	50.4	
	98 1,2-Dibromo-3-Chloropropane	157	12.244	12.245	(1.114)	48042	50.0000	47.5	
	99 1,3,5-Trichlorobenzene	180	12.278	12.278	(1.117)	320550	50.0000	51.6	
	100 Hexachlorobutadiene	225	12.925	12.926	(1.176)	130661	50.0000	50.6	
	101 1,2,4-Trichlorobenzene	180	12.940	12.941	(1.177)	286296	50.0000	52.7	
	102 Naphthalene	128	13.277	13.278	(1.208)	659782	50.0000	48.8	
M	103 1,2-Dichloroethylene (total)	96				540070	50.0000	(a)	
	104 1,2,3-Trichlorobenzene	180	13.468	13.468	(1.225)	256568	50.0000	51.9	
M	105 Xylenes (total)	91				2743438	150.000	(a)	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).


Data File: \\target_server\gg\chem\gcms-t.i\T101121.b\T3708.D
Date : 11-OCT-2021 14:13
Client ID:
Sample Info: WG307648-4
Purge Volume: 5.0
Column phase: RTX-VMS
Instrument: gcms-t.i
Operator: JSS
Column diameter: 0.18
Y (x10^6)
Min
\\target_server\gg\chem\gcms-t.i\T101121.b\T3708.D
-Dichlorodifluoromethane (1.246)
-Chloromethane (1.388)
-Vinyl Chloride (1.441)
-Bromomethane (1.677)
-Chloroethane (1.763)
-Trichlorofluoromethane (1.875)
-Diethyl Ether (2.126)
-1,1-Dichloroethene (2.287)+
-Iodomethane (2.406)
-Acrolein (2.590)
-Allyl Chloride (2.713)
-Methylene Chloride (2.818)
-Acetone (2.852)
-trans-1,2-Dichloroethene (2.975)+
-Methyl tert-butyl ether (3.102)
-Tertiary-butyl alcohol (3.237)
-Acetonitrile (3.361)
-Di-isopropyl ether (3.510)
-Chloroprene (3.596)+
-Acrylonitrile (3.682)
-Ethyl tertiary-butyl ethe (3.899)+
-cis-1,2-Dichloroethene (4.180)
-2,2-Dichloropropane (4.285)
-Cyclohexane (4.375)+
-Chloroform (4.476)
-Carbon Tetrachloride (4.663)+
-1,1-Dichloropropene (4.798)+
-Benzene (5.052)
-Pentafluorobenzene (5.194)+
-1,2-Dichloroethane (5.269)
Propionitrile (5.119)+
-Isobutyl Alcohol (5.363)
-Methylcyclohexane (5.655)+
1,4-Difluorobenzene (5.714)
-Dibromomethane (6.096)
-1,2-Dichloropropane (6.201)
-Bromodichloromethane (6.283)
-Methyl Methacrylate (6.485)+
-2-Chloroethyl vinylether (6.805)
-cis-1,3-Dichloropropene (6.938)
-Toluene-D8 (7.122)
-Tetrachloroethene (7.552)
4-Methyl-2-pentanone (7.586)+
-1,1,2-Trichloroethane (7.765)+
-Dibromochloromethane (7.930)
-1,3-Dichloropropane (8.031)
-1,2-Dibromoethane (8.147)
-2-Hexanone (8.424)
-Chlorobenzene-D5 (8.671)+
-Ethylbenzene (8.723)
m+p-Xylenes (8.873)
-o-Xylene (9.293)
-Styrene (9.348)+
-Isopropylbenzene (9.610)
-P-Bromofluorobenzene (9.880)
-Bromobenzene (9.964)+
-N-Propylbenzene (10.022)
-2-Chlorotoluene (10.160)
-4-Chlorotoluene (10.329)
-trans-1,4-Dichloro-2-bute (10.420)
1,2,3-Trichloropropane (10.228)+
-tert-Butylbenzene (10.534)
-1,2,4-Trimethylbenzene (10.609)
-sec-Butylbenzene (10.714)
-P-Isopropyltoluene (10.868)
-1,3-Dichlorobenzene (10.912)
-1,2,3-Trimethylbenzene (11.043)
1,4-Dichlorobenzene-D4 (10.995)+
-N-Butylbenzene (11.290)
-1,2-Dichlorobenzene (11.425)
-1,2-Dibromo-3-Chloropropa (12.278)+
-Hexachlorobutadiene (12.937)+
-Naphthalene (13.278)
-1,2,3-Trichlorobenzene (13.468)

Katahdin
ANALYTICAL SERVICES

Form 6
Initial Calibration Summary

Lab Name : Katahdin Analytical Services
SDG: SO6709
Project : Watervliet Arsenal LTM
Instrument ID: GCMS-W
Lab File IDs : W0580.D W0579.D W0577.D W0576.D W0582.D W0581.D W0583.D W0578.D
Calibration Date(s): 10-OCT-21 09:02 10-OCT-21 12:35

	1.0000 Level 1	5.0000 Level 2	20.0000 Level 3	50.0000 Level 4	100.0000 Level 5	150.0000 Level 6	75.0000 Level 7	10.0000 Level 8	Curve Type	b	m1	m2	%RSD	MAX %RSD	
Chloromethane	0.98182	0.71847	0.76469	0.73180	0.67943	0.67509	0.68361	0.74241	AVG		.7472		13.41	15	O
Vinyl chloride	0.75493	0.62193	0.69297	0.70022	0.62042	0.60165	0.62030	0.68019	AVG		.6616		8.1	15	O
Bromomethane	0.24545	0.18270	0.18999	0.19614	0.19593	0.19539	0.19646	0.16293	AVG		.1956		11.84	15	O
Chloroethane	6004	19784	82014	191723	370761	540599	292222	41695	QUA	0	2.5	.5303	.9973	.99	O
Trichlorofluoromethane	0.97166	0.82204	0.92907	0.95866	0.82487	0.83093	0.81000	0.88097	AVG		.8785		7.537	15	O
1,1-Dichloroethene	0.57913	0.45645	0.51253	0.51711	0.46389	0.46053	0.45835	0.49583	AVG		.493		8.684	15	O
Carbon Disulfide	1.44488	0.99148	1.11175	1.15139	1.03183	1.02314	1.01288	1.05465	AVG		1.103		13.43	15	O
Methylene Chloride	10144	30215	111400	260402	539023	797391	418652	57139	LNR	0	.4972		.9975	.99	O
trans-1,2-Dichloroethene	0.62456	0.51795	0.55194	0.54628	0.49417	0.48769	0.48359	0.51814	AVG		.528		8.816	15	O
1,1-Dichloroethane	1.10586	0.95090	1.01249	0.98886	0.91864	0.90701	0.89655	0.97293	AVG		.9692		7.083	15	O
cis-1,2-Dichloroethene	0.59649	0.48798	0.53260	0.52376	0.49623	0.49384	0.49165	0.50654	AVG		.5161		7.01	15	O
Chloroform	1.01927	0.89155	0.92887	0.92454	0.84727	0.84436	0.84139	0.89051	AVG		.8985		6.667	15	O
Carbon Tetrachloride	0.37400	0.36138	0.40864	0.43259	0.41229	0.41125	0.41251	0.39099	AVG		.4005		5.832	15	O
1,1,1-Trichloroethane	0.87733	0.74405	0.83951	0.85267	0.78212	0.77709	0.76754	0.79064	AVG		.8039		5.818	15	O
2-Butanone	0.24670	0.23700	0.26569	0.26094	0.21259	0.21490	0.22742	0.26978	AVG		.2419		9.311	15	O
Benzene	1.22846	1.10671	1.16274	1.16032	1.13544	1.11005	1.14190	1.13231	AVG		1.147		3.364	15	O
1,2-Dichloroethane	0.56386	0.45582	0.44495	0.43825	0.41430	0.41800	0.42140	0.43133	AVG		.4485		10.86	15	O
Trichloroethene	0.30896	0.27396	0.30303	0.29952	0.28914	0.29176	0.29232	0.29213	AVG		.2938		3.574	15	O
1,2-Dichloropropane	0.31859	0.29283	0.30400	0.30510	0.30321	0.30204	0.30381	0.29203	AVG		.3027		2.716	15	O
Bromodichloromethane	0.39230	0.36515	0.38318	0.39817	0.38933	0.39844	0.38757	0.37215	AVG		.3858		3.083	15	O
cis-1,3-dichloropropene	0.39834	0.38180	0.45377	0.47898	0.47700	0.48613	0.47354	0.41226	AVG		.4452		9.301	15	O
Toluene	0.79847	0.69591	0.72551	0.72883	0.71573	0.71406	0.71483	0.70674	AVG		.725		4.331	15	O
4-methyl-2-pentanone	0.22065	0.24993	0.28555	0.28369	0.27399	0.27825	0.29400	0.28566	AVG		.2715		8.975	15	O
Tetrachloroethene	0.25198	0.22902	0.25847	0.25794	0.25295	0.25326	0.25409	0.25277	AVG		.2513		3.711	15	O
trans-1,3-Dichloropropene	0.33297	0.34437	0.40464	0.42777	0.43338	0.44711	0.42805	0.37292	AVG		.3989		10.9	15	O
1,1,2-Trichloroethane	0.23185	0.20596	0.20527	0.20180	0.20415	0.20549	0.20649	0.21122	AVG		.209		4.589	15	O
Dibromochloromethane	0.27163	0.26836	0.29890	0.30829	0.30333	0.30713	0.30346	0.28039	AVG		.2927		5.638	15	O
Chlorobenzene	0.97552	0.86949	0.87339	0.86742	0.83803	0.83452	0.84520	0.85965	AVG		.8704		5.166	15	O
Ethylbenzene	1.51968	1.41460	1.55625	1.54547	1.46408	1.42890	1.46662	1.49253	AVG		1.486		3.493	15	O
m+p-Xylenes	1.06764	1.07649	1.20257	1.19364	1.11494	1.07421	1.12789	1.15870	AVG		1.127		4.762	15	O
o-Xylene	0.90152	1.01775	1.19442	1.20027	1.16180	1.14328	1.16407	1.11079	AVG		1.112		9.244	15	O
Bromoform	0.16258	0.16628	0.18216	0.19926	0.20147	0.21316	0.20865	0.17303	AVG		.1883		10.51	15	O
1,1,2,2-Tetrachloroethane	0.66105	0.62963	0.61551	0.61003	0.57851	0.58032	0.61145	0.64281	AVG		.6162		4.619	15	O
Dibromofluoromethane	0.52800	0.51255	0.51573	0.51299	0.48367	0.50067	0.49099	0.50569	AVG		.5063		2.816	15	
1,2-Dichloroethane-D4	0.74965	0.71127	0.71022	0.72614	0.67138	0.70306	0.67057	0.70641	AVG		.7061		3.716	15	
Toluene-D8	1.18262	1.17905	1.15938	1.17008	1.16957	1.18847	1.17765	1.17067	AVG		1.175		.7738	15	

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://katahdinlab.com
sales@katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Form 6
Initial Calibration Summary

Lab Name : Katahdin Analytical Services
SDG: SO6709
Project : Watervliet Arsenal LTM
Instrument ID: GCMS-W
Lab File IDs : W0580.D W0579.D W0577.D W0576.D W0582.D W0581.D W0583.D W0578.D
Calibration Date(s): 10-OCT-21 09:02 10-OCT-21 12:35

P-Bromofluorobenzene	0.45887	0.46497	0.46129	0.46671	0.46872	0.47847	0.46517	0.46136	AVG		.4657		1.306	15	

Legend: O = Kept Original Curve
Y = Failed Minimum RF
W = Failed %RSD Value

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://katahdinlab.com
sales@katahdinlab.com

Data File: \\target_server\gg\chem\gcms-w.i\W101021.b\W0584A.D
Report Date: 11-Nov-2021 17:11

Katahdin Analytical Services

RECOVERY REPORT

Client Name: Client SDG: SDGa02236
Sample Matrix: LIQUID Fraction: VOA
Lab Smp Id: WG307630-9
Level: LOW Operator: HG
Data Type: MS DATA SampleType: LCS
SpikeList File: IND_CHECK.spk Quant Type: ISTD
Sublist File: all.sub
Method File: \\target_server\gg\chem\gcms-w.i\W101021.b\W8A05(11).m
Misc Info: WG307630,WG307630-4,SO6709-2

	SPIKE	COMPOUND	CONC ADDED ug/l	CONC RECOVERED ug/l	% RECOVERED	LIMITS
	1	Dichlorodifluorome	50.0	35.1	70.19*	80-120
	2	Chloromethane	50.0	37.3	74.59*	80-120
	3	Vinyl chloride	50.0	43.3	86.70	80-120
	4	Bromomethane	50.0	49.6	99.16	80-120
	5	Chloroethane	50.0	45.1	90.14	80-120
	6	Trichlorofluoromet	50.0	43.8	87.59	80-120
	7	Diethyl Ether	50.0	46.5	93.10	80-120
	19	Tertiary-butyl alc	250	214	85.41	80-120
	8	1,1-Dichloroethene	50.0	41.5	82.97	80-120
	10	Carbon Disulfide	50.0	50.0	100.08	80-120
	9	Freon-113	50.0	51.8	103.61	80-120
	11	Iodomethane	50.0	47.1	94.23	80-120
	12	Acrolein	250	229	91.51	80-120
	14	Methylene Chloride	50.0	46.6	93.11	80-120
	15	Acetone	50.0	41.5	83.09	80-120
	45	Isobutyl Alcohol	1000	972	97.22	80-120
	16	trans-1,2-Dichloro	50.0	44.1	88.29	80-120
	13	Allyl Chloride	50.0	51.3	102.67	80-120
	18	Methyl tert-butyl	50.0	62.4	124.83*	80-120
	20	Acetonitrile	500	454	90.70	80-120
	21	Di-isopropyl ether	50.0	50.3	100.68	80-120
	22	Chloroprene	50.0	53.4	106.77	80-120
	39	Propionitrile	500	468	93.69	80-120
	40	Methacrylonitrile	500	473	94.55	80-120
	23	1,1-Dichloroethane	50.0	45.9	91.76	80-120
	24	Acrylonitrile	250	231	92.41	80-120
	25	Ethyl tertiary-but	50.0	51.6	103.29	80-120
	26	Vinyl Acetate	50.0	53.3	106.66	80-120
	27	cis-1,2-Dichloroet	50.0	45.9	91.88	80-120
M	97	1,2-Dichloroethyle	100	90.1	90.08	80-120
	52	Methyl Methacrylat	50.0	46.5	93.07	80-120
	28	2,2-Dichloropropan	50.0	48.4	96.82	80-120
	29	Bromochloromethane	50.0	51.1	102.26	80-120
	31	Chloroform	50.0	44.8	89.54	80-120
	32	Carbon Tetrachlori	50.0	47.0	94.06	80-120
	33	Tetrahydrofuran	50.0	39.4	78.79*	80-120
	35	1,1,1-Trichloroeth	50.0	46.2	92.45	80-120
	37	1,1-Dichloropropen	50.0	50.2	100.47	80-120
	36	2-Butanone	50.0	46.7	93.46	80-120
	38	Benzene	50.0	49.8	99.65	80-120

Data File: \\target_server\gg\chem\gcms-w.i\W101021.b\W0584A.D
Report Date: 11-Nov-2021 17:11

	SPIKE COMPOUND	CONC ADDED ug/l	CONC RECOVERED ug/l	% RECOVERED	LIMITS
	30 Cyclohexane	50.0	57.1	114.21	80-120
	53 Ethyl Methacrylate	50.0	46.0	92.06	80-120
	43 Tertiary-amyl meth	50.0	50.4	100.91	80-120
	44 1,2-Dichloroethane	50.0	43.9	87.81	80-120
	47 Trichloroethene	50.0	49.0	97.99	80-120
	49 Dibromomethane	50.0	43.0	86.11	80-120
	50 1,2-Dichloropropan	50.0	48.4	96.85	80-120
	51 Bromodichlorometha	50.0	47.5	94.93	80-120
	57 cis-1,3-dichloropr	50.0	51.1	102.27	80-120
	54 1,4-Dioxane	1000	1030	103.27	80-120
	56 2-Chloroethylvinyl	50.0	53.6	107.21	80-120
	59 Toluene	50.0	49.5	99.04	80-120
	61 4-methyl-2-pentano	50.0	49.4	98.85	80-120
	60 Tetrachloroethene	50.0	50.5	101.00	80-120
	62 trans-1,3-Dichloro	50.0	49.7	99.42	80-120
	63 1,1,2-Trichloroeth	50.0	46.2	92.34	80-120
	64 Dibromochlorometha	50.0	46.3	92.56	80-120
	65 1,3-Dichloropropan	50.0	45.7	91.42	80-120
	66 1,2-Dibromoethane	50.0	46.8	93.54	80-120
	67 2-Hexanone	50.0	52.2	104.48	80-120
	69 Chlorobenzene	50.0	49.1	98.22	80-120
	70 Ethylbenzene	50.0	51.3	102.61	80-120
	71 1,1,1,2-Tetrachlor	50.0	51.3	102.64	80-120
M	105 Xylenes (total)	150	158	105.13	80-120
	72 m+p-Xylenes	100	104	103.74	80-120
	73 o-Xylene	50.0	54.0	107.91	80-120
	74 Styrene	50.0	53.0	105.92	80-120
	75 Bromoform	50.0	47.3	94.67	80-120
	76 Isopropylbenzene	50.0	54.3	108.69	80-120
	78 cis-1,4-Dichloro-2	50.0	50.2	100.42	80-120
	85 trans-1,4-Dichloro	50.0	49.8	99.72	80-120
	79 Bromobenzene	50.0	49.2	98.30	80-120
	80 N-Propylbenzene	50.0	51.8	103.70	80-120
	81 1,1,2,2-Tetrachlor	50.0	46.8	93.72	80-120
	84 1,3,5-Trimethylben	50.0	52.3	104.58	80-120
	82 2-Chlorotoluene	50.0	50.5	101.09	80-120
	83 1,2,3-Trichloropro	50.0	44.3	88.52	80-120
	86 4-Chlorotoluene	50.0	50.1	100.16	80-120
	87 tert-Butylbenzene	50.0	53.3	106.64	80-120
	88 Pentachloroethane	50.0	0.00	*	80-120
	89 1,2,4-Trimethylben	50.0	52.2	104.47	80-120
	91 P-Isopropyltoluene	50.0	55.2	110.43	80-120
	92 1,3-Dichlorobenzen	50.0	49.4	98.75	80-120
	94 1,4-Dichlorobenzen	50.0	48.6	97.12	80-120
	96 N-Butylbenzene	50.0	55.1	110.19	80-120
	90 sec-Butylbenzene	50.0	54.3	108.69	80-120
	98 1,2-Dichlorobenzen	50.0	48.7	97.42	80-120
	99 1,2-Dibromo-3-Chlo	50.0	49.9	99.85	80-120
	100 1,3,5-Trichloroben	50.0	53.9	107.82	80-120
	101 Hexachlorobutadien	50.0	52.9	105.76	80-120
	102 1,2,4-Trichloroben	50.0	52.0	103.95	80-120
	95 1,2,3-Trimethylben	50.0	52.7	105.46	80-120
	103 Naphthalene	50.0	48.1	96.22	80-120
	104 1,2,3-Trichloroben	50.0	49.7	99.36	80-120

Data File: \\target_server\gg\chem\gcms-w.i\W101021.b\W0584A.D
Report Date: 11-Nov-2021 17:11

	SPIKE COMPOUND	CONC ADDED ug/l	CONC RECOVERED ug/l	% RECOVERED	LIMITS
	17 Methyl Acetate	50.0	40.8	81.56	80-120
	46 Methylcyclohexane	50.0	56.5	113.09	80-120
M	55 Total Alkylbenzene	350	374	106.96	80-120

	SURROGATE COMPOUND	AMOUNT ADDED ug/l	AMOUNT RECOVERED ug/l	% RECOVERED	LIMITS
$	34 Dibromofluorometha	50.0	48.2	96.39	68-128
$	42 1,2-Dichloroethane	50.0	46.7	93.48	67-135
$	58 Toluene-D8	50.0	49.9	99.79	65-128
$	77 P-Bromofluorobenze	50.0	49.6	99.26	56-133

Data File: \\target_server\gg\chem\gcms-w.i\W101021.b\W0584A.D
Report Date: 11-Nov-2021 17:11

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-w.i\W101021.b\W0584A.D
Lab Smp Id: WG307630-9
Inj Date : 10-OCT-2021 13:06
Operator : HG   Inst ID: gcms-w.i
Smp Info : WG307630-9,SO6709
Misc Info : WG307630,WG307630-4,SO6709-2
Comment   : SW846 5030
Method   : \\target_server\gg\chem\gcms-w.i\W101021.b\W8A05(11).m
Meth Date : 19-Oct-2021 11:56 hgould   Quant Type: ISTD
Cal Date : 10-OCT-2021 12:35   Cal File: W0583.D
Als bottle: 9   QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE   Compound Sublist: all.sub
Target Version: 4.12
Processing Host: VOA-WS

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)	REVIEW CODE
1	Dichlorodifluoromethane	85	1.277	1.278	(0.231)	251920	35.0948	35.1(R)	
2	Chloromethane	50	1.409	1.409	(0.255)	305803	37.2955	37.3(R)	
3	Vinyl chloride	62	1.460	1.460	(0.264)	314724	43.3492	43.3	
4	Bromomethane	94	1.672	1.672	(0.302)	106443	49.5824	49.6	
5	Chloroethane	64	1.755	1.759	(0.317)	184657	45.0717	45.1	
6	Trichlorofluoromethane	101	1.848	1.849	(0.334)	422207	43.7928	43.8	
7	Diethyl Ether	59	2.060	2.061	(0.372)	220935	46.5487	46.5	
8	1,1-Dichloroethene	96	2.211	2.211	(0.400)	224435	41.4854	41.5	
9	Freon-113	151	2.236	2.240	(0.404)	209006	51.8056	51.8	
10	Carbon Disulfide	76	2.240	2.243	(0.405)	605596	50.0423	50.0	
11	Iodomethane	142	2.326	2.330	(0.421)	129721	47.1151	47.1	
12	Acrolein	56	2.477	2.481	(0.448)	194135	228.778	229	
13	Allyl Chloride	41	2.583	2.587	(0.467)	457098	51.3354	51.3	
14	Methylene Chloride	84	2.676	2.680	(0.484)	254016	46.5539	46.6	
15	Acetone	43	2.727	2.725	(0.493)	106882	41.5439	41.5	
16	trans-1,2-Dichloroethene	96	2.811	2.815	(0.508)	255799	44.1432	44.1	
17	Methyl Acetate	43	2.827	2.834	(0.511)	188695	40.7825	40.8	
18	Methyl tert-butyl ether	73	2.914	2.917	(0.527)	879178	62.4154	62.4(R)	
19	Tertiary-butyl alcohol	59	3.013	3.017	(0.545)	88720	213.534	214	
20	Acetonitrile	41	3.167	3.168	(0.573)	346368	453.519	454	
21	Di-isopropyl ether	45	3.286	3.290	(0.594)	912970	50.3422	50.3	
22	Chloroprene	53	3.392	3.395	(0.613)	475753	53.3848	53.4	
23	1,1-Dichloroethane	63	3.421	3.418	(0.618)	487937	45.8779	45.9	

Data File: \\target_server\gg\chem\gcms-w.i\W101021.b\W0584A.D
Report Date: 11-Nov-2021 17:11

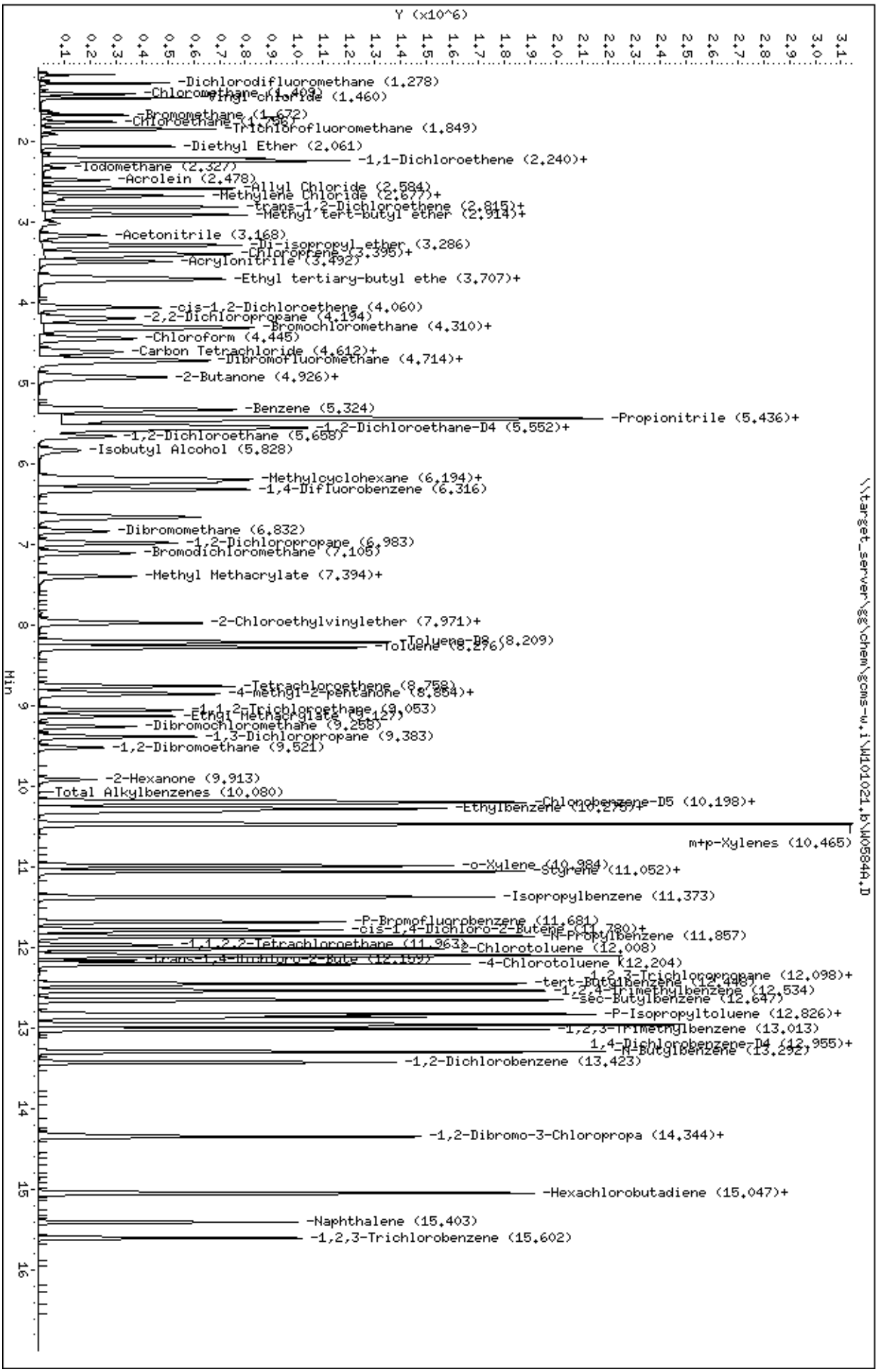
		Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)	REVIEW CODE
	24	Acrylonitrile	52	3.491	3.492	(0.631)	389383	231.035	231	
	25	Ethyl tertiary-butyl ether	59	3.697	3.700	(0.668)	690487	51.6429	51.6	
	26	Vinyl Acetate	43	3.719	3.723	(0.589)	626005	53.3288	53.3	
	27	cis-1,2-Dichloroethene	96	4.059	4.062	(0.734)	260200	45.9382	45.9	
	28	2,2-Dichloropropane	77	4.197	4.200	(0.759)	327693	48.4108	48.4	
	29	Bromochloromethane	128	4.319	4.323	(0.781)	115557	51.1282	51.1	
	30	Cyclohexane	56	4.297	4.307	(0.777)	495295	57.1028	57.1	
	31	Chloroform	83	4.444	4.451	(0.803)	441422	44.7695	44.8	
	32	Carbon Tetrachloride	117	4.611	4.615	(0.730)	335765	47.0316	47.0	
	33	Tetrahydrofuran	42	4.688	4.679	(0.847)	77539	39.3954	39.4(R)	
$	34	Dibromofluoromethane	113	4.714	4.721	(0.852)	267785	48.1972	48.2	
	35	1,1,1-Trichloroethane	97	4.717	4.724	(0.853)	407767	46.2231	46.2	
	36	2-Butanone	43	4.948	4.945	(0.894)	124043	46.7318	46.7	
	37	1,1-Dichloropropene	75	4.922	4.926	(0.779)	370111	50.2345	50.2	
	38	Benzene	78	5.323	5.330	(0.843)	1019051	49.8253	49.8	
	39	Propionitrile	54	5.417	5.417	(0.979)	348981	468.445	468	
	40	Methacrylonitrile	41	5.436	5.443	(0.983)	1648128	472.737	473	
*	41	Pentafluorobenzene	168	5.532	5.533	(1.000)	548704	50.0000		
$	42	1,2-Dichloroethane-D4	65	5.551	5.555	(1.003)	362176	46.7404	46.7	
	43	Tertiary-amyl methyl ether	73	5.564	5.565	(1.006)	522302	50.4557	50.4	
	44	1,2-Dichloroethane	62	5.657	5.664	(0.896)	351021	43.9027	43.9	
	45	Isobutyl Alcohol	43	5.830	5.834	(1.054)	167292	972.204	972	
	46	Methylcyclohexane	83	6.193	6.194	(1.119)	494036	56.5452	56.5	
	47	Trichloroethene	95	6.232	6.235	(0.987)	256661	48.9937	49.0	
*	48	1,4-Difluorobenzene	114	6.315	6.319	(1.000)	891375	50.0000		
	49	Dibromomethane	93	6.828	6.835	(1.081)	135966	43.0548	43.0	
	50	1,2-Dichloropropane	63	6.982	6.980	(1.106)	261312	48.4233	48.4	
	51	Bromodichloromethane	83	7.104	7.105	(1.125)	326430	47.4626	47.5	
	52	Methyl Methacrylate	41	7.393	7.394	(1.171)	230703	46.5372	46.5	
	53	Ethyl Methacrylate	69	9.126	9.130	(1.445)	288121	46.0276	46.0	
	54	1,4-Dioxane	88	7.409	7.416	(1.173)	50169	1032.70	1030	
M	55	Total Alkylbenzenes	100				8487472	374.344	374	
	56	2-Chloroethylvinylether	63	7.942	7.949	(1.258)	65460	53.6069	53.6	
	57	cis-1,3-dichloropropene	75	7.977	7.978	(1.263)	405882	51.1362	51.1	
$	58	Toluene-D8	98	8.208	8.212	(1.300)	1044912	49.8962	49.9	
	59	Toluene	92	8.272	8.276	(1.310)	640043	49.5194	49.5	
	60	Tetrachloroethene	164	8.757	8.761	(0.860)	209865	50.4990	50.5	
	61	4-methyl-2-pentanone	43	8.831	8.835	(1.398)	239193	49.4245	49.4	
	62	trans-1,3-Dichloropropene	75	8.853	8.860	(1.402)	353511	49.7104	49.7	
	63	1,1,2-Trichloroethane	83	9.052	9.053	(1.433)	172045	46.1686	46.2	
	64	Dibromochloromethane	129	9.258	9.261	(0.909)	223992	46.2787	46.3	
	65	1,3-Dichloropropane	76	9.383	9.383	(0.921)	379203	45.7116	45.7	
	66	1,2-Dibromoethane	107	9.521	9.518	(1.508)	204112	46.7692	46.8	
	67	2-Hexanone	43	9.912	9.913	(0.973)	170658	52.2391	52.2	
*	68	Chlorobenzene-D5	117	10.185	10.185	(1.000)	826837	50.0000		
	69	Chlorobenzene	112	10.204	10.208	(1.002)	706837	49.1076	49.1	
	70	Ethylbenzene	91	10.275	10.275	(1.009)	1260751	51.3045	51.3	
	71	1,1,1,2-Tetrachloroethane	131	10.307	10.311	(1.012)	246802	51.3179	51.3	
	72	m+p-Xylenes	91	10.464	10.468	(1.027)	1933374	103.738	104	
	73	o-Xylene	91	10.984	10.985	(1.078)	991901	53.9531	54.0	
	74	Styrene	104	11.051	11.055	(1.085)	785020	52.9579	53.0	
	75	Bromoform	173	11.055	11.058	(1.085)	147408	47.3334	47.3	
	76	Isopropylbenzene	105	11.372	11.376	(0.878)	1269867	54.3430	54.3	
$	77	P-Bromofluorobenzene	95	11.680	11.684	(1.850)	412026	49.6288	49.6	

Data File: \\target_server\gg\chem\gcms-w.i\W101021.b\W0584A.D
Report Date: 11-Nov-2021 17:11

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)	REVIEW CODE
	78 cis-1,4-Dichloro-2-Butene	53	11.789	11.793	(0.910)	83438	50.2094	50.2	
	79 Bromobenzene	156	11.777	11.784	(0.909)	290196	49.1509	49.2	
	80 N-Propylbenzene	91	11.857	11.861	(0.916)	1552256	51.8509	51.8	
	81 1,1,2,2-Tetrachloroethane	83	11.963	11.966	(0.924)	263873	46.8590	46.8	
	82 2-Chlorotoluene	91	12.008	12.011	(0.927)	884695	50.5446	50.5	
	83 1,2,3-Trichloropropane	75	12.088	12.088	(0.933)	232242	44.2615	44.3	
	84 1,3,5-Trimethylbenzene	105	12.101	12.104	(0.934)	1049614	52.2919	52.3	
	85 trans-1,4-Dichloro-2-Butene	53	12.158	12.159	(0.939)	87462	49.8580	49.8	
	86 4-Chlorotoluene	91	12.203	12.207	(0.942)	927764	50.0818	50.1	
	87 tert-Butylbenzene	119	12.447	12.451	(0.961)	933898	53.3180	53.3	
	89 1,2,4-Trimethylbenzene	105	12.534	12.534	(0.968)	1073580	52.2338	52.2	
	90 sec-Butylbenzene	105	12.646	12.653	(0.976)	1443670	54.3427	54.3	
	91 P-Isopropyltoluene	119	12.826	12.830	(0.990)	1233577	55.2130	55.2	
	92 1,3-Dichlorobenzene	146	12.861	12.862	(0.993)	590973	49.3774	49.4	
*	93 1,4-Dichlorobenzene-D4	152	12.951	12.952	(1.000)	456957	50.0000		
	94 1,4-Dichlorobenzene	146	12.964	12.968	(1.001)	607151	48.5608	48.6	
	95 1,2,3-Trimethylbenzene	105	13.012	13.016	(1.005)	1074767	52.7302	52.7	
	96 N-Butylbenzene	91	13.291	13.292	(1.026)	1200877	55.0931	55.1	
M	97 1,2-Dichloroethylene (total)	96				515999	90.0815	90.1	
	98 1,2-Dichlorobenzene	146	13.423	13.423	(1.036)	536385	48.7125	48.7	
	99 1,2-Dibromo-3-Chloropropane	157	14.315	14.319	(1.105)	46757	49.9238	49.9	
	100 1,3,5-Trichlorobenzene	180	14.344	14.347	(1.108)	424404	53.9117	53.9	
	101 Hexachlorobutadiene	225	15.040	15.041	(1.161)	196448	52.8789	52.9	
	102 1,2,4-Trichlorobenzene	180	15.050	15.053	(1.162)	346019	51.9762	52.0	
	103 Naphthalene	128	15.403	15.406	(1.189)	691176	48.1075	48.1	
	104 1,2,3-Trichlorobenzene	180	15.602	15.602	(1.205)	282092	49.6789	49.7	
M	105 Xylenes (total)	106				2925275	157.691	158	

QC Flag Legend

R - Spike/Surrogate failed recovery limits.



Data File: \\target_server\gg\chem\gcms-w.i\W101021.b\W0584A.D
Date : 10-OCT-2021 13:06
Client ID:
Sample Info: WG307630-9,SD6709
Purge Volume: 5.0
Column phase: RTX-VMS

\\target_server\gg\chem\gcms-w.i\W101021.b\W0584A.D

Instrument: gcms-w.i
Operator: HG
Column diameter: 0.18

Data File: \\target_server\gg\chem\gcms-w.i\W101021.b\W0576.D
Report Date: 17-Oct-2021 14:46

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-w.i\W101021.b\W0576.D
Lab Smp Id: WG307630-4
Inj Date : 10-OCT-2021 09:02
Operator : HG   Inst ID: gcms-w.i
Smp Info : WG307630-4
Misc Info :
Comment   : SW846 5030
Method   : \\target_server\gg\chem\gcms-w.i\W101021.b\W8A05(11).m
Meth Date : 11-Oct-2021 04:51 hgould   Quant Type: ISTD
Cal Date : 10-OCT-2021 09:02   Cal File: W0576.D
Als bottle: 1   Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE   Compound Sublist: all.sub
Target Version: 4.12
Processing Host: ORGANICS2

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)	REVIEW CODE
1	Dichlorodifluoromethane	85	1.277	1.278	(0.231)	331682	50.0000	50.0	
2	Chloromethane	50	1.409	1.409	(0.255)	345442	50.0000	50.0	
3	Vinyl chloride	62	1.460	1.460	(0.264)	330535	50.0000	50.0	
4	Bromomethane	94	1.672	1.672	(0.302)	92588	50.0000	50.0	
5	Chloroethane	64	1.758	1.759	(0.318)	191723	50.0000	50.0	
6	Trichlorofluoromethane	101	1.848	1.849	(0.334)	452530	50.0000	50.0	
7	Diethyl Ether	59	2.060	2.061	(0.372)	211046	50.0000	50.0	
8	1,1-Dichloroethene	96	2.211	2.211	(0.400)	244100	50.0000	50.0	
9	Freon-113	151	2.240	2.240	(0.405)	195951	50.0000	50.0	
10	Carbon Disulfide	76	2.243	2.243	(0.405)	543505	50.0000	50.0	
11	Iodomethane	142	2.330	2.330	(0.421)	130844	50.0000	50.0	
12	Acrolein	56	2.480	2.481	(0.448)	183411	250.000	250	
13	Allyl Chloride	41	2.586	2.587	(0.468)	406625	50.0000	50.0	
14	Methylene Chloride	84	2.679	2.680	(0.484)	260402	50.0000	50.0	
15	Acetone	43	2.724	2.725	(0.492)	549415	250.000	250	
16	trans-1,2-Dichloroethene	96	2.814	2.815	(0.509)	257869	50.0000	50.0	
17	Methyl Acetate	43	2.833	2.834	(0.512)	199347	50.0000	50.0	
18	Methyl tert-butyl ether	73	2.917	2.917	(0.527)	635725	50.0000	50.0	
19	Tertiary-butyl alcohol	59	3.016	3.017	(0.545)	88338	250.000	250	
20	Acetonitrile	41	3.167	3.168	(0.573)	329059	500.000	500	
21	Di-isopropyl ether	45	3.289	3.290	(0.595)	808192	50.0000	50.0	
22	Chloroprene	53	3.395	3.395	(0.614)	421304	50.0000	50.0	
23	1,1-Dichloroethane	63	3.417	3.418	(0.618)	466783	50.0000	50.0	

Data File: \\target_server\gg\chem\gcms-w.i\W101021.b\W0576.D
Report Date: 17-Oct-2021 14:46

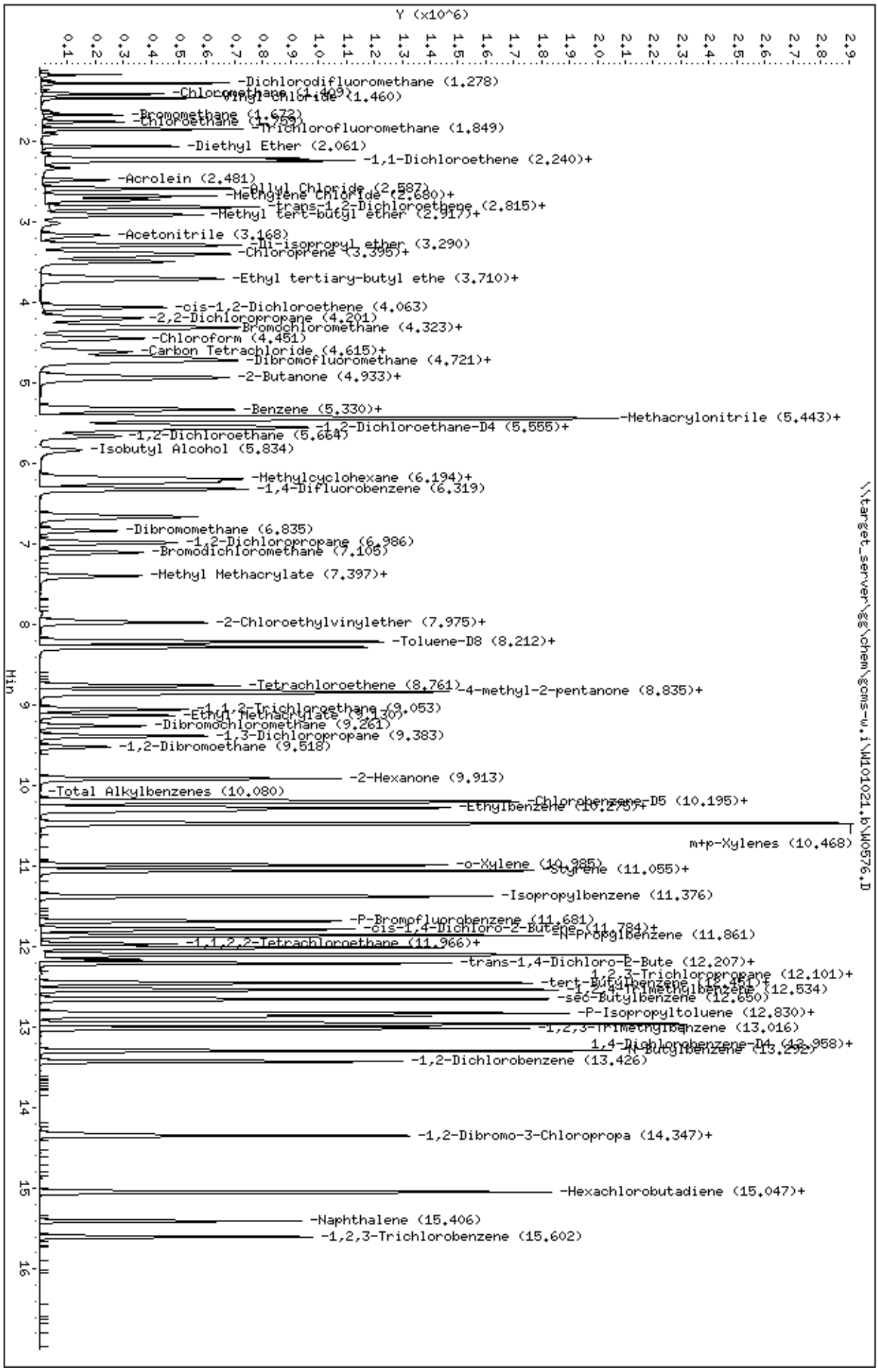
			QUANT SIG					AMOUNTS		
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)	REVIEW CODE
	24	Acrylonitrile	52	3.491	3.492	(0.631)	373940	250.000	250	
	25	Ethyl tertiary-butyl ether	59	3.700	3.700	(0.669)	619608	50.0000	50.0	
	26	Vinyl Acetate	43	3.722	3.723	(0.589)	546453	50.0000	50.0	
	27	cis-1,2-Dichloroethene	96	4.062	4.062	(0.734)	247237	50.0000	50.0	
	28	2,2-Dichloropropane	77	4.200	4.200	(0.759)	319994	50.0000	50.0	
	29	Bromochloromethane	128	4.322	4.323	(0.781)	97479	50.0000	50.0	
	30	Cyclohexane	56	4.306	4.307	(0.778)	414367	50.0000	50.0	
	31	Chloroform	83	4.451	4.451	(0.805)	436422	50.0000	50.0	
	32	Carbon Tetrachloride	117	4.614	4.615	(0.730)	343683	50.0000	50.0	
	33	Tetrahydrofuran	42	4.679	4.679	(0.846)	435284	250.000	250	
$	34	Dibromofluoromethane	113	4.720	4.721	(0.853)	242153	50.0000	50.0	
	35	1,1,1-Trichloroethane	97	4.723	4.724	(0.854)	402495	50.0000	50.0	
	36	2-Butanone	43	4.945	4.945	(0.894)	615872	250.000	250	
	37	1,1-Dichloropropene	75	4.926	4.926	(0.780)	351040	50.0000	50.0	
	38	Benzene	78	5.330	5.330	(0.844)	921844	50.0000	50.0	
	39	Propionitrile	54	5.417	5.417	(0.979)	326756	500.000	500	
	40	Methacrylonitrile	41	5.442	5.443	(0.984)	1573397	500.000	500	
*	41	Pentafluorobenzene	168	5.532	5.533	(1.000)	472043	50.0000		
$	42	1,2-Dichloroethane-D4	65	5.555	5.555	(1.004)	342771	50.0000	50.0	
	43	Tertiary-amyl methyl ether	73	5.564	5.565	(1.006)	471835	50.0000	50.0	
	44	1,2-Dichloroethane	62	5.664	5.664	(0.896)	348178	50.0000	50.0	
	45	Isobutyl Alcohol	43	5.834	5.834	(1.055)	149975	1000.00	1000	
	46	Methylcyclohexane	83	6.193	6.194	(1.119)	428726	50.0000	50.0	
	47	Trichloroethene	95	6.235	6.235	(0.987)	237959	50.0000	50.0	
*	48	1,4-Difluorobenzene	114	6.318	6.319	(1.000)	794472	50.0000		
	49	Dibromomethane	93	6.835	6.835	(1.082)	138349	50.0000	50.0	
	50	1,2-Dichloropropane	63	6.979	6.980	(1.105)	242397	50.0000	50.0	
	51	Bromodichloromethane	83	7.104	7.105	(1.124)	316336	50.0000	50.0	
	52	Methyl Methacrylate	41	7.393	7.394	(1.170)	213974	50.0000	50.0	
	53	Ethyl Methacrylate	69	9.129	9.130	(1.445)	267912	50.0000	50.0	
	54	1,4-Dioxane	88	7.416	7.416	(1.174)	41482	1000.00	1000	
M	55	Total Alkylbenzenes	100				7735025	50.0000	350	
	56	2-Chloroethylvinylether	63	7.948	7.949	(1.258)	55998	50.0000	50.0	
	57	cis-1,3-dichloropropene	75	7.977	7.978	(1.263)	380534	50.0000	50.0	
$	58	Toluene-D8	98	8.212	8.212	(1.300)	929596	50.0000	50.0	
	59	Toluene	92	8.276	8.276	(1.310)	579037	50.0000	50.0	
	60	Tetrachloroethene	164	8.760	8.761	(0.860)	192792	50.0000	50.0	
	61	4-methyl-2-pentanone	43	8.834	8.835	(1.398)	1126910	250.000	250	
	62	trans-1,3-Dichloropropene	75	8.860	8.860	(1.402)	339849	50.0000	50.0	
	63	1,1,2-Trichloroethane	83	9.052	9.053	(1.433)	160328	50.0000	50.0	
	64	Dibromochloromethane	129	9.261	9.261	(0.909)	230423	50.0000	50.0	
	65	1,3-Dichloropropane	76	9.383	9.383	(0.921)	377220	50.0000	50.0	
	66	1,2-Dibromoethane	107	9.518	9.518	(1.506)	197271	50.0000	50.0	
	67	2-Hexanone	43	9.912	9.913	(0.973)	805528	250.000	250	
*	68	Chlorobenzene-D5	117	10.185	10.185	(1.000)	747418	50.0000		
	69	Chlorobenzene	112	10.207	10.208	(1.002)	648329	50.0000	50.0	
	70	Ethylbenzene	91	10.275	10.275	(1.009)	1155111	50.0000	50.0	
	71	1,1,1,2-Tetrachloroethane	131	10.310	10.311	(1.012)	223307	50.0000	50.0	
	72	m+p-Xylenes	91	10.467	10.468	(1.028)	1784289	100.000	100	
	73	o-Xylene	91	10.984	10.985	(1.078)	897103	50.0000	50.0	
	74	Styrene	104	11.055	11.055	(1.085)	716060	50.0000	50.0	
	75	Bromoform	173	11.058	11.058	(1.086)	148928	50.0000	50.0	
	76	Isopropylbenzene	105	11.376	11.376	(0.878)	1144018	50.0000	50.0	
$	77	P-Bromofluorobenzene	95	11.684	11.684	(1.849)	370788	50.0000	50.0	

Data File: \\target_server\gg\chem\gcms-w.i\W101021.b\W0576.D
Report Date: 17-Oct-2021 14:46

			QUANT SIG					AMOUNTS		
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)	REVIEW CODE
	78	cis-1,4-Dichloro-2-Butene	53	11.793	11.793	(0.911)	79117	50.0000	50.0	
	79	Bromobenzene	156	11.783	11.784	(0.910)	262921	50.0000	50.0	
	80	N-Propylbenzene	91	11.860	11.861	(0.916)	1426585	50.0000	50.0	
	81	1,1,2,2-Tetrachloroethane	83	11.966	11.966	(0.924)	251683	50.0000	50.0	
	82	2-Chlorotoluene	91	12.011	12.011	(0.927)	813011	50.0000	50.0	
	83	1,2,3-Trichloropropane	75	12.088	12.088	(0.933)	234806	50.0000	50.0	
	84	1,3,5-Trimethylbenzene	105	12.104	12.104	(0.935)	968970	50.0000	50.0	
	85	trans-1,4-Dichloro-2-Butene	53	12.158	12.159	(0.939)	82851	50.0000	50.0	
	86	4-Chlorotoluene	91	12.207	12.207	(0.943)	857194	50.0000	50.0	
	87	tert-Butylbenzene	119	12.450	12.451	(0.961)	854854	50.0000	50.0	
	88	Pentachloroethane	165	12.457	12.457	(0.962)	2973	50.0000	(a)	
	89	1,2,4-Trimethylbenzene	105	12.534	12.534	(0.968)	993923	50.0000	50.0	
	90	sec-Butylbenzene	105	12.653	12.653	(0.977)	1296976	50.0000	50.0	
	91	P-Isopropyltoluene	119	12.829	12.830	(0.991)	1107033	50.0000	50.0	
	92	1,3-Dichlorobenzene	146	12.861	12.862	(0.993)	541920	50.0000	50.0	
*	93	1,4-Dichlorobenzene-D4	152	12.951	12.952	(1.000)	412572	50.0000		
	94	1,4-Dichlorobenzene	146	12.967	12.968	(1.001)	556963	50.0000	50.0	
	95	1,2,3-Trimethylbenzene	105	13.015	13.016	(1.005)	967859	50.0000	50.0	
	96	N-Butylbenzene	91	13.291	13.292	(1.026)	1086684	50.0000	50.0	
M	97	1,2-Dichloroethylene (total)	96				505106	50.0000	100	
	98	1,2-Dichlorobenzene	146	13.423	13.423	(1.036)	503596	50.0000	50.0	
	99	1,2-Dibromo-3-Chloropropane	157	14.318	14.319	(1.106)	44385	50.0000	50.0	
	100	1,3,5-Trichlorobenzene	180	14.347	14.347	(1.108)	381488	50.0000	50.0	
	101	Hexachlorobutadiene	225	15.040	15.041	(1.161)	177905	50.0000	50.0	
	102	1,2,4-Trichlorobenzene	180	15.053	15.053	(1.162)	320983	50.0000	50.0	
	103	Naphthalene	128	15.406	15.406	(1.190)	640873	50.0000	50.0	
	104	1,2,3-Trichlorobenzene	180	15.602	15.602	(1.205)	265211	50.0000	50.0	
M	105	Xylenes (total)	106				2681392	150.000	150	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).


Data File: \\target_server\gg\chem\gcms-w.i\W101021.b\W0576.D
Date : 10-OCT-2021 09:02
Client ID:
Sample Info: WG307630-4
Purge Volume: 5.0
Column phase: RTX-VMS
Instrument: gcms-w.i
Operator: HG
Column diameter: 0.18
Y (x10^6)
Min
\\target_server\gg\chem\gcms-w.i\W101021.b\W0576.D
-Dichlorodifluoromethane (1.278)
-Chloromethane (1.409)
Vinyl Chloride (1.460)
-Bromomethane (1.672)
-Chloroethane (1.758)
-Trichlorofluoromethane (1.849)
-Diethyl Ether (2.061)
-1,1-Dichloroethene (2.240)+
-Acrolein (2.481)
-Allyl Chloride (2.587)
-Methylene Chloride (2.680)+
-trans-1,2-Dichloroethene (2.815)+
-Methyl tert-butyl ether (2.917)+
-Acetonitrile (3.168)
-Di-isopropyl ether (3.290)
-Chloroprene (3.395)+
-Ethyl tertiary-butyl ethe (3.710)+
-cis-1,2-Dichloroethene (4.063)
-2,2-Dichloropropane (4.201)
-Bromochloromethane (4.323)+
-Chloroform (4.451)
-Carbon Tetrachloride (4.615)+
-Dibromofluoromethane (4.721)+
-2-Butanone (4.933)+
-Benzene (5.330)+
-Methacrylonitrile (5.443)+
-1,2-Dichloroethane-D4 (5.555)+
-1,2-Dichloroethane (5.664)
-Isobutyl Alcohol (5.834)
-Methylcyclohexane (6.194)+
-1,4-Difluorobenzene (6.319)
-Dibromomethane (6.835)
-1,2-Dichloropropane (6.986)
-Bromodichloromethane (7.105)
-Methyl Methacrylate (7.397)+
-2-Chloroethylvinylether (7.975)+
-Toluene-D8 (8.212)+
-Tetrachloroethene (8.761)
-4-methyl-2-pentanone (8.835)+
-1,1,2-Trichloroethane (9.053)
-Ethyl Methacrylate (9.130)
-Dibromochloromethane (9.261)
-1,3-Dichloropropane (9.383)
-1,2-Dibromoethane (9.518)
-2-Hexanone (9.913)
-Total Alkylbenzenes (10.080)
-Chlorobenzene-D5 (10.195)+
-Ethylbenzene (10.275)+
m+p-Xylenes (10.468)
-o-Xylene (10.985)
-Styrene (11.055)+
-Isopropylbenzene (11.376)
-P-Bromfluorobenzene (11.681)
-cis-1,4-Dichloro-2-Butene (11.784)+
-N-Propylbenzene (11.861)
-1,1,2,2-Tetrachloroethane (11.966)+
-trans-1,4-Dichloro-2-Bute (12.207)+
1,2,3-Trichloropropane (12.101)+
-tert-Butylbenzene (12.461)+
-1,2,4-Trimethylbenzene (12.534)
-sec-Butylbenzene (12.650)
-P-Isopropyltoluene (12.830)+
-1,2,3-Trimethylbenzene (13.016)
1,4-Dichlorobenzene-D4 (13.158)+
-N-Butylbenzene (13.292)
-1,2-Dichlorobenzene (13.426)
-1,2-Dibromo-3-Chloropropa (14.347)+
-Hexachlorobutadiene (15.047)+
-Naphthalene (15.406)
-1,2,3-Trichlorobenzene (15.602)

Data File: \\target_server\gg\chem\gcms-w.i\W101021.b\W0577.D
Report Date: 17-Oct-2021 14:46

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-w.i\W101021.b\W0577.D
Lab Smp Id: WG307630-3
Inj Date : 10-OCT-2021 09:32
Operator : HG   Inst ID: gcms-w.i
Smp Info : WG307630-3
Misc Info :
Comment   : SW846 5030
Method   : \\target_server\gg\chem\gcms-w.i\W101021.b\W8A05(11).m
Meth Date : 11-Oct-2021 04:51 hgould   Quant Type: ISTD
Cal Date : 10-OCT-2021 09:32   Cal File: W0577.D
Als bottle: 2   Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE   Compound Sublist: all.sub
Target Version: 4.12
Processing Host: ORGANICS2

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

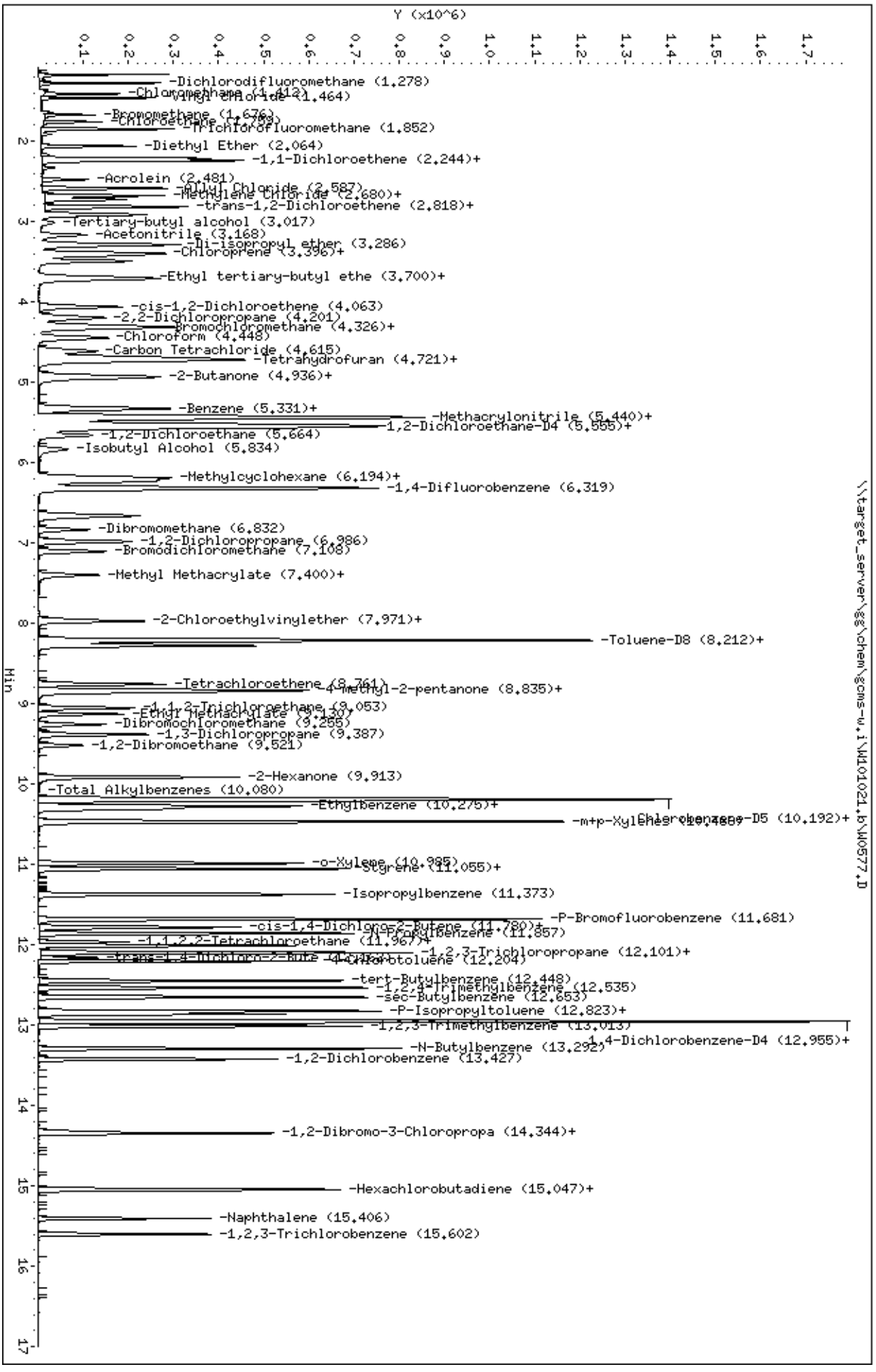
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)	REVIEW CODE
1	Dichlorodifluoromethane	85	1.277	1.278	(0.231)	133944	20.0000	21.0	
2	Chloromethane	50	1.412	1.409	(0.255)	148257	20.0000	20.2	
3	Vinyl chloride	62	1.463	1.460	(0.265)	134352	20.0000	20.8	
4	Bromomethane	94	1.675	1.672	(0.303)	36834	20.0000	19.4	
5	Chloroethane	64	1.758	1.759	(0.318)	82014	20.0000	19.9	
6	Trichlorofluoromethane	101	1.852	1.849	(0.335)	180127	20.0000	20.9	
7	Diethyl Ether	59	2.063	2.061	(0.373)	88118	20.0000	20.9	
8	1,1-Dichloroethene	96	2.214	2.211	(0.400)	99369	20.0000	20.6	
9	Freon-113	151	2.240	2.240	(0.405)	78099	20.0000	21.8	
10	Carbon Disulfide	76	2.243	2.243	(0.406)	215544	20.0000	19.9	
11	Iodomethane	142	2.333	2.330	(0.422)	37319	20.0000	14.3	
12	Acrolein	56	2.480	2.481	(0.448)	78725	100.000	105	
13	Allyl Chloride	41	2.586	2.587	(0.468)	171859	20.0000	21.7	
14	Methylene Chloride	84	2.683	2.680	(0.485)	111400	20.0000	23.0	
15	Acetone	43	2.728	2.725	(0.493)	231462	100.000	102	
16	trans-1,2-Dichloroethene	96	2.814	2.815	(0.509)	107009	20.0000	20.6	
17	Methyl Acetate	43	2.833	2.834	(0.512)	85652	20.0000	20.7	
18	Methyl tert-butyl ether	73	2.914	2.917	(0.527)	252254	20.0000	20.2	
19	Tertiary-butyl alcohol	59	3.016	3.017	(0.545)	38587	100.000	93.6	
20	Acetonitrile	41	3.167	3.168	(0.573)	139935	200.000	206	
21	Di-isopropyl ether	45	3.286	3.290	(0.594)	352327	20.0000	22.0	
22	Chloroprene	53	3.395	3.395	(0.614)	178329	20.0000	22.6	
23	1,1-Dichloroethane	63	3.421	3.418	(0.618)	196299	20.0000	20.7	

Data File: \\target_server\gg\chem\gcms-w.i\W101021.b\W0577.D
Report Date: 17-Oct-2021 14:46

		Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)	REVIEW CODE
	24	Acrylonitrile	52	3.491	3.492	(0.631)	156015	100.000	104	
	25	Ethyl tertiary-butyl ether	59	3.700	3.700	(0.669)	245560	20.0000	21.0	
	26	Vinyl Acetate	43	3.719	3.723	(0.589)	218974	20.0000	20.7	
	27	cis-1,2-Dichloroethene	96	4.062	4.062	(0.734)	103260	20.0000	20.5	
	28	2,2-Dichloropropane	77	4.200	4.200	(0.759)	125074	20.0000	20.9	
	29	Bromochloromethane	128	4.326	4.323	(0.782)	42362	20.0000	20.9	
	30	Cyclohexane	56	4.306	4.307	(0.778)	163597	20.0000	21.5	
	31	Chloroform	83	4.448	4.451	(0.804)	180087	20.0000	20.5	
	32	Carbon Tetrachloride	117	4.614	4.615	(0.730)	132920	20.0000	20.5	
	33	Tetrahydrofuran	42	4.685	4.679	(0.847)	180423	100.000	121	
$	34	Dibromofluoromethane	113	4.724	4.721	(0.854)	249973	50.0000	50.7	
	35	1,1,1-Trichloroethane	97	4.724	4.724	(0.854)	162763	20.0000	20.8	
	36	2-Butanone	43	4.945	4.945	(0.894)	257555	100.000	109	
	37	1,1-Dichloropropene	75	4.922	4.926	(0.779)	139247	20.0000	20.8	
	38	Benzene	78	5.333	5.330	(0.844)	378215	20.0000	20.2	
	39	Propionitrile	54	5.417	5.417	(0.979)	136756	200.000	208	
	40	Methacrylonitrile	41	5.439	5.443	(0.983)	658590	200.000	214	
*	41	Pentafluorobenzene	168	5.532	5.533	(1.000)	484696	50.0000		
$	42	1,2-Dichloroethane-D4	65	5.555	5.555	(1.004)	344239	50.0000	49.9	
	43	Tertiary-amyl methyl ether	73	5.567	5.565	(1.006)	180764	20.0000	20.0	
	44	1,2-Dichloroethane	62	5.664	5.664	(0.896)	144732	20.0000	19.7	
	45	Isobutyl Alcohol	43	5.837	5.834	(1.055)	64897	400.000	438	
	46	Methylcyclohexane	83	6.193	6.194	(1.119)	170557	20.0000	22.3	
	47	Trichloroethene	95	6.235	6.235	(0.987)	98569	20.0000	20.6	
*	48	1,4-Difluorobenzene	114	6.318	6.319	(1.000)	813195	50.0000		
	49	Dibromomethane	93	6.835	6.835	(1.082)	56719	20.0000	19.6	
	50	1,2-Dichloropropane	63	6.986	6.980	(1.106)	98883	20.0000	20.1	
	51	Bromodichloromethane	83	7.108	7.105	(1.125)	124640	20.0000	19.9	
	52	Methyl Methacrylate	41	7.397	7.394	(1.171)	81890	20.0000	20.8	
	53	Ethyl Methacrylate	69	9.129	9.130	(1.445)	102497	20.0000	19.0	
	54	1,4-Dioxane	88	7.406	7.416	(1.172)	21238	400.000	483	
M	55	Total Alkylbenzenes	100				3067825	20.0000	151	
	56	2-Chloroethylvinylether	63	7.948	7.949	(1.258)	25371	20.0000	22.3	
	57	cis-1,3-dichloropropene	75	7.977	7.978	(1.263)	147601	20.0000	20.6	
$	58	Toluene-D8	98	8.212	8.212	(1.300)	942801	50.0000	49.4	
	59	Toluene	92	8.279	8.276	(1.310)	235991	20.0000	20.0	
	60	Tetrachloroethene	164	8.760	8.761	(0.860)	77605	20.0000	20.6	
	61	4-methyl-2-pentanone	43	8.831	8.835	(1.398)	464421	100.000	106	
	62	trans-1,3-Dichloropropene	75	8.857	8.860	(1.402)	131621	20.0000	20.5	
	63	1,1,2-Trichloroethane	83	9.049	9.053	(1.432)	66769	20.0000	19.6	
	64	Dibromochloromethane	129	9.258	9.261	(0.909)	89745	20.0000	20.5	
	65	1,3-Dichloropropane	76	9.383	9.383	(0.921)	154092	20.0000	20.4	
	66	1,2-Dibromoethane	107	9.518	9.518	(1.506)	79661	20.0000	20.0	
	67	2-Hexanone	43	9.916	9.913	(0.973)	331905	100.000	113	
*	68	Chlorobenzene-D5	117	10.188	10.185	(1.000)	750632	50.0000		
	69	Chlorobenzene	112	10.208	10.208	(1.002)	262239	20.0000	20.0	
	70	Ethylbenzene	91	10.272	10.275	(1.008)	467267	20.0000	20.9	
	71	1,1,1,2-Tetrachloroethane	131	10.310	10.311	(1.012)	88758	20.0000	20.4	
	72	m+p-Xylenes	91	10.467	10.468	(1.027)	722151	40.0000	42.7	
	73	o-Xylene	91	10.987	10.985	(1.078)	358629	20.0000	21.6	
	74	Styrene	104	11.055	11.055	(1.085)	281957	20.0000	21.1	
	75	Bromoform	173	11.058	11.058	(1.085)	54695	20.0000	19.2	
	76	Isopropylbenzene	105	11.372	11.376	(0.878)	453776	20.0000	21.8	
$	77	P-Bromofluorobenzene	95	11.680	11.684	(1.849)	375115	50.0000	49.5	

Data File: \\target_server\gg\chem\gcms-w.i\W101021.b\W0577.D
Report Date: 17-Oct-2021 14:46

			QUANT SIG					AMOUNTS		
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)	REVIEW CODE
	78	cis-1,4-Dichloro-2-Butene	53	11.796	11.793	(0.911)	30972	20.0000	20.9	
	79	Bromobenzene	156	11.777	11.784	(0.909)	106507	20.0000	20.1	
	80	N-Propylbenzene	91	11.860	11.861	(0.916)	579587	20.0000	21.6	
	81	1,1,2,2-Tetrachloroethane	83	11.966	11.966	(0.924)	100963	20.0000	20.0	
	82	2-Chlorotoluene	91	12.008	12.011	(0.927)	326140	20.0000	20.7	
	83	1,2,3-Trichloropropane	75	12.088	12.088	(0.933)	93502	20.0000	19.8	
	84	1,3,5-Trimethylbenzene	105	12.101	12.104	(0.934)	382404	20.0000	21.3	
	85	trans-1,4-Dichloro-2-Butene	53	12.162	12.159	(0.939)	33408	20.0000	21.3	
	86	4-Chlorotoluene	91	12.203	12.207	(0.942)	347257	20.0000	20.8	
	87	tert-Butylbenzene	119	12.447	12.451	(0.961)	329702	20.0000	21.1	
	89	1,2,4-Trimethylbenzene	105	12.534	12.534	(0.968)	393601	20.0000	21.4	
	90	sec-Butylbenzene	105	12.653	12.653	(0.977)	519844	20.0000	21.9	
	91	P-Isopropyltoluene	119	12.826	12.830	(0.990)	433205	20.0000	21.8	
	92	1,3-Dichlorobenzene	146	12.861	12.862	(0.993)	216643	20.0000	20.1	
*	93	1,4-Dichlorobenzene-D4	152	12.951	12.952	(1.000)	410081	50.0000		
	94	1,4-Dichlorobenzene	146	12.967	12.968	(1.001)	223874	20.0000	19.8	
	95	1,2,3-Trimethylbenzene	105	13.012	13.016	(1.005)	390134	20.0000	21.4	
	96	N-Butylbenzene	91	13.291	13.292	(1.026)	429482	20.0000	22.1	
M	97	1,2-Dichloroethylene (total)	96				210269	20.0000	41.2	
	98	1,2-Dichlorobenzene	146	13.426	13.423	(1.037)	199629	20.0000	20.2	
	99	1,2-Dibromo-3-Chloropropane	157	14.315	14.319	(1.105)	17418	20.0000	21.1	
	100	1,3,5-Trichlorobenzene	180	14.344	14.347	(1.108)	148115	20.0000	21.2	
	101	Hexachlorobutadiene	225	15.040	15.041	(1.161)	67369	20.0000	20.4	
	102	1,2,4-Trichlorobenzene	180	15.053	15.053	(1.162)	119284	20.0000	20.3	
	103	Naphthalene	128	15.406	15.406	(1.190)	253691	20.0000	22.5	
	104	1,2,3-Trichlorobenzene	180	15.602	15.602	(1.205)	102789	20.0000	20.4	
M	105	Xylenes (total)	106				1080780	60.0000	64.3	


Data File: \\target_server\gg\chem\gcms-w.i\M101021.b\W0577.D
Date : 10-OCT-2021 09:32
Client ID:
Sample Info: WG307630-3
Purge Volume: 5.0
Column phase: RTX-VMS
Instrument: gcms-w.i
Operator: HG
Column diameter: 0.18
\\target_server\gg\chem\gcms-w.i\M101021.b\W0577.D
Y (x10^6)
Min
-Dichlorodifluoromethane (1.278)
-Chloromethane (1.412)
-Vinyl chloride (1.464)
-Bromomethane (1.676)
-Chloroethane (1.768)
-Trichlorofluoromethane (1.852)
-Diethyl Ether (2.064)
-1,1-Dichloroethene (2.244)+
-Acrolein (2.481)
-Allyl Chloride (2.587)
-Methylene Chloride (2.680)+
-trans-1,2-Dichloroethene (2.818)+
-Tertiary-butyl alcohol (3.017)
-Acetonitrile (3.168)
-Di-isopropyl ether (3.286)
-Chloroprene (3.396)+
-Ethyl tertiary-butyl ethe (3.700)+
-cis-1,2-Dichloroethene (4.063)
-2,2-Dichloropropane (4.201)
-Bromochloromethane (4.326)+
-Chloroform (4.448)
-Carbon Tetrachloride (4.615)
-Tetrahydrofuran (4.721)+
-2-Butanone (4.936)+
-Benzene (5.331)+
-Methacrylonitrile (5.440)+
-1,2-Dichloroethane-D4 (5.555)+
-1,2-Dichloroethane (5.664)
-Isobutyl Alcohol (5.834)
-Methylcyclohexane (6.194)+
-1,4-Difluorobenzene (6.319)
-Dibromomethane (6.832)
-1,2-Dichloropropane (6.986)
-Bromodichloromethane (7.108)
-Methyl Methacrylate (7.400)+
-2-Chloroethylvinylether (7.971)+
-Toluene-D8 (8.212)+
-Tetrachloroethene (8.761)
-4-Methyl-2-pentanone (8.835)+
-1,1,2-Trichloroethane (9.053)
-Ethyl Methacrylate (9.130)
-Dibromochloromethane (9.255)
-1,3-Dichloropropane (9.387)
-1,2-Dibromoethane (9.521)
-2-Hexanone (9.913)
-Total Alkylbenzenes (10.080)
-Ethylbenzene (10.275)+
-Chlorobenzene-D5 (10.192)+
-m+p-Xylenes (10.485)
-o-Xylene (10.985)
-Styrene (11.055)+
-Isopropylbenzene (11.373)
-P-Bromofluorobenzene (11.681)
-cis-1,4-Dichloro-2-Butene (11.780)+
-Bromobenzene (11.857)
-1,1,2,2-Tetrachloroethane (11.967)+
-1,2,3-Trichloropropane (12.101)+
-trans-1,4-Dichloro-2-Bute (12.200)+
-4-Chlorotoluene (12.204)
-tert-Butylbenzene (12.448)
-1,2,4-Trimethylbenzene (12.535)
-sec-Butylbenzene (12.653)
-P-Isopropyltoluene (12.823)+
-1,2,3-Trimethylbenzene (13.013)
-1,4-Dichlorobenzene-D4 (12.955)+
-N-Butylbenzene (13.292)
-1,2-Dichlorobenzene (13.427)
-1,2-Dibromo-3-Chloropropa (14.344)+
-Hexachlorobutadiene (15.047)+
-Naphthalene (15.406)
-1,2,3-Trichlorobenzene (15.602)

Data File: \\target_server\gg\chem\gcms-w.i\W101021.b\W0578.D
Report Date: 17-Oct-2021 14:46

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-w.i\W101021.b\W0578.D
Lab Smp Id: WG307630-8
Inj Date : 10-OCT-2021 10:03
Operator : HG   Inst ID: gcms-w.i
Smp Info : WG307630-8
Misc Info :
Comment   : SW846 5030
Method   : \\target_server\gg\chem\gcms-w.i\W101021.b\W8A05(11).m
Meth Date : 11-Oct-2021 04:51 hgould   Quant Type: ISTD
Cal Date : 10-OCT-2021 10:03   Cal File: W0578.D
Als bottle: 3   Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: HP RTE   Compound Sublist: all.sub
Target Version: 4.12
Processing Host: ORGANICS2

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

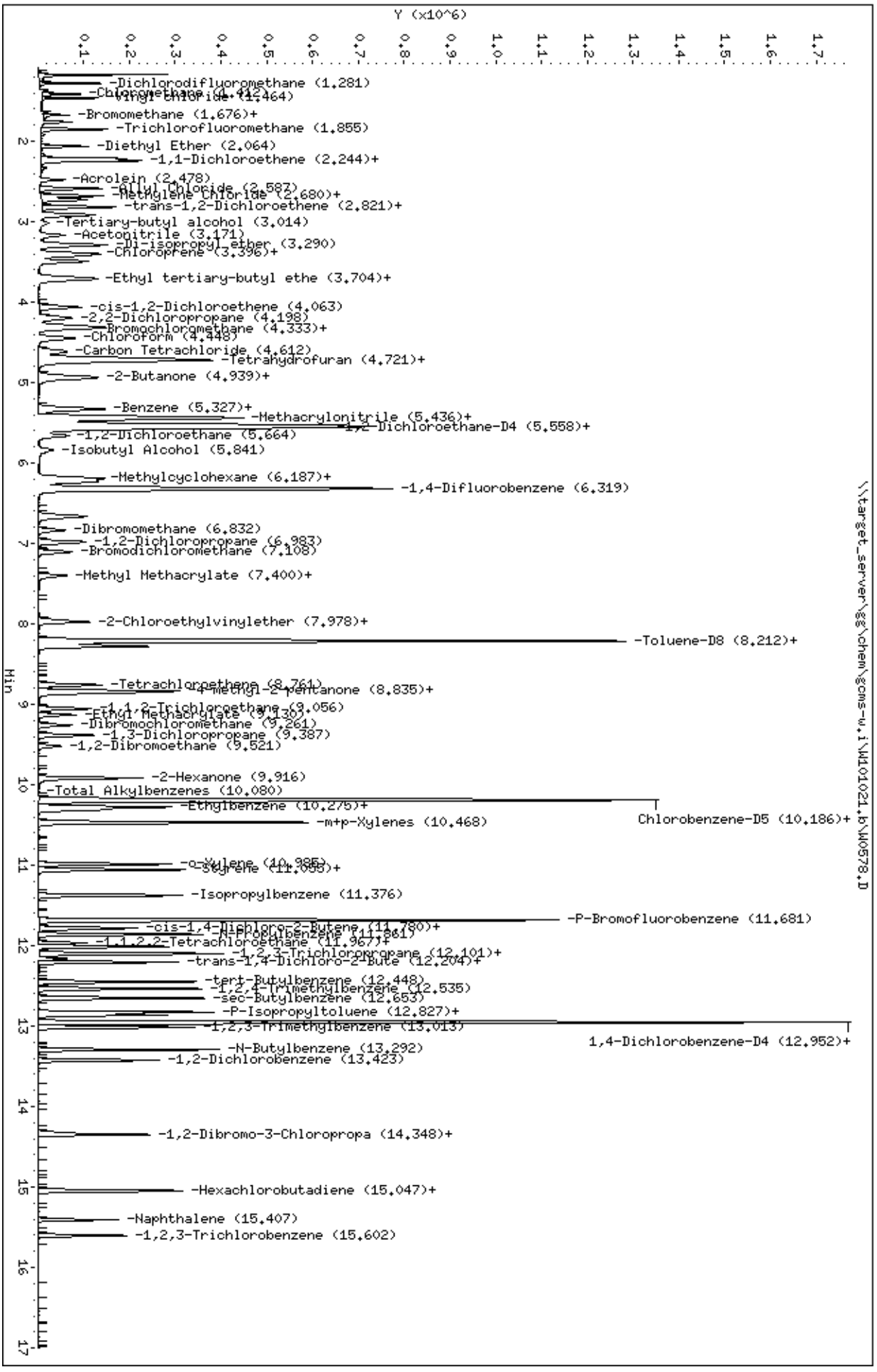
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)	REVIEW CODE
1	Dichlorodifluoromethane	85	1.277	1.278	(0.231)	66449	10.0000	10.0	
2	Chloromethane	50	1.415	1.409	(0.256)	74780	10.0000	9.8	
3	Vinyl chloride	62	1.463	1.460	(0.264)	68513	10.0000	10.2	
4	Bromomethane	94	1.675	1.672	(0.303)	16411	10.0000	8.3	
5	Chloroethane	64	1.762	1.759	(0.318)	41695	10.0000	9.7	
6	Trichlorofluoromethane	101	1.855	1.849	(0.335)	88737	10.0000	9.9	
7	Diethyl Ether	59	2.067	2.061	(0.373)	43147	10.0000	9.8	
8	1,1-Dichloroethene	96	2.217	2.211	(0.401)	49943	10.0000	10	
9	Freon-113	151	2.243	2.240	(0.405)	37721	10.0000	10.1	
10	Carbon Disulfide	76	2.243	2.243	(0.405)	106231	10.0000	9.4	
11	Iodomethane	142	2.326	2.330	(0.420)	15597	10.0000	5.7	
12	Acrolein	56	2.477	2.481	(0.448)	40015	50.0000	51.2	
13	Allyl Chloride	41	2.586	2.587	(0.467)	82378	10.0000	10.0	
14	Methylene Chloride	84	2.679	2.680	(0.484)	57139	10.0000	11.4	
15	Acetone	43	2.724	2.725	(0.492)	128887	50.0000	54.6	
16	trans-1,2-Dichloroethene	96	2.817	2.815	(0.509)	52190	10.0000	9.7	
17	Methyl Acetate	43	2.833	2.834	(0.512)	44639	10.0000	10.4	
18	Methyl tert-butyl ether	73	2.914	2.917	(0.526)	129573	10.0000	10	
19	Tertiary-butyl alcohol	59	3.013	3.017	(0.544)	21367	50.0000	47.0	
20	Acetonitrile	41	3.170	3.168	(0.573)	72475	100.000	103	
21	Di-isopropyl ether	45	3.289	3.290	(0.594)	168015	10.0000	10.1	
22	Chloroprene	53	3.395	3.395	(0.613)	82792	10.0000	10.1	
23	1,1-Dichloroethane	63	3.424	3.418	(0.619)	97999	10.0000	9.9	

Data File: \\target_server\gg\chem\gcms-w.i\W101021.b\W0578.D
Report Date: 17-Oct-2021 14:46

		Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)	REVIEW CODE
	24	Acrylonitrile	52	3.491	3.492	(0.631)	81289	50.0000	52.4	
	25	Ethyl tertiary-butyl ether	59	3.703	3.700	(0.669)	118897	10.0000	9.8	
	26	Vinyl Acetate	43	3.722	3.723	(0.589)	109823	10.0000	10.1	
	27	cis-1,2-Dichloroethene	96	4.063	4.062	(0.734)	51022	10.0000	9.7	
	28	2,2-Dichloropropane	77	4.197	4.200	(0.758)	60081	10.0000	9.6	
	29	Bromochloromethane	128	4.332	4.323	(0.783)	21115	10.0000	10.0	
	30	Cyclohexane	56	4.306	4.307	(0.778)	78236	10.0000	9.9	
	31	Chloroform	83	4.448	4.451	(0.803)	89698	10.0000	9.8	
	32	Carbon Tetrachloride	117	4.611	4.615	(0.730)	65335	10.0000	9.8	
	33	Tetrahydrofuran	42	4.691	4.679	(0.848)	93354	50.0000	60.3	
$	34	Dibromofluoromethane	113	4.720	4.721	(0.853)	254681	50.0000	49.7	
	35	1,1,1-Trichloroethane	97	4.730	4.724	(0.855)	79638	10.0000	9.8	
	36	2-Butanone	43	4.951	4.945	(0.895)	135867	50.0000	55.3	
	37	1,1-Dichloropropene	75	4.932	4.926	(0.781)	67552	10.0000	9.8	
	38	Benzene	78	5.327	5.330	(0.843)	189213	10.0000	9.9	
	39	Propionitrile	54	5.420	5.417	(0.979)	71244	100.000	104	
	40	Methacrylonitrile	41	5.436	5.443	(0.982)	336380	100.000	105	
*	41	Pentafluorobenzene	168	5.535	5.533	(1.000)	503630	50.0000		
$	42	1,2-Dichloroethane-D4	65	5.558	5.555	(1.004)	355771	50.0000	49.7	
	43	Tertiary-amyl methyl ether	73	5.567	5.565	(1.006)	86891	10.0000	9.2	
	44	1,2-Dichloroethane	62	5.664	5.664	(0.896)	72076	10.0000	9.5	
	45	Isobutyl Alcohol	43	5.840	5.834	(1.055)	33353	200.000	217	
	46	Methylcyclohexane	83	6.187	6.194	(1.118)	79813	10.0000	10.0	
	47	Trichloroethene	95	6.238	6.235	(0.987)	48816	10.0000	9.9	
*	48	1,4-Difluorobenzene	114	6.318	6.319	(1.000)	835514	50.0000		
	49	Dibromomethane	93	6.841	6.835	(1.083)	29046	10.0000	9.8	
	50	1,2-Dichloropropane	63	6.986	6.980	(1.106)	48799	10.0000	9.6	
	51	Bromodichloromethane	83	7.108	7.105	(1.125)	62188	10.0000	9.6	
	52	Methyl Methacrylate	41	7.400	7.394	(1.171)	39629	10.0000	9.8	
	53	Ethyl Methacrylate	69	9.133	9.130	(1.445)	47887	10.0000	8.7	
	54	1,4-Dioxane	88	7.422	7.416	(1.175)	9992	200.000	221	
M	55	Total Alkylbenzenes	100				1501324	10.0000	73.2	
	56	2-Chloroethylvinylether	63	7.945	7.949	(1.257)	13943	10.0000	11.9	
	57	cis-1,3-dichloropropene	75	7.977	7.978	(1.263)	68890	10.0000	9.3	
$	58	Toluene-D8	98	8.212	8.212	(1.300)	978115	50.0000	49.8	
	59	Toluene	92	8.276	8.276	(1.310)	118098	10.0000	9.7	
	60	Tetrachloroethene	164	8.757	8.761	(0.860)	38981	10.0000	10.1	
	61	4-methyl-2-pentanone	43	8.834	8.835	(1.398)	238676	50.0000	53.2	
	62	trans-1,3-Dichloropropene	75	8.853	8.860	(1.401)	62316	10.0000	9.4	
	63	1,1,2-Trichloroethane	83	9.056	9.053	(1.433)	35295	10.0000	10.1	
	64	Dibromochloromethane	129	9.261	9.261	(0.909)	43241	10.0000	9.6	
	65	1,3-Dichloropropane	76	9.380	9.383	(0.921)	77186	10.0000	10	
	66	1,2-Dibromoethane	107	9.524	9.518	(1.507)	39411	10.0000	9.6	
	67	2-Hexanone	43	9.916	9.913	(0.974)	168637	50.0000	55.9	
*	68	Chlorobenzene-D5	117	10.185	10.185	(1.000)	771091	50.0000		
	69	Chlorobenzene	112	10.204	10.208	(1.002)	132574	10.0000	9.8	
	70	Ethylbenzene	91	10.275	10.275	(1.009)	230175	10.0000	10.0	
	71	1,1,1,2-Tetrachloroethane	131	10.307	10.311	(1.012)	42714	10.0000	9.5	
	72	m+p-Xylenes	91	10.467	10.468	(1.028)	357386	20.0000	20.6	
	73	o-Xylene	91	10.984	10.985	(1.078)	171304	10.0000	10.0	
	74	Styrene	104	11.055	11.055	(1.085)	137891	10.0000	10.0	
	75	Bromoform	173	11.055	11.058	(1.085)	26684	10.0000	9.2	
	76	Isopropylbenzene	105	11.376	11.376	(0.879)	220679	10.0000	10.5	
$	77	P-Bromofluorobenzene	95	11.684	11.684	(1.849)	385476	50.0000	49.5	

Data File: \\target_server\gg\chem\gcms-w.i\W101021.b\W0578.D
Report Date: 17-Oct-2021 14:46

							AMOUNTS		
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)	REVIEW CODE
	78 cis-1,4-Dichloro-2-Butene	53	11.796	11.793	(0.911)	14848	10.0000	9.9	
	79 Bromobenzene	156	11.777	11.784	(0.910)	53584	10.0000	10.0	
	80 N-Propylbenzene	91	11.857	11.861	(0.916)	285786	10.0000	10.5	
	81 1,1,2,2-Tetrachloroethane	83	11.966	11.966	(0.924)	53263	10.0000	10.4	
	82 2-Chlorotoluene	91	12.011	12.011	(0.928)	162670	10.0000	10.2	
	83 1,2,3-Trichloropropane	75	12.091	12.088	(0.934)	49299	10.0000	10.3	
	84 1,3,5-Trimethylbenzene	105	12.104	12.104	(0.935)	187466	10.0000	10.3	
	85 trans-1,4-Dichloro-2-Butene	53	12.159	12.159	(0.939)	16124	10.0000	10.2	
	86 4-Chlorotoluene	91	12.204	12.207	(0.943)	171026	10.0000	10.2	
	87 tert-Butylbenzene	119	12.451	12.451	(0.962)	162430	10.0000	10.3	
	89 1,2,4-Trimethylbenzene	105	12.534	12.534	(0.968)	192983	10.0000	10.4	
	90 sec-Butylbenzene	105	12.653	12.653	(0.977)	255790	10.0000	10.6	
	91 P-Isopropyltoluene	119	12.826	12.830	(0.991)	208841	10.0000	10.4	
	92 1,3-Dichlorobenzene	146	12.861	12.862	(0.993)	110732	10.0000	10.2	
*	93 1,4-Dichlorobenzene-D4	152	12.948	12.952	(1.000)	414298	50.0000		
	94 1,4-Dichlorobenzene	146	12.964	12.968	(1.001)	112930	10.0000	9.9	
	95 1,2,3-Trimethylbenzene	105	13.012	13.016	(1.005)	187049	10.0000	10.1	
	96 N-Butylbenzene	91	13.291	13.292	(1.027)	208028	10.0000	10.6	
M	97 1,2-Dichloroethylene (total)	96				103212	10.0000	19.4	
	98 1,2-Dichlorobenzene	146	13.423	13.423	(1.037)	101139	10.0000	10.1	
	99 1,2-Dibromo-3-Chloropropane	157	14.315	14.319	(1.106)	8204	10.0000	9.8	
	100 1,3,5-Trichlorobenzene	180	14.347	14.347	(1.108)	70282	10.0000	9.9	
	101 Hexachlorobutadiene	225	15.037	15.041	(1.161)	31941	10.0000	9.6	
	102 1,2,4-Trichlorobenzene	180	15.053	15.053	(1.163)	55914	10.0000	9.4	
	103 Naphthalene	128	15.406	15.406	(1.190)	116211	10.0000	10.2	
	104 1,2,3-Trichlorobenzene	180	15.602	15.602	(1.205)	50762	10.0000	10	
M	105 Xylenes (total)	106				528690	10.0000	30.6	


Data File: \\target_server\gg\chem\gcms-w.i\W101021.b\W0578.D
Date : 10-OCT-2021 10:03
Client ID:
Sample Info: WG307630-8
Purge Volume: 5.0
Column phase: RTX-VMS
Instrument: gcms-w.i
Operator: HG
Column diameter: 0.18
\\target_server\gg\chem\gcms-w.i\W101021.b\W0578.D
Y (x10^6)
Min
-Dichlorodifluoromethane (1.281)
-Chloromethane (1.412)
-Vinyl Chloride (1.464)
-Bromomethane (1.676)+
-Trichlorofluoromethane (1.855)
-Diethyl Ether (2.064)
-1,1-Dichloroethene (2.244)+
-Acrolein (2.478)
-Allyl Chloride (2.587)
-Methylene Chloride (2.680)+
-trans-1,2-Dichloroethene (2.821)+
-Tertiary-butyl alcohol (3.014)
-Acetonitrile (3.171)
-Di-isopropyl ether (3.290)
-Chloroprene (3.396)+
-Ethyl tertiary-butyl ethe (3.704)+
-cis-1,2-Dichloroethene (4.063)
-2,2-Dichloropropane (4.198)
-Bromochloromethane (4.333)+
-Chloroform (4.448)
-Carbon Tetrachloride (4.612)
-Tetrahydrofuran (4.721)+
-2-Butanone (4.939)+
-Benzene (5.327)+
-Methacrylonitrile (5.436)+
-1,2-Dichloroethane-D4 (5.558)+
-1,2-Dichloroethane (5.664)
-Isobutyl Alcohol (5.841)
-Methylcyclohexane (6.187)+
-1,4-Difluorobenzene (6.319)
-Dibromomethane (6.832)
-1,2-Dichloropropane (6.983)
-Bromodichloromethane (7.108)
-Methyl Methacrylate (7.400)+
-2-Chloroethylvinylether (7.978)+
-Toluene-D8 (8.212)+
-Tetrachloroethene (8.761)
-4-Methyl-2-pentanone (8.835)+
-1,1,2-Trichloroethane (9.056)
-Ethyl Methacrylate (9.130)
-Dibromochloromethane (9.261)
-1,3-Dichloropropane (9.387)
-1,2-Dibromoethane (9.521)
-2-Hexanone (9.916)
-Total Alkylbenzenes (10.080)
-Ethylbenzene (10.275)+
Chlorobenzene-D5 (10.186)+
-m+p-Xylenes (10.468)
-o-Xylene (10.985)
-Styrene (11.008)+
-Isopropylbenzene (11.376)
-P-Bromofluorobenzene (11.681)
-cis-1,4-Dichloro-2-Butene (11.780)+
-n-Propylbenzene (11.861)
-1,1,2,2-Tetrachloroethane (11.967)+
-1,2,3-Trichloropropane (12.101)+
-trans-1,4-Dichloro-2-Bute (12.204)+
-tert-Butylbenzene (12.448)
-1,2,4-Trimethylbenzene (12.535)
-sec-Butylbenzene (12.653)
-P-Isopropyltoluene (12.827)+
-1,3-Dichlorobenzene (12.952)+
-1,2,3-Trimethylbenzene (13.013)
-N-Butylbenzene (13.292)
-1,2-Dichlorobenzene (13.423)
-1,2-Dibromo-3-Chloropropa (14.348)+
-Hexachlorobutadiene (15.047)+
-Naphthalene (15.407)
-1,2,3-Trichlorobenzene (15.602)

Data File: \\target_server\gg\chem\gcms-w.i\W101021.b\W0579.D
Report Date: 17-Oct-2021 14:46

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-w.i\W101021.b\W0579.D
Lab Smp Id: WG307630-2
Inj Date : 10-OCT-2021 10:33
Operator : HG   Inst ID: gcms-w.i
Smp Info : WG307630-2
Misc Info :
Comment   : SW846 5030
Method   : \\target_server\gg\chem\gcms-w.i\W101021.b\W8A05(11).m
Meth Date : 11-Oct-2021 04:51 hgould   Quant Type: ISTD
Cal Date : 10-OCT-2021 10:33   Cal File: W0579.D
Als bottle: 4   Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE   Compound Sublist: all.sub
Target Version: 4.12
Processing Host: ORGANICS2

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

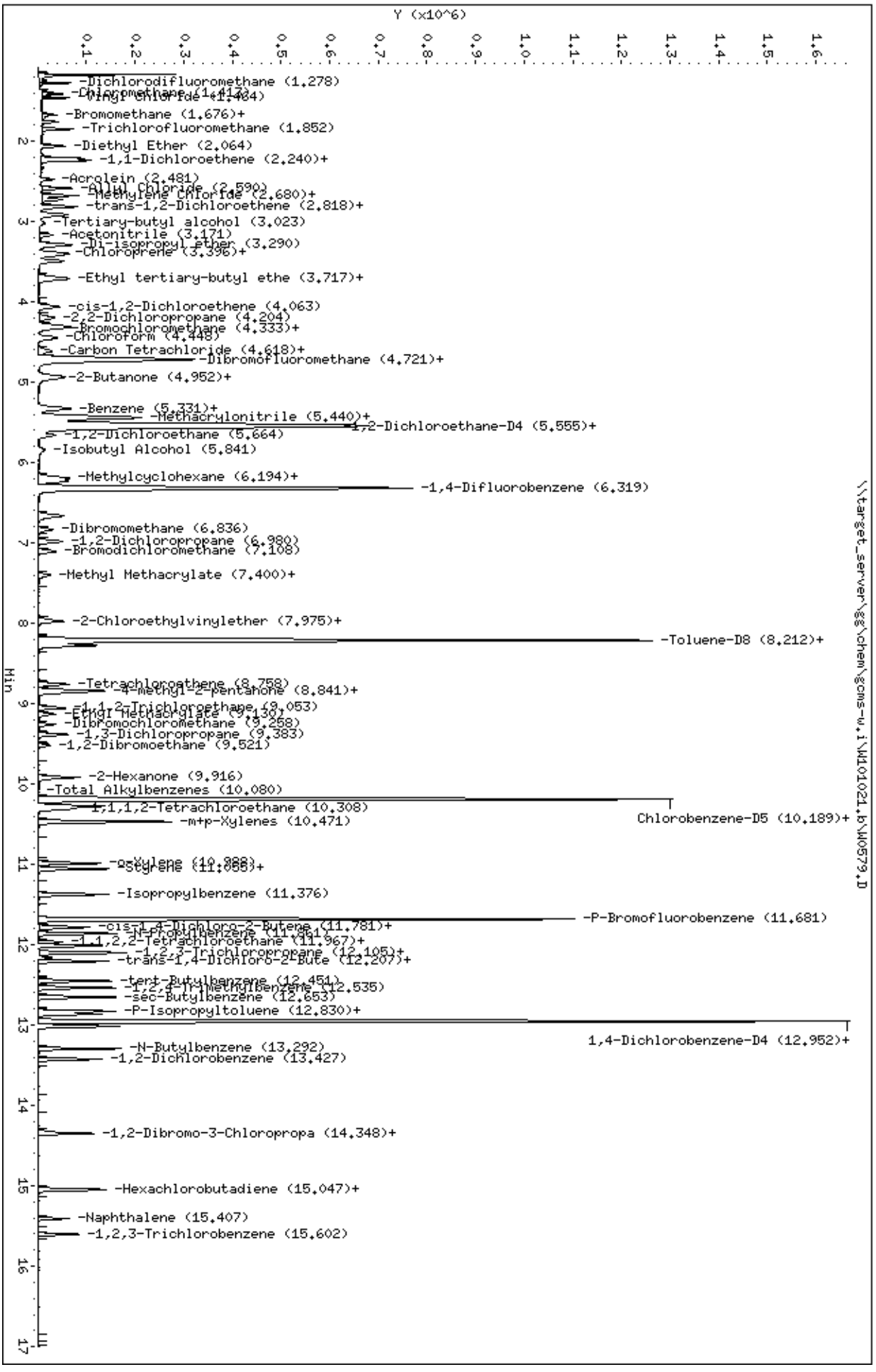
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)	REVIEW CODE
1	Dichlorodifluoromethane	85	1.277	1.278	(0.231)	29680	5.00000	4.6	
2	Chloromethane	50	1.412	1.409	(0.255)	35106	5.00000	4.8	
3	Vinyl chloride	62	1.463	1.460	(0.265)	30389	5.00000	4.6	
4	Bromomethane	94	1.675	1.672	(0.303)	8927	5.00000	4.7	
5	Chloroethane	64	1.759	1.759	(0.318)	19784	5.00000	4.9	
6	Trichlorofluoromethane	101	1.852	1.849	(0.335)	40167	5.00000	4.6	
7	Diethyl Ether	59	2.063	2.061	(0.373)	22536	5.00000	5.1	
8	1,1-Dichloroethene	96	2.214	2.211	(0.401)	22303	5.00000	4.6	
9	Freon-113	151	2.243	2.240	(0.406)	17138	5.00000	4.5	
10	Carbon Disulfide	76	2.243	2.243	(0.406)	48446	5.00000	4.6	
11	Iodomethane	142	2.333	2.330	(0.422)	7445	5.00000	2.9	
12	Acrolein	56	2.481	2.481	(0.449)	20141	25.0000	25.7	
13	Allyl Chloride	41	2.586	2.587	(0.468)	39116	5.00000	4.8	
14	Methylene Chloride	84	2.680	2.680	(0.485)	30215	5.00000	5.6	
15	Acetone	43	2.724	2.725	(0.493)	55739	25.0000	24.3	
16	trans-1,2-Dichloroethene	96	2.818	2.815	(0.510)	25308	5.00000	4.8	
17	Methyl Acetate	43	2.834	2.834	(0.513)	21629	5.00000	5.0	
18	Methyl tert-butyl ether	73	2.917	2.917	(0.528)	61574	5.00000	4.8	
19	Tertiary-butyl alcohol	59	3.023	3.017	(0.547)	10455	25.0000	25.5	
20	Acetonitrile	41	3.164	3.168	(0.572)	36751	50.0000	52.0	
21	Di-isopropyl ether	45	3.289	3.290	(0.595)	78869	5.00000	4.7	
22	Chloroprene	53	3.395	3.395	(0.614)	36718	5.00000	4.4	
23	1,1-Dichloroethane	63	3.421	3.418	(0.619)	46463	5.00000	4.8	

Data File: \\target_server\gg\chem\gcms-w.i\W101021.b\W0579.D
Report Date: 17-Oct-2021 14:46

		Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)	REVIEW CODE
	24	Acrylonitrile	52	3.495	3.492	(0.632)	39371	25.0000	25.1	
	25	Ethyl tertiary-butyl ether	59	3.706	3.700	(0.670)	55881	5.00000	4.7	
	26	Vinyl Acetate	43	3.719	3.723	(0.589)	50759	5.00000	4.7	
	27	cis-1,2-Dichloroethene	96	4.063	4.062	(0.735)	23844	5.00000	4.8	
	28	2,2-Dichloropropane	77	4.194	4.200	(0.759)	26279	5.00000	4.4	
	29	Bromochloromethane	128	4.332	4.323	(0.784)	10322	5.00000	5.0	
	30	Cyclohexane	56	4.303	4.307	(0.778)	32864	5.00000	4.2	
	31	Chloroform	83	4.448	4.451	(0.804)	43563	5.00000	4.9	
	32	Carbon Tetrachloride	117	4.611	4.615	(0.730)	29329	5.00000	4.5	
	33	Tetrahydrofuran	42	4.695	4.679	(0.849)	44019	25.0000	24.5	
$	34	Dibromofluoromethane	113	4.720	4.721	(0.854)	250444	50.0000	50.1	
	35	1,1,1-Trichloroethane	97	4.730	4.724	(0.856)	36356	5.00000	4.6	
	36	2-Butanone	43	4.951	4.945	(0.896)	57901	25.0000	22.9	
	37	1,1-Dichloropropene	75	4.923	4.926	(0.779)	29526	5.00000	4.4	
	38	Benzene	78	5.330	5.330	(0.844)	89818	5.00000	4.8	
	39	Propionitrile	54	5.414	5.417	(0.979)	35518	50.0000	51.3	
	40	Methacrylonitrile	41	5.439	5.443	(0.984)	162995	50.0000	49.8	
*	41	Pentafluorobenzene	168	5.529	5.533	(1.000)	488623	50.0000		
$	42	1,2-Dichloroethane-D4	65	5.555	5.555	(1.005)	347544	50.0000	49.8	
	43	Tertiary-amyl methyl ether	73	5.574	5.565	(1.008)	41636	5.00000	4.7	
	44	1,2-Dichloroethane	62	5.664	5.664	(0.896)	36993	5.00000	5.1	
	45	Isobutyl Alcohol	43	5.840	5.834	(1.056)	13450	100.000	87.5	
	46	Methylcyclohexane	83	6.193	6.194	(1.120)	32910	5.00000	4.1	
	47	Trichloroethene	95	6.232	6.235	(0.986)	22234	5.00000	4.7	
*	48	1,4-Difluorobenzene	114	6.318	6.319	(1.000)	811576	50.0000		
	49	Dibromomethane	93	6.838	6.835	(1.082)	14239	5.00000	5.0	
	50	1,2-Dichloropropane	63	6.979	6.980	(1.105)	23765	5.00000	4.9	
	51	Bromodichloromethane	83	7.108	7.105	(1.125)	29635	5.00000	4.8	
	52	Methyl Methacrylate	41	7.393	7.394	(1.170)	17259	5.00000	4.4	
	53	Ethyl Methacrylate	69	9.129	9.130	(1.445)	20508	5.00000	4.3	
	54	1,4-Dioxane	88	7.422	7.416	(1.175)	4451	100.000	94.5	
M	55	Total Alkylbenzenes	100				649287	5.00000	31.3	
	56	2-Chloroethylvinylether	63	7.949	7.949	(1.258)	6265	5.00000	5.0	
	57	cis-1,3-dichloropropene	75	7.974	7.978	(1.262)	30986	5.00000	4.4	
$	58	Toluene-D8	98	8.212	8.212	(1.300)	956887	50.0000	50.4	
	59	Toluene	92	8.276	8.276	(1.310)	56478	5.00000	4.9	
	60	Tetrachloroethene	164	8.754	8.761	(0.859)	17266	5.00000	4.6	
	61	4-methyl-2-pentanone	43	8.841	8.835	(1.399)	101419	25.0000	22.6	
	62	trans-1,3-Dichloropropene	75	8.860	8.860	(1.402)	27948	5.00000	4.4	
	63	1,1,2-Trichloroethane	83	9.052	9.053	(1.433)	16715	5.00000	5.0	
	64	Dibromochloromethane	129	9.258	9.261	(0.909)	20232	5.00000	4.6	
	65	1,3-Dichloropropane	76	9.383	9.383	(0.921)	36680	5.00000	4.8	
	66	1,2-Dibromoethane	107	9.521	9.518	(1.507)	18595	5.00000	4.8	
	67	2-Hexanone	43	9.916	9.913	(0.973)	66405	25.0000	21.2	
*	68	Chlorobenzene-D5	117	10.188	10.185	(1.000)	753916	50.0000		
	69	Chlorobenzene	112	10.208	10.208	(1.002)	65552	5.00000	5.0	
	70	Ethylbenzene	91	10.278	10.275	(1.009)	106649	5.00000	4.7	
	71	1,1,1,2-Tetrachloroethane	131	10.307	10.311	(1.012)	19842	5.00000	4.6	
	72	m+p-Xylenes	91	10.468	10.468	(1.027)	162316	10.0000	9.3	
	73	o-Xylene	91	10.987	10.985	(1.078)	76730	5.00000	4.5	
	74	Styrene	104	11.055	11.055	(1.085)	62255	5.00000	4.6	
	75	Bromoform	173	11.055	11.058	(1.085)	12536	5.00000	4.8	
	76	Isopropylbenzene	105	11.376	11.376	(0.878)	94983	5.00000	4.4	
$	77	P-Bromofluorobenzene	95	11.681	11.684	(1.849)	377360	50.0000	50.1	

Data File: \\target_server\gg\chem\gcms-w.i\W101021.b\W0579.D
Report Date: 17-Oct-2021 14:46

							AMOUNTS		
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)	REVIEW CODE
	78 cis-1,4-Dichloro-2-Butene	53	11.799	11.793	(0.911)	7056	5.00000	4.8	
	79 Bromobenzene	156	11.780	11.784	(0.910)	25465	5.00000	4.9	
	80 N-Propylbenzene	91	11.863	11.861	(0.916)	127505	5.00000	4.6	
	81 1,1,2,2-Tetrachloroethane	83	11.966	11.966	(0.924)	25439	5.00000	5.0	
	82 2-Chlorotoluene	91	12.011	12.011	(0.927)	74981	5.00000	4.8	
	83 1,2,3-Trichloropropane	75	12.088	12.088	(0.933)	23669	5.00000	5.0	
	84 1,3,5-Trimethylbenzene	105	12.104	12.104	(0.935)	82726	5.00000	4.6	
	85 trans-1,4-Dichloro-2-Butene	53	12.162	12.159	(0.939)	7019	5.00000	4.5	
	86 4-Chlorotoluene	91	12.207	12.207	(0.943)	80430	5.00000	4.8	
	87 tert-Butylbenzene	119	12.451	12.451	(0.961)	69778	5.00000	4.4	
	89 1,2,4-Trimethylbenzene	105	12.534	12.534	(0.968)	85558	5.00000	4.6	
	90 sec-Butylbenzene	105	12.653	12.653	(0.977)	110160	5.00000	4.5	
	91 P-Isopropyltoluene	119	12.829	12.830	(0.991)	87429	5.00000	4.3	
	92 1,3-Dichlorobenzene	146	12.861	12.862	(0.993)	51401	5.00000	4.8	
*	93 1,4-Dichlorobenzene-D4	152	12.951	12.952	(1.000)	404032	50.0000		
	94 1,4-Dichlorobenzene	146	12.967	12.968	(1.001)	53876	5.00000	4.9	
	95 1,2,3-Trimethylbenzene	105	13.019	13.016	(1.005)	91326	5.00000	4.9	
	96 N-Butylbenzene	91	13.291	13.292	(1.026)	86131	5.00000	4.3	
M	97 1,2-Dichloroethylene (total)	96				49152	5.00000	9.6	
	98 1,2-Dichlorobenzene	146	13.426	13.423	(1.037)	48060	5.00000	4.9	
	99 1,2-Dibromo-3-Chloropropane	157	14.315	14.319	(1.105)	3693	5.00000	4.5	
	100 1,3,5-Trichlorobenzene	180	14.347	14.347	(1.108)	32303	5.00000	4.6	
	101 Hexachlorobutadiene	225	15.040	15.041	(1.161)	13956	5.00000	4.4	
	102 1,2,4-Trichlorobenzene	180	15.050	15.053	(1.162)	24153	5.00000	4.3	
	103 Naphthalene	128	15.406	15.406	(1.190)	44798	5.00000	4.0	
	104 1,2,3-Trichlorobenzene	180	15.608	15.602	(1.205)	22515	5.00000	4.6	
M	105 Xylenes (total)	106				239046	15.0000	13.8	


Data File: \\target_server\gg\chem\gcms-w.i\W101021.b\W0579.D
Date : 10-OCT-2021 10:33
Client ID:
Sample Info: WG307630-2
Purge Volume: 5.0
Column phase: RTX-VMS
Instrument: gcms-w.i
Operator: HG
Column diameter: 0.18
\\target_server\gg\chem\gcms-w.i\W101021.b\W0579.D
Y (x10^6)
Min
-Dichlorodifluoromethane (1.278)
-Chloromethane (1.412)
-Vinyl Chloride (1.464)
-Bromomethane (1.676)+
-Trichlorofluoromethane (1.852)
-Diethyl Ether (2.064)
-1,1-Dichloroethene (2.240)+
-Acrolein (2.481)
-Allyl Chloride (2.590)
-Methylene Chloride (2.680)+
-trans-1,2-Dichloroethene (2.818)+
-Tertiary-butyl alcohol (3.023)
-Acetonitrile (3.171)
-Di-isopropyl ether (3.290)
-Chloroprene (3.396)+
-Ethyl tertiary-butyl ethe (3.717)+
-cis-1,2-Dichloroethene (4.063)
-2,2-Dichloropropane (4.204)
-Bromochloromethane (4.333)+
-Chloroform (4.448)
-Carbon Tetrachloride (4.618)+
-Dibromofluoromethane (4.721)+
-2-Butanone (4.952)+
-Benzene (5.331)+
-Methacrylonitrile (5.440)+
1,2-Dichloroethane-D4 (5.555)+
-1,2-Dichloroethane (5.664)
-Isobutyl Alcohol (5.841)
-Methylcyclohexane (6.194)+
-1,4-Difluorobenzene (6.319)
-Dibromomethane (6.836)
-1,2-Dichloropropane (6.980)
-Bromodichloromethane (7.108)
-Methyl Methacrylate (7.400)+
-2-Chloroethylvinylether (7.975)+
-Toluene-D8 (8.212)+
-Tetrachloroethene (8.758)
-4-methyl-2-pentanone (8.841)+
-1,1,2-Trichloroethane (9.053)
-Ethyl Methacrylate (9.137)
-Dibromochloromethane (9.258)
-1,3-Dichloropropane (9.383)
-1,2-Dibromoethane (9.521)
-2-Hexanone (9.916)
-Total Alkylbenzenes (10.080)
1,1,1,2-Tetrachloroethane (10.308)
Chlorobenzene-D5 (10.189)+
-m+p-Xylenes (10.471)
-o-Xylene (10.888)
-Styrene (11.055)+
-Isopropylbenzene (11.376)
-P-Bromofluorobenzene (11.681)
-cis-1,4-Dichloro-2-Butene (11.781)+
-n-Propylbenzene (11.841)
-1,1,2,2-Tetrachloroethane (11.967)+
-1,2,3-Trichloropropane (12.105)+
-trans-1,4-Dichloro-2-Bute (12.207)+
-tert-Butylbenzene (12.451)
-1,2,4-Trimethylbenzene (12.535)
-sec-Butylbenzene (12.653)
-P-Isopropyltoluene (12.830)+
1,4-Dichlorobenzene-D4 (12.952)+
-N-Butylbenzene (13.292)
-1,2-Dichlorobenzene (13.427)
-1,2-Dibromo-3-Chloropropa (14.348)+
-Hexachlorobutadiene (15.047)+
-Naphthalene (15.407)
-1,2,3-Trichlorobenzene (15.602)

Data File: \\target_server\gg\chem\gcms-w.i\W101021.b\W0580.D
Report Date: 17-Oct-2021 14:46

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-w.i\W101021.b\W0580.D
Lab Smp Id: WG307630-1
Inj Date : 10-OCT-2021 11:04
Operator : HG   Inst ID: gcms-w.i
Smp Info : WG307630-1
Misc Info :
Comment   : SW846 5030
Method   : \\target_server\gg\chem\gcms-w.i\W101021.b\W8A05(11).m
Meth Date : 11-Oct-2021 04:51 hgould   Quant Type: ISTD
Cal Date : 10-OCT-2021 11:04   Cal File: W0580.D
Als bottle: 5   Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE   Compound Sublist: all.sub
Target Version: 4.12
Processing Host: ORGANICS2

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)	REVIEW CODE
1	Dichlorodifluoromethane	85	1.274	1.278	(0.230)	6726	1.00000	1.1	
2	Chloromethane	50	1.409	1.409	(0.255)	8992	1.00000	1.3	
3	Vinyl chloride	62	1.460	1.460	(0.264)	6914	1.00000	1.1	
4	Bromomethane	94	1.672	1.672	(0.302)	2248	1.00000	1.2	
5	Chloroethane	64	1.758	1.759	(0.318)	6004	1.00000	1.5	
6	Trichlorofluoromethane	101	1.848	1.849	(0.334)	8899	1.00000	1.1	
7	Diethyl Ether	59	2.067	2.061	(0.374)	3886	1.00000	0.98(a)	
8	1,1-Dichloroethene	96	2.214	2.211	(0.400)	5304	1.00000	1.2	
9	Freon-113	151	2.237	2.240	(0.404)	2903	1.00000	0.86(a)	
10	Carbon Disulfide	76	2.243	2.243	(0.406)	13233	1.00000	1.3	
11	Iodomethane	142	2.326	2.330	(0.421)	1893	1.00000	0.76(a)	
12	Acrolein	56	2.481	2.481	(0.448)	3571	5.00000	5.0	
13	Allyl Chloride	41	2.586	2.587	(0.468)	7621	1.00000	1.0	
14	Methylene Chloride	84	2.676	2.680	(0.484)	10144	1.00000	2.2(a)	
15	Acetone	43	2.728	2.725	(0.493)	15674	5.00000	7.3	
16	trans-1,2-Dichloroethene	96	2.811	2.815	(0.508)	5720	1.00000	1.2	
17	Methyl Acetate	43	2.830	2.834	(0.512)	4287	1.00000	1.1	
18	Methyl tert-butyl ether	73	2.920	2.917	(0.528)	12898	1.00000	1.1	
19	Tertiary-butyl alcohol	59	3.007	3.017	(0.544)	1967	5.00000	4.4(a)	
20	Acetonitrile	41	3.167	3.168	(0.573)	7318	10.0000	11.4(a)	
21	Di-isopropyl ether	45	3.289	3.290	(0.595)	13452	1.00000	0.89(a)	
22	Chloroprene	53	3.392	3.395	(0.613)	6014	1.00000	0.81(a)	
23	1,1-Dichloroethane	63	3.421	3.418	(0.618)	10128	1.00000	1.1	

Data File: \\target_server\gg\chem\gcms-w.i\W101021.b\W0580.D
Report Date: 17-Oct-2021 14:46

3:11 pm, Nov 12, 2021

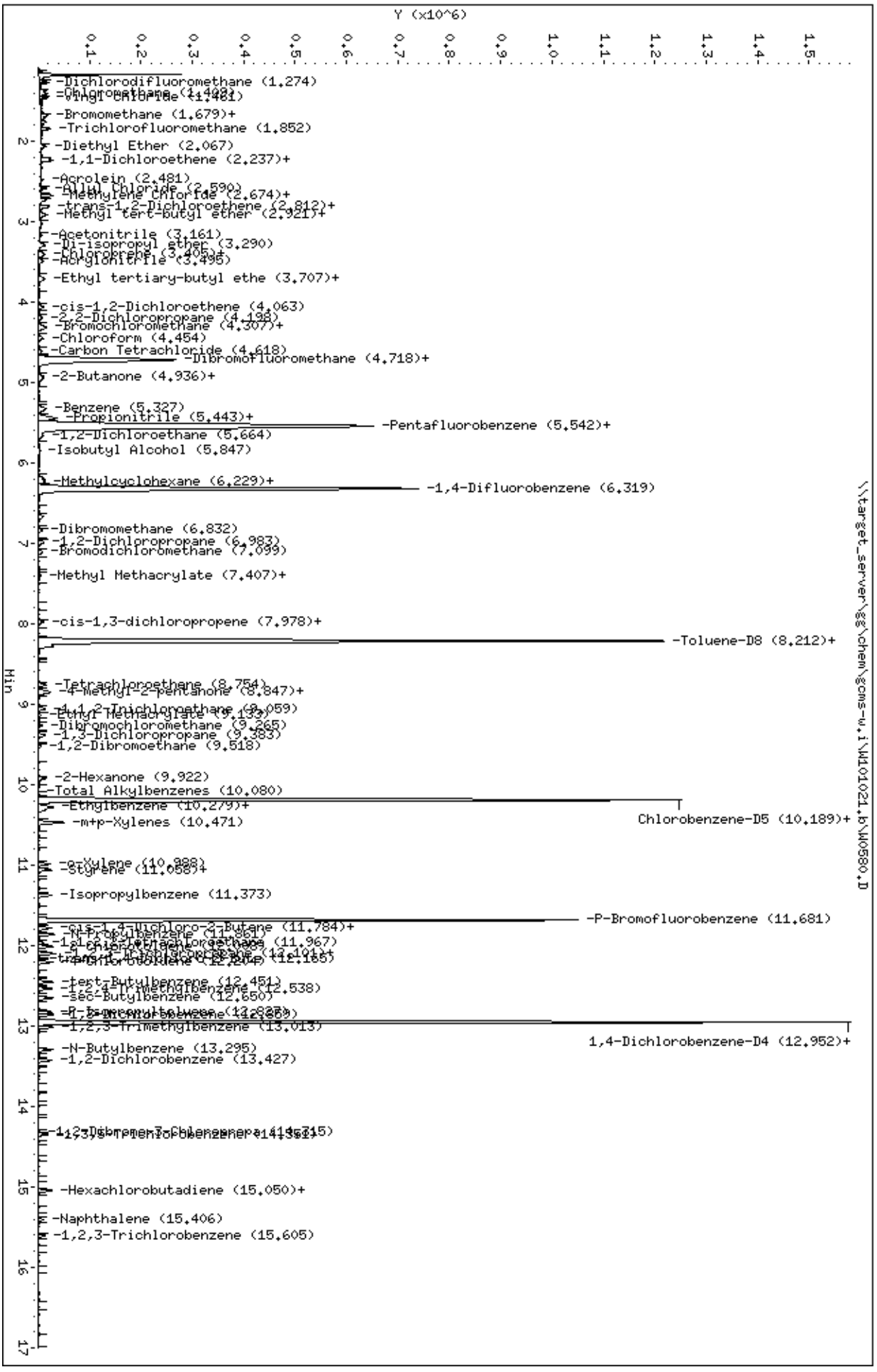
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)	REVIEW CODE
	24 Acrylonitrile	52	3.495	3.492	(0.632)	6853	5.00000	4.8(a)	
	25 Ethyl tertiary-butyl ether	59	3.700	3.700	(0.669)	8939	1.00000	0.81(a)	
	26 Vinyl Acetate	43	3.722	3.723	(0.589)	8505	1.00000	0.84(a)	
	27 cis-1,2-Dichloroethene	96	4.056	4.062	(0.733)	5463	1.00000	1.1	
	28 2,2-Dichloropropane	77	4.194	4.200	(0.758)	5564	1.00000	0.98(a)	
	29 Bromochloromethane	128	4.326	4.323	(0.782)	2393	1.00000	1.2	
	30 Cyclohexane	56	4.300	4.307	(0.777)	6496	1.00000	0.90(a)	
	31 Chloroform	83	4.454	4.451	(0.805)	9335	1.00000	1.1	
	32 Carbon Tetrachloride	117	4.611	4.615	(0.730)	5825	1.00000	0.94(a)	
	33 Tetrahydrofuran	42	4.714	4.679	(0.852)	8204	5.00000	5.0(H)	
$	34 Dibromofluoromethane	113	4.720	4.721	(0.853)	241786	50.0000	51.9	
	35 1,1,1-Trichloroethane	97	4.733	4.724	(0.856)	8035	1.00000	1.1	
	36 2-Butanone	43	4.961	4.945	(0.897)	11297	5.00000	5.0	
	37 1,1-Dichloropropene	75	4.916	4.926	(0.778)	6255	1.00000	0.97(a)	
	38 Benzene	78	5.327	5.330	(0.843)	19133	1.00000	1.1	
	39 Propionitrile	54	5.420	5.417	(0.980)	5919	10.0000	9.5(a)	
	40 Methacrylonitrile	41	5.442	5.443	(0.984)	25216	10.0000	8.7(a)	
*	41 Pentafluorobenzene	168	5.532	5.533	(1.000)	457926	50.0000		
$	42 1,2-Dichloroethane-D4	65	5.558	5.555	(1.005)	343283	50.0000	52.7	
	43 Tertiary-amyl methyl ether	73	5.571	5.565	(1.007)	7589	1.00000	0.89(Ta)	
	44 1,2-Dichloroethane	62	5.664	5.664	(0.896)	8782	1.00000	1.2	
	45 Isobutyl Alcohol	43	5.847	5.834	(1.057)	2083	20.0000	14.9(Ta)	
	46 Methylcyclohexane	83	6.184	6.194	(1.118)	5118	1.00000	0.71(a)	
	47 Trichloroethene	95	6.235	6.235	(0.987)	4812	1.00000	1.0	
*	48 1,4-Difluorobenzene	114	6.318	6.319	(1.000)	778741	50.0000		
	49 Dibromomethane	93	6.841	6.835	(1.083)	3146	1.00000	1.1	
	50 1,2-Dichloropropane	63	6.983	6.980	(1.105)	4962	1.00000	1.0(T)	
	51 Bromodichloromethane	83	7.105	7.105	(1.124)	6110	1.00000	1.0	
	52 Methyl Methacrylate	41	7.400	7.394	(1.171)	2625	1.00000	0.70(a)	
	53 Ethyl Methacrylate	69	9.129	9.130	(1.445)	2843	1.00000	0.56(Ta)	
	54 1,4-Dioxane	88	7.429	7.416	(1.176)	740	20.0000	17.6(Ta)	
M	55 Total Alkylbenzenes	100				114569	1.00000	6.0(a)	
	56 2-Chloroethylvinylether	63	7.952	7.949	(1.258)	878	1.00000	0.83(aM)	M6
	57 cis-1,3-dichloropropene	75	7.974	7.978	(1.262)	6204	1.00000	0.90(a)	
$	58 Toluene-D8	98	8.212	8.212	(1.300)	920954	50.0000	50.4	
	59 Toluene	92	8.282	8.276	(1.311)	12436	1.00000	1.1	
	60 Tetrachloroethene	164	8.757	8.761	(0.860)	3630	1.00000	1.0	
	61 4-methyl-2-pentanone	43	8.844	8.835	(1.400)	17183	5.00000	4.1(a)	
	62 trans-1,3-Dichloropropene	75	8.857	8.860	(1.402)	5186	1.00000	0.84(a)	
	63 1,1,2-Trichloroethane	83	9.062	9.053	(1.434)	3611	1.00000	1.1	
	64 Dibromochloromethane	129	9.258	9.261	(0.909)	3913	1.00000	0.93(Ta)	
	65 1,3-Dichloropropane	76	9.383	9.383	(0.921)	7831	1.00000	1.1	
	66 1,2-Dibromoethane	107	9.521	9.518	(1.507)	4094	1.00000	1.1(T)	
	67 2-Hexanone	43	9.919	9.913	(0.974)	11069	5.00000	3.9(a)	
*	68 Chlorobenzene-D5	117	10.188	10.185	(1.000)	720282	50.0000		
	69 Chlorobenzene	112	10.204	10.208	(1.002)	14053	1.00000	1.1	
	70 Ethylbenzene	91	10.281	10.275	(1.009)	21892	1.00000	1.0	
	71 1,1,1,2-Tetrachloroethane	131	10.313	10.311	(1.012)	4281	1.00000	1.0	
	72 m+p-Xylenes	91	10.471	10.468	(1.028)	30760	2.00000	1.9(a)	
	73 o-Xylene	91	10.984	10.985	(1.078)	12987	1.00000	0.82(a)	
	74 Styrene	104	11.052	11.055	(1.085)	10247	1.00000	0.80(a)	
	75 Bromoform	173	11.058	11.058	(1.085)	2342	1.00000	0.87(Ta)	
	76 Isopropylbenzene	105	11.372	11.376	(0.878)	15933	1.00000	0.82(a)	
$	77 P-Bromofluorobenzene	95	11.684	11.684	(1.849)	357337	50.0000	49.2	

Data File: \\target_server\gg\chem\gcms-w.i\W101021.b\W0580.D
Report Date: 17-Oct-2021 14:46

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)	REVIEW CODE
	78 cis-1,4-Dichloro-2-Butene	53	11.793	11.793	(0.911)	1091	1.00000	0.79(a)	
	79 Bromobenzene	156	11.783	11.784	(0.910)	5339	1.00000	1.1	
	80 N-Propylbenzene	91	11.860	11.861	(0.916)	24237	1.00000	0.97(a)	
	81 1,1,2,2-Tetrachloroethane	83	11.966	11.966	(0.924)	5054	1.00000	1.1	
	82 2-Chlorotoluene	91	12.011	12.011	(0.927)	15101	1.00000	1.0	
	83 1,2,3-Trichloropropane	75	12.088	12.088	(0.933)	4864	1.00000	1.1	
	84 1,3,5-Trimethylbenzene	105	12.101	12.104	(0.934)	14938	1.00000	0.89(a)	
	85 trans-1,4-Dichloro-2-Butene	53	12.162	12.159	(0.939)	1277	1.00000	0.88(a)	
	86 4-Chlorotoluene	91	12.207	12.207	(0.943)	15994	1.00000	1.0	
	87 tert-Butylbenzene	119	12.451	12.451	(0.961)	12511	1.00000	0.86(a)	
	89 1,2,4-Trimethylbenzene	105	12.531	12.534	(0.968)	14689	1.00000	0.86(a)	
	90 sec-Butylbenzene	105	12.653	12.653	(0.977)	18362	1.00000	0.83(a)	
	91 P-Isopropyltoluene	119	12.829	12.830	(0.991)	15187	1.00000	0.82(a)	
	92 1,3-Dichlorobenzene	146	12.861	12.862	(0.993)	10890	1.00000	1.1	
*	93 1,4-Dichlorobenzene-D4	152	12.951	12.952	(1.000)	382269	50.0000		
	94 1,4-Dichlorobenzene	146	12.970	12.968	(1.001)	12352	1.00000	1.2	
	95 1,2,3-Trimethylbenzene	105	13.015	13.016	(1.005)	14718	1.00000	0.86(a)	
	96 N-Butylbenzene	91	13.295	13.292	(1.027)	14645	1.00000	0.81(a)	
M	97 1,2-Dichloroethylene (total)	96				11183	1.00000	2.3	
	98 1,2-Dichlorobenzene	146	13.429	13.423	(1.037)	9471	1.00000	1.0	
	99 1,2-Dibromo-3-Chloropropane	157	14.321	14.319	(1.106)	626	1.00000	0.81(a)	
	100 1,3,5-Trichlorobenzene	180	14.350	14.347	(1.108)	5209	1.00000	0.80(a)	
	101 Hexachlorobutadiene	225	15.040	15.041	(1.161)	2728	1.00000	0.88(a)	
	102 1,2,4-Trichlorobenzene	180	15.056	15.053	(1.163)	4878	1.00000	0.89(a)	
	103 Naphthalene	128	15.403	15.406	(1.189)	6876	1.00000	0.65(a)	
	104 1,2,3-Trichlorobenzene	180	15.605	15.602	(1.205)	4388	1.00000	0.93(a)	
M	105 Xylenes (total)	106				43747	3.00000	2.7(a)	

QC Flag Legend

T - Target compound detected outside RT window.
a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.


Data File: \\target_server\gg\chem\gcms-w.i\M101021.b\W0580.D
Date : 10-OCT-2021 11:04
Client ID:
Sample Info: WG307630-1
Purge Volume: 5.0
Column phase: RTX-VMS
Instrument: gcms-w.i
Operator: HG
Column diameter: 0.18
\\target_server\gg\chem\gcms-w.i\M101021.b\W0580.D
Y (x10^6)
Min
-Dichlorodifluoromethane (1.274)
-Chloromethane (1.448)
-Vinyl Chloride (1.481)
-Bromomethane (1.679)+
-Trichlorofluoromethane (1.852)
-Diethyl Ether (2.067)
-1,1-Dichloroethene (2.237)+
-Acrolein (2.481)
-Allyl Chloride (2.590)
-Methylene Chloride (2.674)+
-trans-1,2-Dichloroethene (2.812)+
-Methyl tert-butyl ether (2.921)+
-Acetonitrile (3.161)
-Di-isopropyl ether (3.290)
-Chloroprene (3.405)+
-Acrylonitrile (3.495)
-Ethyl tertiary-butyl ethe (3.707)+
-cis-1,2-Dichloroethene (4.063)
-2,2-Dichloropropane (4.198)
-Bromochloromethane (4.307)+
-Chloroform (4.454)
-Carbon Tetrachloride (4.618)
-Dibromofluoromethane (4.718)+
-2-Butanone (4.936)+
-Benzene (5.327)
-Propionitrile (5.443)+
-Pentafluorobenzene (5.542)+
-1,2-Dichloroethane (5.664)
-Isobutyl Alcohol (5.847)
-Methylcyclohexane (6.229)+
-1,4-Difluorobenzene (6.319)
-Dibromomethane (6.832)
-1,2-Dichloropropane (6.983)
-Bromodichloromethane (7.099)
-Methyl Methacrylate (7.407)+
-cis-1,3-dichloropropene (7.978)+
-Toluene-D8 (8.212)+
-Tetrachloroethene (8.754)
-4-Methyl-2-pentanone (8.847)+
-4,1,2-Trichloroethane (9.059)
-Ethyl Methacrylate (9.133)
-Dibromochloromethane (9.265)
-1,3-Dichloropropane (9.383)
-1,2-Dibromoethane (9.518)
-2-Hexanone (9.922)
-Total Alkylbenzenes (10.080)
-Ethylbenzene (10.279)+
-m+p-Xylenes (10.471)
Chlorobenzene-D5 (10.189)+
-o-Xylene (10.888)
-Styrene (11.058)+
-Isopropylbenzene (11.373)
-P-Bromofluorobenzene (11.681)
-cis-1,4-Dichloro-2-Butene (11.784)+
-n-Propylbenzene (11.861)
-1,1,2,2-Tetrachloroethane (11.967)
-4-Chlorotoluene (12.096)
-4,1,4-Dichlorobutane (12.191)+
-trans-1,4-Dichloro-2-Butene (12.205)+
-2-Chlorotoluene (12.264)
-tert-Butylbenzene (12.451)
-1,2,4-Trimethylbenzene (12.538)
-sec-Butylbenzene (12.650)
-p-Isopropyltoluene (12.827)
-1,3-Dichlorobenzene (12.869)
-1,2,3-Trimethylbenzene (13.013)
1,4-Dichlorobenzene-D4 (12.952)+
-N-Butylbenzene (13.295)
-1,2-Dichlorobenzene (13.427)
-1,2,4-Trimethylbenzene (14.215)
-Hexachlorobutadiene (15.050)+
-Naphthalene (15.406)
-1,2,3-Trichlorobenzene (15.605)

Data File: \\target_server\gg\chem\gcms-w.i\W101021.b\W0581.D
Report Date: 17-Oct-2021 14:46

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-w.i\W101021.b\W0581.D
Lab Smp Id: WG307630-6
Inj Date : 10-OCT-2021 11:34
Operator : HG   Inst ID: gcms-w.i
Smp Info : WG307630-6
Misc Info :
Comment   : SW846 5030
Method   : \\target_server\gg\chem\gcms-w.i\W101021.b\W8A05(11).m
Meth Date : 11-Oct-2021 04:51 hgould   Quant Type: ISTD
Cal Date : 10-OCT-2021 11:34   Cal File: W0581.D
Als bottle: 6   Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE   Compound Sublist: all.sub
Target Version: 4.12
Processing Host: ORGANICS2

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)	REVIEW CODE
1	Dichlorodifluoromethane	85	1.277	1.278	(0.231)	978412	150.000	137	
2	Chloromethane	50	1.412	1.409	(0.255)	1096504	150.000	134	
3	Vinyl chloride	62	1.463	1.460	(0.264)	977219	150.000	135	
4	Bromomethane	94	1.672	1.672	(0.302)	317358	150.000	150	
5	Chloroethane	64	1.755	1.759	(0.317)	540599	150.000	117	
6	Trichlorofluoromethane	101	1.851	1.849	(0.335)	1349610	150.000	140	
7	Diethyl Ether	59	2.060	2.061	(0.372)	673581	150.000	143	
8	1,1-Dichloroethene	96	2.214	2.211	(0.400)	747999	150.000	139	
9	Freon-113	151	2.236	2.240	(0.404)	591728	150.000	148	
10	Carbon Disulfide	76	2.243	2.243	(0.405)	1661813	150.000	138	
11	Iodomethane	142	2.330	2.330	(0.421)	444852	150.000	152(A)	
12	Acrolein	56	2.480	2.481	(0.448)	580512	750.000	691	
13	Allyl Chloride	41	2.586	2.587	(0.467)	1163347	150.000	132	
14	Methylene Chloride	84	2.679	2.680	(0.484)	797391	150.000	148	
15	Acetone	43	2.727	2.725	(0.493)	1157846	750.000	456	
16	trans-1,2-Dichloroethene	96	2.814	2.815	(0.508)	792121	150.000	137	
17	Methyl Acetate	43	2.830	2.834	(0.511)	624237	150.000	135	
18	Methyl tert-butyl ether	73	2.914	2.917	(0.526)	1960557	150.000	140	
19	Tertiary-butyl alcohol	59	3.019	3.017	(0.546)	245903	750.000	848(A)	
20	Acetonitrile	41	3.167	3.168	(0.572)	993946	1500.00	1310	
21	Di-isopropyl ether	45	3.286	3.290	(0.594)	2626002	150.000	147	
22	Chloroprene	53	3.392	3.395	(0.613)	1344192	150.000	153(A)	
23	1,1-Dichloroethane	63	3.421	3.418	(0.618)	1473184	150.000	139	

Data File: \\target_server\gg\chem\gcms-w.i\W101021.b\W0581.D
Report Date: 17-Oct-2021 14:46

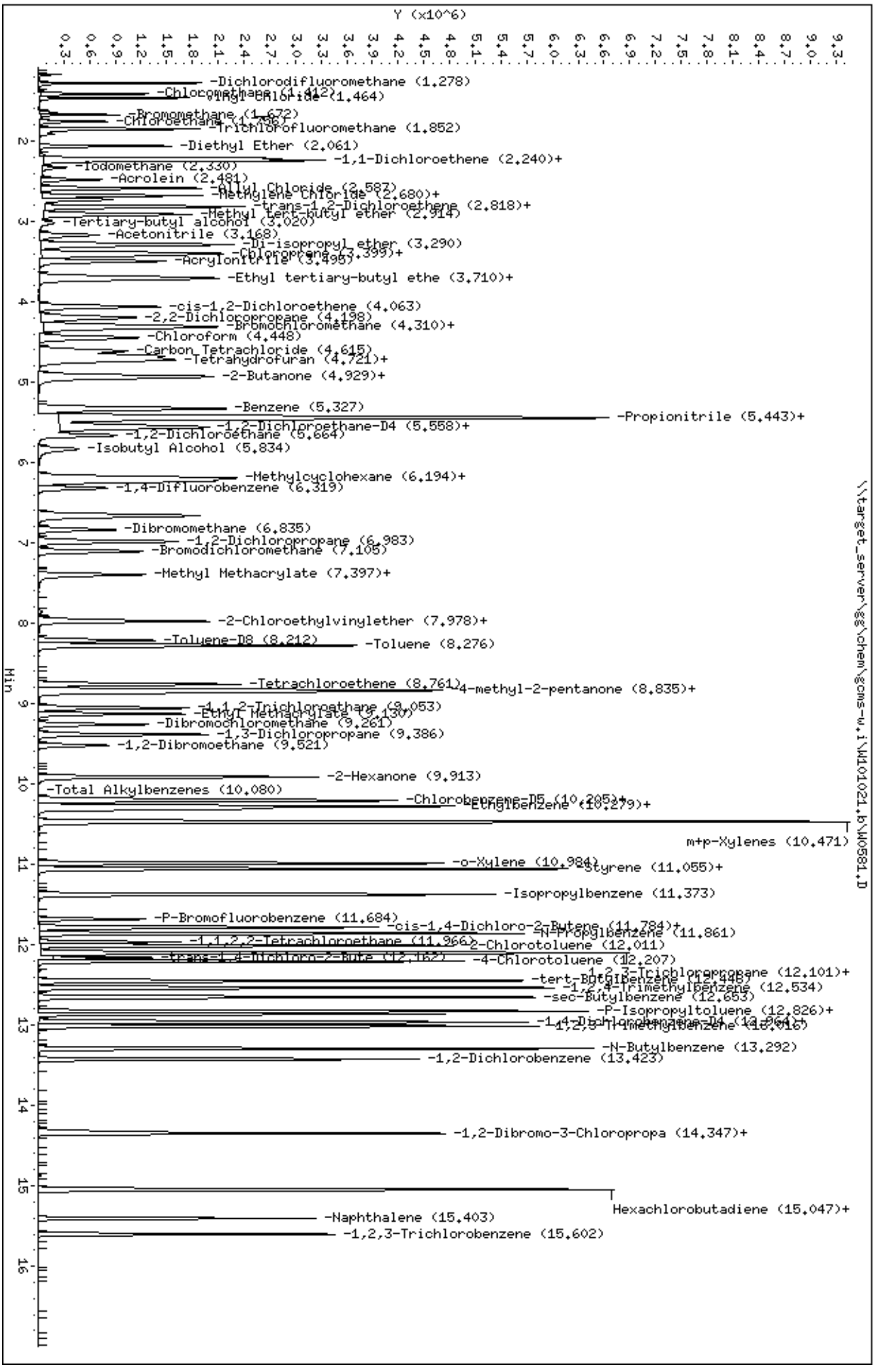
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)	REVIEW CODE
	24 Acrylonitrile	52	3.494	3.492	(0.631)	1156980	750.000	694	
	25 Ethyl tertiary-butyl ether	59	3.700	3.700	(0.668)	2066001	150.000	158(A)	
	26 Vinyl Acetate	43	3.719	3.723	(0.588)	1781401	150.000	156(A)	
	27 cis-1,2-Dichloroethene	96	4.062	4.062	(0.734)	802100	150.000	142	
	28 2,2-Dichloropropane	77	4.200	4.200	(0.759)	1051573	150.000	157(A)	
	29 Bromochloromethane	128	4.329	4.323	(0.782)	280394	150.000	124	
	30 Cyclohexane	56	4.303	4.307	(0.777)	1311561	150.000	154(A)	
	31 Chloroform	83	4.444	4.451	(0.803)	1371433	150.000	140	
	32 Carbon Tetrachloride	117	4.614	4.615	(0.730)	1085015	150.000	155(A)	
	33 Tetrahydrofuran	42	4.672	4.679	(0.844)	1381102	750.000	712	
$	34 Dibromofluoromethane	113	4.717	4.721	(0.852)	271067	50.0000	49.2	
	35 1,1,1-Trichloroethane	97	4.720	4.724	(0.853)	1262169	150.000	144	
	36 2-Butanone	43	4.945	4.945	(0.893)	1745236	750.000	661	
	37 1,1-Dichloropropene	75	4.926	4.926	(0.779)	1114886	150.000	154(A)	
	38 Benzene	78	5.327	5.330	(0.843)	2928730	150.000	145	
	39 Propionitrile	54	5.420	5.417	(0.979)	1040796	1500.00	1420	
	40 Methacrylonitrile	41	5.442	5.443	(0.983)	4943003	1500.00	1440	
*	41 Pentafluorobenzene	168	5.535	5.533	(1.000)	541408	50.0000		
$	42 1,2-Dichloroethane-D4	65	5.558	5.555	(1.004)	380643	50.0000	49.4	
	43 Tertiary-amyl methyl ether	73	5.564	5.565	(1.005)	1675334	150.000	166(A)	
	44 1,2-Dichloroethane	62	5.664	5.664	(0.896)	1102849	150.000	139	
	45 Isobutyl Alcohol	43	5.834	5.834	(1.054)	528122	3000.00	3190(A)	
	46 Methylcyclohexane	83	6.193	6.194	(1.119)	1395439	150.000	163(A)	
	47 Trichloroethene	95	6.232	6.235	(0.986)	769762	150.000	149	
*	48 1,4-Difluorobenzene	114	6.321	6.319	(1.000)	879455	50.0000		
	49 Dibromomethane	93	6.835	6.835	(1.081)	455596	150.000	146	
	50 1,2-Dichloropropane	63	6.986	6.980	(1.105)	796885	150.000	150	
	51 Bromodichloromethane	83	7.104	7.105	(1.124)	1051240	150.000	155(A)	
	52 Methyl Methacrylate	41	7.393	7.394	(1.170)	738642	150.000	174(A)	
	53 Ethyl Methacrylate	69	9.129	9.130	(1.444)	931890	150.000	150	
	54 1,4-Dioxane	88	7.406	7.416	(1.172)	113400	3000.00	2380	
M	55 Total Alkylbenzenes	100				24618163	150.000	1030	
	56 2-Chloroethylvinylether	63	7.948	7.949	(1.257)	142935	150.000	119	
	57 cis-1,3-dichloropropene	75	7.977	7.978	(1.262)	1282586	150.000	165(A)	
$	58 Toluene-D8	98	8.211	8.212	(1.299)	1045202	50.0000	50.6	
	59 Toluene	92	8.276	8.276	(1.309)	1883953	150.000	147	
	60 Tetrachloroethene	164	8.760	8.761	(0.860)	645886	150.000	151(A)	
	61 4-methyl-2-pentanone	43	8.834	8.835	(1.397)	3670608	750.000	778(A)	
	62 trans-1,3-Dichloropropene	75	8.860	8.860	(1.401)	1179644	150.000	170(A)	
	63 1,1,2-Trichloroethane	83	9.052	9.053	(1.432)	542168	150.000	147	
	64 Dibromochloromethane	129	9.261	9.261	(0.909)	783270	150.000	158(A)	
	65 1,3-Dichloropropane	76	9.386	9.383	(0.921)	1235166	150.000	144	
	66 1,2-Dibromoethane	107	9.518	9.518	(1.506)	653563	150.000	152(A)	
	67 2-Hexanone	43	9.912	9.913	(0.973)	2465173	750.000	741	
*	68 Chlorobenzene-D5	117	10.188	10.185	(1.000)	850106	50.0000		
	69 Chlorobenzene	112	10.207	10.208	(1.002)	2128300	150.000	143	
	70 Ethylbenzene	91	10.278	10.275	(1.009)	3644153	150.000	144	
	71 1,1,1,2-Tetrachloroethane	131	10.310	10.311	(1.012)	767679	150.000	156(A)	
	72 m+p-Xylenes	91	10.471	10.468	(1.028)	5479157	300.000	286	
	73 o-Xylene	91	10.984	10.985	(1.078)	2915719	150.000	155(A)	
	74 Styrene	104	11.055	11.055	(1.085)	2421018	150.000	160(A)	
	75 Bromoform	173	11.055	11.058	(1.085)	543637	150.000	150(A)	
	76 Isopropylbenzene	105	11.375	11.376	(0.878)	3674838	150.000	149	
$	77 P-Bromofluorobenzene	95	11.684	11.684	(1.848)	420791	50.0000	51.4	

Data File: \\target_server\gg\chem\gcms-w.i\W101021.b\W0581.D
Report Date: 17-Oct-2021 14:46

			QUANT SIG					AMOUNTS		
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)	REVIEW CODE
	78	cis-1,4-Dichloro-2-Butene	53	11.793	11.793	(0.911)	286961	150.000	165(A)	
	79	Bromobenzene	156	11.780	11.784	(0.910)	915519	150.000	146	
	80	N-Propylbenzene	91	11.860	11.861	(0.916)	4353366	150.000	137	
	81	1,1,2,2-Tetrachloroethane	83	11.966	11.966	(0.924)	841664	150.000	141	
	82	2-Chlorotoluene	91	12.011	12.011	(0.927)	2631878	150.000	142	
	83	1,2,3-Trichloropropane	75	12.091	12.088	(0.934)	785026	150.000	141	
	84	1,3,5-Trimethylbenzene	105	12.104	12.104	(0.935)	3156246	150.000	149	
	85	trans-1,4-Dichloro-2-Butene	53	12.162	12.159	(0.939)	296124	150.000	160(A)	
	86	4-Chlorotoluene	91	12.207	12.207	(0.943)	2784476	150.000	142	
	87	tert-Butylbenzene	119	12.450	12.451	(0.961)	2819824	150.000	153(A)	
	89	1,2,4-Trimethylbenzene	105	12.534	12.534	(0.968)	3230651	150.000	149	
	90	sec-Butylbenzene	105	12.653	12.653	(0.977)	4073086	150.000	145	
	91	P-Isopropyltoluene	119	12.826	12.830	(0.990)	3561553	150.000	152(A)	
	92	1,3-Dichlorobenzene	146	12.861	12.862	(0.993)	1819932	150.000	143	
*	93	1,4-Dichlorobenzene-D4	152	12.951	12.952	(1.000)	483452	50.0000		
	94	1,4-Dichlorobenzene	146	12.967	12.968	(1.001)	1872455	150.000	141	
	95	1,2,3-Trimethylbenzene	105	13.012	13.016	(1.005)	3147120	150.000	146	
	96	N-Butylbenzene	91	13.291	13.292	(1.026)	3423437	150.000	149	
M	97	1,2-Dichloroethylene (total)	96				1594221	150.000	279	
	98	1,2-Dichlorobenzene	146	13.423	13.423	(1.036)	1696191	150.000	145	
	99	1,2-Dibromo-3-Chloropropane	157	14.315	14.319	(1.105)	158289	150.000	163(A)	
	100	1,3,5-Trichlorobenzene	180	14.347	14.347	(1.108)	1326040	150.000	161(A)	
	101	Hexachlorobutadiene	225	15.040	15.041	(1.161)	657549	150.000	169(A)	
	102	1,2,4-Trichlorobenzene	180	15.050	15.053	(1.162)	1184666	150.000	171(A)	
	103	Naphthalene	128	15.403	15.406	(1.189)	2239163	150.000	168(A)	
	104	1,2,3-Trichlorobenzene	180	15.602	15.602	(1.205)	932773	150.000	157(A)	
M	105	Xylenes (total)	106				8394876	450.000	441	

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.


Data File: \\target_server\gg\chem\gcms-w.i\W101021.b\W0581.D
Date : 10-OCT-2021 11:34
Client ID:
Sample Info: WG307630-6
Purge Volume: 5.0
Column phase: RTX-VMS
Instrument: gcms-w.i
Operator: HG
Column diameter: 0.18
\\target_server\gg\chem\gcms-w.i\W101021.b\W0581.D
Y (x10^6)
Min
-Dichlorodifluoromethane (1.278)
-Chloromethane (1.412)
-Vinyl Chloride (1.464)
-Bromomethane (1.672)
-Chloroethane (1.766)
-Trichlorofluoromethane (1.852)
-Diethyl Ether (2.061)
-1,1-Dichloroethene (2.240)+
-Iodomethane (2.330)
-Acrolein (2.481)
-Allyl Chloride (2.587)
-Methylene Chloride (2.680)+
-trans-1,2-Dichloroethene (2.818)+
-Methyl tert-butyl ether (2.914)
-Tertiary-butyl alcohol (3.020)
-Acetonitrile (3.168)
-Di-isopropyl ether (3.290)
-Chloroprene (3.399)+
-Acrylonitrile (3.496)
-Ethyl tertiary-butyl ethe (3.710)+
-cis-1,2-Dichloroethene (4.063)
-2,2-Dichloropropane (4.198)
-Bromochloromethane (4.310)+
-Chloroform (4.448)
-Carbon Tetrachloride (4.615)
-Tetrahydrofuran (4.721)+
-2-Butanone (4.929)+
-Benzene (5.327)
-Propionitrile (5.443)+
-1,2-Dichloroethane-D4 (5.558)+
-1,2-Dichloroethane (5.664)
-Isobutyl Alcohol (5.834)
-Methylcyclohexane (6.194)+
-1,4-Difluorobenzene (6.319)
-Dibromomethane (6.835)
-1,2-Dichloropropane (6.983)
-Bromodichloromethane (7.105)
-Methyl Methacrylate (7.397)+
-2-Chloroethylvinylether (7.978)+
-Toluene-D8 (8.212)
-Toluene (8.276)
-Tetrachloroethene (8.761)
4-methyl-2-pentanone (8.835)+
-1,1,2-Trichloroethane (9.053)
-Ethyl Methacrylate (9.130)
-Dibromochloromethane (9.261)
-1,3-Dichloropropane (9.386)
-1,2-Dibromoethane (9.521)
-2-Hexanone (9.913)
-Total Alkylbenzenes (10.080)
-Chlorobenzene-D5 (10.205)+
Ethylbenzene (10.279)+
m+p-Xylenes (10.471)
-o-Xylene (10.984)
Styrene (11.055)+
-Isopropylbenzene (11.373)
-P-Bromofluorobenzene (11.684)
-cis-1,4-Dichloro-2-Butene (11.784)+
N-Propylbenzene (11.861)
-1,1,2,2-Tetrachloroethane (11.966)
2-Chlorotoluene (12.011)
-trans-1,4-Dichloro-2-Bute (12.162)
-4-Chlorotoluene (12.207)
1,2,3-Trichloropropane (12.101)+
-tert-Butylbenzene (12.448)
-1,2,4-Trimethylbenzene (12.534)
-sec-Butylbenzene (12.653)
-P-Isopropyltoluene (12.826)+
-1,4-Dichlorobenzene-D4 (13.064)+
1,2,3-Trimethylbenzene (13.016)
-N-Butylbenzene (13.292)
-1,2-Dichlorobenzene (13.423)
-1,2-Dibromo-3-Chloropropa (14.347)+
Hexachlorobutadiene (15.047)+
-Naphthalene (15.403)
-1,2,3-Trichlorobenzene (15.602)

Data File: \\target_server\gg\chem\gcms-w.i\W101021.b\W0582.D
Report Date: 17-Oct-2021 14:46

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-w.i\W101021.b\W0582.D
Lab Smp Id: WG307630-5
Inj Date : 10-OCT-2021 12:05
Operator : HG   Inst ID: gcms-w.i
Smp Info : WG307630-5
Misc Info :
Comment   : SW846 5030
Method   : \\target_server\gg\chem\gcms-w.i\W101021.b\W8A05(11).m
Meth Date : 11-Oct-2021 04:51 hgould   Quant Type: ISTD
Cal Date : 10-OCT-2021 12:05   Cal File: W0582.D
Als bottle: 7   Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE   Compound Sublist: all.sub
Target Version: 4.12
Processing Host: ORGANICS2

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

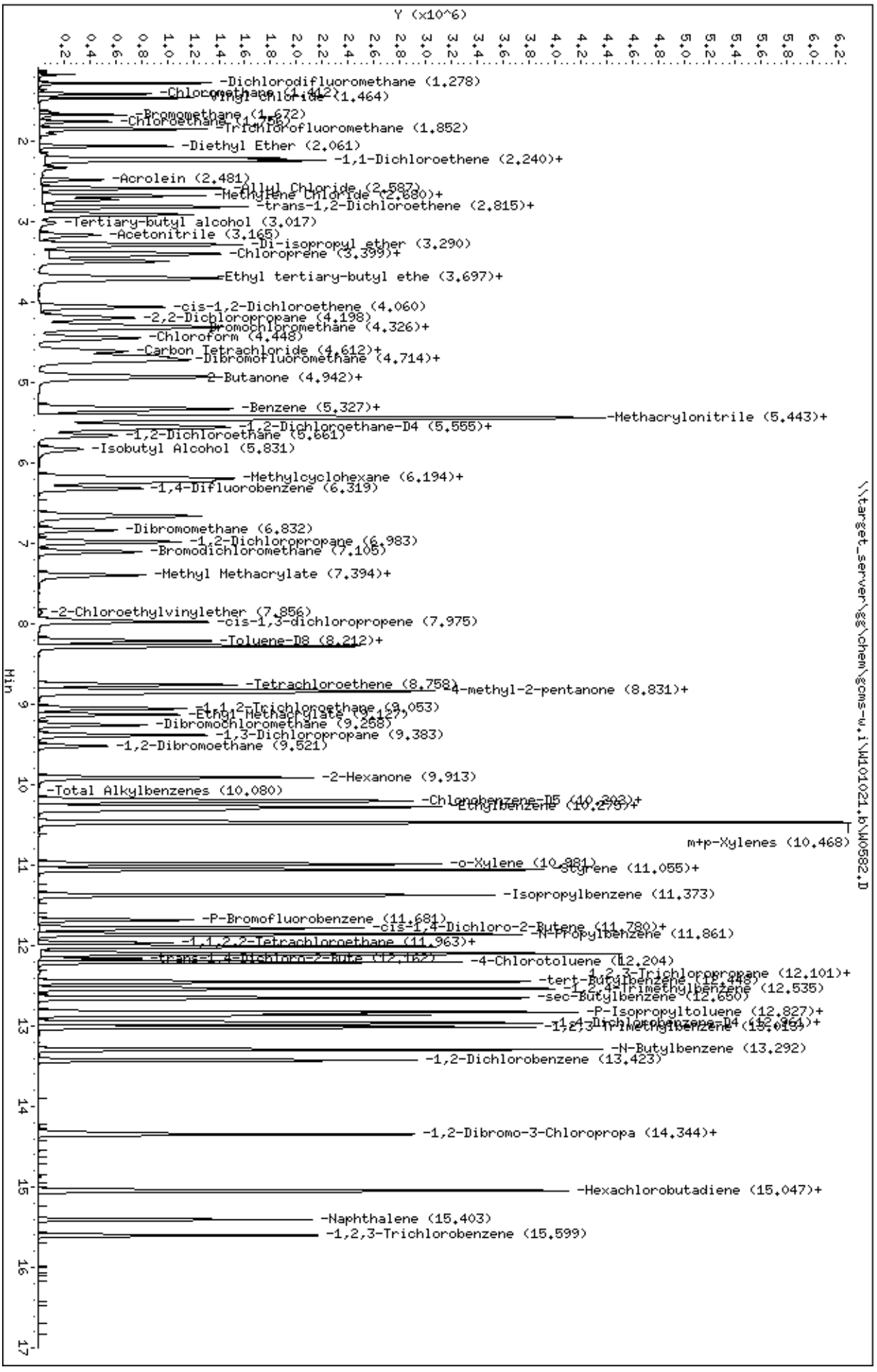
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)	REVIEW CODE
1	Dichlorodifluoromethane	85	1.277	1.278	(0.231)	669503	100.000	93.6	
2	Chloromethane	50	1.412	1.409	(0.255)	737236	100.000	89.8	
3	Vinyl chloride	62	1.463	1.460	(0.264)	673207	100.000	93.0	
4	Bromomethane	94	1.672	1.672	(0.302)	212600	100.000	100	
5	Chloroethane	64	1.755	1.759	(0.317)	370761	100.000	80.3	
6	Trichlorofluoromethane	101	1.852	1.849	(0.335)	895044	100.000	92.8	
7	Diethyl Ether	59	2.060	2.061	(0.372)	446166	100.000	94.6	
8	1,1-Dichloroethene	96	2.214	2.211	(0.400)	503359	100.000	93.2	
9	Freon-113	151	2.237	2.240	(0.404)	393072	100.000	98.0	
10	Carbon Disulfide	76	2.243	2.243	(0.405)	1119621	100.000	92.5	
11	Iodomethane	142	2.330	2.330	(0.421)	284197	100.000	97.0	
12	Acrolein	56	2.481	2.481	(0.448)	395842	500.000	470	
13	Allyl Chloride	41	2.586	2.587	(0.467)	863857	100.000	97.6	
14	Methylene Chloride	84	2.679	2.680	(0.484)	539023	100.000	99.6	
15	Acetone	43	2.724	2.725	(0.492)	791423	500.000	311	
16	trans-1,2-Dichloroethene	96	2.814	2.815	(0.508)	536218	100.000	92.5	
17	Methyl Acetate	43	2.830	2.834	(0.511)	412051	100.000	89.1	
18	Methyl tert-butyl ether	73	2.914	2.917	(0.526)	1311747	100.000	93.8	
19	Tertiary-butyl alcohol	59	3.016	3.017	(0.545)	168622	500.000	498	
20	Acetonitrile	41	3.167	3.168	(0.572)	656325	1000.00	863	
21	Di-isopropyl ether	45	3.289	3.290	(0.594)	1816958	100.000	101	
22	Chloroprene	53	3.392	3.395	(0.613)	889696	100.000	101	
23	1,1-Dichloroethane	63	3.418	3.418	(0.617)	996795	100.000	93.8	

Data File: \\target_server\gg\chem\gcms-w.i\W101021.b\W0582.D
Report Date: 17-Oct-2021 14:46

			QUANT SIG					AMOUNTS		
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)	REVIEW CODE
	24	Acrylonitrile	52	3.491	3.492	(0.631)	781507	500.000	468	
	25	Ethyl tertiary-butyl ether	59	3.697	3.700	(0.668)	1397053	100.000	107	
	26	Vinyl Acetate	43	3.719	3.723	(0.589)	1208148	100.000	106	
	27	cis-1,2-Dichloroethene	96	4.059	4.062	(0.733)	538443	100.000	95.5	
	28	2,2-Dichloropropane	77	4.197	4.200	(0.758)	667285	100.000	99.5	
	29	Bromochloromethane	128	4.326	4.323	(0.781)	197925	100.000	87.3	
	30	Cyclohexane	56	4.303	4.307	(0.777)	884029	100.000	104	
	31	Chloroform	83	4.448	4.451	(0.803)	919356	100.000	93.4	
	32	Carbon Tetrachloride	117	4.611	4.615	(0.730)	724027	100.000	103	
	33	Tetrahydrofuran	42	4.672	4.679	(0.844)	912051	500.000	469	
$	34	Dibromofluoromethane	113	4.714	4.721	(0.852)	262408	50.0000	47.6	
	35	1,1,1-Trichloroethane	97	4.724	4.724	(0.853)	848660	100.000	96.7	
	36	2-Butanone	43	4.942	4.945	(0.893)	1153358	500.000	436	
	37	1,1-Dichloropropene	75	4.926	4.926	(0.780)	743160	100.000	103	
	38	Benzene	78	5.327	5.330	(0.843)	1993969	100.000	98.9	
	39	Propionitrile	54	5.420	5.417	(0.979)	685405	1000.00	931	
	40	Methacrylonitrile	41	5.442	5.443	(0.983)	3292690	1000.00	955	
*	41	Pentafluorobenzene	168	5.535	5.533	(1.000)	542539	50.0000		
$	42	1,2-Dichloroethane-D4	65	5.555	5.555	(1.003)	364249	50.0000	47.2	
	43	Tertiary-amyl methyl ether	73	5.568	5.565	(1.006)	1101203	100.000	109	
	44	1,2-Dichloroethane	62	5.661	5.664	(0.896)	727563	100.000	91.6	
	45	Isobutyl Alcohol	43	5.831	5.834	(1.053)	356360	2000.00	2150	
	46	Methylcyclohexane	83	6.190	6.194	(1.118)	925873	100.000	108	
	47	Trichloroethene	95	6.232	6.235	(0.986)	507765	100.000	98.3	
*	48	1,4-Difluorobenzene	114	6.318	6.319	(1.000)	878057	50.0000		
	49	Dibromomethane	93	6.832	6.835	(1.081)	298789	100.000	95.8	
	50	1,2-Dichloropropane	63	6.983	6.980	(1.105)	532476	100.000	100	
	51	Bromodichloromethane	83	7.105	7.105	(1.124)	683713	100.000	101	
	52	Methyl Methacrylate	41	7.393	7.394	(1.170)	476219	100.000	112	
	53	Ethyl Methacrylate	69	9.126	9.130	(1.444)	609036	100.000	101	
	54	1,4-Dioxane	88	7.406	7.416	(1.172)	98580	2000.00	2070	
M	55	Total Alkylbenzenes	100				16430648	100.000	713	
	56	2-Chloroethylvinylether	63	7.945	7.949	(1.257)	100322	100.000	83.9	
	57	cis-1,3-dichloropropene	75	7.974	7.978	(1.262)	837662	100.000	108	
$	58	Toluene-D8	98	8.208	8.212	(1.299)	1026950	50.0000	49.8	
	59	Toluene	92	8.276	8.276	(1.310)	1256903	100.000	98.5	
	60	Tetrachloroethene	164	8.757	8.761	(0.860)	424575	100.000	101	
	61	4-methyl-2-pentanone	43	8.831	8.835	(1.398)	2405778	500.000	511	
	62	trans-1,3-Dichloropropene	75	8.857	8.860	(1.402)	761067	100.000	110	
	63	1,1,2-Trichloroethane	83	9.049	9.053	(1.432)	358509	100.000	97.5	
	64	Dibromochloromethane	129	9.258	9.261	(0.909)	509146	100.000	104	
	65	1,3-Dichloropropane	76	9.383	9.383	(0.921)	814148	100.000	96.5	
	66	1,2-Dibromoethane	107	9.521	9.518	(1.507)	423250	100.000	98.7	
	67	2-Hexanone	43	9.912	9.913	(0.973)	1603625	500.000	488	
*	68	Chlorobenzene-D5	117	10.185	10.185	(1.000)	839256	50.0000		
	69	Chlorobenzene	112	10.204	10.208	(1.002)	1406640	100.000	95.9	
	70	Ethylbenzene	91	10.272	10.275	(1.009)	2457482	100.000	98.3	
	71	1,1,1,2-Tetrachloroethane	131	10.307	10.311	(1.012)	501867	100.000	103	
	72	m+p-Xylenes	91	10.468	10.468	(1.028)	3742865	200.000	198	
	73	o-Xylene	91	10.984	10.985	(1.078)	1950087	100.000	105	
	74	Styrene	104	11.055	11.055	(1.085)	1592306	100.000	107	
	75	Bromoform	173	11.055	11.058	(1.085)	338163	100.000	99.4	
	76	Isopropylbenzene	105	11.372	11.376	(0.878)	2455257	100.000	103	
$	77	P-Bromofluorobenzene	95	11.680	11.684	(1.849)	411562	50.0000	50.3	

Data File: \\target_server\gg\chem\gcms-w.i\W101021.b\W0582.D
Report Date: 17-Oct-2021 14:46

			QUANT SIG					AMOUNTS		
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)	REVIEW CODE
	78	cis-1,4-Dichloro-2-Butene	53	11.793	11.793	(0.911)	174836	100.000	104	
	79	Bromobenzene	156	11.780	11.784	(0.910)	592142	100.000	98.0	
	80	N-Propylbenzene	91	11.860	11.861	(0.916)	2973207	100.000	97.0	
	81	1,1,2,2-Tetrachloroethane	83	11.963	11.966	(0.924)	540692	100.000	93.8	
	82	2-Chlorotoluene	91	12.008	12.011	(0.927)	1747944	100.000	97.4	
	83	1,2,3-Trichloropropane	75	12.088	12.088	(0.934)	499425	100.000	92.8	
	84	1,3,5-Trimethylbenzene	105	12.101	12.104	(0.935)	2075769	100.000	101	
	85	trans-1,4-Dichloro-2-Butene	53	12.162	12.159	(0.939)	179409	100.000	100	
	86	4-Chlorotoluene	91	12.204	12.207	(0.943)	1834997	100.000	96.6	
	87	tert-Butylbenzene	119	12.447	12.451	(0.961)	1853492	100.000	104	
	89	1,2,4-Trimethylbenzene	105	12.534	12.534	(0.968)	2126442	100.000	102	
	90	sec-Butylbenzene	105	12.650	12.653	(0.977)	2747176	100.000	101	
	91	P-Isopropyltoluene	119	12.826	12.830	(0.991)	2370574	100.000	104	
	92	1,3-Dichlorobenzene	146	12.861	12.862	(0.993)	1187295	100.000	96.7	
*	93	1,4-Dichlorobenzene-D4	152	12.948	12.952	(1.000)	467312	50.0000		
	94	1,4-Dichlorobenzene	146	12.964	12.968	(1.001)	1222521	100.000	95.1	
	95	1,2,3-Trimethylbenzene	105	13.012	13.016	(1.005)	2093697	100.000	101	
	96	N-Butylbenzene	91	13.291	13.292	(1.027)	2283988	100.000	103	
M	97	1,2-Dichloroethylene (total)	96				1074661	100.000	188	
	98	1,2-Dichlorobenzene	146	13.423	13.423	(1.037)	1106509	100.000	98.2	
	99	1,2-Dibromo-3-Chloropropane	157	14.315	14.319	(1.106)	101554	100.000	108	
	100	1,3,5-Trichlorobenzene	180	14.347	14.347	(1.108)	846288	100.000	106	
	101	Hexachlorobutadiene	225	15.040	15.041	(1.162)	408893	100.000	108	
	102	1,2,4-Trichlorobenzene	180	15.050	15.053	(1.162)	740160	100.000	110	
	103	Naphthalene	128	15.406	15.406	(1.190)	1476231	100.000	115	
	104	1,2,3-Trichlorobenzene	180	15.602	15.602	(1.205)	606009	100.000	105	
M	105	Xylenes (total)	106				5692952	300.000	303	


Data File: \\target_server\gg\chem\gcms-w.i\W101021.b\W0582.D
Date : 10-OCT-2021 12:05
Client ID:
Sample Info: WG307630-5
Purge Volume: 5.0
Column phase: RTX-VMS
Instrument: gcms-w.i
Operator: HG
Column diameter: 0.18
\\target_server\gg\chem\gcms-w.i\W101021.b\W0582.D
Y (x10^6)
Min
-Dichlorodifluoromethane (1.278)
-Chloromethane (1.412)
-Vinyl Chloride (1.464)
-Bromomethane (1.672)
-Chloroethane (1.758)
-Trichlorofluoromethane (1.852)
-Diethyl Ether (2.061)
-1,1-Dichloroethene (2.240)+
-Acrolein (2.481)
-Allyl Chloride (2.587)
-Methylene Chloride (2.680)+
-trans-1,2-Dichloroethene (2.815)+
-Tertiary-butyl alcohol (3.017)
-Acetonitrile (3.165)
-Di-isopropyl ether (3.290)
-Chloroprene (3.399)+
-Ethyl tertiary-butyl ethe (3.697)+
-cis-1,2-Dichloroethene (4.060)
-2,2-Dichloropropane (4.198)
-Bromochloromethane (4.326)+
-Chloroform (4.448)
-Carbon Tetrachloride (4.612)+
-Dibromofluoromethane (4.714)+
-2-Butanone (4.942)+
-Benzene (5.327)+
-Methacrylonitrile (5.443)+
-1,2-Dichloroethane-D4 (5.555)+
-1,2-Dichloroethane (5.661)
-Isobutyl Alcohol (5.831)
-Methylcyclohexane (6.194)+
-1,4-Difluorobenzene (6.319)
-Dibromomethane (6.832)
-1,2-Dichloropropane (6.983)
-Bromodichloromethane (7.105)
-Methyl Methacrylate (7.394)+
-2-Chloroethylvinylether (7.856)
-cis-1,3-dichloropropene (7.975)
-Toluene-D8 (8.212)+
-Tetrachloroethene (8.758)
-4-methyl-2-pentanone (8.831)+
-1,1,2-Trichloroethane (9.053)
-Ethyl Methacrylate (9.127)
-Dibromochloromethane (9.268)
-1,3-Dichloropropane (9.383)
-1,2-Dibromoethane (9.521)
-2-Hexanone (9.913)
-Total Alkylbenzenes (10.080)
-Chlorobenzene-D5 (10.202)+
-Ethylbenzene (10.279)+
m+p-Xylenes (10.468)
-o-Xylene (10.881)
-Styrene (11.055)+
-Isopropylbenzene (11.373)
-P-Bromofluorobenzene (11.681)
-cis-1,4-Dichloro-2-Butene (11.780)+
-N-Propylbenzene (11.861)
-1,1,2,2-Tetrachloroethane (11.963)+
-trans-1,4-Dichloro-2-Bute (12.162)
-4-Chlorotoluene (12.204)
-1,2,3-Trichloropropane (12.101)+
-tert-Butylbenzene (12.448)
-1,2,4-Trimethylbenzene (12.535)
-sec-Butylbenzene (12.650)
-P-Isopropyltoluene (12.827)+
-1,4-Dichlorobenzene-D4 (12.961)+
-1,3,5-Trimethylbenzene (13.019)
-N-Butylbenzene (13.292)
-1,2-Dichlorobenzene (13.423)
-1,2-Dibromo-3-Chloropropa (14.344)+
-Hexachlorobutadiene (15.047)+
-Naphthalene (15.403)
-1,2,3-Trichlorobenzene (15.599)

Data File: \\target_server\gg\chem\gcms-w.i\W101021.b\W0583.D
Report Date: 17-Oct-2021 14:46

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-w.i\W101021.b\W0583.D
Lab Smp Id: WG307630-7
Inj Date : 10-OCT-2021 12:35
Operator : HG   Inst ID: gcms-w.i
Smp Info : WG307630-7
Misc Info :
Comment   : SW846 5030
Method   : \\target_server\gg\chem\gcms-w.i\W101021.b\W8A05(11).m
Meth Date : 11-Oct-2021 04:51 hgould   Quant Type: ISTD
Cal Date : 10-OCT-2021 12:35   Cal File: W0583.D
Als bottle: 8   Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE   Compound Sublist: all.sub
Target Version: 4.12
Processing Host: ORGANICS2

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

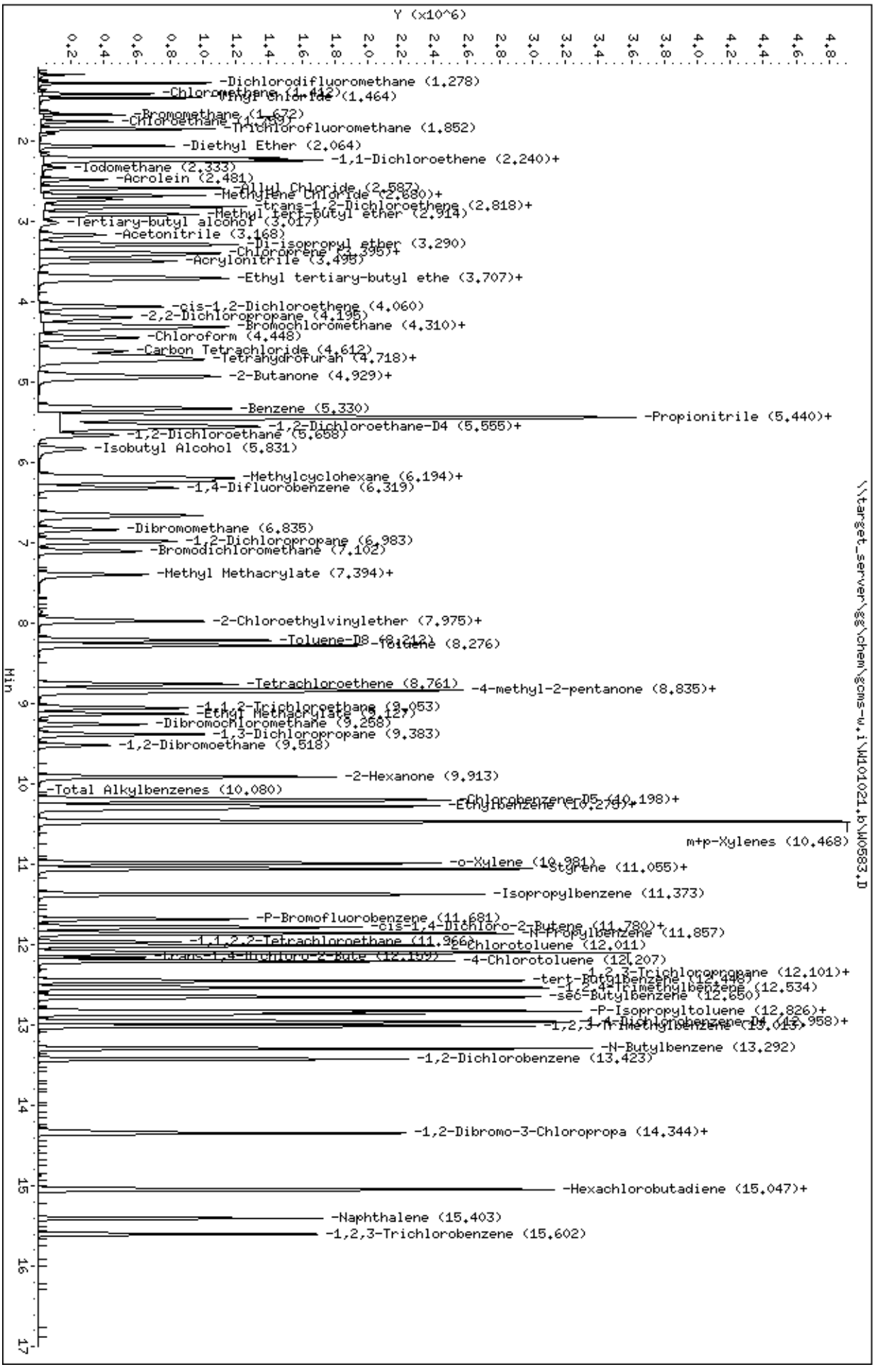
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)	REVIEW CODE
1	Dichlorodifluoromethane	85	1.277	1.278	(0.231)	531636	75.0000	70.9	
2	Chloromethane	50	1.412	1.409	(0.255)	587643	75.0000	68.6	
3	Vinyl chloride	62	1.463	1.460	(0.265)	533222	75.0000	70.3	
4	Bromomethane	94	1.675	1.672	(0.303)	168883	75.0000	75.3	
5	Chloroethane	64	1.758	1.759	(0.318)	292222	75.0000	70.6	
6	Trichlorofluoromethane	101	1.852	1.849	(0.335)	696293	75.0000	69.2	
7	Diethyl Ether	59	2.063	2.061	(0.373)	359887	75.0000	72.6	
8	1,1-Dichloroethene	96	2.214	2.211	(0.400)	394004	75.0000	69.7	
9	Freon-113	151	2.237	2.240	(0.404)	304606	75.0000	72.3	
10	Carbon Disulfide	76	2.243	2.243	(0.406)	870694	75.0000	68.9	
11	Iodomethane	142	2.333	2.330	(0.422)	213061	75.0000	69.6	
12	Acrolein	56	2.477	2.481	(0.448)	323920	375.000	365	
13	Allyl Chloride	41	2.586	2.587	(0.468)	670785	75.0000	72.1	
14	Methylene Chloride	84	2.676	2.680	(0.484)	418652	75.0000	73.5	
15	Acetone	43	2.728	2.725	(0.493)	649932	375.000	242	
16	trans-1,2-Dichloroethene	96	2.814	2.815	(0.509)	415703	75.0000	68.7	
17	Methyl Acetate	43	2.830	2.834	(0.512)	335994	75.0000	69.5	
18	Methyl tert-butyl ether	73	2.914	2.917	(0.527)	1074380	75.0000	73.0	
19	Tertiary-butyl alcohol	59	3.016	3.017	(0.545)	155235	375.000	348	
20	Acetonitrile	41	3.170	3.168	(0.573)	568355	750.000	712	
21	Di-isopropyl ether	45	3.289	3.290	(0.595)	1417398	75.0000	74.8	
22	Chloroprene	53	3.392	3.395	(0.613)	693442	75.0000	74.5	
23	1,1-Dichloroethane	63	3.421	3.418	(0.618)	770692	75.0000	69.4	

Data File: \\target_server\gg\chem\gcms-w.i\W101021.b\W0583.D
Report Date: 17-Oct-2021 14:46

			QUANT SIG					AMOUNTS		
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)	REVIEW CODE
	24	Acrylonitrile	52	3.494	3.492	(0.632)	646997	375.000	368	
	25	Ethyl tertiary-butyl ether	59	3.697	3.700	(0.668)	1124503	75.0000	80.5	
	26	Vinyl Acetate	43	3.719	3.723	(0.589)	987294	75.0000	81.4	
	27	cis-1,2-Dichloroethene	96	4.059	4.062	(0.734)	422634	75.0000	71.4	
	28	2,2-Dichloropropane	77	4.194	4.200	(0.758)	522066	75.0000	73.8	
	29	Bromochloromethane	128	4.326	4.323	(0.782)	159390	75.0000	67.5	
	30	Cyclohexane	56	4.306	4.307	(0.778)	705444	75.0000	77.9	
	31	Chloroform	83	4.448	4.451	(0.804)	723276	75.0000	70.2	
	32	Carbon Tetrachloride	117	4.611	4.615	(0.730)	569823	75.0000	77.2	
	33	Tetrahydrofuran	42	4.679	4.679	(0.846)	779703	375.000	379	
$	34	Dibromofluoromethane	113	4.714	4.721	(0.852)	281377	50.0000	48.5	
	35	1,1,1-Trichloroethane	97	4.727	4.724	(0.854)	659795	75.0000	71.6	
	36	2-Butanone	43	4.945	4.945	(0.894)	977474	375.000	352	
	37	1,1-Dichloropropene	75	4.929	4.926	(0.780)	581323	75.0000	76.4	
	38	Benzene	78	5.330	5.330	(0.844)	1577350	75.0000	74.6	
	39	Propionitrile	54	5.417	5.417	(0.979)	584784	750.000	752	
	40	Methacrylonitrile	41	5.439	5.443	(0.983)	2732428	750.000	750	
*	41	Pentafluorobenzene	168	5.532	5.533	(1.000)	573079	50.0000		
$	42	1,2-Dichloroethane-D4	65	5.555	5.555	(1.004)	384292	50.0000	47.5	
	43	Tertiary-amyl methyl ether	73	5.567	5.565	(1.006)	880818	75.0000	81.5	
	44	1,2-Dichloroethane	62	5.657	5.664	(0.895)	582099	75.0000	70.5	
	45	Isobutyl Alcohol	43	5.827	5.834	(1.053)	317178	1500.00	1760	
	46	Methylcyclohexane	83	6.193	6.194	(1.119)	725609	75.0000	73.7	
	47	Trichloroethene	95	6.235	6.235	(0.987)	403792	75.0000	74.6	
*	48	1,4-Difluorobenzene	114	6.318	6.319	(1.000)	920893	50.0000		
	49	Dibromomethane	93	6.832	6.835	(1.081)	241085	75.0000	73.9	
	50	1,2-Dichloropropane	63	6.983	6.980	(1.105)	419669	75.0000	75.3	
	51	Bromodichloromethane	83	7.104	7.105	(1.124)	535359	75.0000	75.3	
	52	Methyl Methacrylate	41	7.393	7.394	(1.170)	398334	75.0000	77.8	
	53	Ethyl Methacrylate	69	9.126	9.130	(1.444)	496795	75.0000	76.8	
	54	1,4-Dioxane	88	7.403	7.416	(1.172)	79053	1500.00	1580	
M	55	Total Alkylbenzenes	100				12935869	75.0000	539	
	56	2-Chloroethylvinylether	63	7.945	7.949	(1.257)	92696	75.0000	79.6	
	57	cis-1,3-dichloropropene	75	7.974	7.978	(1.262)	654117	75.0000	79.8	
$	58	Toluene-D8	98	8.212	8.212	(1.300)	1084489	50.0000	50.1	
	59	Toluene	92	8.276	8.276	(1.310)	987429	75.0000	73.9	
	60	Tetrachloroethene	164	8.760	8.761	(0.860)	332741	75.0000	75.8	
	61	4-methyl-2-pentanone	43	8.831	8.835	(1.398)	2030599	375.000	406	
	62	trans-1,3-Dichloropropene	75	8.857	8.860	(1.402)	591280	75.0000	80.5	
	63	1,1,2-Trichloroethane	83	9.056	9.053	(1.433)	285231	75.0000	74.1	
	64	Dibromochloromethane	129	9.258	9.261	(0.909)	397393	75.0000	77.8	
	65	1,3-Dichloropropane	76	9.383	9.383	(0.921)	648553	75.0000	74.0	
	66	1,2-Dibromoethane	107	9.518	9.518	(1.506)	343489	75.0000	76.2	
	67	2-Hexanone	43	9.912	9.913	(0.973)	1380567	375.000	400	
*	68	Chlorobenzene-D5	117	10.188	10.185	(1.000)	873030	50.0000		
	69	Chlorobenzene	112	10.204	10.208	(1.002)	1106826	75.0000	72.8	
	70	Ethylbenzene	91	10.275	10.275	(1.009)	1920607	75.0000	74.0	
	71	1,1,1,2-Tetrachloroethane	131	10.310	10.311	(1.012)	386141	75.0000	76.0	
	72	m+p-Xylenes	91	10.467	10.468	(1.027)	2954034	150.000	150	
	73	o-Xylene	91	10.981	10.985	(1.078)	1524404	75.0000	78.5	
	74	Styrene	104	11.055	11.055	(1.085)	1237409	75.0000	79.0	
	75	Bromoform	173	11.055	11.058	(1.085)	273242	75.0000	83.1	
	76	Isopropylbenzene	105	11.372	11.376	(0.878)	1929399	75.0000	77.9	
$	77	P-Bromofluorobenzene	95	11.680	11.684	(1.849)	428370	50.0000	49.9	

Data File: \\target_server\gg\chem\gcms-w.i\W101021.b\W0583.D
Report Date: 17-Oct-2021 14:46

			QUANT SIG					AMOUNTS		
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)	REVIEW CODE
	78	cis-1,4-Dichloro-2-Butene	53	11.793	11.793	(0.911)	139889	75.0000	79.4	
	79	Bromobenzene	156	11.777	11.784	(0.909)	465935	75.0000	74.5	
	80	N-Propylbenzene	91	11.857	11.861	(0.916)	2364918	75.0000	74.6	
	81	1,1,2,2-Tetrachloroethane	83	11.966	11.966	(0.924)	444042	75.0000	74.4	
	82	2-Chlorotoluene	91	12.008	12.011	(0.927)	1367937	75.0000	73.8	
	83	1,2,3-Trichloropropane	75	12.088	12.088	(0.933)	407594	75.0000	73.3	
	84	1,3,5-Trimethylbenzene	105	12.101	12.104	(0.934)	1619049	75.0000	76.1	
	85	trans-1,4-Dichloro-2-Butene	53	12.162	12.159	(0.939)	144955	75.0000	78.0	
	86	4-Chlorotoluene	91	12.207	12.207	(0.943)	1446130	75.0000	73.7	
	87	tert-Butylbenzene	119	12.451	12.451	(0.961)	1451902	75.0000	78.2	
	89	1,2,4-Trimethylbenzene	105	12.534	12.534	(0.968)	1679191	75.0000	77.1	
	90	sec-Butylbenzene	105	12.649	12.653	(0.977)	2163372	75.0000	76.9	
	91	P-Isopropyltoluene	119	12.826	12.830	(0.990)	1866584	75.0000	78.8	
	92	1,3-Dichlorobenzene	146	12.861	12.862	(0.993)	932679	75.0000	73.6	
*	93	1,4-Dichlorobenzene-D4	152	12.951	12.952	(1.000)	484139	50.0000		
	94	1,4-Dichlorobenzene	146	12.967	12.968	(1.001)	957605	75.0000	72.3	
	95	1,2,3-Trimethylbenzene	105	13.012	13.016	(1.005)	1644577	75.0000	76.2	
	96	N-Butylbenzene	91	13.291	13.292	(1.026)	1790853	75.0000	77.5	
M	97	1,2-Dichloroethylene (total)	96				838337	75.0000	140	
	98	1,2-Dichlorobenzene	146	13.423	13.423	(1.036)	870587	75.0000	74.6	
	99	1,2-Dibromo-3-Chloropropane	157	14.318	14.319	(1.106)	84220	75.0000	84.9	
	100	1,3,5-Trichlorobenzene	180	14.344	14.347	(1.108)	664153	75.0000	79.6	
	101	Hexachlorobutadiene	225	15.037	15.041	(1.161)	313356	75.0000	79.6	
	102	1,2,4-Trichlorobenzene	180	15.053	15.053	(1.162)	583065	75.0000	82.7	
	103	Naphthalene	128	15.403	15.406	(1.189)	1217689	75.0000	80.0	
	104	1,2,3-Trichlorobenzene	180	15.602	15.602	(1.205)	483450	75.0000	80.4	
M	105	Xylenes (total)	106				4478438	225.000	229	



Data File: \\target_server\gg\chem\gcms-w.i\M101021.b\W0583.D
Date : 10-OCT-2021 12:35
Client ID:
Sample Info: WG307630-7
Purge Volume: 5.0
Column phase: RTX-VMS

Instrument: gcms-w.i
Operator: HG
Column diameter: 0.18

Form 7
Calibration Verification Summary

Lab Name : Katahdin Analytical Services
Project : Watervliet Arsenal LTM **SDG:** SO6709
Lab ID : WG307646-4 **Analytical Date:** 10/11/21 07:32
Lab File ID : C1208.D **Instrument ID:** GCMS-C
Initial Calibration Date(s): 10/04/21 08:06 10/04/21 12:45 **Column ID:**

	Compound	$\overline{\text{RRF}}$/Amount	RF50	CCAL RRF50	Min	%D/ %Drift	Max %D/ %Drift	Curve Type
2	Chloromethane	0.88387	0.79774	0.79774	0.100	-9.74418	20.00000	Averaged
3	Vinyl chloride	0.69020	0.64492	0.64492	0.100	-6.56086	20.00000	Averaged
4	Bromomethane	0.37279	0.33659	0.33659	0.100	-9.71176	20.00000	Averaged
5	Chloroethane	50.00000	45.90837	0.36738	0.100	-8.18325	20.00000	Quadratic
6	Trichlorofluoromethane	0.98574	1.03481	1.03481	0.100	4.97780	20.00000	Averaged
8	1,1-Dichloroethene	0.47646	0.51655	0.51655	0.100	8.41373	20.00000	Averaged
9	Carbon Disulfide	1.03218	0.96978	0.96978	0.100	-6.04588	20.00000	Averaged
14	Methylene Chloride	50.00000	55.02382	0.65721	0.100	10.04765	20.00000	Quadratic
16	trans-1,2-Dichloroethene	0.61732	0.62588	0.62588	0.100	1.38813	20.00000	Averaged
23	1,1-Dichloroethane	1.15211	1.19862	1.19862	0.200	4.03612	20.00000	Averaged
27	cis-1,2-Dichloroethene	0.62818	0.65994	0.65994	0.100	5.05505	20.00000	Averaged
31	Chloroform	1.11428	1.17855	1.17855	0.200	5.76801	20.00000	Averaged
32	Carbon Tetrachloride	0.46861	0.53283	0.53283	0.100	13.70371	20.00000	Averaged
34	1,1,1-Trichloroethane	1.00200	1.09105	1.09105	0.100	8.88738	20.00000	Averaged
37	2-Butanone	0.30396	0.26214	0.26214	0.100	-13.75819	20.00000	Averaged
38	Benzene	1.46598	1.58243	1.58243	0.500	7.94324	20.00000	Averaged
45	1,2-Dichloroethane	0.50985	0.53741	0.53741	0.100	5.40430	20.00000	Averaged
47	Trichloroethene	0.37493	0.40840	0.40840	0.200	8.92556	20.00000	Averaged
50	1,2-Dichloropropane	0.37901	0.40650	0.40650	0.100	7.25390	20.00000	Averaged
51	Bromodichloromethane	0.44108	0.50217	0.50217	0.200	13.85122	20.00000	Averaged
55	cis-1,3-dichloropropene	50.00000	52.06395	0.61865	0.200	4.12791	20.00000	Linear
57	Toluene	1.56135	1.72333	1.72333	0.400	10.37451	20.00000	Averaged
58	Tetrachloroethene	0.32850	0.35107	0.35107	0.200	6.87040	20.00000	Averaged
59	4-methyl-2-pentanone	0.32948	0.34399	0.34399	0.100	4.40290	20.00000	Averaged
60	trans-1,3-Dichloropropene	50.00000	51.80434	0.56725	0.100	3.60867	20.00000	Linear
61	1,1,2-Trichloroethane	0.27097	0.29110	0.29110	0.100	7.42749	20.00000	Averaged
63	Dibromochloromethane	50.00000	49.60733	0.38332	0.100	-0.78534	20.00000	Linear
68	Chlorobenzene	1.12135	1.15942	1.15942	0.500	3.39461	20.00000	Averaged
69	Ethylbenzene	1.98236	2.18166	2.18166	0.100	10.05324	20.00000	Averaged
71	m+p-Xylenes	1.46196	1.66629	1.66629	0.100	13.97607	20.00000	Averaged
72	o-Xylene	1.45750	1.67584	1.67584	0.300	14.98073	20.00000	Averaged
73	Bromoform	50.00000	45.84777	0.24041	0.100	-8.30446	20.00000	Linear
80	1,1,2,2-Tetrachloroethane	0.99247	0.96126	0.96126	0.300	-3.14475	20.00000	Averaged
35	Dibromofluoromethane	0.45632	0.45992	0.45992	0.010	0.78954	20.00000	Averaged
41	1,2-Dichloroethane-D4	0.59695	0.58429	0.58429	0.010	-2.12168	20.00000	Averaged
56	Toluene-D8	1.14726	1.14608	1.14608	0.010	-0.10241	20.00000	Averaged
76	P-Bromofluorobenzene	0.42802	0.44943	0.44943	0.010	5.00118	20.00000	Averaged

Form 7
Calibration Verification Summary

Lab Name : Katahdin Analytical Services
Project : Watervliet Arsenal LTM
SDG: SO6709
Lab ID : WG307646-4
Analytical Date: 10/11/21 07:32
Lab File ID : C1208.D
Instrument ID: GCMS-C
Initial Calibration Date(s): 10/04/21 08:06 10/04/21 12:45
Column ID:

*** = Compound out of QC criteria**

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://katahdinlab.com
sales@katahdinlab.com

Data File: \\target_server\gg\chem\gcms-c.i\C101121.b\C1208.D
Report Date: 10-Nov-2021 14:57

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-c.i\C101121.b\C1208.D
Lab Smp Id: WG307646-4 Client Smp ID: ontinuing Calibrati
Inj Date : 11-OCT-2021 07:32
Operator : HG Inst ID: gcms-c.i
Smp Info : WG307646-4,SO6709
Misc Info : WG307646,WG307158-4,SO6709-15
Comment : SW846 5030
Method : \\target_server\gg\chem\gcms-c.i\C101121.b\C8A05(53).m
Meth Date : 10-Nov-2021 14:57 gcms-c.i Quant Type: ISTD
Cal Date : 04-OCT-2021 12:45 Cal File: C1017.D
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.12

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)	REVIEW CODE
1	Dichlorodifluoromethane	85	1.411	1.412	(0.215)	272094	50.0000	49.6	
2	Chloromethane	50	1.572	1.579	(0.240)	257732	50.0000	45.1	
3	Vinyl chloride	62	1.643	1.643	(0.250)	208358	50.0000	46.7	
4	Bromomethane	94	1.916	1.920	(0.292)	108743	50.0000	45.1	
5	Chloroethane	64	2.025	2.025	(0.309)	118692	50.0000	45.9	
6	Trichlorofluoromethane	101	2.154	2.154	(0.328)	334322	50.0000	52.5	
7	Diethyl Ether	59	2.443	2.444	(0.372)	131404	50.0000	46.7	
8	1,1-Dichloroethene	96	2.630	2.630	(0.401)	166886	50.0000	54.2	
9	Carbon Disulfide	76	2.652	2.656	(0.404)	313312	50.0000	47.0	
10	Freon-113	151	2.672	2.675	(0.407)	121256	50.0000	52.9	
11	Iodomethane	142	2.768	2.768	(0.422)	106359	50.0000	51.7	
12	Acrolein	56	2.974	2.977	(0.453)	110116	250.000	200	
13	Allyl Chloride	41	3.128	3.129	(0.477)	242654	50.0000	56.7	
14	Methylene Chloride	84	3.244	3.244	(0.494)	212330	50.0000	55.0	
15	Acetone	43	3.305	3.312	(0.504)	273376	250.000	191	
16	trans-1,2-Dichloroethene	96	3.434	3.434	(0.523)	202209	50.0000	50.7	
17	Methyl Acetate	43	3.469	3.473	(0.529)	136098	50.0000	41.3	
18	Methyl tert-butyl ether	73	3.588	3.592	(0.547)	471667	50.0000	47.4	
19	Tertiary-butyl alcohol	59	3.736	3.749	(0.569)	62767	250.000	190	
20	Acetonitrile	41	3.877	3.874	(0.591)	228432	500.000	378	
21	Di-isopropyl ether	45	4.122	4.119	(0.628)	566108	50.0000	49.5	
22	Chloroprene	53	4.215	4.215	(0.642)	315654	50.0000	51.7	
23	1,1-Dichloroethane	63	4.247	4.244	(0.647)	387245	50.0000	52.0	
24	Acrylonitrile	52	4.321	4.320	(0.659)	297737	250.000	216	

Data File: \\target_server\gg\chem\gcms-c.i\C101121.b\C1208.D
Report Date: 10-Nov-2021 14:57

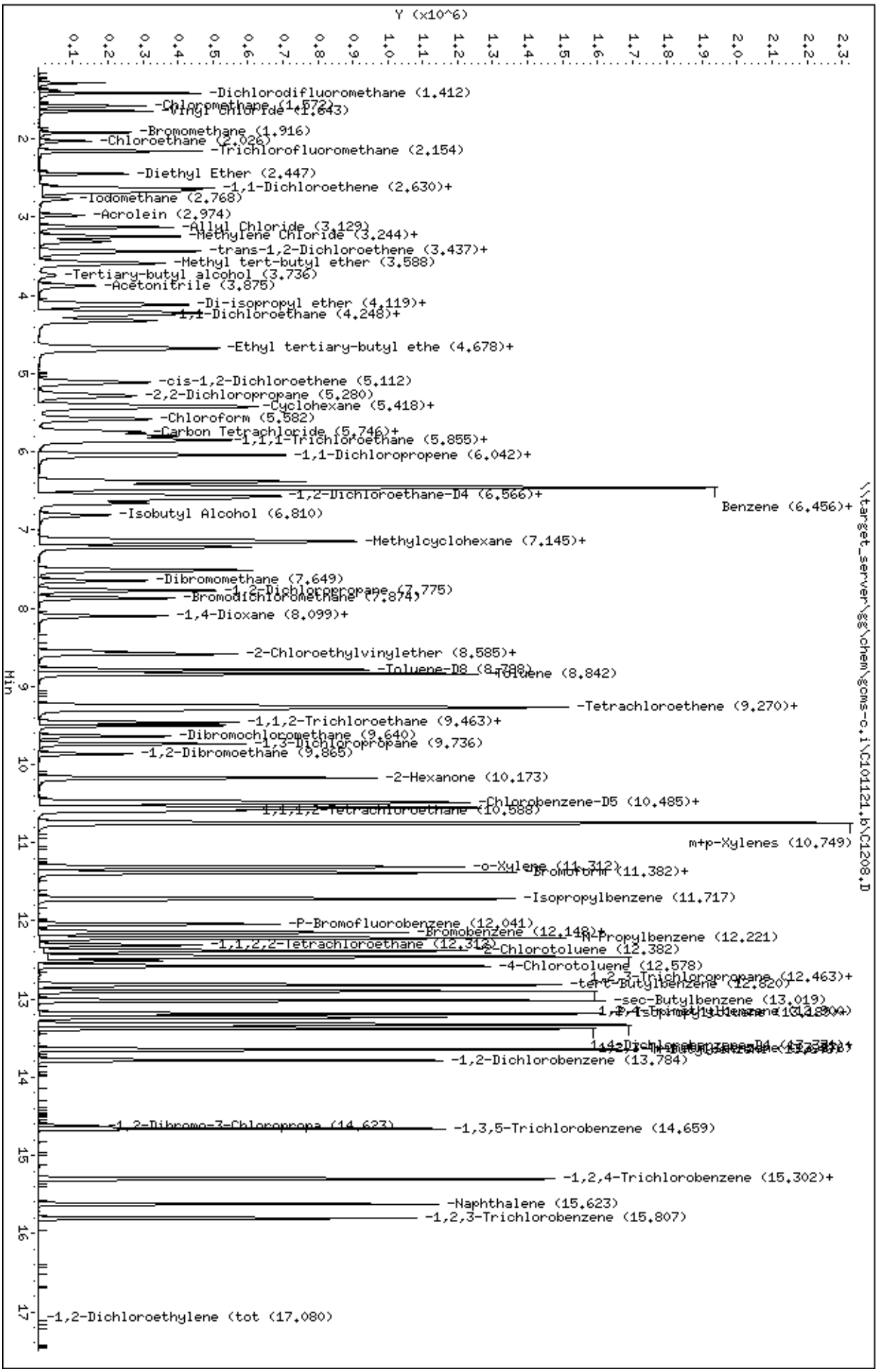
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)	REVIEW CODE
	25 Ethyl tertiary-butyl ether	59	4.678	4.678	(0.713)	514200	50.0000	51.0	
	26 Vinyl Acetate	43	4.681	4.678	(0.649)	395871	50.0000	53.8	
	27 cis-1,2-Dichloroethene	96	5.112	5.109	(0.779)	213211	50.0000	52.5	
	28 2,2-Dichloropropane	77	5.279	5.286	(0.804)	292327	50.0000	59.6	
	29 Cyclohexane	56	5.417	5.421	(0.826)	332049	50.0000	52.2	
	30 Bromochloromethane	128	5.427	5.427	(0.827)	82079	50.0000	50.8	
	31 Chloroform	83	5.581	5.579	(0.851)	380763	50.0000	52.9	
	32 Carbon Tetrachloride	117	5.745	5.752	(0.796)	285148	50.0000	56.8	
	33 Tetrahydrofuran	42	5.797	5.797	(0.883)	311263	250.000	212	
	34 1,1,1-Trichloroethane	97	5.855	5.852	(0.892)	352493	50.0000	54.4	
$	35 Dibromofluoromethane	113	5.848	5.849	(0.891)	148591	50.0000	50.4	
	36 1,1-Dichloropropene	75	6.044	6.042	(0.837)	308196	50.0000	54.9	
	37 2-Butanone	43	6.044	6.045	(0.921)	423460	250.000	216	
	38 Benzene	78	6.379	6.382	(0.884)	846854	50.0000	54.0	
	39 Propionitrile	54	6.427	6.427	(0.979)	271014	500.000	402	
	40 Methacrylonitrile	41	6.456	6.460	(0.984)	1137315	500.000	476	
$	41 1,2-Dichloroethane-D4	65	6.565	6.566	(1.000)	188770	50.0000	48.9	
*	42 Pentafluorobenzene	168	6.562	6.566	(1.000)	323077	50.0000		
	43 Tertiary-amyl methyl ether	73	6.601	6.601	(1.006)	456289	50.0000	51.0	
	44 Isobutyl Alcohol	43	6.810	6.810	(1.038)	142967	1000.00	806	
	45 1,2-Dichloroethane	62	6.655	6.659	(0.922)	287599	50.0000	52.7	
	46 Methylcyclohexane	83	7.131	7.128	(1.087)	367060	50.0000	48.3	
	47 Trichloroethene	95	7.157	7.154	(0.992)	218559	50.0000	54.5	
*	48 1,4-Difluorobenzene	114	7.218	7.218	(1.000)	535162	50.0000		
	49 Dibromomethane	93	7.649	7.649	(1.060)	132551	50.0000	53.9	
	50 1,2-Dichloropropane	63	7.771	7.771	(1.077)	217545	50.0000	53.6	
	51 Bromodichloromethane	83	7.874	7.874	(1.091)	268744	50.0000	56.9	
	52 1,4-Dioxane	88	8.112	8.106	(1.124)	42727	1000.00	544	
	53 Methyl Methacrylate	41	8.096	8.096	(1.122)	152774	50.0000	42.2	
	54 2-Chloroethylvinylether	63	8.549	8.550	(1.184)	103528	50.0000	52.5	
	55 cis-1,3-dichloropropene	75	8.588	8.587	(1.190)	331077	50.0000	52.1	
$	56 Toluene-D8	98	8.787	8.787	(1.217)	613341	50.0000	49.9	
	57 Toluene	91	8.842	8.842	(1.225)	922263	50.0000	55.2	
	58 Tetrachloroethene	164	9.247	9.244	(0.883)	171821	50.0000	53.4	
	59 4-methyl-2-pentanone	43	9.269	9.270	(1.284)	920446	250.000	261	
	60 trans-1,3-Dichloropropene	75	9.298	9.302	(1.288)	303570	50.0000	51.8	
	61 1,1,2-Trichloroethane	83	9.462	9.459	(1.311)	155786	50.0000	53.7	
	62 Ethyl Methacrylate	69	9.501	9.501	(1.316)	265241	50.0000	45.8	
	63 Dibromochloromethane	129	9.639	9.639	(0.920)	187605	50.0000	49.6	
	64 1,3-Dichloropropane	76	9.736	9.736	(0.929)	345985	50.0000	50.9	
	65 1,2-Dibromoethane	107	9.864	9.865	(1.367)	180321	50.0000	53.4	
	66 2-Hexanone	43	10.173	10.170	(0.971)	651554	250.000	227	
*	67 Chlorobenzene-D5	117	10.475	10.475	(1.000)	489426	50.0000		
	68 Chlorobenzene	112	10.498	10.495	(1.002)	567448	50.0000	51.7	
	69 Ethylbenzene	91	10.552	10.553	(1.007)	1067759	50.0000	55.0	
	70 1,1,1,2-Tetrachloroethane	131	10.588	10.588	(1.011)	181897	50.0000	54.3	
	71 m+p-Xylenes	91	10.748	10.746	(1.026)	1631051	100.000	114	
	72 o-Xylene	91	11.311	11.308	(1.080)	820201	50.0000	57.5	
	73 Bromoform	173	11.391	11.392	(1.087)	117662	50.0000	45.8	
	74 Styrene	104	11.382	11.379	(1.087)	625013	50.0000	54.2	
	75 Isopropylbenzene	105	11.716	11.717	(0.880)	1022963	50.0000	55.2	
$	76 P-Bromofluorobenzene	95	12.041	12.041	(1.668)	240518	50.0000	52.5	
	77 Bromobenzene	156	12.150	12.151	(0.912)	230592	50.0000	50.7	
	78 cis-1,4-Dichloro-2-Butene	53	12.144	12.138	(0.912)	74266	50.0000	42.3	

Data File: \\target_server\gg\chem\gcms-c.i\C101121.b\C1208.D
Report Date: 10-Nov-2021 14:57

								AMOUNTS		
			QUANT SIG					CAL-AMT	ON-COL	
	Compounds		MASS	RT	EXP RT	REL RT	RESPONSE	(ug/l)	(ug/l)	REVIEW CODE
	79	N-Propylbenzene	91	12.221	12.221	(0.918)	1257030	50.0000	53.8	
	80	1,1,2,2-Tetrachloroethane	83	12.311	12.308	(0.924)	249779	50.0000	48.4	
	81	2-Chlorotoluene	91	12.382	12.382	(0.930)	738259	50.0000	52.1	
	82	1,2,3-Trichloropropane	75	12.446	12.446	(0.935)	219393	50.0000	45.8	
	83	1,3,5-Trimethylbenzene	105	12.462	12.463	(0.936)	844405	50.0000	55.1	
	84	trans-1,4-Dichloro-2-Butene	53	12.510	12.511	(0.939)	77689	50.0000	46.3	
	85	4-Chlorotoluene	91	12.578	12.578	(0.944)	777793	50.0000	52.4	
	86	tert-Butylbenzene	119	12.816	12.819	(0.962)	699602	50.0000	54.5	
	87	1,2,4-Trimethylbenzene	105	12.899	12.900	(0.969)	872186	50.0000	55.3	
	88	sec-Butylbenzene	105	13.018	13.019	(0.978)	1097298	50.0000	55.6	
	89	P-Isopropyltoluene	119	13.189	13.189	(0.990)	860332	50.0000	49.4	
	90	1,3-Dichlorobenzene	146	13.237	13.234	(0.994)	453113	50.0000	51.2	
*	91	1,4-Dichlorobenzene-D4	152	13.317	13.318	(1.000)	259845	50.0000		
	92	1,4-Dichlorobenzene	146	13.337	13.334	(1.001)	452662	50.0000	49.5	
	93	1,2,3-Trimethylbenzene	105	13.375	13.376	(1.004)	866425	50.0000	51.3	
	95	N-Butylbenzene	91	13.645	13.646	(1.025)	896776	50.0000	57.0	
	96	1,2-Dichlorobenzene	146	13.784	13.784	(1.035)	430851	50.0000	51.0	
	97	1,2-Dibromo-3-Chloropropane	157	14.623	14.623	(1.098)	39685	50.0000	41.7	
	98	1,3,5-Trichlorobenzene	180	14.658	14.659	(1.101)	315807	50.0000	50.7	
	99	1,2,4-Trichlorobenzene	180	15.308	15.308	(1.149)	284603	50.0000	53.2	
	100	Hexachlorobutadiene	225	15.292	15.295	(1.148)	128656	50.0000	52.4	
	101	Naphthalene	128	15.623	15.623	(1.173)	716704	50.0000	44.9	
	102	1,2,3-Trichlorobenzene	180	15.806	15.806	(1.187)	272866	50.0000	50.8	
M	103	1,2-Dichloroethylene (total)	96				415420	50.0000	(a)	
M	104	Xylenes (total)	91				2451252	150.000	(a)	
M	105	Total Alkylbenzenes	100				6527629	50.0000	(a)	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).



Data File: \\target_server\gg\chem\gcms-c,i\C101121.b\C1208.D
Date : 11-OCT-2021 07:32
Client ID: ontinuing Calibrati
Sample Info: WG307646-4,SD6709
Purge Volume: 5.0
Column phase: RTX-VMS

Instrument: gcms-c,i
Operator: HG
Column diameter: 0.18

Katahdin Analytical Services 1000361

Form 7
Calibration Verification Summary

Lab Name : Katahdin Analytical Services
Project : Watervliet Arsenal LTM **SDG:** SO6709
Lab ID : WG307650-4 **Analytical Date:** 10/11/21 06:38
Lab File ID : W0601.D **Instrument ID:** GCMS-W
Initial Calibration Date(s): 10/10/21 09:02 10/10/21 12:35 **Column ID:**

	Compound	$\overline{\text{RRF}}$/Amount	RF50	CCAL RRF50	Min	%D/ %Drift	Max %D/ %Drift	Curve Type
2	Chloromethane	0.74717	0.72494	0.72494	0.100	-2.97452	20.00000	Averaged
3	Vinyl chloride	0.66158	0.68756	0.68756	0.100	3.92767	20.00000	Averaged
4	Bromomethane	0.19562	0.20694	0.20694	0.100	5.78383	20.00000	Averaged
5	Chloroethane	50.00000	54.85210	0.40415	0.100	9.70420	20.00000	Quadratic
6	Trichlorofluoromethane	0.87853	0.94602	0.94602	0.100	7.68266	20.00000	Averaged
8	1,1-Dichloroethene	0.49298	0.50504	0.50504	0.100	2.44725	20.00000	Averaged
10	Carbon Disulfide	1.10275	1.12665	1.12665	0.100	2.16734	20.00000	Averaged
14	Methylene Chloride	50.00000	55.19609	0.54888	0.100	10.39219	20.00000	Linear
16	trans-1,2-Dichloroethene	0.52804	0.54034	0.54034	0.100	2.32871	20.00000	Averaged
23	1,1-Dichloroethane	0.96915	0.98361	0.98361	0.200	1.49191	20.00000	Averaged
27	cis-1,2-Dichloroethene	0.51614	0.53282	0.53282	0.100	3.23263	20.00000	Averaged
31	Chloroform	0.89847	0.92550	0.92550	0.200	3.00807	20.00000	Averaged
32	Carbon Tetrachloride	0.40046	0.43431	0.43431	0.100	8.45460	20.00000	Averaged
35	1,1,1-Trichloroethane	0.80387	0.84443	0.84443	0.100	5.04532	20.00000	Averaged
36	2-Butanone	0.24188	0.23054	0.23054	0.100	-4.68462	20.00000	Averaged
38	Benzene	1.14724	1.18803	1.18803	0.500	3.55526	20.00000	Averaged
44	1,2-Dichloroethane	0.44849	0.44581	0.44581	0.100	-0.59633	20.00000	Averaged
47	Trichloroethene	0.29385	0.30850	0.30850	0.200	4.98594	20.00000	Averaged
50	1,2-Dichloropropane	0.30270	0.31133	0.31133	0.100	2.85075	20.00000	Averaged
51	Bromodichloromethane	0.38579	0.41219	0.41219	0.200	6.84475	20.00000	Averaged
57	cis-1,3-dichloropropene	0.44523	0.48836	0.48836	0.200	9.68783	20.00000	Averaged
59	Toluene	0.72501	0.73985	0.73985	0.400	2.04764	20.00000	Averaged
60	Tetrachloroethene	0.25131	0.26300	0.26300	0.200	4.65074	20.00000	Averaged
61	4-methyl-2-pentanone	0.27147	0.28965	0.28965	0.100	6.69825	20.00000	Averaged
62	trans-1,3-Dichloropropene	0.39890	0.44280	0.44280	0.100	11.00573	20.00000	Averaged
63	1,1,2-Trichloroethane	0.20903	0.21438	0.21438	0.100	2.55989	20.00000	Averaged
64	Dibromochloromethane	0.29269	0.32200	0.32200	0.100	10.01474	20.00000	Averaged
69	Chlorobenzene	0.87040	0.89184	0.89184	0.500	2.46322	20.00000	Averaged
70	Ethylbenzene	1.48602	1.56970	1.56970	0.100	5.63134	20.00000	Averaged
72	m+p-Xylenes	1.12701	1.21802	1.21802	0.100	8.07511	20.00000	Averaged
73	o-Xylene	1.11174	1.23225	1.23225	0.300	10.83996	20.00000	Averaged
75	Bromoform	0.18832	0.20903	0.20903	0.100	10.99765	20.00000	Averaged
81	1,1,2,2-Tetrachloroethane	0.61616	0.63463	0.63463	0.300	2.99706	20.00000	Averaged
34	Dibromofluoromethane	0.50629	0.51137	0.51137	0.010	1.00389	20.00000	Averaged
42	1,2-Dichloroethane-D4	0.70609	0.71192	0.71192	0.010	0.82547	20.00000	Averaged
58	Toluene-D8	1.17469	1.16567	1.16567	0.010	-0.76748	20.00000	Averaged
77	P-Bromofluorobenzene	0.46569	0.46405	0.46405	0.010	-0.35405	20.00000	Averaged

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://katahdinlab.com
sales@katahdinlab.com

Form 7
Calibration Verification Summary

Lab Name : Katahdin Analytical Services
Project : Watervliet Arsenal LTM
SDG: SO6709
Lab ID : WG307650-4
Analytical Date: 10/11/21 06:38
Lab File ID : W0601.D
Instrument ID: GCMS-W
Initial Calibration Date(s): 10/10/21 09:02 10/10/21 12:35
Column ID:

*** = Compound out of QC criteria**

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://katahdinlab.com
sales@katahdinlab.com

Data File: \\target_server\gg\chem\gcms-w.i\W101121.b\W0601.D
Report Date: 12-Nov-2021 11:57

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-w.i\W101121.b\W0601.D
Lab Smp Id: WG307650-4
Inj Date : 11-OCT-2021 06:38
Operator : HG   Inst ID: gcms-w.i
Smp Info : WG307650-4,SO6709
Misc Info : WG307650,WG307630-4,SO6709-1
Comment   : SW846 5030
Method   : \\target_server\gg\chem\gcms-w.i\W101121.b\W8A05(11).m
Meth Date : 11-Oct-2021 08:15 hgould   Quant Type: ISTD
Cal Date : 10-OCT-2021 12:35   Cal File: W0583.D
Als bottle: 1   Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE   Compound Sublist: all.sub
Target Version: 4.12

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

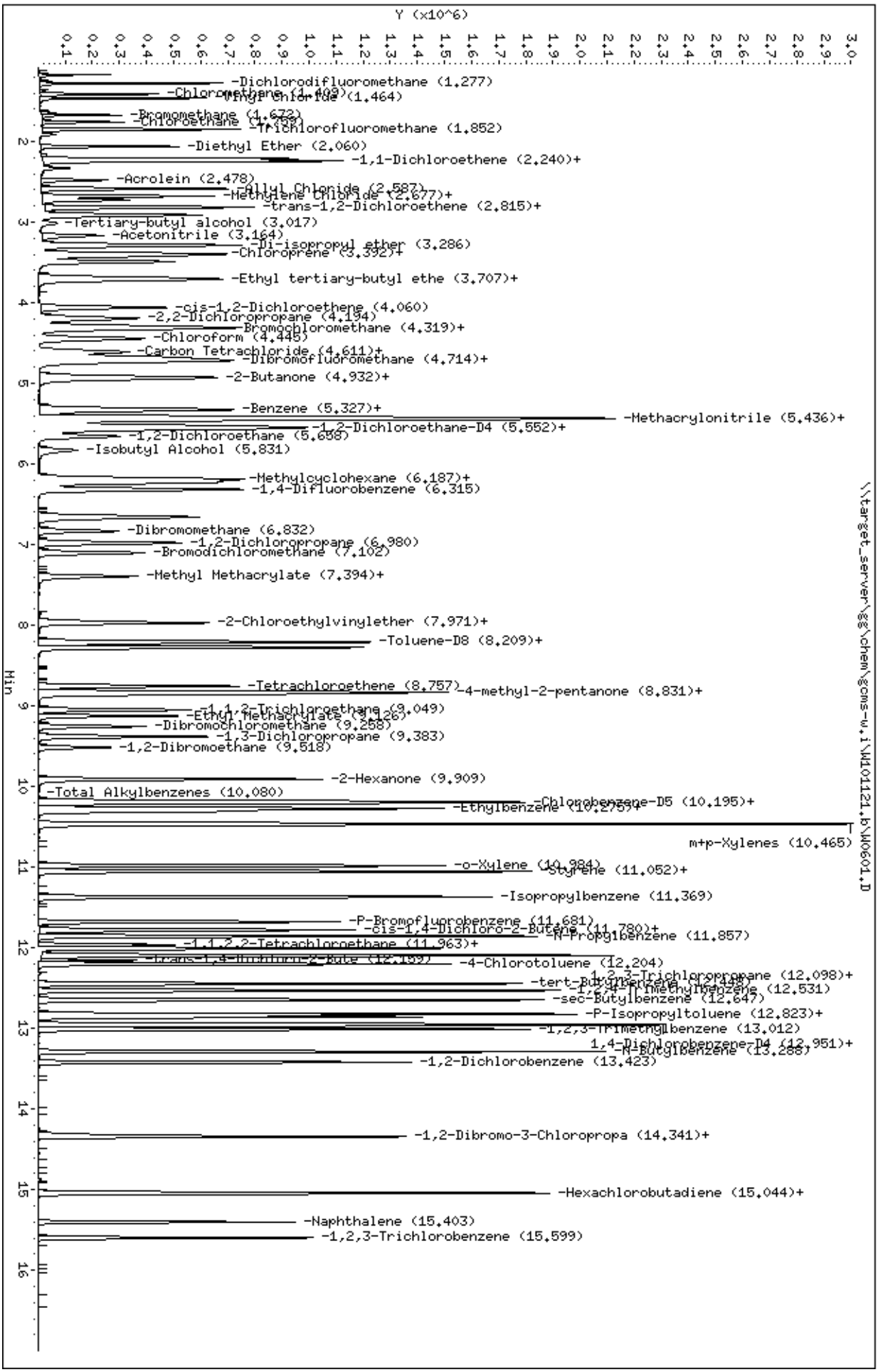
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)	REVIEW CODE
1	Dichlorodifluoromethane	85	1.277	1.278	(0.231)	332174	50.0000	52.2	
2	Chloromethane	50	1.409	1.409	(0.255)	352899	50.0000	48.5	
3	Vinyl chloride	62	1.463	1.460	(0.265)	334703	50.0000	52.0	
4	Bromomethane	94	1.672	1.672	(0.302)	100737	50.0000	52.9	
5	Chloroethane	64	1.758	1.759	(0.318)	196739	50.0000	54.8	
6	Trichlorofluoromethane	101	1.851	1.849	(0.335)	460520	50.0000	53.8	
7	Diethyl Ether	59	2.060	2.061	(0.373)	221049	50.0000	52.5	
8	1,1-Dichloroethene	96	2.214	2.211	(0.400)	245853	50.0000	51.2	
9	Freon-113	151	2.240	2.240	(0.405)	201539	50.0000	56.3	
10	Carbon Disulfide	76	2.243	2.243	(0.406)	548451	50.0000	51.1	
11	Iodomethane	142	2.333	2.330	(0.422)	131838	50.0000	53.7	
12	Acrolein	56	2.477	2.481	(0.448)	187522	250.000	249	
13	Allyl Chloride	41	2.586	2.587	(0.468)	412700	50.0000	52.2	
14	Methylene Chloride	84	2.679	2.680	(0.485)	267192	50.0000	55.2	
15	Acetone	43	2.724	2.725	(0.493)	411706	250.000	180	
16	trans-1,2-Dichloroethene	96	2.814	2.815	(0.509)	263034	50.0000	51.2	
17	Methyl Acetate	43	2.830	2.834	(0.512)	196130	50.0000	47.8	
18	Methyl tert-butyl ether	73	2.913	2.917	(0.527)	654261	50.0000	52.4	
19	Tertiary-butyl alcohol	59	3.016	3.017	(0.546)	82378	250.000	223	
20	Acetonitrile	41	3.167	3.168	(0.573)	305700	500.000	451	
21	Di-isopropyl ether	45	3.286	3.290	(0.594)	838210	50.0000	52.1	
22	Chloroprene	53	3.392	3.395	(0.613)	431216	50.0000	54.5	
23	1,1-Dichloroethane	63	3.420	3.418	(0.619)	478819	50.0000	50.7	
24	Acrylonitrile	52	3.491	3.492	(0.631)	382804	250.000	256	

Data File: \\target_server\gg\chem\gcms-w.i\W101121.b\W0601.D
Report Date: 12-Nov-2021 11:57

							AMOUNTS		
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)	REVIEW CODE
	25 Ethyl tertiary-butyl ether	59	3.696	3.700	(0.669)	644918	50.0000	54.4	
	26 Vinyl Acetate	43	3.716	3.723	(0.588)	563177	50.0000	52.9	
	27 cis-1,2-Dichloroethene	96	4.059	4.062	(0.734)	259376	50.0000	51.6	
	28 2,2-Dichloropropane	77	4.194	4.200	(0.759)	314362	50.0000	52.3	
	29 Bromochloromethane	128	4.319	4.323	(0.781)	103399	50.0000	51.6	
	30 Cyclohexane	56	4.306	4.307	(0.779)	422454	50.0000	54.9	
	31 Chloroform	83	4.444	4.451	(0.804)	450529	50.0000	51.5	
	32 Carbon Tetrachloride	117	4.611	4.615	(0.730)	350918	50.0000	54.2	
	33 Tetrahydrofuran	42	4.675	4.679	(0.846)	440107	250.000	252	
$	34 Dibromofluoromethane	113	4.714	4.721	(0.853)	248933	50.0000	50.5	
	35 1,1,1-Trichloroethane	97	4.723	4.724	(0.854)	411064	50.0000	52.5	
	36 2-Butanone	43	4.942	4.945	(0.894)	561142	250.000	238	
	37 1,1-Dichloropropene	75	4.922	4.926	(0.779)	357398	50.0000	53.5	
	38 Benzene	78	5.327	5.330	(0.844)	959910	50.0000	51.8	
	39 Propionitrile	54	5.413	5.417	(0.979)	334593	500.000	506	
	40 Methacrylonitrile	41	5.436	5.443	(0.983)	1624039	500.000	525	
*	41 Pentafluorobenzene	168	5.529	5.533	(1.000)	486797	50.0000		
$	42 1,2-Dichloroethane-D4	65	5.551	5.555	(1.004)	346559	50.0000	50.4	
	43 Tertiary-amyl methyl ether	73	5.564	5.565	(1.006)	495833	50.0000	54.0	
	44 1,2-Dichloroethane	62	5.657	5.664	(0.896)	360211	50.0000	49.7	
	45 Isobutyl Alcohol	43	5.827	5.834	(1.054)	144936	1000.00	949	
	46 Methylcyclohexane	83	6.187	6.194	(1.119)	444319	50.0000	57.3	
	47 Trichloroethene	95	6.228	6.235	(0.986)	249266	50.0000	52.5	
*	48 1,4-Difluorobenzene	114	6.315	6.319	(1.000)	807984	50.0000		
	49 Dibromomethane	93	6.835	6.835	(1.082)	146742	50.0000	51.3	
	50 1,2-Dichloropropane	63	6.979	6.980	(1.105)	251550	50.0000	51.4	
	51 Bromodichloromethane	83	7.101	7.105	(1.124)	333046	50.0000	53.4	
	52 Methyl Methacrylate	41	7.393	7.394	(1.171)	219737	50.0000	48.9	
	53 Ethyl Methacrylate	69	9.123	9.130	(1.445)	275832	50.0000	48.6	
	54 1,4-Dioxane	88	7.409	7.416	(1.173)	33247	1000.00	755	
M	55 Total Alkylbenzenes	100				7930273	50.0000	382	
	56 2-Chloroethylvinylether	63	7.942	7.949	(1.258)	56601	50.0000	50.6	
	57 cis-1,3-dichloropropene	75	7.971	7.978	(1.262)	394586	50.0000	54.8	
$	58 Toluene-D8	98	8.211	8.212	(1.300)	941843	50.0000	49.6	
	59 Toluene	92	8.276	8.276	(1.310)	597791	50.0000	51.0	
	60 Tetrachloroethene	164	8.760	8.761	(0.860)	198297	50.0000	52.3	
	61 4-methyl-2-pentanone	43	8.831	8.835	(1.398)	1170161	250.000	267	
	62 trans-1,3-Dichloropropene	75	8.856	8.860	(1.402)	357778	50.0000	55.5	
	63 1,1,2-Trichloroethane	83	9.046	9.053	(1.432)	173215	50.0000	51.3	
	64 Dibromochloromethane	129	9.257	9.261	(0.909)	242783	50.0000	55.0	
	65 1,3-Dichloropropane	76	9.383	9.383	(0.921)	390836	50.0000	51.7	
	66 1,2-Dibromoethane	107	9.514	9.518	(1.507)	209116	50.0000	52.9	
	67 2-Hexanone	43	9.909	9.913	(0.973)	776183	250.000	260	
*	68 Chlorobenzene-D5	117	10.185	10.185	(1.000)	753991	50.0000		
	69 Chlorobenzene	112	10.204	10.208	(1.002)	672442	50.0000	51.2	
	70 Ethylbenzene	91	10.272	10.275	(1.009)	1183539	50.0000	52.8	
	71 1,1,1,2-Tetrachloroethane	131	10.307	10.311	(1.012)	232449	50.0000	53.0	
	72 m+p-Xylenes	91	10.464	10.468	(1.027)	1836745	100.000	108	
	73 o-Xylene	91	10.984	10.985	(1.078)	929105	50.0000	55.4	
	74 Styrene	104	11.051	11.055	(1.085)	748882	50.0000	55.4	
	75 Bromoform	173	11.051	11.058	(1.085)	157610	50.0000	55.5	
	76 Isopropylbenzene	105	11.369	11.376	(0.878)	1180652	50.0000	55.1	
$	77 P-Bromofluorobenzene	95	11.680	11.684	(1.850)	374941	50.0000	49.8	
	78 cis-1,4-Dichloro-2-Butene	53	11.789	11.793	(0.911)	79339	50.0000	52.1	

Data File: \\target_server\gg\chem\gcms-w.i\W101121.b\W0601.D
Report Date: 12-Nov-2021 11:57

		Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)	REVIEW CODE
	79	Bromobenzene	156	11.780	11.784	(0.910)	277558	50.0000	51.3	
	80	N-Propylbenzene	91	11.857	11.861	(0.916)	1461026	50.0000	53.2	
	81	1,1,2,2-Tetrachloroethane	83	11.959	11.966	(0.924)	265838	50.0000	51.5	
	82	2-Chlorotoluene	91	12.004	12.011	(0.927)	838398	50.0000	52.2	
	83	1,2,3-Trichloropropane	75	12.088	12.088	(0.934)	241582	50.0000	50.2	
	84	1,3,5-Trimethylbenzene	105	12.101	12.104	(0.935)	989217	50.0000	53.8	
	85	trans-1,4-Dichloro-2-Butene	53	12.158	12.159	(0.939)	87095	50.0000	54.2	
	86	4-Chlorotoluene	91	12.203	12.207	(0.943)	885247	50.0000	52.1	
	87	tert-Butylbenzene	119	12.447	12.451	(0.961)	875145	50.0000	54.5	
	89	1,2,4-Trimethylbenzene	105	12.531	12.534	(0.968)	1020878	50.0000	54.2	
	90	sec-Butylbenzene	105	12.646	12.653	(0.977)	1329565	50.0000	54.6	
	91	P-Isopropyltoluene	119	12.823	12.830	(0.990)	1135821	50.0000	55.4	
	92	1,3-Dichlorobenzene	146	12.858	12.862	(0.993)	560735	50.0000	51.1	
*	93	1,4-Dichlorobenzene-D4	152	12.948	12.952	(1.000)	418886	50.0000		
	94	1,4-Dichlorobenzene	146	12.964	12.968	(1.001)	579266	50.0000	50.5	
	95	1,2,3-Trimethylbenzene	105	13.012	13.016	(1.005)	1002995	50.0000	53.7	
	96	N-Butylbenzene	91	13.288	13.292	(1.026)	1118621	50.0000	56.0	
M	97	1,2-Dichloroethylene (total)	96				522410	50.0000	103	
	98	1,2-Dichlorobenzene	146	13.423	13.423	(1.037)	522432	50.0000	51.8	
	99	1,2-Dibromo-3-Chloropropane	157	14.312	14.319	(1.105)	46937	50.0000	54.7	
	100	1,3,5-Trichlorobenzene	180	14.344	14.347	(1.108)	398694	50.0000	55.2	
	101	Hexachlorobutadiene	225	15.037	15.041	(1.161)	184476	50.0000	54.2	
	102	1,2,4-Trichlorobenzene	180	15.050	15.053	(1.162)	336923	50.0000	55.2	
	103	Naphthalene	128	15.403	15.406	(1.190)	660635	50.0000	50.2	
	104	1,2,3-Trichlorobenzene	180	15.598	15.602	(1.205)	273485	50.0000	52.5	
M	105	Xylenes (total)	106				2765850	150.000	163	


Y (x10^6)
Min
-Dichlorodifluoromethane (1.277)
-Chloromethane (1.402)
-Vinyl Chloride (1.464)
-Bromomethane (1.672)
-Chloroethane (1.760)
-Trichlorofluoromethane (1.852)
-Diethyl Ether (2.060)
-1,1-Dichloroethene (2.240)+
-Acrolein (2.478)
-Allyl Chloride (2.587)
-Methylene Chloride (2.677)+
-trans-1,2-Dichloroethene (2.815)+
-Tertiary-butyl alcohol (3.017)
-Acetonitrile (3.164)
-Di-isopropyl ether (3.286)
-Chloroprene (3.392)+
-Ethyl tertiary-butyl ethe (3.707)+
-cis-1,2-Dichloroethene (4.060)
-2,2-Dichloropropane (4.194)
-Bromochloromethane (4.319)+
-Chloroform (4.445)
-Carbon Tetrachloride (4.611)+
-Dibromofluoromethane (4.714)+
-2-Butanone (4.932)+
-Benzene (5.327)+
-Methacrylonitrile (5.436)+
-1,2-Dichloroethane-D4 (5.552)+
-1,2-Dichloroethane (5.608)
-Isobutyl Alcohol (5.831)
-Methylcyclohexane (6.187)+
-1,4-Difluorobenzene (6.315)
-Dibromomethane (6.832)
-1,2-Dichloropropane (6.980)
-Bromodichloromethane (7.102)
-Methyl Methacrylate (7.394)+
-2-Chloroethylvinylether (7.971)+
-Toluene-D8 (8.209)+
-Tetrachloroethene (8.757)
-4-methyl-2-pentanone (8.831)+
-1,1,2-Trichloroethane (9.049)
-Ethyl Methacrylate (9.126)
-Dibromochloromethane (9.258)
-1,3-Dichloropropane (9.383)
-1,2-Dibromoethane (9.518)
-2-Hexanone (9.909)
-Total Alkylbenzenes (10.080)
-Chlorobenzene-D5 (10.195)+
-Ethylbenzene (10.275)+
m+p-Xylenes (10.465)
-o-Xylene (10.984)
-Styrene (11.052)+
-Isopropylbenzene (11.369)
-P-Bromofluorobenzene (11.681)
-cis-1,4-Dichloro-2-Butene (11.780)+
-N-Propylbenzene (11.857)
-1,1,2,2-Tetrachloroethane (11.963)+
-trans-1,4-Dichloro-2-Bute (12.199)
-4-Chlorotoluene (12.204)
-1,2,3-Trichloropropane (12.098)+
-tert-Butylbenzene (12.448)
-1,2,4-Trimethylbenzene (12.531)
-sec-Butylbenzene (12.647)
-P-Isopropyltoluene (12.823)+
-1,2,3-Trimethylbenzene (13.012)
1,4-Dichlorobenzene-D4 (12.951)+
-N-Butylbenzene (13.288)
-1,2-Dichlorobenzene (13.423)
-1,2-Dibromo-3-Chloropropa (14.341)+
-Hexachlorobutadiene (15.044)+
-Naphthalene (15.403)
-1,2,3-Trichlorobenzene (15.599)
\\target_server\gg\chem\gcms-w.i\M101121.b\M0601.D
Data File: \\target_server\gg\chem\gcms-w.i\M101121.b\M0601.D
Date : 11-OCT-2021 06:38
Client ID:
Sample Info: WG307650-4,SD6709
Purge Volume: 5.0
Column phase: RTX-VMS
Instrument: gcms-w.i
Operator: HG
Column diameter: 0.18

Katahdin
ANALYTICAL SERVICES

Form 7
Calibration Verification Summary

Lab Name : Katahdin Analytical Services
Project : Watervliet Arsenal LTM **SDG:** SO6709
Lab ID : WG307697-4 **Analytical Date:** 10/12/21 06:59
Lab File ID : W0625.D **Instrument ID:** GCMS-W
Initial Calibration Date(s): 10/10/21 09:02 10/10/21 12:35 **Column ID:**

	Compound	$\overline{\text{RRF}}$/Amount	RF50	CCAL RRF50	Min	%D/ %Drift	Max %D/ %Drift	Curve Type
2	Chloromethane	0.74717	0.69770	0.69770	0.100	-6.62054	20.00000	Averaged
3	Vinyl chloride	0.66158	0.67534	0.67534	0.100	2.07966	20.00000	Averaged
4	Bromomethane	0.19562	0.18090	0.18090	0.100	-7.52669	20.00000	Averaged
5	Chloroethane	50.00000	55.92879	0.41149	0.100	11.85757	20.00000	Quadratic
6	Trichlorofluoromethane	0.87853	0.98966	0.98966	0.100	12.65045	20.00000	Averaged
8	1,1-Dichloroethene	0.49298	0.51721	0.51721	0.100	4.91526	20.00000	Averaged
10	Carbon Disulfide	1.10275	1.12887	1.12887	0.100	2.36878	20.00000	Averaged
14	Methylene Chloride	50.00000	56.46342	0.56148	0.100	12.92684	20.00000	Linear
16	trans-1,2-Dichloroethene	0.52804	0.54991	0.54991	0.100	4.14189	20.00000	Averaged
23	1,1-Dichloroethane	0.96915	0.98520	0.98520	0.200	1.65612	20.00000	Averaged
27	cis-1,2-Dichloroethene	0.51614	0.51754	0.51754	0.100	0.27120	20.00000	Averaged
31	Chloroform	0.89847	0.92337	0.92337	0.200	2.77122	20.00000	Averaged
32	Carbon Tetrachloride	0.40046	0.42985	0.42985	0.100	7.33933	20.00000	Averaged
35	1,1,1-Trichloroethane	0.80387	0.85635	0.85635	0.100	6.52916	20.00000	Averaged
36	2-Butanone	0.24188	0.23409	0.23409	0.100	-3.21730	20.00000	Averaged
38	Benzene	1.14724	1.15635	1.15635	0.500	0.79396	20.00000	Averaged
44	1,2-Dichloroethane	0.44849	0.46037	0.46037	0.100	2.64966	20.00000	Averaged
47	Trichloroethene	0.29385	0.30309	0.30309	0.200	3.14407	20.00000	Averaged
50	1,2-Dichloropropane	0.30270	0.30746	0.30746	0.100	1.57289	20.00000	Averaged
51	Bromodichloromethane	0.38579	0.40829	0.40829	0.200	5.83188	20.00000	Averaged
57	cis-1,3-dichloropropene	0.44523	0.47889	0.47889	0.200	7.56150	20.00000	Averaged
59	Toluene	0.72501	0.73182	0.73182	0.400	0.93923	20.00000	Averaged
60	Tetrachloroethene	0.25131	0.24384	0.24384	0.200	-2.97032	20.00000	Averaged
61	4-methyl-2-pentanone	0.27147	0.29020	0.29020	0.100	6.89972	20.00000	Averaged
62	trans-1,3-Dichloropropene	0.39890	0.44759	0.44759	0.100	12.20449	20.00000	Averaged
63	1,1,2-Trichloroethane	0.20903	0.21501	0.21501	0.100	2.86020	20.00000	Averaged
64	Dibromochloromethane	0.29269	0.30980	0.30980	0.100	5.84675	20.00000	Averaged
69	Chlorobenzene	0.87040	0.85544	0.85544	0.500	-1.71961	20.00000	Averaged
70	Ethylbenzene	1.48602	1.52645	1.52645	0.100	2.72115	20.00000	Averaged
72	m+p-Xylenes	1.12701	1.18942	1.18942	0.100	5.53812	20.00000	Averaged
73	o-Xylene	1.11174	1.20028	1.20028	0.300	7.96411	20.00000	Averaged
75	Bromoform	0.18832	0.20115	0.20115	0.100	6.81240	20.00000	Averaged
81	1,1,2,2-Tetrachloroethane	0.61616	0.63883	0.63883	0.300	3.67873	20.00000	Averaged
34	Dibromofluoromethane	0.50629	0.52283	0.52283	0.010	3.26778	20.00000	Averaged
42	1,2-Dichloroethane-D4	0.70609	0.76111	0.76111	0.010	7.79285	20.00000	Averaged
58	Toluene-D8	1.17469	1.19048	1.19048	0.010	1.34441	20.00000	Averaged
77	P-Bromofluorobenzene	0.46569	0.47938	0.47938	0.010	2.93814	20.00000	Averaged

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://katahdinlab.com
sales@katahdinlab.com

Form 7
Calibration Verification Summary

Lab Name : Katahdin Analytical Services
Project : Watervliet Arsenal LTM
SDG: SO6709
Lab ID : WG307697-4
Analytical Date: 10/12/21 06:59
Lab File ID : W0625.D
Instrument ID: GCMS-W
Initial Calibration Date(s): 10/10/21 09:02 10/10/21 12:35
Column ID:

*** = Compound out of QC criteria**

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://katahdinlab.com
sales@katahdinlab.com

Data File: \\target_server\gg\chem\gcms-w.i\W101221.b\W0625.D
Report Date: 12-Nov-2021 11:58

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-w.i\W101221.b\W0625.D
Lab Smp Id: WG307697-4
Inj Date : 12-OCT-2021 06:59
Operator : HG   Inst ID: gcms-w.i
Smp Info : WG307697-4,SO6709
Misc Info : WG307697,WG307630-4,SO6709-4
Comment   : SW846 5030
Method   : \\target_server\gg\chem\gcms-w.i\W101221.b\W8A05(11).m
Meth Date : 12-Oct-2021 07:57 estroh   Quant Type: ISTD
Cal Date : 10-OCT-2021 12:35   Cal File: W0583.D
Als bottle: 1   Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE   Compound Sublist: all.sub
Target Version: 4.12
Processing Host: VOA-WS

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

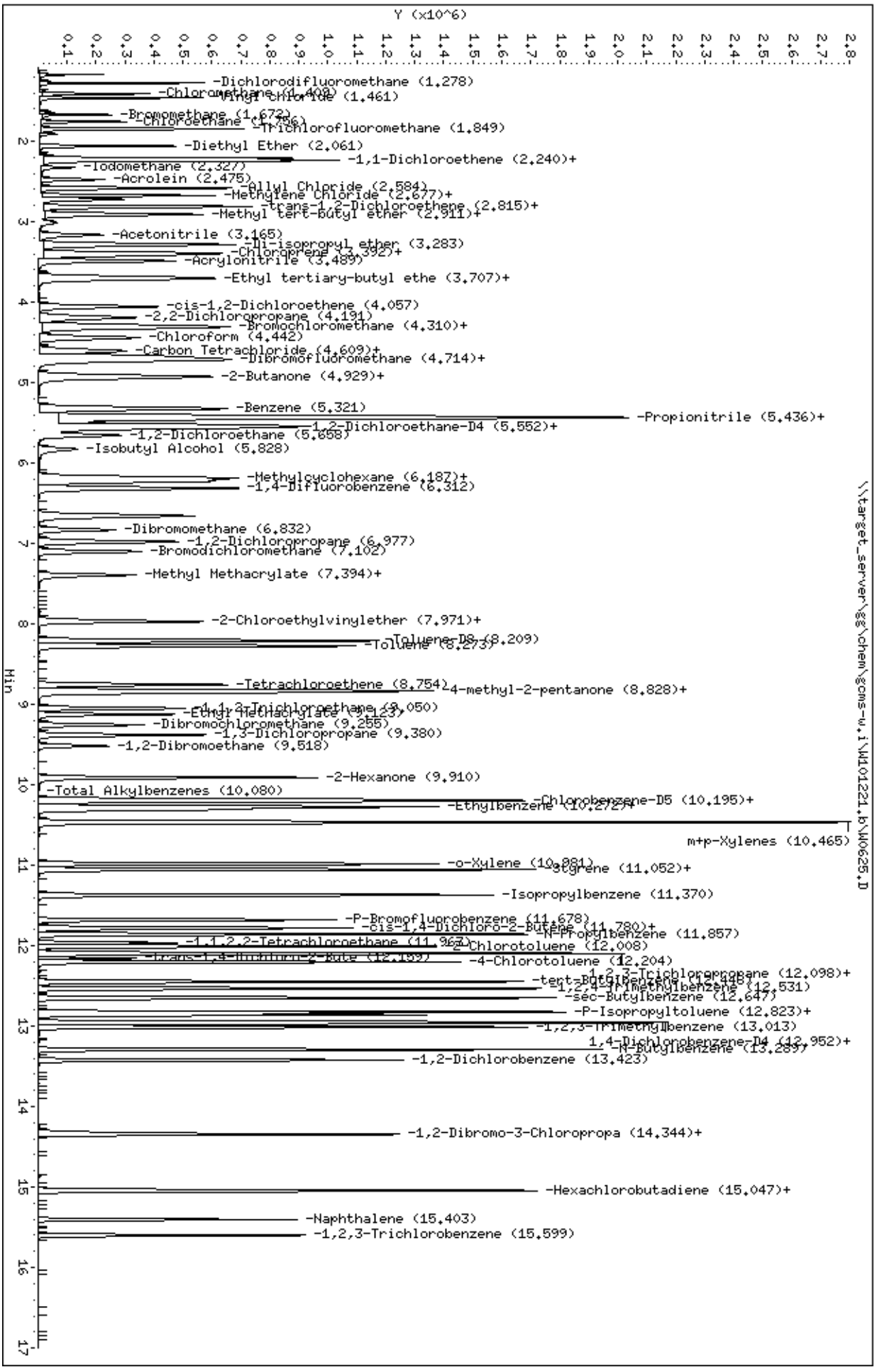
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)	REVIEW CODE
1	Dichlorodifluoromethane	85	1.277	1.278	(0.231)	291085	50.0000	50.6	
2	Chloromethane	50	1.409	1.409	(0.255)	306525	50.0000	46.7	
3	Vinyl chloride	62	1.460	1.460	(0.264)	296700	50.0000	51.0	
4	Bromomethane	94	1.672	1.672	(0.303)	79476	50.0000	46.2	
5	Chloroethane	64	1.755	1.759	(0.318)	180784	50.0000	55.9	
6	Trichlorofluoromethane	101	1.848	1.849	(0.335)	434796	50.0000	56.3	
7	Diethyl Ether	59	2.060	2.061	(0.373)	203237	50.0000	53.5	
8	1,1-Dichloroethene	96	2.211	2.211	(0.400)	227229	50.0000	52.4	
9	Freon-113	151	2.237	2.240	(0.405)	186364	50.0000	57.7	
10	Carbon Disulfide	76	2.240	2.243	(0.405)	495956	50.0000	51.2	
11	Iodomethane	142	2.326	2.330	(0.421)	130203	50.0000	58.6	
12	Acrolein	56	2.474	2.481	(0.448)	172741	250.000	254	
13	Allyl Chloride	41	2.583	2.587	(0.468)	390196	50.0000	54.7	
14	Methylene Chloride	84	2.676	2.680	(0.484)	246679	50.0000	56.5	
15	Acetone	43	2.724	2.725	(0.493)	366852	250.000	178	
16	trans-1,2-Dichloroethene	96	2.811	2.815	(0.509)	241596	50.0000	52.1	
17	Methyl Acetate	43	2.830	2.834	(0.512)	186271	50.0000	50.3	
18	Methyl tert-butyl ether	73	2.910	2.917	(0.527)	593118	50.0000	52.6	
19	Tertiary-butyl alcohol	59	3.010	3.017	(0.545)	74829	250.000	225	
20	Acetonitrile	41	3.164	3.168	(0.573)	294027	500.000	481	
21	Di-isopropyl ether	45	3.283	3.290	(0.594)	743768	50.0000	51.2	
22	Chloroprene	53	3.389	3.395	(0.613)	394648	50.0000	55.3	
23	1,1-Dichloroethane	63	3.418	3.418	(0.619)	432836	50.0000	50.8	

Data File: \\target_server\gg\chem\gcms-w.i\W101221.b\W0625.D
Report Date: 12-Nov-2021 11:58

							AMOUNTS		
		QUANT SIG					CAL-AMT	ON-COL	
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/l)	(ug/l)	REVIEW CODE
	24 Acrylonitrile	52	3.491	3.492	(0.632)	348479	250.000	258	
	25 Ethyl tertiary-butyl ether	59	3.693	3.700	(0.668)	565230	50.0000	52.8	
	26 Vinyl Acetate	43	3.716	3.723	(0.588)	504176	50.0000	52.0	
	27 cis-1,2-Dichloroethene	96	4.059	4.062	(0.735)	227373	50.0000	50.1	
	28 2,2-Dichloropropane	77	4.191	4.200	(0.758)	280526	50.0000	51.8	
	29 Bromochloromethane	128	4.319	4.323	(0.782)	90897	50.0000	50.2	
	30 Cyclohexane	56	4.297	4.307	(0.778)	372585	50.0000	53.6	
	31 Chloroform	83	4.444	4.451	(0.804)	405670	50.0000	51.4	
	32 Carbon Tetrachloride	117	4.611	4.615	(0.730)	316455	50.0000	53.7	
	33 Tetrahydrofuran	42	4.672	4.679	(0.846)	400619	250.000	254	
$	34 Dibromofluoromethane	113	4.714	4.721	(0.853)	229699	50.0000	51.6	
	35 1,1,1-Trichloroethane	97	4.717	4.724	(0.854)	376228	50.0000	53.3	
	36 2-Butanone	43	4.935	4.945	(0.893)	514230	250.000	242	
	37 1,1-Dichloropropene	75	4.922	4.926	(0.779)	317538	50.0000	52.2	
	38 Benzene	78	5.324	5.330	(0.843)	851311	50.0000	50.4	
	39 Propionitrile	54	5.410	5.417	(0.979)	306261	500.000	513	
	40 Methacrylonitrile	41	5.436	5.443	(0.984)	1526815	500.000	547	
*	41 Pentafluorobenzene	168	5.526	5.533	(1.000)	439337	50.0000		
$	42 1,2-Dichloroethane-D4	65	5.551	5.555	(1.005)	334385	50.0000	53.9	
	43 Tertiary-amyl methyl ether	73	5.561	5.565	(1.006)	430194	50.0000	51.9	
	44 1,2-Dichloroethane	62	5.657	5.664	(0.895)	338928	50.0000	51.3	
	45 Isobutyl Alcohol	43	5.834	5.834	(1.056)	130096	1000.00	944	
	46 Methylcyclohexane	83	6.187	6.194	(1.120)	395071	50.0000	56.5	
	47 Trichloroethene	95	6.232	6.235	(0.986)	223137	50.0000	51.6	
*	48 1,4-Difluorobenzene	114	6.318	6.319	(1.000)	736204	50.0000		
	49 Dibromomethane	93	6.829	6.835	(1.081)	133221	50.0000	51.1	
	50 1,2-Dichloropropane	63	6.976	6.980	(1.104)	226355	50.0000	50.8	
	51 Bromodichloromethane	83	7.101	7.105	(1.124)	300582	50.0000	52.9	
	52 Methyl Methacrylate	41	7.390	7.394	(1.170)	202161	50.0000	49.4	
	53 Ethyl Methacrylate	69	9.123	9.130	(1.444)	250896	50.0000	48.5	
	54 1,4-Dioxane	88	7.413	7.416	(1.173)	30443	1000.00	759	
M	55 Total Alkylbenzenes	100				7285350	50.0000	382	
	56 2-Chloroethylvinylether	63	7.942	7.949	(1.257)	44889	50.0000	42.8	
	57 cis-1,3-dichloropropene	75	7.971	7.978	(1.262)	352562	50.0000	53.8	
$	58 Toluene-D8	98	8.208	8.212	(1.299)	876435	50.0000	50.7	
	59 Toluene	92	8.276	8.276	(1.310)	538768	50.0000	50.5	
	60 Tetrachloroethene	164	8.757	8.761	(0.860)	172518	50.0000	48.5	
	61 4-methyl-2-pentanone	43	8.828	8.835	(1.397)	1068219	250.000	267	
	62 trans-1,3-Dichloropropene	75	8.853	8.860	(1.401)	329514	50.0000	56.1	
	63 1,1,2-Trichloroethane	83	9.046	9.053	(1.432)	158289	50.0000	51.4	
	64 Dibromochloromethane	129	9.255	9.261	(0.909)	219180	50.0000	52.9	
	65 1,3-Dichloropropane	76	9.380	9.383	(0.921)	358860	50.0000	50.6	
	66 1,2-Dibromoethane	107	9.518	9.518	(1.506)	186791	50.0000	51.8	
	67 2-Hexanone	43	9.909	9.913	(0.973)	704491	250.000	252	
*	68 Chlorobenzene-D5	117	10.185	10.185	(1.000)	707493	50.0000		
	69 Chlorobenzene	112	10.204	10.208	(1.002)	605215	50.0000	49.1	
	70 Ethylbenzene	91	10.272	10.275	(1.009)	1079955	50.0000	51.4	
	71 1,1,1,2-Tetrachloroethane	131	10.304	10.311	(1.012)	212660	50.0000	51.7	
	72 m+p-Xylenes	91	10.464	10.468	(1.027)	1683017	100.000	106	
	73 o-Xylene	91	10.981	10.985	(1.078)	849188	50.0000	54.0	
	74 Styrene	104	11.052	11.055	(1.085)	679307	50.0000	53.6	
	75 Bromoform	173	11.052	11.058	(1.085)	142314	50.0000	53.4	
	76 Isopropylbenzene	105	11.369	11.376	(0.878)	1080990	50.0000	55.0	
$	77 P-Bromofluorobenzene	95	11.680	11.684	(1.849)	352919	50.0000	51.5	

Data File: \\target_server\gg\chem\gcms-w.i\W101221.b\W0625.D
Report Date: 12-Nov-2021 11:58

							AMOUNTS		
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)	REVIEW CODE
	78 cis-1,4-Dichloro-2-Butene	53	11.790	11.793	(0.911)	77896	50.0000	55.8	
	79 Bromobenzene	156	11.774	11.784	(0.909)	246439	50.0000	49.6	
	80 N-Propylbenzene	91	11.857	11.861	(0.916)	1348535	50.0000	53.6	
	81 1,1,2,2-Tetrachloroethane	83	11.963	11.966	(0.924)	245391	50.0000	51.8	
	82 2-Chlorotoluene	91	12.005	12.011	(0.927)	769567	50.0000	52.3	
	83 1,2,3-Trichloropropane	75	12.088	12.088	(0.934)	226691	50.0000	51.4	
	84 1,3,5-Trimethylbenzene	105	12.098	12.104	(0.934)	908197	50.0000	53.8	
	85 trans-1,4-Dichloro-2-Butene	53	12.159	12.159	(0.939)	81182	50.0000	55.0	
	86 4-Chlorotoluene	91	12.204	12.207	(0.943)	813708	50.0000	52.2	
	87 tert-Butylbenzene	119	12.447	12.451	(0.961)	797573	50.0000	54.2	
	89 1,2,4-Trimethylbenzene	105	12.531	12.534	(0.968)	941321	50.0000	54.5	
	90 sec-Butylbenzene	105	12.646	12.653	(0.977)	1220665	50.0000	54.7	
	91 P-Isopropyltoluene	119	12.823	12.830	(0.990)	1038590	50.0000	55.3	
	92 1,3-Dichlorobenzene	146	12.858	12.862	(0.993)	505449	50.0000	50.2	
*	93 1,4-Dichlorobenzene-D4	152	12.948	12.952	(1.000)	384125	50.0000		
	94 1,4-Dichlorobenzene	146	12.961	12.968	(1.001)	521566	50.0000	49.6	
	95 1,2,3-Trimethylbenzene	105	13.012	13.016	(1.005)	925344	50.0000	54.0	
	96 N-Butylbenzene	91	13.288	13.292	(1.026)	1030469	50.0000	56.2	
M	97 1,2-Dichloroethylene (total)	96				468969	50.0000	102	
	98 1,2-Dichlorobenzene	146	13.423	13.423	(1.037)	473115	50.0000	51.1	
	99 1,2-Dibromo-3-Chloropropane	157	14.315	14.319	(1.106)	41044	50.0000	52.1	
	100 1,3,5-Trichlorobenzene	180	14.347	14.347	(1.108)	356867	50.0000	53.9	
	101 Hexachlorobutadiene	225	15.037	15.041	(1.161)	168965	50.0000	54.1	
	102 1,2,4-Trichlorobenzene	180	15.050	15.053	(1.162)	297296	50.0000	53.1	
	103 Naphthalene	128	15.403	15.406	(1.190)	597700	50.0000	49.5	
	104 1,2,3-Trichlorobenzene	180	15.602	15.602	(1.205)	246664	50.0000	51.7	
M	105 Xylenes (total)	106				2532205	150.000	160	



Katahdin Analytical Services 1000373

Data File: \\target_server\gg\chem\gcms-c.i\C100421.b\CB643a.D

Date : 04-OCT-2021 07:41

Client ID:

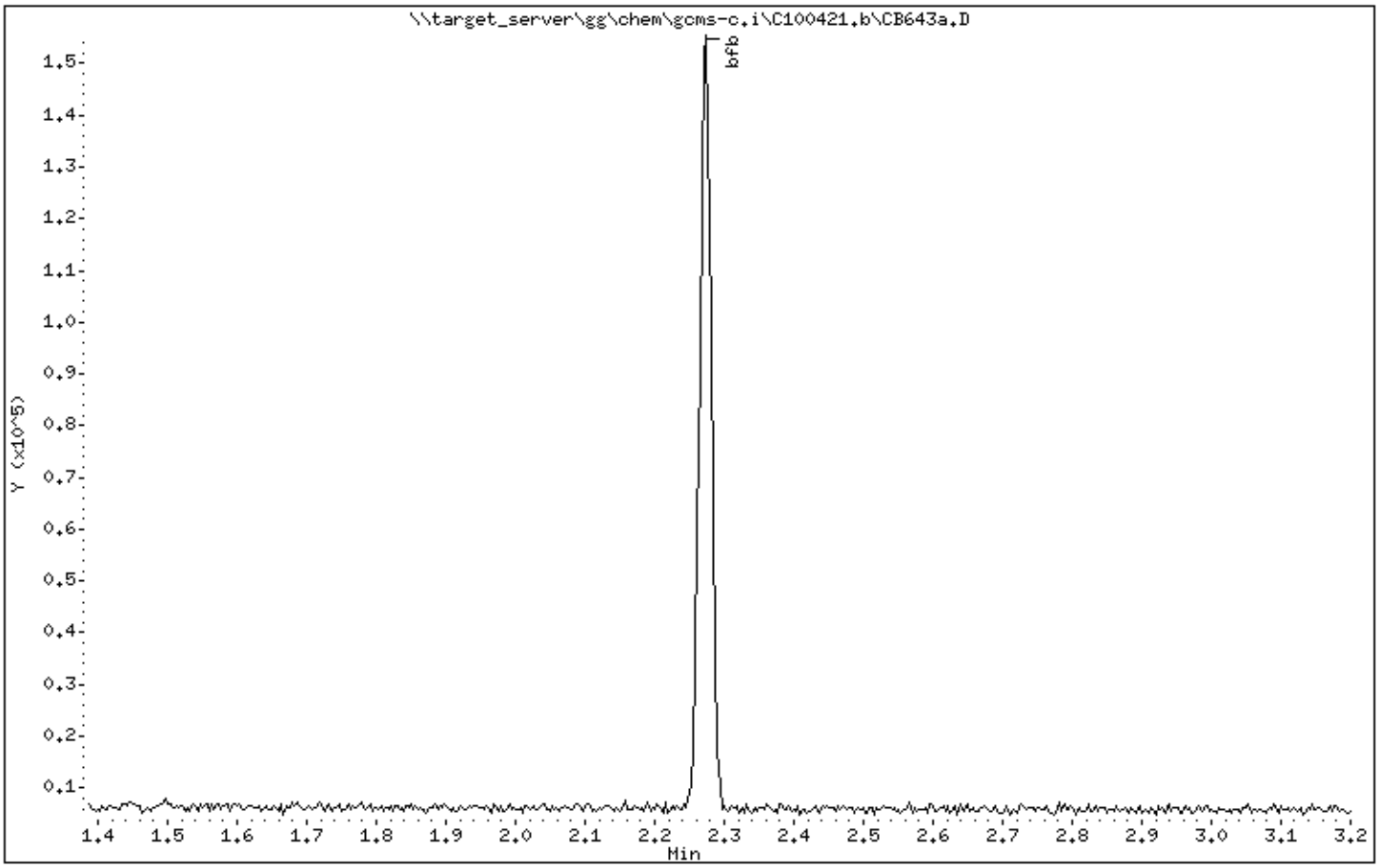
Instrument: gcms-c.i

Sample Info: WG307158-12,SO6709

Operator: HG

Column phase: RTX-VMS

Column diameter: 0.25



Data File: \\target_server\gg\chem\gcms-c.i\C100421.b\CB643a.D

Date : 04-OCT-2021 07:41

Client ID:

Instrument: gcms-c.i

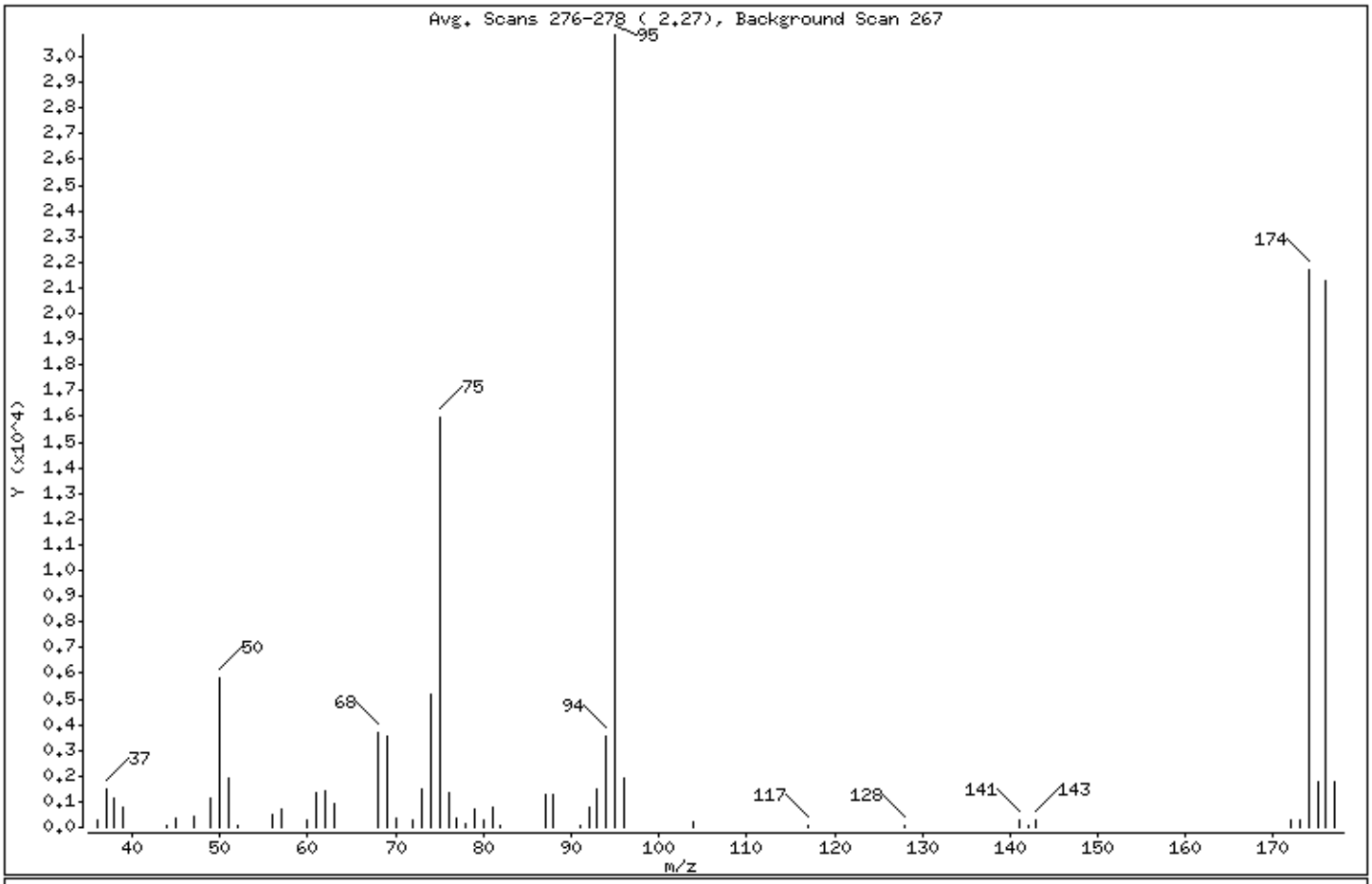
Sample Info: WG307158-12,SO6709

Operator: HG

Column phase: RTX-VMS

Column diameter: 0.25

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	18.93
75	30.00 - 60.00% of mass 95	51.78
96	5.00 - 9.00% of mass 95	6.10
173	Less than 2.00% of mass 174	0.95 (1.36)
174	Greater than 50.00% of mass 95	70.26
175	5.00 - 9.00% of mass 174	5.70 (8.11)
176	95.00 - 101.00% of mass 174	68.94 (98.12)
177	5.00 - 9.00% of mass 176	5.72 (8.30)

Data File: \\target_server\gg\chem\gcms-c.i\C100421.b\CB643a.D

Date : 04-OCT-2021 07:41

Client ID:

Instrument: gcms-c.i

Sample Info: WG307158-12,SO6709

Operator: HG

Column phase: RTX-VMS

Column diameter: 0.25

Data File: CB643a.D
Spectrum: Avg. Scans 276-278 (2.27), Background Scan 267
Location of Maximum: 95.00
Number of points: 51

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	301	60.00	269	78.00	108	104.00	192
37.00	1457	61.00	1372	79.00	737	117.00	93
38.00	1139	62.00	1388	80.00	301	128.00	77
39.00	774	63.00	942	81.00	757	141.00	274
44.00	106	68.00	3719	82.00	66	142.00	74
45.00	325	69.00	3527	87.00	1248	143.00	280
47.00	415	70.00	337	88.00	1291	172.00	289
49.00	1159	72.00	265	91.00	71	173.00	294
50.00	5840	73.00	1493	92.00	797	174.00	21680
51.00	1919	74.00	5177	93.00	1522	175.00	1758
52.00	81	75.00	15977	94.00	3518	176.00	21272
56.00	481	76.00	1372	95.00	30856	177.00	1766
57.00	730	77.00	358	96.00	1881		

Data File: \\target_server\gg\chem\gcms-c.i\C100421B.b\CB644a.D

Date : 04-OCT-2021 13:21

Client ID:

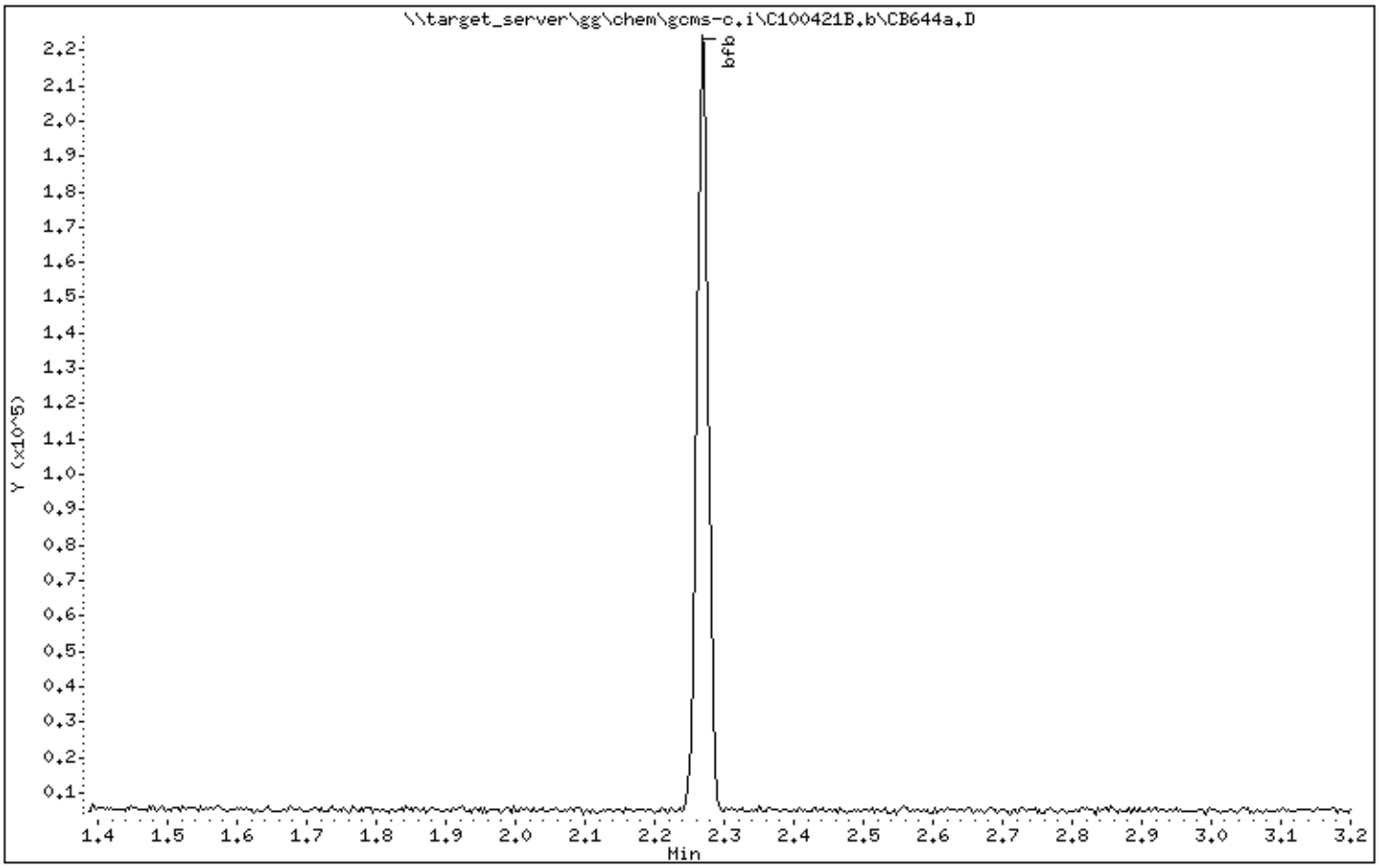
Instrument: gcms-c.i

Sample Info: WG307227-3,SO6709

Operator: HG

Column phase: RTX-VMS

Column diameter: 0.25



Data File: \\target_server\gg\chem\gcms-c.i\C100421B.b\CB644a.D

Date : 04-OCT-2021 13:21

Client ID:

Instrument: gcms-c.i

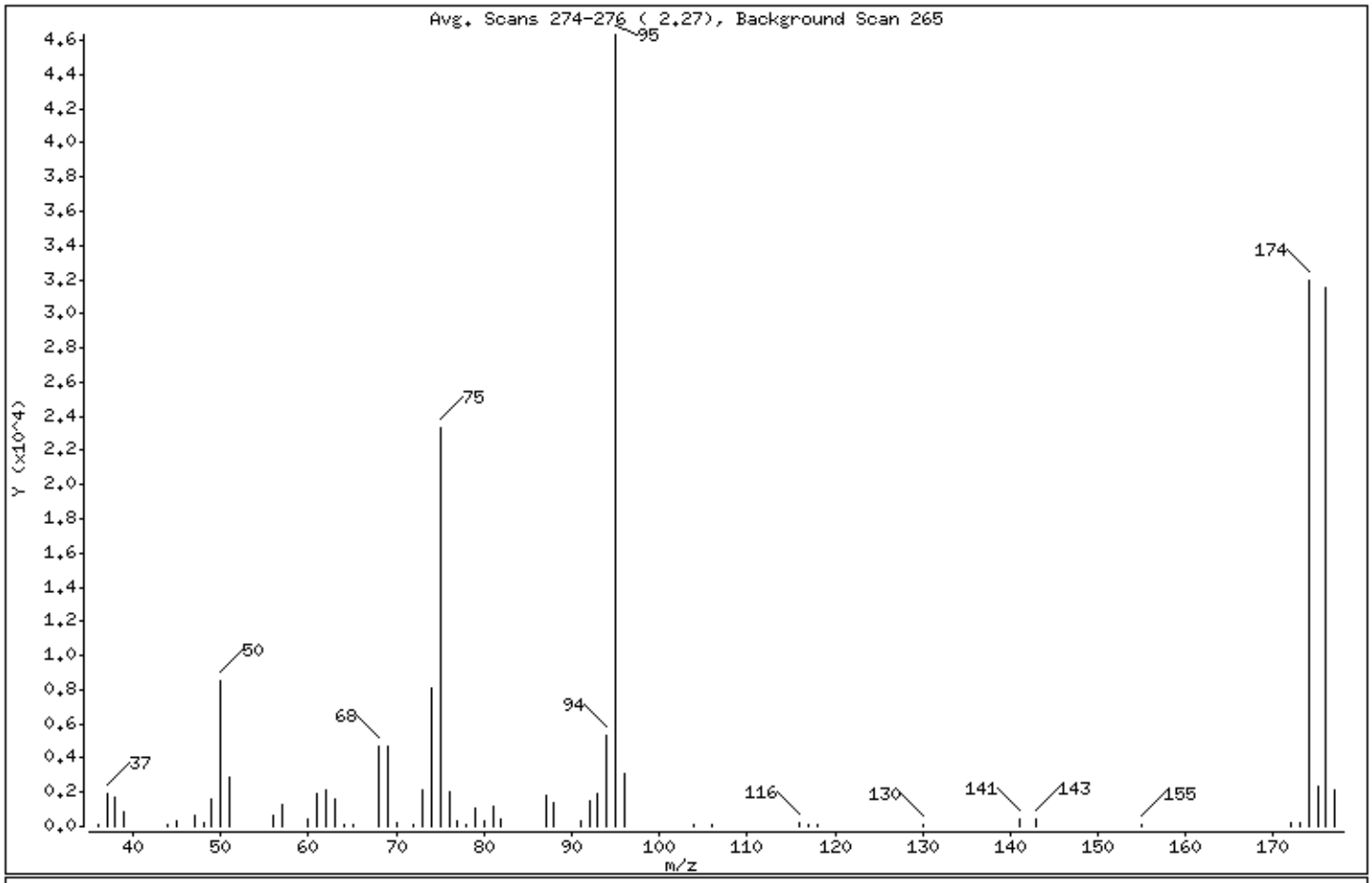
Sample Info: WG307227-3,SO6709

Operator: HG

Column phase: RTX-VMS

Column diameter: 0.25

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	18.31
75	30.00 - 60.00% of mass 95	50.33
96	5.00 - 9.00% of mass 95	6.70
173	Less than 2.00% of mass 174	0.45 (0.65)
174	Greater than 50.00% of mass 95	68.97
175	5.00 - 9.00% of mass 174	5.17 (7.49)
176	95.00 - 101.00% of mass 174	67.94 (98.50)
177	5.00 - 9.00% of mass 176	4.50 (6.62)

Data File: \\target_server\gg\chem\gcms-c.i\C100421B.b\CB644a.D

Date : 04-OCT-2021 13:21

Client ID:

Instrument: gcms-c.i

Sample Info: WG307227-3,SO6709

Operator: HG

Column phase: RTX-VMS

Column diameter: 0.25

Data File: CB644a.D
Spectrum: Avg. Scans 274-276 (2.27), Background Scan 265
Location of Maximum: 95.00
Number of points: 56

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	112	62.00	2151	80.00	322	118.00	79
37.00	1960	63.00	1610	81.00	1188	130.00	129
38.00	1752	64.00	118	82.00	413	141.00	477
39.00	897	65.00	95	87.00	1839	143.00	445
44.00	80	68.00	4738	88.00	1371	155.00	109
45.00	292	69.00	4679	91.00	325	172.00	168
47.00	644	70.00	266	92.00	1443	173.00	208
48.00	225	72.00	84	93.00	1933	174.00	31960
49.00	1587	73.00	2088	94.00	5351	175.00	2395
50.00	8486	74.00	8056	95.00	46336	176.00	31480
51.00	2844	75.00	23320	96.00	3104	177.00	2085
56.00	688	76.00	2057	104.00	77		
57.00	1277	77.00	285	106.00	67		
60.00	376	78.00	159	116.00	189		
61.00	1887	79.00	1117	117.00	77		

Data File: \\target_server\gg\chem\gcms-c.i\C101121.b\CB651a.D

Date : 11-OCT-2021 07:12

Client ID:

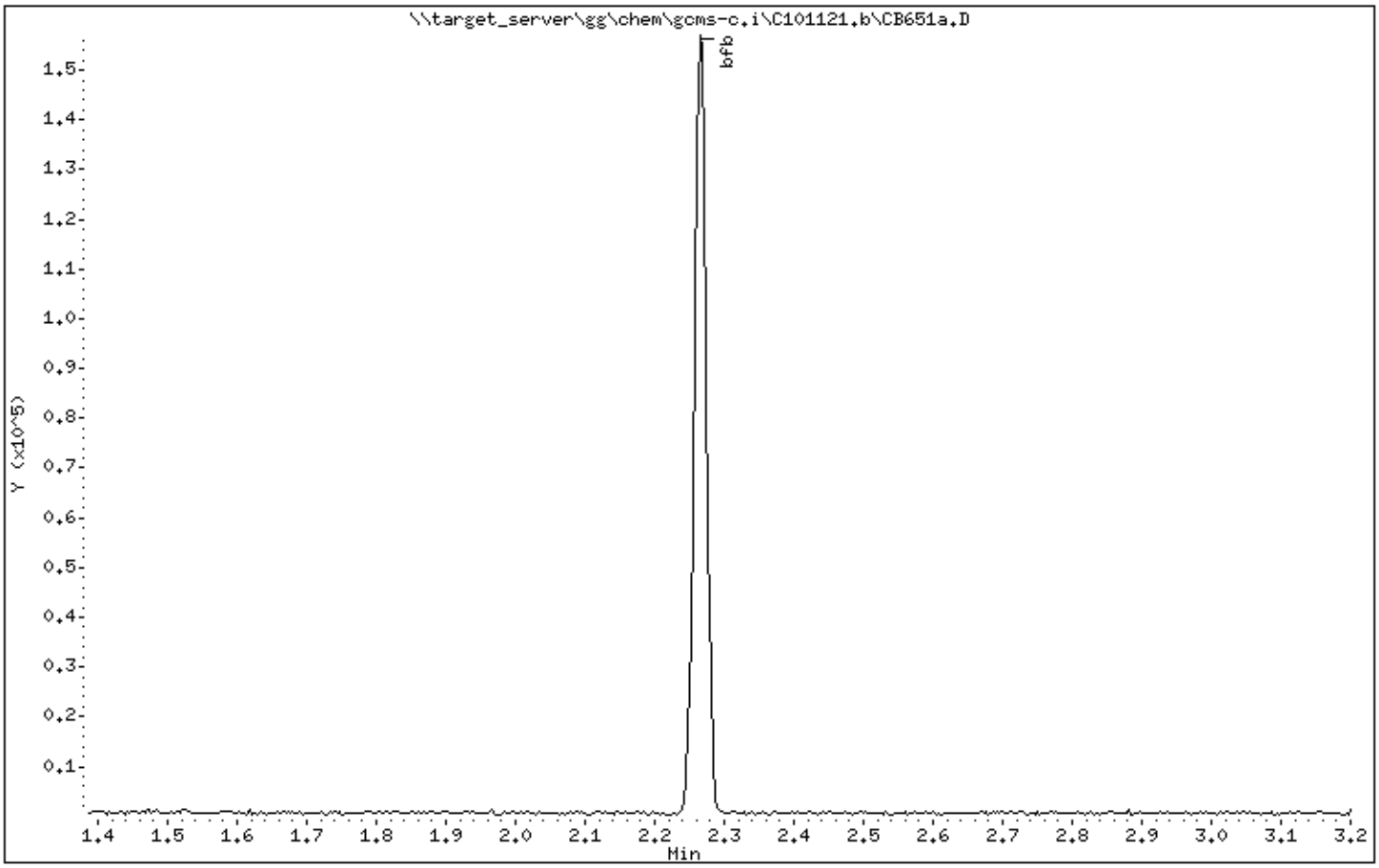
Instrument: gcms-c.i

Sample Info: WG307646-3,SO6709

Operator: HG

Column phase: RTX-VMS

Column diameter: 0.25



Data File: \\target_server\gg\chem\gcms-c.i\C101121.b\CB651a.D

Date : 11-OCT-2021 07:12

Client ID:

Instrument: gcms-c.i

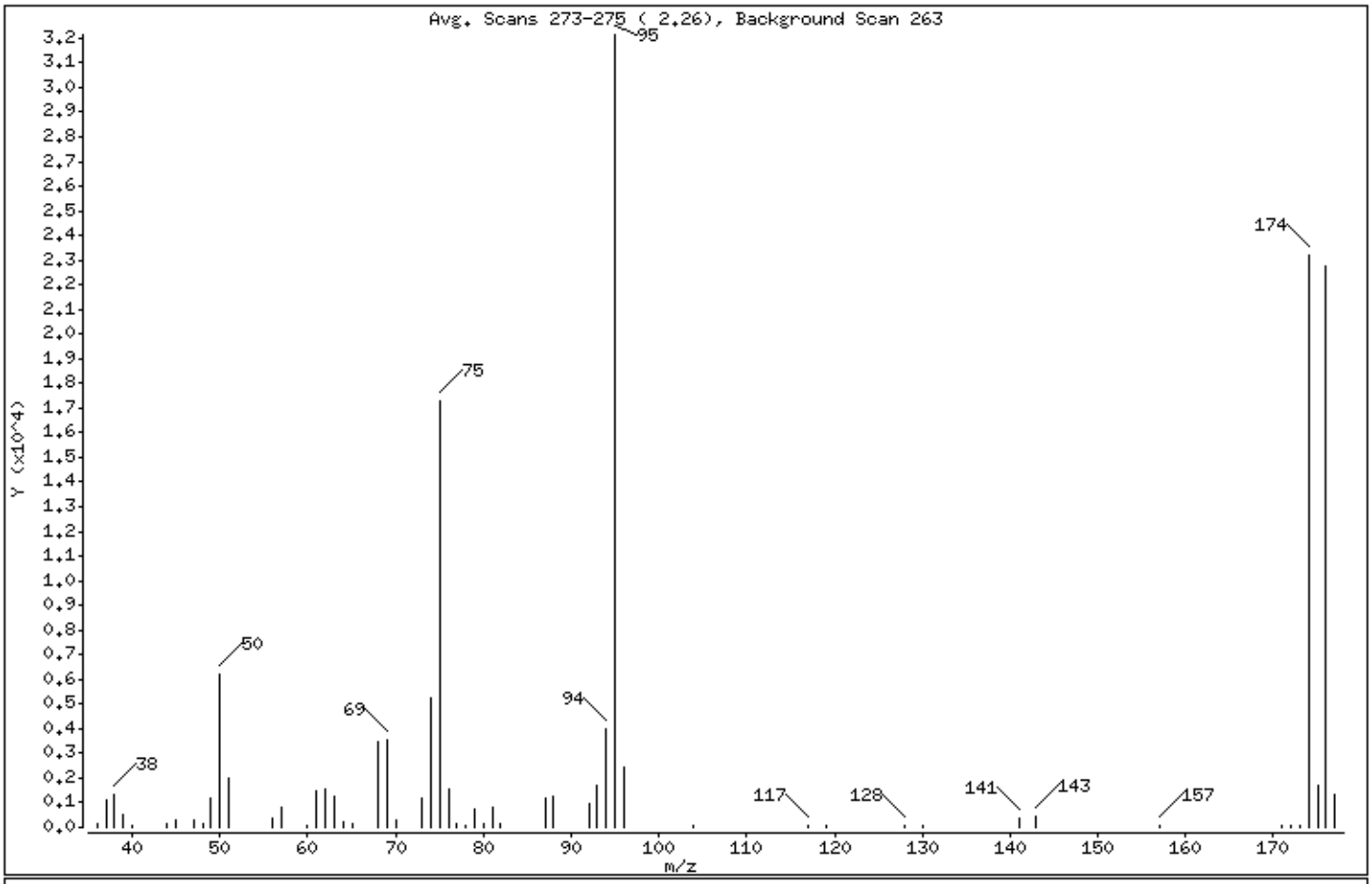
Sample Info: WG307646-3,SO6709

Operator: HG

Column phase: RTX-VMS

Column diameter: 0.25

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	19.38
75	30.00 - 60.00% of mass 95	53.85
96	5.00 - 9.00% of mass 95	7.50
173	Less than 2.00% of mass 174	0.24 (0.34)
174	Greater than 50.00% of mass 95	72.29
175	5.00 - 9.00% of mass 174	5.31 (7.35)
176	95.00 - 101.00% of mass 174	70.90 (98.07)
177	5.00 - 9.00% of mass 176	4.04 (5.69)

Data File: \\target_server\gg\chem\gcms-c.i\C101121.b\CB651a.D

Date : 11-OCT-2021 07:12

Client ID:

Instrument: gcms-c.i

Sample Info: WG307646-3,SO6709

Operator: HG

Column phase: RTX-VMS

Column diameter: 0.25

Data File: CB651a.D
Spectrum: Avg. Scans 273-275 (2.26), Background Scan 263
Location of Maximum: 95.00
Number of points: 55

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	169	60.00	68	78.00	89	119.00	71
37.00	1130	61.00	1508	79.00	765	128.00	83
38.00	1304	62.00	1569	80.00	134	130.00	67
39.00	504	63.00	1254	81.00	843	141.00	356
40.00	89	64.00	202	82.00	154	143.00	476
44.00	137	65.00	158	87.00	1158	157.00	82
45.00	308	68.00	3495	88.00	1249	171.00	75
47.00	280	69.00	3578	92.00	982	172.00	107
48.00	151	70.00	307	93.00	1708	173.00	78
49.00	1203	73.00	1180	94.00	3997	174.00	23232
50.00	6227	74.00	5232	95.00	32136	175.00	1707
51.00	1983	75.00	17304	96.00	2409	176.00	22784
56.00	388	76.00	1529	104.00	76	177.00	1297
57.00	781	77.00	169	117.00	88		

Data File: \\target_server\gg\chem\gcms-t.i\T101121.b\TB587a.D

Date : 11-OCT-2021 10:11

Client ID:

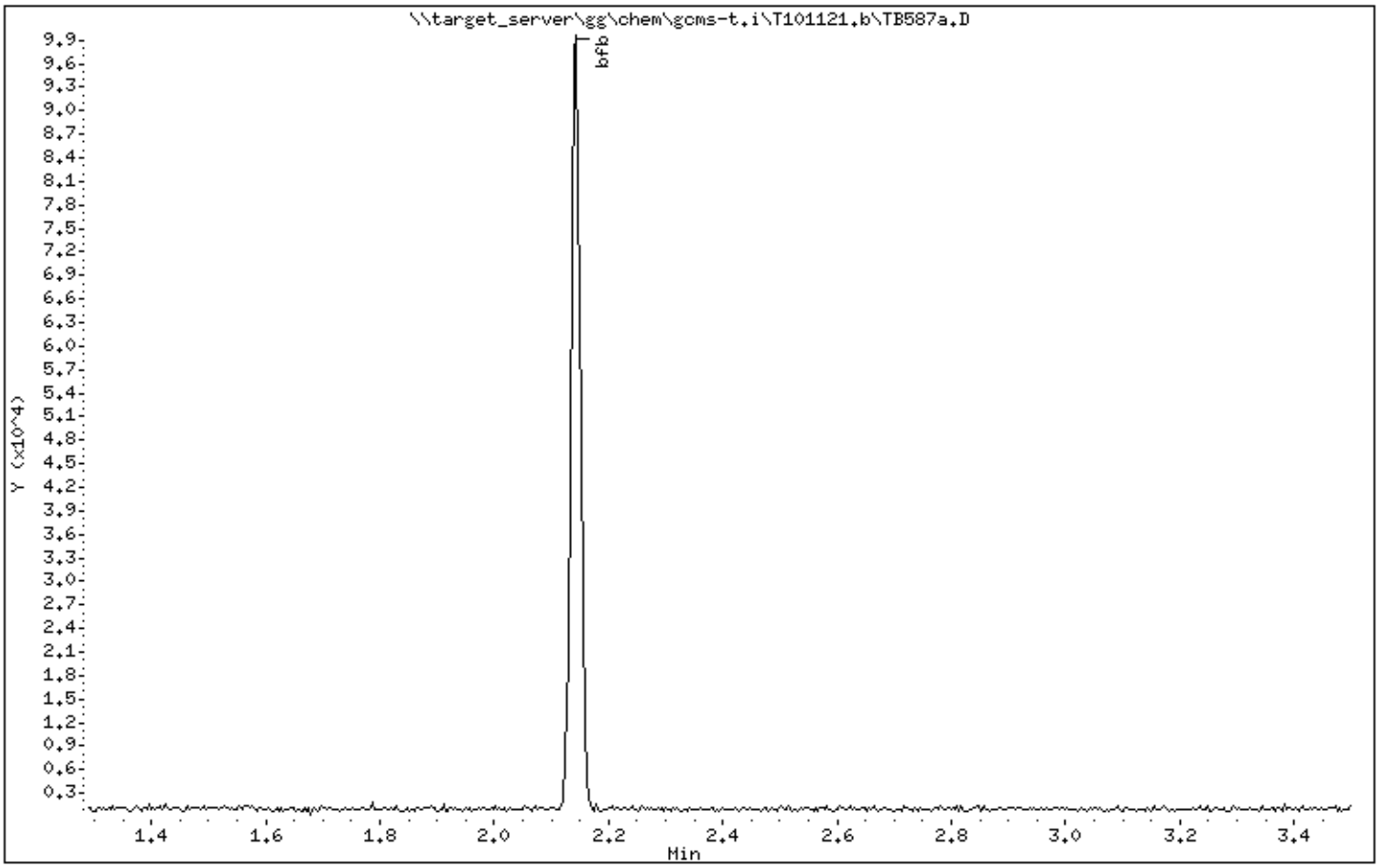
Instrument: gcms-t.i

Sample Info: WG307648-12,SO6709

Operator: JSS

Column phase: RTX-VMS

Column diameter: 0.18



Data File: \\target_server\gg\chem\gcms-t.i\T101121.b\TB587a.D

Date : 11-OCT-2021 10:11

Client ID:

Instrument: gcms-t.i

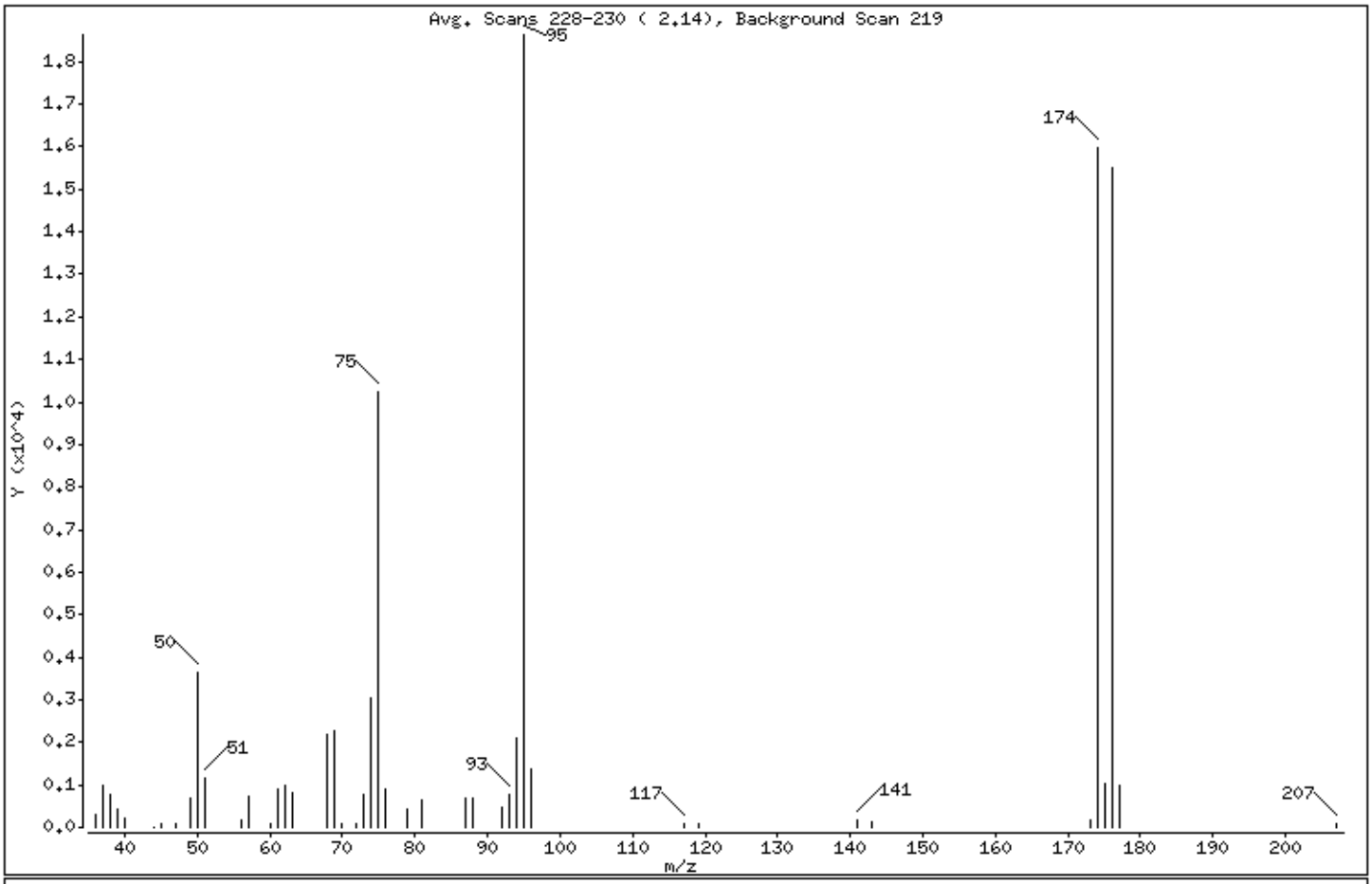
Sample Info: WG307648-12,SO6709

Operator: JSS

Column phase: RTX-VMS

Column diameter: 0.18

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	19.56
75	30.00 - 60.00% of mass 95	54.91
96	5.00 - 9.00% of mass 95	7.27
173	Less than 2.00% of mass 174	0.98 (1.14)
174	Greater than 50.00% of mass 95	85.65
175	5.00 - 9.00% of mass 174	5.59 (6.52)
176	95.00 - 101.00% of mass 174	83.22 (97.16)
177	5.00 - 9.00% of mass 176	5.27 (6.33)

Data File: \\target_server\gg\chem\gcms-t.i\T101121.b\TB587a.D

Date : 11-OCT-2021 10:11

Client ID:

Instrument: gcms-t.i

Sample Info: WG307648-12,SO6709

Operator: JSS

Column phase: RTX-VMS

Column diameter: 0.18

Data File: TB587a.D
Spectrum: Avg. Scans 228-230 (2.14), Background Scan 219
Location of Maximum: 95.00
Number of points: 44

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	292	57.00	746	76.00	901	141.00	182
37.00	976	60.00	79	79.00	416	143.00	141
38.00	790	61.00	913	81.00	660	173.00	182
39.00	407	62.00	964	87.00	689	174.00	15959
40.00	225	63.00	812	88.00	689	175.00	1041
44.00	8	68.00	2198	92.00	487	176.00	15506
45.00	81	69.00	2249	93.00	763	177.00	982
47.00	87	70.00	96	94.00	2086	207.00	81
49.00	678	72.00	104	95.00	18632		
50.00	3644	73.00	788	96.00	1355		
51.00	1175	74.00	3045	117.00	83		
56.00	177	75.00	10230	119.00	82		

Data File: \\target_server\gg\chem\gcms-w.i\W101021.b\WB657a.D

Date : 10-OCT-2021 08:37

Client ID:

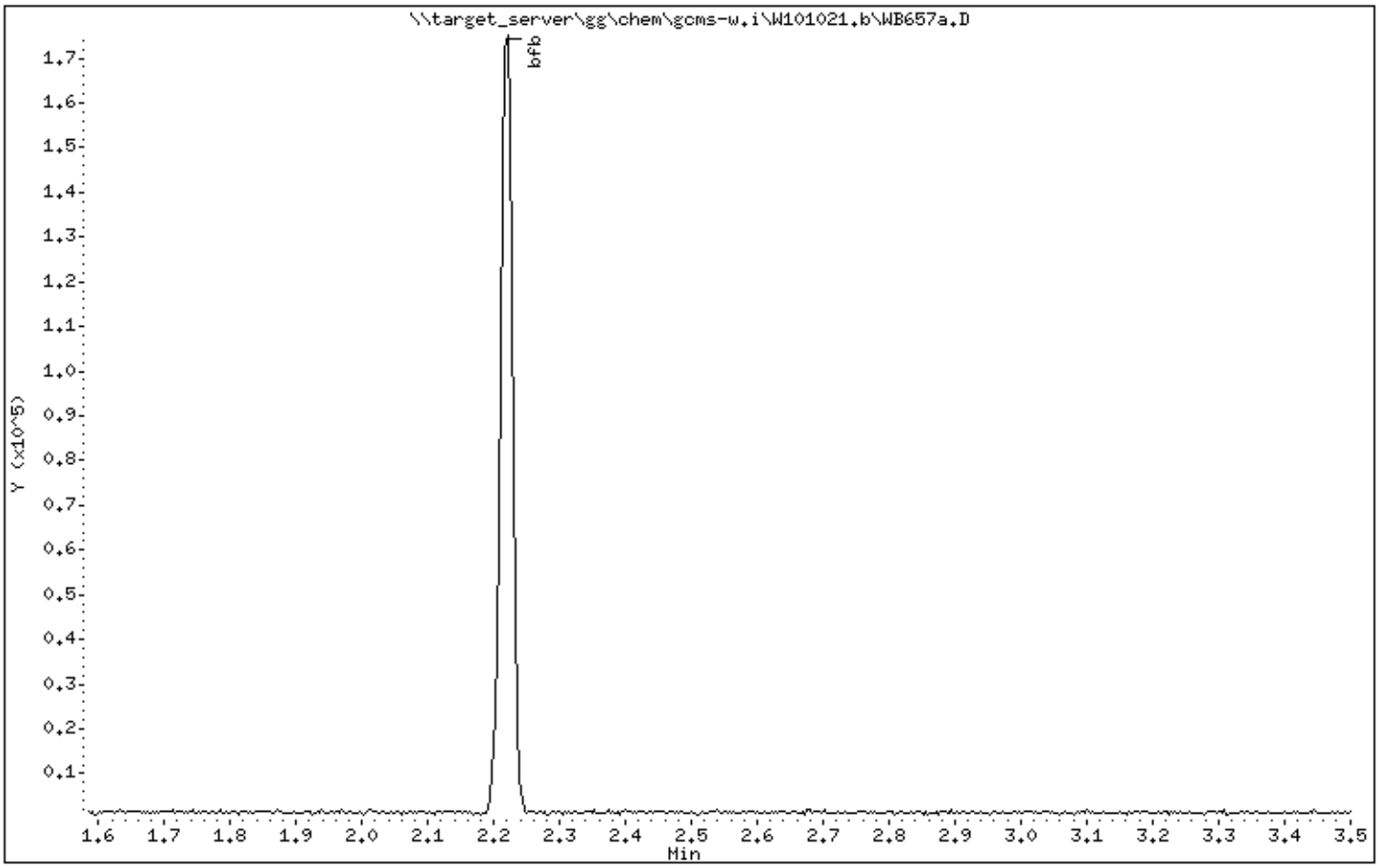
Instrument: gcms-w.i

Sample Info: WG307630-12,SO6709

Operator: HG

Column phase: RTX-VMS

Column diameter: 0.18



Data File: \\target_server\gg\chem\gcms-w.i\W101021.b\WB657a.D

Date : 10-OCT-2021 08:37

Client ID:

Instrument: gcms-w.i

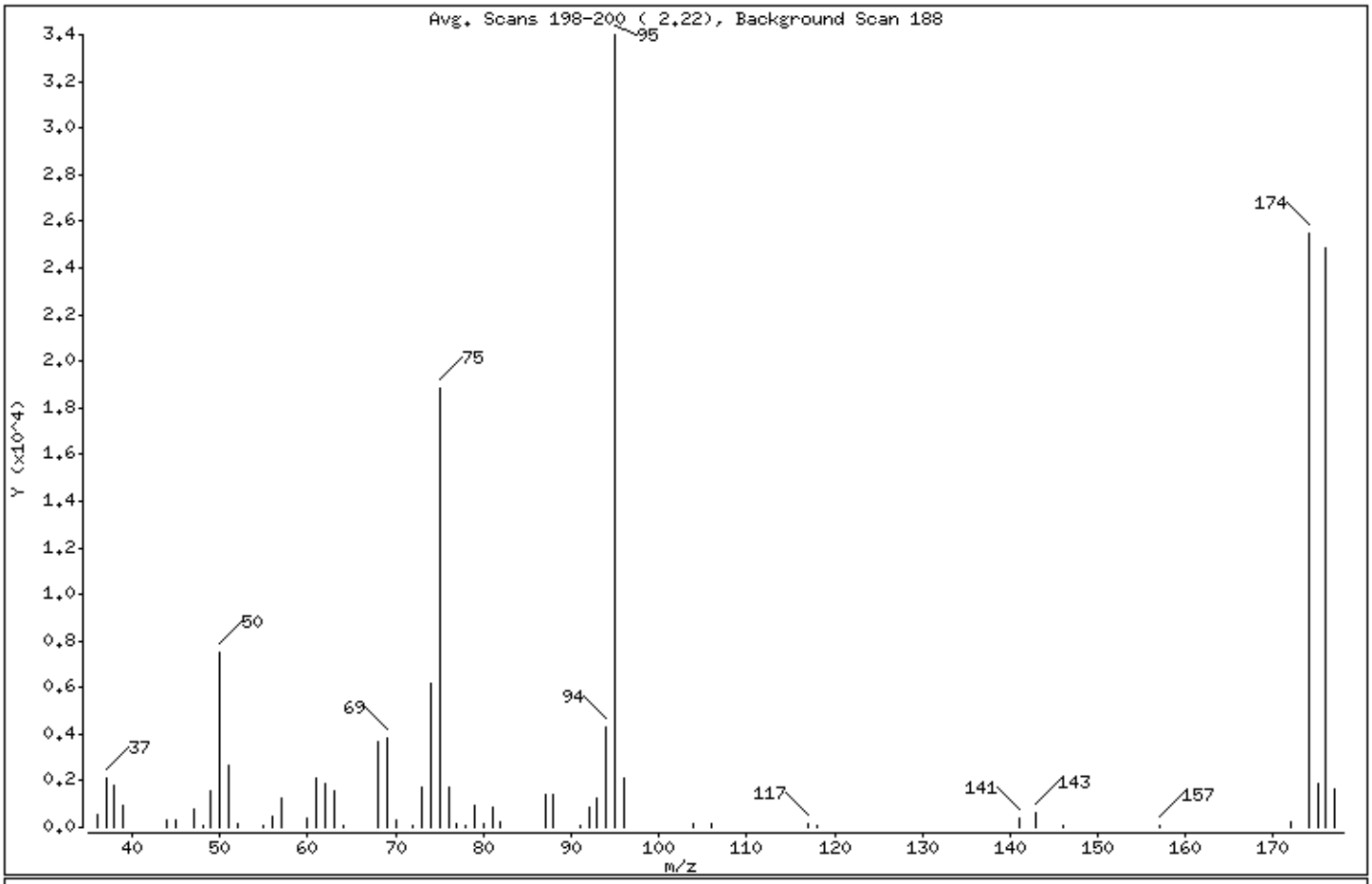
Sample Info: WG307630-12,SO6709

Operator: HG

Column phase: RTX-VMS

Column diameter: 0.18

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	22.06
75	30.00 - 60.00% of mass 95	55.38
96	5.00 - 9.00% of mass 95	6.14
173	Less than 2.00% of mass 174	0.00 (0.00)
174	Greater than 50.00% of mass 95	74.92
175	5.00 - 9.00% of mass 174	5.44 (7.26)
176	95.00 - 101.00% of mass 174	73.02 (97.46)
177	5.00 - 9.00% of mass 176	4.92 (6.73)

Data File: \\target_server\gg\chem\gcms-w.i\W101021.b\WB657a.D

Date : 10-OCT-2021 08:37

Client ID:

Instrument: gcms-w.i

Sample Info: WG307630-12,SO6709

Operator: HG

Column phase: RTX-VMS

Column diameter: 0.18

Data File: WB657a.D
Spectrum: Avg. Scans 198-200 (2.22), Background Scan 188
Location of Maximum: 95.00
Number of points: 55

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	519	57.00	1244	77.00	169	104.00	165
37.00	2080	60.00	424	78.00	80	106.00	182
38.00	1826	61.00	2072	79.00	900	117.00	190
39.00	923	62.00	1838	80.00	185	118.00	78
44.00	308	63.00	1600	81.00	874	141.00	413
45.00	331	64.00	77	82.00	202	143.00	608
47.00	779	68.00	3707	87.00	1434	146.00	79
48.00	96	69.00	3860	88.00	1437	157.00	77
49.00	1531	70.00	321	91.00	72	172.00	201
50.00	7502	72.00	88	92.00	899	174.00	25480
51.00	2654	73.00	1689	93.00	1245	175.00	1849
52.00	183	74.00	6148	94.00	4279	176.00	24832
55.00	68	75.00	18832	95.00	34008	177.00	1672
56.00	493	76.00	1700	96.00	2087		

Data File: \\target_server\gg\chem\gcms-w.i\W101121.b\WB658a.D

Date : 11-OCT-2021 06:17

Client ID:

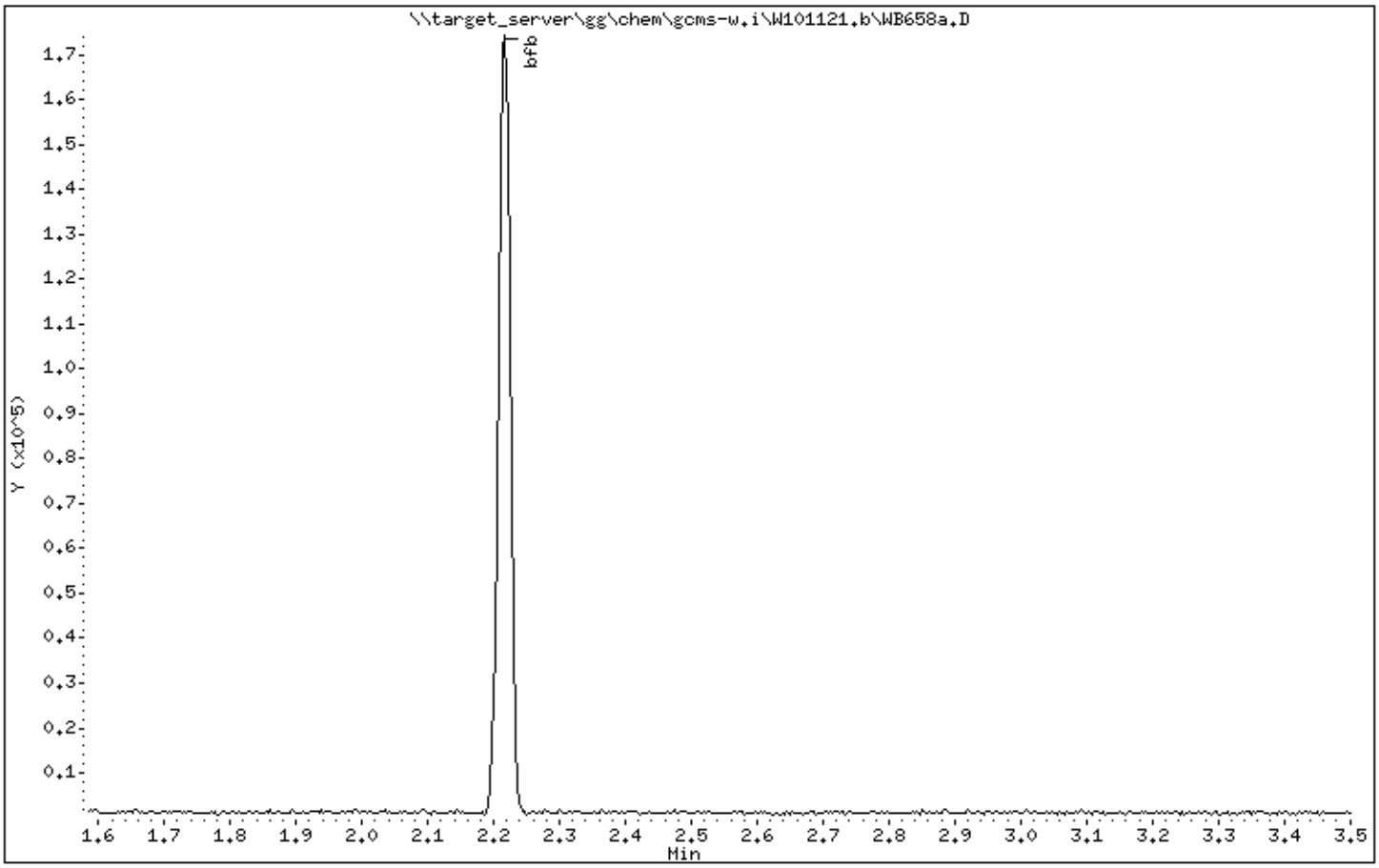
Instrument: gcms-w.i

Sample Info: WG307650-3,SO6709

Operator: HG

Column phase: RTX-VMS

Column diameter: 0.18



Data File: \\target_server\gg\chem\gcms-w.i\W101121.b\WB658a.D

Date : 11-OCT-2021 06:17

Client ID:

Instrument: gcms-w.i

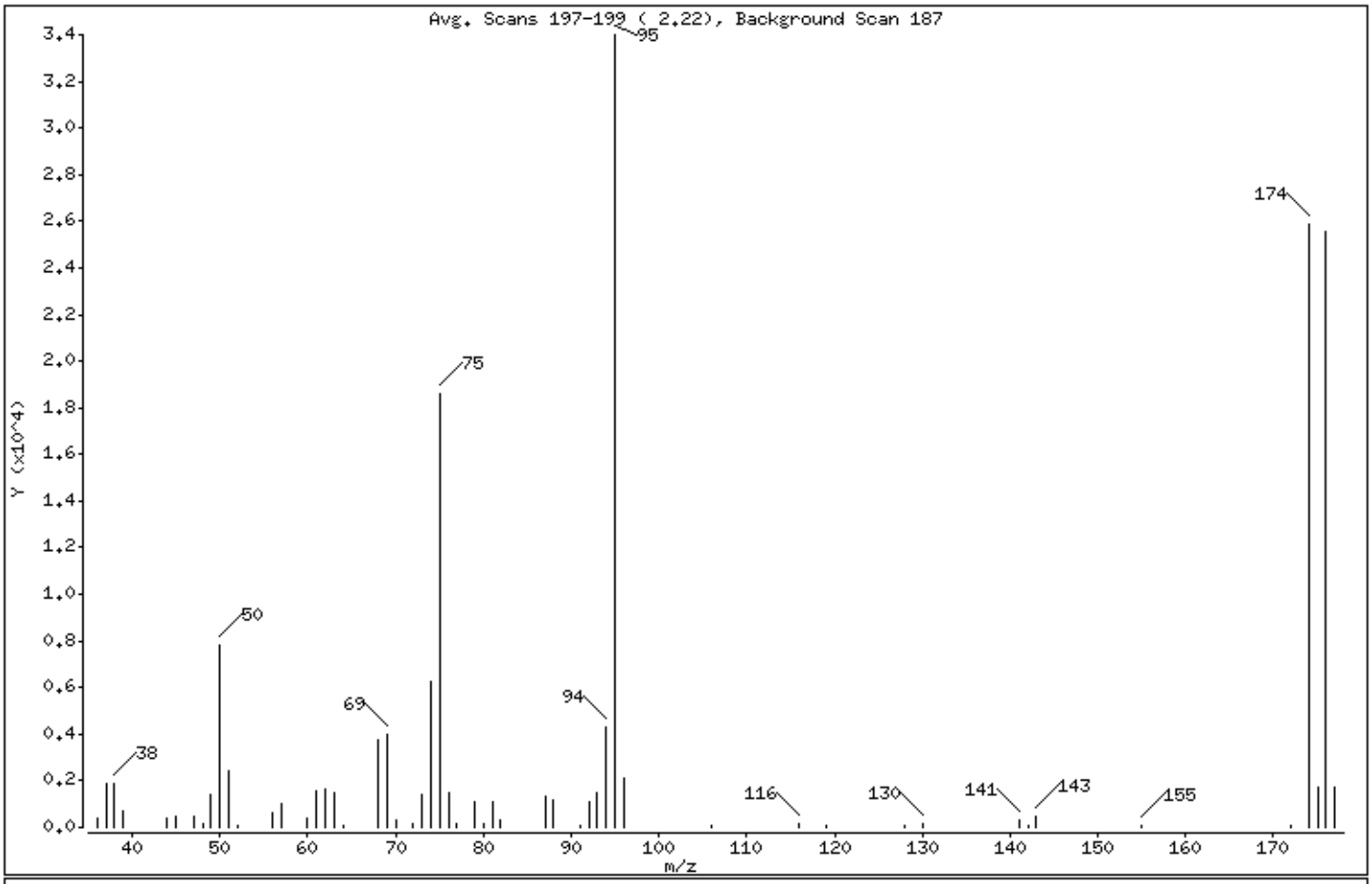
Sample Info: WG307650-3,SO6709

Operator: HG

Column phase: RTX-VMS

Column diameter: 0.18

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	23.08
75	30.00 - 60.00% of mass 95	54.64
96	5.00 - 9.00% of mass 95	6.21
173	Less than 2.00% of mass 174	0.00 (0.00)
174	Greater than 50.00% of mass 95	76.00
175	5.00 - 9.00% of mass 174	4.97 (6.54)
176	95.00 - 101.00% of mass 174	75.25 (99.01)
177	5.00 - 9.00% of mass 176	5.04 (6.70)

Data File: \\target_server\gg\chem\gcms-w.i\W101121.b\WB658a.D

Date : 11-OCT-2021 06:17

Client ID:

Instrument: gcms-w.i

Sample Info: WG307650-3,SO6709

Operator: HG

Column phase: RTX-VMS

Column diameter: 0.18

Data File: WB658a.D
Spectrum: Avg. Scans 197-199 (2.22), Background Scan 187
Location of Maximum: 95.00
Number of points: 54

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	407	60.00	361	79.00	1109	119.00	105
37.00	1851	61.00	1527	80.00	157	128.00	74
38.00	1896	62.00	1637	81.00	1125	130.00	151
39.00	687	63.00	1506	82.00	308	141.00	347
44.00	370	64.00	68	87.00	1334	142.00	71
45.00	432	68.00	3737	88.00	1189	143.00	449
47.00	479	69.00	3999	91.00	81	155.00	83
48.00	154	70.00	315	92.00	1068	172.00	79
49.00	1398	72.00	192	93.00	1470	174.00	25840
50.00	7848	73.00	1413	94.00	4326	175.00	1691
51.00	2412	74.00	6283	95.00	34000	176.00	25584
52.00	90	75.00	18576	96.00	2113	177.00	1715
56.00	611	76.00	1523	106.00	73		
57.00	1028	77.00	127	116.00	146		

Data File: \\target_server\gg\chem\gcms-w.i\W101221.b\WB659a.D

Date : 12-OCT-2021 06:35

Client ID:

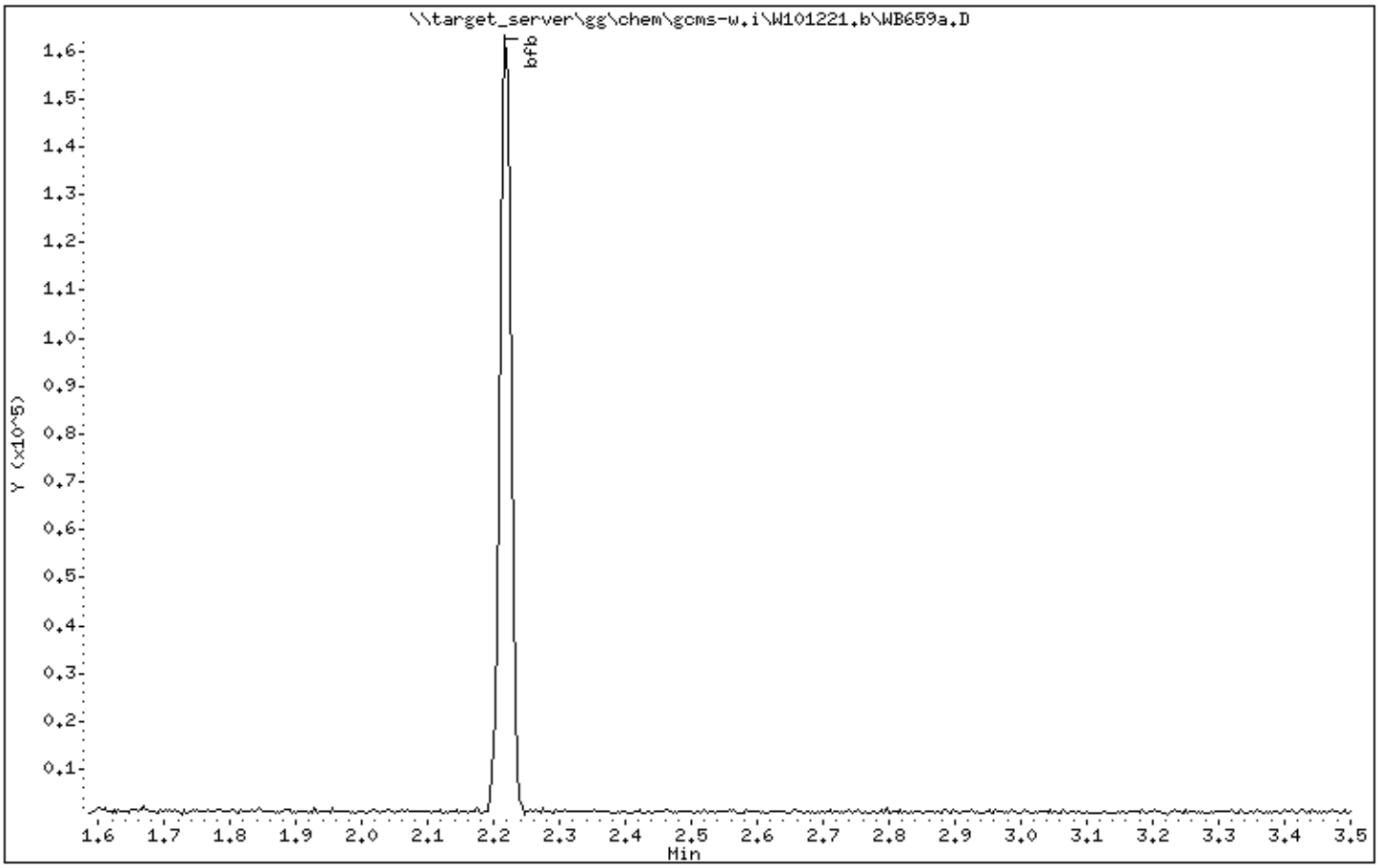
Instrument: gcms-w.i

Sample Info: WG307697-3,SO6709

Operator: HG

Column phase: RTX-VMS

Column diameter: 0.18



Data File: \\target_server\gg\chem\gcms-w.i\W101221.b\WB659a.D

Date : 12-OCT-2021 06:35

Client ID:

Instrument: gcms-w.i

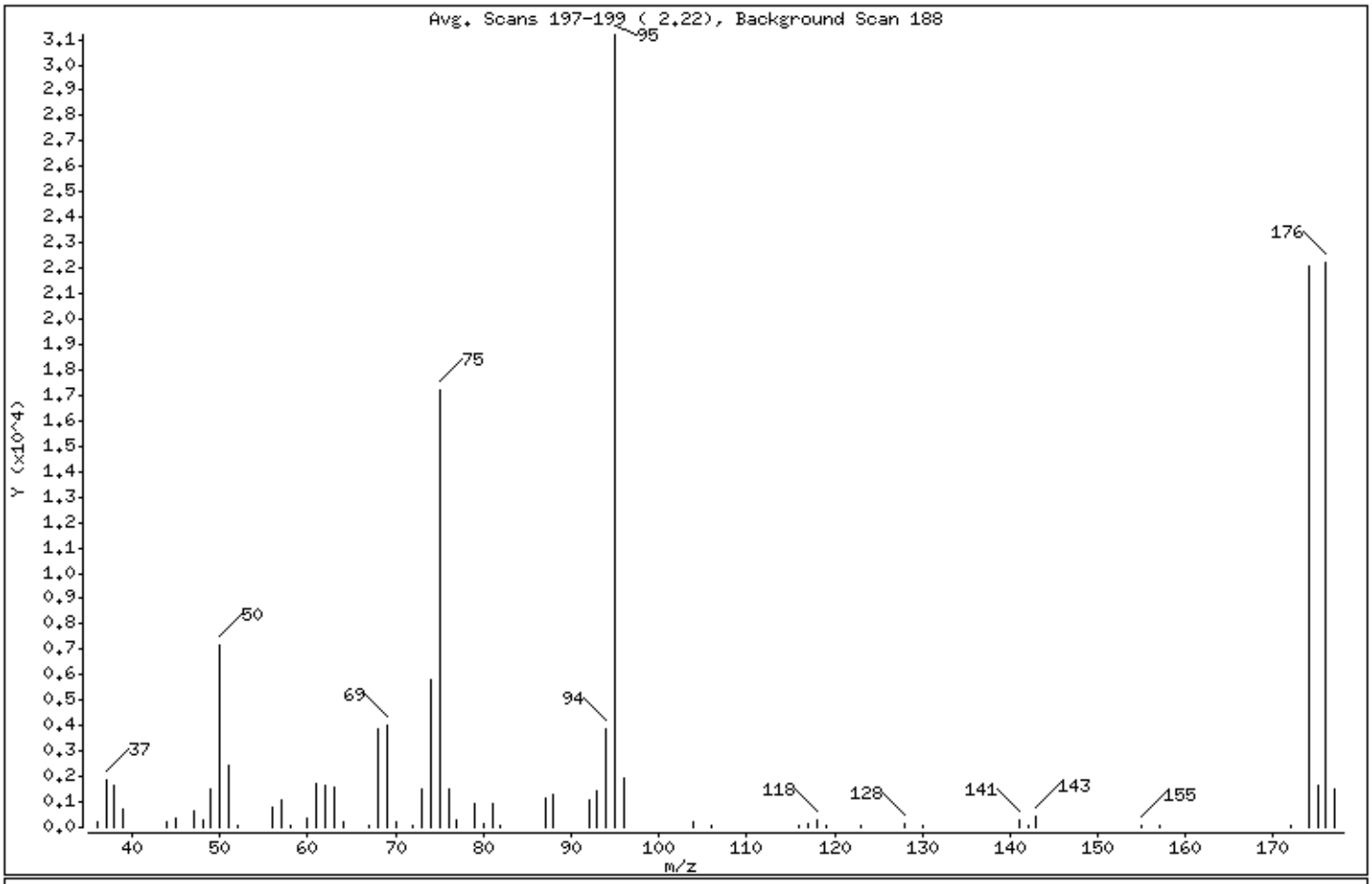
Sample Info: WG307697-3,SO6709

Operator: HG

Column phase: RTX-VMS

Column diameter: 0.18

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	22.97
75	30.00 - 60.00% of mass 95	55.11
96	5.00 - 9.00% of mass 95	6.27
173	Less than 2.00% of mass 174	0.00 (0.00)
174	Greater than 50.00% of mass 95	70.70
175	5.00 - 9.00% of mass 174	5.20 (7.35)
176	95.00 - 101.00% of mass 174	71.37 (100.94)
177	5.00 - 9.00% of mass 176	4.84 (6.78)

Date : 12-OCT-2021 06:35

Client ID: Instrument: gcms-w.i

Sample Info: WG307697-3,SO6709

Operator: HG

Column phase: RTX-VMS Column diameter: 0.18

Data File: WB659a.D
Spectrum: Avg. Scans 197-199 (2.22), Background Scan 188
Location of Maximum: 95.00
Number of points: 60

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	212	61.00	1753	81.00	965	128.00	169
37.00	1844	62.00	1659	82.00	105	130.00	100
38.00	1623	63.00	1579	87.00	1156	141.00	298
39.00	711	64.00	203	88.00	1260	142.00	71
44.00	242	67.00	68	92.00	1082	143.00	464
45.00	370	68.00	3898	93.00	1459	155.00	72
47.00	655	69.00	3988	94.00	3876	157.00	67
48.00	293	70.00	185	95.00	31184	172.00	68
49.00	1499	72.00	95	96.00	1955	174.00	22048
50.00	7163	73.00	1504	104.00	189	175.00	1621
51.00	2419	74.00	5810	106.00	93	176.00	22256
52.00	71	75.00	17184	116.00	71	177.00	1510
56.00	754	76.00	1518	117.00	165		
57.00	1095	77.00	311	118.00	288		
58.00	72	79.00	900	119.00	78		
60.00	341	80.00	161	123.00	73		

Raw QC Data Section

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Lab ID: WG307646-2
Client ID: Method Blank
SDG: SO6709
Lab File ID: C1211.D

Extract Date: 11-OCT-21
Extracted By: HG
Extraction Method: SW846 5030
Lab Prep Batch: WG307646
% Solids: NA

Analysis Date: 11-OCT-21
Analyst: HG
Analysis Method: SW846 8260B
Matrix: AQ
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	2.0	ug/L	1	2	2.0
Vinyl Chloride	U	2.0	ug/L	1	2	2.0
Bromomethane	U	2.0	ug/L	1	2	2.0
Chloroethane	U	2.0	ug/L	1	2	2.0
Trichlorofluoromethane	U	2.0	ug/L	1	2	2.0
1,1-Dichloroethene	U	1.0	ug/L	1	1	1.0
Carbon Disulfide	U	1.0	ug/L	1	1	1.0
Methylene Chloride	U	5.0	ug/L	1	5	5.0
trans-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
1,1-Dichloroethane	U	1.0	ug/L	1	1	1.0
cis-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
Chloroform	U	1.0	ug/L	1	1	1.0
Carbon Tetrachloride	U	1.0	ug/L	1	1	1.0
1,1,1-Trichloroethane	U	1.0	ug/L	1	1	1.0
2-Butanone	U	5.0	ug/L	1	5	5.0
Benzene	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethane	U	1.0	ug/L	1	1	1.0
Trichloroethene	U	1.0	ug/L	1	1	1.0
1,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Bromodichloromethane	U	1.0	ug/L	1	1	1.0
cis-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
Toluene	U	1.0	ug/L	1	1	1.0
4-Methyl-2-Pentanone	U	5.0	ug/L	1	5	5.0
Tetrachloroethene	U	1.0	ug/L	1	1	1.0
trans-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
1,1,2-Trichloroethane	U	1.0	ug/L	1	1	1.0
Dibromochloromethane	U	1.0	ug/L	1	1	1.0
Chlorobenzene	U	1.0	ug/L	1	1	1.0
Ethylbenzene	U	1.0	ug/L	1	1	1.0
m+p-Xylenes	U	2.0	ug/L	1	2	2.0
o-Xylene	U	1.0	ug/L	1	1	1.0
Bromoform	U	1.0	ug/L	1	1	1.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
P-Bromofluorobenzene		95.1	%			
Toluene-d8		102.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Lab ID: WG307646-2
Client ID: Method Blank
SDG: SO6709
Lab File ID: C1211.D

Extract Date: 11-OCT-21
Extracted By: HG
Extraction Method: SW846 5030
Lab Prep Batch: WG307646
% Solids: NA

Analysis Date: 11-OCT-21
Analyst: HG
Analysis Method: SW846 8260B
Matrix: AQ
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		109.	%			
Dibromofluoromethane		104.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Data File: \\target_server\gg\chem\gcms-c.i\C101121.b\C1211.D
Report Date: 10-Nov-2021 14:56

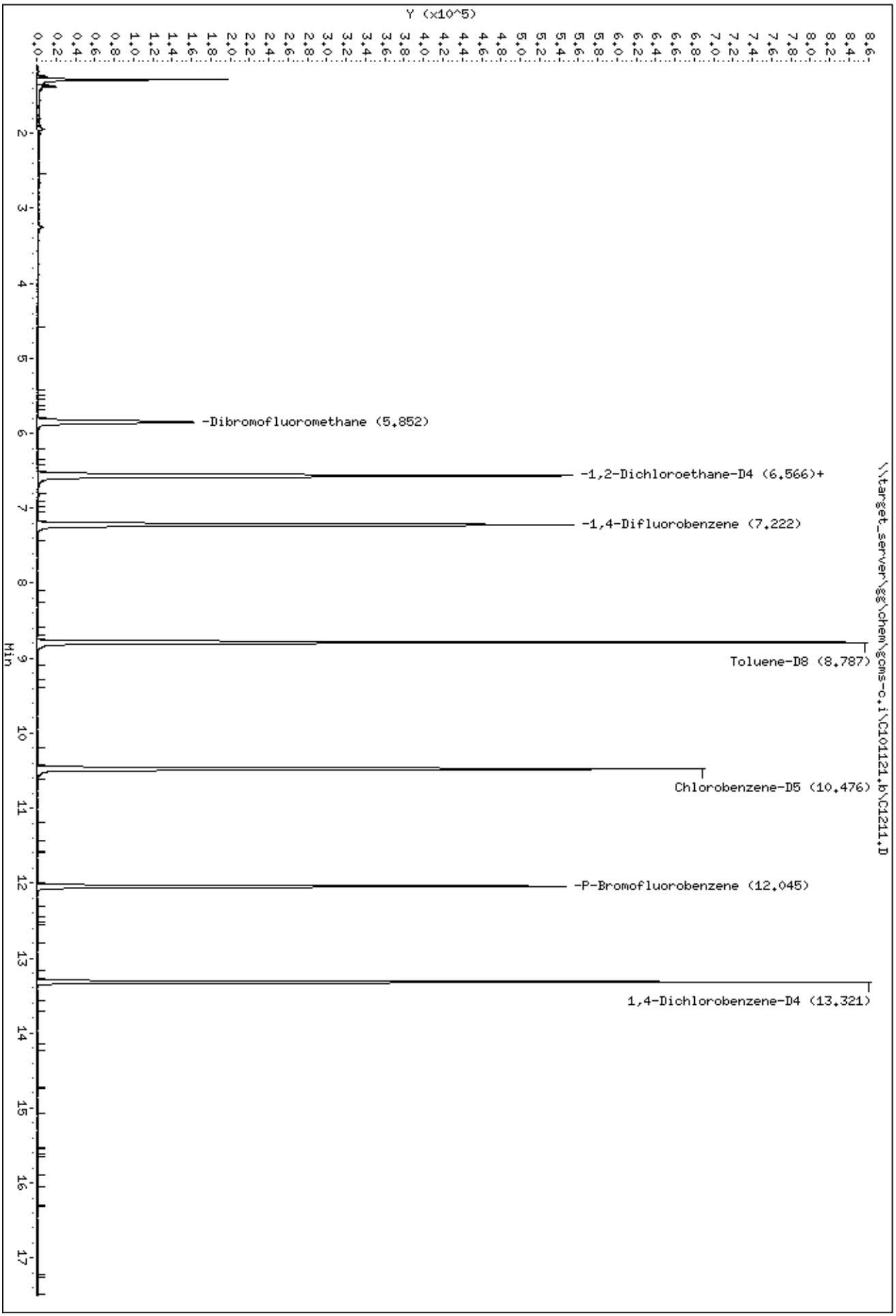
Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-c.i\C101121.b\C1211.D
Lab Smp Id: WG307646-2
Inj Date : 11-OCT-2021 09:18
Operator : HG   Inst ID: gcms-c.i
Smp Info : WG307646-2,SO6709
Misc Info : WG307646,WG307646-4,SO6709-15
Comment   : SW846 5030
Method   : \\target_server\gg\chem\gcms-c.i\C101121.b\C8A05(53).m
Meth Date : 12-Oct-2021 08:30 hgould   Quant Type: ISTD
Cal Date : 04-OCT-2021 12:45   Cal File: C1017.D
Als bottle: 4
Dil Factor: 1.00000
Integrator: HP RTE   Compound Sublist: all.sub
Target Version: 4.12
Processing Host: VOA-WS

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)	REVIEW CODE
$ 35 Dibromofluoromethane	113	5.848	5.849	(0.891)	128209	52.2025	52.2	
$ 41 1,2-Dichloroethane-D4	65	6.565	6.566	(1.000)	174902	54.4374	54.4	
* 42 Pentafluorobenzene	168	6.565	6.566	(1.000)	269108	50.0000		
* 48 1,4-Difluorobenzene	114	7.221	7.218	(1.000)	467686	50.0000		
$ 56 Toluene-D8	98	8.790	8.787	(1.217)	544837	50.7716	50.8	
* 67 Chlorobenzene-D5	117	10.478	10.475	(1.000)	419742	50.0000		
$ 76 P-Bromofluorobenzene	95	12.044	12.041	(1.668)	190437	47.5662	47.6	
* 91 1,4-Dichlorobenzene-D4	152	13.321	13.318	(1.000)	196119	50.0000		



Data File: \\target_server\gg\chem\gcms-c.i\C101121.b\C1211.D
Date : 11-OCT-2021 09:18
Client ID:
Sample Info: WG307646-2,SD6709

Instrument: gcms-c.i

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Lab ID: WG307648-11
Client ID: Method Blank
SDG: SO6709
Lab File ID: T3711.D

Extract Date: 11-OCT-21
Extracted By: JSS
Extraction Method: SW846 5030
Lab Prep Batch: WG307648
% Solids: NA

Analysis Date: 11-OCT-21
Analyst: JSS
Analysis Method: SW846 8260B
Matrix: AQ
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	2.0	ug/L	1	2	2.0
Vinyl Chloride	U	2.0	ug/L	1	2	2.0
Bromomethane	U	2.0	ug/L	1	2	2.0
Chloroethane	U	2.0	ug/L	1	2	2.0
Trichlorofluoromethane	U	2.0	ug/L	1	2	2.0
1,1-Dichloroethene	U	1.0	ug/L	1	1	1.0
Carbon Disulfide	U	1.0	ug/L	1	1	1.0
Methylene Chloride	U	5.0	ug/L	1	5	5.0
trans-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
1,1-Dichloroethane	U	1.0	ug/L	1	1	1.0
cis-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
Chloroform	U	1.0	ug/L	1	1	1.0
Carbon Tetrachloride	U	1.0	ug/L	1	1	1.0
1,1,1-Trichloroethane	U	1.0	ug/L	1	1	1.0
2-Butanone	U	5.0	ug/L	1	5	5.0
Benzene	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethane	U	1.0	ug/L	1	1	1.0
Trichloroethene	U	1.0	ug/L	1	1	1.0
1,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Bromodichloromethane	U	1.0	ug/L	1	1	1.0
cis-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
Toluene	U	1.0	ug/L	1	1	1.0
4-Methyl-2-Pentanone	U	5.0	ug/L	1	5	5.0
Tetrachloroethene	U	1.0	ug/L	1	1	1.0
trans-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
1,1,2-Trichloroethane	U	1.0	ug/L	1	1	1.0
Dibromochloromethane	U	1.0	ug/L	1	1	1.0
Chlorobenzene	U	1.0	ug/L	1	1	1.0
Ethylbenzene	U	1.0	ug/L	1	1	1.0
m+p-Xylenes	U	2.0	ug/L	1	2	2.0
o-Xylene	U	1.0	ug/L	1	1	1.0
Bromoform	U	1.0	ug/L	1	1	1.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
P-Bromofluorobenzene		96.0	%			
Toluene-d8		99.1	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Lab ID: WG307648-11
Client ID: Method Blank
SDG: SO6709
Lab File ID: T3711.D

Extract Date: 11-OCT-21
Extracted By: JSS
Extraction Method: SW846 5030
Lab Prep Batch: WG307648
% Solids: NA

Analysis Date: 11-OCT-21
Analyst: JSS
Analysis Method: SW846 8260B
Matrix: AQ
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		97.6	%			
Dibromofluoromethane		98.9	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Data File: \\target_server\gg\chem\gcms-t.i\T101121.b\T3711.D
Report Date: 11-Nov-2021 16:58

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-t.i\T101121.b\T3711.D
Lab Smp Id: WG307648-11 Client Smp ID: WG307648-Blank
Inj Date : 11-OCT-2021 15:31
Operator : JSS Inst ID: gcms-t.i
Smp Info : WG307648-11,SO6709
Misc Info : WG307648,WG307648-4,SO6709-35
Comment : SW846 5030
Method : \\target_server\gg\chem\gcms-t.i\T101121.b\T8A05(01)shrt.m
Meth Date : 05-Nov-2021 14:30 hgould Quant Type: ISTD
Cal Date : 11-OCT-2021 14:13 Cal File: T3708.D
Als bottle: 12 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.12
Processing Host: VOA-WS

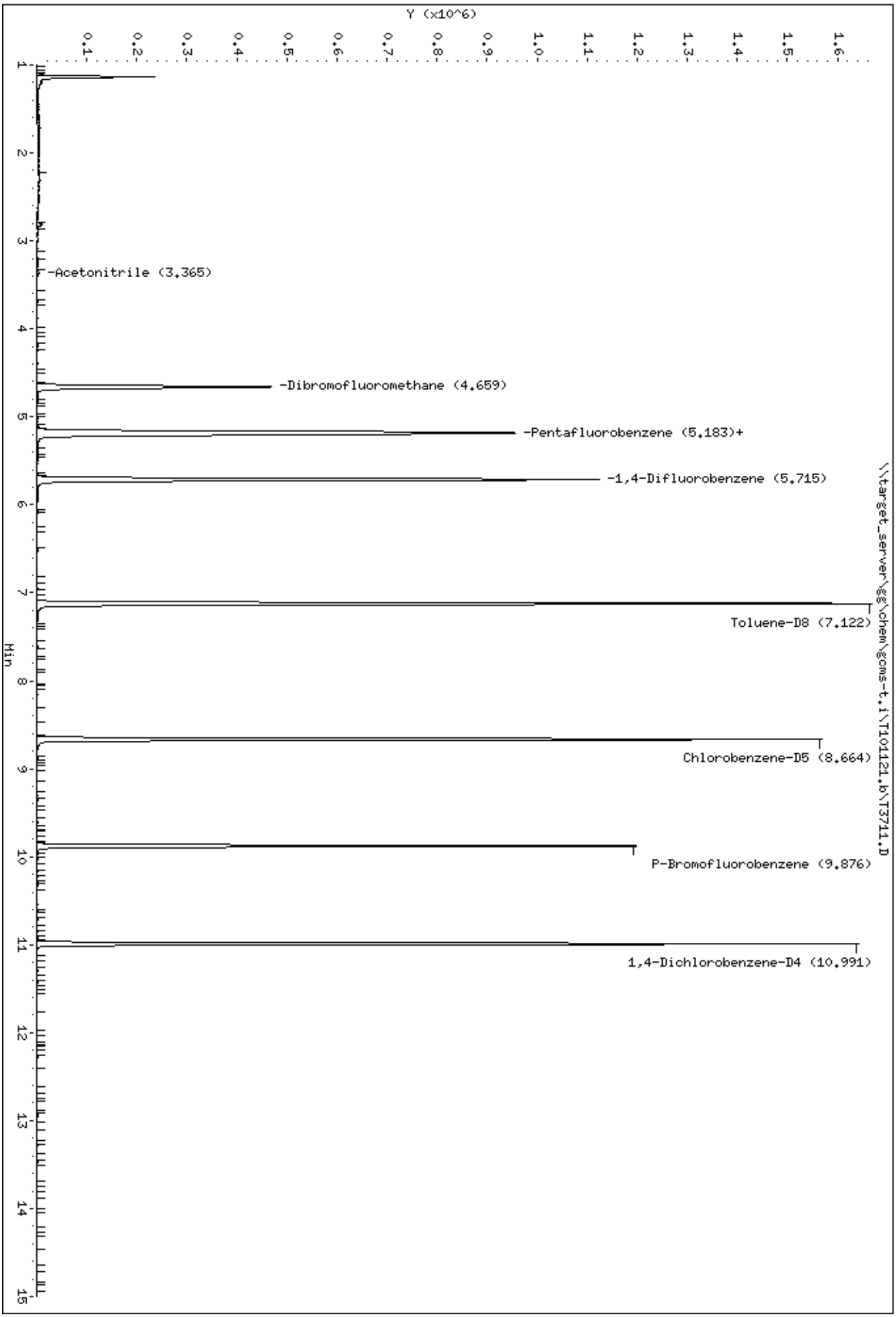
Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)	REVIEW CODE
20 Acetonitrile	41	3.364	3.361	(0.650)	5166	8.67018	8.7(aM)	M9
$ 34 Dibromofluoromethane	113	4.663	4.659	(0.901)	293089	49.4381	49.4	
* 41 Pentafluorobenzene	168	5.175	5.176	(1.000)	587921	50.0000		
$ 42 1,2-Dichloroethane-D4	65	5.198	5.202	(1.004)	367822	48.7986	48.8	
* 48 1,4-Difluorobenzene	114	5.714	5.714	(1.000)	917311	50.0000		
$ 56 Toluene-D8	98	7.121	7.122	(1.246)	1054111	49.5597	49.6	
* 68 Chlorobenzene-D5	117	8.663	8.663	(1.000)	797947	50.0000		
$ 77 P-Bromofluorobenzene	95	9.879	9.876	(1.729)	367599	48.0229	48.0	
* 93 1,4-Dichlorobenzene-D4	152	10.991	10.991	(1.000)	378850	50.0000		

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.


Data File: \\target_server\gg\chem\gcms-t.i\T101121.b\T3711.D
Date : 11-OCT-2021 15:31
Client ID: WG307648-Blank
Sample Info: WG307648-11,506709
Instrument: gcms-t.i
\\target_server\gg\chem\gcms-t.i\T101121.b\T3711.D
Y (x10^6)
Min
-Acetonitrile (3.365)
-Dibromofluoromethane (4.659)
-Pentafluorobenzene (5.183)+
-1,4-Difluorobenzene (5.715)
Toluene-D8 (7.122)
Chlorobenzene-D5 (8.664)
P-Bromofluorobenzene (9.876)
1,4-Dichlorobenzene-D4 (10.991)

Data File: \\target_server\gg\chem\gcms-t.i\T101121.b\T3711.D

Date : 11-OCT-2021 15:31

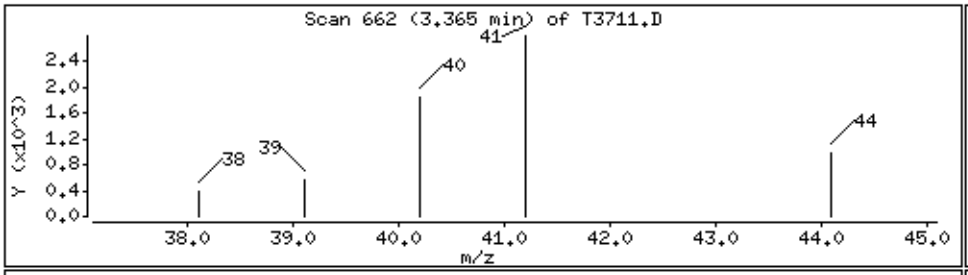
Client ID: WG307648-Blank

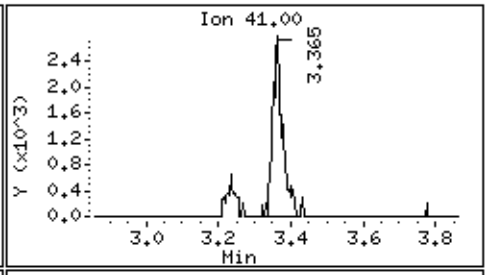
Instrument: gcms-t.i

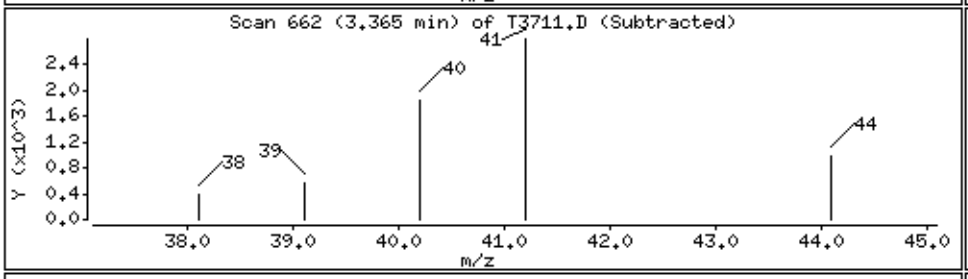
Sample Info: WG307648-11,SO6709

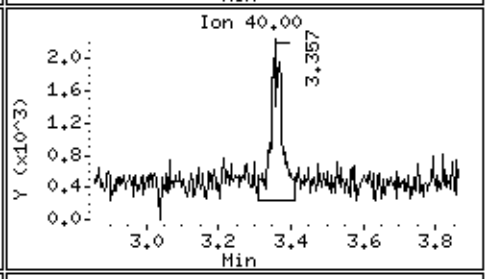
20 Acetonitrile

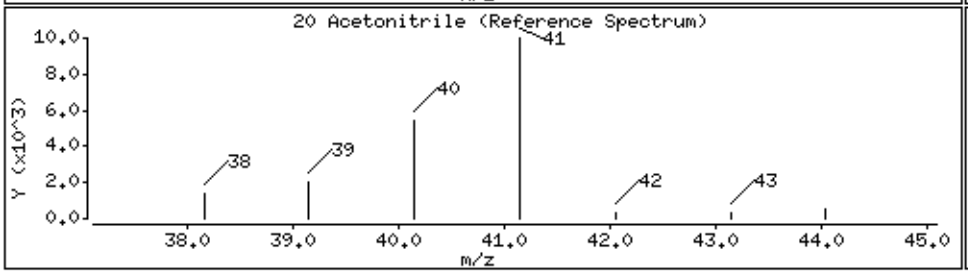
Concentration: 8.7 ug/l

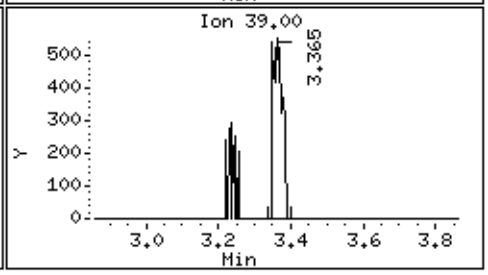












Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Lab ID: WG307650-2
Client ID: Method Blank
SDG: SO6709
Lab File ID: W0604.D

Extract Date: 11-OCT-21
Extracted By: HG
Extraction Method: SW846 5030
Lab Prep Batch: WG307650
% Solids: NA

Analysis Date: 11-OCT-21
Analyst: HG
Analysis Method: SW846 8260B
Matrix: AQ
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	2.0	ug/L	1	2	2.0
Vinyl Chloride	U	2.0	ug/L	1	2	2.0
Bromomethane	U	2.0	ug/L	1	2	2.0
Chloroethane	U	2.0	ug/L	1	2	2.0
Trichlorofluoromethane	U	2.0	ug/L	1	2	2.0
1,1-Dichloroethene	U	1.0	ug/L	1	1	1.0
Carbon Disulfide	U	1.0	ug/L	1	1	1.0
Methylene Chloride	U	5.0	ug/L	1	5	5.0
trans-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
1,1-Dichloroethane	U	1.0	ug/L	1	1	1.0
cis-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
Chloroform	U	1.0	ug/L	1	1	1.0
Carbon Tetrachloride	U	1.0	ug/L	1	1	1.0
1,1,1-Trichloroethane	U	1.0	ug/L	1	1	1.0
2-Butanone	U	5.0	ug/L	1	5	5.0
Benzene	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethane	U	1.0	ug/L	1	1	1.0
Trichloroethene	U	1.0	ug/L	1	1	1.0
1,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Bromodichloromethane	U	1.0	ug/L	1	1	1.0
cis-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
Toluene	U	1.0	ug/L	1	1	1.0
4-Methyl-2-Pentanone	U	5.0	ug/L	1	5	5.0
Tetrachloroethene	U	1.0	ug/L	1	1	1.0
trans-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
1,1,2-Trichloroethane	U	1.0	ug/L	1	1	1.0
Dibromochloromethane	U	1.0	ug/L	1	1	1.0
Chlorobenzene	U	1.0	ug/L	1	1	1.0
Ethylbenzene	U	1.0	ug/L	1	1	1.0
m+p-Xylenes	U	2.0	ug/L	1	2	2.0
o-Xylene	U	1.0	ug/L	1	1	1.0
Bromoform	U	1.0	ug/L	1	1	1.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
P-Bromofluorobenzene		97.2	%			
Toluene-d8		100.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Lab ID: WG307650-2
Client ID: Method Blank
SDG: SO6709
Lab File ID: W0604.D

Extract Date: 11-OCT-21
Extracted By: HG
Extraction Method: SW846 5030
Lab Prep Batch: WG307650
% Solids: NA

Analysis Date: 11-OCT-21
Analyst: HG
Analysis Method: SW846 8260B
Matrix: AQ
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		108.	%			
Dibromofluoromethane		106.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Data File: \\target_server\gg\chem\gcms-w.i\W101121.b\W0604.D
Report Date: 11-Nov-2021 17:14

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-w.i\W101121.b\W0604.D
Lab Smp Id: WG307650-2
Inj Date : 11-OCT-2021 08:23
Operator : HG   Inst ID: gcms-w.i
Smp Info : WG307650-2,SO6709
Misc Info : WG307650,WG306650-4,SO6709-1
Comment   : SW846 5030
Method   : \\target_server\gg\chem\gcms-w.i\W101121.b\W8A05(11).m
Meth Date : 11-Oct-2021 08:15 hgould   Quant Type: ISTD
Cal Date : 10-OCT-2021 12:35   Cal File: W0583.D
Als bottle: 4
Dil Factor: 1.00000
Integrator: HP RTE   Compound Sublist: all.sub
Target Version: 4.12
Processing Host: VOA-WS

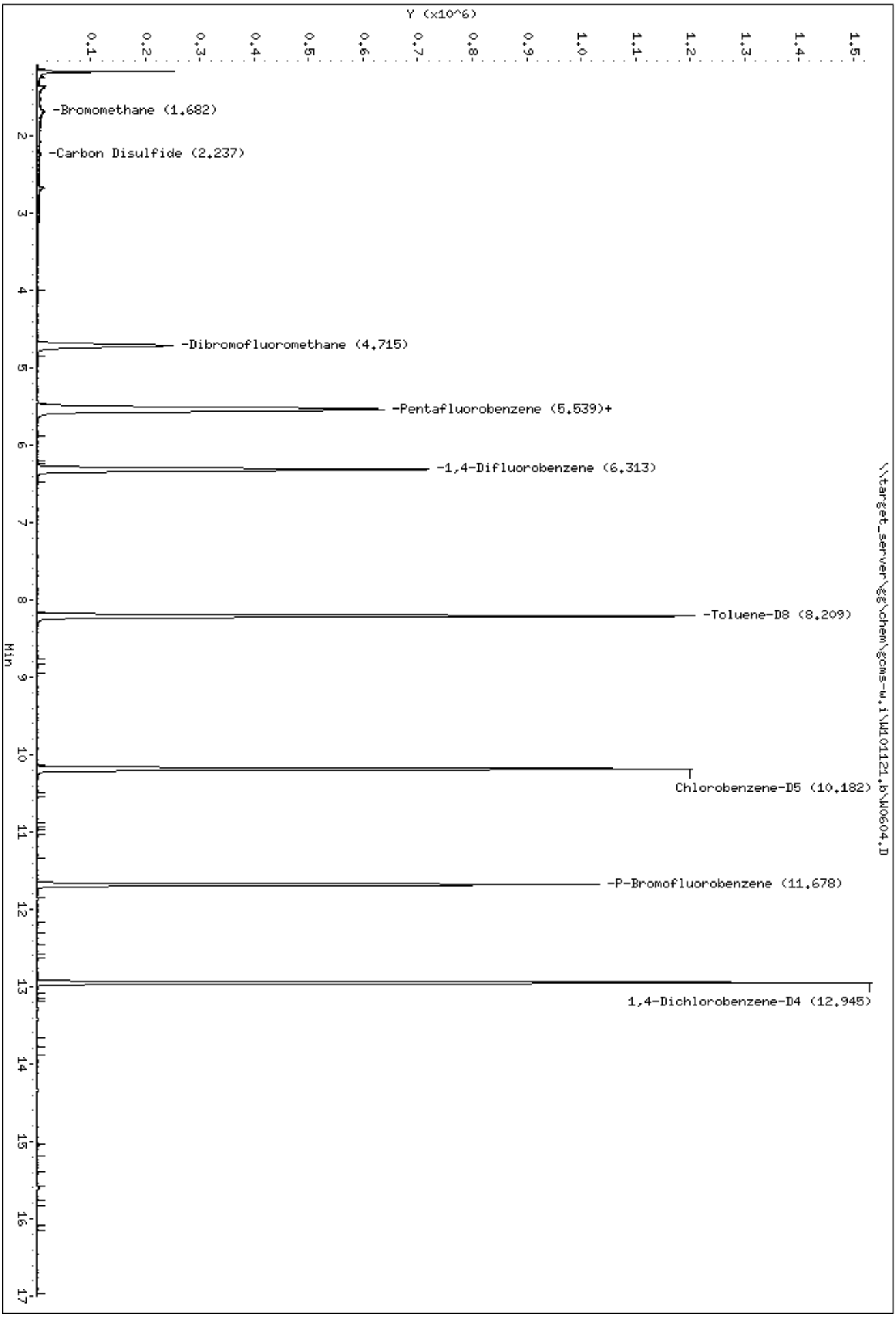
Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)	REVIEW CODE
	4 Bromomethane	94	1.675	1.672	(0.303)	1074	0.62395	0.62(a)	
	10 Carbon Disulfide	76	2.237	2.243	(0.405)	3699	0.38122	0.38(a)	
$	34 Dibromofluoromethane	113	4.714	4.721	(0.853)	235808	52.9330	52.9	
*	41 Pentafluorobenzene	168	5.529	5.533	(1.000)	439952	50.0000		
$	42 1,2-Dichloroethane-D4	65	5.548	5.555	(1.003)	335015	53.9225	53.9	
*	48 1,4-Difluorobenzene	114	6.312	6.319	(1.000)	763705	50.0000		
$	58 Toluene-D8	98	8.209	8.212	(1.300)	901428	50.2405	50.2	
*	68 Chlorobenzene-D5	117	10.182	10.185	(1.000)	697814	50.0000		
$	77 P-Bromofluorobenzene	95	11.677	11.684	(1.850)	345805	48.6155	48.6	
*	93 1,4-Dichlorobenzene-D4	152	12.945	12.952	(1.000)	359663	50.0000		

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).


Y (x10^6)
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0
1.1
1.2
1.3
1.4
1.5
Min
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
-Bromomethane (1.682)
-Carbon Disulfide (2.237)
-Dibromofluoromethane (4.715)
-Pentafluorobenzene (5.539)+
-1,4-Difluorobenzene (6.313)
-Toluene-D8 (8.209)
Chlorobenzene-D5 (10.182)
-P-Bromofluorobenzene (11.678)
1,4-Dichlorobenzene-D4 (12.945)
\\target_server\gg\chem\gcms-w.i\W101121.b\W0604.D
Data File: \\target_server\gg\chem\gcms-w.i\W101121.b\W0604.D
Date : 11-OCT-2021 08:23
Client ID:
Sample Info: WG307650-2,S06709
Instrument: gcms-w.i

Data File: \\target_server\gg\chem\gcms-w.i\W101121.b\W0604.D

Date : 11-OCT-2021 08:23

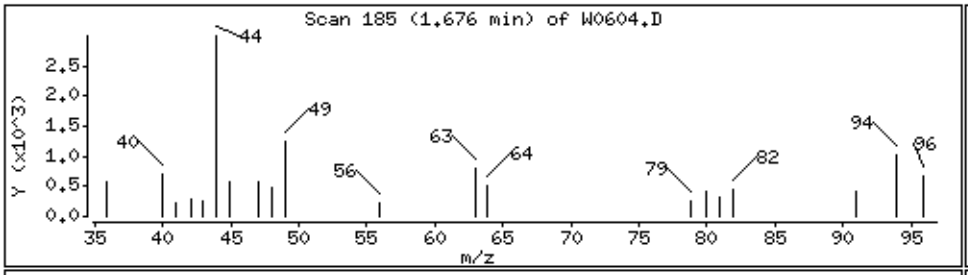
Client ID:

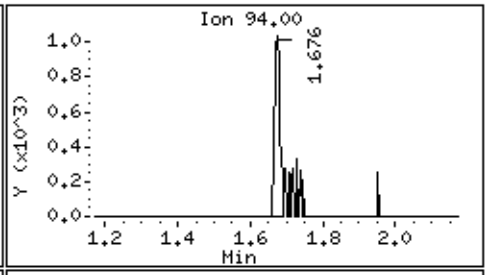
Instrument: gcms-w.i

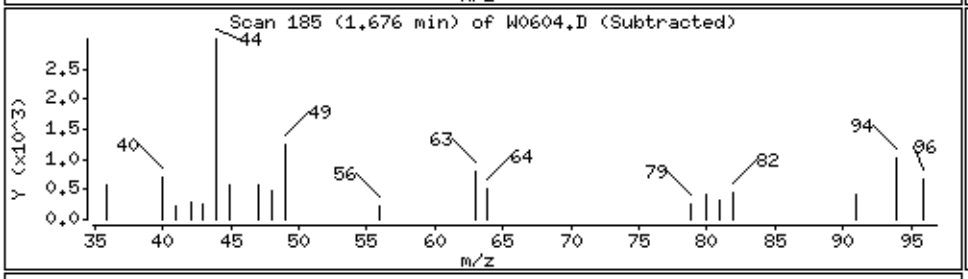
Sample Info: WG307650-2,SO6709

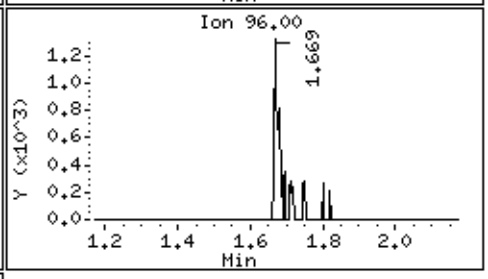
4 Bromomethane

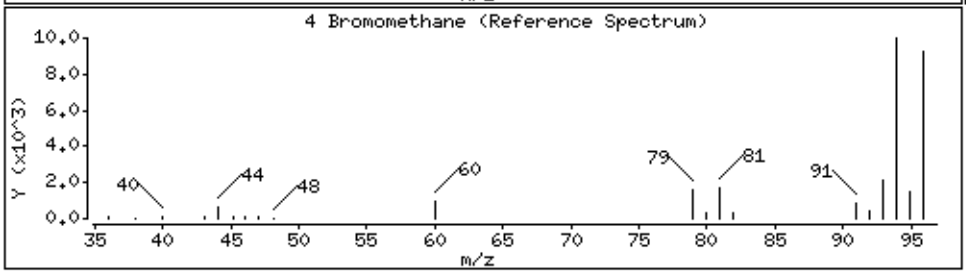
Concentration: 0.62 ug/l





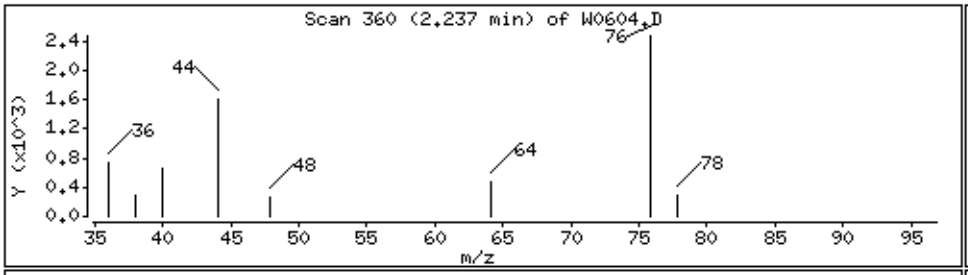


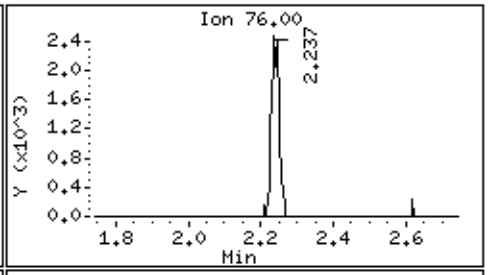


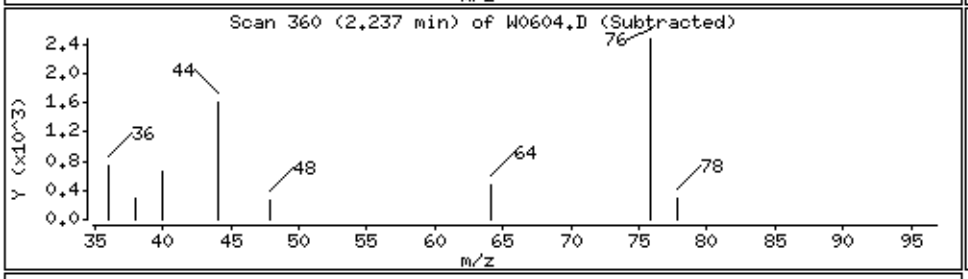


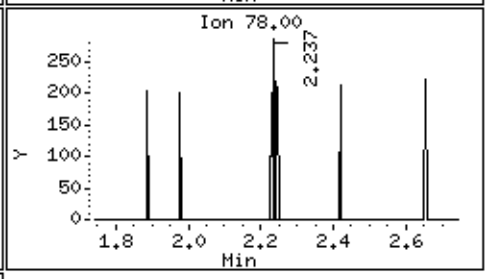
10 Carbon Disulfide

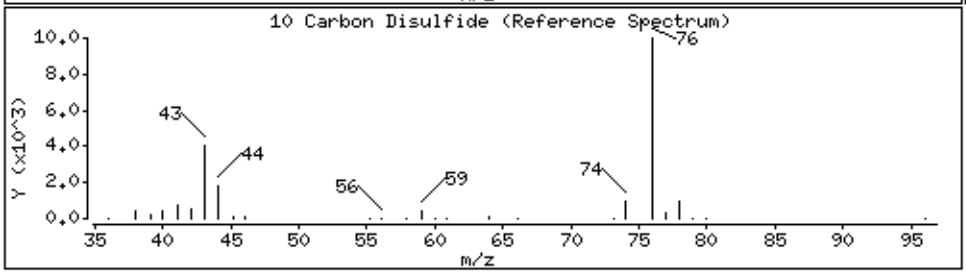
Concentration: 0.38 ug/l











Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Lab ID: WG307697-2
Client ID: Method Blank
SDG: SO6709
Lab File ID: W0628.D

Extract Date: 12-OCT-21
Extracted By: HG
Extraction Method: SW846 5030
Lab Prep Batch: WG307697
% Solids: NA

Analysis Date: 12-OCT-21
Analyst: HG
Analysis Method: SW846 8260B
Matrix: AQ
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
Chloromethane	U	2.0	ug/L	1	2	2.0
Vinyl Chloride	U	2.0	ug/L	1	2	2.0
Bromomethane	U	2.0	ug/L	1	2	2.0
Chloroethane	U	2.0	ug/L	1	2	2.0
Trichlorofluoromethane	U	2.0	ug/L	1	2	2.0
1,1-Dichloroethene	U	1.0	ug/L	1	1	1.0
Carbon Disulfide	U	1.0	ug/L	1	1	1.0
Methylene Chloride	U	5.0	ug/L	1	5	5.0
trans-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
1,1-Dichloroethane	U	1.0	ug/L	1	1	1.0
cis-1,2-Dichloroethene	U	1.0	ug/L	1	1	1.0
Chloroform	U	1.0	ug/L	1	1	1.0
Carbon Tetrachloride	U	1.0	ug/L	1	1	1.0
1,1,1-Trichloroethane	U	1.0	ug/L	1	1	1.0
2-Butanone	U	5.0	ug/L	1	5	5.0
Benzene	U	1.0	ug/L	1	1	1.0
1,2-Dichloroethane	U	1.0	ug/L	1	1	1.0
Trichloroethene	U	1.0	ug/L	1	1	1.0
1,2-Dichloropropane	U	1.0	ug/L	1	1	1.0
Bromodichloromethane	U	1.0	ug/L	1	1	1.0
cis-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
Toluene	U	1.0	ug/L	1	1	1.0
4-Methyl-2-Pentanone	U	5.0	ug/L	1	5	5.0
Tetrachloroethene	U	1.0	ug/L	1	1	1.0
trans-1,3-Dichloropropene	U	1.0	ug/L	1	1	1.0
1,1,2-Trichloroethane	U	1.0	ug/L	1	1	1.0
Dibromochloromethane	U	1.0	ug/L	1	1	1.0
Chlorobenzene	U	1.0	ug/L	1	1	1.0
Ethylbenzene	U	1.0	ug/L	1	1	1.0
m+p-Xylenes	U	2.0	ug/L	1	2	2.0
o-Xylene	U	1.0	ug/L	1	1	1.0
Bromoform	U	1.0	ug/L	1	1	1.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/L	1	1	1.0
P-Bromofluorobenzene		98.0	%			
Toluene-d8		101.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Lab ID: WG307697-2
Client ID: Method Blank
SDG: SO6709
Lab File ID: W0628.D

Extract Date: 12-OCT-21
Extracted By: HG
Extraction Method: SW846 5030
Lab Prep Batch: WG307697
% Solids: NA

Analysis Date: 12-OCT-21
Analyst: HG
Analysis Method: SW846 8260B
Matrix: AQ
Report Date: 12-NOV-21

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL
1,2-Dichloroethane-d4		115.	%			
Dibromofluoromethane		107.	%			

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Data File: \\target_server\gg\chem\gcms-w.i\W101221.b\W0628.D
Report Date: 11-Nov-2021 17:35

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-w.i\W101221.b\W0628.D
Lab Smp Id: WG307697-2
Inj Date : 12-OCT-2021 08:42
Operator : HG   Inst ID: gcms-w.i
Smp Info : WG307697-2,SO6709
Misc Info : WG307697,WG307697-4,SO6709-4
Comment   : SW846 5030
Method   : \\target_server\gg\chem\gcms-w.i\W101221.b\W8A05(11).m
Meth Date : 12-Oct-2021 07:57 estroh   Quant Type: ISTD
Cal Date : 10-OCT-2021 12:35   Cal File: W0583.D
Als bottle: 4
Dil Factor: 1.00000
Integrator: HP RTE   Compound Sublist: all.sub
Target Version: 4.12
Processing Host: VOSTRO2

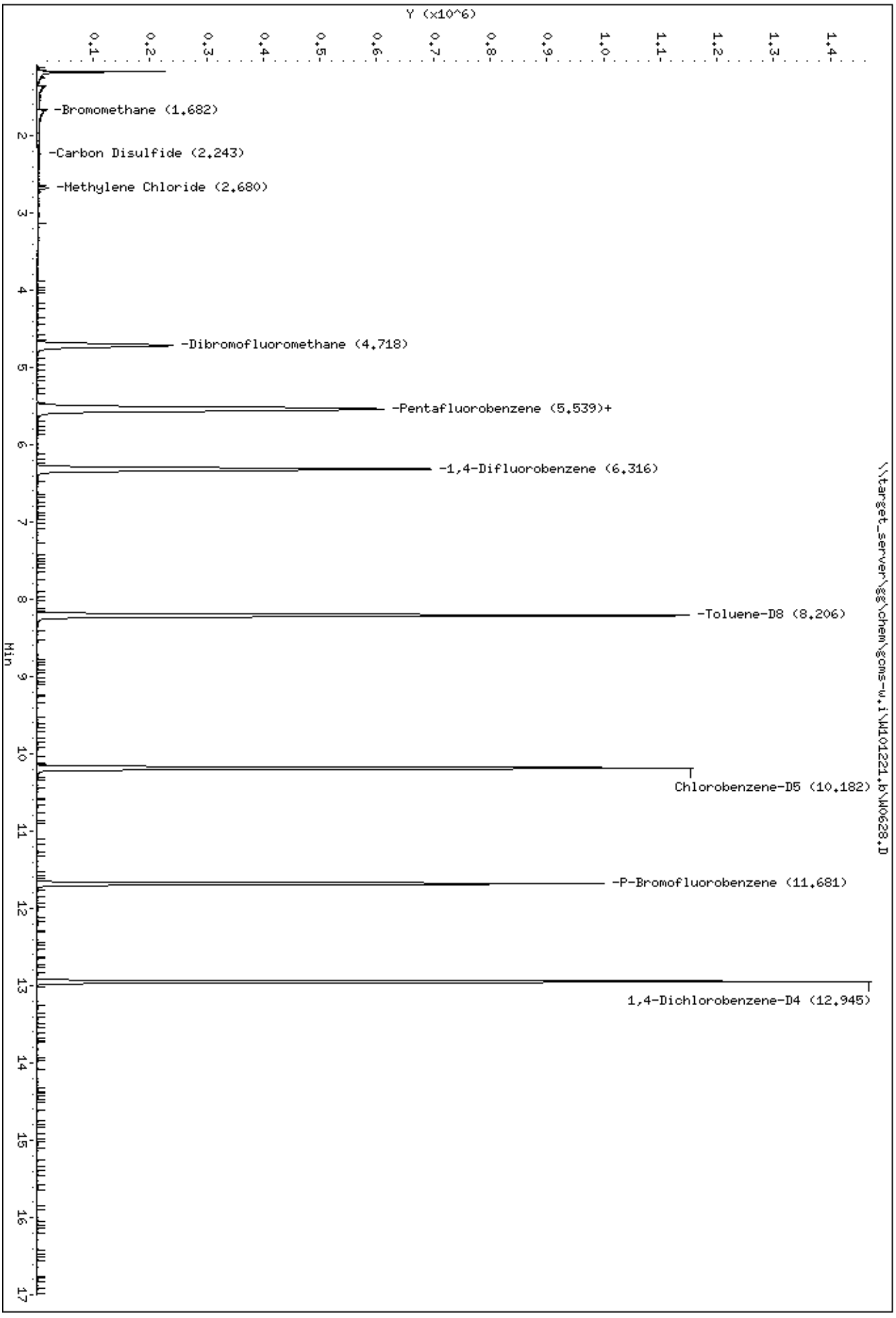
Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)	REVIEW CODE
	4 Bromomethane	94	1.675	1.672	(0.303)	911	0.57001	0.57(a)	
	10 Carbon Disulfide	76	2.243	2.243	(0.406)	2514	0.27905	0.28(a)	
	14 Methylene Chloride	84	2.676	2.680	(0.484)	6891	1.69642	1.7(a)	
$	34 Dibromofluoromethane	113	4.717	4.721	(0.853)	222257	53.7337	53.7	
*	41 Pentafluorobenzene	168	5.529	5.533	(1.000)	408491	50.0000		
$	42 1,2-Dichloroethane-D4	65	5.551	5.555	(1.004)	332672	57.6693	57.7	
*	48 1,4-Difluorobenzene	114	6.315	6.319	(1.000)	718632	50.0000		
$	58 Toluene-D8	98	8.205	8.212	(1.299)	855150	50.6505	50.6	
*	68 Chlorobenzene-D5	117	10.185	10.185	(1.000)	665662	50.0000		
$	77 P-Bromofluorobenzene	95	11.677	11.684	(1.849)	327940	48.9956	49.0	
*	93 1,4-Dichlorobenzene-D4	152	12.948	12.952	(1.000)	342808	50.0000		

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).


Data File: \\target_server\gg\chem\gcms-w.i\W101221.b\W0628.D
Date : 12-OCT-2021 08:42
Client ID:
Sample Info: WG307697-2,SD6709
Instrument: gcms-w.i
\\target_server\gg\chem\gcms-w.i\W101221.b\W0628.D
Y (x10^6)
Min
-Bromomethane (1.682)
-Carbon Disulfide (2.243)
-Methylene Chloride (2.680)
-Dibromofluoromethane (4.718)
-Pentafluorobenzene (5.539)+
-1,4-Difluorobenzene (6.316)
-Toluene-D8 (8.206)
Chlorobenzene-D5 (10.182)
-P-Bromofluorobenzene (11.681)
1,4-Dichlorobenzene-D4 (12.945)

Data File: \\target_server\gg\chem\gcms-w.i\W101221.b\W0628.D

Date : 12-OCT-2021 08:42

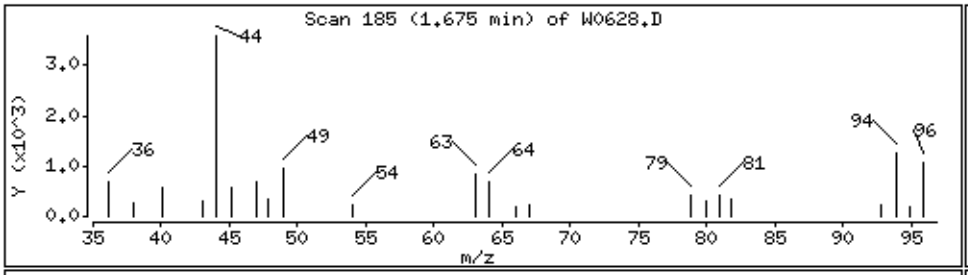
Client ID:

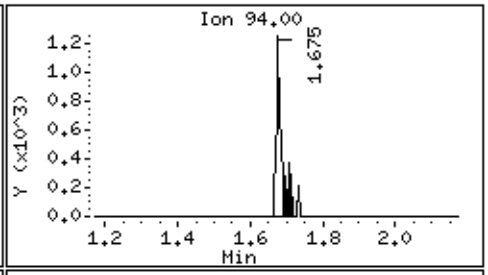
Instrument: gcms-w.i

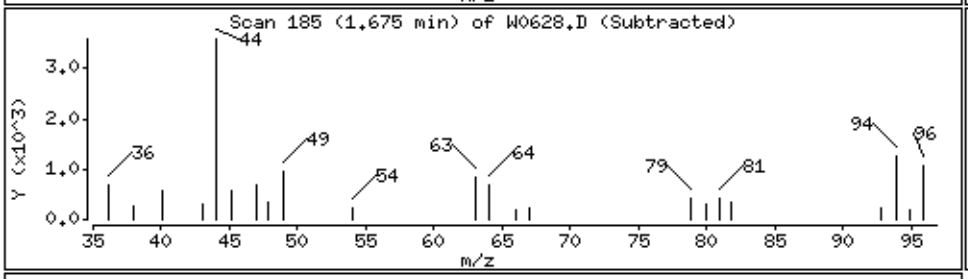
Sample Info: WG307697-2,SO6709

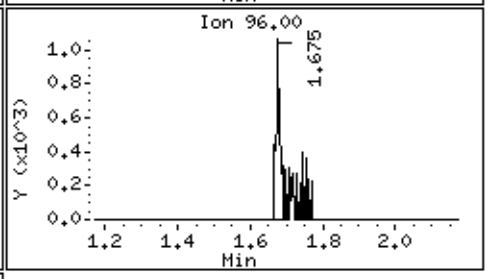
4 Bromomethane

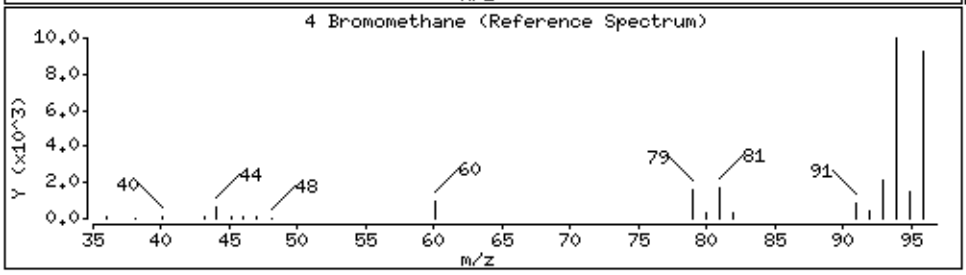
Concentration: 0.57 ug/l





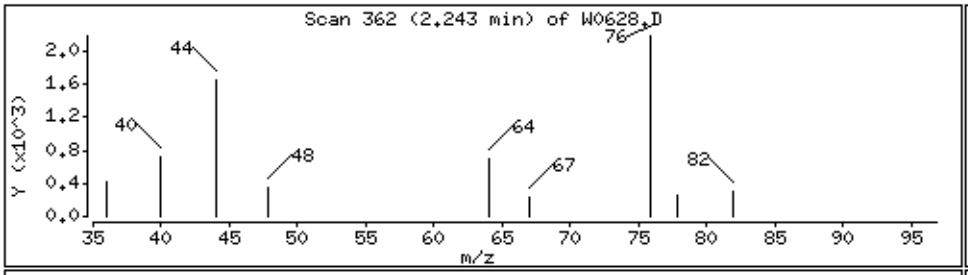


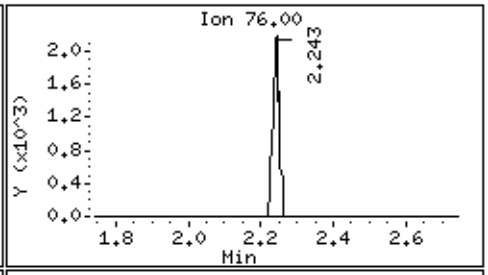


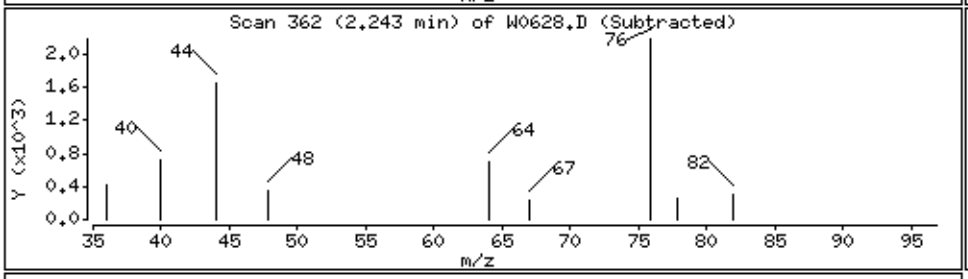


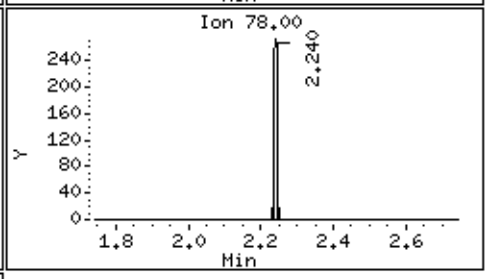
10 Carbon Disulfide

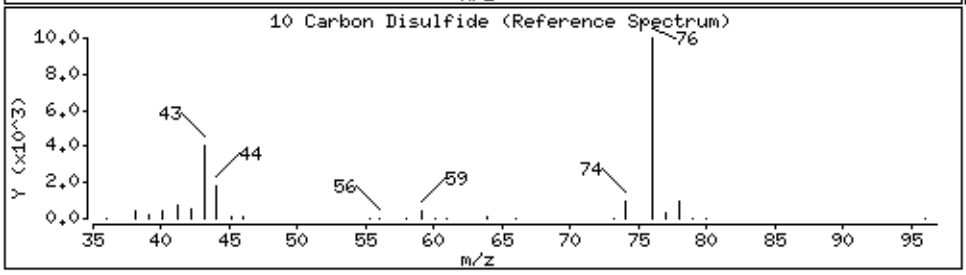
Concentration: 0.28 ug/l











Data File: \\target_server\gg\chem\gcms-w.i\W101221.b\W0628.D

Date : 12-OCT-2021 08:42

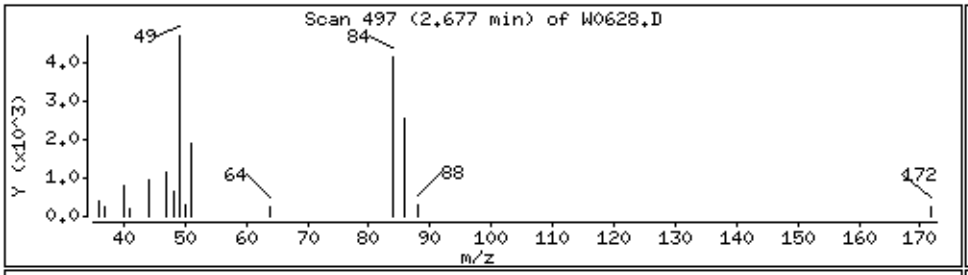
Client ID:

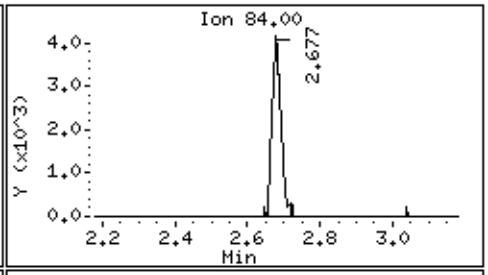
Instrument: gcms-w.i

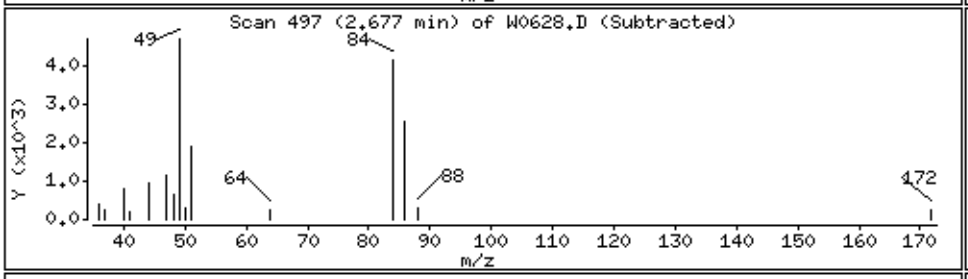
Sample Info: WG307697-2,SO6709

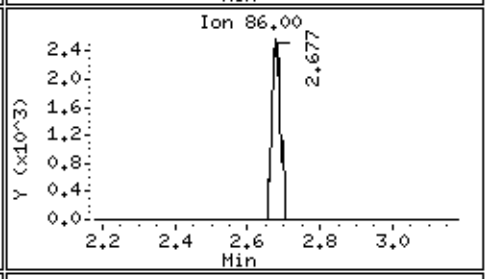
14 Methylene Chloride

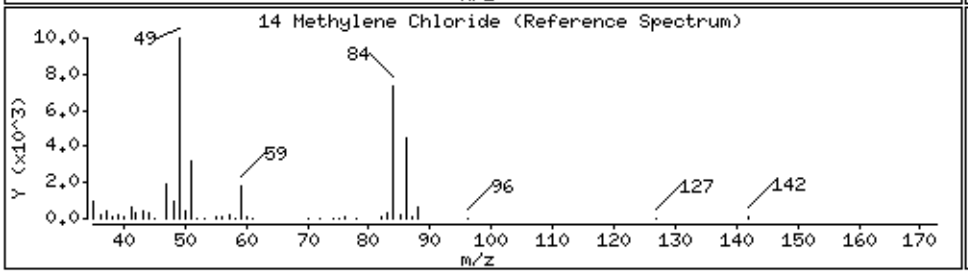
Concentration: 1.7 ug/l

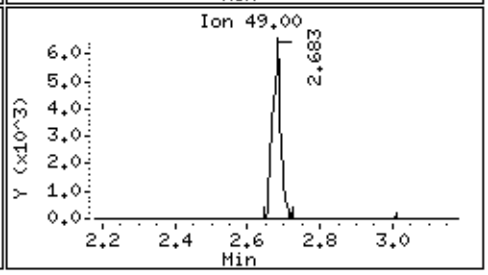












Katahdin
ANALYTICAL SERVICES

LCS Recovery Report

Lab ID: WG307646-1
Client ID: LCS
SDG: SO6709
LCS File ID: C1209.D
Report Date: 12-NOV-21

Extract Date: 11-OCT-21
Extracted By: HG
Extraction Method: SW846 5030
Lab Prep Batch: WG307646

Analysis Date: 11-OCT-21
Analyst: HG
Analysis Method: SW846 8260B
Matrix: AQ

Compound	Recovery (%)	Conc Added	Conc Recovered	Conc Units	Limits
Chloromethane	77.8	50.0	38.9	ug/L	59-123
Vinyl Chloride	92.2	50.0	46.1	ug/L	64-131
Bromomethane	96.2	50.0	48.1	ug/L	57-135
Chloroethane	86.8	50.0	43.4	ug/L	53-157
Trichlorofluoromethane	102.	50.0	51.2	ug/L	70-149
1,1-Dichloroethene	99.0	50.0	49.5	ug/L	88-127
Carbon Disulfide	104.	50.0	52.0	ug/L	71-129
Methylene Chloride	107.	50.0	53.5	ug/L	72-129
trans-1,2-Dichloroethene	98.8	50.0	49.4	ug/L	78-125
1,1-Dichloroethane	103.	50.0	51.4	ug/L	76-130
cis-1,2-Dichloroethene	102.	50.0	50.8	ug/L	85-123
Chloroform	100.	50.0	50.2	ug/L	78-128
Carbon Tetrachloride	103.	50.0	51.6	ug/L	87-126
1,1,1-Trichloroethane	103.	50.0	51.6	ug/L	77-129
2-Butanone	87.4	50.0	43.7	ug/L	71-132
Benzene	106.	50.0	53.1	ug/L	86-116
1,2-Dichloroethane	103.	50.0	51.4	ug/L	81-125
Trichloroethene	105.	50.0	52.5	ug/L	79-121
1,2-Dichloropropane	104.	50.0	52.1	ug/L	84-118
Bromodichloromethane	107.	50.0	53.6	ug/L	85-122
cis-1,3-Dichloropropene	102.	50.0	50.9	ug/L	83-119
Toluene	107.	50.0	53.4	ug/L	84-118
4-Methyl-2-Pentanone	93.8	50.0	46.9	ug/L	83-122
Tetrachloroethene	102.	50.0	50.9	ug/L	47-155
trans-1,3-Dichloropropene	98.4	50.0	49.2	ug/L	85-135
1,1,2-Trichloroethane	105.	50.0	52.7	ug/L	84-115
Dibromochloromethane	91.6	50.0	45.8	ug/L	85-119
Chlorobenzene	101.	50.0	50.6	ug/L	89-113
Ethylbenzene	108.	50.0	53.8	ug/L	88-113
m+p-Xylenes	111.	100.	111.	ug/L	88-116
o-Xylene	115.	50.0	57.4	ug/L	90-116
Bromoform	* 84.4	50.0	42.2	ug/L	86-117
1,1,2,2-Tetrachloroethane	98.4	50.0	49.2	ug/L	79-121
P-Bromofluorobenzene	102.				56-133
Toluene-d8	98.3				65-128
1,2-Dichloroethane-d4	98.5				67-135

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

LCS Recovery Report

Lab ID: WG307646-1
Client ID: LCS
SDG: SO6709
LCS File ID: C1209.D
Report Date: 12-NOV-21

Extract Date: 11-OCT-21
Extracted By: HG
Extraction Method: SW846 5030
Lab Prep Batch: WG307646

Analysis Date: 11-OCT-21
Analyst: HG
Analysis Method: SW846 8260B
Matrix: AQ

Compound	Recovery (%)	Conc Added	Conc Recovered	Conc Units	Limits
Dibromofluoromethane	98.1				68-128

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://www.katahdinlab.com

Data File: \\target_server\gg\chem\gcms-c.i\C101121.b\C1209.D
Report Date: 10-Nov-2021 14:56

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-c.i\C101121.b\C1209.D
Lab Smp Id: WG307646-1
Inj Date : 11-OCT-2021 08:09
Operator : HG   Inst ID: gcms-c.i
Smp Info : WG307646-1,SO6709
Misc Info : WG307646,WG307646-4,SO6709-15
Comment   : SW846 5030
Method   : \\target_server\gg\chem\gcms-c.i\C101121.b\C8A05(53).m
Meth Date : 12-Oct-2021 08:30 hgould   Quant Type: ISTD
Cal Date : 04-OCT-2021 12:45   Cal File: C1017.D
Als bottle: 2   QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE   Compound Sublist: all.sub
Target Version: 4.12

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)	REVIEW CODE
1	Dichlorodifluoromethane	85	1.411	1.412	(0.215)	273035	48.4381	48.4	
2	Chloromethane	50	1.572	1.579	(0.239)	228568	38.9245	38.9	
3	Vinyl chloride	62	1.642	1.643	(0.250)	211250	46.0698	46.1	
4	Bromomethane	94	1.916	1.920	(0.292)	119228	48.1404	48.1	
5	Chloroethane	64	2.022	2.025	(0.308)	117661	43.4220	43.4	
6	Trichlorofluoromethane	101	2.154	2.154	(0.328)	335486	51.2281	51.2	
7	Diethyl Ether	59	2.443	2.444	(0.372)	142464	49.2754	49.3	
8	1,1-Dichloroethene	96	2.630	2.630	(0.401)	156587	49.4677	49.5	
9	Carbon Disulfide	76	2.652	2.656	(0.404)	356285	51.9562	52.0	
10	Freon-113	151	2.671	2.675	(0.407)	127748	54.1889	54.2	
11	Iodomethane	142	2.768	2.768	(0.422)	124652	58.4444	58.4	
12	Acrolein	56	2.974	2.977	(0.453)	118238	208.864	209	
13	Allyl Chloride	41	3.125	3.129	(0.476)	213844	48.6083	48.6	
14	Methylene Chloride	84	3.247	3.244	(0.495)	212908	53.5198	53.5	
15	Acetone	43	3.311	3.312	(0.504)	65273	44.2705	44.3	
16	trans-1,2-Dichloroethene	96	3.433	3.434	(0.523)	202513	49.3788	49.4	
17	Methyl Acetate	43	3.466	3.473	(0.528)	147364	43.5224	43.5	
18	Methyl tert-butyl ether	73	3.591	3.592	(0.547)	510243	49.8682	49.9	
19	Tertiary-butyl alcohol	59	3.745	3.749	(0.571)	78438	227.562	228	
20	Acetonitrile	41	3.877	3.874	(0.591)	259137	418.722	419	
21	Di-isopropyl ether	45	4.118	4.119	(0.627)	612553	52.0924	52.1	
22	Chloroprene	53	4.215	4.215	(0.642)	324508	51.6979	51.7	
23	1,1-Dichloroethane	63	4.250	4.244	(0.647)	393072	51.3537	51.4	
24	Acrylonitrile	52	4.324	4.320	(0.659)	318475	224.433	224	

Data File: \\target_server\gg\chem\gcms-c.i\C101121.b\C1209.D
Report Date: 10-Nov-2021 14:56

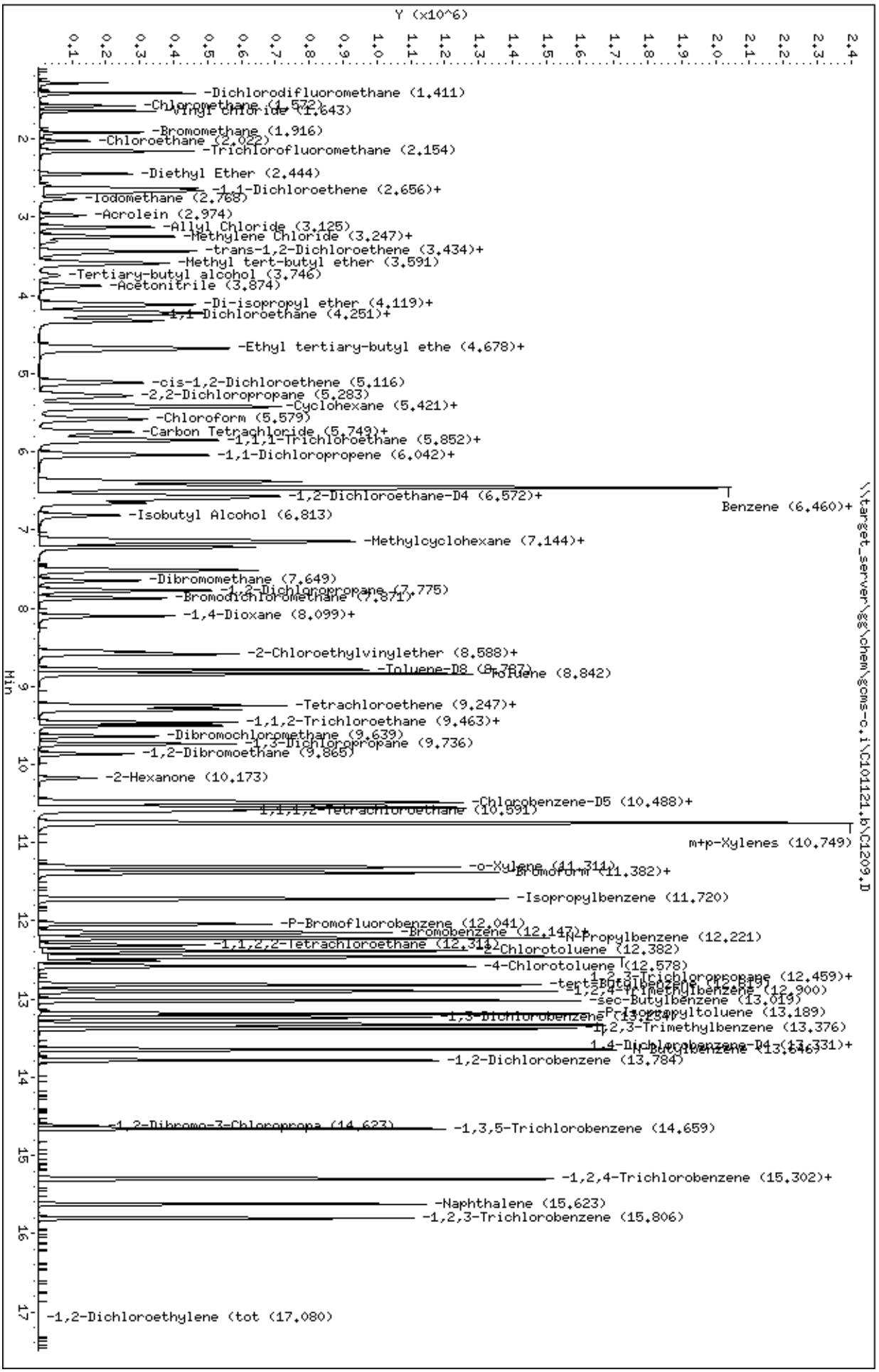
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)	REVIEW CODE
	25 Ethyl tertiary-butyl ether	59	4.675	4.678	(0.712)	550639	53.1470	53.1	
	26 Vinyl Acetate	43	4.678	4.678	(0.648)	454150	58.5899	58.6	
	27 cis-1,2-Dichloroethene	96	5.112	5.109	(0.779)	211973	50.7913	50.8	
	28 2,2-Dichloropropane	77	5.282	5.286	(0.805)	287051	56.8937	56.9	
	29 Cyclohexane	56	5.420	5.421	(0.826)	377870	57.7742	57.8	
	30 Bromochloromethane	128	5.427	5.427	(0.827)	91925	55.3387	55.3	
	31 Chloroform	83	5.578	5.579	(0.850)	371429	50.1738	50.2	
	32 Carbon Tetrachloride	117	5.748	5.752	(0.796)	272925	51.6280	51.6	
	33 Tetrahydrofuran	42	5.803	5.797	(0.884)	55771	37.0164	37.0	
	34 1,1,1-Trichloroethane	97	5.851	5.852	(0.891)	343826	51.6496	51.6	
$	35 Dibromofluoromethane	113	5.845	5.849	(0.890)	148667	49.0387	49.0	
	36 1,1-Dichloropropene	75	6.041	6.042	(0.837)	304983	51.5231	51.5	
	37 2-Butanone	43	6.044	6.045	(0.921)	88182	43.6673	43.7	
	38 Benzene	78	6.382	6.382	(0.884)	877933	53.0867	53.1	
	39 Propionitrile	54	6.427	6.427	(0.979)	297842	429.725	430	
	40 Methacrylonitrile	41	6.459	6.460	(0.984)	1185392	482.211	482	
$	41 1,2-Dichloroethane-D4	65	6.572	6.566	(1.001)	195310	49.2469	49.2	
*	42 Pentafluorobenzene	168	6.565	6.566	(1.000)	332181	50.0000		
	43 Tertiary-amyl methyl ether	73	6.600	6.601	(1.005)	475243	51.6588	51.6	
	44 Isobutyl Alcohol	43	6.813	6.810	(1.038)	168956	912.799	913	
	45 1,2-Dichloroethane	62	6.658	6.659	(0.922)	295959	51.4565	51.4	
	46 Methylcyclohexane	83	7.131	7.128	(1.086)	376266	48.1477	48.1	
	47 Trichloroethene	95	7.160	7.154	(0.992)	221931	52.4707	52.5	
*	48 1,4-Difluorobenzene	114	7.221	7.218	(1.000)	564050	50.0000		
	49 Dibromomethane	93	7.649	7.649	(1.059)	127925	49.3368	49.3	
	50 1,2-Dichloropropane	63	7.774	7.771	(1.077)	222666	52.0782	52.1	
	51 Bromodichloromethane	83	7.871	7.874	(1.090)	266856	53.6307	53.6	
	52 1,4-Dioxane	88	8.112	8.106	(1.123)	54839	663.034	663	
	53 Methyl Methacrylate	41	8.099	8.096	(1.122)	163095	42.7887	42.8	
	54 2-Chloroethylvinylether	63	8.552	8.550	(1.184)	131860	63.4928	63.5	
	55 cis-1,3-dichloropropene	75	8.588	8.587	(1.189)	341317	50.9253	50.9	
$	56 Toluene-D8	98	8.787	8.787	(1.217)	636120	49.1507	49.2	
	57 Toluene	91	8.838	8.842	(1.224)	939858	53.3598	53.4	
	58 Tetrachloroethene	164	9.247	9.244	(0.883)	167677	50.9156	50.9	
	59 4-methyl-2-pentanone	43	9.272	9.270	(1.284)	174307	46.8961	46.9	
	60 trans-1,3-Dichloropropene	75	9.301	9.302	(1.288)	303572	49.1515	49.2	
	61 1,1,2-Trichloroethane	83	9.462	9.459	(1.310)	160990	52.6652	52.7	
	62 Ethyl Methacrylate	69	9.504	9.501	(1.316)	275564	45.1040	45.1	
	63 Dibromochloromethane	129	9.639	9.639	(0.920)	177394	45.8002	45.8	
	64 1,3-Dichloropropane	76	9.735	9.736	(0.929)	347816	50.0051	50.0	
	65 1,2-Dibromoethane	107	9.864	9.865	(1.366)	182192	51.2175	51.2	
	66 2-Hexanone	43	10.173	10.170	(0.971)	115292	39.2310	39.2(R)	
*	67 Chlorobenzene-D5	117	10.475	10.475	(1.000)	501257	50.0000		
	68 Chlorobenzene	112	10.494	10.495	(1.002)	568379	50.5599	50.6	
	69 Ethylbenzene	91	10.552	10.553	(1.007)	1069094	53.7950	53.8	
	70 1,1,1,2-Tetrachloroethane	131	10.591	10.588	(1.011)	188814	55.0025	55.0	
	71 m+p-Xylenes	91	10.748	10.746	(1.026)	1623490	110.770	111	
	72 o-Xylene	91	11.311	11.308	(1.080)	838497	57.3856	57.4	
	73 Bromoform	173	11.391	11.392	(1.087)	110981	42.2238	42.2(R)	
	74 Styrene	104	11.382	11.379	(1.087)	638000	54.0585	54.0	
	75 Isopropylbenzene	105	11.719	11.717	(0.880)	1022655	54.6880	54.7	
$	76 P-Bromofluorobenzene	95	12.041	12.041	(1.667)	245580	50.8601	50.9	
	77 Bromobenzene	156	12.153	12.151	(0.912)	231559	50.3885	50.4	
	78 cis-1,4-Dichloro-2-Butene	53	12.140	12.138	(0.911)	74885	42.2426	42.2	

Data File: \\target_server\gg\chem\gcms-c.i\C101121.b\C1209.D
Report Date: 10-Nov-2021 14:56

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)	REVIEW CODE
	79 N-Propylbenzene	91	12.221	12.221	(0.917)	1258651	53.3067	53.3	
	80 1,1,2,2-Tetrachloroethane	83	12.311	12.308	(0.924)	256154	49.1686	49.2	
	81 2-Chlorotoluene	91	12.382	12.382	(0.930)	737053	51.4779	51.5	
	82 1,2,3-Trichloropropane	75	12.446	12.446	(0.934)	219518	45.3859	45.4	
	83 1,3,5-Trimethylbenzene	105	12.462	12.463	(0.936)	850266	54.9081	54.9	
	84 trans-1,4-Dichloro-2-Butene	53	12.510	12.511	(0.939)	79256	46.7615	46.8	
	85 4-Chlorotoluene	91	12.578	12.578	(0.944)	780461	52.1083	52.1	
	86 tert-Butylbenzene	119	12.819	12.819	(0.962)	704085	54.2798	54.3	
	87 1,2,4-Trimethylbenzene	105	12.899	12.900	(0.968)	866341	54.4054	54.4	
	88 sec-Butylbenzene	105	13.018	13.019	(0.977)	1104290	55.3955	55.4	
	89 P-Isopropyltoluene	119	13.189	13.189	(0.990)	883018	50.3302	50.3	
	90 1,3-Dichlorobenzene	146	13.237	13.234	(0.994)	451238	50.4729	50.5	
*	91 1,4-Dichlorobenzene-D4	152	13.320	13.318	(1.000)	262461	50.0000		
	92 1,4-Dichlorobenzene	146	13.337	13.334	(1.001)	454952	49.2546	49.2	
	93 1,2,3-Trimethylbenzene	105	13.375	13.376	(1.004)	870851	51.0749	51.1	
	95 N-Butylbenzene	91	13.645	13.646	(1.024)	901084	56.7286	56.7	
	96 1,2-Dichlorobenzene	146	13.783	13.784	(1.035)	428840	50.3075	50.3	
	97 1,2-Dibromo-3-Chloropropane	157	14.623	14.623	(1.098)	40277	41.9320	41.9	
	98 1,3,5-Trichlorobenzene	180	14.658	14.659	(1.100)	324811	51.5868	51.6	
	99 1,2,4-Trichlorobenzene	180	15.304	15.308	(1.149)	290847	53.8259	53.8	
	100 Hexachlorobutadiene	225	15.295	15.295	(1.148)	129146	52.1267	52.1	
	101 Naphthalene	128	15.623	15.623	(1.173)	736105	45.7436	45.7	
	102 1,2,3-Trichlorobenzene	180	15.806	15.806	(1.187)	280583	51.7056	51.7	
M	103 1,2-Dichloroethylene (total)	96				414486	100.170	100	
M	104 Xylenes (total)	91				2461987	168.156	168	
M	105 Total Alkylbenzenes	100				6567735	379.354	379	

QC Flag Legend

R - Spike/Surrogate failed recovery limits.


Data File: \\target_server\gg\chem\gcms-c.i\C101121.b\C1209.D
Date : 11-OCT-2021 08:09
Client ID:
Sample Info: WG307646-1,SD6709
Purge Volume: 5.0
Column phase: RTX-VMS
Instrument: gcms-c.i
Operator: HG
Column diameter: 0.18
Y (x10^6)
Min
-Dichlorodifluoromethane (1.411)
-Chloromethane (1.572)
-Vinyl chloride (1.643)
-Bromomethane (1.916)
-Chloroethane (2.022)
-Trichlorofluoromethane (2.154)
-Diethyl Ether (2.444)
-1,1-Dichloroethene (2.656)+
-Iodomethane (2.768)
-Acrolein (2.974)
-Allyl Chloride (3.125)
-Methylene Chloride (3.247)+
-trans-1,2-Dichloroethene (3.434)+
-Methyl tert-butyl ether (3.591)
-Tertiary-butyl alcohol (3.746)
-Acetonitrile (3.874)
-Di-isopropyl ether (4.119)+
-1,1-Dichloroethane (4.251)+
-Ethyl tertiary-butyl ethe (4.678)+
-cis-1,2-Dichloroethene (5.116)
-2,2-Dichloropropane (5.283)
-Cyclohexane (5.421)+
-Chloroform (5.579)
-Carbon Tetrachloride (5.749)+
-1,1,1-Trichloroethane (5.852)+
-1,1-Dichloropropene (6.042)+
-1,2-Dichloroethane-D4 (6.572)+
Benzene (6.460)+
-Isobutyl Alcohol (6.813)
-Methylcyclohexane (7.144)+
-Dibromomethane (7.649)
-1,2-Dichloropropane (7.775)
-Bromodichloromethane (7.871)
-1,4-Dioxane (8.099)+
-2-Chloroethylvinylether (8.588)+
-Toluene-D8 (8.787)
Toluene (8.842)
-Tetrachloroethene (9.247)+
-1,1,2-Trichloroethane (9.463)+
-Dibromochloromethane (9.639)
-1,3-Dichloropropane (9.736)
-1,2-Dibromoethane (9.865)
-2-Hexanone (10.173)
-Chlorobenzene-D5 (10.488)+
1,1,1,2-Tetrachloroethane (10.591)
m+p-Xylenes (10.749)
-o-Xylene (11.314)
Bromoform (11.382)+
-Isopropylbenzene (11.720)
-P-Bromofluorobenzene (12.041)
-Bromobenzene (12.147)+
-N-Propylbenzene (12.221)
-1,1,2,2-Tetrachloroethane (12.314)
2-Chlorotoluene (12.382)
-4-Chlorotoluene (12.578)
1,2,3-Trichloropropane (12.459)+
-tert-Butylbenzene (12.819)
1,2,4-Trimethylbenzene (12.900)
-sec-Butylbenzene (13.019)
-1,3-Dichlorobenzene (13.254)
-Isopropyltoluene (13.189)
1,2,3-Trimethylbenzene (13.376)
1,4-Dichlorobenzene-D4 (13.331)+
-N-Butylbenzene (13.646)
-1,2-Dichlorobenzene (13.784)
-1,2-Dibromo-3-Chloropropa (14.623)
-1,3,5-Trichlorobenzene (14.659)
-1,2,4-Trichlorobenzene (15.302)+
-Naphthalene (15.623)
-1,2,3-Trichlorobenzene (15.806)
-1,2-Dichloroethylene (tot (17.080)

Katahdin
ANALYTICAL SERVICES

LCS Recovery Report

Lab ID: WG307648-10
Client ID: LCS
SDG: SO6709
LCS File ID: T3709.D
Report Date: 12-NOV-21

Extract Date: 11-OCT-21
Extracted By: JSS
Extraction Method: SW846 5030
Lab Prep Batch: WG307648

Analysis Date: 11-OCT-21
Analyst: JSS
Analysis Method: SW846 8260B
Matrix: AQ

Compound	Recovery (%)	Conc Added	Conc Recovered	Conc Units	Limits
Chloromethane	85.2	50.0	42.6	ug/L	59-123
Vinyl Chloride	95.0	50.0	47.5	ug/L	64-131
Bromomethane	105.	50.0	52.6	ug/L	57-135
Chloroethane	79.4	50.0	39.7	ug/L	53-157
Trichlorofluoromethane	94.2	50.0	47.1	ug/L	70-149
1,1-Dichloroethene	* 86.8	50.0	43.4	ug/L	88-127
Carbon Disulfide	107.	50.0	53.3	ug/L	71-129
Methylene Chloride	98.6	50.0	49.3	ug/L	72-129
trans-1,2-Dichloroethene	95.2	50.0	47.6	ug/L	78-125
1,1-Dichloroethane	97.6	50.0	48.8	ug/L	76-130
cis-1,2-Dichloroethene	96.4	50.0	48.2	ug/L	85-123
Chloroform	95.4	50.0	47.7	ug/L	78-128
Carbon Tetrachloride	94.2	50.0	47.1	ug/L	87-126
1,1,1-Trichloroethane	95.4	50.0	47.7	ug/L	77-129
2-Butanone	113.	50.0	56.5	ug/L	71-132
Benzene	99.0	50.0	49.5	ug/L	86-116
1,2-Dichloroethane	91.6	50.0	45.8	ug/L	81-125
Trichloroethene	98.0	50.0	49.0	ug/L	79-121
1,2-Dichloropropane	97.6	50.0	48.8	ug/L	84-118
Bromodichloromethane	96.0	50.0	48.0	ug/L	85-122
cis-1,3-Dichloropropene	102.	50.0	50.8	ug/L	83-119
Toluene	99.2	50.0	49.6	ug/L	84-118
4-Methyl-2-Pentanone	99.6	50.0	49.8	ug/L	83-122
Tetrachloroethene	97.0	50.0	48.5	ug/L	47-155
trans-1,3-Dichloropropene	99.2	50.0	49.6	ug/L	85-135
1,1,2-Trichloroethane	98.4	50.0	49.2	ug/L	84-115
Dibromochloromethane	96.0	50.0	48.0	ug/L	85-119
Chlorobenzene	98.2	50.0	49.1	ug/L	89-113
Ethylbenzene	102.	50.0	50.8	ug/L	88-113
m+p-Xylenes	101.	100.	101.	ug/L	88-116
o-Xylene	105.	50.0	52.4	ug/L	90-116
Bromoform	98.6	50.0	49.3	ug/L	86-117
1,1,2,2-Tetrachloroethane	98.2	50.0	49.1	ug/L	79-121
P-Bromofluorobenzene	97.2				56-133
Toluene-d8	98.3				65-128
1,2-Dichloroethane-d4	95.7				67-135

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

LCS Recovery Report

Lab ID: WG307648-10
Client ID: LCS
SDG: SO6709
LCS File ID: T3709.D
Report Date: 12-NOV-21

Extract Date: 11-OCT-21
Extracted By: JSS
Extraction Method: SW846 5030
Lab Prep Batch: WG307648

Analysis Date: 11-OCT-21
Analyst: JSS
Analysis Method: SW846 8260B
Matrix: AQ

Compound	Recovery (%)	Conc Added	Conc Recovered	Conc Units	Limits
Dibromofluoromethane	99.2				68-128

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://www.katahdinlab.com

Data File: \\target_server\gg\chem\gcms-t.i\T101121.b\T3709.D
Report Date: 11-Nov-2021 16:57

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-t.i\T101121.b\T3709.D
Lab Smp Id: WG307648-10
Inj Date : 11-OCT-2021 14:39
Operator : JSS   Inst ID: gcms-t.i
Smp Info : WG307648-10,SO6709
Misc Info : WG307648,WG307648-4,SO6709-35
Comment   : SW846 5030
Method   : \\target_server\gg\chem\gcms-t.i\T101121.b\T8A05(01)shrt.m
Meth Date : 05-Nov-2021 14:30 hgould   Quant Type: ISTD
Cal Date : 11-OCT-2021 14:13   Cal File: T3708.D
Als bottle: 10   QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE   Compound Sublist: all.sub
Target Version: 4.12
Processing Host: T7-O360

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)	REVIEW CODE
1	Dichlorodifluoromethane	85	1.242	1.246	(0.240)	319681	48.6085	48.6	
2	Chloromethane	50	1.384	1.388	(0.268)	230626	42.6414	42.6	
3	Vinyl chloride	62	1.441	1.441	(0.278)	231095	47.5390	47.5	
4	Bromomethane	94	1.676	1.677	(0.324)	125255	52.6252	52.6	
5	Chloroethane	64	1.762	1.763	(0.341)	96243	39.7099	39.7	
6	Trichlorofluoromethane	101	1.875	1.875	(0.362)	313773	47.1360	47.1	
7	Diethyl Ether	59	2.125	2.126	(0.411)	137425	48.5479	48.5	
8	1,1-Dichloroethene	96	2.283	2.283	(0.441)	163173	43.4119	43.4(R)	
9	Freon-113	151	2.324	2.324	(0.449)	133724	49.4371	49.4	
10	Carbon Disulfide	76	2.301	2.302	(0.445)	407660	53.3443	53.3	
11	Iodomethane	142	2.406	2.406	(0.465)	176774	53.1238	53.1	
12	Acrolein	56	2.593	2.590	(0.501)	142192	288.832	289	
13	Allyl Chloride	41	2.713	2.713	(0.524)	340223	52.5919	52.6	
14	Methylene Chloride	84	2.818	2.818	(0.544)	251047	49.3424	49.3	
15	Acetone	43	2.881	2.882	(0.557)	88820	52.0311	52.0	
16	trans-1,2-Dichloroethene	96	2.975	2.975	(0.575)	239085	47.5904	47.6	
17	Methyl Acetate	43	3.009	3.013	(0.581)	157403	48.5332	48.5	
18	Methyl tert-butyl ether	73	3.102	3.106	(0.599)	672968	52.6474	52.6	
19	Tertiary-butyl alcohol	59	3.237	3.237	(0.625)	97269	215.843	216	
20	Acetonitrile	41	3.357	3.361	(0.649)	263798	427.450	427	
21	Di-isopropyl ether	45	3.510	3.510	(0.678)	736774	53.2853	53.3	
22	Chloroprene	53	3.592	3.593	(0.694)	393341	52.8740	52.9	
23	1,1-Dichloroethane	63	3.619	3.619	(0.699)	457314	48.7603	48.8	

Data File: \\target_server\gg\chem\gcms-t.i\T101121.b\T3709.D
Report Date: 11-Nov-2021 16:57

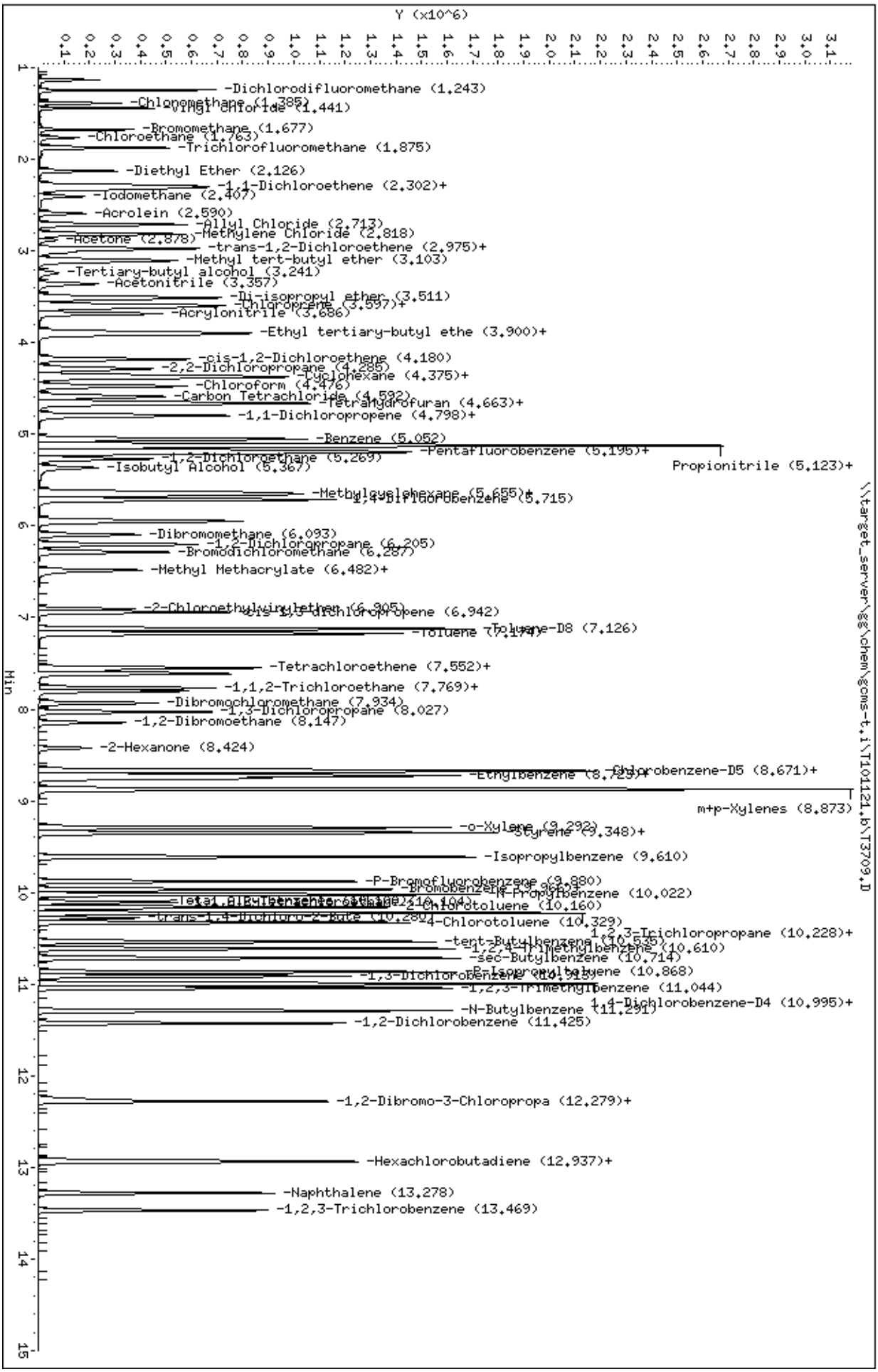
		Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)	REVIEW CODE
	24	Acrylonitrile	52	3.686	3.686	(0.712)	315567	248.683	249	
	25	Ethyl tertiary-butyl ether	59	3.895	3.896	(0.753)	685102	52.8607	52.9	
	26	Vinyl Acetate	43	3.907	3.911	(0.684)	514078	52.4527	52.4	
	27	cis-1,2-Dichloroethene	96	4.180	4.179	(0.808)	259455	48.1910	48.2	
	28	2,2-Dichloropropane	77	4.285	4.288	(0.828)	335976	44.1490	44.1	
	29	Cyclohexane	56	4.367	4.367	(0.844)	378363	57.9861	58.0	
	30	Bromochloromethane	128	4.382	4.382	(0.847)	121148	54.1919	54.2	
	31	Chloroform	83	4.476	4.476	(0.865)	475214	47.7093	47.7	
	32	Carbon Tetrachloride	117	4.588	4.588	(0.803)	358566	47.1453	47.1	
	33	Tetrahydrofuran	42	4.633	4.629	(0.895)	71907	50.3121	50.3	
$	34	Dibromofluoromethane	113	4.659	4.659	(0.900)	304546	49.5970	49.6	
	35	1,1,1-Trichloroethane	97	4.663	4.667	(0.901)	433156	47.6657	47.7	
	36	1,1-Dichloropropene	75	4.797	4.794	(0.840)	359781	48.6515	48.6	
	37	2-Butanone	43	4.809	4.805	(0.929)	112208	56.4722	56.5	
	38	Benzene	78	5.052	5.052	(0.884)	986121	49.5214	49.5	
	39	Propionitrile	54	5.104	5.104	(0.986)	285898	464.003	464	
	40	Methacrylonitrile	41	5.123	5.123	(0.990)	1287005	501.344	501	
*	41	Pentafluorobenzene	168	5.175	5.176	(1.000)	608946	50.0000		
$	42	1,2-Dichloroethane-D4	65	5.201	5.202	(1.005)	373665	47.8621	47.9	
	43	Tertiary-amyl methyl ether	73	5.201	5.202	(1.005)	617278	52.4731	52.5	
	44	1,2-Dichloroethane	62	5.269	5.269	(0.922)	361050	45.8560	45.8	
	45	Isobutyl Alcohol	43	5.362	5.359	(1.036)	138039	951.824	952	
	46	Methylcyclohexane	83	5.636	5.640	(1.089)	401946	54.7786	54.8	
	47	Trichloroethene	95	5.666	5.662	(0.991)	255713	49.0432	49.0	
*	48	1,4-Difluorobenzene	114	5.714	5.714	(1.000)	943029	50.0000		
	49	Dibromomethane	93	6.096	6.092	(1.067)	155617	46.4536	46.4	
	50	1,2-Dichloropropane	63	6.201	6.201	(1.085)	231048	48.7693	48.8	
	51	Bromodichloromethane	83	6.287	6.287	(1.100)	348967	48.0255	48.0	
	52	Methyl Methacrylate	41	6.481	6.482	(1.134)	186921	51.9436	51.9	
	53	1,4-Dioxane	88	6.504	6.500	(1.138)	51691	832.508	832	
	54	2-Chloroethylvinylether	63	6.904	6.901	(1.208)	160848	61.6182	61.6	
	55	cis-1,3-dichloropropene	75	6.942	6.942	(1.215)	410762	50.7852	50.8	
$	56	Toluene-D8	98	7.125	7.122	(1.247)	1074498	49.1405	49.1	
	57	Toluene	92	7.174	7.174	(1.255)	619235	49.6184	49.6	
	58	Tetrachloroethene	164	7.552	7.552	(0.872)	198563	48.4656	48.5	
	59	4-methyl-2-pentanone	43	7.589	7.586	(1.328)	187220	49.7706	49.8	
	60	trans-1,3-Dichloropropene	75	7.612	7.612	(1.332)	373979	49.5911	49.6	
	61	1,1,2-Trichloroethane	83	7.769	7.765	(1.360)	178212	49.2558	49.2	
	62	Ethyl Methacrylate	69	7.799	7.803	(1.365)	287636	48.3931	48.4	
	63	Dibromochloromethane	129	7.933	7.934	(0.916)	243789	48.0036	48.0	
	64	1,3-Dichloropropane	76	8.027	8.031	(0.927)	383499	47.9658	48.0	
	65	1,2-Dibromoethane	107	8.147	8.147	(1.426)	218967	49.5946	49.6	
M	66	Total Alkylbenzenes	100				6551678	365.135	365	
	67	2-Hexanone	43	8.424	8.423	(0.972)	130783	52.4668	52.5	
*	68	Chlorobenzene-D5	117	8.663	8.663	(1.000)	818092	50.0000		
	69	Chlorobenzene	112	8.678	8.678	(1.002)	643094	49.1112	49.1	
	70	Ethylbenzene	91	8.723	8.723	(1.007)	1157583	50.8103	50.8	
	71	1,1,1,2-Tetrachloroethane	131	8.753	8.753	(1.010)	242191	52.1910	52.2	
	72	m+p-Xylenes	91	8.869	8.873	(1.024)	1731502	101.463	101	
	73	o-Xylene	91	9.292	9.292	(1.073)	912477	52.4368	52.4	
	74	Styrene	104	9.348	9.348	(1.079)	692786	53.5441	53.5	
	75	Bromoform	173	9.355	9.356	(1.080)	153667	49.2985	49.3	
	76	Isopropylbenzene	105	9.610	9.610	(0.874)	1100939	52.3348	52.3	
$	77	P-Bromofluorobenzene	95	9.879	9.876	(1.729)	382569	48.6156	48.6	

Data File: \\target_server\gg\chem\gcms-t.i\T101121.b\T3709.D
Report Date: 11-Nov-2021 16:57

			QUANT SIG					CONCENTRATIONS ON-COLUMN	CONCENTRATIONS FINAL	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/l)	(ug/l)	REVIEW CODE
	78	Bromobenzene	156	9.969	9.969	(0.907)	262984	49.4515	49.4	
	79	cis-1,4-Dichloro-2-Butene	53	9.962	9.966	(0.906)	77301	48.8133	48.8	
	80	N-Propylbenzene	91	10.022	10.022	(0.912)	1284072	51.3330	51.3	
	81	1,1,2,2-Tetrachloroethane	83	10.108	10.108	(0.920)	254537	49.1274	49.1	
	82	2-Chlorotoluene	91	10.160	10.160	(0.924)	752271	49.9959	50.0	
	83	1,2,3-Trichloropropane	75	10.224	10.224	(0.930)	219328	47.4064	47.4	
	84	1,3,5-Trimethylbenzene	105	10.227	10.228	(0.931)	868442	52.1444	52.1	
	85	trans-1,4-Dichloro-2-Butene	53	10.276	10.276	(0.935)	76503	49.0125	49.0	
	86	4-Chlorotoluene	91	10.328	10.329	(0.940)	777325	49.7271	49.7	
	87	tert-Butylbenzene	119	10.538	10.534	(0.959)	713006	51.8453	51.8	
	89	1,2,4-Trimethylbenzene	105	10.609	10.609	(0.965)	873049	51.5846	51.6	
	90	sec-Butylbenzene	105	10.714	10.714	(0.975)	1106298	52.6863	52.7	
	91	P-Isopropyltoluene	119	10.867	10.868	(0.989)	875683	52.9686	53.0	
	92	1,3-Dichlorobenzene	146	10.912	10.912	(0.993)	474351	50.2704	50.3	
*	93	1,4-Dichlorobenzene-D4	152	10.991	10.991	(1.000)	400867	50.0000		
	94	1,4-Dichlorobenzene	146	11.006	11.006	(1.001)	479394	48.6063	48.6	
	95	1,2,3-Trimethylbenzene	105	11.043	11.043	(1.005)	868398	52.0979	52.1	
	96	N-Butylbenzene	91	11.290	11.290	(1.027)	831128	52.5728	52.6	
	97	1,2-Dichlorobenzene	146	11.425	11.425	(1.039)	442579	50.4975	50.5	
	98	1,2-Dibromo-3-Chloropropane	157	12.248	12.245	(1.114)	46986	47.0785	47.1	
	99	1,3,5-Trichlorobenzene	180	12.274	12.278	(1.117)	322607	52.2786	52.3	
	100	Hexachlorobutadiene	225	12.925	12.926	(1.176)	124470	48.6309	48.6	
	101	1,2,4-Trichlorobenzene	180	12.940	12.941	(1.177)	281563	52.0460	52.0	
	102	Naphthalene	128	13.277	13.278	(1.208)	629460	47.1485	47.1	
M	103	1,2-Dichloroethylene (total)	96				498540	95.7814	95.8	
	104	1,2,3-Trichlorobenzene	180	13.468	13.468	(1.225)	249438	50.7683	50.8	
M	105	Xylenes (total)	91				2643979	153.899	154	

QC Flag Legend

R - Spike/Surrogate failed recovery limits.


Data File: \\target_server\gg\chem\gcms-t.i\T101121.b\T3709.D
Date : 11-OCT-2021 14:39
Client ID:
Sample Info: WG307648-10,S06709
Purge Volume: 5.0
Column phase: RTX-VMS
Instrument: gcms-t.i
Operator: JSS
Column diameter: 0.18
\\target_server\gg\chem\gcms-t.i\T101121.b\T3709.D
Y (x10^6)
Min
-Dichlorodifluoromethane (1.243)
-Chloromethane (1.385)
-Vinyl Chloride (1.441)
-Bromomethane (1.677)
-Chloroethane (1.763)
-Trichlorofluoromethane (1.875)
-Diethyl Ether (2.126)
-1,1-Dichloroethene (2.302)+
-Iodomethane (2.407)
-Acrolein (2.590)
-Allyl Chloride (2.713)
-Methylene Chloride (2.818)
-Acetone (2.878)
-trans-1,2-Dichloroethene (2.975)+
-Methyl tert-butyl ether (3.103)
-Tertiary-butyl alcohol (3.241)
-Acetonitrile (3.357)
-Di-isopropyl ether (3.511)
-Chloroprene (3.597)+
-Acrylonitrile (3.686)
-Ethyl tertiary-butyl ethe (3.900)+
-cis-1,2-Dichloroethene (4.180)
-2,2-Dichloropropane (4.285)
-Cyclohexane (4.375)+
-Chloroform (4.476)
-Carbon Tetrachloride (4.592)
-Tetrahydrofuran (4.663)+
-1,1-Dichloropropene (4.798)+
-Benzene (5.052)
-Pentafluorobenzene (5.195)+
-1,2-Dichloroethane (5.269)
-Isobutyl Alcohol (5.367)
Propionitrile (5.123)+
-Methylcyclohexane (5.655)+
1,4-Difluorobenzene (5.715)
-Dibromomethane (6.093)
-1,2-Dichloropropane (6.205)
-Bromodichloromethane (6.287)
-Methyl Methacrylate (6.482)+
-2-Chloroethylvinylether (6.905)
-cis-1,3-Dichloropropene (6.942)
-Toluene (7.114)
-Toluene-D8 (7.126)
-Tetrachloroethene (7.552)+
-1,1,2-Trichloroethane (7.769)+
-Dibromochloromethane (7.934)
-1,3-Dichloropropane (8.027)
-1,2-Dibromoethane (8.147)
-2-Hexanone (8.424)
-Chlorobenzene-D5 (8.671)+
-Ethylbenzene (8.725)+
m+p-Xylenes (8.873)
-o-Xylene (9.292)
-Styrene (9.348)+
-Isopropylbenzene (9.610)
-P-Bromofluorobenzene (9.880)
-Bromobenzene (9.904)+
-n-Propylbenzene (10.022)
-Tetrachloroethene-D6 (10.104)
-2-Chlorotoluene (10.160)
-trans-1,4-Dichloro-2-Bute (10.282)
-4-Chlorotoluene (10.329)
1,2,3-Trichloropropane (10.228)+
-tert-Butylbenzene (10.535)
-1,2,4-Trimethylbenzene (10.610)
-sec-Butylbenzene (10.714)
-P-Isopropyltoluene (10.868)
-1,3-Dichlorobenzene (10.915)
-1,2,3-Trimethylbenzene (11.044)
1,4-Dichlorobenzene-D4 (10.995)+
-N-Butylbenzene (11.291)
-1,2-Dichlorobenzene (11.425)
-1,2-Dibromo-3-Chloropropa (12.279)+
-Hexachlorobutadiene (12.937)+
-Naphthalene (13.278)
-1,2,3-Trichlorobenzene (13.469)

Katahdin
ANALYTICAL SERVICES

LCS Recovery Report

Lab ID: WG307650-1
Client ID: LCS
SDG: SO6709
LCS File ID: W0602.D
Report Date: 12-NOV-21

Extract Date: 11-OCT-21
Extracted By: HG
Extraction Method: SW846 5030
Lab Prep Batch: WG307650

Analysis Date: 11-OCT-21
Analyst: HG
Analysis Method: SW846 8260B
Matrix: AQ

Compound	Recovery (%)	Conc Added	Conc Recovered	Conc Units	Limits
Chloromethane	81.6	50.0	40.8	ug/L	59-123
Vinyl Chloride	95.4	50.0	47.7	ug/L	64-131
Bromomethane	108.	50.0	54.0	ug/L	57-135
Chloroethane	101.	50.0	50.4	ug/L	53-157
Trichlorofluoromethane	97.8	50.0	48.9	ug/L	70-149
1,1-Dichloroethene	90.8	50.0	45.4	ug/L	88-127
Carbon Disulfide	109.	50.0	54.5	ug/L	71-129
Methylene Chloride	99.8	50.0	49.9	ug/L	72-129
trans-1,2-Dichloroethene	94.6	50.0	47.3	ug/L	78-125
1,1-Dichloroethane	96.2	50.0	48.1	ug/L	76-130
cis-1,2-Dichloroethene	95.6	50.0	47.8	ug/L	85-123
Chloroform	95.8	50.0	47.9	ug/L	78-128
Carbon Tetrachloride	100.	50.0	50.0	ug/L	87-126
1,1,1-Trichloroethane	96.6	50.0	48.3	ug/L	77-129
2-Butanone	95.6	50.0	47.8	ug/L	71-132
Benzene	100.	50.0	50.2	ug/L	86-116
1,2-Dichloroethane	95.6	50.0	47.8	ug/L	81-125
Trichloroethene	101.	50.0	50.7	ug/L	79-121
1,2-Dichloropropane	99.2	50.0	49.6	ug/L	84-118
Bromodichloromethane	100.	50.0	50.1	ug/L	85-122
cis-1,3-Dichloropropene	107.	50.0	53.4	ug/L	83-119
Toluene	100.	50.0	50.2	ug/L	84-118
4-Methyl-2-Pentanone	104.	50.0	52.0	ug/L	83-122
Tetrachloroethene	100.	50.0	50.1	ug/L	47-155
trans-1,3-Dichloropropene	106.	50.0	53.2	ug/L	85-135
1,1,2-Trichloroethane	99.8	50.0	49.9	ug/L	84-115
Dibromochloromethane	100.	50.0	50.0	ug/L	85-119
Chlorobenzene	101.	50.0	50.3	ug/L	89-113
Ethylbenzene	104.	50.0	52.0	ug/L	88-113
m+p-Xylenes	106.	100.	106.	ug/L	88-116
o-Xylene	111.	50.0	55.4	ug/L	90-116
Bromoform	102.	50.0	51.1	ug/L	86-117
1,1,2,2-Tetrachloroethane	102.	50.0	51.0	ug/L	79-121
P-Bromofluorobenzene	99.6				56-133
Toluene-d8	99.5				65-128
1,2-Dichloroethane-d4	99.1				67-135

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

LCS Recovery Report

Lab ID: WG307650-1
Client ID: LCS
SDG: SO6709
LCS File ID: W0602.D
Report Date: 12-NOV-21

Extract Date: 11-OCT-21
Extracted By: HG
Extraction Method: SW846 5030
Lab Prep Batch: WG307650

Analysis Date: 11-OCT-21
Analyst: HG
Analysis Method: SW846 8260B
Matrix: AQ

Compound	Recovery (%)	Conc Added	Conc Recovered	Conc Units	Limits
Dibromofluoromethane	98.9				68-128

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://www.katahdinlab.com

Data File: \\target_server\gg\chem\gcms-w.i\W101121.b\W0602.D
Report Date: 11-Nov-2021 17:14

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-w.i\W101121.b\W0602.D
Lab Smp Id: WG307650-1
Inj Date : 11-OCT-2021 07:13
Operator : HG   Inst ID: gcms-w.i
Smp Info : WG307650-1,SO6709
Misc Info : WG307650,WG306650-4,SO6709-1
Comment   : SW846 5030
Method   : \\target_server\gg\chem\gcms-w.i\W101121.b\W8A05(11).m
Meth Date : 11-Oct-2021 08:15 hgould   Quant Type: ISTD
Cal Date : 10-OCT-2021 12:35   Cal File: W0583.D
Als bottle: 2   QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE   Compound Sublist: all.sub
Target Version: 4.12
Processing Host: VOA-WS

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

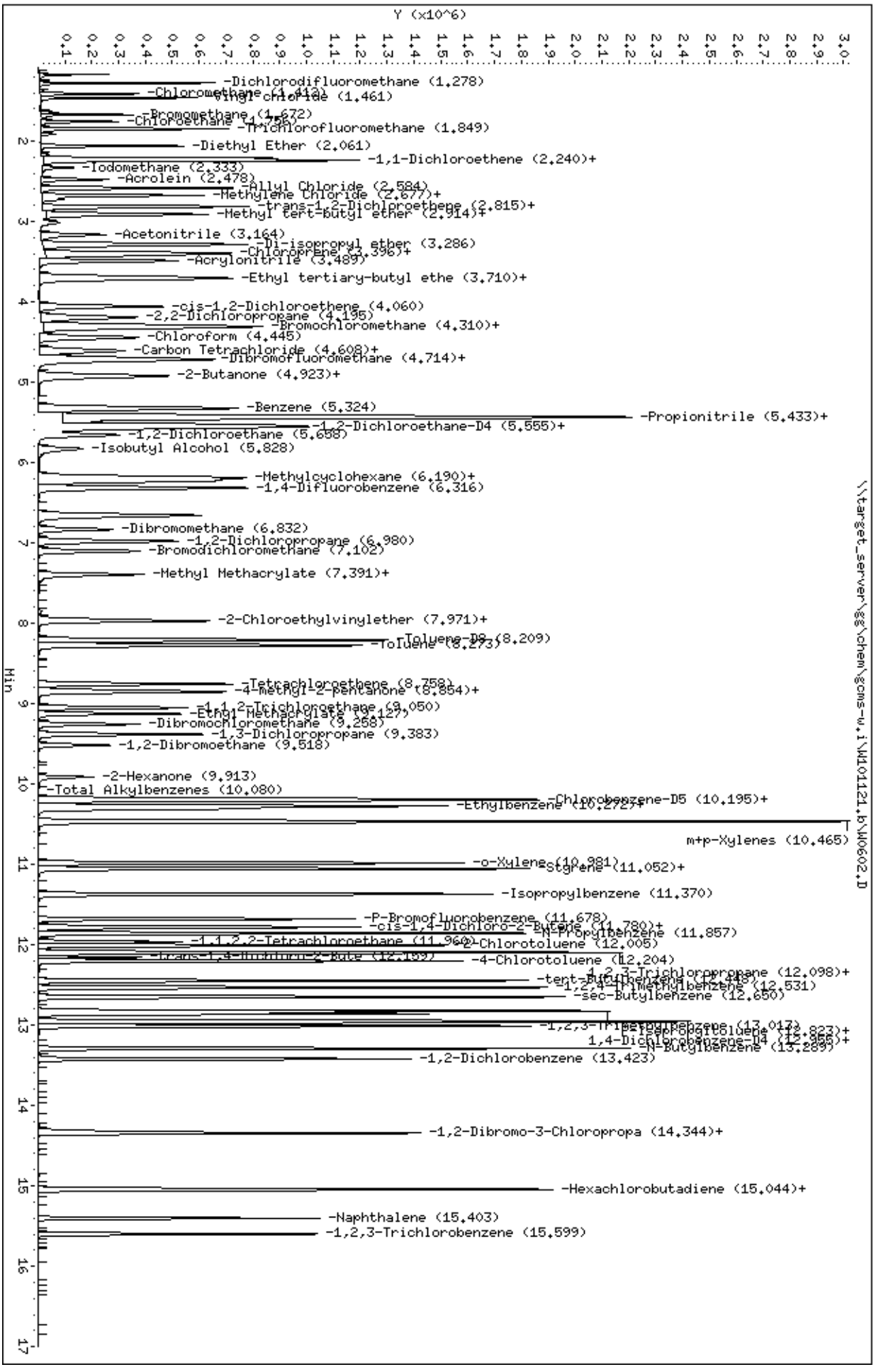
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)	REVIEW CODE
1	Dichlorodifluoromethane	85	1.277	1.278	(0.231)	324299	48.4660	48.5	
2	Chloromethane	50	1.412	1.409	(0.255)	312010	40.8220	40.8	
3	Vinyl chloride	62	1.460	1.460	(0.264)	322598	47.6677	47.7	
4	Bromomethane	94	1.672	1.672	(0.302)	108094	54.0160	54.0	
5	Chloroethane	64	1.758	1.759	(0.318)	190908	50.3522	50.4	
6	Trichlorofluoromethane	101	1.848	1.849	(0.334)	439195	48.8704	48.9	
7	Diethyl Ether	59	2.060	2.061	(0.373)	227504	51.4213	51.4	
8	1,1-Dichloroethene	96	2.214	2.211	(0.401)	229030	45.4159	45.4	
9	Freon-113	151	2.237	2.240	(0.405)	207231	55.1041	55.1	
10	Carbon Disulfide	76	2.243	2.243	(0.406)	614359	54.4612	54.5	
11	Iodomethane	142	2.330	2.330	(0.421)	152664	58.9516	59.0	
12	Acrolein	56	2.477	2.481	(0.448)	194485	245.871	246	
13	Allyl Chloride	41	2.583	2.587	(0.467)	431651	52.0057	52.0	
14	Methylene Chloride	84	2.676	2.680	(0.484)	253971	49.9333	49.9	
15	Acetone	43	2.728	2.725	(0.493)	98355	41.0119	41.0	
16	trans-1,2-Dichloroethene	96	2.814	2.815	(0.509)	255605	47.3201	47.3	
17	Methyl Acetate	43	2.827	2.834	(0.511)	203067	47.0830	47.1	
18	Methyl tert-butyl ether	73	2.914	2.917	(0.527)	686245	52.2643	52.3	
19	Tertiary-butyl alcohol	59	3.013	3.017	(0.545)	92720	239.403	239	
20	Acetonitrile	41	3.164	3.168	(0.572)	323097	453.839	454	
21	Di-isopropyl ether	45	3.286	3.290	(0.594)	885018	52.3527	52.4	
22	Chloroprene	53	3.392	3.395	(0.613)	448253	53.9598	54.0	
23	1,1-Dichloroethane	63	3.421	3.418	(0.619)	476823	48.0959	48.1	

Data File: \\target_server\gg\chem\gcms-w.i\W101121.b\W0602.D
Report Date: 11-Nov-2021 17:14

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)	REVIEW CODE
	24 Acrylonitrile	52	3.488	3.492	(0.631)	401852	255.787	256	
	25 Ethyl tertiary-butyl ether	59	3.693	3.700	(0.668)	681296	54.6641	54.7	
	26 Vinyl Acetate	43	3.716	3.723	(0.588)	629321	56.8030	56.8	
	27 cis-1,2-Dichloroethene	96	4.059	4.062	(0.734)	252559	47.8345	47.8	
	28 2,2-Dichloropropane	77	4.197	4.200	(0.759)	318517	50.4799	50.5	
	29 Bromochloromethane	128	4.322	4.323	(0.782)	110568	52.4813	52.5	
	30 Cyclohexane	56	4.297	4.307	(0.777)	481616	59.5669	59.6	
	31 Chloroform	83	4.444	4.451	(0.804)	440422	47.9191	47.9	
	32 Carbon Tetrachloride	117	4.611	4.615	(0.730)	336875	49.9964	50.0	
	33 Tetrahydrofuran	42	4.685	4.679	(0.847)	80616	43.9398	43.9	
$	34 Dibromofluoromethane	113	4.714	4.721	(0.853)	256094	49.4477	49.4	
	35 1,1,1-Trichloroethane	97	4.723	4.724	(0.854)	396923	48.2686	48.3	
	36 2-Butanone	43	4.945	4.945	(0.894)	118368	47.8394	47.8	
	37 1,1-Dichloropropene	75	4.922	4.926	(0.779)	361430	51.9768	52.0	
	38 Benzene	78	5.324	5.330	(0.843)	969157	50.2069	50.2	
	39 Propionitrile	54	5.413	5.417	(0.979)	344997	496.802	497	
	40 Methacrylonitrile	41	5.439	5.443	(0.984)	1689112	519.754	520	
*	41 Pentafluorobenzene	168	5.529	5.533	(1.000)	511478	50.0000		
$	42 1,2-Dichloroethane-D4	65	5.555	5.555	(1.005)	358065	49.5731	49.6	
	43 Tertiary-amyl methyl ether	73	5.564	5.565	(1.006)	512785	53.1416	53.1	
	44 1,2-Dichloroethane	62	5.657	5.664	(0.895)	360437	47.7642	47.8	
	45 Isobutyl Alcohol	43	5.827	5.834	(1.054)	168159	1048.37	1050	
	46 Methylcyclohexane	83	6.190	6.194	(1.120)	463082	56.8599	56.8	
	47 Trichloroethene	95	6.235	6.235	(0.987)	250493	50.6630	50.7	
*	48 1,4-Difluorobenzene	114	6.318	6.319	(1.000)	841289	50.0000		
	49 Dibromomethane	93	6.832	6.835	(1.081)	140459	47.1255	47.1	
	50 1,2-Dichloropropane	63	6.979	6.980	(1.105)	252890	49.6526	49.6	
	51 Bromodichloromethane	83	7.101	7.105	(1.124)	325145	50.0903	50.1	
	52 Methyl Methacrylate	41	7.390	7.394	(1.170)	235414	50.3147	50.3	
	53 Ethyl Methacrylate	69	9.126	9.130	(1.444)	293053	49.6026	49.6	
	54 1,4-Dioxane	88	7.406	7.416	(1.172)	45708	996.891	997	
M	55 Total Alkylbenzenes	100				8171396	376.388	376	
	56 2-Chloroethylvinylether	63	7.945	7.949	(1.257)	71299	64.0133	64.0	
	57 cis-1,3-dichloropropene	75	7.971	7.978	(1.262)	399908	53.3832	53.4	
$	58 Toluene-D8	98	8.208	8.212	(1.299)	982976	49.7332	49.7	
	59 Toluene	92	8.273	8.276	(1.309)	612054	50.1731	50.2	
	60 Tetrachloroethene	164	8.754	8.761	(0.859)	196563	50.1097	50.1	
	61 4-methyl-2-pentanone	43	8.831	8.835	(1.398)	237694	52.0388	52.0	
	62 trans-1,3-Dichloropropene	75	8.853	8.860	(1.401)	357001	53.1898	53.2	
	63 1,1,2-Trichloroethane	83	9.049	9.053	(1.432)	175370	49.8626	49.9	
	64 Dibromochloromethane	129	9.258	9.261	(0.909)	228644	50.0479	50.0	
	65 1,3-Dichloropropane	76	9.383	9.383	(0.921)	383731	49.0072	49.0	
	66 1,2-Dibromoethane	107	9.518	9.518	(1.506)	207845	50.4599	50.4	
	67 2-Hexanone	43	9.912	9.913	(0.973)	160887	52.1756	52.2	
*	68 Chlorobenzene-D5	117	10.185	10.185	(1.000)	780445	50.0000		
	69 Chlorobenzene	112	10.204	10.208	(1.002)	682982	50.2709	50.3	
	70 Ethylbenzene	91	10.272	10.275	(1.009)	1206649	52.0218	52.0	
	71 1,1,1,2-Tetrachloroethane	131	10.307	10.311	(1.012)	239424	52.7431	52.7	
	72 m+p-Xylenes	91	10.464	10.468	(1.027)	1859557	105.709	106	
	73 o-Xylene	91	10.981	10.985	(1.078)	960714	55.3630	55.4	
	74 Styrene	104	11.055	11.055	(1.085)	761395	54.4174	54.4	
	75 Bromoform	173	11.055	11.058	(1.085)	150339	51.1441	51.1	
	76 Isopropylbenzene	105	11.369	11.376	(0.878)	1206033	53.9069	53.9	
$	77 P-Bromofluorobenzene	95	11.677	11.684	(1.848)	390024	49.7755	49.8	

Data File: \\target_server\gg\chem\gcms-w.i\W101121.b\W0602.D
Report Date: 11-Nov-2021 17:14

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)	REVIEW CODE
	78 cis-1,4-Dichloro-2-Butene	53	11.790	11.793	(0.911)	83467	52.4609	52.5	
	79 Bromobenzene	156	11.777	11.784	(0.910)	283152	50.0910	50.1	
	80 N-Propylbenzene	91	11.857	11.861	(0.916)	1493803	52.1179	52.1	
	81 1,1,2,2-Tetrachloroethane	83	11.960	11.966	(0.924)	274984	51.0042	51.0	
	82 2-Chlorotoluene	91	12.005	12.011	(0.927)	854801	51.0090	51.0	
	83 1,2,3-Trichloropropane	75	12.088	12.088	(0.934)	240809	47.9357	47.9	
	84 1,3,5-Trimethylbenzene	105	12.101	12.104	(0.935)	1014397	52.7853	52.8	
	85 trans-1,4-Dichloro-2-Butene	53	12.155	12.159	(0.939)	87605	52.1609	52.2	
	86 4-Chlorotoluene	91	12.203	12.207	(0.943)	901163	50.8096	50.8	
	87 tert-Butylbenzene	119	12.447	12.451	(0.961)	890891	53.1250	53.1	
	89 1,2,4-Trimethylbenzene	105	12.531	12.534	(0.968)	1035331	52.6135	52.6	
	90 sec-Butylbenzene	105	12.650	12.653	(0.977)	1386680	54.5193	54.5	
	91 P-Isopropyltoluene	119	12.823	12.830	(0.990)	1193327	55.7872	55.8	
	92 1,3-Dichlorobenzene	146	12.861	12.862	(0.993)	575184	50.1958	50.2	
*	93 1,4-Dichlorobenzene-D4	152	12.948	12.952	(1.000)	437497	50.0000		
	94 1,4-Dichlorobenzene	146	12.964	12.968	(1.001)	591912	49.4478	49.4	
	95 1,2,3-Trimethylbenzene	105	13.012	13.016	(1.005)	1035168	53.0464	53.0	
	96 N-Butylbenzene	91	13.288	13.292	(1.026)	1156967	55.4396	55.4	
M	97 1,2-Dichloroethylene (total)	96				508164	95.1546	95.2	
	98 1,2-Dichlorobenzene	146	13.423	13.423	(1.037)	529887	50.2628	50.3	
	99 1,2-Dibromo-3-Chloropropane	157	14.312	14.319	(1.105)	49336	55.0206	55.0	
	100 1,3,5-Trichlorobenzene	180	14.344	14.347	(1.108)	407539	54.0720	54.1	
	101 Hexachlorobutadiene	225	15.037	15.041	(1.161)	190390	53.5278	53.5	
	102 1,2,4-Trichlorobenzene	180	15.050	15.053	(1.162)	347603	54.5366	54.5	
	103 Naphthalene	128	15.403	15.406	(1.190)	717015	52.1258	52.1	
	104 1,2,3-Trichlorobenzene	180	15.598	15.602	(1.205)	287968	52.9695	53.0	
M	105 Xylenes (total)	106				2820271	161.072	161	


Data File: \\target_server\gg\chem\gcms-w.i\W101121.b\W0602.D
Date : 11-OCT-2021 07:13
Client ID:
Sample Info: WG307650-1,SD6709
Purge Volume: 5.0
Column phase: RTX-VMS
Instrument: gcms-w.i
Operator: HG
Column diameter: 0.18
Y (x10^6)
Min
\\target_server\gg\chem\gcms-w.i\W101121.b\W0602.D
-Dichlorodifluoromethane (1.278)
-Chloromethane (1.410)
-Vinyl chloride (1.461)
-Bromomethane (1.672)
-Chloroethane (1.756)
-Trichlorofluoromethane (1.849)
-Diethyl Ether (2.061)
-1,1-Dichloroethene (2.240)+
-Iodomethane (2.333)
-Acrolein (2.478)
-Allyl Chloride (2.584)
-Methylene Chloride (2.677)+
-trans-1,2-Dichloroethene (2.815)+
-Methyl tert-butyl ether (2.914)+
-Acetonitrile (3.164)
-Di-isopropyl ether (3.286)
-Chloroprene (3.396)+
-Acrylonitrile (3.489)
-Ethyl tertiary-butyl ethe (3.710)+
-cis-1,2-Dichloroethene (4.060)
-2,2-Dichloropropane (4.195)
-Bromochloromethane (4.310)+
-Chloroform (4.445)
-Carbon Tetrachloride (4.608)+
-Dibromofluoromethane (4.714)+
-2-Butanone (4.923)+
-Benzene (5.324)
-Propionitrile (5.433)+
-1,2-Dichloroethane-D4 (5.555)+
-1,2-Dichloroethane (5.658)
-Isobutyl Alcohol (5.828)
-Methylcyclohexane (6.190)+
-1,4-Difluorobenzene (6.316)
-Dibromomethane (6.832)
-1,2-Dichloropropane (6.980)
-Bromodichloromethane (7.102)
-Methyl Methacrylate (7.391)+
-2-Chloroethylvinylether (7.971)+
-Toluene-D8 (8.209)
-Toluene (8.273)
-Tetrachloroethene (8.758)
-4-methyl-2-pentanone (8.854)+
-1,1,2-Trichloroethane (9.050)
-Ethyl Methacrylate (9.127)
-Dibromochloromethane (9.268)
-1,3-Dichloropropane (9.383)
-1,2-Dibromoethane (9.518)
-2-Hexanone (9.913)
-Total Alkylbenzenes (10.080)
-Chlorobenzene-D5 (10.195)+
-Ethylbenzene (10.272)+
m+p-Xylenes (10.465)
-o-Xylene (10.981)
-Styrene (11.052)+
-Isopropylbenzene (11.370)
-P-Bromofluorobenzene (11.678)
-cis-1,4-Dichloro-2-Butene (11.780)+
-N-Propylbenzene (11.857)
-1,1,2,2-Tetrachloroethane (11.960)
-2-Chlorotoluene (12.005)
-trans-1,4-Dichloro-2-Bute (12.192)
-4-Chlorotoluene (12.204)
-1,2,3-Trichloropropane (12.098)+
-tert-Butylbenzene (12.448)
-1,2,4-Trimethylbenzene (12.531)
-sec-Butylbenzene (12.650)
-1,2,3-Trimethylbenzene (13.017)
-Isopropyltoluene (13.023)+
1,4-Dichlorobenzene-D4 (13.066)+
-N-Butylbenzene (13.289)
-1,2-Dichlorobenzene (13.423)
-1,2-Dibromo-3-Chloropropa (14.344)+
-Hexachlorobutadiene (15.044)+
-Naphthalene (15.403)
-1,2,3-Trichlorobenzene (15.599)

Katahdin
ANALYTICAL SERVICES

LCS Recovery Report

Lab ID: WG307697-1
Client ID: LCS
SDG: SO6709
LCS File ID: W0626.D
Report Date: 12-NOV-21

Extract Date: 12-OCT-21
Extracted By: HG
Extraction Method: SW846 5030
Lab Prep Batch: WG307697

Analysis Date: 12-OCT-21
Analyst: HG
Analysis Method: SW846 8260B
Matrix: AQ

Compound	Recovery (%)	Conc Added	Conc Recovered	Conc Units	Limits
Chloromethane	81.6	50.0	40.8	ug/L	59-123
Vinyl Chloride	96.8	50.0	48.4	ug/L	64-131
Bromomethane	115.	50.0	57.5	ug/L	57-135
Chloroethane	105.	50.0	52.6	ug/L	53-157
Trichlorofluoromethane	103.	50.0	51.6	ug/L	70-149
1,1-Dichloroethene	94.2	50.0	47.1	ug/L	88-127
Carbon Disulfide	110.	50.0	55.2	ug/L	71-129
Methylene Chloride	105.	50.0	52.6	ug/L	72-129
trans-1,2-Dichloroethene	98.6	50.0	49.3	ug/L	78-125
1,1-Dichloroethane	98.2	50.0	49.1	ug/L	76-130
cis-1,2-Dichloroethene	95.4	50.0	47.7	ug/L	85-123
Chloroform	97.4	50.0	48.7	ug/L	78-128
Carbon Tetrachloride	100.	50.0	50.0	ug/L	87-126
1,1,1-Trichloroethane	99.8	50.0	49.9	ug/L	77-129
2-Butanone	92.6	50.0	46.3	ug/L	71-132
Benzene	101.	50.0	50.3	ug/L	86-116
1,2-Dichloroethane	97.0	50.0	48.5	ug/L	81-125
Trichloroethene	102.	50.0	50.9	ug/L	79-121
1,2-Dichloropropane	99.4	50.0	49.7	ug/L	84-118
Bromodichloromethane	100.	50.0	50.2	ug/L	85-122
cis-1,3-Dichloropropene	107.	50.0	53.5	ug/L	83-119
Toluene	101.	50.0	50.4	ug/L	84-118
4-Methyl-2-Pentanone	104.	50.0	52.1	ug/L	83-122
Tetrachloroethene	97.8	50.0	48.9	ug/L	47-155
trans-1,3-Dichloropropene	106.	50.0	53.0	ug/L	85-135
1,1,2-Trichloroethane	98.6	50.0	49.3	ug/L	84-115
Dibromochloromethane	98.4	50.0	49.2	ug/L	85-119
Chlorobenzene	99.0	50.0	49.5	ug/L	89-113
Ethylbenzene	104.	50.0	52.1	ug/L	88-113
m+p-Xylenes	105.	100.	105.	ug/L	88-116
o-Xylene	110.	50.0	55.0	ug/L	90-116
Bromoform	101.	50.0	50.5	ug/L	86-117
1,1,2,2-Tetrachloroethane	101.	50.0	50.6	ug/L	79-121
P-Bromofluorobenzene	101.				56-133
Toluene-d8	101.				65-128
1,2-Dichloroethane-d4	104.				67-135

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

LCS Recovery Report

Lab ID: WG307697-1
Client ID: LCS
SDG: SO6709
LCS File ID: W0626.D
Report Date: 12-NOV-21

Extract Date: 12-OCT-21
Extracted By: HG
Extraction Method: SW846 5030
Lab Prep Batch: WG307697

Analysis Date: 12-OCT-21
Analyst: HG
Analysis Method: SW846 8260B
Matrix: AQ

Compound	Recovery (%)	Conc Added	Conc Recovered	Conc Units	Limits
Dibromofluoromethane	101.				68-128

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://www.katahdinlab.com

Data File: \\target_server\gg\chem\gcms-w.i\W101221.b\W0626.D
Report Date: 11-Nov-2021 17:35

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-w.i\W101221.b\W0626.D
Lab Smp Id: WG307697-1
Inj Date : 12-OCT-2021 07:35
Operator : HG   Inst ID: gcms-w.i
Smp Info : WG307697-1,SO6709
Misc Info : WG307697,WG307697-4,SO6709-4
Comment   : SW846 5030
Method   : \\target_server\gg\chem\gcms-w.i\W101221.b\W8A05(11).m
Meth Date : 12-Oct-2021 07:57 estroh   Quant Type: ISTD
Cal Date : 10-OCT-2021 12:35   Cal File: W0583.D
Als bottle: 2   QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE   Compound Sublist: all.sub
Target Version: 4.12
Processing Host: VOA-WS

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

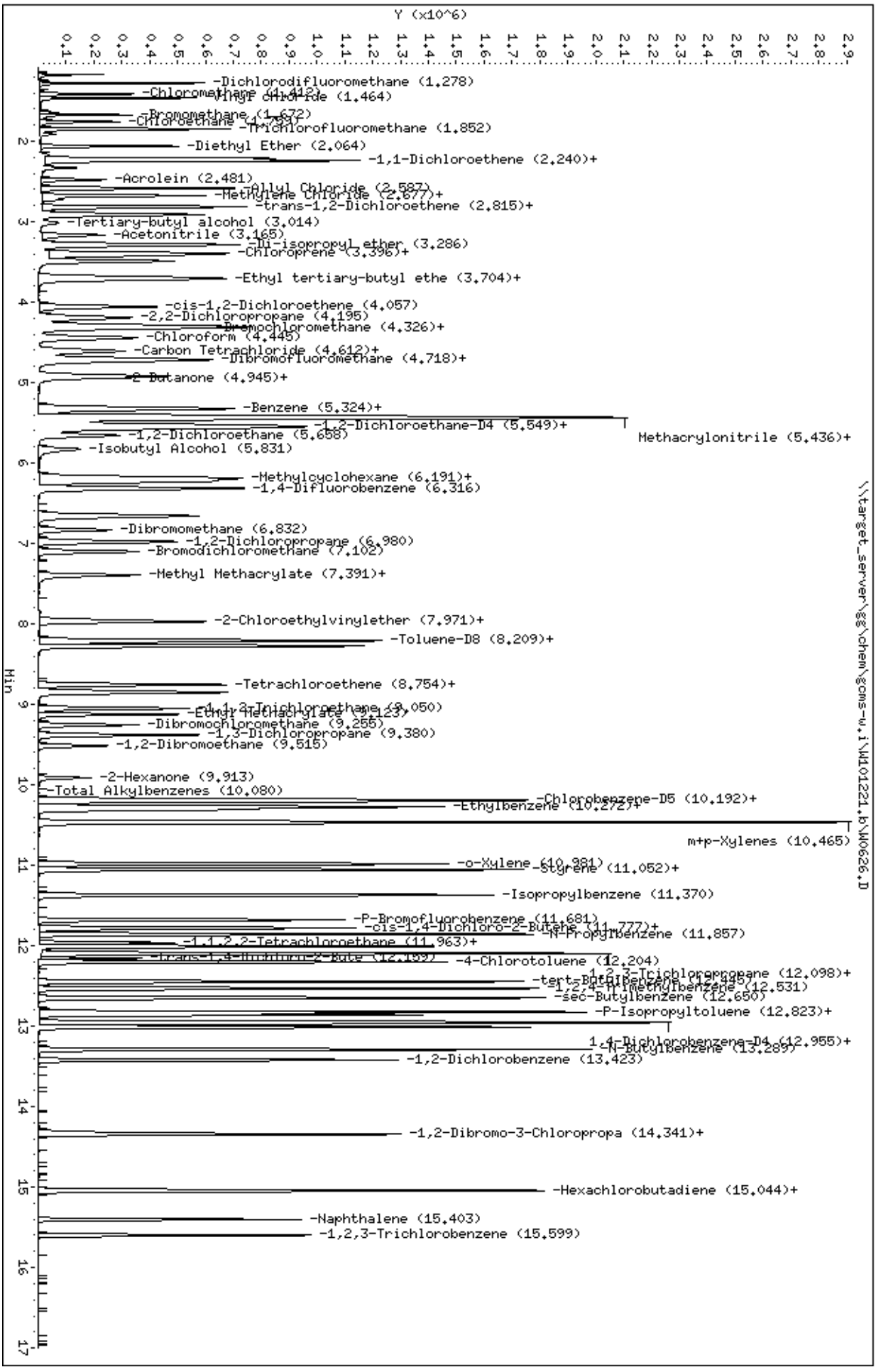
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)	REVIEW CODE
1	Dichlorodifluoromethane	85	1.277	1.278	(0.231)	296625	47.8588	47.8	
2	Chloromethane	50	1.412	1.409	(0.256)	288631	40.7692	40.8	
3	Vinyl chloride	62	1.463	1.460	(0.265)	303698	48.4471	48.4	
4	Bromomethane	94	1.672	1.672	(0.303)	106668	57.5464	57.5	
5	Chloroethane	64	1.759	1.759	(0.318)	184011	52.5524	52.6	
6	Trichlorofluoromethane	101	1.852	1.849	(0.335)	429813	51.6334	51.6	
7	Diethyl Ether	59	2.063	2.061	(0.373)	214180	52.2632	52.3	
8	1,1-Dichloroethene	96	2.211	2.211	(0.400)	220045	47.1075	47.1	
9	Freon-113	151	2.240	2.240	(0.405)	198885	57.0945	57.1	
10	Carbon Disulfide	76	2.243	2.243	(0.406)	577067	55.2274	55.2	
11	Iodomethane	142	2.330	2.330	(0.422)	153207	63.6393	63.6	
12	Acrolein	56	2.481	2.481	(0.449)	182534	249.132	249	
13	Allyl Chloride	41	2.586	2.587	(0.468)	414683	53.9384	53.9	
14	Methylene Chloride	84	2.676	2.680	(0.484)	247589	52.5533	52.6	
15	Acetone	43	2.728	2.725	(0.494)	89250	40.1777	40.2	
16	trans-1,2-Dichloroethene	96	2.814	2.815	(0.509)	246770	49.3210	49.3	
17	Methyl Acetate	43	2.827	2.834	(0.512)	191463	47.9261	47.9	
18	Methyl tert-butyl ether	73	2.911	2.917	(0.527)	637681	52.4315	52.4	
19	Tertiary-butyl alcohol	59	3.013	3.017	(0.545)	86125	240.076	240	
20	Acetonitrile	41	3.164	3.168	(0.573)	311842	472.897	473	
21	Di-isopropyl ether	45	3.286	3.290	(0.595)	814654	52.0263	52.0	
22	Chloroprene	53	3.389	3.395	(0.613)	423886	55.0883	55.1	
23	1,1-Dichloroethane	63	3.421	3.418	(0.619)	451082	49.1213	49.1	

Data File: \\target_server\gg\chem\gcms-w.i\W101221.b\W0626.D
Report Date: 11-Nov-2021 17:35

		Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)	REVIEW CODE
	24	Acrylonitrile	52	3.491	3.492	(0.632)	368776	253.418	253	
	25	Ethyl tertiary-butyl ether	59	3.694	3.700	(0.668)	621741	53.8566	53.8	
	26	Vinyl Acetate	43	3.716	3.723	(0.588)	582497	55.9998	56.0	
	27	cis-1,2-Dichloroethene	96	4.056	4.062	(0.734)	233115	47.6663	47.7	
	28	2,2-Dichloropropane	77	4.194	4.200	(0.759)	288509	49.3638	49.4	
	29	Bromochloromethane	128	4.326	4.323	(0.783)	103361	52.9658	53.0	
	30	Cyclohexane	56	4.306	4.307	(0.779)	444350	59.3325	59.3	
	31	Chloroform	83	4.444	4.451	(0.804)	414986	48.7457	48.7	
	32	Carbon Tetrachloride	117	4.611	4.615	(0.730)	316486	50.0285	50.0	
	33	Tetrahydrofuran	42	4.685	4.679	(0.848)	70346	41.3942	41.4	
$	34	Dibromofluoromethane	113	4.717	4.721	(0.854)	241612	50.3649	50.4	
	35	1,1,1-Trichloroethane	97	4.717	4.724	(0.854)	379915	49.8779	49.9	
	36	2-Butanone	43	4.945	4.945	(0.895)	106035	46.2662	46.3	
	37	1,1-Dichloropropene	75	4.926	4.926	(0.780)	332815	50.9778	51.0	
	38	Benzene	78	5.324	5.330	(0.843)	911500	50.2944	50.3	
	39	Propionitrile	54	5.410	5.417	(0.979)	323347	502.689	503	
	40	Methacrylonitrile	41	5.436	5.443	(0.984)	1585411	526.677	527	
*	41	Pentafluorobenzene	168	5.526	5.533	(1.000)	473766	50.0000		
$	42	1,2-Dichloroethane-D4	65	5.548	5.555	(1.004)	347027	51.8693	51.9	
	43	Tertiary-amyl methyl ether	73	5.558	5.565	(1.006)	468925	52.4646	52.5	
	44	1,2-Dichloroethane	62	5.657	5.664	(0.896)	343736	48.5167	48.5	
	45	Isobutyl Alcohol	43	5.824	5.834	(1.054)	151619	1020.49	1020	
	46	Methylcyclohexane	83	6.190	6.194	(1.120)	432509	57.3332	57.3	
	47	Trichloroethene	95	6.232	6.235	(0.987)	236427	50.9315	50.9	
*	48	1,4-Difluorobenzene	114	6.315	6.319	(1.000)	789863	50.0000		
	49	Dibromomethane	93	6.829	6.835	(1.081)	131896	47.1337	47.1	
	50	1,2-Dichloropropane	63	6.979	6.980	(1.105)	237761	49.7216	49.7	
	51	Bromodichloromethane	83	7.101	7.105	(1.124)	305897	50.1932	50.2	
	52	Methyl Methacrylate	41	7.387	7.394	(1.170)	216958	49.3892	49.4	
	53	Ethyl Methacrylate	69	9.126	9.130	(1.445)	270585	48.7815	48.8	
	54	1,4-Dioxane	88	7.406	7.416	(1.173)	39776	923.996	924	
M	55	Total Alkylbenzenes	100				7650838	377.431	377	
	56	2-Chloroethylvinylether	63	7.939	7.949	(1.257)	68728	66.1637	66.2	
	57	cis-1,3-dichloropropene	75	7.974	7.978	(1.263)	376587	53.5430	53.5	
$	58	Toluene-D8	98	8.208	8.212	(1.300)	938885	50.5952	50.6	
	59	Toluene	92	8.273	8.276	(1.310)	577579	50.4297	50.4	
	60	Tetrachloroethene	164	8.754	8.761	(0.859)	182020	48.9201	48.9	
	61	4-methyl-2-pentanone	43	8.831	8.835	(1.398)	223436	52.1022	52.1	
	62	trans-1,3-Dichloropropene	75	8.853	8.860	(1.402)	334223	53.0382	53.0	
	63	1,1,2-Trichloroethane	83	9.049	9.053	(1.433)	162665	49.2614	49.3	
	64	Dibromochloromethane	129	9.255	9.261	(0.909)	212990	49.1512	49.2	
	65	1,3-Dichloropropane	76	9.380	9.383	(0.921)	359273	48.3733	48.4	
	66	1,2-Dibromoethane	107	9.514	9.518	(1.507)	191171	49.4336	49.4	
	67	2-Hexanone	43	9.909	9.913	(0.973)	144392	49.3672	49.4	
*	68	Chlorobenzene-D5	117	10.185	10.185	(1.000)	740276	50.0000		
	69	Chlorobenzene	112	10.204	10.208	(1.002)	638528	49.5491	49.5	
	70	Ethylbenzene	91	10.272	10.275	(1.009)	1145715	52.0750	52.1	
	71	1,1,1,2-Tetrachloroethane	131	10.304	10.311	(1.012)	227571	52.8523	52.8	
	72	m+p-Xylenes	91	10.464	10.468	(1.027)	1753255	105.074	105	
	73	o-Xylene	91	10.981	10.985	(1.078)	905846	55.0337	55.0	
	74	Styrene	104	11.052	11.055	(1.085)	716258	53.9692	54.0	
	75	Bromoform	173	11.052	11.058	(1.085)	140871	50.5236	50.5	
	76	Isopropylbenzene	105	11.369	11.376	(0.878)	1144759	54.8162	54.8	
$	77	P-Bromofluorobenzene	95	11.677	11.684	(1.849)	370982	50.4279	50.4	

Data File: \\target_server\gg\chem\gcms-w.i\W101221.b\W0626.D
Report Date: 11-Nov-2021 17:35

			QUANT SIG					CONCENTRATIONS		
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/l)	FINAL (ug/l)	REVIEW CODE
	78	cis-1,4-Dichloro-2-Butene	53	11.790	11.793	(0.911)	80372	54.1172	54.1	
	79	Bromobenzene	156	11.777	11.784	(0.910)	262183	49.6883	49.7	
	80	N-Propylbenzene	91	11.857	11.861	(0.916)	1410236	52.7102	52.7	
	81	1,1,2,2-Tetrachloroethane	83	11.963	11.966	(0.924)	254629	50.5960	50.6	
	82	2-Chlorotoluene	91	12.005	12.011	(0.927)	810472	51.8118	51.8	
	83	1,2,3-Trichloropropane	75	12.088	12.088	(0.934)	228030	48.6281	48.6	
	84	1,3,5-Trimethylbenzene	105	12.101	12.104	(0.935)	951311	53.0319	53.0	
	85	trans-1,4-Dichloro-2-Butene	53	12.155	12.159	(0.939)	86036	54.8790	54.9	
	86	4-Chlorotoluene	91	12.200	12.207	(0.942)	848523	51.2526	51.2	
	87	tert-Butylbenzene	119	12.444	12.451	(0.961)	839801	53.6488	53.6	
	89	1,2,4-Trimethylbenzene	105	12.531	12.534	(0.968)	965759	52.5770	52.6	
	90	sec-Butylbenzene	105	12.650	12.653	(0.977)	1301288	54.8096	54.8	
	91	P-Isopropyltoluene	119	12.823	12.830	(0.990)	1103175	55.2496	55.2	
	92	1,3-Dichlorobenzene	146	12.858	12.862	(0.993)	532844	49.8162	49.8	
*	93	1,4-Dichlorobenzene-D4	152	12.948	12.952	(1.000)	408381	50.0000		
	94	1,4-Dichlorobenzene	146	12.964	12.968	(1.001)	545605	48.8290	48.8	
	95	1,2,3-Trimethylbenzene	105	13.012	13.016	(1.005)	973372	53.4360	53.4	
	96	N-Butylbenzene	91	13.288	13.292	(1.026)	1079268	55.4036	55.4	
M	97	1,2-Dichloroethylene (total)	96				479885	96.9873	97.0	
	98	1,2-Dichlorobenzene	146	13.420	13.423	(1.036)	494746	50.2754	50.3	
	99	1,2-Dibromo-3-Chloropropane	157	14.315	14.319	(1.106)	44967	53.7236	53.7	
	100	1,3,5-Trichlorobenzene	180	14.344	14.347	(1.108)	381988	54.2954	54.3	
	101	Hexachlorobutadiene	225	15.040	15.041	(1.162)	177574	53.4840	53.5	
	102	1,2,4-Trichlorobenzene	180	15.050	15.053	(1.162)	321251	53.9957	54.0	
	103	Naphthalene	128	15.400	15.406	(1.189)	662660	51.6089	51.6	
	104	1,2,3-Trichlorobenzene	180	15.599	15.602	(1.205)	262081	51.6448	51.6	
M	105	Xylenes (total)	106				2659101	160.107	160	


Data File: \\target_server\gg\chem\gcms-w.i\W101221.b\W0626.D
Date : 12-OCT-2021 07:35
Client ID:
Sample Info: WG307697-1,SD6709
Purge Volume: 5.0
Column phase: RTX-VMS
Instrument: gcms-w.i
Operator: HG
Column diameter: 0.18
\\target_server\gg\chem\gcms-w.i\W101221.b\W0626.D
Y (x10^6)
Min
-Dichlorodifluoromethane (1.278)
-Chloromethane (1.412)
-Vinyl chloride (1.464)
-Bromomethane (1.672)
-Chloroethane (1.784)
-Trichlorofluoromethane (1.852)
-Diethyl Ether (2.064)
-1,1-Dichloroethene (2.240)+
-Acrolein (2.481)
-Allyl Chloride (2.587)
-Methylene Chloride (2.677)+
-trans-1,2-Dichloroethene (2.815)+
-Tertiary-butyl alcohol (3.014)
-Acetonitrile (3.165)
-Di-isopropyl ether (3.286)
-Chloroprene (3.396)+
-Ethyl tertiary-butyl ethe (3.704)+
-cis-1,2-Dichloroethene (4.057)
-2,2-Dichloropropane (4.195)
-Bromochloromethane (4.326)+
-Chloroform (4.445)
-Carbon Tetrachloride (4.612)+
-Dibromofluoromethane (4.718)+
-2-Butanone (4.945)+
-Benzene (5.324)+
-1,2-Dichloroethane-D4 (5.549)+
-1,2-Dichloroethane (5.658)
Methacrylonitrile (5.436)+
-Isobutyl Alcohol (5.831)
-Methylcyclohexane (6.191)+
-1,4-Difluorobenzene (6.316)
-Dibromomethane (6.832)
-1,2-Dichloropropane (6.980)
-Bromodichloromethane (7.102)
-Methyl Methacrylate (7.391)+
-2-Chloroethylvinylether (7.971)+
-Toluene-D8 (8.209)+
-Tetrachloroethene (8.754)+
-1,1,2-Trichloroethane (9.050)
-Ethyl Methacrylate (9.123)
-Dibromochloromethane (9.255)
-1,3-Dichloropropane (9.380)
-1,2-Dibromoethane (9.515)
-2-Hexanone (9.913)
-Total Alkylbenzenes (10.080)
-Chlorobenzene-D5 (10.192)+
-Ethylbenzene (10.272)+
m+p-Xylenes (10.465)
-o-Xylene (10.981)
-Styrene (11.052)+
-Isopropylbenzene (11.370)
-P-Bromofluorobenzene (11.681)
-cis-1,4-Dichloro-2-Butene (11.777)+
-N-Propylbenzene (11.857)
-1,1,2,2-Tetrachloroethane (11.963)+
-trans-1,4-Dichloro-2-Bute (12.192)
-4-Chlorotoluene (12.204)
-1,2,3-Trichloropropane (12.098)+
-tert-Butylbenzene (12.445)
-1,2,4-Trimethylbenzene (12.531)
-sec-Butylbenzene (12.650)
-P-Isopropyltoluene (12.823)+
1,4-Dichlorobenzene-D4 (12.955)+
-N-Butylbenzene (13.289)
-1,2-Dichlorobenzene (13.423)
-1,2-Dibromo-3-Chloropropa (14.341)+
-Hexachlorobutadiene (15.044)+
-Naphthalene (15.403)
-1,2,3-Trichlorobenzene (15.599)

Logbooks and Supporting Documents

KATAHDIN ANALYTICAL SERVICES

GCMS-C INSTRUMENT RUNLOG

DATE/TIME OF BFB INJECTION: 10-4-21

Method - Check One:	8260 ✓	8260 - 10 mL	8260 SIM	624	524
STD IDs: * BFB STD: V2313	CAL STD: V2328	GAS STD: —	XTRAs STD V2329	LCS/MS STD: V2330	
SURR STD: V2326	IS STD: V2326				

SAMPLE NAME	DATAFILE	DF	ALS #	METHOD	Prep Method* 5030	5035	1311	Criteria KAS	DoD	QAPP	pH Paper Lot #: Y/N	Analyst	pH	TRC	KI Paper Lot # COMMENTS
WG507158 - 12	C1643	1	1	V8260BFB							Y	JJ	NA	NA	
VSTD050 - 4	C1008	1	1	C8A05(53)							Y				
- 3	09	1	2								N				poor prep
- 8	10	1	3								N				
VSTD005 - 2	11	1	4								Y				
001 - 1	12	1	5								Y				
150 - 6	13	1	6								Y				curve ok JJ 10-4-21
100 - 5	14	1	7								Y				
075 - 7	15	1	8								Y				
020 - 3	16	1	9								Y				
010 - 8	17	1	10	↓							Y	↓	↓	↓	
													JJ	10-4-21	

* Refer to page 1 for standard preparation instructions.

Katahdin Analytical Services 1000441

13:21

KATAHDIN ANALYTICAL SERVICES

GCMS-C INSTRUMENT RUNLOG WG

DATE/TIME OF BFB INJECTION: 10-4-21 B

Method - Check One:	8260 ✓	8260 - 10 mL	8260 SIM	624	524
STD IDs: * BFB STD: V2313	CAL STD: V2328	GAS STD: —	XTRAs STD: V2329	LCS/MS STD: V2330	
SURR STD: V2326	IS STD: V2326				

					Prep Method			Criteria			pH Paper Lot #:			KI Paper Lot #	
SAMPLE NAME	DATAFILE	DF	ALS #	METHOD	5030	5035	1311	KAS	DoD	QAPP	Y/N	ANALYST	pH	TRC	COMMENTS
WG307227-3	B3644	1	-1	VOABF-B	X						Y	BS	NA	NA	
VSTD050 -01	C1018	1	1	C8B05(53)							N				
-4	19	1	2								Y				
5 LCS/Ind -18	20	1	3								Y				
VBLK	21	1	4								N		↓		
WG307227-2	22	1	5								Y		12		
SO6495-56 B	23	1	6						X		Y				
-52 A	24	1	7								Y				
-54 A	25	1	8								Y				
-56 A	26	1	9								Y				
↓ -58 A	27	1	10								Y				
SO6476-3 C	28	1	11								Y				RR 1:2
-4 A	29	1	12								Y				RR 1:2
-5 A	30	1	13								Y				RR 1:10
↓ -6 A	31	1	14								N				RR C:O
SO6553-19 B	32	1	15								Y				RR 1:10
SO6554-10 A	33	1	16												1:5 ↑
-11 A	34	1	17												1:5 ↑
↓ -12 B	35	1	18												1:5 ↑
6 SO6476-3MS D	36	1	19								Y				
7 ↓ 3MSD E	37	1	20						↓		Y		↓		
CCV -5	38	1	21								Y		NA		LO: 23 ✓
1	39	1	22												
3	40	1	23												
Rinse	↓ 41	1	24	↓	↓							↓	↓	↓	

* Refer to page 1 for standard preparation instructions.

Katahdin Analytical Services 1000442

WG

KATAHDIN ANALYTICAL SERVICES

GCMS-C INSTRUMENT RUNLOG

DATE/TIME OF BFB INJECTION: 10/1/21 7:12

Method - Check One:	8260 ✓	8260 - 10 mL	8260 SIM	624	524
STD IDs: * BFB STD:	v2313	CAL STD: v2334	GAS STD: —	XTRAs STD: v2335	LCS/MS STD: v2336
SURR STD:	v2326	IS STD: v2326			

SAMPLE NAME	DATAFILE	DF	ALS #	METHOD	Prep Method 5030	5035	1311	Criteria KAS	DoD	QAPP	pH Paper Lot #: Y/N	ANALYST	pH	KI Paper Lot # TRC	COMMENTS
WG507644-3	CB6051	—	—	VOABFB	✓						Y	[illegible]	NA	NA	
VStd 050 -4	C1208	1	1	CBADS(53)							Y				
LCS -1	09	1	2								Y				
VBlank	10	1	3								N				
VBlank -2	11	1	4								Y				
SO 506646-2 A	12	1	5					✓			Y		12		
SO 506677-1 A	13	1	6								Y				
" -2 A	14	1	7								Y				
SO 506555-16 A	15	1	8						✓		Y				
-16DLRAC	16	40	9								Y				
-22DL B	17	100	10								Y				
-29DL B	18	100	11								Y				
SO 506646-1DL A	19	5	12					✓			N				manual
SO 506796-1 A	20	1	13								Y				
" -3 A	21	1	14								Y				
SO 506709-15 A	22	1	15								Y				
-17 A	23	1	16								Y				
" -18 A	24	1	17								Y				
SO 506646-1 B	25	1	18								Y				
SO 506555-22DL2 B	26	10	19						✓		Y				
-29DL2 B	27	10	20								Y				
18MS B-6	28	1	21								Y				✓
18MSD B-7	29	1	22								Y		✓		✓ [illegible]
CCV	30	1	23								Y		NA		[illegible]
CCV	31	1	24								N				manual
CCV	32	1	25								N				✓

* Refer to page 1 for standard preparation instructions.

Katahdin Analytical Services 1000443

10:11

KATAHDIN ANALYTICAL SERVICES

GCMS-T INSTRUMENT RUNLOG WG ✓

DATE/TIME OF BFB INJECTION: 10-11-21

Method - Check One:	8260 ✓	8260 - 10 mL	8260 SIM	624	524
STD IDs: * BFB STD: V2333	CAL STD: V2334	GAS STD: —	XTRAs STD: V2335	LCS/MS STD: V2336	
SURR STD: V2337	IS STD: V2337				

SAMPLE NAME	DATAFILE	DF	ALS #	METHOD	Prep Method: 5030	5035	1311	Criteria: KAS	DoD	QAPP	Y/N	ANALYST	pH	TRC	COMMENTS
WG307648-12	TB587	1	-1	VOA BFB							Y	✓	NA	NA	
ICal -4	T3700	1	1	T8A05(01)SHRT							N				Bad Stop
VSTD020 -3	01	1	2								Y				
010 -8	02	1	3								Y				Cmeth
005 -2	03	1	4								Y				↓
001 -1	04	1	5								Y				10-12-21
150 -6	05	1	6								Y				w/c-pt for 1,4-D
100 -5	06	1	7								Y				+chlorethane DD
075 -7	07	1	8								Y				
050 -4	08	1	9								Y				
LCS/Ind -9/10	09	1	10								Y				Ind b chloroethane
VBLK	10	1	11								N				Target hits
WG307648 -11	11	1	12								Y		↓		
506709-35 A	12	1	13					8			Y		12		
-23 A	13	1	14								Y				
-24 A	14	1	15								Y				
-25 A	15	1	16								Y				
-26 A	16	1	17								Y				
-27 A	17	1	18								Y				
-28 A	18	1	19								Y				
-29 A	19	1	20								Y				
-30 A	20	1	21								Y				
-31 A	21	1	22								Y				
-32 A	22	1	23								Y				
-33 A	23	1	24								Y				
-19 A	24	1	25								Y				
506709-21 A Rinse	T3725		26								—				01:38 ✓
	T3726		27												

* Refer to page 1 for standard preparation instructions.

Katahdin Analytical Services 1000444

Katahdin Analytical Services 1000445

KATAHDIN ANALYTICAL SERVICES

GCMS-W INSTRUMENT RUNLOG

DATE/TIME OF BFB INJECTION: 10-10 21

Method - Check One:	8260 ✓	8260 - 10 mL	8260 SIM	624	524
STD IDs: * BFB STD: V2313	CAL STD: V2334	GAS STD: —	XTRAs STD: V2335	LCS/MS STD: V2340	
SURR STD: V2333	IS STD: V2336				

pH Paper Lot #: 100365 KI Paper Lot # —

SAMPLE NAME	DATAFILE	DF	ALS #	METHOD	Prep Method: 5030	5035	1311	Criteria: KAS	DoD	QAPP	Y/N	ANALYST	pH	TRC	COMMENTS
V6307630-12	V0557	—	—	V8260B	✓						Y	RR	N/A	N/A	
Rinse -4	V0576	1	1	V8260(LL)							Y				
20 -3	77		2								Y				
10 -2	78		3								Y				
5 -2	79		4								Y				
1 -1	80		5								Y				
1/2 -6	81		6								Y				
100 -5	82		7								Y				
MC -7	83		8								Y				
IntLCS -9/10	84		9								Y/Y				IntLCS "A"
LCSD -14	85		10								Y				
VBLKA	86		11								Y				
A -11	87		12								Y				
Solv07-5 A	88		13						5.0		Y		2		
Solv540-2 A	89		14					✓			Y				
Solv07-1 A	90		15						5.0		Y				
-4 A	91		16								Y				
-10 A	92		17								Y				
-20 A	93		18								Y				
-2 B	94		19								Y				
-3 A	95		20								Y				
CCV -13	96		21								Y		2		
2	97		22								Y				
3	98		23								N				
Rinse	99		24								N				

* Refer to page 1 for standard preparation instructions.

Katahdin Analytical Services 1000446

KATAHDIN ANALYTICAL SERVICES

GCMS-W INSTRUMENT RUNLOG WG

DATE/TIME OF BFB INJECTION: 10/11/21 1602

Method - Check One:	8260 ✓	8260 - 10 mL	8260 SIM	624	524
STD IDs: * BFB STD: V2313	CAL STD: V2334	GAS STD: —	XTRAs STD: V2335	LCS/MS STD: V2336	
SURR STD: V2333	IS STD: V2333				

SAMPLE NAME	DATAFILE	DF	ALS #	METHOD	Prep Method 5030	5035	1311	Criteria KAS	DoD	QAPP	pH Paper Lot #: Y/N	ANALYST	pH	TRC	KI Paper Lot # COMMENTS
WG370650 3	WBU05	—	—	V0ABFB	/						Y	✓	NA	NA	
VStd CSC -4	WD0001	1	1	WBA05(11)							Y				
LCS -1	02	1	2								Y				
VBlank	03	1	3								N				
VBlank -2	04	1	4								Y				
SO66008-1DLA	05	5	5					✓			Y		<2		Run Stop
SO67009-4DLA	06	50	6								N				wet needle OD RB
↓ -9DLA	07	4	7								N				✓
SO66008-2 A	08	1	8								Y				
↓ -3 A	09	1	9								Y				
SO67009-1 A	10	1	10								Y				
-3 A	11	1	11								Y				
-5 A	12	1	12								Y				
-6 A	13	1	13								Y				
-7 A	14	1	14								Y				
-8 A	15	1	15								Y				
-10 A	16	1	16								Y				
-11 A	17	1	17								Y				
-12 A	18	1	18								Y				
-13 A	19	1	19								Y				
-14 A	20	1	20								Y				
-4DL2 A	21	5	21								N				
↓ -7 B	22	1	22					↓			Y	↓	AA	↓	17:30
Rinse	23	1	23	↓	↓						—	↓	NA	↓	

* Refer to page 1 for standard preparation instructions.

Katahdin Analytical Services 1000447

KATAHDIN ANALYTICAL SERVICES

GCMS-W INSTRUMENT RUNLOG WG

DATE/TIME OF BFB INJECTION: 10/12/21 0:39

Method - Check One:	8260 ✓	8260 - 10 mL	8260 SIM	624	524
STD IDs: * BFB STD:	V2313	CAL STD: V2334	GAS STD: —	XTRAs STD: V2335	LCS/MS STD: V2336
SURR STD:	V2333	IS STD: V2333			

SAMPLE NAME	DATAFILE	DF	ALS #	METHOD	Prep Method 5030	5035	1311	Criteria KAS	DoD	QAPP	pH Paper Lot #: Y/N	ANALYST	pH	TRC	KI Paper Lot # COMMENTS
WG307097-3	WB659	—	—	VOABFB	/						Y	↓	NA	NA	
VStd 050 -4	W0625	1	1	WBA05(11)	↓						Y		↓	↓	
LCS -1	26	1	2	↓							Y				
VBlank	27	1	3								N				
VBlank -2	28	1	4								Y				
SOL[illegible]-1 A	29	1	5					/			Y		12		
SOL[illegible]23-1 A	30	1	6					↓			Y		↓		
SOL[illegible]46-1 A	31	1	7								Y				
SOL709-4 B	32	1	8								Y				
-20DL A	33	20	9								N				over dilute ~~AK35~~
-3 A	34	1	10								Y				
-6 B	35	1	11								Y				
-10 A	36	1	12								Y				
-22 A	37	1	13								Y				
-34 A	38	1	14								Y				
SOL709-20 B	39	1	15								Y				
SOL[illegible]03-1 B	40	1	16					↓			Y		↓		RR 1:10
Rinse	41	1	17	↓	↓						N	↓	NA	↓	
Rinse	42	1	1												

* Refer to page 1 for standard preparation instructions.

ANALYTICAL REPORT

Lab Number:	L2160446
Client:	Arcadis U.S, Inc. 855 Route 146, Suite 210 Clifton Park, NY 12065
ATTN:	Danielle Giroux
Phone:	(518) 250-7325
Project Name:	WVA LTM
Project Number:	3001988
Report Date:	11/09/21

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: WVA LTM
Project Number: 3001988

Lab Number: L2160446
Report Date: 11/09/21

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2160446-01	93EM-SP-11	WATER	WATERVLIET, NY	11/03/21 13:30	11/03/21
L2160446-02	WYA-AW-35-MW-12	WATER	WATERVLIET, NY	11/03/21 15:00	11/03/21
L2160446-03	NMT PIT	WATER	WATERVLIET, NY	11/03/21 13:50	11/03/21

Project Name:	WVA LTM	**Lab Number:**	L2160446
Project Number:	3001988	**Report Date:**	11/09/21

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name: WVA LTM
Project Number: 3001988

Lab Number: L2160446
Report Date: 11/09/21

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Sebastian Corbin

Title: Technical Director/Representative Date: 11/09/21

INORGANICS
&
MISCELLANEOUS

Project Name: WVA LTM
Project Number: 3001988

Lab Number: L2160446
Report Date: 11/09/21

SAMPLE RESULTS

Lab ID: L2160446-01
Client ID: 93EM-SP-11
Sample Location: WATERVLIET, NY

Date Collected: 11/03/21 13:30
Date Received: 11/03/21
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Chromium, Hexavalent (Unfiltered)	ND		mg/l	0.010	0.003	1	11/04/21 10:40	11/04/21 11:02	1,7196A	KP

Project Name: WVA LTM
Project Number: 3001988

Lab Number: L2160446
Report Date: 11/09/21

SAMPLE RESULTS

Lab ID: L2160446-02
Client ID: WYA-AW-35-MW-12
Sample Location: WATERVLIET, NY

Date Collected: 11/03/21 15:00
Date Received: 11/03/21
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Chromium, Hexavalent	ND		mg/l	0.010	0.003	1	11/04/21 08:15	11/04/21 09:34	1,7196A	KP
Chromium, Hexavalent (Unfiltered)	0.004	J	mg/l	0.010	0.003	1	11/04/21 10:40	11/04/21 11:03	1,7196A	KP

Project Name: WVA LTM
Project Number: 3001988

Lab Number: L2160446
Report Date: 11/09/21

SAMPLE RESULTS

Lab ID: L2160446-03
Client ID: NMT PIT
Sample Location: WATERVLIET, NY

Date Collected: 11/03/21 13:50
Date Received: 11/03/21
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Chromium, Hexavalent (Unfiltered)	21.7		mg/l	0.500	0.150	50	11/04/21 10:40	11/04/21 11:04	1,7196A	KP

Project Name: WVA LTM
Project Number: 3001988
Lab Number: L2160446
Report Date: 11/09/21

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 02 Batch: WG1567044-1										
Chromium, Hexavalent	ND		mg/l	0.010	0.003	1	11/04/21 08:15	11/04/21 09:33	1,7196A	KP
General Chemistry - Westborough Lab for sample(s): 01-03 Batch: WG1567045-1										
Chromium, Hexavalent (Unfiltered)	ND		mg/l	0.010	0.003	1	11/04/21 10:40	11/04/21 11:00	1,7196A	KP

Lab Control Sample Analysis

Batch Quality Control

Project Name: WVA LTM

Project Number: 3001988

Lab Number: L2160446

Report Date: 11/09/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 02 Batch: WG1567044-2								
Chromium, Hexavalent	106		-		85-115	-		20
General Chemistry - Westborough Lab Associated sample(s): 01-03 Batch: WG1567045-2								
Chromium, Hexavalent (Unfiltered)	104		-		85-115	-		20

Matrix Spike Analysis
Batch Quality Control

Project Name: WVA LTM
Project Number: 3001988

Lab Number: L2160446
Report Date: 11/09/21

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 02 QC Batch ID: WG1567044-4 QC Sample: L2160446-02 Client ID: WYA-AW-35-MW-12												
Chromium, Hexavalent	ND	0.1	0.109	109		-	-		85-115	-		20
General Chemistry - Westborough Lab Associated sample(s): 01-03 QC Batch ID: WG1567045-4 QC Sample: L2160446-02 Client ID: WYA-AW-35-MW-12												
Chromium, Hexavalent (Unfiltered)	0.004J	0.1	0.109	109		-	-		85-115	-		20

Lab Duplicate Analysis

Batch Quality Control

Project Name: WVA LTM

Project Number: 3001988

Lab Number: L2160446

Report Date: 11/09/21

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 02 QC Batch ID: WG1567044-3 QC Sample: L2160446-02 Client ID: WYA-AW-35-MW-12						
Chromium, Hexavalent	ND	ND	mg/l	NC		20
General Chemistry - Westborough Lab Associated sample(s): 01-03 QC Batch ID: WG1567045-3 QC Sample: L2160446-01 Client ID: 93EM-SP-11						
Chromium, Hexavalent (Unfiltered)	ND	ND	mg/l	NC		20

Project Name: WVA LTM
Project Number: 3001988

Lab Number: L2160446
Report Date: 11/09/21

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
B	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2160446-01A	Plastic 250ml unpreserved	B	7	7	3.9	Y	Absent		HEXCR-7196-UF(1)
L2160446-02A	Plastic 250ml unpreserved	B	7	7	3.9	Y	Absent		HEXCR-7196-UF(1)
L2160446-02B	Plastic 250ml unpreserved	B	7	7	3.9	Y	Absent		HEXCR-7196(1),FILTER(1)
L2160446-02W	Plastic 250ml unpreserved Filtrates	B	NA		3.9	Y	Absent		HEXCR-7196(1)
L2160446-03A	Plastic 250ml unpreserved	B	7	7	3.9	Y	Absent		HEXCR-7196-UF(1)

*Values in parentheses indicate holding time in days

Project Name:	WVA LTM	**Lab Number:**	L2160446
Project Number:	3001988	**Report Date:**	11/09/21

GLOSSARY

Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
NR	- No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: DU Report with 'J' Qualifiers

Project Name:	WVA LTM	**Lab Number:**	L2160446
Project Number:	3001988	**Report Date:**	11/09/21

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA,this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

A - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

F - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with 'J' Qualifiers

Project Name:	WVA LTM	**Lab Number:**	L2160446
Project Number:	3001988	**Report Date:**	11/09/21

Data Qualifiers

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

V - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Z - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Report Format: DU Report with 'J' Qualifiers

Project Name:	WVA LTM	**Lab Number:**	L2160446
Project Number:	3001988	**Report Date:**	11/09/21

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 624/624.1: m/p-xylene, o-xylene, Naphthalene
EPA 625/625.1: alpha-Terpineol
EPA 8260C/8260D: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D/8270E: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine, alpha-Terpineol; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility
SM 2540D: TSS
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water
EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**
EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N**, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603, SM9222D.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522, EPA 537.1.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb**,** As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.
EPA 245.1 Hg.
SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

NEW YORK CHAIN OF CUSTODY

ALPHA

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 1 of 1

Date Rec'd in Lab: 11/4/21

ALPHA Job #: L2160446

Client Information
Client: Arcadis
Address: 855 RTE 146 Suite 210
Clifton Park NY 12065
Phone: 518-250-7327
Fax:
Email: Danielle.Giroux@arcadis.com

Project Information
Project Name: WVA LTM
Project Location: Watervliet, NY
Project #: 30019989
(Use Project name as Project #)
Project Manager: Andy Vitolins
ALPHAQuote #:

Turn-Around Time
Standard: ☑ Due Date:
Rush (only if pre approved): ☐ # of Days:

Deliverables
☐ ASP-A ☐ ASP-B
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☐ Other

Regulatory Requirement
☐ NY TOGS ☐ NY Part 375
☐ AWQ Standards ☐ NY CP-51
☐ NY Restricted Use ☐ Other
☐ NY Unrestricted Use
☐ NYC Sewer Discharge

Billing Information
☐ Same as Client Info
PO #

Disposal Site Information
Please identify below location of applicable disposal facilities.
Disposal Facility:
☐ NJ ☐ NY
☐ Other:

These samples have been previously analyzed by Alpha ☐

Other project specific requirements/comments:

Please specify Metals or TAL.

ANALYSIS

Sample Filtration
☐ Done
☐ Lab to do
Preservation
☐ ~~Lab to do~~
Diss Lab to filter
(Please Specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	Hex Chrome Sw846 7196A	Het Chrome Total	Hex Chrome Diss/Lab Filter					Sample Specific Comments	Total # Bottles
L2160446-01	93EM-SP-11	11/3/21	1330	W	KS	-	1	0						1
-02	WVA-AW-35-MW-12	1	1500	W	KS	-	1	1					low volume	2
-03	NMT P.T	1	1350	W	KS	-	1	0						1

Container Type: - P A
Preservative: - P A

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Relinquished By:	Date/Time	Received By:	Date/Time
	11/3/21 1545		11/3/21 15:45
	11/3/21 1550		11/4/21 01:01

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-25 HC (rev. 30-Sept-2013)

eurofins | Air Toxics

1/3/2022
Mr. Stefan Bagnato
ARCADIS, U.S., Inc.
855 Route 146
Suite 210
Clifton Park NY 12065

Project Name: WVA
Project #: 30001988
Workorder #: 2112491A

Dear Mr. Stefan Bagnato

The following report includes the data for the above referenced project for sample(s) received on 12/17/2021 at Eurofins Air Toxics LLC.

The data and associated QC analyzed by Modified TO-15 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Eurofins Air Toxics LLC. for your air analysis needs. Eurofins Air Toxics Inc. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Jade White at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



Jade White

Project Manager

eurofins | Air Toxics

WORK ORDER #: 2112491A

Work Order Summary

CLIENT:	Mr. Stefan Bagnato ARCADIS, U.S., Inc. 855 Route 146 Suite 210 Clifton Park, NY 12065	**BILL TO:**	Accounts Payable Arcadis U.S., Inc. 630 Plaza Drive Suite 600 Highlands Ranch, CO 80129
PHONE:	518-250-7300	**P.O. #**	30001988.0001D
FAX:	518-250-7301	**PROJECT #**	30001988 WVA
DATE RECEIVED:	12/17/2021	**CONTACT:**	Jade White
DATE COMPLETED:	01/03/2022		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
01A	IA-B15-1-121521	Modified TO-15	8.0 "Hg	2 psi
01B	IA-B15-1-121521	Modified TO-15	8.0 "Hg	2 psi
02A	IA-B15-2-121521	Modified TO-15	8.0 "Hg	2 psi
02B	IA-B15-2-121521	Modified TO-15	8.0 "Hg	2 psi
03A	IA-B20-1-121521	Modified TO-15	9.0 "Hg	2 psi
03B	IA-B20-1-121521	Modified TO-15	9.0 "Hg	2 psi
04A	AA-B21-1-121521	Modified TO-15	21.5 "Hg	2 psi
04B	AA-B21-1-121521	Modified TO-15	21.5 "Hg	2 psi
05A	IA-B21-2-121521	Modified TO-15	8.0 "Hg	2 psi
05B	IA-B21-2-121521	Modified TO-15	8.0 "Hg	2 psi
06A	IA-B21-1-121521	Modified TO-15	6.0 "Hg	2 psi
06B	IA-B21-1-121521	Modified TO-15	6.0 "Hg	2 psi
07A	IA-B22-1-121521	Modified TO-15	6.0 "Hg	2 psi
07B	IA-B22-1-121521	Modified TO-15	6.0 "Hg	2 psi
08A	IA-B22-2-121521	Modified TO-15	7.0 "Hg	2 psi
08B	IA-B22-2-121521	Modified TO-15	7.0 "Hg	2 psi
09A	IA-B25-1-121521	Modified TO-15	6.5 "Hg	2 psi
09B	IA-B25-1-121521	Modified TO-15	6.5 "Hg	2 psi
10A	IA-B25-2-121521	Modified TO-15	7.5 "Hg	2 psi
10B	IA-B25-2-121521	Modified TO-15	7.5 "Hg	2 psi
11A	IA-B25-3-121521	Modified TO-15	5.5 "Hg	2 psi
11B	IA-B25-3-121521	Modified TO-15	5.5 "Hg	2 psi
12A	IA-B25-4-121521	Modified TO-15	7.5 "Hg	2 psi

Continued on next page

eurofins | Air Toxics

WORK ORDER #: 2112491A

Work Order Summary

CLIENT:	Mr. Stefan Bagnato ARCADIS, U.S., Inc. 855 Route 146 Suite 210 Clifton Park, NY 12065	**BILL TO:**	Accounts Payable Arcadis U.S., Inc. 630 Plaza Drive Suite 600 Highlands Ranch, CO 80129
PHONE:	518-250-7300	**P.O. #**	30001988.0001D
FAX:	518-250-7301	**PROJECT #**	30001988 WVA
DATE RECEIVED:	12/17/2021	**CONTACT:**	Jade White
DATE COMPLETED:	01/03/2022		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
12B	IA-B25-4-121521	Modified TO-15	7.5 "Hg	2 psi
13A	Lab Blank	Modified TO-15	NA	NA
13B	Lab Blank	Modified TO-15	NA	NA
14A	CCV	Modified TO-15	NA	NA
14B	CCV	Modified TO-15	NA	NA
15A	LCS	Modified TO-15	NA	NA
15AA	LCSD	Modified TO-15	NA	NA
15B	LCS	Modified TO-15	NA	NA
15BB	LCSD	Modified TO-15	NA	NA

CERTIFIED BY: Heidi Hayes DATE: 01/03/22

Technical Director

Certification numbers: AZ Licensure AZ0775, FL NELAP – E87680, LA NELAP – 02089, NH NELAP - 209221, NJ NELAP - CA016, NY NELAP - 11291, TX NELAP - T104704434-21-17, UT NELAP – CA009332021-13, VA NELAP - 10615, WA NELAP - C935
Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
Accreditation number: CA300005-015, Effective date: 10/18/2021, Expiration date: 10/17/2022.
Eurofins Air Toxics, LLC certifies that the test results contained in this report meet all requirements of the NELAC standards

This report shall not be reproduced, except in full, without the written approval of Eurofins Air Toxics, LLC.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 351-8279

LABORATORY NARRATIVE
Modified TO-15 Full Scan/SIM
ARCADIS, U.S., Inc.
Workorder# 2112491A

Ten 6 Liter Summa Canister (Ambient), One 6 Liter Summa Canister, and one 6 Liter Summa Canister (SIM Certified) samples were received on December 17, 2021. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the Full Scan and SIM acquisition modes. The method involves concentrating up to 1.0 liters of air. The concentrated aliquot is then flash vaporized and swept through a water management system to remove water vapor. Following dehumidification, the sample passes directly into the GC/MS for analysis.

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the EATL modifications.

Requirement	***TO-15***	***ATL Modifications***
ICAL %RSD acceptance criteria	</=30% RSD with 2 compounds allowed out to < 40% RSD	For Full Scan: 30% RSD with 4 compounds allowed out to < 40% RSD For SIM: Project specific; default criteria is </=30% RSD with 10% of compounds allowed out to < 40% RSD
Daily Calibration	+- 30% Difference	For Full Scan: </= 30% Difference with four allowed out up to </=40%.; flag and narrate outliers For SIM: Project specific; default criteria is </= 30% Difference with 10% of compounds allowed out up to </=40%.; flag and narrate outliers
Blank and standards	Zero air	Nitrogen
Method Detection Limit	Follow 40CFR Pt.136 App. B	The MDL met all relevant requirements in Method TO-15 (statistical MDL less than the LOQ). The concentration of the spiked replicate may have exceeded 10X the calculated MDL in some cases

Receiving Notes

Sample AA-B21-1-121521 was received with significant vacuum remaining in the canister. The residual canister vacuum resulted in elevated reporting limits.

Analytical Notes

The results for each sample in this report were acquired from two separate data files originating from the same analytical run. The two data files have the same base file name and are differentiated with a "sim" extension on the SIM data file.

Definition of Data Qualifying Flags

Nine qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

CN - See case narrative explanation

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

eurofins | Air Toxics

Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

Client Sample ID: IA-B15-1-121521

Lab ID#: 2112491A-01A

No Detections Were Found.

Client Sample ID: IA-B15-1-121521

Lab ID#: 2112491A-01B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Carbon Tetrachloride	0.031	0.073	0.20	0.46

Client Sample ID: IA-B15-2-121521

Lab ID#: 2112491A-02A

No Detections Were Found.

Client Sample ID: IA-B15-2-121521

Lab ID#: 2112491A-02B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Carbon Tetrachloride	0.031	0.071	0.20	0.45

Client Sample ID: IA-B20-1-121521

Lab ID#: 2112491A-03A

No Detections Were Found.

Client Sample ID: IA-B20-1-121521

Lab ID#: 2112491A-03B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Carbon Tetrachloride	0.032	0.072	0.20	0.45

Client Sample ID: AA-B21-1-121521

Lab ID#: 2112491A-04A

No Detections Were Found.

eurofins | Air Toxics

Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

Client Sample ID: AA-B21-1-121521

Lab ID#: 2112491A-04B

No Detections Were Found.

Client Sample ID: IA-B21-2-121521

Lab ID#: 2112491A-05A

No Detections Were Found.

Client Sample ID: IA-B21-2-121521

Lab ID#: 2112491A-05B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Carbon Tetrachloride	0.031	0.076	0.20	0.48

Client Sample ID: IA-B21-1-121521

Lab ID#: 2112491A-06A

No Detections Were Found.

Client Sample ID: IA-B21-1-121521

Lab ID#: 2112491A-06B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Carbon Tetrachloride	0.028	0.040	0.18	0.26

Client Sample ID: IA-B22-1-121521

Lab ID#: 2112491A-07A

No Detections Were Found.

Client Sample ID: IA-B22-1-121521

Lab ID#: 2112491A-07B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Carbon Tetrachloride	0.028	0.072	0.18	0.46

eurofins | Air Toxics

Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

Client Sample ID: IA-B22-2-121521

Lab ID#: 2112491A-08A

No Detections Were Found.

Client Sample ID: IA-B22-2-121521

Lab ID#: 2112491A-08B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Carbon Tetrachloride	0.030	0.071	0.19	0.45
Tetrachloroethene	0.030	0.045	0.20	0.30

Client Sample ID: IA-B25-1-121521

Lab ID#: 2112491A-09A

No Detections Were Found.

Client Sample ID: IA-B25-1-121521

Lab ID#: 2112491A-09B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Carbon Tetrachloride	0.029	0.071	0.18	0.45
Trichloroethene	0.029	0.070	0.16	0.38

Client Sample ID: IA-B25-2-121521

Lab ID#: 2112491A-10A

No Detections Were Found.

Client Sample ID: IA-B25-2-121521

Lab ID#: 2112491A-10B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Carbon Tetrachloride	0.030	0.069	0.19	0.44
1,2-Dichloroethane	0.030	0.033	0.12	0.13
Trichloroethene	0.030	0.030	0.16	0.16

eurofins | Air Toxics

Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

Client Sample ID: IA-B25-3-121521

Lab ID#: 2112491A-11A

No Detections Were Found.

Client Sample ID: IA-B25-3-121521

Lab ID#: 2112491A-11B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Carbon Tetrachloride	0.028	0.10	0.17	0.64
1,2-Dichloroethane	0.028	0.027 J	0.11	0.11 J

Client Sample ID: IA-B25-4-121521

Lab ID#: 2112491A-12A

No Detections Were Found.

Client Sample ID: IA-B25-4-121521

Lab ID#: 2112491A-12B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Carbon Tetrachloride	0.030	0.072	0.19	0.45
1,2-Dichloroethane	0.030	0.039	0.12	0.16
Trichloroethene	0.030	0.034	0.16	0.18

eurofins | Air Toxics

Client Sample ID: IA-B15-1-121521

Lab ID#: 2112491A-01A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**21122811**	**Date of Collection: 12/16/21 10:50:00 A**	
Dil. Factor:	**1.55**	**Date of Analysis: 12/28/21 03:26 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Chlorobenzene	0.16	Not Detected	0.71	Not Detected

Container Type: 6 Liter Summa Canister (Ambient)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	111	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	92	70-130

eurofins | Air Toxics

Client Sample ID: IA-B15-1-121521

Lab ID#: 2112491A-01B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**21122811sim**	**Date of Collection: 12/16/21 10:50:00 A**	
Dil. Factor:	**1.55**	**Date of Analysis: 12/28/21 03:26 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Chloromethane	0.78	Not Detected	1.6	Not Detected
Vinyl Chloride	0.016	Not Detected	0.040	Not Detected
Chloroethane	0.078	Not Detected	0.20	Not Detected
1,1-Dichloroethene	0.016	Not Detected	0.061	Not Detected
trans-1,2-Dichloroethene	0.16	Not Detected	0.61	Not Detected
1,1-Dichloroethane	0.031	Not Detected	0.12	Not Detected
cis-1,2-Dichloroethene	0.031	Not Detected	0.12	Not Detected
1,1,1-Trichloroethane	0.031	Not Detected	0.17	Not Detected
Carbon Tetrachloride	0.031	0.073	0.20	0.46
1,2-Dichloroethane	0.031	Not Detected	0.12	Not Detected
Trichloroethene	0.031	Not Detected	0.17	Not Detected
1,1,2-Trichloroethane	0.031	Not Detected	0.17	Not Detected
Tetrachloroethene	0.031	Not Detected	0.21	Not Detected
1,1,2,2-Tetrachloroethane	0.031	Not Detected	0.21	Not Detected

Container Type: 6 Liter Summa Canister (Ambient)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	109	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	96	70-130

eurofins | Air Toxics

Client Sample ID: IA-B15-2-121521

Lab ID#: 2112491A-02A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**21122812**	**Date of Collection: 12/16/21 10:45:00 A**	
Dil. Factor:	**1.55**	**Date of Analysis: 12/28/21 04:03 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Chlorobenzene	0.16	Not Detected	0.71	Not Detected

Container Type: 6 Liter Summa Canister (Ambient)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	111	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	93	70-130

eurofins | Air Toxics

Client Sample ID: IA-B15-2-121521

Lab ID#: 2112491A-02B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**21122812sim**	**Date of Collection: 12/16/21 10:45:00 A**	
Dil. Factor:	**1.55**	**Date of Analysis: 12/28/21 04:03 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Chloromethane	0.78	Not Detected	1.6	Not Detected
Vinyl Chloride	0.016	Not Detected	0.040	Not Detected
Chloroethane	0.078	Not Detected	0.20	Not Detected
1,1-Dichloroethene	0.016	Not Detected	0.061	Not Detected
trans-1,2-Dichloroethene	0.16	Not Detected	0.61	Not Detected
1,1-Dichloroethane	0.031	Not Detected	0.12	Not Detected
cis-1,2-Dichloroethene	0.031	Not Detected	0.12	Not Detected
1,1,1-Trichloroethane	0.031	Not Detected	0.17	Not Detected
Carbon Tetrachloride	0.031	0.071	0.20	0.45
1,2-Dichloroethane	0.031	Not Detected	0.12	Not Detected
Trichloroethene	0.031	Not Detected	0.17	Not Detected
1,1,2-Trichloroethane	0.031	Not Detected	0.17	Not Detected
Tetrachloroethene	0.031	Not Detected	0.21	Not Detected
1,1,2,2-Tetrachloroethane	0.031	Not Detected	0.21	Not Detected

Container Type: 6 Liter Summa Canister (Ambient)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	110	70-130
Toluene-d8	95	70-130
4-Bromofluorobenzene	98	70-130

eurofins | Air Toxics

Client Sample ID: IA-B20-1-121521

Lab ID#: 2112491A-03A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**21122813**	**Date of Collection: 12/16/21 10:00:00 A**	
Dil. Factor:	**1.62**	**Date of Analysis: 12/28/21 04:39 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Chlorobenzene	0.16	Not Detected	0.74	Not Detected

Container Type: 6 Liter Summa Canister (Ambient)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	110	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	91	70-130

eurofins | Air Toxics

Client Sample ID: IA-B20-1-121521

Lab ID#: 2112491A-03B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**21122813sim**	**Date of Collection: 12/16/21 10:00:00 A**	
Dil. Factor:	**1.62**	**Date of Analysis: 12/28/21 04:39 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Chloromethane	0.81	Not Detected	1.7	Not Detected
Vinyl Chloride	0.016	Not Detected	0.041	Not Detected
Chloroethane	0.081	Not Detected	0.21	Not Detected
1,1-Dichloroethene	0.016	Not Detected	0.064	Not Detected
trans-1,2-Dichloroethene	0.16	Not Detected	0.64	Not Detected
1,1-Dichloroethane	0.032	Not Detected	0.13	Not Detected
cis-1,2-Dichloroethene	0.032	Not Detected	0.13	Not Detected
1,1,1-Trichloroethane	0.032	Not Detected	0.18	Not Detected
Carbon Tetrachloride	0.032	0.072	0.20	0.45
1,2-Dichloroethane	0.032	Not Detected	0.13	Not Detected
Trichloroethene	0.032	Not Detected	0.17	Not Detected
1,1,2-Trichloroethane	0.032	Not Detected	0.18	Not Detected
Tetrachloroethene	0.032	Not Detected	0.22	Not Detected
1,1,2,2-Tetrachloroethane	0.032	Not Detected	0.22	Not Detected

Container Type: 6 Liter Summa Canister (Ambient)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	110	70-130
Toluene-d8	95	70-130
4-Bromofluorobenzene	95	70-130

eurofins | Air Toxics

Client Sample ID: AA-B21-1-121521

Lab ID#: 2112491A-04A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**21122814**	**Date of Collection: 12/16/21 10:15:00 A**	
Dil. Factor:	**4.01**	**Date of Analysis: 12/28/21 05:17 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Chlorobenzene	0.40	Not Detected	1.8	Not Detected

Container Type: 6 Liter Summa Canister (Ambient)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	110	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	94	70-130

eurofins | Air Toxics

Client Sample ID: AA-B21-1-121521

Lab ID#: 2112491A-04B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**21122814sim**	**Date of Collection: 12/16/21 10:15:00 A**	
Dil. Factor:	**4.01**	**Date of Analysis: 12/28/21 05:17 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Chloromethane	2.0	Not Detected	4.1	Not Detected
Vinyl Chloride	0.040	Not Detected	0.10	Not Detected
Chloroethane	0.20	Not Detected	0.53	Not Detected
1,1-Dichloroethene	0.040	Not Detected	0.16	Not Detected
trans-1,2-Dichloroethene	0.40	Not Detected	1.6	Not Detected
1,1-Dichloroethane	0.080	Not Detected	0.32	Not Detected
cis-1,2-Dichloroethene	0.080	Not Detected	0.32	Not Detected
1,1,1-Trichloroethane	0.080	Not Detected	0.44	Not Detected
Carbon Tetrachloride	0.080	Not Detected	0.50	Not Detected
1,2-Dichloroethane	0.080	Not Detected	0.32	Not Detected
Trichloroethene	0.080	Not Detected	0.43	Not Detected
1,1,2-Trichloroethane	0.080	Not Detected	0.44	Not Detected
Tetrachloroethene	0.080	Not Detected	0.54	Not Detected
1,1,2,2-Tetrachloroethane	0.080	Not Detected	0.55	Not Detected

Container Type: 6 Liter Summa Canister (Ambient)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	110	70-130
Toluene-d8	95	70-130
4-Bromofluorobenzene	94	70-130

eurofins | Air Toxics

Client Sample ID: IA-B21-2-121521

Lab ID#: 2112491A-05A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**21122815**	**Date of Collection: 12/16/21 10:20:00 A**	
Dil. Factor:	**1.55**	**Date of Analysis: 12/28/21 05:57 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Chlorobenzene	0.16	Not Detected	0.71	Not Detected

Container Type: 6 Liter Summa Canister (Ambient)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	108	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	91	70-130

eurofins | Air Toxics

Client Sample ID: IA-B21-2-121521

Lab ID#: 2112491A-05B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**21122815sim**	**Date of Collection: 12/16/21 10:20:00 A**	
Dil. Factor:	**1.55**	**Date of Analysis: 12/28/21 05:57 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Chloromethane	0.78	Not Detected	1.6	Not Detected
Vinyl Chloride	0.016	Not Detected	0.040	Not Detected
Chloroethane	0.078	Not Detected	0.20	Not Detected
1,1-Dichloroethene	0.016	Not Detected	0.061	Not Detected
trans-1,2-Dichloroethene	0.16	Not Detected	0.61	Not Detected
1,1-Dichloroethane	0.031	Not Detected	0.12	Not Detected
cis-1,2-Dichloroethene	0.031	Not Detected	0.12	Not Detected
1,1,1-Trichloroethane	0.031	Not Detected	0.17	Not Detected
Carbon Tetrachloride	0.031	0.076	0.20	0.48
1,2-Dichloroethane	0.031	Not Detected	0.12	Not Detected
Trichloroethene	0.031	Not Detected	0.17	Not Detected
1,1,2-Trichloroethane	0.031	Not Detected	0.17	Not Detected
Tetrachloroethene	0.031	Not Detected	0.21	Not Detected
1,1,2,2-Tetrachloroethane	0.031	Not Detected	0.21	Not Detected

Container Type: 6 Liter Summa Canister (Ambient)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	110	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	94	70-130

eurofins | Air Toxics

Client Sample ID: IA-B21-1-121521

Lab ID#: 2112491A-06A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**21122816**	**Date of Collection: 12/16/21 10:55:00 A**	
Dil. Factor:	**1.42**	**Date of Analysis: 12/28/21 06:35 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Chlorobenzene	0.14	Not Detected	0.65	Not Detected

Container Type: 6 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	114	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	96	70-130

eurofins | Air Toxics

Client Sample ID: IA-B21-1-121521

Lab ID#: 2112491A-06B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**21122816sim**	**Date of Collection: 12/16/21 10:55:00 A**	
Dil. Factor:	**1.42**	**Date of Analysis: 12/28/21 06:35 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Chloromethane	0.71	Not Detected	1.5	Not Detected
Vinyl Chloride	0.014	Not Detected	0.036	Not Detected
Chloroethane	0.071	Not Detected	0.19	Not Detected
1,1-Dichloroethene	0.014	Not Detected	0.056	Not Detected
trans-1,2-Dichloroethene	0.14	Not Detected	0.56	Not Detected
1,1-Dichloroethane	0.028	Not Detected	0.11	Not Detected
cis-1,2-Dichloroethene	0.028	Not Detected	0.11	Not Detected
1,1,1-Trichloroethane	0.028	Not Detected	0.15	Not Detected
Carbon Tetrachloride	0.028	0.040	0.18	0.26
1,2-Dichloroethane	0.028	Not Detected	0.11	Not Detected
Trichloroethene	0.028	Not Detected	0.15	Not Detected
1,1,2-Trichloroethane	0.028	Not Detected	0.15	Not Detected
Tetrachloroethene	0.028	Not Detected	0.19	Not Detected
1,1,2,2-Tetrachloroethane	0.028	Not Detected	0.19	Not Detected

Container Type: 6 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	110	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	94	70-130

eurofins | Air Toxics

Client Sample ID: IA-B22-1-121521

Lab ID#: 2112491A-07A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**21122817**	**Date of Collection: 12/16/21 10:30:00 A**	
Dil. Factor:	**1.42**	**Date of Analysis: 12/28/21 07:12 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Chlorobenzene	0.14	Not Detected	0.65	Not Detected

Container Type: 6 Liter Summa Canister (Ambient)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	109	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	90	70-130

eurofins | Air Toxics

Client Sample ID: IA-B22-1-121521

Lab ID#: 2112491A-07B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**21122817sim**	**Date of Collection: 12/16/21 10:30:00 A**	
Dil. Factor:	**1.42**	**Date of Analysis: 12/28/21 07:12 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Chloromethane	0.71	Not Detected	1.5	Not Detected
Vinyl Chloride	0.014	Not Detected	0.036	Not Detected
Chloroethane	0.071	Not Detected	0.19	Not Detected
1,1-Dichloroethene	0.014	Not Detected	0.056	Not Detected
trans-1,2-Dichloroethene	0.14	Not Detected	0.56	Not Detected
1,1-Dichloroethane	0.028	Not Detected	0.11	Not Detected
cis-1,2-Dichloroethene	0.028	Not Detected	0.11	Not Detected
1,1,1-Trichloroethane	0.028	Not Detected	0.15	Not Detected
Carbon Tetrachloride	0.028	0.072	0.18	0.46
1,2-Dichloroethane	0.028	Not Detected	0.11	Not Detected
Trichloroethene	0.028	Not Detected	0.15	Not Detected
1,1,2-Trichloroethane	0.028	Not Detected	0.15	Not Detected
Tetrachloroethene	0.028	Not Detected	0.19	Not Detected
1,1,2,2-Tetrachloroethane	0.028	Not Detected	0.19	Not Detected

Container Type: 6 Liter Summa Canister (Ambient)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	110	70-130
Toluene-d8	95	70-130
4-Bromofluorobenzene	94	70-130

eurofins | Air Toxics

Client Sample ID: IA-B22-2-121521

Lab ID#: 2112491A-08A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**21122818**	**Date of Collection: 12/16/21 10:25:00 A**	
Dil. Factor:	**1.48**	**Date of Analysis: 12/28/21 07:49 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Chlorobenzene	0.15	Not Detected	0.68	Not Detected

Container Type: 6 Liter Summa Canister (Ambient)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	111	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	93	70-130

eurofins | Air Toxics

Client Sample ID: IA-B22-2-121521

Lab ID#: 2112491A-08B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**21122818sim**	**Date of Collection: 12/16/21 10:25:00 A**	
Dil. Factor:	**1.48**	**Date of Analysis: 12/28/21 07:49 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Chloromethane	0.74	Not Detected	1.5	Not Detected
Vinyl Chloride	0.015	Not Detected	0.038	Not Detected
Chloroethane	0.074	Not Detected	0.20	Not Detected
1,1-Dichloroethene	0.015	Not Detected	0.059	Not Detected
trans-1,2-Dichloroethene	0.15	Not Detected	0.59	Not Detected
1,1-Dichloroethane	0.030	Not Detected	0.12	Not Detected
cis-1,2-Dichloroethene	0.030	Not Detected	0.12	Not Detected
1,1,1-Trichloroethane	0.030	Not Detected	0.16	Not Detected
Carbon Tetrachloride	0.030	0.071	0.19	0.45
1,2-Dichloroethane	0.030	Not Detected	0.12	Not Detected
Trichloroethene	0.030	Not Detected	0.16	Not Detected
1,1,2-Trichloroethane	0.030	Not Detected	0.16	Not Detected
Tetrachloroethene	0.030	0.045	0.20	0.30
1,1,2,2-Tetrachloroethane	0.030	Not Detected	0.20	Not Detected

Container Type: 6 Liter Summa Canister (Ambient)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	109	70-130
Toluene-d8	95	70-130
4-Bromofluorobenzene	95	70-130

eurofins | Air Toxics

Client Sample ID: IA-B25-1-121521

Lab ID#: 2112491A-09A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**21122819**	**Date of Collection: 12/16/21 9:40:00 AM**	
Dil. Factor:	**1.45**	**Date of Analysis: 12/28/21 08:25 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Chlorobenzene	0.14	Not Detected	0.67	Not Detected

Container Type: 6 Liter Summa Canister (Ambient)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	113	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	93	70-130

eurofins | Air Toxics

Client Sample ID: IA-B25-1-121521

Lab ID#: 2112491A-09B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**21122819sim**	**Date of Collection: 12/16/21 9:40:00 AM**	
Dil. Factor:	**1.45**	**Date of Analysis: 12/28/21 08:25 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Chloromethane	0.72	Not Detected	1.5	Not Detected
Vinyl Chloride	0.014	Not Detected	0.037	Not Detected
Chloroethane	0.072	Not Detected	0.19	Not Detected
1,1-Dichloroethene	0.014	Not Detected	0.057	Not Detected
trans-1,2-Dichloroethene	0.14	Not Detected	0.57	Not Detected
1,1-Dichloroethane	0.029	Not Detected	0.12	Not Detected
cis-1,2-Dichloroethene	0.029	Not Detected	0.11	Not Detected
1,1,1-Trichloroethane	0.029	Not Detected	0.16	Not Detected
Carbon Tetrachloride	0.029	0.071	0.18	0.45
1,2-Dichloroethane	0.029	Not Detected	0.12	Not Detected
Trichloroethene	0.029	0.070	0.16	0.38
1,1,2-Trichloroethane	0.029	Not Detected	0.16	Not Detected
Tetrachloroethene	0.029	Not Detected	0.20	Not Detected
1,1,2,2-Tetrachloroethane	0.029	Not Detected	0.20	Not Detected

Container Type: 6 Liter Summa Canister (Ambient)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	110	70-130
Toluene-d8	95	70-130
4-Bromofluorobenzene	95	70-130

eurofins | Air Toxics

Client Sample ID: IA-B25-2-121521

Lab ID#: 2112491A-10A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**21122820**	**Date of Collection: 12/16/21 1:50:00 PM**	
Dil. Factor:	**1.51**	**Date of Analysis: 12/28/21 09:02 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Chlorobenzene	0.15	Not Detected	0.70	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	111	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	84	70-130

eurofins | Air Toxics

Client Sample ID: IA-B25-2-121521

Lab ID#: 2112491A-10B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**21122820sim**	**Date of Collection: 12/16/21 1:50:00 PM**	
Dil. Factor:	**1.51**	**Date of Analysis: 12/28/21 09:02 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Chloromethane	0.76	Not Detected	1.6	Not Detected
Vinyl Chloride	0.015	Not Detected	0.038	Not Detected
Chloroethane	0.076	Not Detected	0.20	Not Detected
1,1-Dichloroethene	0.015	Not Detected	0.060	Not Detected
trans-1,2-Dichloroethene	0.15	Not Detected	0.60	Not Detected
1,1-Dichloroethane	0.030	Not Detected	0.12	Not Detected
cis-1,2-Dichloroethene	0.030	Not Detected	0.12	Not Detected
1,1,1-Trichloroethane	0.030	Not Detected	0.16	Not Detected
Carbon Tetrachloride	0.030	0.069	0.19	0.44
1,2-Dichloroethane	0.030	0.033	0.12	0.13
Trichloroethene	0.030	0.030	0.16	0.16
1,1,2-Trichloroethane	0.030	Not Detected	0.16	Not Detected
Tetrachloroethene	0.030	Not Detected	0.20	Not Detected
1,1,2,2-Tetrachloroethane	0.030	Not Detected	0.21	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	110	70-130
Toluene-d8	94	70-130
4-Bromofluorobenzene	91	70-130

eurofins | Air Toxics

Client Sample ID: IA-B25-3-121521

Lab ID#: 2112491A-11A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**21122821**	**Date of Collection: 12/16/21 9:35:00 AM**	
Dil. Factor:	**1.39**	**Date of Analysis: 12/28/21 09:39 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Chlorobenzene	0.14	Not Detected	0.64	Not Detected

Container Type: 6 Liter Summa Canister (Ambient)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	111	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	92	70-130

eurofins | Air Toxics

Client Sample ID: IA-B25-3-121521

Lab ID#: 2112491A-11B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**21122821sim**	**Date of Collection: 12/16/21 9:35:00 AM**	
Dil. Factor:	**1.39**	**Date of Analysis: 12/28/21 09:39 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Chloromethane	0.70	Not Detected	1.4	Not Detected
Vinyl Chloride	0.014	Not Detected	0.036	Not Detected
Chloroethane	0.070	Not Detected	0.18	Not Detected
1,1-Dichloroethene	0.014	Not Detected	0.055	Not Detected
trans-1,2-Dichloroethene	0.14	Not Detected	0.55	Not Detected
1,1-Dichloroethane	0.028	Not Detected	0.11	Not Detected
cis-1,2-Dichloroethene	0.028	Not Detected	0.11	Not Detected
1,1,1-Trichloroethane	0.028	Not Detected	0.15	Not Detected
Carbon Tetrachloride	0.028	0.10	0.17	0.64
1,2-Dichloroethane	0.028	0.027 J	0.11	0.11 J
Trichloroethene	0.028	Not Detected	0.15	Not Detected
1,1,2-Trichloroethane	0.028	Not Detected	0.15	Not Detected
Tetrachloroethene	0.028	Not Detected	0.19	Not Detected
1,1,2,2-Tetrachloroethane	0.028	Not Detected	0.19	Not Detected

J = Estimated value.

Container Type: 6 Liter Summa Canister (Ambient)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	111	70-130
Toluene-d8	95	70-130
4-Bromofluorobenzene	97	70-130

eurofins | Air Toxics

Client Sample ID: IA-B25-4-121521

Lab ID#: 2112491A-12A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**21122822**	**Date of Collection: 12/16/21 9:45:00 AM**	
Dil. Factor:	**1.51**	**Date of Analysis: 12/28/21 10:15 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Chlorobenzene	0.15	Not Detected	0.70	Not Detected

Container Type: 6 Liter Summa Canister (Ambient)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	113	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	92	70-130

eurofins | Air Toxics

Client Sample ID: IA-B25-4-121521

Lab ID#: 2112491A-12B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**21122822sim**	**Date of Collection: 12/16/21 9:45:00 AM**	
Dil. Factor:	**1.51**	**Date of Analysis: 12/28/21 10:15 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Chloromethane	0.76	Not Detected	1.6	Not Detected
Vinyl Chloride	0.015	Not Detected	0.038	Not Detected
Chloroethane	0.076	Not Detected	0.20	Not Detected
1,1-Dichloroethene	0.015	Not Detected	0.060	Not Detected
trans-1,2-Dichloroethene	0.15	Not Detected	0.60	Not Detected
1,1-Dichloroethane	0.030	Not Detected	0.12	Not Detected
cis-1,2-Dichloroethene	0.030	Not Detected	0.12	Not Detected
1,1,1-Trichloroethane	0.030	Not Detected	0.16	Not Detected
Carbon Tetrachloride	0.030	0.072	0.19	0.45
1,2-Dichloroethane	0.030	0.039	0.12	0.16
Trichloroethene	0.030	0.034	0.16	0.18
1,1,2-Trichloroethane	0.030	Not Detected	0.16	Not Detected
Tetrachloroethene	0.030	Not Detected	0.20	Not Detected
1,1,2,2-Tetrachloroethane	0.030	Not Detected	0.21	Not Detected

Container Type: 6 Liter Summa Canister (Ambient)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	111	70-130
Toluene-d8	95	70-130
4-Bromofluorobenzene	95	70-130

eurofins | Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 2112491A-13A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**21122807a**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 12/28/21 11:00 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Chlorobenzene	0.10	Not Detected	0.46	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	118	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	96	70-130

eurofins | Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 2112491A-13B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**21122807sima**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 12/28/21 11:00 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Chloromethane	0.50	Not Detected	1.0	Not Detected
Vinyl Chloride	0.010	Not Detected	0.026	Not Detected
Chloroethane	0.050	Not Detected	0.13	Not Detected
1,1-Dichloroethene	0.010	Not Detected	0.040	Not Detected
trans-1,2-Dichloroethene	0.10	Not Detected	0.40	Not Detected
1,1-Dichloroethane	0.020	Not Detected	0.081	Not Detected
cis-1,2-Dichloroethene	0.020	Not Detected	0.079	Not Detected
1,1,1-Trichloroethane	0.020	Not Detected	0.11	Not Detected
Carbon Tetrachloride	0.020	Not Detected	0.12	Not Detected
1,2-Dichloroethane	0.020	Not Detected	0.081	Not Detected
Trichloroethene	0.020	Not Detected	0.11	Not Detected
1,1,2-Trichloroethane	0.020	Not Detected	0.11	Not Detected
Tetrachloroethene	0.020	Not Detected	0.14	Not Detected
1,1,2,2-Tetrachloroethane	0.020	Not Detected	0.14	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	114	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	100	70-130

eurofins | Air Toxics

Client Sample ID: CCV

Lab ID#: 2112491A-14A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**21122802**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 12/28/21 06:51 AM**	

Compound	**%Recovery**
Chlorobenzene	100

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
1,2-Dichloroethane-d4	96	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	102	70-130

eurofins | Air Toxics

Client Sample ID: CCV

Lab ID#: 2112491A-14B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**21122802sim**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 12/28/21 06:51 AM**	

Compound	%Recovery
Chloromethane	84
Vinyl Chloride	91
Chloroethane	97
1,1-Dichloroethene	98
trans-1,2-Dichloroethene	97
1,1-Dichloroethane	97
cis-1,2-Dichloroethene	97
1,1,1-Trichloroethane	102
Carbon Tetrachloride	106
1,2-Dichloroethane	101
Trichloroethene	99
1,1,2-Trichloroethane	97
Tetrachloroethene	106
1,1,2,2-Tetrachloroethane	82

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	100	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	109	70-130

eurofins | Air Toxics

Client Sample ID: LCS

Lab ID#: 2112491A-15A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**21122804**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 12/28/21 08:14 AM**	

Compound	%Recovery	Method Limits
Chlorobenzene	105	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	103	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	97	70-130

eurofins | Air Toxics

Client Sample ID: LCSD

Lab ID#: 2112491A-15AA

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**21122805**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 12/28/21 09:13 AM**	

Compound	%Recovery	Method Limits
Chlorobenzene	103	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	103	70-130
Toluene-d8	104	70-130
4-Bromofluorobenzene	98	70-130

eurofins | Air Toxics

Client Sample ID: LCS

Lab ID#: 2112491A-15B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**21122804sim**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 12/28/21 08:14 AM**	

Compound	%Recovery	Method Limits
Chloromethane	92	70-130
Vinyl Chloride	97	70-130
Chloroethane	104	70-130
1,1-Dichloroethene	102	70-130
trans-1,2-Dichloroethene	103	70-130
1,1-Dichloroethane	104	70-130
cis-1,2-Dichloroethene	100	70-130
1,1,1-Trichloroethane	108	70-130
Carbon Tetrachloride	112	60-140
1,2-Dichloroethane	105	70-130
Trichloroethene	96	70-130
1,1,2-Trichloroethane	107	70-130
Tetrachloroethene	98	70-130
1,1,2,2-Tetrachloroethane	87	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	108	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	98	70-130

eurofins | Air Toxics

Client Sample ID: LCSD

Lab ID#: 2112491A-15BB

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**21122805sim**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 12/28/21 09:13 AM**	

Compound	%Recovery	Method Limits
Chloromethane	93	70-130
Vinyl Chloride	98	70-130
Chloroethane	105	70-130
1,1-Dichloroethene	101	70-130
trans-1,2-Dichloroethene	102	70-130
1,1-Dichloroethane	104	70-130
cis-1,2-Dichloroethene	100	70-130
1,1,1-Trichloroethane	108	70-130
Carbon Tetrachloride	112	60-140
1,2-Dichloroethane	106	70-130
Trichloroethene	97	70-130
1,1,2-Trichloroethane	106	70-130
Tetrachloroethene	101	70-130
1,1,2,2-Tetrachloroethane	88	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	108	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	98	70-130

eurofins | Air Toxics

1/3/2022
Mr. Stefan Bagnato
ARCADIS, U.S., Inc.
855 Route 146
Suite 210
Clifton Park NY 12065

Project Name: WVA
Project #: 30001988
Workorder #: 2112491B

Dear Mr. Stefan Bagnato

The following report includes the data for the above referenced project for sample(s) received on 12/17/2021 at Eurofins Air Toxics LLC.

The data and associated QC analyzed by Modified TO-15 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Eurofins Air Toxics LLC. for your air analysis needs. Eurofins Air Toxics Inc. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Jade White at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



Jade White

Project Manager

eurofins | Air Toxics

WORK ORDER #: 2112491B

Work Order Summary

CLIENT:	Mr. Stefan Bagnato ARCADIS, U.S., Inc. 855 Route 146 Suite 210 Clifton Park, NY 12065	**BILL TO:**	Accounts Payable Arcadis U.S., Inc. 630 Plaza Drive Suite 600 Highlands Ranch, CO 80129
PHONE:	518-250-7300	**P.O. #**	30001988.0001D
FAX:	518-250-7301	**PROJECT #**	30001988 WVA
DATE RECEIVED:	12/17/2021	**CONTACT:**	Jade White
DATE COMPLETED:	01/03/2022		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
13A	IA-B25-5-121521	Modified TO-15	8.0 "Hg	2 psi
13B	IA-B25-5-121521	Modified TO-15	8.0 "Hg	2 psi
14A	IA-B114-1-121521	Modified TO-15	6.5 "Hg	2 psi
14B	IA-B114-1-121521	Modified TO-15	6.5 "Hg	2 psi
15A	IA-B120-1-121521	Modified TO-15	6.5 "Hg	2 psi
15B	IA-B120-1-121521	Modified TO-15	6.5 "Hg	2 psi
16A	IA-B120-2-121521	Modified TO-15	3.0 "Hg	2 psi
16B	IA-B120-2-121521	Modified TO-15	3.0 "Hg	2 psi
17A	IA-B121-1-121521	Modified TO-15	6.5 "Hg	2 psi
17B	IA-B121-1-121521	Modified TO-15	6.5 "Hg	2 psi
18A	IA-B130-1-121521	Modified TO-15	6.0 "Hg	2 psi
18B	IA-B130-1-121521	Modified TO-15	6.0 "Hg	2 psi
19A	IA-DUP-1-121521	Modified TO-15	2.5 "Hg	2 psi
19B	IA-DUP-1-121521	Modified TO-15	2.5 "Hg	2 psi
20A	EFF-B20-1-121521	Modified TO-15	9.5 "Hg	2 psi
20B	EFF-B20-1-121521	Modified TO-15	9.5 "Hg	2 psi
21A	EFF-B25-1-121521	Modified TO-15	6.5 "Hg	2 psi
21B	EFF-B25-1-121521	Modified TO-15	6.5 "Hg	2 psi
22A	EFF-B21-1-121521	Modified TO-15	5.5 "Hg	2 psi
22B	EFF-B21-1-121521	Modified TO-15	5.5 "Hg	2 psi
23A	EFF-B114-1-121521	Modified TO-15	6.0 "Hg	2 psi
23B	EFF-B114-1-121521	Modified TO-15	6.0 "Hg	2 psi
24A	Lab Blank	Modified TO-15	NA	NA

Continued on next page

eurofins | Air Toxics

WORK ORDER #: 2112491B

Work Order Summary

CLIENT:	Mr. Stefan Bagnato ARCADIS, U.S., Inc. 855 Route 146 Suite 210 Clifton Park, NY 12065	**BILL TO:**	Accounts Payable Arcadis U.S., Inc. 630 Plaza Drive Suite 600 Highlands Ranch, CO 80129
PHONE:	518-250-7300	**P.O. #**	30001988.0001D
FAX:	518-250-7301	**PROJECT #**	30001988 WVA
DATE RECEIVED:	12/17/2021	**CONTACT:**	Jade White
DATE COMPLETED:	01/03/2022		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
24B	Lab Blank	Modified TO-15	NA	NA
24C	Lab Blank	Modified TO-15	NA	NA
24D	Lab Blank	Modified TO-15	NA	NA
25A	CCV	Modified TO-15	NA	NA
25B	CCV	Modified TO-15	NA	NA
25C	CCV	Modified TO-15	NA	NA
25D	CCV	Modified TO-15	NA	NA
26A	LCS	Modified TO-15	NA	NA
26AA	LCSD	Modified TO-15	NA	NA
26B	LCS	Modified TO-15	NA	NA
26BB	LCSD	Modified TO-15	NA	NA
26C	LCS	Modified TO-15	NA	NA
26CC	LCSD	Modified TO-15	NA	NA
26D	LCS	Modified TO-15	NA	NA
26DD	LCSD	Modified TO-15	NA	NA

CERTIFIED BY: Heidi Hayes DATE: 01/03/22

Technical Director

Certification numbers: AZ Licensure AZ0775, FL NELAP – E87680, LA NELAP – 02089, NH NELAP - 209221, NJ NELAP - CA016, NY NELAP - 11291, TX NELAP - T104704434-21-17, UT NELAP – CA009332021-13, VA NELAP - 10615, WA NELAP - C935
Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
Accreditation number: CA300005-015, Effective date: 10/18/2021, Expiration date: 10/17/2022.
Eurofins Air Toxics, LLC certifies that the test results contained in this report meet all requirements of the NELAC standards

This report shall not be reproduced, except in full, without the written approval of Eurofins Air Toxics, LLC.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 351-8279

LABORATORY NARRATIVE
Modified TO-15 Full Scan/SIM
ARCADIS, U.S., Inc.
Workorder# 2112491B

Six 6 Liter Summa Canister (SIM Certified), Four 6 Liter Summa Canister (Ambient), and one 6 Liter Summa Canister samples were received on December 17, 2021. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the Full Scan and SIM acquisition modes. The method involves concentrating up to 1.0 liters of air. The concentrated aliquot is then flash vaporized and swept through a water management system to remove water vapor. Following dehumidification, the sample passes directly into the GC/MS for analysis.

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the EATL modifications.

Requirement	***TO-15***	***ATL Modifications***
ICAL %RSD acceptance criteria	</=30% RSD with 2 compounds allowed out to < 40% RSD	For Full Scan: 30% RSD with 4 compounds allowed out to < 40% RSD For SIM: Project specific; default criteria is </=30% RSD with 10% of compounds allowed out to < 40% RSD
Daily Calibration	+- 30% Difference	For Full Scan: </= 30% Difference with four allowed out up to </=40%.; flag and narrate outliers For SIM: Project specific; default criteria is </= 30% Difference with 10% of compounds allowed out up to </=40%.; flag and narrate outliers
Blank and standards	Zero air	Nitrogen
Method Detection Limit	Follow 40CFR Pt.136 App. B	The MDL met all relevant requirements in Method TO-15 (statistical MDL less than the LOQ). The concentration of the spiked replicate may have exceeded 10X the calculated MDL in some cases

Receiving Notes

The Chain of Custody (COC) information for sample IA-DUP-1-121521 did not match the information on the canister with regard to canister barcode. The sample labeled 6L6299 on the COC is labeled as 6L2699 on the canister. The client was notified of the discrepancy and the information on the canister was used to process and report the sample.

Analytical Notes

The results for each sample in this report were acquired from two separate data files originating from the same analytical run. The two data files have the same base file name and are differentiated with a "sim" extension on the SIM data file.

Dilution was performed on sample EFF-B25-1-121521 due to the presence of high level target species.

Dilution was performed on samples IA-B121-1-121521 and IA-DUP-1-121521 due to the presence of high level non-target species.

Definition of Data Qualifying Flags

Nine qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

CN - See case narrative explanation

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

eurofins | Air Toxics

Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

Client Sample ID: IA-B25-5-121521

Lab ID#: 2112491B-13A

No Detections Were Found.

Client Sample ID: IA-B25-5-121521

Lab ID#: 2112491B-13B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Carbon Tetrachloride	0.031	0.093	0.20	0.58

Client Sample ID: IA-B114-1-121521

Lab ID#: 2112491B-14A

No Detections Were Found.

Client Sample ID: IA-B114-1-121521

Lab ID#: 2112491B-14B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.029	0.088	0.16	0.48
Carbon Tetrachloride	0.029	0.076	0.18	0.48
Tetrachloroethene	0.029	0.036	0.20	0.24

Client Sample ID: IA-B120-1-121521

Lab ID#: 2112491B-15A

No Detections Were Found.

Client Sample ID: IA-B120-1-121521

Lab ID#: 2112491B-15B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.029	0.049	0.16	0.27
Carbon Tetrachloride	0.029	0.076	0.18	0.48
Trichloroethene	0.029	0.040	0.16	0.22
Tetrachloroethene	0.029	0.033	0.20	0.22

eurofins | Air Toxics

Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

Client Sample ID: IA-B120-2-121521

Lab ID#: 2112491B-16A

No Detections Were Found.

Client Sample ID: IA-B120-2-121521

Lab ID#: 2112491B-16B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.025	0.043	0.14	0.23
Carbon Tetrachloride	0.025	0.074	0.16	0.47
Trichloroethene	0.025	0.037	0.14	0.20
Tetrachloroethene	0.025	0.035	0.17	0.24

Client Sample ID: IA-B121-1-121521

Lab ID#: 2112491B-17A

No Detections Were Found.

Client Sample ID: IA-B121-1-121521

Lab ID#: 2112491B-17B

No Detections Were Found.

Client Sample ID: IA-B130-1-121521

Lab ID#: 2112491B-18A

No Detections Were Found.

Client Sample ID: IA-B130-1-121521

Lab ID#: 2112491B-18B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Carbon Tetrachloride	0.028	0.076	0.18	0.48
Tetrachloroethene	0.028	0.080	0.19	0.54

Client Sample ID: IA-DUP-1-121521

Lab ID#: 2112491B-19A

No Detections Were Found.

eurofins | Air Toxics

Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

Client Sample ID: IA-DUP-1-121521

Lab ID#: 2112491B-19B

No Detections Were Found.

Client Sample ID: EFF-B20-1-121521

Lab ID#: 2112491B-20A

No Detections Were Found.

Client Sample ID: EFF-B20-1-121521

Lab ID#: 2112491B-20B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,2-Dichloroethene	0.033	0.18	0.13	0.72
1,1,1-Trichloroethane	0.033	0.17	0.18	0.92
Carbon Tetrachloride	0.033	0.076	0.21	0.48
Trichloroethene	0.033	4.7	0.18	25
Tetrachloroethene	0.033	2.6	0.22	17

Client Sample ID: EFF-B25-1-121521

Lab ID#: 2112491B-21A

No Detections Were Found.

Client Sample ID: EFF-B25-1-121521

Lab ID#: 2112491B-21B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,2-Dichloroethene	0.041	0.55	0.16	2.2
1,1,1-Trichloroethane	0.041	1.0	0.22	5.7
Carbon Tetrachloride	0.041	0.081	0.26	0.51
Trichloroethene	0.041	20	0.22	110
Tetrachloroethene	0.041	1.8	0.28	12

Client Sample ID: EFF-B21-1-121521

Lab ID#: 2112491B-22A

No Detections Were Found.

eurofins | Air Toxics

Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

Client Sample ID: EFF-B21-1-121521

Lab ID#: 2112491B-22B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.014	0.061	0.036	0.16
trans-1,2-Dichloroethene	0.14	0.18	0.55	0.72
cis-1,2-Dichloroethene	0.028	10	0.11	42
Carbon Tetrachloride	0.028	0.078	0.17	0.49
Trichloroethene	0.028	13	0.15	68
Tetrachloroethene	0.028	1.0	0.19	7.0

Client Sample ID: EFF-B114-1-121521

Lab ID#: 2112491B-23A

No Detections Were Found.

Client Sample ID: EFF-B114-1-121521

Lab ID#: 2112491B-23B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,2-Dichloroethene	0.14	5.8	0.56	23
Carbon Tetrachloride	0.14	0.19	0.89	1.2
Trichloroethene	0.14	32	0.76	170
Tetrachloroethene	0.14	93	0.96	630

eurofins | Air Toxics

Client Sample ID: IA-B25-5-121521

Lab ID#: 2112491B-13A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**60122714**	**Date of Collection: 12/16/21 1:45:00 PM**	
Dil. Factor:	**1.55**	**Date of Analysis: 12/27/21 09:01 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Chlorobenzene	0.16	Not Detected	0.71	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	105	70-130
Toluene-d8	94	70-130
4-Bromofluorobenzene	99	70-130

eurofins | Air Toxics

Client Sample ID: IA-B25-5-121521

Lab ID#: 2112491B-13B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**60122714sim**	**Date of Collection: 12/16/21 1:45:00 PM**	
Dil. Factor:	**1.55**	**Date of Analysis: 12/27/21 09:01 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Chloromethane	0.78	Not Detected	1.6	Not Detected
Vinyl Chloride	0.016	Not Detected	0.040	Not Detected
Chloroethane	0.078	Not Detected	0.20	Not Detected
1,1-Dichloroethene	0.016	Not Detected	0.061	Not Detected
trans-1,2-Dichloroethene	0.16	Not Detected	0.61	Not Detected
1,1-Dichloroethane	0.031	Not Detected	0.12	Not Detected
cis-1,2-Dichloroethene	0.031	Not Detected	0.12	Not Detected
1,1,1-Trichloroethane	0.031	Not Detected	0.17	Not Detected
Carbon Tetrachloride	0.031	0.093	0.20	0.58
1,2-Dichloroethane	0.031	Not Detected	0.12	Not Detected
Trichloroethene	0.031	Not Detected	0.17	Not Detected
1,1,2-Trichloroethane	0.031	Not Detected	0.17	Not Detected
Tetrachloroethene	0.031	Not Detected	0.21	Not Detected
1,1,2,2-Tetrachloroethane	0.031	Not Detected	0.21	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	107	70-130
Toluene-d8	90	70-130
4-Bromofluorobenzene	96	70-130

eurofins | Air Toxics

Client Sample ID: IA-B114-1-121521

Lab ID#: 2112491B-14A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**60122715**	**Date of Collection: 12/16/21 11:05:00 A**	
Dil. Factor:	**1.45**	**Date of Analysis: 12/27/21 11:22 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Chlorobenzene	0.14	Not Detected	0.67	Not Detected

Container Type: 6 Liter Summa Canister (Ambient)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	106	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	98	70-130

eurofins | Air Toxics

Client Sample ID: IA-B114-1-121521

Lab ID#: 2112491B-14B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**60122715sim**	**Date of Collection: 12/16/21 11:05:00 A**	
Dil. Factor:	**1.45**	**Date of Analysis: 12/27/21 11:22 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Chloromethane	0.72	Not Detected	1.5	Not Detected
Vinyl Chloride	0.014	Not Detected	0.037	Not Detected
Chloroethane	0.072	Not Detected	0.19	Not Detected
1,1-Dichloroethene	0.014	Not Detected	0.057	Not Detected
trans-1,2-Dichloroethene	0.14	Not Detected	0.57	Not Detected
1,1-Dichloroethane	0.029	Not Detected	0.12	Not Detected
cis-1,2-Dichloroethene	0.029	Not Detected	0.11	Not Detected
1,1,1-Trichloroethane	0.029	0.088	0.16	0.48
Carbon Tetrachloride	0.029	0.076	0.18	0.48
1,2-Dichloroethane	0.029	Not Detected	0.12	Not Detected
Trichloroethene	0.029	Not Detected	0.16	Not Detected
1,1,2-Trichloroethane	0.029	Not Detected	0.16	Not Detected
Tetrachloroethene	0.029	0.036	0.20	0.24
1,1,2,2-Tetrachloroethane	0.029	Not Detected	0.20	Not Detected

Container Type: 6 Liter Summa Canister (Ambient)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	108	70-130
Toluene-d8	95	70-130
4-Bromofluorobenzene	96	70-130

eurofins | Air Toxics

Client Sample ID: IA-B120-1-121521

Lab ID#: 2112491B-15A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**60122726**	**Date of Collection: 12/16/21 1:25:00 PM**	
Dil. Factor:	**1.45**	**Date of Analysis: 12/28/21 07:56 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Chlorobenzene	0.14	Not Detected	0.67	Not Detected

Container Type: 6 Liter Summa Canister (Ambient)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	105	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	100	70-130

eurofins | Air Toxics

Client Sample ID: IA-B120-1-121521

Lab ID#: 2112491B-15B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**60122726sim**	**Date of Collection: 12/16/21 1:25:00 PM**	
Dil. Factor:	**1.45**	**Date of Analysis: 12/28/21 07:56 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Chloromethane	0.72	Not Detected	1.5	Not Detected
Vinyl Chloride	0.014	Not Detected	0.037	Not Detected
Chloroethane	0.072	Not Detected	0.19	Not Detected
1,1-Dichloroethene	0.014	Not Detected	0.057	Not Detected
trans-1,2-Dichloroethene	0.14	Not Detected	0.57	Not Detected
1,1-Dichloroethane	0.029	Not Detected	0.12	Not Detected
cis-1,2-Dichloroethene	0.029	Not Detected	0.11	Not Detected
1,1,1-Trichloroethane	0.029	0.049	0.16	0.27
Carbon Tetrachloride	0.029	0.076	0.18	0.48
1,2-Dichloroethane	0.029	Not Detected	0.12	Not Detected
Trichloroethene	0.029	0.040	0.16	0.22
1,1,2-Trichloroethane	0.029	Not Detected	0.16	Not Detected
Tetrachloroethene	0.029	0.033	0.20	0.22
1,1,2,2-Tetrachloroethane	0.029	Not Detected	0.20	Not Detected

Container Type: 6 Liter Summa Canister (Ambient)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	109	70-130
Toluene-d8	94	70-130
4-Bromofluorobenzene	98	70-130

eurofins | Air Toxics

Client Sample ID: IA-B120-2-121521

Lab ID#: 2112491B-16A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**60122717**	**Date of Collection: 12/16/21 11:20:00 A**	
Dil. Factor:	**1.26**	**Date of Analysis: 12/28/21 12:44 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Chlorobenzene	0.13	Not Detected	0.58	Not Detected

Container Type: 6 Liter Summa Canister (Ambient)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	100	70-130

eurofins | Air Toxics

Client Sample ID: IA-B120-2-121521

Lab ID#: 2112491B-16B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**60122717sim**	**Date of Collection: 12/16/21 11:20:00 A**	
Dil. Factor:	**1.26**	**Date of Analysis: 12/28/21 12:44 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Chloromethane	0.63	Not Detected	1.3	Not Detected
Vinyl Chloride	0.013	Not Detected	0.032	Not Detected
Chloroethane	0.063	Not Detected	0.17	Not Detected
1,1-Dichloroethene	0.013	Not Detected	0.050	Not Detected
trans-1,2-Dichloroethene	0.13	Not Detected	0.50	Not Detected
1,1-Dichloroethane	0.025	Not Detected	0.10	Not Detected
cis-1,2-Dichloroethene	0.025	Not Detected	0.10	Not Detected
1,1,1-Trichloroethane	0.025	0.043	0.14	0.23
Carbon Tetrachloride	0.025	0.074	0.16	0.47
1,2-Dichloroethane	0.025	Not Detected	0.10	Not Detected
Trichloroethene	0.025	0.037	0.14	0.20
1,1,2-Trichloroethane	0.025	Not Detected	0.14	Not Detected
Tetrachloroethene	0.025	0.035	0.17	0.24
1,1,2,2-Tetrachloroethane	0.025	Not Detected	0.17	Not Detected

Container Type: 6 Liter Summa Canister (Ambient)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	106	70-130
Toluene-d8	94	70-130
4-Bromofluorobenzene	98	70-130

eurofins | Air Toxics

Client Sample ID: IA-B121-1-121521

Lab ID#: 2112491B-17A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**60122718**	**Date of Collection: 12/16/21 11:30:00 A**	
Dil. Factor:	**14.5**	**Date of Analysis: 12/28/21 01:25 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Chlorobenzene	1.4	Not Detected	6.7	Not Detected

Container Type: 6 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	101	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	103	70-130

eurofins | Air Toxics

Client Sample ID: IA-B121-1-121521

Lab ID#: 2112491B-17B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**60122718sim**	**Date of Collection: 12/16/21 11:30:00 A**	
Dil. Factor:	**14.5**	**Date of Analysis: 12/28/21 01:25 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Chloromethane	7.2	Not Detected	15	Not Detected
Vinyl Chloride	0.14	Not Detected	0.37	Not Detected
Chloroethane	0.72	Not Detected	1.9	Not Detected
1,1-Dichloroethene	0.14	Not Detected	0.57	Not Detected
trans-1,2-Dichloroethene	1.4	Not Detected	5.7	Not Detected
1,1-Dichloroethane	0.29	Not Detected	1.2	Not Detected
cis-1,2-Dichloroethene	0.29	Not Detected	1.1	Not Detected
1,1,1-Trichloroethane	0.29	Not Detected	1.6	Not Detected
Carbon Tetrachloride	0.29	Not Detected	1.8	Not Detected
1,2-Dichloroethane	0.29	Not Detected	1.2	Not Detected
Trichloroethene	0.29	Not Detected	1.6	Not Detected
1,1,2-Trichloroethane	0.29	Not Detected	1.6	Not Detected
Tetrachloroethene	0.29	Not Detected	2.0	Not Detected
1,1,2,2-Tetrachloroethane	0.29	Not Detected	2.0	Not Detected

Container Type: 6 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	106	70-130
Toluene-d8	95	70-130
4-Bromofluorobenzene	100	70-130

eurofins | Air Toxics

Client Sample ID: IA-B130-1-121521

Lab ID#: 2112491B-18A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**60122719**	**Date of Collection: 12/16/21 1:30:00 PM**	
Dil. Factor:	**1.42**	**Date of Analysis: 12/28/21 02:06 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Chlorobenzene	0.14	Not Detected	0.65	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	106	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	103	70-130

eurofins | Air Toxics

Client Sample ID: IA-B130-1-121521

Lab ID#: 2112491B-18B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**60122719sim**	**Date of Collection: 12/16/21 1:30:00 PM**	
Dil. Factor:	**1.42**	**Date of Analysis: 12/28/21 02:06 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Chloromethane	0.71	Not Detected	1.5	Not Detected
Vinyl Chloride	0.014	Not Detected	0.036	Not Detected
Chloroethane	0.071	Not Detected	0.19	Not Detected
1,1-Dichloroethene	0.014	Not Detected	0.056	Not Detected
trans-1,2-Dichloroethene	0.14	Not Detected	0.56	Not Detected
1,1-Dichloroethane	0.028	Not Detected	0.11	Not Detected
cis-1,2-Dichloroethene	0.028	Not Detected	0.11	Not Detected
1,1,1-Trichloroethane	0.028	Not Detected	0.15	Not Detected
Carbon Tetrachloride	0.028	0.076	0.18	0.48
1,2-Dichloroethane	0.028	Not Detected	0.11	Not Detected
Trichloroethene	0.028	Not Detected	0.15	Not Detected
1,1,2-Trichloroethane	0.028	Not Detected	0.15	Not Detected
Tetrachloroethene	0.028	0.080	0.19	0.54
1,1,2,2-Tetrachloroethane	0.028	Not Detected	0.19	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	107	70-130
Toluene-d8	95	70-130
4-Bromofluorobenzene	101	70-130

eurofins | Air Toxics

Client Sample ID: IA-DUP-1-121521

Lab ID#: 2112491B-19A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**60122720**	**Date of Collection: 12/16/21**	
Dil. Factor:	**12.4**	**Date of Analysis: 12/28/21 02:47 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Chlorobenzene	1.2	Not Detected	5.7	Not Detected

Container Type: 6 Liter Summa Canister (Ambient)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	105	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	95	70-130

eurofins | Air Toxics

Client Sample ID: IA-DUP-1-121521

Lab ID#: 2112491B-19B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**60122720sim**	**Date of Collection: 12/16/21**	
Dil. Factor:	**12.4**	**Date of Analysis: 12/28/21 02:47 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Chloromethane	6.2	Not Detected	13	Not Detected
Vinyl Chloride	0.12	Not Detected	0.32	Not Detected
Chloroethane	0.62	Not Detected	1.6	Not Detected
1,1-Dichloroethene	0.12	Not Detected	0.49	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.9	Not Detected
1,1-Dichloroethane	0.25	Not Detected	1.0	Not Detected
cis-1,2-Dichloroethene	0.25	Not Detected	0.98	Not Detected
1,1,1-Trichloroethane	0.25	Not Detected	1.4	Not Detected
Carbon Tetrachloride	0.25	Not Detected	1.6	Not Detected
1,2-Dichloroethane	0.25	Not Detected	1.0	Not Detected
Trichloroethene	0.25	Not Detected	1.3	Not Detected
1,1,2-Trichloroethane	0.25	Not Detected	1.4	Not Detected
Tetrachloroethene	0.25	Not Detected	1.7	Not Detected
1,1,2,2-Tetrachloroethane	0.25	Not Detected	1.7	Not Detected

Container Type: 6 Liter Summa Canister (Ambient)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	106	70-130
Toluene-d8	95	70-130
4-Bromofluorobenzene	94	70-130

eurofins | Air Toxics

Client Sample ID: EFF-B20-1-121521

Lab ID#: 2112491B-20A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**60122721**	**Date of Collection: 12/16/21 2:35:00 PM**	
Dil. Factor:	**1.66**	**Date of Analysis: 12/28/21 03:28 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Chlorobenzene	0.17	Not Detected	0.76	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	103	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	102	70-130

eurofins | Air Toxics

Client Sample ID: EFF-B20-1-121521

Lab ID#: 2112491B-20B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**60122721sim**	**Date of Collection: 12/16/21 2:35:00 PM**	
Dil. Factor:	**1.66**	**Date of Analysis: 12/28/21 03:28 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Chloromethane	0.83	Not Detected	1.7	Not Detected
Vinyl Chloride	0.017	Not Detected	0.042	Not Detected
Chloroethane	0.083	Not Detected	0.22	Not Detected
1,1-Dichloroethene	0.017	Not Detected	0.066	Not Detected
trans-1,2-Dichloroethene	0.17	Not Detected	0.66	Not Detected
1,1-Dichloroethane	0.033	Not Detected	0.13	Not Detected
cis-1,2-Dichloroethene	0.033	0.18	0.13	0.72
1,1,1-Trichloroethane	0.033	0.17	0.18	0.92
Carbon Tetrachloride	0.033	0.076	0.21	0.48
1,2-Dichloroethane	0.033	Not Detected	0.13	Not Detected
Trichloroethene	0.033	4.7	0.18	25
1,1,2-Trichloroethane	0.033	Not Detected	0.18	Not Detected
Tetrachloroethene	0.033	2.6	0.22	17
1,1,2,2-Tetrachloroethane	0.033	Not Detected	0.23	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	107	70-130
Toluene-d8	95	70-130
4-Bromofluorobenzene	99	70-130

eurofins | Air Toxics

Client Sample ID: EFF-B25-1-121521

Lab ID#: 2112491B-21A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**60122906**	**Date of Collection: 12/16/21 2:40:00 PM**	
Dil. Factor:	**2.07**	**Date of Analysis: 12/29/21 02:02 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Chlorobenzene	0.21	Not Detected	0.95	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	110	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	97	70-130

eurofins | Air Toxics

Client Sample ID: EFF-B25-1-121521

Lab ID#: 2112491B-21B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**60122906sim**	**Date of Collection: 12/16/21 2:40:00 PM**	
Dil. Factor:	**2.07**	**Date of Analysis: 12/29/21 02:02 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Chloromethane	1.0	Not Detected	2.1	Not Detected
Vinyl Chloride	0.021	Not Detected	0.053	Not Detected
Chloroethane	0.10	Not Detected	0.27	Not Detected
1,1-Dichloroethene	0.021	Not Detected	0.082	Not Detected
trans-1,2-Dichloroethene	0.21	Not Detected	0.82	Not Detected
1,1-Dichloroethane	0.041	Not Detected	0.17	Not Detected
cis-1,2-Dichloroethene	0.041	0.55	0.16	2.2
1,1,1-Trichloroethane	0.041	1.0	0.22	5.7
Carbon Tetrachloride	0.041	0.081	0.26	0.51
1,2-Dichloroethane	0.041	Not Detected	0.17	Not Detected
Trichloroethene	0.041	20	0.22	110
1,1,2-Trichloroethane	0.041	Not Detected	0.22	Not Detected
Tetrachloroethene	0.041	1.8	0.28	12
1,1,2,2-Tetrachloroethane	0.041	Not Detected	0.28	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	116	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	94	70-130

eurofins | Air Toxics

Client Sample ID: EFF-B21-1-121521

Lab ID#: 2112491B-22A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**60122907**	**Date of Collection: 12/16/21 2:50:00 PM**	
Dil. Factor:	**1.39**	**Date of Analysis: 12/29/21 02:43 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Chlorobenzene	0.14	Not Detected	0.64	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	110	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	97	70-130

eurofins | Air Toxics

Client Sample ID: EFF-B21-1-121521

Lab ID#: 2112491B-22B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**60122907sim**	**Date of Collection: 12/16/21 2:50:00 PM**	
Dil. Factor:	**1.39**	**Date of Analysis: 12/29/21 02:43 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Chloromethane	0.70	Not Detected	1.4	Not Detected
Vinyl Chloride	0.014	0.061	0.036	0.16
Chloroethane	0.070	Not Detected	0.18	Not Detected
1,1-Dichloroethene	0.014	Not Detected	0.055	Not Detected
trans-1,2-Dichloroethene	0.14	0.18	0.55	0.72
1,1-Dichloroethane	0.028	Not Detected	0.11	Not Detected
cis-1,2-Dichloroethene	0.028	10	0.11	42
1,1,1-Trichloroethane	0.028	Not Detected	0.15	Not Detected
Carbon Tetrachloride	0.028	0.078	0.17	0.49
1,2-Dichloroethane	0.028	Not Detected	0.11	Not Detected
Trichloroethene	0.028	13	0.15	68
1,1,2-Trichloroethane	0.028	Not Detected	0.15	Not Detected
Tetrachloroethene	0.028	1.0	0.19	7.0
1,1,2,2-Tetrachloroethane	0.028	Not Detected	0.19	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	116	70-130
Toluene-d8	95	70-130
4-Bromofluorobenzene	95	70-130

eurofins | Air Toxics

Client Sample ID: EFF-B114-1-121521

Lab ID#: 2112491B-23A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**60122724**	**Date of Collection: 12/16/21 2:55:00 PM**	
Dil. Factor:	**7.10**	**Date of Analysis: 12/28/21 05:31 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Chlorobenzene	0.71	Not Detected	3.3	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	104	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	94	70-130

eurofins | Air Toxics

Client Sample ID: EFF-B114-1-121521

Lab ID#: 2112491B-23B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**60122724sim**	**Date of Collection: 12/16/21 2:55:00 PM**	
Dil. Factor:	**7.10**	**Date of Analysis: 12/28/21 05:31 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Chloromethane	3.6	Not Detected	7.3	Not Detected
Vinyl Chloride	0.071	Not Detected	0.18	Not Detected
Chloroethane	0.36	Not Detected	0.94	Not Detected
1,1-Dichloroethene	0.071	Not Detected	0.28	Not Detected
trans-1,2-Dichloroethene	0.71	Not Detected	2.8	Not Detected
1,1-Dichloroethane	0.14	Not Detected	0.57	Not Detected
cis-1,2-Dichloroethene	0.14	5.8	0.56	23
1,1,1-Trichloroethane	0.14	Not Detected	0.77	Not Detected
Carbon Tetrachloride	0.14	0.19	0.89	1.2
1,2-Dichloroethane	0.14	Not Detected	0.57	Not Detected
Trichloroethene	0.14	32	0.76	170
1,1,2-Trichloroethane	0.14	Not Detected	0.77	Not Detected
Tetrachloroethene	0.14	93	0.96	630
1,1,2,2-Tetrachloroethane	0.14	Not Detected	0.97	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	108	70-130
Toluene-d8	95	70-130
4-Bromofluorobenzene	93	70-130

eurofins | Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 2112491B-24A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**60122707d**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 12/27/21 03:38 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Chlorobenzene	0.10	Not Detected	0.46	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	100	70-130

eurofins | Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 2112491B-24B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**60122707simd**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 12/27/21 03:38 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Chloromethane	0.50	Not Detected	1.0	Not Detected
Vinyl Chloride	0.010	Not Detected	0.026	Not Detected
Chloroethane	0.050	Not Detected	0.13	Not Detected
1,1-Dichloroethene	0.010	Not Detected	0.040	Not Detected
trans-1,2-Dichloroethene	0.10	Not Detected	0.40	Not Detected
1,1-Dichloroethane	0.020	Not Detected	0.081	Not Detected
cis-1,2-Dichloroethene	0.020	Not Detected	0.079	Not Detected
1,1,1-Trichloroethane	0.020	Not Detected	0.11	Not Detected
Carbon Tetrachloride	0.020	Not Detected	0.12	Not Detected
1,2-Dichloroethane	0.020	Not Detected	0.081	Not Detected
Trichloroethene	0.020	Not Detected	0.11	Not Detected
1,1,2-Trichloroethane	0.020	Not Detected	0.11	Not Detected
Tetrachloroethene	0.020	Not Detected	0.14	Not Detected
1,1,2,2-Tetrachloroethane	0.020	Not Detected	0.14	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	105	70-130
Toluene-d8	95	70-130
4-Bromofluorobenzene	96	70-130

eurofins | Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 2112491B-24C

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**60122905c**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 12/29/21 01:02 PM**	

Compound	**Rpt. Limit (ppbv)**	**Amount (ppbv)**	**Rpt. Limit (ug/m3)**	**Amount (ug/m3)**
Chlorobenzene	0.10	Not Detected	0.46	Not Detected

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
1,2-Dichloroethane-d4	110	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	95	70-130

eurofins | Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 2112491B-24D

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**60122905sima**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 12/29/21 01:02 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Chloromethane	0.50	Not Detected	1.0	Not Detected
Vinyl Chloride	0.010	Not Detected	0.026	Not Detected
Chloroethane	0.050	Not Detected	0.13	Not Detected
1,1-Dichloroethene	0.010	Not Detected	0.040	Not Detected
trans-1,2-Dichloroethene	0.10	Not Detected	0.40	Not Detected
1,1-Dichloroethane	0.020	Not Detected	0.081	Not Detected
cis-1,2-Dichloroethene	0.020	Not Detected	0.079	Not Detected
1,1,1-Trichloroethane	0.020	Not Detected	0.11	Not Detected
Carbon Tetrachloride	0.020	Not Detected	0.12	Not Detected
1,2-Dichloroethane	0.020	Not Detected	0.081	Not Detected
Trichloroethene	0.020	Not Detected	0.11	Not Detected
1,1,2-Trichloroethane	0.020	Not Detected	0.11	Not Detected
Tetrachloroethene	0.020	Not Detected	0.14	Not Detected
1,1,2,2-Tetrachloroethane	0.020	Not Detected	0.14	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	116	70-130
Toluene-d8	95	70-130
4-Bromofluorobenzene	92	70-130

eurofins | Air Toxics

Client Sample ID: CCV

Lab ID#: 2112491B-25A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**60122702**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 12/27/21 11:16 AM**	

Compound	**%Recovery**
Chlorobenzene	106

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
1,2-Dichloroethane-d4	103	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	112	70-130

eurofins | Air Toxics

Client Sample ID: CCV

Lab ID#: 2112491B-25B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**60122702sim**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 12/27/21 11:16 AM**	

Compound	%Recovery
Chloromethane	107
Vinyl Chloride	102
Chloroethane	108
1,1-Dichloroethene	107
trans-1,2-Dichloroethene	108
1,1-Dichloroethane	111
cis-1,2-Dichloroethene	106
1,1,1-Trichloroethane	103
Carbon Tetrachloride	103
1,2-Dichloroethane	96
Trichloroethene	90
1,1,2-Trichloroethane	101
Tetrachloroethene	100
1,1,2,2-Tetrachloroethane	90

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	104	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	111	70-130

eurofins | Air Toxics

Client Sample ID: CCV

Lab ID#: 2112491B-25C

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**60122902**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 12/29/21 10:50 AM**	

Compound	**%Recovery**
Chlorobenzene	106

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
1,2-Dichloroethane-d4	111	70-130
Toluene-d8	106	70-130
4-Bromofluorobenzene	115	70-130

eurofins | Air Toxics

Client Sample ID: CCV

Lab ID#: 2112491B-25D

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**60122902sim**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 12/29/21 10:50 AM**	

Compound	%Recovery
Chloromethane	111
Vinyl Chloride	109
Chloroethane	109
1,1-Dichloroethene	104
trans-1,2-Dichloroethene	109
1,1-Dichloroethane	119
cis-1,2-Dichloroethene	106
1,1,1-Trichloroethane	107
Carbon Tetrachloride	102
1,2-Dichloroethane	105
Trichloroethene	88
1,1,2-Trichloroethane	105
Tetrachloroethene	98
1,1,2,2-Tetrachloroethane	93

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	114	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	111	70-130

eurofins | Air Toxics

Client Sample ID: LCS

Lab ID#: 2112491B-26A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**60122703**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 12/27/21 11:57 AM**	

Compound	%Recovery	Method Limits
Chlorobenzene	103	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	104	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	109	70-130

eurofins | Air Toxics

Client Sample ID: LCSD

Lab ID#: 2112491B-26AA

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**60122704**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 12/27/21 12:38 PM**	

Compound	%Recovery	Method Limits
Chlorobenzene	103	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	106	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	109	70-130

eurofins | Air Toxics

Client Sample ID: LCS

Lab ID#: 2112491B-26B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**60122703sim**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 12/27/21 11:57 AM**	

Compound	%Recovery	Method Limits
Chloromethane	100	70-130
Vinyl Chloride	99	70-130
Chloroethane	104	70-130
1,1-Dichloroethene	102	70-130
trans-1,2-Dichloroethene	104	70-130
1,1-Dichloroethane	106	70-130
cis-1,2-Dichloroethene	101	70-130
1,1,1-Trichloroethane	99	70-130
Carbon Tetrachloride	91	60-140
1,2-Dichloroethane	90	70-130
Trichloroethene	85	70-130
1,1,2-Trichloroethane	99	70-130
Tetrachloroethene	96	70-130
1,1,2,2-Tetrachloroethane	85	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	104	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	108	70-130

eurofins | Air Toxics

Client Sample ID: LCSD

Lab ID#: 2112491B-26BB

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**60122704sim**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 12/27/21 12:38 PM**	

Compound	%Recovery	Method Limits
Chloromethane	100	70-130
Vinyl Chloride	101	70-130
Chloroethane	105	70-130
1,1-Dichloroethene	103	70-130
trans-1,2-Dichloroethene	104	70-130
1,1-Dichloroethane	106	70-130
cis-1,2-Dichloroethene	102	70-130
1,1,1-Trichloroethane	99	70-130
Carbon Tetrachloride	92	60-140
1,2-Dichloroethane	90	70-130
Trichloroethene	85	70-130
1,1,2-Trichloroethane	97	70-130
Tetrachloroethene	96	70-130
1,1,2,2-Tetrachloroethane	83	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	104	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	107	70-130

eurofins | Air Toxics

Client Sample ID: LCS

Lab ID#: 2112491B-26C

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**60122903**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 12/29/21 11:31 AM**	

Compound	%Recovery	Method Limits
Chlorobenzene	103	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	111	70-130
Toluene-d8	106	70-130
4-Bromofluorobenzene	111	70-130

eurofins | Air Toxics

Client Sample ID: LCSD

Lab ID#: 2112491B-26CC

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**60122904**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 12/29/21 12:13 PM**	

Compound	%Recovery	Method Limits
Chlorobenzene	103	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	110	70-130
Toluene-d8	104	70-130
4-Bromofluorobenzene	109	70-130

eurofins | Air Toxics

Client Sample ID: LCS

Lab ID#: 2112491B-26D

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**60122903sim**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 12/29/21 11:31 AM**	

Compound	%Recovery	Method Limits
Chloromethane	113	70-130
Vinyl Chloride	109	70-130
Chloroethane	109	70-130
1,1-Dichloroethene	102	70-130
trans-1,2-Dichloroethene	107	70-130
1,1-Dichloroethane	116	70-130
cis-1,2-Dichloroethene	102	70-130
1,1,1-Trichloroethane	104	70-130
Carbon Tetrachloride	91	60-140
1,2-Dichloroethane	101	70-130
Trichloroethene	84	70-130
1,1,2-Trichloroethane	103	70-130
Tetrachloroethene	94	70-130
1,1,2,2-Tetrachloroethane	90	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	115	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	108	70-130

eurofins | Air Toxics

Client Sample ID: LCSD

Lab ID#: 2112491B-26DD

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**60122904sim**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 12/29/21 12:13 PM**	

Compound	%Recovery	Method Limits
Chloromethane	112	70-130
Vinyl Chloride	110	70-130
Chloroethane	109	70-130
1,1-Dichloroethene	103	70-130
trans-1,2-Dichloroethene	106	70-130
1,1-Dichloroethane	116	70-130
cis-1,2-Dichloroethene	102	70-130
1,1,1-Trichloroethane	103	70-130
Carbon Tetrachloride	91	60-140
1,2-Dichloroethane	99	70-130
Trichloroethene	83	70-130
1,1,2-Trichloroethane	102	70-130
Tetrachloroethene	93	70-130
1,1,2,2-Tetrachloroethane	88	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	114	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	107	70-130

ARCADIS Design & Consultancy for natural and built assets

Appendix C

Operation and Maintenance Field Checklists

Operation and Maintenance Checklist
Building 40 AFUs
Watervliet Arsenal
Watervliet, New York

Date 1/13/21

Inspector ES/KS

AFU	AFU Location	System Data				Notes
		Δ P	RPF	RAF	FF	
1	South Conference Room	4.9	0.08	0.07	0.43	All Filters OK
2	East Body Forge	5.5	0.11	0.08	0.40	RAFs Rotated to RPFs, RAFs New
3	West Body Forge	5.7	0.12	0.10	0.59	↓
4	West Turret Lab	7.0	0.10	0.09	0.77	↑
5	East Turret Lab	5.8	0.12	0.07	0.50	
6	North Mechanical Closet	4.5	0.08	0.05	0.65	All Filters OK
7	South Mechanical Closet	4.7	0.05	0.04	0.70	↓
8	South Mechanical Closet	4.5	0.06	0.06	0.52	

Δ P - Differential Pressure
RPF - Roughing Pre-filter
RAF - Roughing After Filter
FF - Final Filter

Operation and Maintenance Checklist
Type "C" SSDSs
Watervliet Arsenal
Watervliet, New York

Date 1/13/21

Inspector ES/KS

Building	Extraction Well	Extraction Well Location	Room	System On?	Vacuum ("H_2O)	Flow (cfm)
22	EW-1	Basement, east side of building	Storage Area	Yes	-2.4	9.82
		Notes:				
22	EW-2	Main floor, west side of building	Truck Bay	Yes	-2.0	52.0
		Notes: Condensate present ⇒ Drained				
120	EW-1	Main floor, south end of wood shop	Wood Shop	Yes	-14.5	14.85
	EW-2	Main floor, north end of wood shop	Wood Shop		-11.5	19.60
		Notes:				
121	EW-1	Main floor, southeast corner of building	Lab	Yes	-1.7	48.6
		Notes: ~~Condensate~~				
130	EW-1	Main floor, northeast corner of building	Storage Area	Yes	-2.0	48.2
		Notes:				

Operation and Maintenance Checklist
Building 20/25 SSDS
Watervliet Arsenal
Watervliet, New York

Date 1/13/21

Inspector ES/KS

Building 25 System	Control Panel Room	Building 20 System
420	Flow (cfm)	192
	Pressure ("H_2O) 24	
	Temp (°F) 119	
84502.20	Run Time (hours)	82308.30
95	VFD Speed (%)	85
None	Alarms?	None

B-25 Extraction Wells

EW-1	
Vacuum	<-60
Flow	172.5
EW-2	
Vacuum	-36
Flow	179
EW-3	
Vacuum	-42
Flow	47.1
EW-4	
Vacuum	-43
Flow	46.6

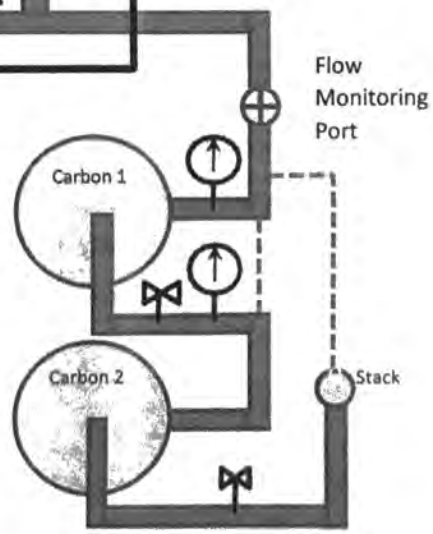
Mechanical Room

-46	Vacuum ("H_2O)	-40
0	KO Level (inches)	0
-57	Vacuum ("H_2O)	-42
-59	Vacuum ("H_2O)	<-100
27	Pressure ("H_2O)	25
117	Temp °F	116
—	PID (ppm)	—

KO Tank, Filter, Blower, Silencer

B-20 Extraction Wells

EW-1	
Vacuum	-39
Flow	82
EW-2	
Vacuum	-39
Flow	40
EW-3	
Vacuum	-38
Flow	49.3



Flow (cfm) —

"H_2O 24

PID (ppm) — "H_2O —

PID (ppm) —

Notes: *C2 offline

Operation and Maintenance Checklist
Building 21 SSDS
Watervliet Arsenal
Watervliet, New York

Date 1/13/21

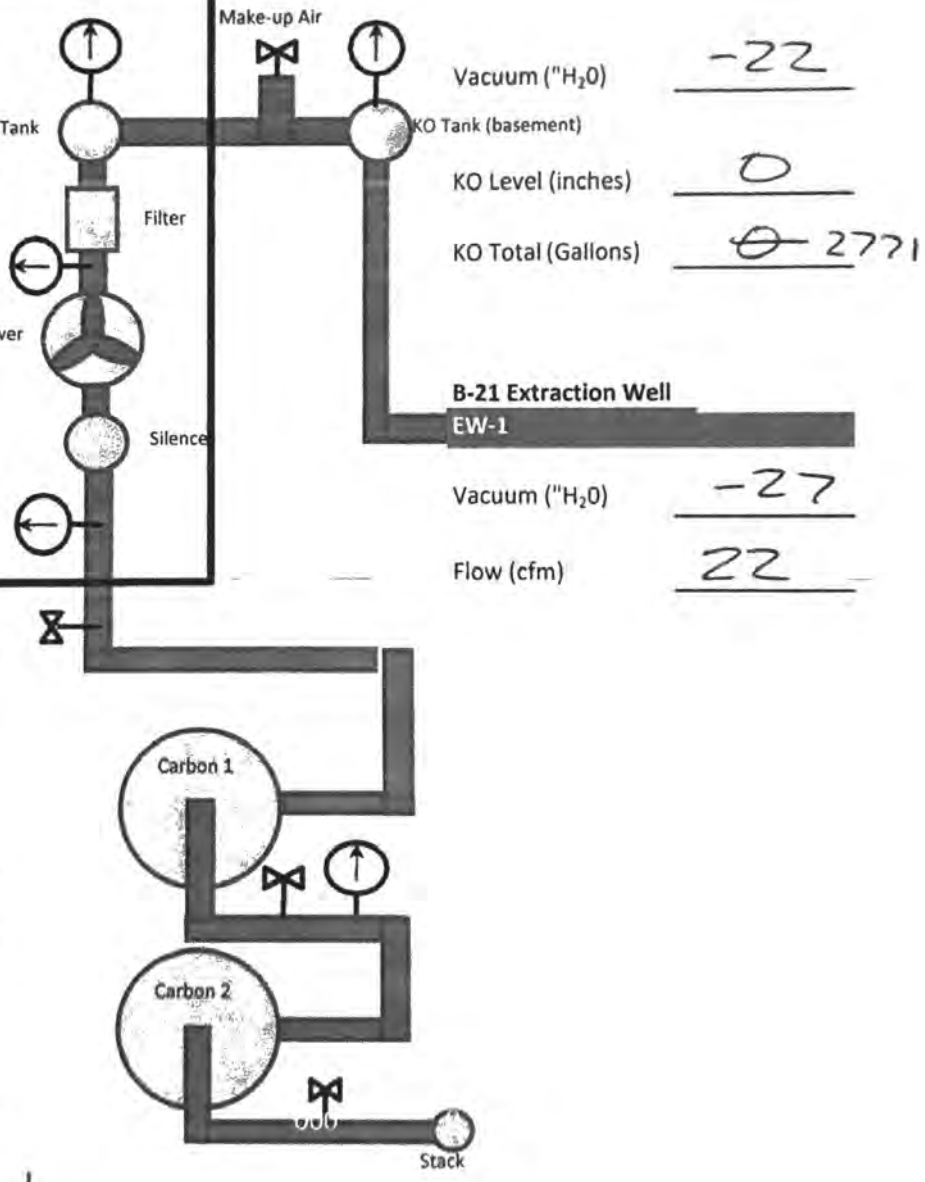
Inspector ES/KS

Control Panel

Flow (cfm)	25
Temp (°F)	91
Run Time (hours)	80859.10
VFD Speed (%)	100
Alarms?	None

System Enclosure

Vacuum ("H_2O)	-28
KO Level (inches)	0
Vacuum ("H_2O)	-34
Pressure ("H_2O)	3



Vacuum ("H_2O)	-22
KO Level (inches)	0
KO Total (Gallons)	~~0~~ 2771
Vacuum ("H_2O)	-27
Flow (cfm)	22

PID (ppm)	—
PID (ppm)	—
Pressure ("H_2O)	—
PID (ppm)	—

Carbon Bypassed

Operation and Maintenance Checklist
Building 114 SSDS
Watervliet Arsenal
Watervliet, New York

Date 1/13/21

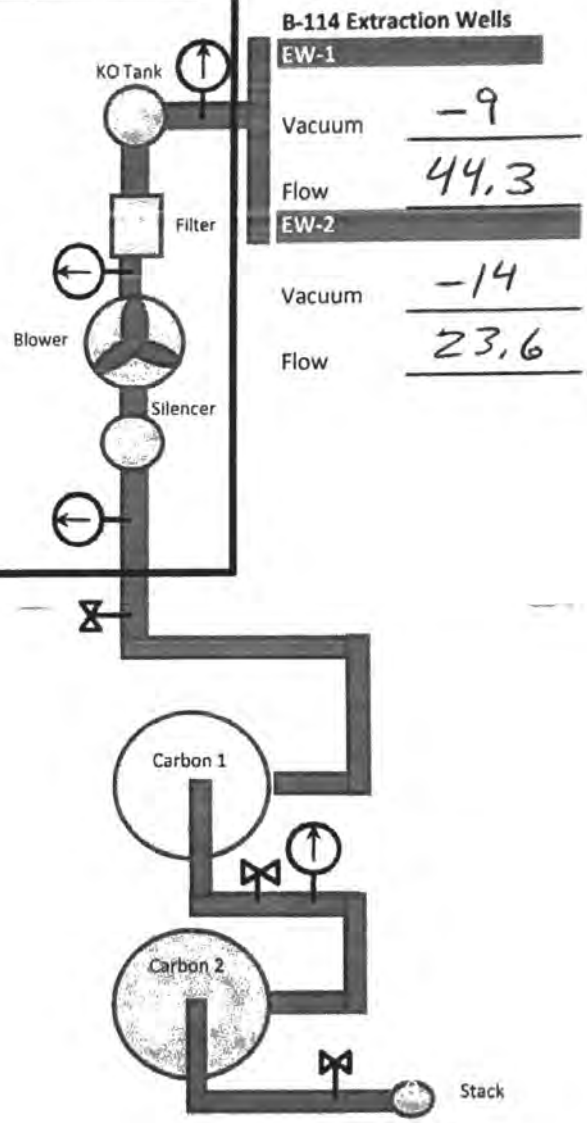
Inspector ES/KS

Control Panel

Flow (cfm)	67
Temp (°F)	71
Run Time (hours)	79961.80
VFD Speed (%)	96.5
Alarms?	KO Tank High

System Enclosure

Vacuum ("H_2O)	-10
KO Level (inches)	9.5" *Drained → 0"
Vacuum ("H_2O)	-24
Pressure ("H_2O)	6
PID (ppm)	—
PID (ppm)	—
Pressure ("H_2O)	3
PID (ppm)	—



Notes: KO Tank Drained

ARCADIS

Control Number:TGM - _____

TGM + *project number plus date as follows: xxxxxxxx.xxxx.xxxxx - dd/mm/year*

TAILGATE HEALTH & SAFETY MEETING FORM

Project Name: WVA			Project Location: Watervliet, NY
Date: 1/13/21	Time: 0800	Conducted by: ES	Signature/Title: ESR Field Tech

Issues or concerns from previous day's activities:

Task anticipated to be performed today: Annual Air Sampling / Monthly OMM

☐ Additonal permits or checklists attached

USE TRACK! Evaluate the hazards (h) for the tasks being performed today and rank as Low (L), Medium (M) or High (H). Use relevant JLAs, FHSHB, permit or other work standard to communicate controls (c) to be used to eliminate or mitigate identified hazards.

☒ Gravity (i.e., ladder, scaffold, trips) (L M H) h: c:	☒ Motion (i.e., traffic, moving water) (L M H) h: c:	☒ Mechanical (i.e., augers, motors) (L M H) h: c:
☐ Electrical (i.e., utilities, lightning) (L M H) h: c:	☐ Pressure (i.e., gas cyl., wells) (L M H) h: c:	☒ Environment (i.e., heat, cold, ice) (L M H) h: c:
☐ Chemical (i.e., fuel, acid, paint) (L M H) h: c:	☐ Biological (i.e., ticks, poison ivy) (L M H) h: c:	☐ Radiation (i.e., alpha, sun, laser) (L M H) h: c:
☒ Sound (i.e., machinery) (L M H) h: c:	☐ Personal (i.e. alone, night) (L M H) h: c:	☒ Driving (i.e. car, ATV, boat, dozer) (L M H) h: c:

☐ Refer to the attached Hazard Analysis Sheet(s) or JSA

Comments:

Signature and Certification: I have read and understand the project specific HASP for this project.

Printed Name/Signature/Company	Sign In Time	Sign Out Time
E. Sousa ESR ARCADIS	0800	
K. Stilson KMS Arcadis	0800	

I will STOP the job any time anyone is concerned or uncertain about health & safety or if anyone identifies a hazard or additional mitigation not recorded in the site, project, job or task hazard assessment.

I will be alert to any changes in personnel, conditions at the work site or hazards not covered by the original hazard assessments.

If it is necessary to **STOP THE JOB,** I will perform **TRACK**; and then amend the hazard assessments or the HASP as needed.

I will not assist a subcontractor or other party with their work unless it is absolutely necessary and then only after I have done TRACK and I have thoroughly controlled the hazard.

All site staff should arrive fit for work. If not, they should report to the supervisor any restrictions or concerns.

In the event of an injury, employees will call **WorkCare at 1.800.455.6155** and then notify the field supervisor.

Utility strike, motor vehicle accident or 3rd party protperty damage - field supervisor will immediately notify the Project or Task Manager

Place any additional signatures on the back of this form.

Operation and Maintenance Checklist
Building 40 AFUs
Watervliet Arsenal
Watervliet, New York

Date 2/19/21

Inspector ES

AFU	AFU Location	System Data				Notes
		Δ P	RPF	RAF	FF	
1	South Conference Room	5.1	0.08	0.07	0.45	All Filters OK
2	East Body Forge	5.5	0.12	0.06	0.45	↑
3	West Body Forge	5.7	0.12	0.08	0.66	RAFs Rotated to RPFs, RAFs New
4	West Turret Lab	7.0	0.10	0.08	0.79	↑
5	East Turret Lab	6.0	0.11	0.08	0.52	
6	North Mechanical Closet	4.5	0.08	0.04	0.69	All Filters OK
7	South Mechanical Closet	4.8	0.04	0.06	0.72	↓
8	South Mechanical Closet	4.6	0.08	0.06	0.55	

Δ P - Differential Pressure
RPF - Roughing Pre-filter
RAF - Roughing After Filter
FF - Final Filter

Operation and Maintenance Checklist
Type "C" SSDSs
Watervliet Arsenal
Watervliet, New York

Date 2/19/21

Inspector ES

Building	Extraction Well	Extraction Well Location	Room	System On?	Vacuum ("H_2O)	Flow (cfm)
22	EW-1	Basement, east side of building	Storage Area	Yes	-2.5	12.15
		Notes:				
22	EW-2	Main floor, west side of building	Truck Bay	Yes	-2.0	58.8
		Notes: Condensate Present in Drain				
120	EW-1	Main floor, south end of wood shop	Wood Shop	Yes	-15	13.14
	EW-2	Main floor, north end of wood shop	Wood Shop		-12.5	19.50
		Notes:				
121	EW-1	Main floor, southeast corner of building	Lab	Yes	-1.8	53.3
		Notes:				
130	EW-1	Main floor, northeast corner of building	Storage Area	Yes	-2.0	47.6
		Notes:				

Operation and Maintenance Checklist
Building 20/25 SSDS
Watervliet Arsenal
Watervliet, New York

Date 2/19/21

Inspector ES

Building 25 System	Control Panel Room	Building 20 System
offline	Flow (cfm)	206
	Pressure ("H_2O)	7
	Temp (°F)	92
85199.70	Run Time (hours)	83142.90
offline	VFD Speed (%)	85
*VFD → Error over current	Alarms?	Influent Pressure Low

*B25 offline *

B20 offline

B-25 Extraction Wells

EW-1	
Vacuum	
Flow	
EW-2	
Vacuum	
Flow	
EW-3	
Vacuum	
Flow	
EW-4	
Vacuum	
Flow	

Mechanical Room

Vacuum ("H_2O)	-42
KO Level (inches)	0
Vacuum ("H_2O)	-44
Vacuum ("H_2O)	<-100
Pressure ("H_2O)	10
Temp °F	86
PID (ppm)	—

KO Tank, Filter, Blower, Silencer

* Entire System offline → LOTO *

B-20 Extraction Wells

EW-1	
Vacuum	-40
Flow	78.6
EW-2	
Vacuum	-39
Flow	38.4
EW-3	
Vacuum	-38
Flow	49

Flow (cfm) —

"H_2O 10

PID (ppm) —

"H_2O —

PID (ppm) —

Flow Monitoring Port

Carbon 1

Carbon 2

Stack

*C2 offline

* B25 main breaker → offline
→ switch locked out
→ Needs Repair

Notes: * Attempted to Reset VFD & Panel Blew (Arc Flash)
* B25 Blower + Electric Motor spin freely
* Water dripping from inlet piping to KO Tank → Tank confirmed empty

Operation and Maintenance Checklist
Building 21 SSDS
Watervliet Arsenal
Watervliet, New York

Date 2/19/21

Inspector ES

Control Panel

Flow (cfm) 26

Temp (°F) 91

Run Time (hours) ~~81690~~ 81690,90

VFD Speed (%) 100

Alarms? None

System Enclosure

Vacuum ("H_2O) -29

KO Level (inches) 0

Vacuum ("H_2O) -35

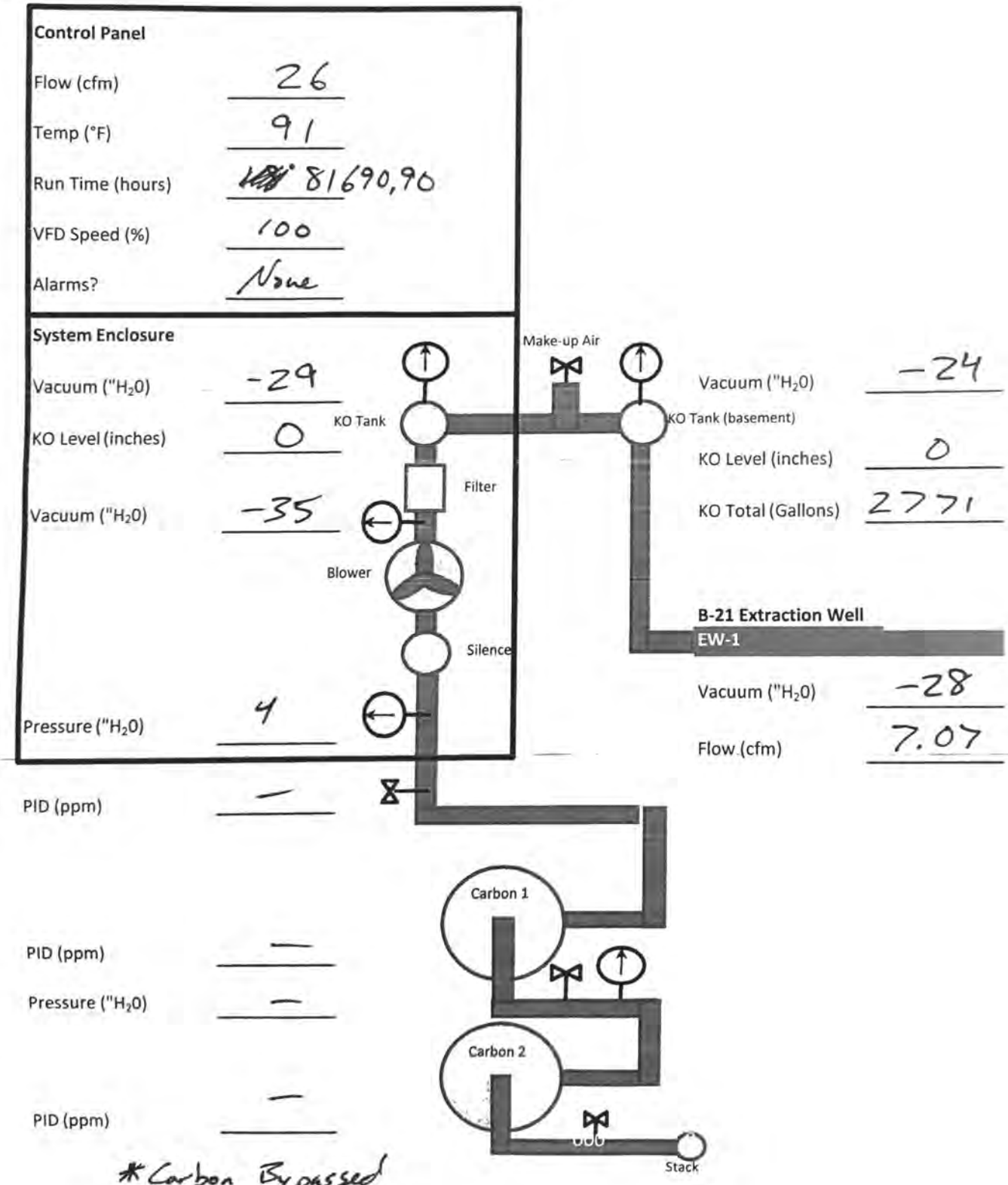
Pressure ("H_2O) 4

PID (ppm) —

PID (ppm) —

Pressure ("H_2O) —

PID (ppm) —



Vacuum ("H_2O) -24

KO Level (inches) 0

KO Total (Gallons) 2771

B-21 Extraction Well
EW-1

Vacuum ("H_2O) -28

Flow (cfm) 7.07

*Carbon Bypassed

Operation and Maintenance Checklist
Building 114 SSDS
Watervliet Arsenal
Watervliet, New York

Date 2/19/21

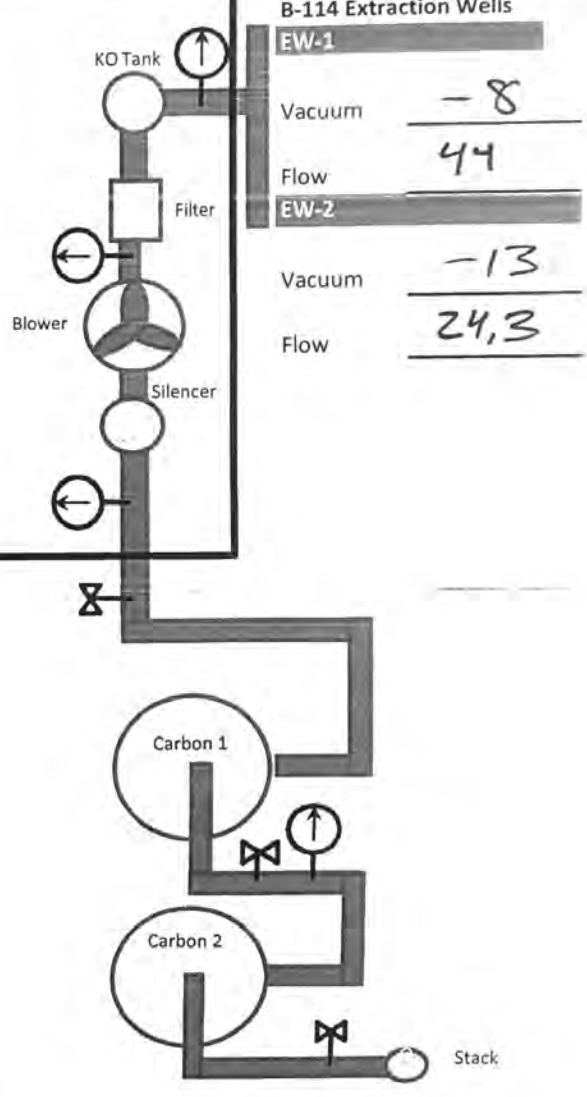
Inspector ES

Control Panel

Flow (cfm)	67
Temp (°F)	92
Run Time (hours)	80794.20
VFD Speed (%)	96.6
Alarms?	None

System Enclosure

Vacuum ("H_2O)	-9
KO Level (inches)	2"
Vacuum ("H_2O)	-23
Pressure ("H_2O)	9
PID (ppm)	—
PID (ppm)	—
Pressure ("H_2O)	5
PID (ppm)	—



B-114 Extraction Wells

EW-1	
Vacuum	-8
Flow	44
EW-2	
Vacuum	-13
Flow	24.3

Notes: Condensat Drained

ARCADIS

Control Number:TGM - _____

TGM + *project number plus date as follows: xxxxxxxx.xxxx.xxxxx - dd/mm/year*

TAILGATE HEALTH & SAFETY MEETING FORM

Project Name: WVA			Project Location: Watervliet, NY
Date: 2/19/21	Time: 0830	Conducted by: ES	Signature/Title: Field Tech

Issues or concerns from previous day's activities:

Task anticipated to be performed today: Monthly O+M, picking up filters @ FW Webb

☐ Additonal permits or checklists attached

USE TRACK! Evaluate the hazards (h) for the tasks being performed today and rank as Low (L), Medium (M) or High (H). Use relevant JLAs, FHSHB, permit or other work standard to communicate controls (c) to be used to eliminate or mitigate identified hazards.

☒ Gravity (i.e., ladder, scaffold, trips) (L M H) h: c:	☒ Motion (i.e., traffic, moving water) (L M H) h: c:	☒ Mechanical (i.e., augers, motors) (L M H) h: c:
☒ Electrical (i.e., utilities, lightning) (L M H) h: c:	☐ Pressure (i.e., gas cyl., wells) (L M H) h: c:	☒ Environment (i.e., heat, cold, ice) (L M H) h: c:
☐ Chemical (i.e., fuel, acid, paint) (L M H) h: c:	☐ Biological (i.e., ticks, poison ivy) (L M H) h: c:	☐ Radiation (i.e., alpha, sun, laser) (L M H) h: c:
☒ Sound (i.e., machinery) (L M H) h: c:	☒ Personal (i.e. alone, night) (L M H) h: c:	☒ Driving (i.e. car, ATV, boat, dozer) (L M H) h: c:

☐ Refer to the attached Hazard Analysis Sheet(s) or JSA

Comments:

Signature and Certification: I have read and understand the project specific HASP for this project.

Printed Name/Signature/Company	Sign In Time	Sign Out Time
E. Sousa ARCADIS	0830	

Place any additional signatures on the back of this form.

I will STOP the job any time anyone is concerned or uncertain about health & safety or if anyone identifies a hazard or additional mitigation not recorded in the site, project, job or task hazard assessment.

I will be alert to any changes in personnel, conditions at the work site or hazards not covered by the original hazard assessments.

If it is necessary to **STOP THE JOB**, I will perform **TRACK**; and then amend the hazard assessments or the HASP as needed.

I will not assist a subcontractor or other party with their work unless it is absolutely necessary and then only after I have done TRACK and I have thoroughly controlled the hazard.

All site staff should arrive fit for work. If not, they should report to the supervisor any restrictions or concerns.

In the event of an injury, employees will call **WorkCare at 1.800.455.6155** and then notify the field supervisor.

Utility strike, motor vehicle accident or 3rd party property damage - field supervisor will immediately notify the Project or Task Manager

Operation and Maintenance Checklist
Building 40 AFUs
Watervliet Arsenal
Watervliet, New York

Date 3/18/21

Inspector ES

AFU	AFU Location	System Data				Notes
		Δ P	RPF	RAF	FF	
1	South Conference Room	5.1	0.08	0.08	0.47	All Filters OK
2	East Body Forge	5.5	0.11	0.07	0.50	↑
3	West Body Forge	5.8	0.10	0.10	0.69	
4	West Turret Lab	7.0	0.11	0.08	0.80	RAFs Rotated to RPFs, RAFs New
5	East Turret Lab	6.2	0.10	0.08	0.54	↓
6	North Mechanical Closet	4.5	0.08	0.05	0.70	All Filters OK
7	South Mechanical Closet	5.0	0.04	0.06	0.76	↓
8	South Mechanical Closet	4.8	0.08	0.06	0.60	

(Turret Lab) AFUS 4 + 5 offline on arrival → Reset OK

Δ P - Differential Pressure
RPF - Roughing Pre-filter
RAF - Roughing After Filter
FF - Final Filter

Operation and Maintenance Checklist
Type "C" SSDSs
Watervliet Arsenal
Watervliet, New York

Date 3/19/21

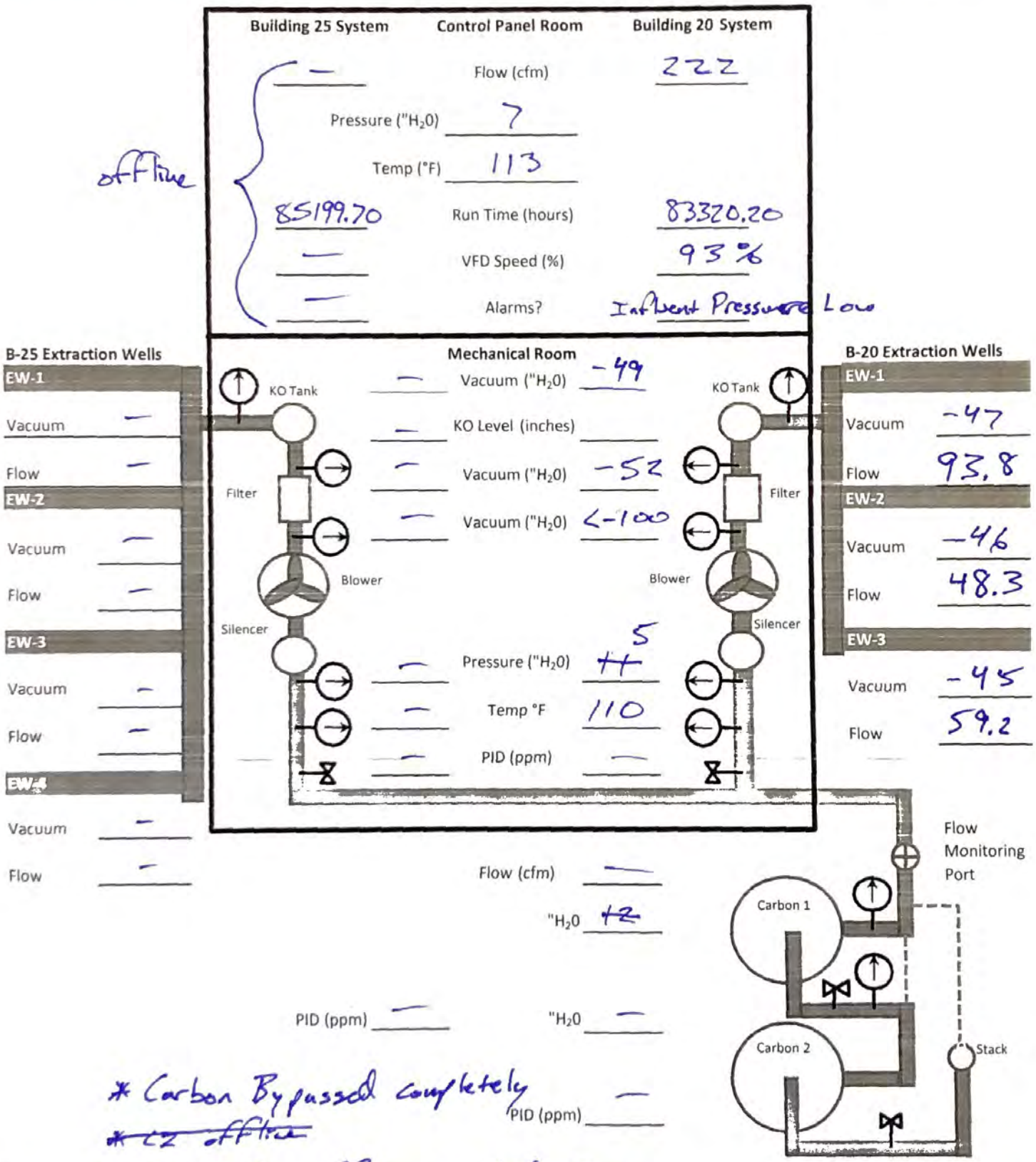
Inspector ES

Building	Extraction Well	Extraction Well Location	Room	System On?	Vacuum ("H_2O)	Flow (cfm)
22	EW-1	Basement, east side of building	Storage Area	Yes	-2.6	11.50
		Notes:				
22	EW-2	Main floor, west side of building	Truck Bay	Yes	-2.0	57.60
		Notes: Condensate Present in drain → drained				
120	EW-1	Main floor, south end of wood shop	Wood Shop	Yes	-15	4.10
	EW-2	Main floor, north end of wood shop	Wood Shop		-14	19.80
		Notes:				
121	EW-1	Main floor, southeast corner of building	Lab	Yes	-1.8	49.4
		Notes:				
130	EW-1	Main floor, northeast corner of building	Storage Area	Yes	-2.0	49.7
		Notes:				

Operation and Maintenance Checklist
Building 20/25 SSDS
Watervliet Arsenal
Watervliet, New York

Date 3/19/21

Inspector ES



* Carbon Bypassed completely
~~* C2 offline~~

Notes: * B25 side offline → Needs Repair

Operation and Maintenance Checklist
Building 21 SSDS
Watervliet Arsenal
Watervliet, New York

Date 3/19/21

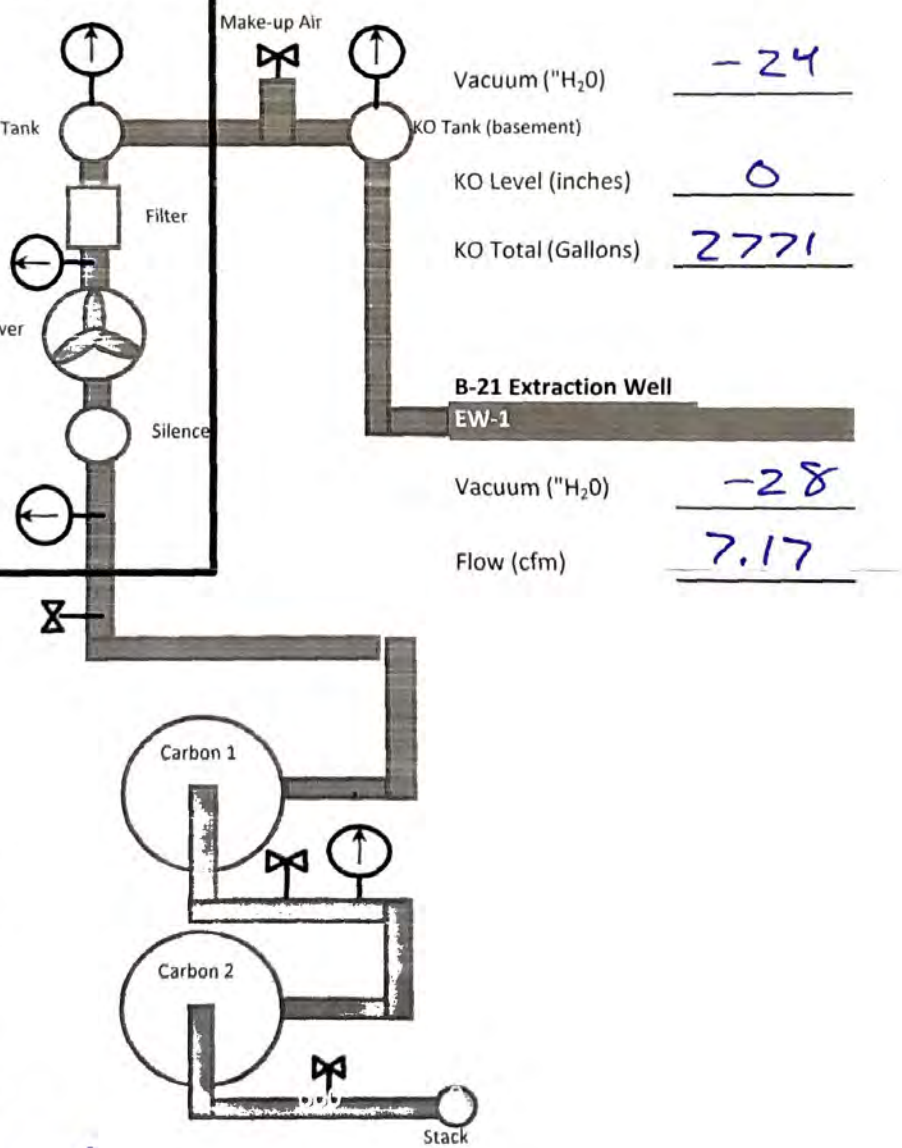
Inspector ES

Control Panel

Flow (cfm)	25
Temp (°F)	87
Run Time (hours)	82318.80
VFD Speed (%)	100
Alarms?	None

System Enclosure

Vacuum ("H_2O)	-29
KO Level (inches)	0
Vacuum ("H_2O)	-35
Pressure ("H_2O)	4
PID (ppm)	—



Vacuum ("H_2O)	-24
KO Level (inches)	0
KO Total (Gallons)	2771
Vacuum ("H_2O)	-28
Flow (cfm)	7.17

PID (ppm)	—
Pressure ("H_2O)	—
PID (ppm)	—

* Carbon Bypassed

Operation and Maintenance Checklist
Building 114 SSDS
Watervliet Arsenal
Watervliet, New York

Date 3/19/21

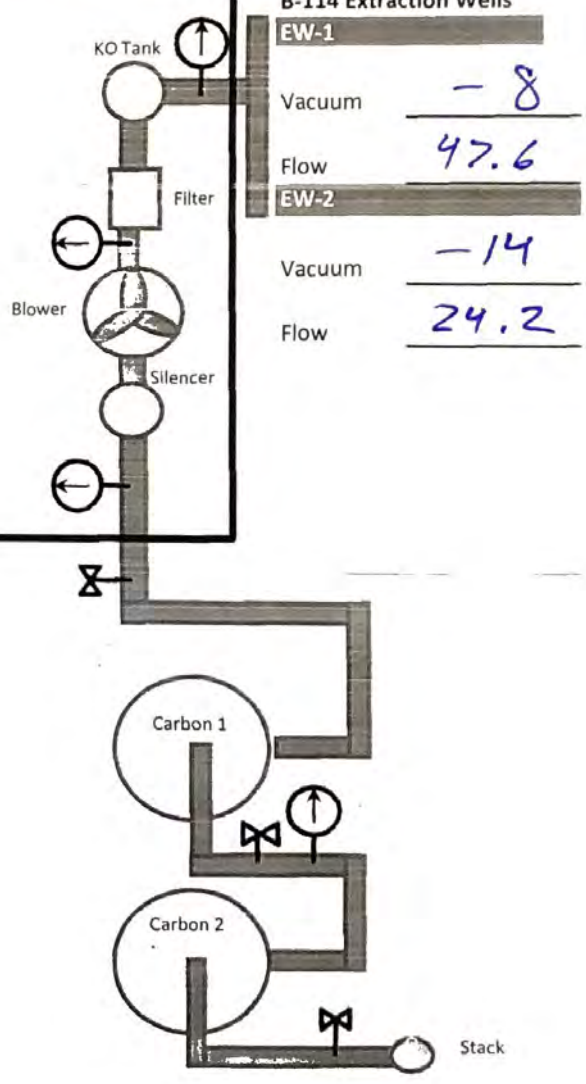
Inspector ES

Control Panel

Flow (cfm)	69
Temp (°F)	92
Run Time (hours)	81422.00
VFD Speed (%)	96.5
Alarms?	None

System Enclosure

Vacuum ("H_2O)	-10
KO Level (inches)	0
Vacuum ("H_2O)	-24
Pressure ("H_2O)	7
PID (ppm)	—
PID (ppm)	—
Pressure ("H_2O)	
PID (ppm)	—



B-114 Extraction Wells

EW-1	
Vacuum	-8
Flow	47.6
EW-2	
Vacuum	-14
Flow	24.2

Notes: _____

C:\Users\Esousa\Documents\WVA\OMM Field Forms\Copy of SSDS OM Checklists

ARCADIS

Control Number:TGM - _____

TGM + *project number plus date as follows: xxxxxxxx.xxxx.xxxxx - dd/mm/year*

TAILGATE HEALTH & SAFETY MEETING FORM

Project Name: WVA	**Project Location:** Watervliet, NY
Date: 3/18/21 **Time:** 0900 **Conducted by:** ES	**Signature/Title:** Field Tech

Issues or concerns from previous day's activities:

Task anticipated to be performed today: Monthly OMM

☐ Additonal permits or checklists attached

USE TRACK! Evaluate the hazards (h) for the tasks being performed today and rank as Low (L), Medium (M) or High (H). Use relevant JLAs, FHSHB, permit or other work standard to communicate controls (c) to be used to eliminate or mitigate identified hazards.

☒ Gravity (i.e., ladder, scaffold, trips) (L M H) h: c:	☒ Motion (i.e., traffic, moving water) (L M H) h: c:	☒ Mechanical (i.e., augers, motors) (L M H) h: c:
☒ Electrical (i.e., utilities, lightning) (L M H) h: c:	☐ Pressure (i.e., gas cyl., wells) (L M H) h: c:	☒ Environment (i.e., heat, cold, ice) (L M H) h: c:
☐ Chemical (i.e., fuel, acid, paint) (L M H) h: c:	☐ Biological (i.e., ticks, poison ivy) (L M H) h: c:	☐ Radiation (i.e., alpha, sun, laser) (L M H) h: c:
☒ Sound (i.e., machinery) (L M H) h: c:	☒ Personal (i.e. alone, night) (L M H) h: c:	☒ Driving (i.e. car, ATV, boat, dozer) (L M H) h: c:

☐ Refer to the attached Hazard Analysis Sheet(s) or JSA

Comments:

Signature and Certification: I have read and understand the project specific HASP for this project.

Printed Name/Signature/Company	Sign In Time	Sign Out Time
E. Sousa E Sousa ARCADIS	0900	

I will STOP the job any time anyone is concerned or uncertain about health & safety or if anyone identifies a hazard or additional mitigation not recorded in the site, project, job or task hazard assessment.

I will be alert to any changes in personnel, conditions at the work site or hazards not covered by the original hazard assessments.

If it is necessary to **STOP THE JOB,** I will perform **TRACK**; and then amend the hazard assessments or the HASP as needed.

I will not assist a subcontractor or other party with their work unless it is absolutely necessary and then only after I have done TRACK and I have thoroughly controlled the hazard.

All site staff should arrive fit for work. If not, they should report to the supervisor any restrictions or concerns.

In the event of an injury, employees will call **WorkCare at 1.800.455.6155** and then notify the field supervisor.

Utility strike, motor vehicle accident or 3rd party protperty damage - field supervisor will immediately notify the Project or Task Manager

Place any additional signatures on the back of this form.

Operation and Maintenance Checklist
Building 40 AFUs
Watervliet Arsenal
Watervliet, New York

Date 4/16/21

Inspector ES

AFU	AFU Location	System Data				Notes
		Δ P	RPF	RAF	FF	
1	South Conference Room	4.9	0.06	0.08	0.54	All Filters OK
2	East Body Forge	5.4	0.12	0.06	0.51	RAFs Rotated to RPFs, RAFs New
3	West Body Forge	5.6	0.10	0.08	0.70	↓
4	West Turret Lab	6.8	0.11	0.05	0.77	↑
5	East Turret Lab	5.8	0.10	0.04	0.58	All Filters OK
6	North Mechanical Closet	4.5	0.08	0.06	0.70	↓
7	South Mechanical Closet	4.9	0.04	0.06	0.77	
8	South Mechanical Closet	4.7	0.09	0.06	0.60	

* Jim Neese → Contact for Turret Lab 518-320-0356

Δ P - Differential Pressure
RPF - Roughing Pre-filter
RAF - Roughing After Filter
FF - Final Filter

Operation and Maintenance Checklist
Type "C" SSDSs
Watervliet Arsenal
Watervliet, New York

Date 4/16/21

Inspector ES

Building	Extraction Well	Extraction Well Location	Room	System On?	Vacuum ("H_2O)	Flow (cfm)
22	EW-1	Basement, east side of building	Storage Area	Yes	-2.5	11.20
		Notes:				
22	EW-2	Main floor, west side of building	Truck Bay	Yes	-1.8	61.1
		Notes: *No Condensate Present in Drain				
120	EW-1	Main floor, south end of wood shop	Wood Shop	Yes	-15	3.63
	EW-2	Main floor, north end of wood shop	Wood Shop		-13	20.3
		Notes: * Valves fully adjusted, unable to even out flow any further				
121	EW-1	Main floor, southeast corner of building	Lab	Yes	-1.8	44.2
		Notes:				
130	EW-1	Main floor, northeast corner of building	Storage Area	Yes	-2.0	44.9
		Notes:				

Operation and Maintenance Checklist
Building 20/25 SSDS
Watervliet Arsenal
Watervliet, New York

Date 4/16/21

Inspector ES

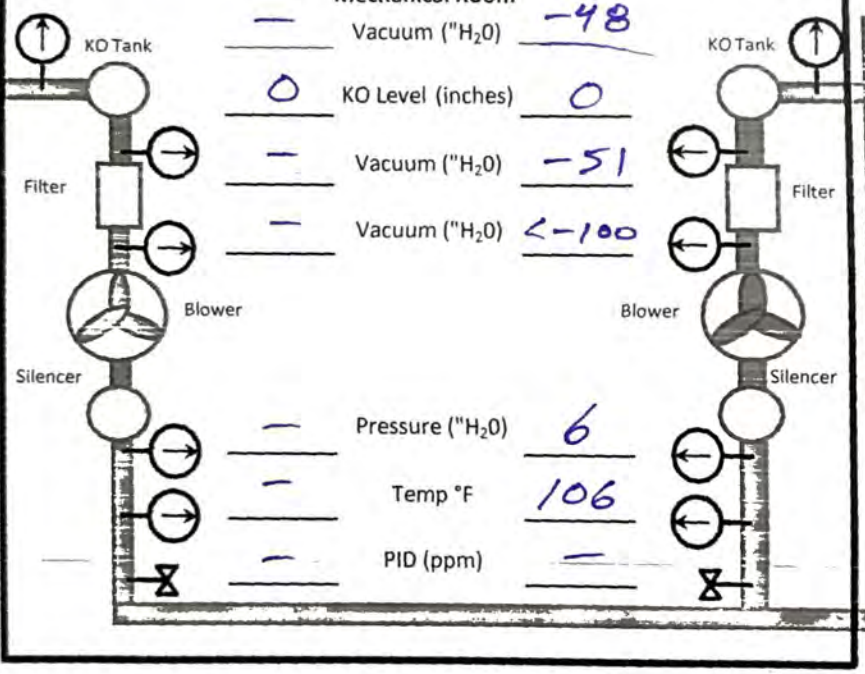
Building 25 System	Control Panel Room	Building 20 System
offline	Flow (cfm)	222
	Pressure ("H_2O) 2	
	Temp (°F) 110	
85199.70	Run Time (hours)	83949.10
—	VFD Speed (%)	93
—	Alarms?	Influent Pressure Low

B-25 Extraction Wells

EW-1	
Vacuum	—
Flow	—
EW-2	
Vacuum	—
Flow	—
EW-3	
Vacuum	—
Flow	—
EW-4	
Vacuum	—
Flow	—

Mechanical Room

—	Vacuum ("H_2O)	-48
0	KO Level (inches)	0
—	Vacuum ("H_2O)	-51
—	Vacuum ("H_2O)	<-100
—	Pressure ("H_2O)	6
—	Temp °F	106
—	PID (ppm)	—



B-20 Extraction Wells

Vacuum	-47
Flow	89.2
EW-2	
Vacuum	-45
Flow	49.2
EW-3	
Vacuum	-44
Flow	55.6

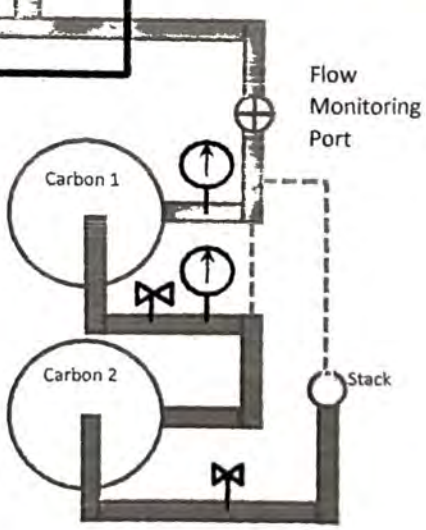
Flow (cfm) —

"H_2O —

PID (ppm) —

"H_2O —

PID (ppm) —



* B25 offline → Needs Repairs
* Carbon Bypassed

Notes:

Operation and Maintenance Checklist
Building 21 SSDS
Watervliet Arsenal
Watervliet, New York

Date 4/16/21

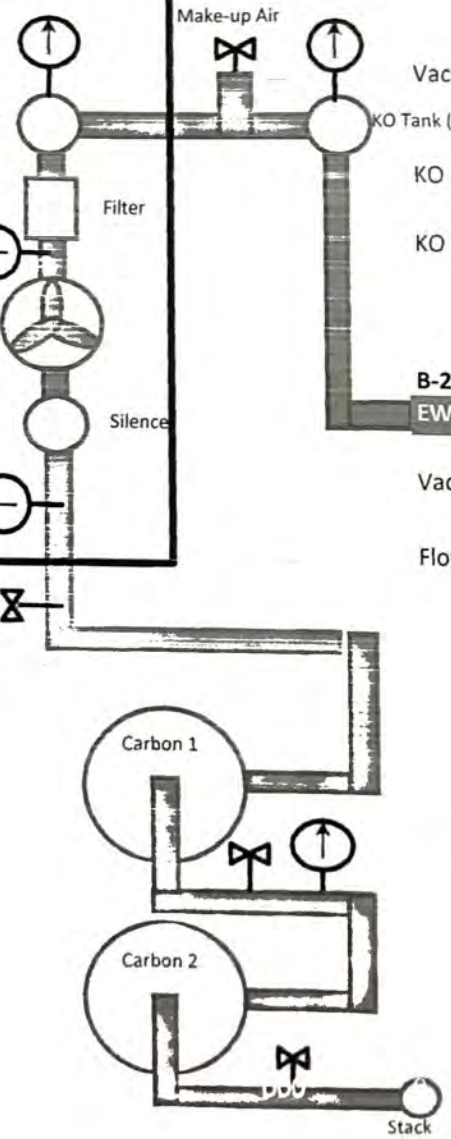
Inspector ES

Control Panel

Flow (cfm)	25
Temp (°F)	93
Run Time (hours)	8294.70
VFD Speed (%)	100
Alarms?	None

System Enclosure

Vacuum ("H_2O)	-28
KO Level (inches)	0
Vacuum ("H_2O)	-34
Pressure ("H_2O)	3
PID (ppm)	—



Vacuum ("H_2O)	-22
KO Level (inches)	0
KO Total (Gallons)	2771

B-21 Extraction Well
EW-1

Vacuum ("H_2O)	-27
Flow (cfm)	6.33

PID (ppm)	—
Pressure ("H_2O)	—
PID (ppm)	—

* Carbon Bypassed

Operation and Maintenance Checklist
Building 114 SSDS
Watervliet Arsenal
Watervliet, New York

Date 4/16/21

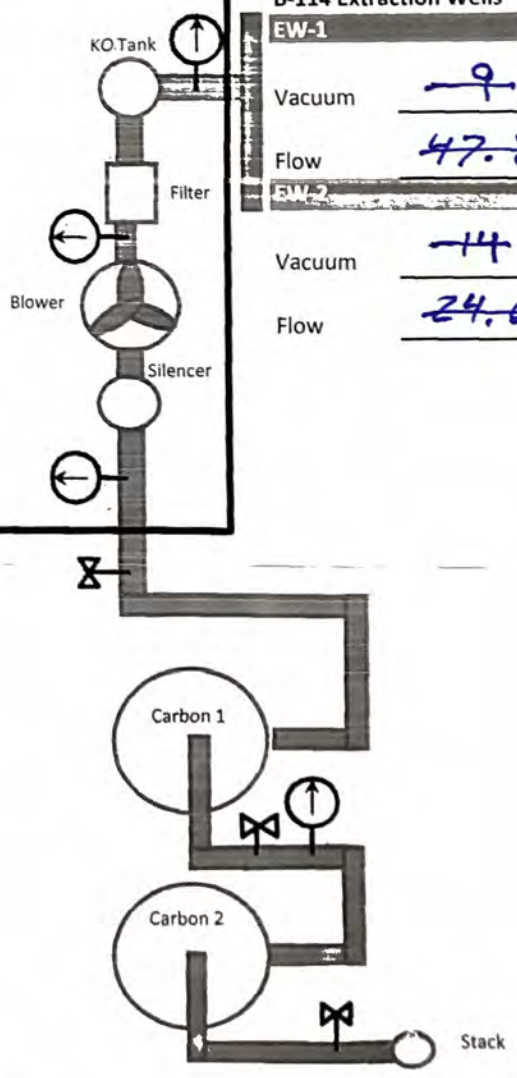
Inspector ES

Control Panel

Flow (cfm)	70
Temp (°F)	90
Run Time (hours)	82050.80
VFD Speed (%)	96.6
Alarms?	None

System Enclosure

Vacuum ("H_2O)	-10
KO Level (inches)	0
Vacuum ("H_2O)	-36
Pressure ("H_2O)	4
PID (ppm)	-
PID (ppm)	-
Pressure ("H_2O)	2
PID (ppm)	-



B-114 Extraction Wells

EW-1		
Vacuum	~~-9~~	-26
Flow	~~47.8~~	37.1
EW-2		
Vacuum	~~-14~~	-4
Flow	~~24.6~~	24.2

Notes: *Extraction Wells adjusted to even out vaccum
* Heater in System Enclosure turned off

ARCADIS

Control Number:TGM - 30001988

TGM + *project number plus date as follows: xxxxxxxx.xxxx.xxxxx - dd/mm/year*

TAILGATE HEALTH & SAFETY MEETING FORM

Project Name: WVA			**Project Location:** Watervliet, NY
Date: 4/16/21	**Time:** 0800	**Conducted by:** ES	**Signature/Title:** Field Tech

Issues or concerns from previous day's activities:

Task anticipated to be performed today: Monthly OMM

☐ Additonal permits or checklists attached

USE TRACK! Evaluate the hazards (h) for the tasks being performed today and rank as Low (L), Medium (M) or High (H). Use relevant JLAs, FHSHB, permit or other work standard to communicate controls (c) to be used to eliminate or mitigate identified hazards.

☒ Gravity (i.e., ladder, scaffold, trips) (L M H) h: c:	☒ Motion (i.e., traffic, moving water) (L M H) h: c:	☒ Mechanical (i.e., augers, motors) (L M H) h: c:
☒ Electrical (i.e., utilities, lightning) (L M H) h: c:	☒ Pressure (i.e., gas cyl., wells) (L M H) h: c:	☒ Environment (i.e., heat, cold, ice) (L M H) h: c:
☐ Chemical (i.e., fuel, acid, paint) (L M H) h: c:	☐ Biological (i.e., ticks, poison ivy) (L M H) h: c:	☐ Radiation (i.e., alpha, sun, laser) (L M H) h: c:
☒ Sound (i.e., machinery) (L M H) h: c:	☒ Personal (i.e., alone, night) (L M H) h: c:	☒ Driving (i.e., car, ATV, boat, dozer) (L M H) h: c:

☐ Refer to the attached Hazard Analysis Sheet(s) or JSA

Comments:

Signature and Certification: I have read and understand the project specific HASP for this project.

Printed Name/Signature/Company	Sign In Time	Sign Out Time
E. Souza / E ar / ARCADIS	0850	

Place any additional signatures on the back of this form.

I will STOP the job any time anyone is concerned or uncertain about health & safety or if anyone identifies a hazard or additional mitigation not recorded in the site, project, job or task hazard assessment.

I will be alert to any changes in personnel, conditions at the work site or hazards not covered by the original hazard assessments.

If it is necessary to **STOP THE JOB,** I will perform **TRACK**; and then amend the hazard assessments or the HASP as needed.

I will not assist a subcontractor or other party with their work unless it is absolutely necessary and then only after I have done TRACK and I have thoroughly controlled the hazard.

All site staff should arrive fit for work. If not, they should report to the supervisor any restrictions or concerns.

In the event of an injury, employees will call **WorkCare at 1.800.455.6155** and then notify the field supervisor.

Utility strike, motor vehicle accident or 3rd party protperty damage - field supervisor will immediately notify the Project or Task Manager

Operation and Maintenance Checklist
Building 40 AFUs
Watervliet Arsenal
Watervliet, New York

Date 5/10/21

Inspector ES/KS

AFU	AFU Location	System Data				Notes
		ΔP	RPF	RAF	FF	
1	South Conference Room	4.9	0.06	0.08	0.55	All Filters Ok
2	East Body Forge	5.5	0.10	0.06	0.52	↓
3	West Body Forge	5.7	0.10	0.07	0.74	RAFs Rotated to RPFs, RAFs New
4	West Turret Lab	6.8	0.09	0.06	0.76	← 0.40 after filter change All Filters Ok
5	East Turret Lab	5.8	0.10	0.04	0.56	↓
6	North Mechanical Closet	4.5	0.09	0.06	0.72	RAFs Rotated to RPFs, RAFs New
7	South Mechanical Closet	4.8	0.05	0.05	0.79	← *1.39 after filter change
8	South Mechanical Closet	4.6	0.08	0.06	0.62	↓

* Carbon Sampled

Final Filters Replaced @ AFU-07 + AFU-04

ΔP - Differential Pressure
RPF - Roughing Pre-filter
RAF - Roughing After Filter
FF - Final Filter

Operation and Maintenance Checklist
Type "C" SSDSs
Watervliet Arsenal
Watervliet, New York

Date 5/10/21

Inspector ES/KS

Building	Extraction Well	Extraction Well Location	Room	System On?	Vacuum ("H_2O)	Flow (cfm)
22	EW-1	Basement, east side of building	Storage Area	Yes	-2.6	13.45
		Notes:				
22	EW-2	Main floor, west side of building	Truck Bay	Yes	-1.9	59
		Notes: * Condensate drain Dry				
120	EW-1	Main floor, south end of wood shop	Wood Shop	Yes	-15	3.98
	EW-2	Main floor, north end of wood shop	Wood Shop		-12.5	20.6
		Notes: Valves fully adjusted unable to change vaccums				
121	EW-1	Main floor, southeast corner of building	Lab	Yes	-1.6	51
		Notes:				
130	EW-1	Main floor, northeast corner of building	Storage Area	Yes	-2.0	47.4
		Notes:				

Operation and Maintenance Checklist
Building 21 SSDS
Watervliet Arsenal
Watervliet, New York

Date 5/10/21

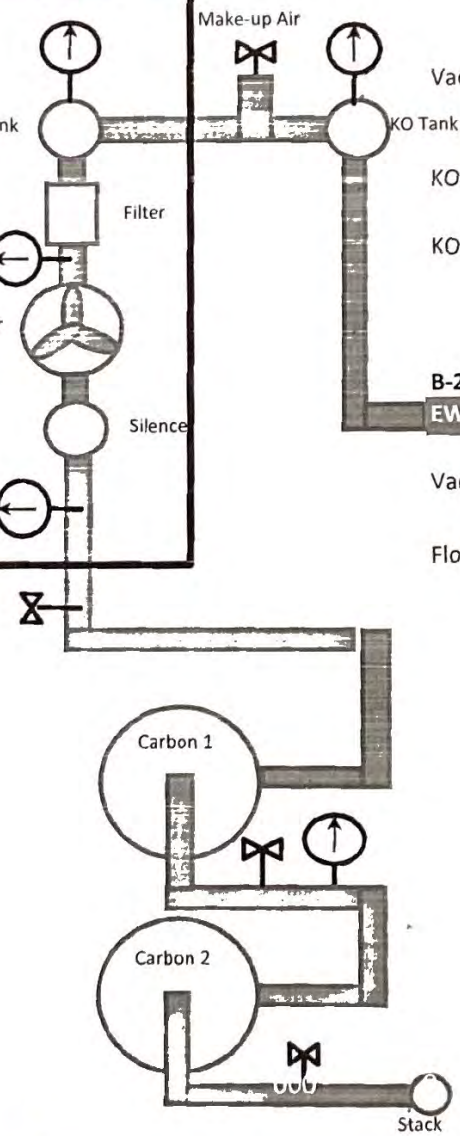
Inspector ES/KS

Control Panel

Flow (cfm)	23
Temp (°F)	113
Run Time (hours)	8 3490.80
VFD Speed (%)	100
Alarms?	None

System Enclosure

Vacuum ("H_2O)	-27
KO Level (inches)	0
Vacuum ("H_2O)	-33
Pressure ("H_2O)	3
PID (ppm)	—
PID (ppm)	—
Pressure ("H_2O)	—
PID (ppm)	—



Vacuum ("H_2O)	-20
KO Level (inches)	0
KO Total (Gallons)	2771

B-21 Extraction Well
EW-1

Vacuum ("H_2O)	-26
Flow (cfm)	11.7

* Carbon Bypassed

Operation and Maintenance Checklist
Building 20/25 SSDS
Watervliet Arsenal
Watervliet, New York

Date 5/10/21

Inspector ES/KS

Building 25 System	Control Panel Room	Building 20 System
offline	Flow (cfm)	222
	Pressure ("H_2O)	2
	Temp (°F)	116
85199.70	Run Time (hours)	84487.90
—	VFD Speed (%)	93
—	Alarms?	Blower Influent Low

B-25 Extraction Wells

EW-1	
Vacuum	—
Flow	—
EW-2	
Vacuum	—
Flow	—
EW-3	
Vacuum	—
Flow	—
EW-4	
Vacuum	—
Flow	—

Mechanical Room

—	Vacuum ("H_2O)	-48
0	KO Level (inches)	0
—	Vacuum ("H_2O)	-52
—	Vacuum ("H_2O)	<-100
—	Pressure ("H_2O)	8
—	Temp °F	112
—	PID (ppm)	—

KO Tank, Filter, Blower, Silencer

B-20 Extraction Wells

EW-1	
Vacuum	-46
Flow	92.8
EW-2	
Vacuum	-46
Flow	45.9
EW-3	
Vacuum	-44
Flow	55.2

Flow (cfm) —

"H_2O —

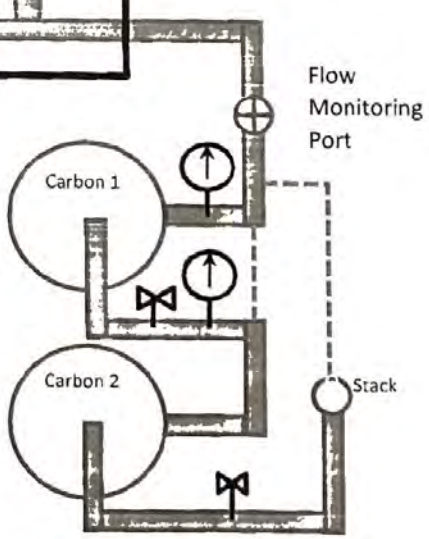
* B25 ~~Blow~~ offline ⇒ Needs Repairs

PID (ppm) —

"H_2O —

* Carbon Bypassed

PID (ppm) —



Notes:

Operation and Maintenance Checklist
Building 114 SSDS
Watervliet Arsenal
Watervliet, New York

Date 5/10/21

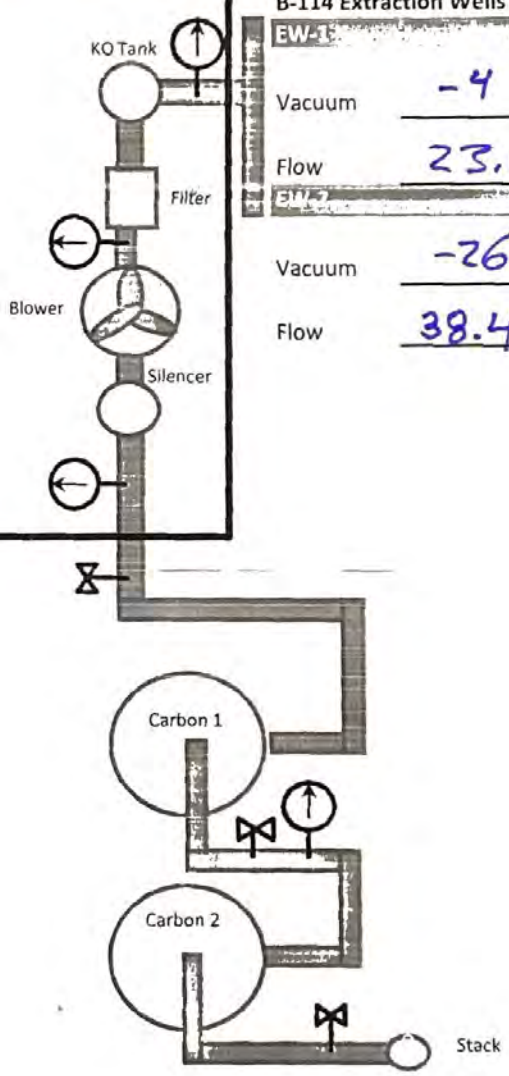
Inspector ES/KS

Control Panel

Flow (cfm)	58
Temp (°F)	108
Run Time (hours)	82593.10
VFD Speed (%)	96.6
Alarms?	None

System Enclosure

Vacuum ("H_2O)	-22
KO Level (inches)	0
Vacuum ("H_2O)	-36
Pressure ("H_2O)	4
PID (ppm)	—
PID (ppm)	—
Pressure ("H_2O)	2
PID (ppm)	—



B-114 Extraction Wells

EW-1	
Vacuum	-4
Flow	23.1
EW-2	
Vacuum	-26
Flow	38.4

Notes: _____

C:\Users\Esousa\Documents\WVA\OMM Field Forms\Copy of SSDS OM Checklists

Operation and Maintenance Checklist
Building 40 AFUs
Watervliet Arsenal
Watervliet, New York

Date 6/11/21

Inspector ES

AFU	AFU Location	System Data				Notes
		ΔP	RPF	RAF	FF	
1	South Conference Room	4.9	0.06	0.07	0.56	All Filters OK
2	East Body Forge	5.5	0.10	0.07	0.50	RAFs Rotated to RPFs, RAFs New
3	West Body Forge	5.7	0.08	0.12	0.70	↓
4	West Turret Lab	6.7	0.08	0.07	0.40	↑
5	East Turret Lab	5.8	0.08	0.06	0.57	
6	North Mechanical Closet	4.5	0.09	0.06	0.70	All Filters OK
7	South Mechanical Closet	4.8	0.04	0.06	0.40	↓
8	South Mechanical Closet	4.5	0.10	0.07	0.59	

* Need to order more final filters

ΔP - Differential Pressure
RPF - Roughing Pre-filter
RAF - Roughing After Filter
FF - Final Filter

Operation and Maintenance Checklist
Type "C" SSDSs
Watervliet Arsenal
Watervliet, New York

Date 6/11/21

Inspector ES

Building	Extraction Well	Extraction Well Location	Room	System On?	Vacuum ("H_2O)	Flow (cfm)
22	EW-1	Basement, east side of building	Storage Area	Yes	-2.2	16.20
		Notes:				
22	EW-2	Main floor, west side of building	Truck Bay	Yes	-1.9	62.10
		Notes: * No Condensate Present				
120	EW-1	Main floor, south end of wood shop	Wood Shop	Yes	-13.5	7.61
	EW-2	Main floor, north end of wood shop	Wood Shop		-14	20.10
		Notes:				
121	EW-1	Main floor, southeast corner of building	Lab	Yes	-1.6	47.8
		Notes:				
130	EW-1	Main floor, northeast corner of building	Storage Area	Yes	-2.0	45.9
		Notes: Outdoor Outlet Cover Replaced → Previous Cover Damaged				

Operation and Maintenance Checklist
Building 21 SSDS
Watervliet Arsenal
Watervliet, New York

Date 6/11/21

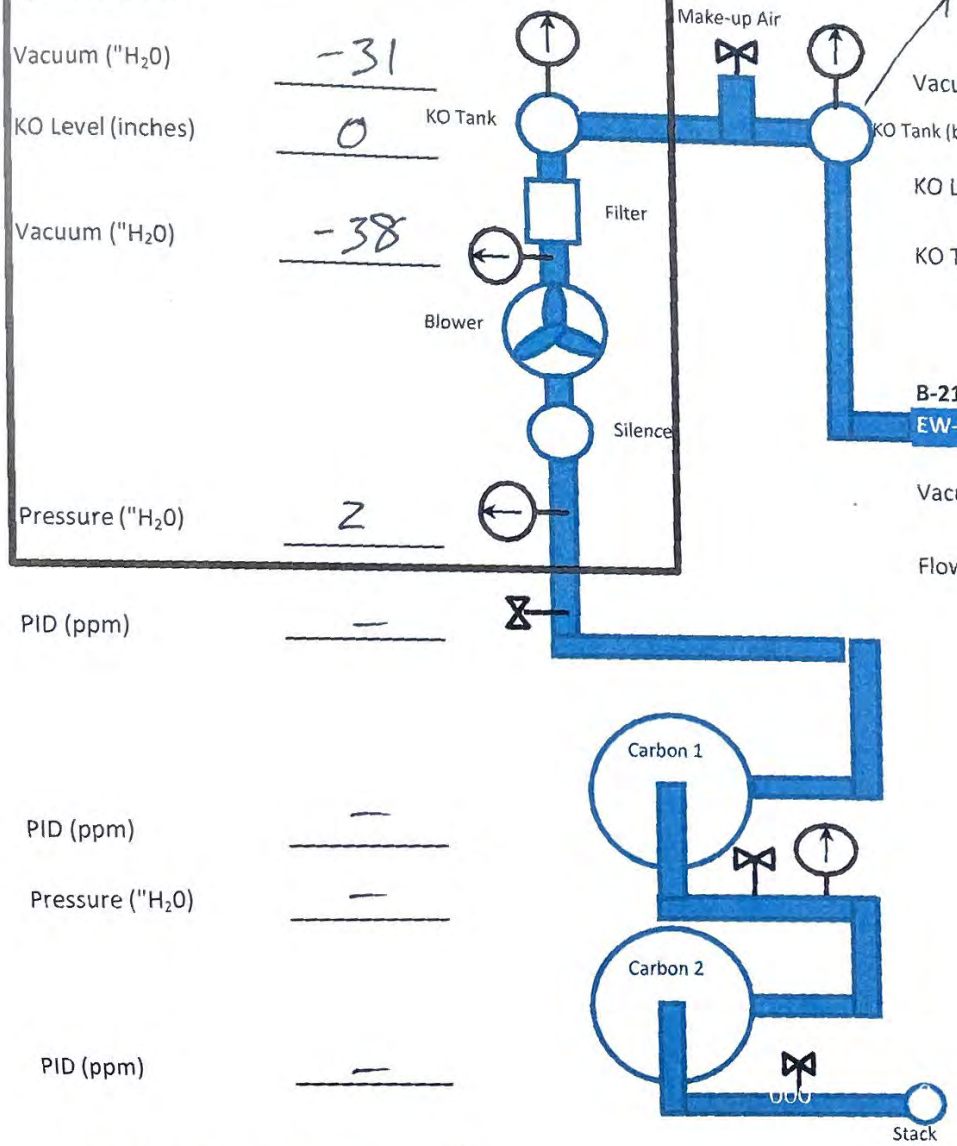
Inspector ES

Control Panel

Flow (cfm)	34
Temp (°F)	95
Run Time (hours)	84204.40
VFD Speed (%)	90
Alarms?	None

System Enclosure

Vacuum ("H_2O)	-31
KO Level (inches)	0
Vacuum ("H_2O)	-38
Pressure ("H_2O)	2
PID (ppm)	—
PID (ppm)	—
Pressure ("H_2O)	—
PID (ppm)	—



* Air Filter @ Dilution Valve in Basement Replaced
↳ extras stored @ B20135

* KO Tank needs replacement

Vacuum ("H_2O)	-26
KO Tank (basement)	
KO Level (inches)	0
KO Total (Gallons)	2771

B-21 Extraction Well
EW-1

Vacuum ("H_2O)	-30
Flow (cfm)	9,82

* Carbon Bypassed

Operation and Maintenance Checklist
Building 20/25 SSDS
Watervliet Arsenal
Watervliet, New York

Date 6/11/21

Inspector ES

Building 25 System	Control Panel Room	Building 20 System
416	Flow (cfm)	292
	Pressure ("H_2O) 8	
	Temp (°F) 119	
85553.90	Run Time (hours)	85193.20
55 Hz	VFD Speed (%)	50 Hz
None	Alarms?	None

B-25 Extraction Wells

EW-1
Vacuum <-60
Flow 156.5

EW-2
Vacuum -36
Flow 146

EW-3
Vacuum -41
Flow 34.8

EW-4
Vacuum -42
Flow 60.6

Mechanical Room

-46	Vacuum ("H_2O)	-78
0	KO Level (inches)	0
-57	Vacuum ("H_2O)	-80
-57	Vacuum ("H_2O)	<-100
11	Pressure ("H_2O)	9
118	Temp °F	131
—	PID (ppm)	—

KO Tank, Filter, Blower, Silencer

B-20 Extraction Wells

EW-1
Vacuum -75
Flow 134.5

EW-2
Vacuum -73
Flow 71.2

EW-3
Vacuum -72
Flow 81.6

Flow (cfm) —
"H_2O —
PID (ppm) —
"H_2O —
PID (ppm) —

Flow Monitoring Port
Carbon 1
Carbon 2
Stack

Notes: * Curbon By passed

Operation and Maintenance Checklist
Building 114 SSDS
Watervliet Arsenal
Watervliet, New York

Date 6/11/21

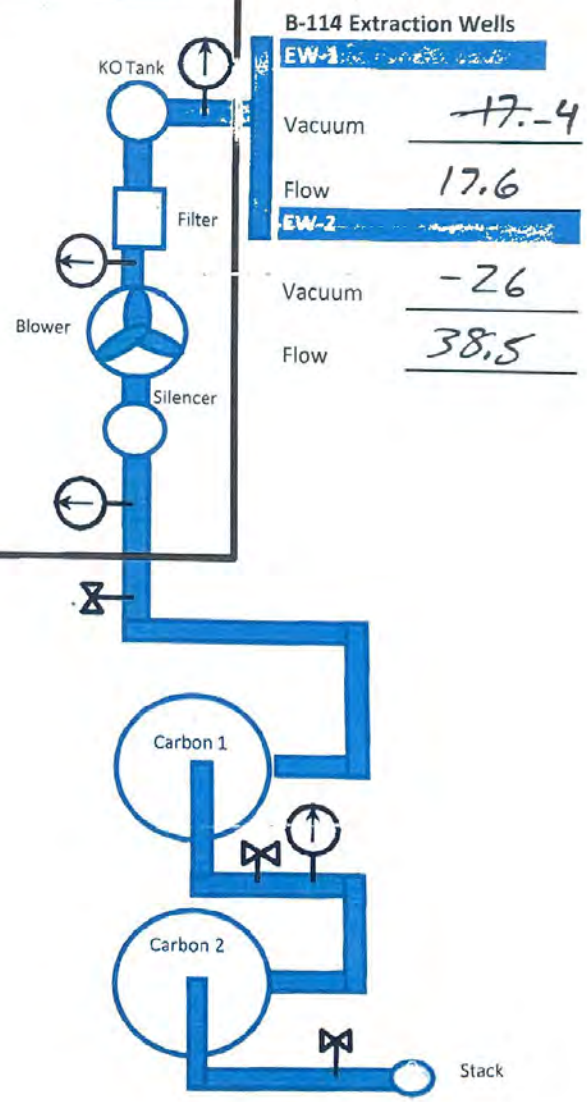
Inspector ES

Control Panel

Flow (cfm)	59
Temp (°F)	103
Run Time (hours)	83287.00
VFD Speed (%)	96.5
Alarms?	None

System Enclosure

Vacuum ("H_2O)	-22.5
KO Level (inches)	0
Vacuum ("H_2O)	-36
Pressure ("H_2O)	5
PID (ppm)	—
PID (ppm)	—
Pressure ("H_2O)	2
PID (ppm)	—



B-114 Extraction Wells

EW-1	
Vacuum	-17.4
Flow	17.6
EW-2	
Vacuum	-26
Flow	38.5

Notes:

ARCADIS

Control Number: TGM - _____

TGM + *project number plus date as follows: xxxxxxxx.xxxx.xxxxx - dd/mm/year*

TAILGATE HEALTH & SAFETY MEETING FORM

Project Name: WVA			Project Location: Watervliet, NY
Date: 6/11/21	Time: 0830	Conducted by: ES	Signature/Title: ESR Field Tech

Issues or concerns from previous day's activities:

Task anticipated to be performed today:

☐ Additonal permits or checklists attached

USE TRACK! Evaluate the hazards (h) for the tasks being performed today and rank as Low (L), Medium (M) or High (H). Use relevant JLAs, FHSHB, permit or other work standard to communicate controls (c) to be used to eliminate or mitigate identified hazards.

☒ Gravity (i.e., ladder, scaffold, (trips)) (L M H) h: c:	☒ Motion (i.e., (traffic), moving water) (L M H) h: c:	☒ Mechanical (i.e., augers, (motors)) (L M H) h: c:
☐ Electrical (i.e., utilities, lightning) (L M H) h: c:	☐ Pressure (i.e., gas cyl., wells) (L M H) h: c:	☒ Environment (i.e., (heat), cold, ice) (L M H) h: c:
☐ Chemical (i.e., fuel, acid, paint) (L M H) h: c:	☐ Biological (i.e., ticks, poison ivy) (L M H) h: c:	☐ Radiation (i.e., alpha, sun, laser) (L M H) h: c:
☒ Sound (i.e., (machinery)) (L (M) H) h: c:	☒ Personal (i.e. (alone), night) (L M H) h: c:	☒ Driving (i.e. (car), ATV, boat, dozer) (L M H) h: c:

☐ Refer to the attached Hazard Analysis Sheet(s) or JSA

Comments:

Signature and Certification: I have read and understand the project specific HASP for this project.

Printed Name/Signature/Company	Sign In Time	Sign Out Time
E. Sosa ESR ARCADIS	0830	

I will STOP the job any time anyone is concerned or uncertain about health & safety or if anyone identifies a hazard or additional mitigation not recorded in the site, project, job or task hazard assessment.

I will be alert to any changes in personnel, conditions at the work site or hazards not covered by the original hazard assessments.

If it is necessary to **STOP THE JOB,** I will perform **TRACK**; and then amend the hazard assessments or the HASP as needed.

I will not assist a subcontractor or other party with their work unless it is absolutely necessary and then only after I have done TRACK and I have thoroughly controlled the hazard.

All site staff should arrive fit for work. If not, they should report to the supervisor any restrictions or concerns.

In the event of an injury, employees will call **WorkCare at 1.800.455.6155** and then notify the field supervisor.

Utility strike, motor vehicle accident or 3rd party protperty damage - field supervisor will immediately notify the Project or Task Manager

Place any additional signatures on the back of this form.

Operation and Maintenance Checklist
Building 40 AFUs
Watervliet Arsenal
Watervliet, New York

Date 7/19/21

Inspector ES

AFU	AFU Location	System Data				Notes
		ΔP	RPF	RAF	FF	
1	South Conference Room	4.9	0.08	0.08	0.49	RAFs Rotated to RPFs, RAFs New
2	East Body Forge	5.6	0.12	0.06	0.45	↓
3	West Body Forge	5.6	0.10	0.08	0.72	
4	West Turret Lab	6.7	0.11	0.07	0.40	↑
5	East Turret Lab	6.0	0.11	0.04	0.49	
6	North Mechanical Closet	4.5	0.09	0.05	0.65	All Filters OK
7	South Mechanical Closet	4.8	0.06	0.07	0.39	RAFs Rotated to RPFs, RAFs New
8	South Mechanical Closet	4.5	0.09	0.06	0.55	↓

ΔP - Differential Pressure
RPF - Roughing Pre-filter
RAF - Roughing After Filter
FF - Final Filter

Operation and Maintenance Checklist
Type "C" SSDSs
Watervliet Arsenal
Watervliet, New York

Date 7/19/21

Inspector ES

Building	Extraction Well	Extraction Well Location	Room	System On?	Vacuum ("H_2O)	Flow (cfm)
22	EW-1	Basement, east side of building	Storage Area	Yes	-2.6	14.95
		Notes:				
22	EW-2	Main floor, west side of building	Truck Bay	Yes	-2	53.2
		Notes: No Condensate in Drain				
120	EW-1	Main floor, south end of wood shop	Wood Shop	Yes	-15	5.25
	EW-2	Main floor, north end of wood shop	Wood Shop		-13.5	19.70
		Notes:				
121	EW-1	Main floor, southeast corner of building	Lab	Yes	-1.6	48.3
		Notes:				
130	EW-1	Main floor, northeast corner of building	Storage Area	Yes	-2	46.3
		Notes:				

Operation and Maintenance Checklist
Building 20/25 SSDS
Watervliet Arsenal
Watervliet, New York

Date 7/19/21

Inspector ES

Building 25 System	Control Panel Room	Building 20 System
406	Flow (cfm)	289
	Pressure ("H_2O) 7	
	Temp (°F) 119	
86411.60	Run Time (hours)	86050.80
55 HZ	VFD Speed (%)	83.4%/50 HZ
None	Alarms?	None

B-25 Extraction Wells

EW-1
Vacuum -60
Flow 165.5

EW-2
Vacuum -36
Flow 143

EW-3
Vacuum -44
Flow 26.5

EW-4
Vacuum -46
Flow 56.8

Mechanical Room

-48	Vacuum ("H_2O)	-78
0	KO Level (inches)	0
-59	Vacuum ("H_2O)	-82
-62	Vacuum ("H_2O)	<-100
11	Pressure ("H_2O)	10
120	Temp °F	132
-	PID (ppm)	-

KO Tank, Filter, Blower, Silencer

B-20 Extraction Wells

EW-1
Vacuum -76
Flow 136.5

EW-2
Vacuum -74
Flow 71.5

EW-3
Vacuum -73
Flow 86

Flow (cfm) -
"H_2O -
PID (ppm) -
"H_2O -
PID (ppm) -

Flow Monitoring Port
Carbon 1
Carbon 2
Stack

Notes: *Carbon Bypassed

Operation and Maintenance Checklist
Building 21 SSDS
Watervliet Arsenal
Watervliet, New York

Date 7/19/21

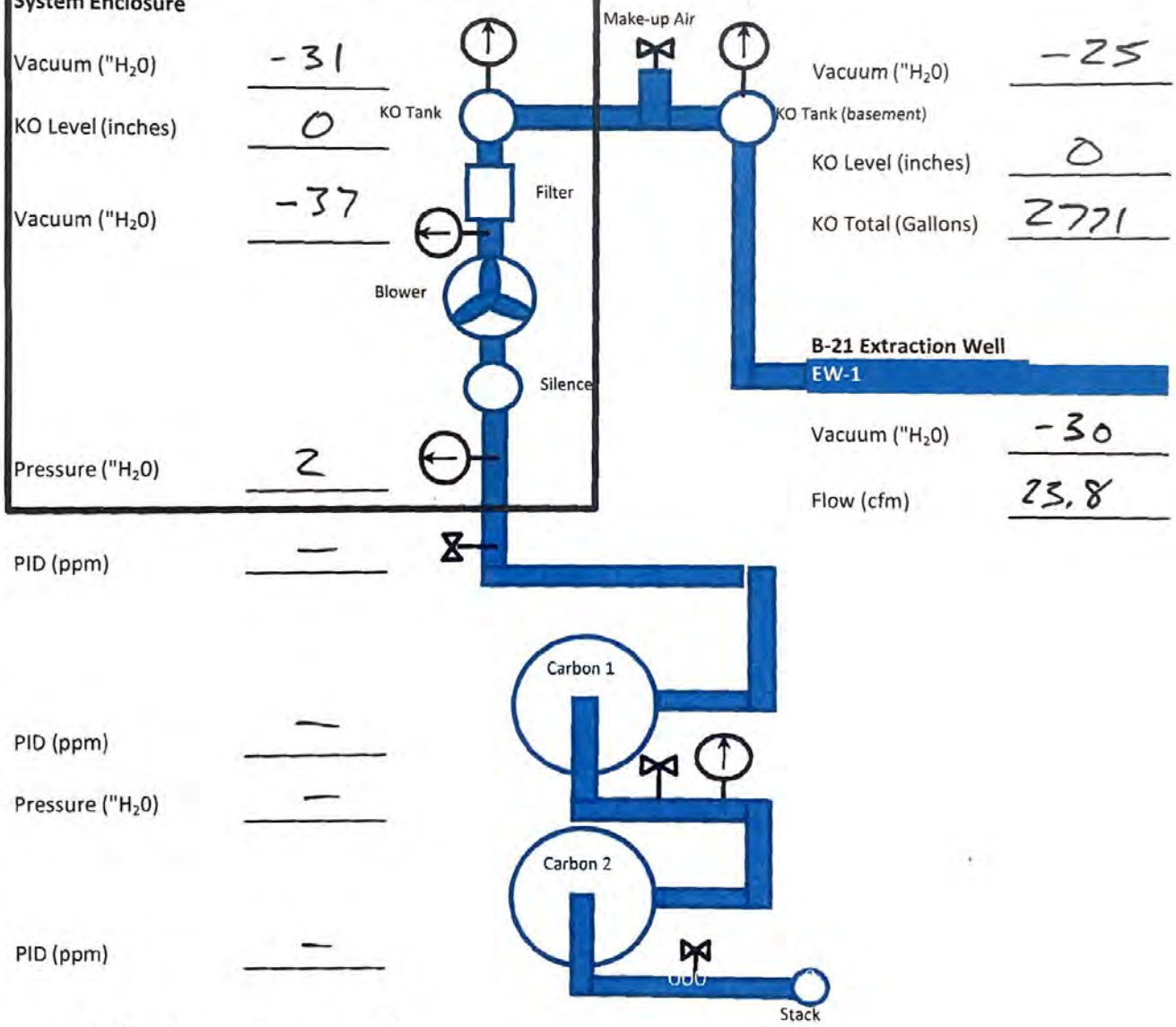
Inspector ES

Control Panel

Flow (cfm)	33
Temp (°F)	102
Run Time (hours)	85060.50
VFD Speed (%)	90
Alarms?	None

System Enclosure

Vacuum ("H_2O)	-31
KO Level (inches)	0
Vacuum ("H_2O)	-37
Pressure ("H_2O)	2
PID (ppm)	—
PID (ppm)	—
Pressure ("H_2O)	—
PID (ppm)	—



Vacuum ("H_2O)	-25
KO Level (inches)	0
KO Total (Gallons)	2771

B-21 Extraction Well
EW-1

Vacuum ("H_2O)	-30
Flow (cfm)	23.8

*Carbon Bypassed

Operation and Maintenance Checklist
Building 114 SSDS
Watervliet Arsenal
Watervliet, New York

Date 7/19/21

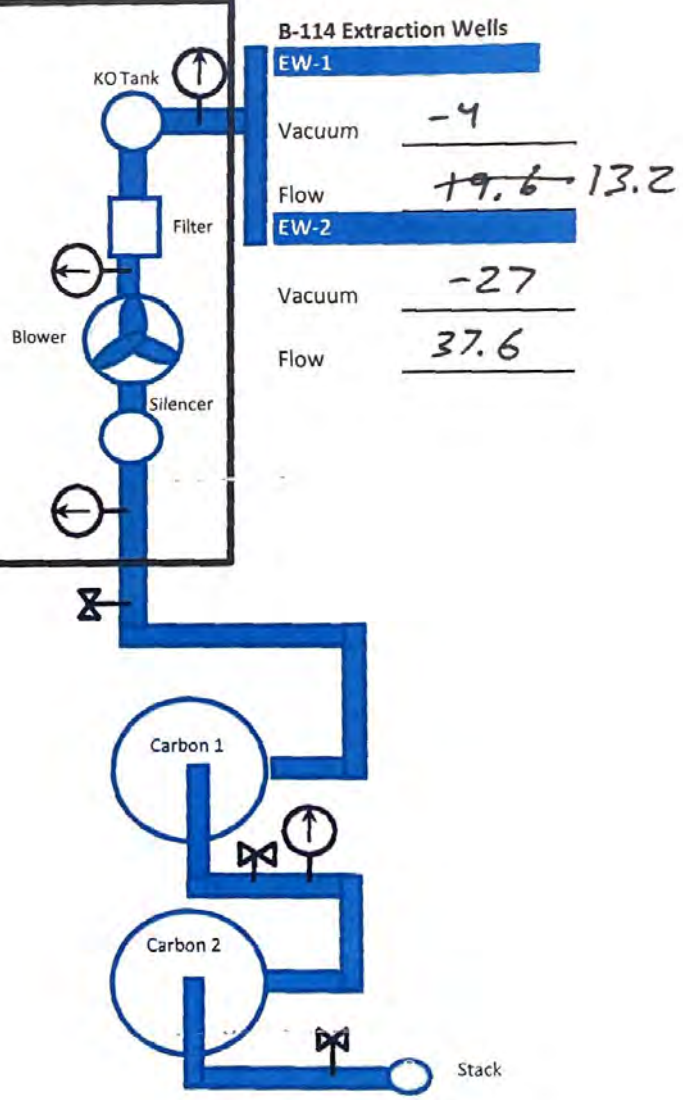
Inspector ES

Control Panel

Flow (cfm)	57
Temp (°F)	105
Run Time (hours)	84133.70
VFD Speed (%)	96.5
Alarms?	None

System Enclosure

Vacuum ("H_2O)	-22
KO Level (inches)	0
Vacuum ("H_2O)	-36
Pressure ("H_2O)	4
PID (ppm)	—
PID (ppm)	—
Pressure ("H_2O)	2
PID (ppm)	—



Notes: _____

_____

Control Number: TSM- 30001988.0001E

TSM + project number plus date as follows xxxxxxxx xxxx xxxxx - dd/mm/year

ARCADIS

TAILGATE HEALTH & SAFETY MEETING FORM

Project Name: WVA			**Project Location:** Watervliet, NY
Date: 7/19/21	**Time:** 0900	**Conducted by:** ES	**Signature/Title:** Field Tech

Issues or concerns from previous day's activities:

Task anticipated to be performed today: Monthly OMM

☐ Additional permits/checklists attached

USE TRACK! Evaluate the hazards (h) for the tasks being performed today and rank as Low (L), Medium (M) or High (H). Use relevant JSAs, FHSHB, permit or other work standard to communicate controls (c) to be used to eliminate or mitigate identified hazards.

☒ Gravity (i.e., ladder, scaffold, (trips)) (L M H) h: c:	☒ Motion (i.e., (traffic), moving water) (L M H) h: c:	☒ Mechanical (i.e., augers, (motors)) (L M H) h: c:
☐ Electrical (i.e., utilities, lightning) (L M H) h: c:	☐ Pressure (i.e., gas cyl., wells) (L M H) h: c:	☒ Environment (i.e., (heat), cold, ice) (L M H) h: c:
☐ Chemical (i.e., fuel, acid, paint) (L M H) h: c:	☐ Biological (i.e., ticks, poison ivy) (L M H) h: c:	☐ Radiation (i.e., alpha, sun, laser) (L M H) h: c:
☒ Sound (i.e., (machinery)) (L (M) H) h: c:	☒ Personal (i.e., alone, (night)) (L M H) h: c:	☒ Driving (i.e., (car), ATV, boat, dozer) (L M H) h: c:

Comments:

☐ Refer to the attached Hazard Analysis Sheet(s) or JSA

Signature and Certification: I have read and understand the project specific HASP for this project.

Printed Name/Signature/Company	Sign In Time	Sign Out Time
E. Sousa ECL ARCADIS	0900	

I will STOP the job any time anyone is concerned or uncertain about health & safety or if anyone identifies a hazard or additional mitigation not recorded in the site, project, job or task hazard assessment.

I will be alert to any changes in personnel, conditions at the work site or hazards not covered by the original hazard assessments.

If it is necessary to **STOP THE JOB,** I will perform **TRACK**; and then amend the hazard assessments or the HASP as needed.

I will not assist a subcontractor or other party with their work unless it is absolutely necessary and then only after I have done TRACK and I have thoroughly controlled the hazard.

All site staff should arrive fit for work. If not, they should report to the supervisor any restrictions or concerns.

In the event of an injury, employees will call **WorkCare at 1.888.449.7787** and then notify the field supervisor.

Utility strike, motor vehicle accident or 3rd party property damage - field supervisor will immediately notify the Project or Task Manager

Operation and Maintenance Checklist
Building 40 AFUs
Watervliet Arsenal
Watervliet, New York

Date 8/17/21

Inspector ES

AFU	AFU Location	System Data				Notes
		Δ P	RPF	RAF	FF	
1	South Conference Room	4.9	0.08	0.07	0.50	All Filters OK
2	East Body Forge	5.6	0.10	0.08	0.41	RAFs Rotated to RPFs, RAFs New
3	West Body Forge	5.7	0.10	0.09	0.73	↓
4	West Turret Lab	6.6	0.10	0.07	0.40	↑
5	East Turret Lab	6.0	0.11	0.05	0.50	
6	North Mechanical Closet	4.5	0.09	0.05	0.65	All Filters OK
7	South Mechanical Closet	4.9	0.06	0.07	0.39	↓
8	South Mechanical Closet	4.5	0.08	0.06	0.53	

Δ P - Differential Pressure
RPF - Roughing Pre-filter
RAF - Roughing After Filter
FF - Final Filter

Operation and Maintenance Checklist
Type "C" SSDSs
Watervliet Arsenal
Watervliet, New York

Date 8/17/21

Inspector ES

Building	Extraction Well	Extraction Well Location	Room	System On?	Vacuum ("H_2O)	Flow (cfm)
22	EW-1	Basement, east side of building	Storage Area	Yes	-2.2	17.0
		Notes:				
22	EW-2	Main floor, west side of building	Truck Bay	Yes	-2.0	45.70
		Notes: No Condensate in Drain				
120	EW-1	Main floor, south end of wood shop	Wood Shop	Yes	-15	4.52
	EW-2	Main floor, north end of wood shop	Wood Shop		-15.5	17.40
		Notes:				
121	EW-1	Main floor, southeast corner of building	Lab	Yes	-1.6	48.0
		Notes:				
130	EW-1	Main floor, northeast corner of building	Storage Area	Yes	-2.0	45.1
		Notes:				

Operation and Maintenance Checklist
Building 114 SSDS
Watervliet Arsenal
Watervliet, New York

Date 8/17/21

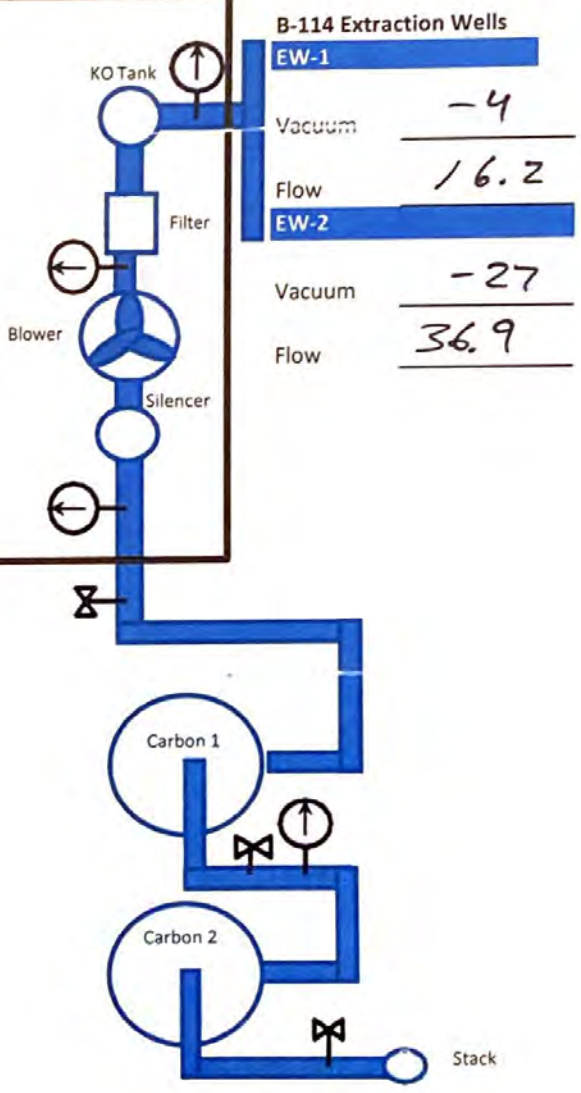
Inspector ES

Control Panel

Flow (cfm)	57
Temp (°F)	107
Run Time (hours)	84775.40
VFD Speed (%)	96.5
Alarms?	None

System Enclosure

Vacuum ("H_2O)	-23
KO Level (inches)	0
Vacuum ("H_2O)	-37
Pressure ("H_2O)	4
PID (ppm)	—
PID (ppm)	—
Pressure ("H_2O)	2
PID (ppm)	—



Notes: _____

C:\Users\Esousa\Documents\WVA\OMM Field Forms\Copy of SSDS OM Checklists

Operation and Maintenance Checklist
Building 21 SSDS
Watervliet Arsenal
Watervliet, New York

Date 8/17/21

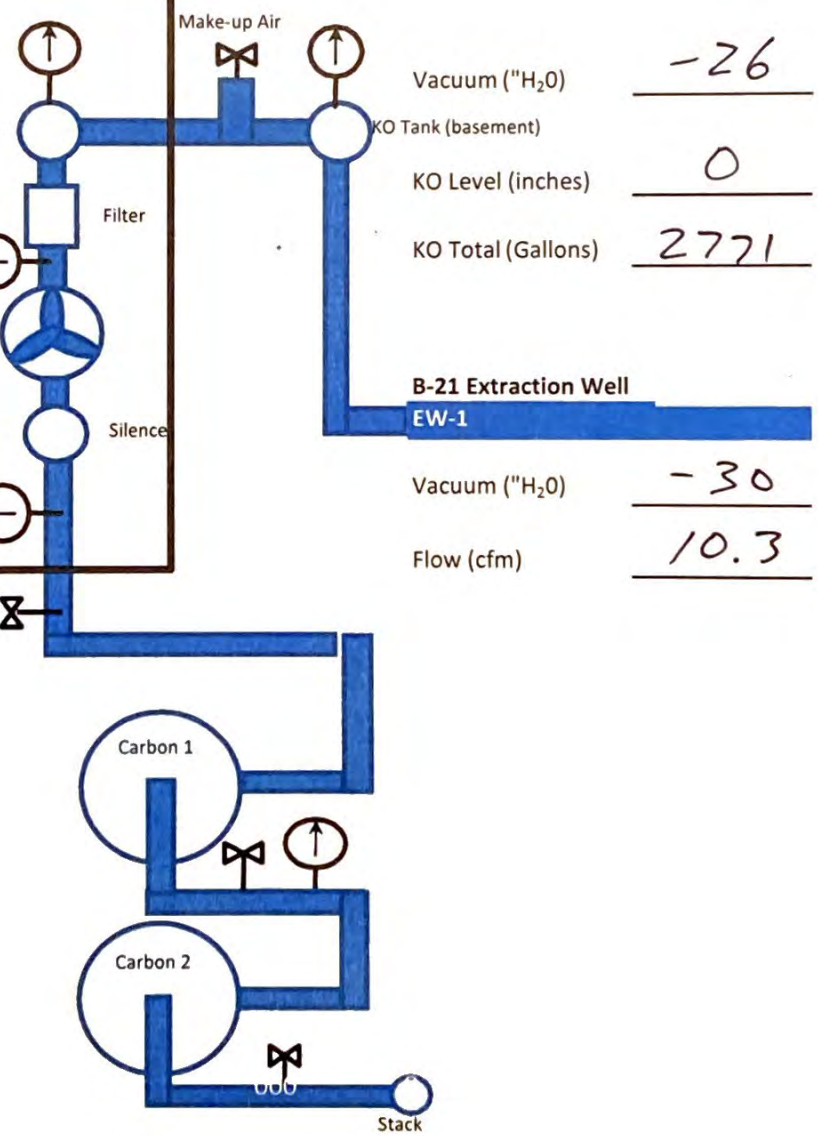
Inspector ES

Control Panel

Flow (cfm)	34
Temp (°F)	105
Run Time (hours)	85712.70
VFD Speed (%)	90
Alarms?	None

System Enclosure

Vacuum ("H_2O)	-31
KO Level (inches)	0
Vacuum ("H_2O)	-38
Pressure ("H_2O)	2
PID (ppm)	—
PID (ppm)	—
Pressure ("H_2O)	—
PID (ppm)	—



Vacuum ("H_2O)	-26
KO Level (inches)	0
KO Total (Gallons)	2771

B-21 Extraction Well
EW-1

Vacuum ("H_2O)	-30
Flow (cfm)	10.3

* Carbon Bypassed

Operation and Maintenance Checklist
Building 20/25 SSDS
Watervliet Arsenal
Watervliet, New York

Date 8/17/21

Inspector ES

Building 25 System	Control Panel Room	Building 20 System
406	Flow (cfm)	292
	Pressure ("H_2O) 7	
	Temp (°F) 123	
87056.40	Run Time (hours)	86695.60
55 HZ	VFD Speed (%)	50 HZ
None	Alarms?	Blower Influent Low

B-25 Extraction Wells

EW-1	
Vacuum	<-60
Flow	165.5
EW-2	
Vacuum	-36
Flow	222
EW-3	
Vacuum	-46
Flow	24.3
EW-4	
Vacuum	-47
Flow	49.0

Mechanical Room

	Vacuum ("H_2O)	
-50		-78
0	KO Level (inches)	0
-59	Vacuum ("H_2O)	-82
-65	Vacuum ("H_2O)	<-100
10	Pressure ("H_2O)	9
122	Temp °F	132
—	PID (ppm)	—

KO Tank, Filter, Blower, Silencer

B-20 Extraction Wells

EW-1	
Vacuum	-76
Flow	130
EW-2	
Vacuum	-74
Flow	78.7
EW-3	
Vacuum	-73
Flow	83.3

Flow (cfm) —

"H_2O —

PID (ppm) —

"H_2O —

PID (ppm) —

Flow Monitoring Port

Carbon 1

Carbon 2

Stack

Notes: * Carbon Bypassed

ARCADIS

Control Number:TGM - 30001988

TGM + *project number plus date as follows: xxxxxxxx.xxxx.xxxxx - dd/mm/year*

TAILGATE HEALTH & SAFETY MEETING FORM

Project Name: WUA			**Project Location:** Watervliet, NY
Date: 8/17/21	**Time:** 0900	**Conducted by:** ES	**Signature/Title:** Field Tech

Issues or concerns from previous day's activities:

Task anticipated to be performed today: Monthly O+M

☐ Additonal permits or checklists attached

USE TRACK! Evaluate the hazards (h) for the tasks being performed today and rank as Low (L), Medium (M) or High (H). Use relevant JLAs, FHSHB, permit or other work standard to communicate controls (c) to be used to eliminate or mitigate identified hazards.

☒ Gravity (i.e., ladder, scaffold, (trips)) (L) M H) h: c:	☒ Motion (i.e., traffic, moving water) (L) M H) h: c:	☒ Mechanical (i.e., augers, motors) (L) M H) h: c:
☒ Electrical (i.e., ~~utilities~~, lightning) (L) M H) h: c:	☐ Pressure (i.e., gas cyl., wells) (L M H) h: c:	☒ Environment (i.e. (heat) cold, ice) (L) M H) h: c:
☐ Chemical (i.e., fuel, acid, paint) (L M H) h: c:	☐ Biological (i.e., ticks, poison ivy) (L M H) h: c:	☐ Radiation (i.e., alpha, sun, laser) (L M H) h: c:
☒ Sound (i.e., machinery) (L (M) H) h: c:	☒ Personal (i.e. alone, night) (L) M H) h: c:	☒ Driving (i.e. car, ATV, boat, dozer) (L) M H) h: c:

☐ Refer to the attached Hazard Analysis Sheet(s) or JSA

Comments:

Signature and Certification: I have read and understand the project specific HASP for this project.

Printed Name/Signature/Company	Sign In Time	Sign Out Time
E. Sousa ESC ARCADIS	0900	

I will STOP the job any time anyone is concerned or uncertain about health & safety or if anyone identifies a hazard or additional mitigation not recorded in the site, project, job or task hazard assessment.

I will be alert to any changes in personnel, conditions at the work site or hazards not covered by the original hazard assessments.

If it is necessary to **STOP THE JOB,** I will perform **TRACK**; and then amend the hazard assessments or the HASP as needed.

I will not assist a subcontractor or other party with their work unless it is absolutely necessary and then only after I have done TRACK and I have thoroughly controlled the hazard.

All site staff should arrive fit for work. If not, they should report to the supervisor any restrictions or concerns.

In the event of an injury, employees will call **WorkCare at 1.800.455.6155** and then notify the field supervisor.

Utility strike, motor vehicle accident or 3rd party protperty damage - field supervisor will immediately notify the Project or Task Manager

Place any additional signatures on the back of this form.

Operation and Maintenance Checklist
Building 40 AFUs
Watervliet Arsenal
Watervliet, New York

Date 9/14/21

Inspector ES

AFU	AFU Location	System Data				Notes
		Δ P	RPF	RAF	FF	
1	South Conference Room	5.0	0.08	0.08	0.52	All Filters OK
2	East Body Forge	5.8	0.10	0.06	0.41	↑
3	West Body Forge	5.6	0.08	0.08	0.74	RAFs Rotated to RPFs, RAFs New, FF New
4	West Turret Lab	6.7	0.10	0.10	0.39	↓
5	East Turret Lab	5.8	0.10	0.04	0.45	
6	North Mechanical Closet	4.5	0.07	0.05	0.63	All Filters OK
7	South Mechanical Closet	4.9	0.06	0.06	0.38	↓
8	South Mechanical Closet	4.5	0.08	0.06	0.51	

Final Filters @ AFU-3 replaced FF → 0.37, after new filters

Δ P - Differential Pressure
RPF - Roughing Pre-filter
RAF - Roughing After Filter
FF - Final Filter

Operation and Maintenance Checklist
Type "C" SSDSs
Watervliet Arsenal
Watervliet, New York

Date 9/14/21

Inspector ES

Building	Extraction Well	Extraction Well Location	Room	System On?	Vacuum ("H_20)	Flow (cfm)
22	EW-1	Basement, east side of building	Storage Area	Yes	-2,6	15,2
		Notes:				
22	EW-2	Main floor, west side of building	Truck Bay	Yes	-2.0	50.2
		Notes: No Condensation in Drain				
120	EW-1	Main floor, south end of wood shop	Wood Shop	Yes	-13,5	8.39
	EW-2	Main floor, north end of wood shop	Wood Shop		-20,0	16.90
		Notes:				
121	EW-1	Main floor, southeast corner of building	Lab	Yes	-1.6	48.6
		Notes:				
130	EW-1	Main floor, northeast corner of building	Storage Area	Yes	-2.0	44.0
		Notes:				

Operation and Maintenance Checklist
Building 20/25 SSDS
Watervliet Arsenal
Watervliet, New York

Date 9/14/21

Inspector ES

Building 25 System	Control Panel Room	Building 20 System
~~55 HZ~~ 403	Flow (cfm)	292
	Pressure ("H_2O) 6	
	Temp (°F) 119	
8768610	Run Time (hours)	87325.40
55 HZ	VFD Speed (%)	50 HZ
None	Alarms?	None

B-25 Extraction Wells

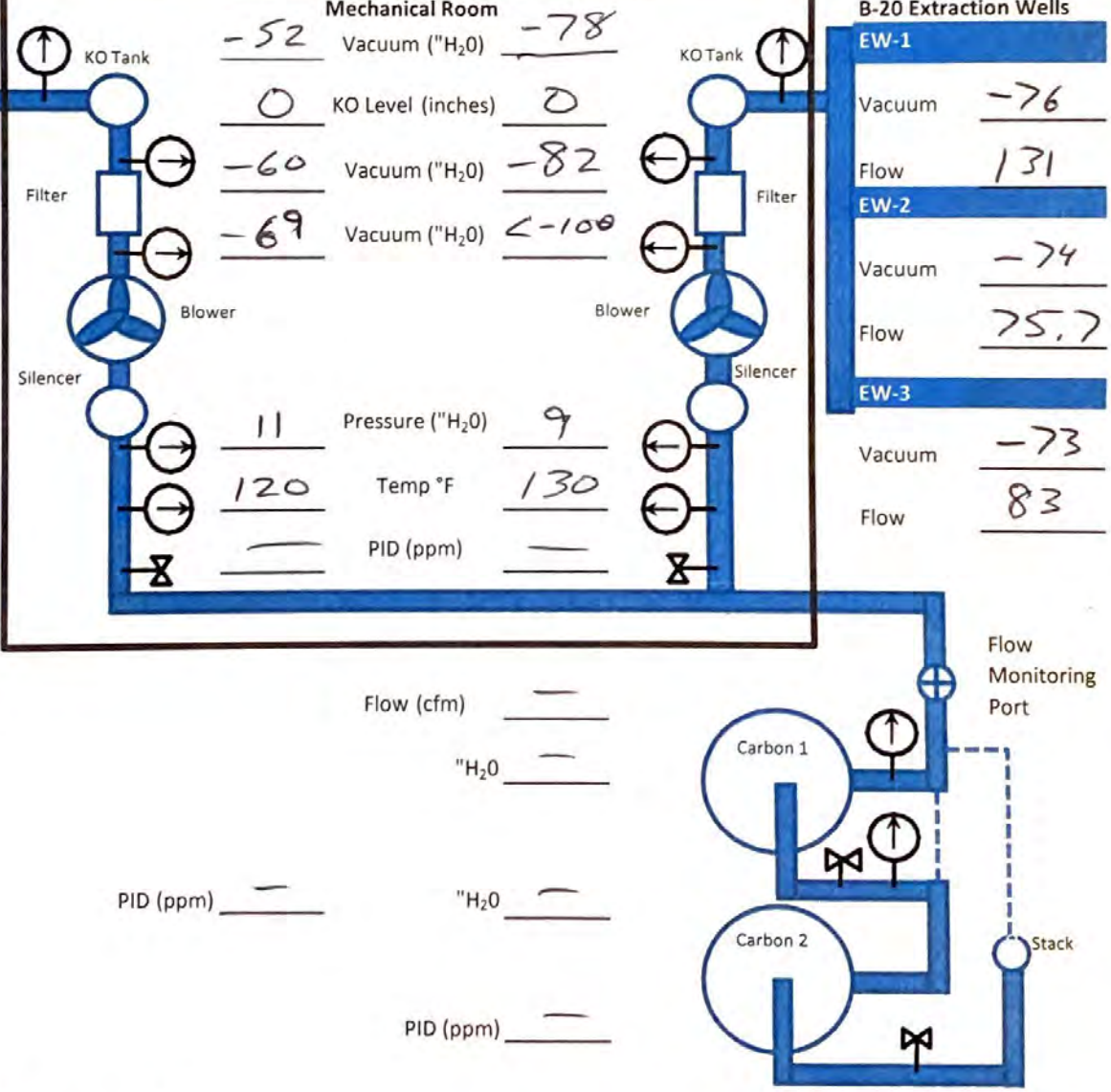
EW-1	
Vacuum	<-60
Flow	165
EW-2	
Vacuum	-36
Flow	178
EW-3	
Vacuum	-48
Flow	25.3
EW-4	
Vacuum	-50
Flow	44.5

Mechanical Room

	Vacuum ("H_2O)	
-52	KO Tank	-78
0	KO Level (inches)	0
-60	Vacuum ("H_2O)	-82
-69	Vacuum ("H_2O)	<-100
11	Pressure ("H_2O)	9
120	Temp °F	130
—	PID (ppm)	—

B-20 Extraction Wells

EW-1	
Vacuum	-76
Flow	131
EW-2	
Vacuum	-74
Flow	75.7
EW-3	
Vacuum	-73
Flow	83



Flow (cfm) —

"H_2O —

PID (ppm) —

"H_2O —

PID (ppm) —

Notes: * Carbon Bypassed

Operation and Maintenance Checklist
Building 21 SSDS
Watervliet Arsenal
Watervliet, New York

Date 9/14/21

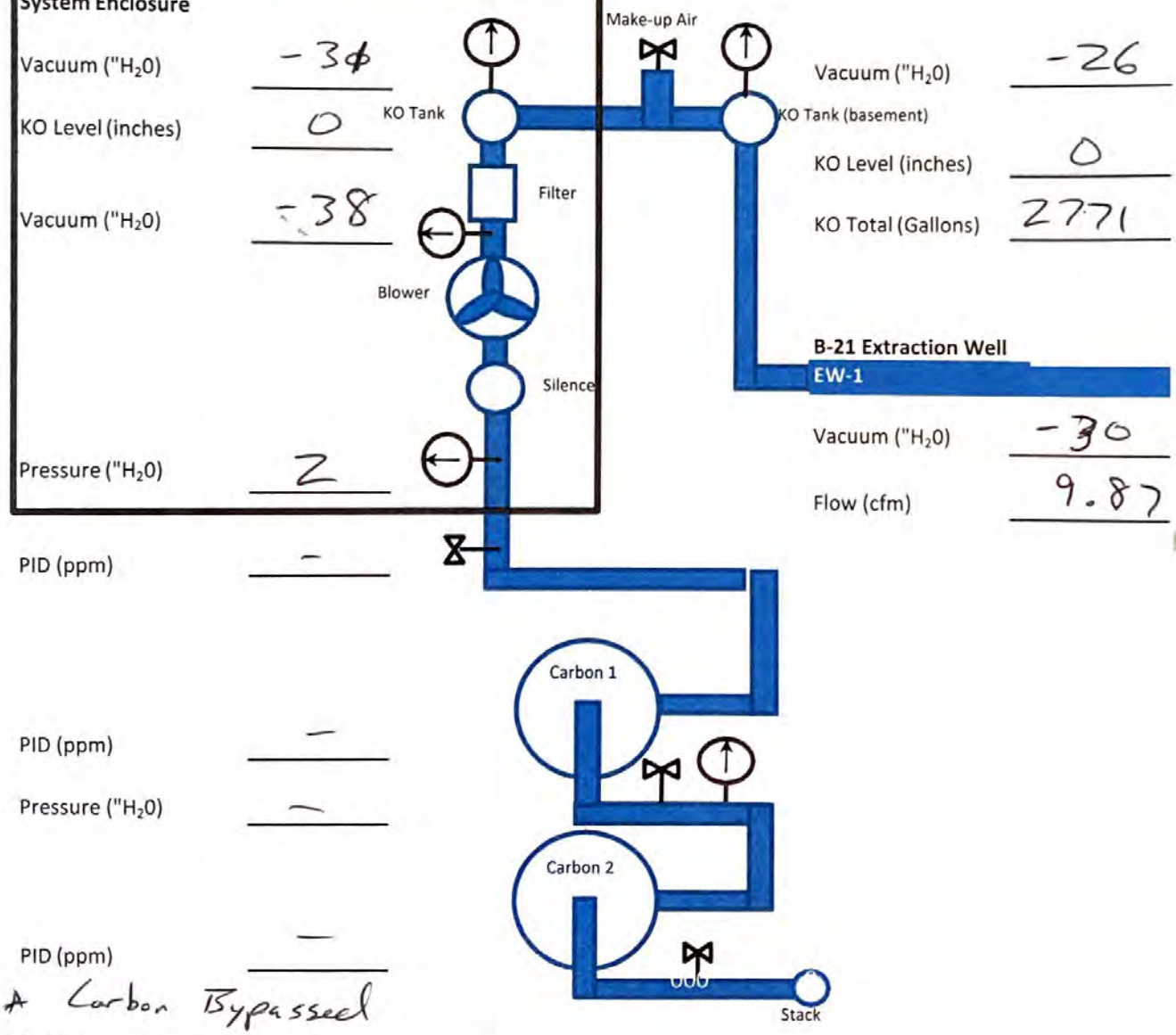
Inspector ES

Control Panel

Flow (cfm)	36
Temp (°F)	95
Run Time (hours)	86342.60
VFD Speed (%)	90
Alarms?	None

System Enclosure

Vacuum ("H_2O)	-34
KO Level (inches)	0
Vacuum ("H_2O)	-38
Pressure ("H_2O)	2
PID (ppm)	-



Vacuum ("H_2O)	-26
KO Level (inches)	0
KO Total (Gallons)	2771

B-21 Extraction Well
EW-1

Vacuum ("H_2O)	-30
Flow (cfm)	9.87

PID (ppm)	-
Pressure ("H_2O)	-
PID (ppm)	-

* Carbon Bypassed
* Inside KO Tank still needs replacement

Operation and Maintenance Checklist
Building 114 SSDS
Watervliet Arsenal
Watervliet, New York

Date 9/14/21

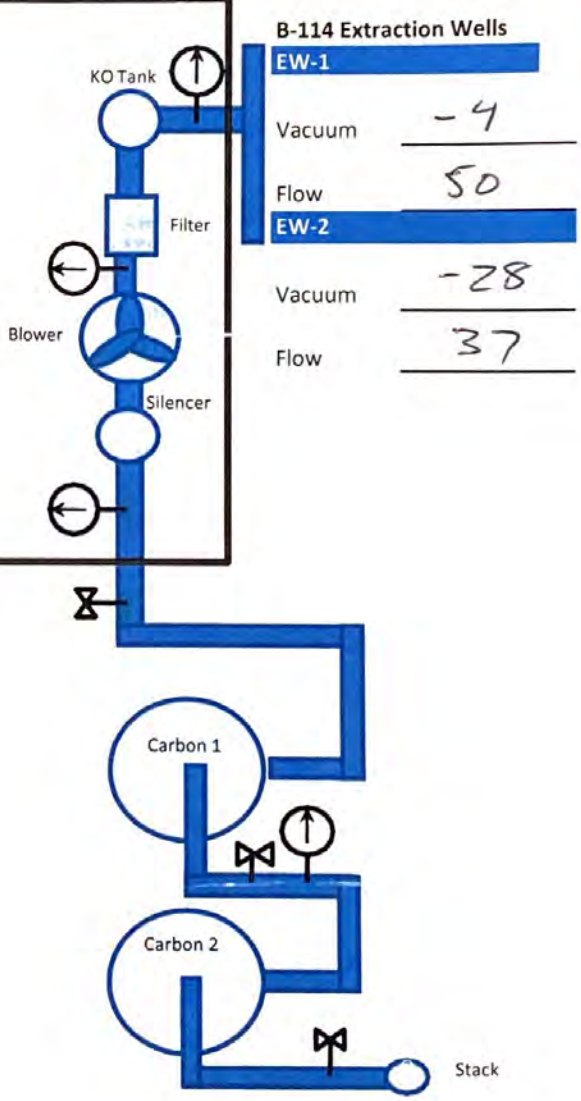
Inspector ES

Control Panel

Flow (cfm)	58
Temp (°F)	102
Run Time (hours)	85396.10
VFD Speed (%)	96.5
Alarms?	None

System Enclosure

Vacuum ("H_2O)	-23
KO Level (inches)	0
Vacuum ("H_2O)	-37
Pressure ("H_2O)	4
PID (ppm)	—
PID (ppm)	—
Pressure ("H_2O)	2
PID (ppm)	—



Notes: _____

C:\Users\Esousa\Documents\WVA\OMM Field Forms\Copy of SSDS OM Checklists

ARCADIS

Control Number:TGM - _____

TGM + *project number plus date as follows: xxxxxxxx.xxxx.xxxxx - dd/mm/year*

TAILGATE HEALTH & SAFETY MEETING FORM

Project Name: WVA			**Project Location:** Watervliet, NY
Date: 9/14/21	**Time:** 0900	**Conducted by:** ES	**Signature/Title:** Field Tech

Issues or concerns from previous day's activities:

Task anticipated to be performed today: Monthly OMM, Final Filter Drop off

☐ Additonal permits or checklists attached

USE TRACK! Evaluate the hazards (h) for the tasks being performed today and rank as Low (L), Medium (M) or High (H). Use relevant JLAs, FHSHB, permit or other work standard to communicate controls (c) to be used to eliminate or mitigate identified hazards.

☒ Gravity (i.e., ladder, scaffold, trips) (L M H) h: c:	☒ Motion (i.e. traffic, moving water) (L M H) h: c:	☒ Mechanical (i.e., augers, motors) (L M H) h: c:
☐ Electrical (i.e., utilities, lightning) (L M H) h: c:	☐ Pressure (i.e., gas cyl., wells) (L M H) h: c:	☐ Environment (i.e., heat, cold, ice) (L M H) h: c:
☐ Chemical (i.e., fuel, acid, paint) (L M H) h: c:	☐ Biological (i.e., ticks, poison ivy) (L M H) h: c:	☐ Radiation (i.e., alpha, sun, laser) (L M H) h: c:
☒ Sound (i.e. machinery) (L M H) h: c:	☒ Personal (i.e. alone, night) (L M H) h: c:	☒ Driving (i.e. car, ATV, boat, dozer) (L M H) h: c:

☐ Refer to the attached Hazard Analysis Sheet(s) or JSA

Comments:

Signature and Certification: I have read and understand the project specific HASP for this project.

Printed Name/Signature/Company	Sign In Time	Sign Out Time
E. Sousa ARCADIS	0900	

I will STOP the job any time anyone is concerned or uncertain about health & safety or if anyone identifies a hazard or additional mitigation not recorded in the site, project, job or task hazard assessment.

I will be alert to any changes in personnel, conditions at the work site or hazards not covered by the original hazard assessments.

If it is necessary to **STOP THE JOB,** I will perform **TRACK**; and then amend the hazard assessments or the HASP as needed.

I will not assist a subcontractor or other party with their work unless it is absolutely necessary and then only after I have done TRACK and I have thoroughly controlled the hazard.

All site staff should arrive fit for work. If not, they should report to the supervisor any restrictions or concerns.

In the event of an injury, employees will call **WorkCare at 1.800.455.6155** and then notify the field supervisor.

Utility strike, motor vehicle accident or 3rd party protperty damage - field supervisor will immediately notify the Project or Task Manager

Place any additional signatures on the back of this form.

Operation and Maintenance Checklist
Building 40 AFUs
Watervliet Arsenal
Watervliet, New York

Date 10/15/21

Inspector ES

AFU	AFU Location	System Data				Notes
		Δ P	RPF	RAF	FF	
1	South Conference Room	5.1	0.08	0.07	0.55	All Filters OK
2	East Body Forge	5.8	0.10	0.06	0.43	RAFs Rotated to RPFs, RAFs New
3	West Body Forge	5.7	0.08	0.08	0.37	↓
4	West Turret Lab	6.6	0.09	0.10	0.41	↑
5	East Turret Lab	5.6	0.10	0.06	0.46	
6	North Mechanical Closet	4.5	0.07	0.06	0.65	All Filters OK
7	South Mechanical Closet	4.8	0.07	0.06	0.39	↓
8	South Mechanical Closet	4.7	0.08	0.05	0.52	

Δ P - Differential Pressure
RPF - Roughing Pre-filter
RAF - Roughing After Filter
FF - Final Filter

Operation and Maintenance Checklist
Type "C" SSDSs
Watervliet Arsenal
Watervliet, New York

Date 10/15/21

Inspector ES

Building	Extraction Well	Extraction Well Location	Room	System On?	Vacuum ("H_20)	Flow (cfm)
22	EW-1	Basement, east side of building	Storage Area	Yes	-2.6	15.8
		Notes:				
22	EW-2	Main floor, west side of building	Truck Bay	Yes	-2.0	55.6
		Notes: Condensate Present in Drain				
120	EW-1	Main floor, south end of wood shop	Wood Shop	Yes	-15	7.02
	EW-2	Main floor, north end of wood shop	Wood Shop		-22	18.5
		Notes:				
121	EW-1	Main floor, southeast corner of building	Lab	Yes	-1.6	52.7
		Notes: Fan offline on arrival → Tripped GFCI outlet				
		↳ Reset → OK!				
		* Outdoor Outlet Cover Missing, Needs Replacement				
130	EW-1	Main floor, northeast corner of building	Storage Area	Yes	-2.0	46.3
		Notes:				

Operation and Maintenance Checklist
Building 20/25 SSDS
Watervliet Arsenal
Watervliet, New York

Date 10/15/21

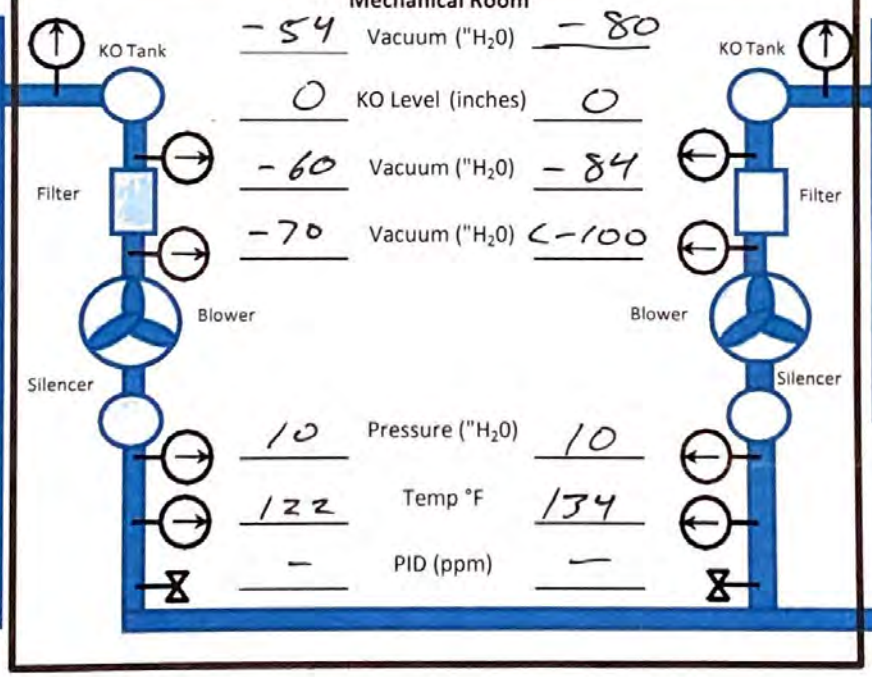
Inspector ES

Building 25 System	Control Panel Room	Building 20 System
400	Flow (cfm)	292
	Pressure ("H_2O) 125	
	Temp (°F) 8	
88381.70	Run Time (hours)	88020.70
55 Hz	VFD Speed (%)	51 Hz
None	Alarms?	None

B-25 Extraction Wells

EW-1	
Vacuum	<-60
Flow	166
EW-2	
Vacuum	-36
Flow	192
EW-3	
Vacuum	-46
Flow	18.6
EW-4	
Vacuum	-50
Flow	44.2

Mechanical Room



-54	Vacuum ("H_2O)	-80
0	KO Level (inches)	0
-60	Vacuum ("H_2O)	-84
-70	Vacuum ("H_2O)	<-100
10	Pressure ("H_2O)	10
122	Temp °F	134
—	PID (ppm)	—

B-20 Extraction Wells

EW-1	
Vacuum	-78
Flow	130
EW-2	
Vacuum	-76
Flow	75.4
EW-3	
Vacuum	-75
Flow	80.2

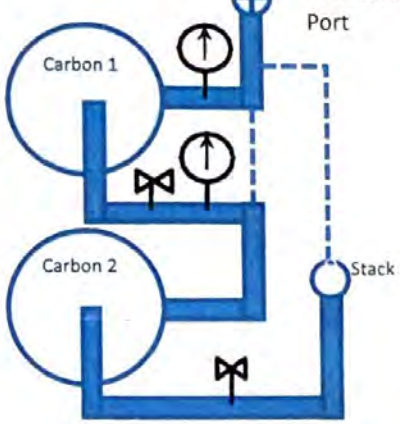
Flow (cfm) —

"H_2O —

PID (ppm) —

"H_2O —

PID (ppm) —



Notes: * Carbon Bypassed

Operation and Maintenance Checklist
Building 21 SSDS
Watervliet Arsenal
Watervliet, New York

Date 10/15/21

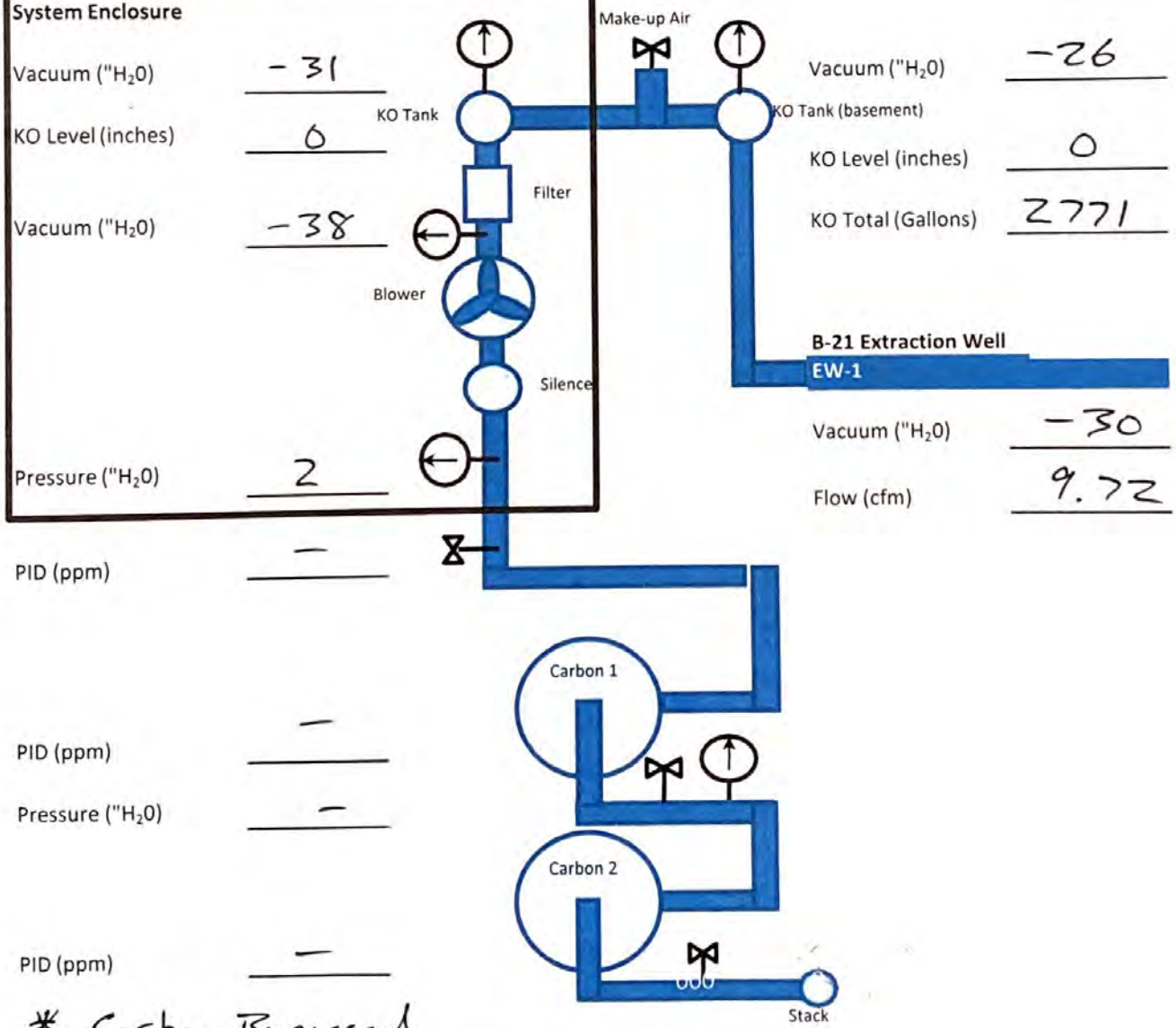
Inspector ES

Control Panel

Flow (cfm)	34
Temp (°F)	100
Run Time (hours)	87044.20
VFD Speed (%)	90
Alarms?	None

System Enclosure

Vacuum ("H_2O)	-31
KO Level (inches)	0
Vacuum ("H_2O)	-38
Pressure ("H_2O)	2
PID (ppm)	—
PID (ppm)	—
Pressure ("H_2O)	—
PID (ppm)	—



Vacuum ("H_2O)	-26
KO Level (inches)	0
KO Total (Gallons)	2771

B-21 Extraction Well
EW-1

Vacuum ("H_2O)	-30
Flow (cfm)	9.72

* Carbon Bypassed
* Vent fan shut down for cold weather

Operation and Maintenance Checklist
Building 114 SSDS
Watervliet Arsenal
Watervliet, New York

Date 10/15/21

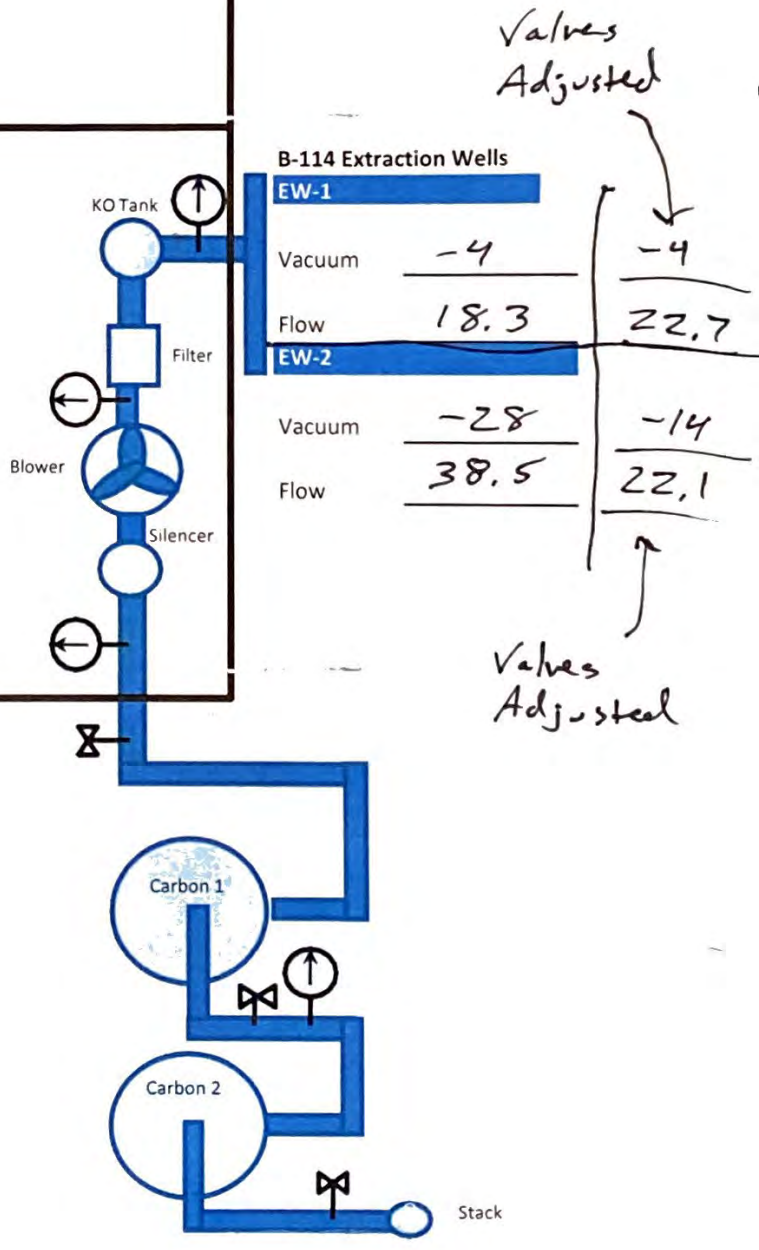
Inspector ES

Control Panel

Flow (cfm)	57
Temp (°F)	105
Run Time (hours)	86097.70
VFD Speed (%)	96.5
Alarms?	None

System Enclosure

Vacuum ("H_2O)	-24
KO Level (inches)	0
Vacuum ("H_2O)	-37
Pressure ("H_2O)	4
PID (ppm)	-
PID (ppm)	-
Pressure ("H_2O)	1.5
PID (ppm)	-



Notes: * Vent fan shut down for colder weather

Operation and Maintenance Checklist
Building 40 AFUs
Watervliet Arsenal
Watervliet, New York

Date 11/15/21

Inspector ES

AFU	AFU Location	System Data				Notes
		Δ P	RPF	RAF	FF	
1	South Conference Room	5.1	0.09	0.07	0.56	All Filters OK
2	East Body Forge	5.6	0.10	0.08	0.45	↑
3	West Body Forge	5.5	0.07	0.12	0.38	RAFs Rotated to RPFs, RAFs New
4	West Turret Lab	6.8	0.09	0.11	0.40	↑
5	East Turret Lab	6.0	0.10	0.04	0.52	All Filters OK
6	North Mechanical Closet	4.4	0.08	0.04	0.63	RAFs Rotated RPFs, RAFs New
7	South Mechanical Closet	4.9	0.06	0.06	0.39	All Filters OK
8	South Mechanical Closet	4.7	0.09	0.06	0.53	↓

Δ P - Differential Pressure
RPF - Roughing Pre-filter
RAF - Roughing After Filter
FF - Final Filter

Operation and Maintenance Checklist
Type "C" SSDSs
Watervliet Arsenal
Watervliet, New York

Date 11/15/21

Inspector ES

Building	Extraction Well	Extraction Well Location	Room	System On?	Vacuum ("H_2O)	Flow (cfm)
22	EW-1	Basement, east side of building	Storage Area	Yes	-2.4	12.0
		Notes:				
22	EW-2	Main floor, west side of building	Truck Bay	Yes	-2.0	53.7
		Notes: Condensation Present in Drain				
120	EW-1	Main floor, south end of wood shop	Wood Shop	Yes	-11.5	4.12
	EW-2	Main floor, north end of wood shop	Wood Shop		-24	24.20
		Notes:				
121	EW-1	Main floor, southeast corner of building	Lab	Yes	-1.6	46.4
		Notes:				
130	EW-1	Main floor, northeast corner of building	Storage Area	Yes	-2.0	47.5
		Notes:				

Operation and Maintenance Checklist
Building 114 SSDS
Watervliet Arsenal
Watervliet, New York

Date 11/15/21

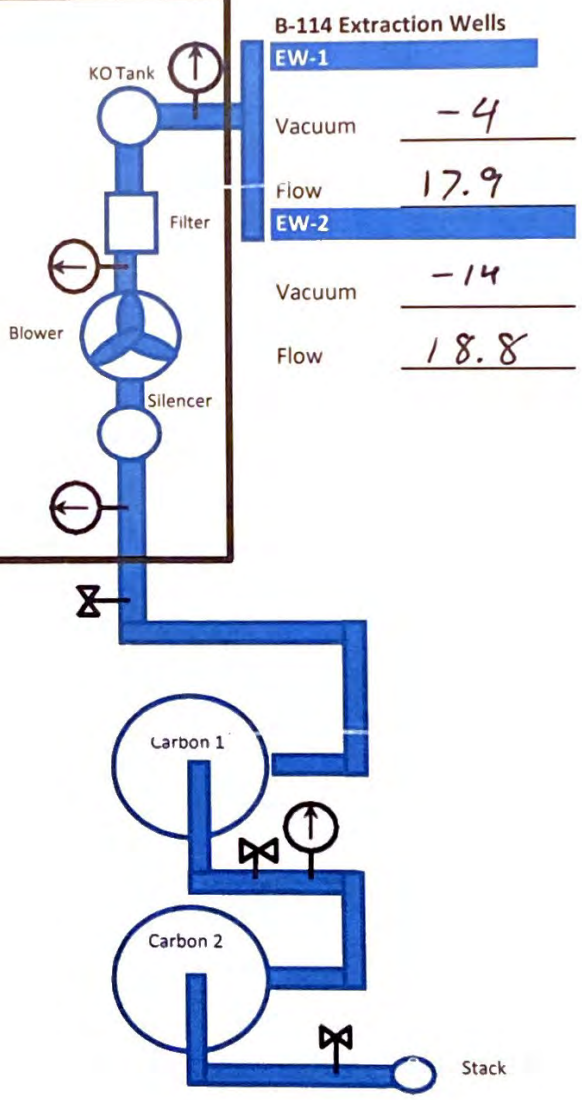
Inspector ES

Control Panel

Flow (cfm)	49
Temp (°F)	106
Run Time (hours)	86775.60
VFD Speed (%)	96.5
Alarms?	None

System Enclosure

Vacuum ("H_2O)	-31
KO Level (inches)	0
Vacuum ("H_2O)	-44
Pressure ("H_2O)	4 ~~1.5~~
PID (ppm)	—
PID (ppm)	—
Pressure ("H_2O)	1.5
PID (ppm)	—



Notes: _____

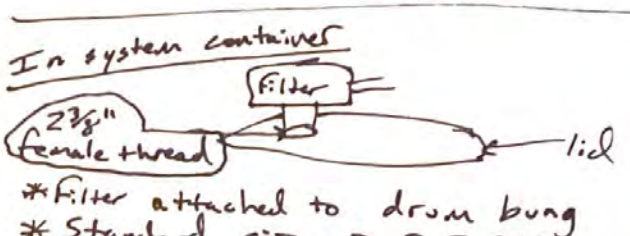
_____

Operation and Maintenance Checklist
Building 21 SSDS
Watervliet Arsenal
Watervliet, New York

Date 11/15/21

Inspector ES

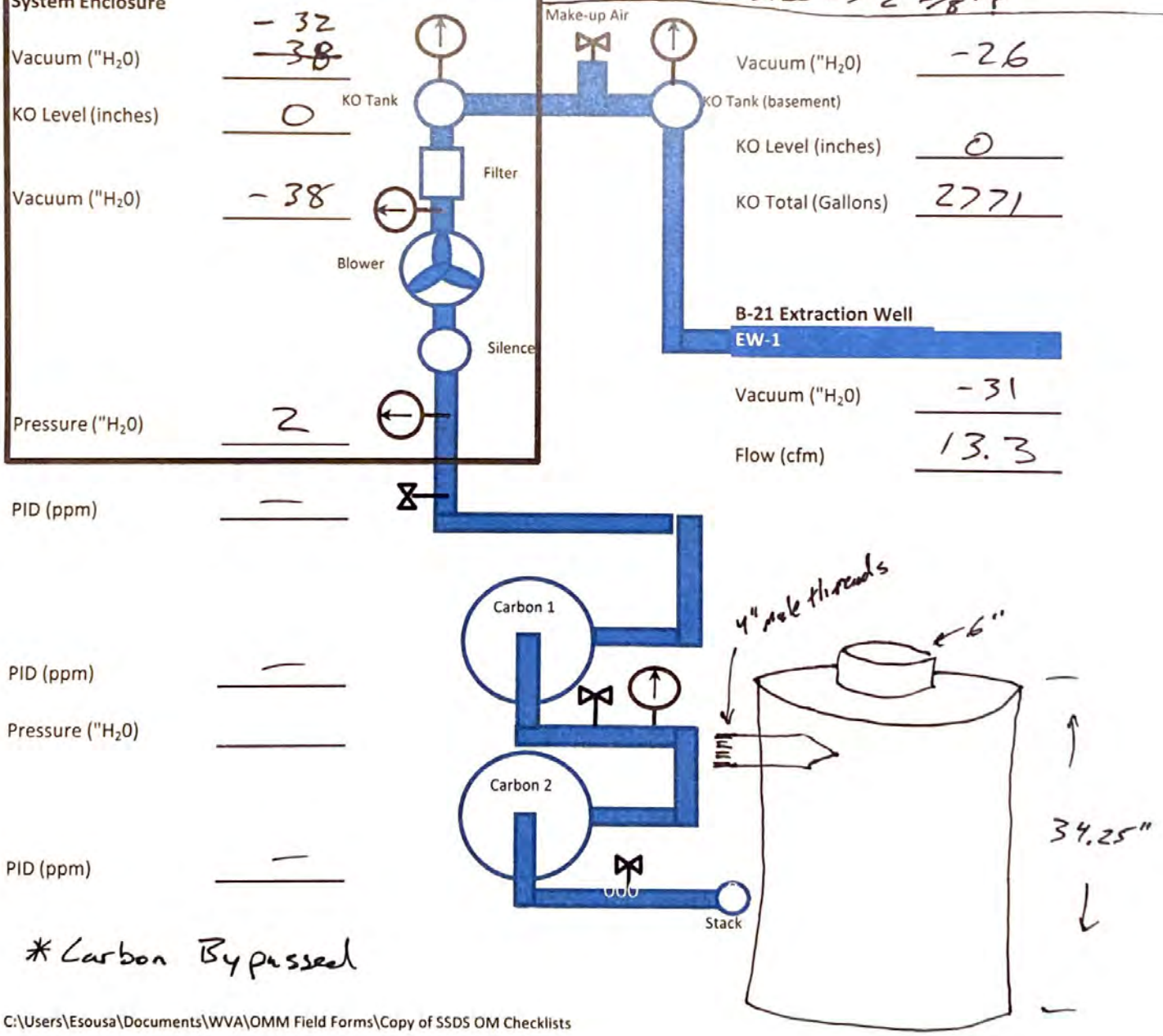
In Basement
4" above lid
12" below lid
6" wide



In system container
* Filter attached to drum bung
* Standard size → 2 3/8"?

Control Panel	
Flow (cfm)	34
Temp (°F)	94
Run Time (hours)	8773.50
VFD Speed (%)	90
Alarms?	None

System Enclosure	
Vacuum ("H_2O)	-32 ~~-38~~
KO Level (inches)	0
Vacuum ("H_2O)	-38
Pressure ("H_2O)	2
PID (ppm)	—
PID (ppm)	—
Pressure ("H_2O)	
PID (ppm)	—



Vacuum ("H_2O)	-26
KO Level (inches)	0
KO Total (Gallons)	2771

B-21 Extraction Well
EW-1

Vacuum ("H_2O)	-31
Flow (cfm)	13.3

* Carbon Bypassed

Operation and Maintenance Checklist
Building 20/25 SSDS
Watervliet Arsenal
Watervliet, New York

Date 11/15/24

Inspector ES

Building 25 System	Control Panel Room	Building 20 System
403	Flow (cfm)	289
	Pressure ("H_2O)	8
	Temp (°F)	120
89075.20	Run Time (hours)	88714.20
54.96 Hz	VFD Speed (%)	51.1 Hz
None	Alarms?	None

B-25 Extraction Wells

EW-1	
Vacuum	<-60
Flow	183.5
EW-2	
Vacuum	-36
Flow	139.9
EW-3	
Vacuum	-47
Flow	14.2
EW-4	
Vacuum	-49
Flow	~~36.3~~ 40.0

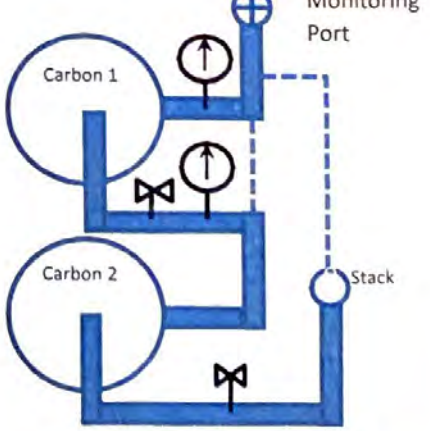
Mechanical Room

-52	Vacuum ("H_2O)	-80
0	KO Level (inches)	0
<-60	Vacuum ("H_2O)	-85
-70	Vacuum ("H_2O)	<-100
10	Pressure ("H_2O)	10
117	Temp °F	132
—	PID (ppm)	—

KO Tank, Filter, Blower, Silencer

B-20 Extraction Wells

EW-1	
Vacuum	-78
Flow	128.5
EW-2	
Vacuum	-76
Flow	74.2
EW-3	
Vacuum	-75
Flow	80.1



Flow (cfm) —

"H_2O —

PID (ppm) — "H_2O —

PID (ppm) —

Notes: *Carbon Bypassed

Operation and Maintenance Checklist
Building 40 AFUs
Watervliet Arsenal
Watervliet, New York

Date 12/14/21

Inspector ES/PE

AFU	AFU Location	System Data				Notes
		Δ P	RPF	RAF	FF	
1	South Conference Room	5.0	0.08	0.12	0.49	
2	East Body Forge	5.6	0.13	0.11	0.50	
3	West Body Forge	5.6	0.15	0.16	0.35	
4	West Turret Lab	6.7	0.10	0.14	0.45	
5	East Turret Lab	5.8	0.12	0.04	0.60	
6	North Mechanical Closet	4.5	0.09	0.10	0.65	
7	South Mechanical Closet	5.2	0.08	0.07	0.42	RAFs Rotated to RPFs, RAFs New
8	South Mechanical Closet	4.9	0.10	0.08	0.60	

Carbon Media Replaced @ AFUs 1, 2, 3, 7, 8

Δ P - Differential Pressure
RPF - Roughing Pre-filter
RAF - Roughing After Filter
FF - Final Filter

Operation and Maintenance Checklist
Type "C" SSDSs
Watervliet Arsenal
Watervliet, New York

Date 12/14/21

Inspector ES/PE

Building	Extraction Well	Extraction Well Location	Room	System On?	Vacuum ("H_2O)	Flow (cfm)
22	EW-1	Basement, east side of building	Storage Area	Yes	-2.2	15.10
		Notes:				
22	EW-2	Main floor, west side of building	Truck Bay	Yes	-2.0	60.1
		Notes: Condensate Present → Drained.				
120	EW-1	Main floor, south end of wood shop	Wood Shop	Yes	~~-15~~ -2	6.53
	EW-2	Main floor, north end of wood shop	Wood Shop		~~-28.5~~ -4	21.7
		Notes: Installed new Vaccum ~~readings~~ gauges				
121	EW-1	Main floor, southeast corner of building	Lab	Yes	-1.7	53.3
		Notes: Weather proof outlet box installed.				
130	EW-1	Main floor, northeast corner of building	Storage Area	Yes	-2.1	48.4
		Notes:				

Operation and Maintenance Checklist
Building 20/25 SSDS
Watervliet Arsenal
Watervliet, New York

Date 12/14/21

Inspector ES/PE

Building 25 System	Control Panel Room	Building 20 System
406	Flow (cfm)	292
	Pressure ("H_2O) 7	
	Temp (°F) 120	
89731.30	Run Time (hours)	89370.30
55 Hz	VFD Speed (%)	51 Hz
None	Alarms?	None

B-25 Extraction Wells

EW-1	
Vacuum	-60
Flow	186
EW-2	
Vacuum	-35
Flow	229
EW-3	
Vacuum	-48
Flow	16.2
EW-4	
Vacuum	-50
Flow	39.7

Mechanical Room

Vacuum ("H_2O)	~~-46~~ ~~-54~~	~~-82~~ -76
KO Level (inches)	0	0
Vacuum ("H_2O)	~~-48~~ ~~-60~~	~~-73~~ ~~-86~~
Vacuum ("H_2O)	~~-53~~ ~~-73~~	~~-100~~ -70
Pressure ("H_2O)	11	10
Temp °F	118	132
PID (ppm)	—	—

KO Tank, Filter, Blower, Silencer

B-20 Extraction Wells

EW-1	
Vacuum	-80
Flow	139
EW-2	
Vacuum	-78
Flow	77.5
EW-3	
Vacuum	-76
Flow	84.6

Flow (cfm) —
"H_2O —
PID (ppm) —

"H_2O —
PID (ppm) —

Flow Monitoring Port
Carbon 1
Carbon 2
Stack

* New Vacuum gauges install in Mechanical room.

Notes: * Carbon Bypassed.

Operation and Maintenance Checklist
Building 21 SSDS
Watervliet Arsenal
Watervliet, New York

Date 12/14/21

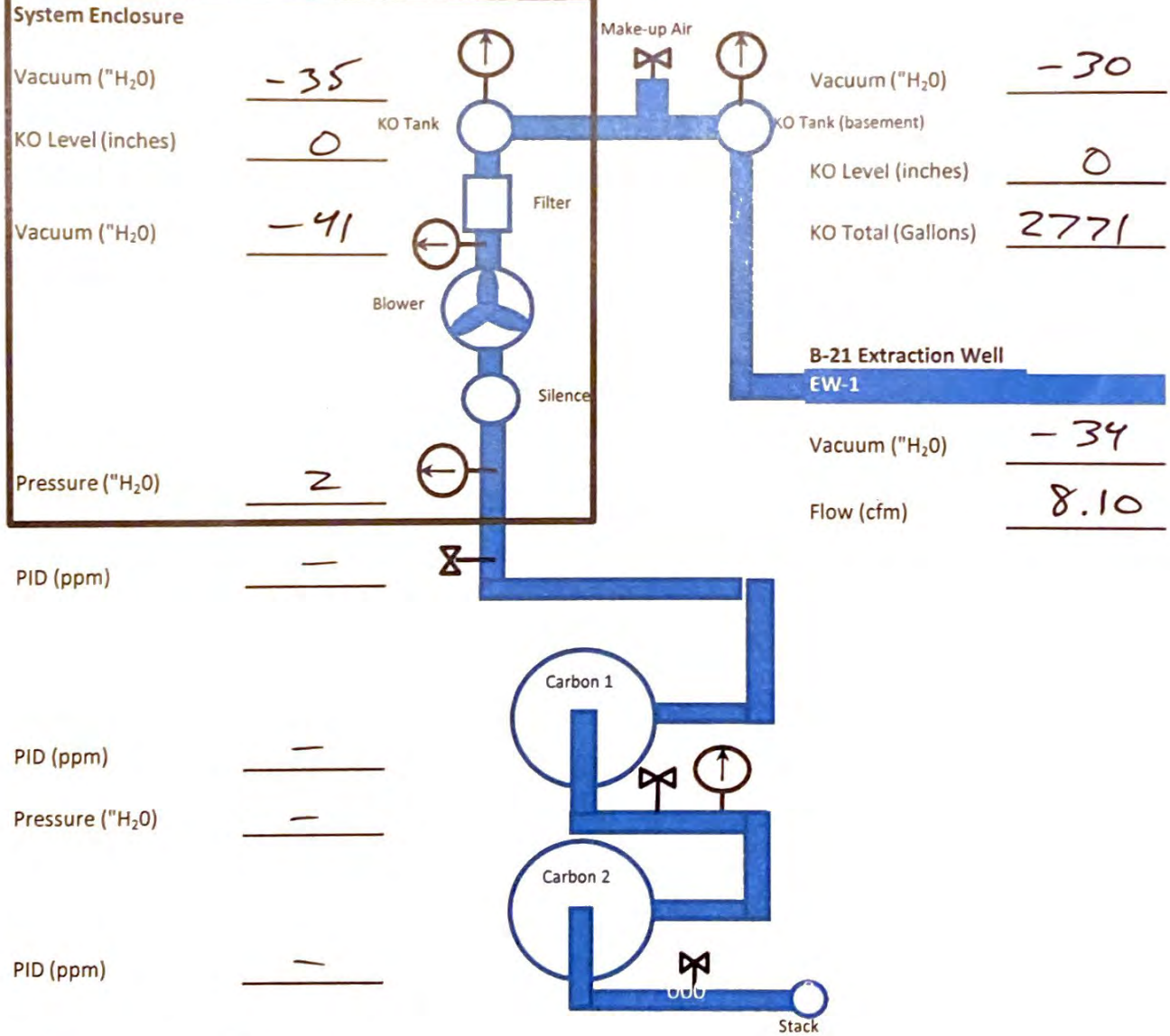
Inspector ES/PE

Control Panel

Flow (cfm)	30
Temp (°F)	100
Run Time (hours)	88393.50
VFD Speed (%)	90
Alarms?	None

System Enclosure

Vacuum ("H_2O)	-35
KO Level (inches)	0
Vacuum ("H_2O)	-41
Pressure ("H_2O)	2
PID (ppm)	—
PID (ppm)	—
Pressure ("H_2O)	—
PID (ppm)	—



Vacuum ("H_2O)	-30
KO Level (inches)	0
KO Total (Gallons)	2771

B-21 Extraction Well
EW-1

Vacuum ("H_2O)	-34
Flow (cfm)	8.10

* Carbon Bypassed.

Operation and Maintenance Checklist
Building 114 SSDS
Watervliet Arsenal
Watervliet, New York

Date 12/14/21

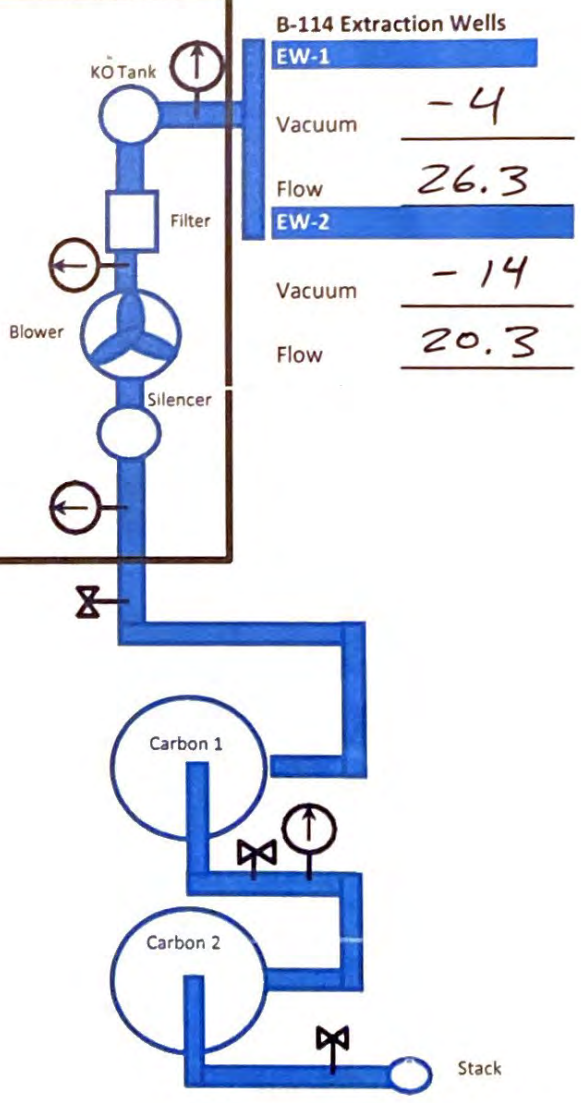
Inspector ES/PE

Control Panel

Flow (cfm)	48
Temp (°F)	120
Run Time (hours)	87430.80
VFD Speed (%)	96.5
Alarms?	None

System Enclosure

Vacuum ("H_2O)	-29
KO Level (inches)	4"
Vacuum ("H_2O)	-42
Pressure ("H_2O)	6
PID (ppm)	—
PID (ppm)	—
Pressure ("H_2O)	2
PID (ppm)	—



Notes: _____

C:\Users\Esousa\Documents\WVA\OMM Field Forms\Copy of SSDS OM Checklists

ARCADIS

Control Number: TGM - _____

TGM + *project number plus date as follows xxxxxxxx xxxx xxxxx - dd/mm/year*

TAILGATE HEALTH & SAFETY MEETING FORM

Project Name: WVA			Project Location: Waterviet, NY
Date: 12/13/21	Time: 0830	Conducted by: ES	Signature/Title: Field Tech

Issues or concerns from previous day's activities:

Task anticipated to be performed today: B40 AFV carbon change outs

☐ Additonal permits or checklists attached

USE TRACK! Evaluate the hazards (h) for the tasks being performed today and rank as Low (L), Medium (M) or High (H). Use relevant JLAs, FHSHB, permit or other work standard to communicate controls (c) to be used to eliminate or mitigate identified hazards.

☒ Gravity (i.e., ladder, scaffold, trips) (L M H) h: _____ c: _____	☒ Motion (i.e., traffic, moving water) (L M H) h: _____ c: _____	☐ Mechanical (i.e., augers, motors) (L M H) h: _____ c: _____
☐ Electrical (i.e., utilities, lightning) (L M H) h: _____ c: _____	☐ Pressure (i.e., gas cyl., wells) (L M H) h: _____ c: _____	☒ Environment (i.e., heat, cold, ice) (L M H) h: _____ c: _____
☒ Chemical (i.e., fuel, acid, paint) (L M H) h: Carbon / Permangate c: Dust Mask	☐ Biological (i.e., ticks, poison ivy) (L M H) h: _____ c: _____	☐ Radiation (i.e., alpha, sun, laser) (L M H) h: _____ c: _____
☐ Sound (i.e., machinery) (L M H) h: _____ c: _____	☐ Personal (i.e. alone, night) (L M H) h: _____ c: _____	☒ Driving (i.e. ATV, boat, dozer) (L M H) h: _____ c: _____

☐ Refer to the attached Hazard Analysis Sheet(s) or JSA

Comments:

Signature and Certification: I have read and understand the project specific HASP for this project.

	Printed Name/Signature/Company	Sign In Time	Sign Out Time
12/13	E. Sousa ARCADIS	0830	
	P. Eversoll Arcadis	0830	
12/14	E. Sousa ARCADIS	0800	
	P. Eversoll Arcadis	0800	

I will STOP the job any time anyone is concerned or uncertain about health & safety or if anyone identifies a hazard or additional mitigation not recorded in the site, project, job or task hazard assessment.

I will be alert to any changes in personnel, conditions at the work site or hazards not covered by the original hazard assessments.

If it is necessary to **STOP THE JOB,** I will perform **TRACK,** and then amend the hazard assessments or the HASP as needed.

I will not assist a subcontractor or other party with their work unless it is absolutely necessary and then only after I have done TRACK and I have thoroughly controlled the hazard.

All site staff should arrive fit for work. If not, they should report to the supervisor any restrictions or concerns.

In the event of an injury, employees will call **WorkCare at 1.800.455.6155** and then notify the field supervisor.

Utility strike, motor vehicle accident or 3rd party protperty damage - field supervisor will immediately notify the Project or Task Manager

Place any additional signatures on the back of this form.