WSP USA, Inc.
100 Apollo Road, 3rd Floor
Chelmsford, MA 01824

November 1, 2022

Mr. Joseph T. Martella II, Senior Engineer
Rhode Island Department of Environmental Management
Office of Land Revitalization and Sustainable Materials Management
Site Remediation Program
235 Promenade Street
Providence, Rhode Island 02908

**RE: Parcel C Groundwater Sampling – August 29, 2022**
**Former Gorham Manufacturing Facility**
**333 Adelaide Avenue, Providence, Rhode Island**
**WSP Project No. 3652210306**

Dear Mr. Martella:

This letter summarizes the August 29, 2022, collection and analysis of a groundwater sample from monitoring well MW-D within Parcel C at the Former Gorham Manufacturing Site in Providence, Rhode Island (**Figure 1**). This activity was performed to supplement historic periodic groundwater testing done between July 2015 and September 2017. The groundwater sampling and review was conducted in accordance with the Remedial Action Work Plan (RAWP) dated March 11, 2015, and the corresponding Rhode Island Department of Environmental Management (RIDEM) July 9, 2015, Order of Approval (Order of Approval).

## Background

Extensive groundwater investigations were previously conducted throughout the upland portions of the Former Gorham Manufacturing Site property, including Parcel C, and within the Mashapaug Inner and Outer Coves. The groundwater investigations identified low levels of volatile organic compounds (VOCs) in groundwater immediately upgradient of and along the southern shore of the Inner Cove (Parcels C and C-1).

Based on 2006-2010 groundwater data, tetrachloroethylene (PCE) and trichloroethylene (TCE) were present at low levels in groundwater from the northwestern corner of Parcel C. Groundwater and Inner Cove sediment data collected during the same period (2006-2010) demonstrated that a clear trend of decreasing contaminant concentrations within the groundwater had occurred over time.

RIDEM's Order of Approval required Textron to monitor Parcel C/C-1 groundwater following completion of the remedial action in December 2015, by sampling six wells (MW-235S, MW-236S, MW-237S, MW-D, MW-241, and MW-FS) until data from three consecutive sampling rounds demonstrate that Parcel C groundwater is compliant with RIDEM's GB Groundwater Objectives with no increasing concentrations of VOCs, and that Parcel C-1 groundwater is compliant with the Massachusetts Department of Environmental Protection (MassDEP) GW-3 Standards with no increasing concentrations of VOCs.

The April 2016 sampling event confirmed that both MW-FS and MW-237S met the required criteria of three consecutive decreasing rounds of groundwater data and data below the MassDEP GW-3 Standards.

These two wells were eliminated from the groundwater monitoring program (April 2016 groundwater monitoring report). Three more wells were eliminated from monitoring following the July 2016 sampling round, including MW-235S, MW-236S, and MW-241, in accordance with the Order of Approval. Since September 2016, only MW-D has been sampled; it has been sampled twelve times semi-annually in the spring and fall of each year.

At the time of the Parcel C Closure Report submittal in May 2017, TCE and 1,1-dichloroethene (1,1-DCE) were the only analytes present above their respective GB Groundwater Objectives in MW-D. In 2016 and 2017, TCE had been detected at concentrations ranging from 0.499 milligrams per liter (mg/L) to 3.32 mg/L; most results were above its GB Groundwater Objective of 0.54 mg/L. Concentrations of 1,1-DCE ranged from 0.0019 mg/L to 0.0149 mg/L; some of these results exceeded the GB Groundwater Criteria of 0.007 mg/L. Concentration trends for both analytes were generally decreasing during 2017. Other chemicals that have been detected in MW-D since May 2017 are detected at concentrations well below their respective applicable standards and are not discussed further herein.

APTIM continues to sample monitoring well MW-D semi-annually, and reported concentrations of VOCs, specifically 1,1-DCE and TCE, have continued to trend downward. However, concentrations of TCE remain above the GB Groundwater Objective and below the MassDEP GW-3 standards. Previously collected results have been presented in a semi-annual letter report to RIDEM since 2015.

## August 2022 Activities

On August 29, 2022, APTIM, of Canton, Massachusetts sampled the one remaining groundwater monitoring well, MW-D (**Figure 2**), using the U.S. Environmental Protection Agency (USEPA) low-flow methodology. The one sample was submitted under chain-of-custody control to an off-site laboratory for VOC analysis by USEPA Method 8260B. Stabilization parameters for this groundwater sampling event are included in **Appendix A**.

## Groundwater Sampling Results

**Table 1** summarizes the historic VOC concentrations detected in MW-D including the August 2022 groundwater sampling event. VOC concentrations detected in Parcel C (including MW-D) are compared to the GB Groundwater Objectives, as well as the MassDEP GW-3 Standards (per the 2015 Order of Approval). The analytical laboratory report for the August 2022 groundwater sampling event is included in **Appendix B**.

As shown in **Table 1**, results from the August 2022 sampling round show that TCE and cis-1,2-dichloroethene were detected. The TCE concentration was above its GB Groundwater Objective but remained below its MassDEP GW-3 Standard. The concentration of TCE was lower in this sampling round than historic sampling events, but similar to the February 2022 sampling event. The concentration of cis-1,2-dichloroethene was below both the GB Groundwater Objective and MassDEP GW-3 Groundwater Standard. Historically, 1,1-DCE is the other compound detected in MW-D above the applicable standards. This compound has not been detected since March 2021.

## Groundwater Monitoring Approach

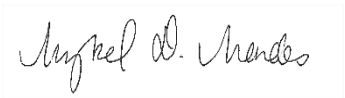
Based on the extensive groundwater data collected, VOC concentrations within the northwestern area of Parcel C have been reduced. In 2016 and 2017, only MW-D continued to exhibit exceedances of GB Groundwater Objectives, specifically for TCE and 1,1-DCE. Concentrations of 1,1-DCE had reduced to below their respective criteria by April 2019, likely as a result of continued biodegradation and natural attenuation in the groundwater. After concentrations of 1,1-DCE rebounded slightly above the criteria in October 2019, concentrations decreased in the subsequent sampling rounds in March 2020, September 2020, and March 2021, and 1,1-DCE was not detected in the three most recent sampling rounds in August 2021, February 2022, and August 2022. Furthermore, TCE concentrations have also been trending downward since the September 2016 sampling event. In this most recent sampling event in August 2022, the concentration of TCE was consistent with the trend observed from 2019-2022. WSP concludes that the results continue to show an overall downward trend in all analytes since 2016.

The Parcel C/C-1 area is currently being used by the City of Providence School Department as a recreational field. No buildings are planned in the area of MW-D which is located within the woods. The final Environmental Land Use Restrictions (ELUR) and Soil Management Plan (SMP) has been signed by the City of Providence and filed in the Providence Land Evidence Records. A copy of this signed ELUR and SMP was submitted to RIDEM for their records. The ELUR includes the provision preventing the use of the groundwater for potable and non-potable use, and that no subsurface structures can be constructed over the groundwater without prior approval from RIDEM. This provision addresses the potential future vapor intrusion issue associated with the RIDEM GB Groundwater Objective.

Textron proposes to continue monitoring the groundwater quality at MW-D on a semi-annual basis, pending continued compliance with RIDEM's GB Groundwater Objectives. The next scheduled sampling event is March 2023. A report will be prepared and submitted to RIDEM in May 2023 to update the status of this one monitoring well and provide a recommendation concerning the continuation of the semi-annual monitoring of this well.

Please contact Makala Fioritto, Textron, (401-457-6009) or Mykel Mendes, WSP, (951-312-8756) if we can provide additional information or answer any questions concerning these groundwater monitoring data and planned future sampling of MW-D.

Sincerely,
**WSP USA, Inc.**



| | |
|---|---|
| Mykel Mendes | Jane Parkin Kullmann, PhD, CPH |
| Project Manager | Senior Risk Assessor |

Enclosures: Table 1 – Summary of Parcel C/C-1 Groundwater Results 1989 – 2022
Figure 1 – Site Location Map
Figure 2 – Parcel C/C-1 Site Map
Appendix A – Stabilization Parameters August 2022 Sampling Event
Appendix B – Laboratory Report August 2022 Sampling Event

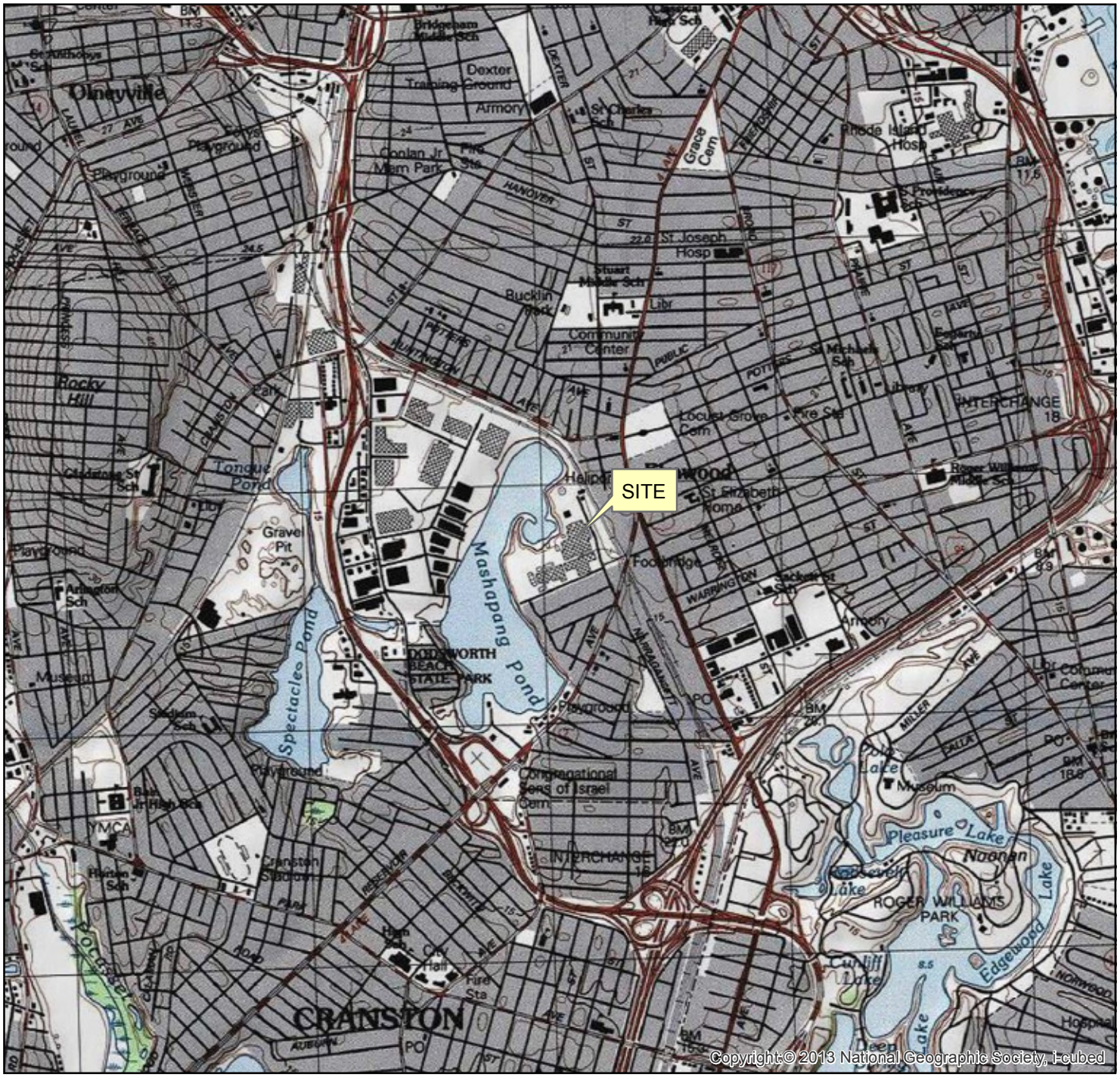
cc: Robert Azar, Deputy Director - Providence Planning & Development (Electronic)
G. Simpson, Textron, Inc. (Electronic)
M. Fioritto, Textron, Inc. (Electronic)
Knight Memorial Library Repository

# Tables

**Table 1**
**MW-D/B-4**
**Groundwater Results 1989 - 2022**
**Former Gorham Manufacturing Site**
**Providence, RI**

| Location: | | | | MW-D/B-4 | | | |

# Figures




Location of Site

# SITE LOCATION MAP

Former Gorham
Manufacturing Site

333 Adelaide Avenue
Providence, Rhode Island

Notes & Sources

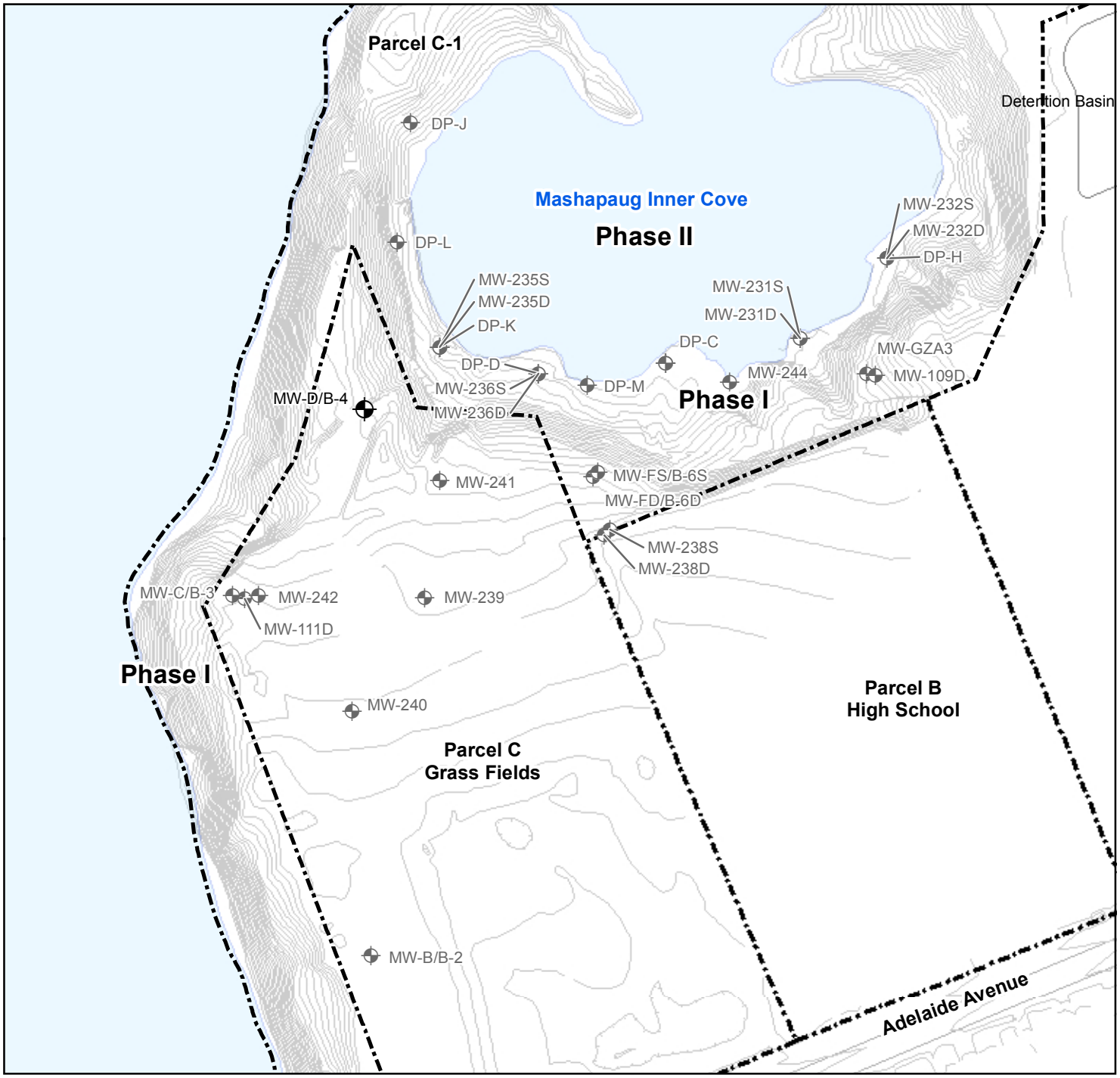
0 1,000 2,000
Feet

N

WSP USA, Inc.
100 Apollo Road
Chelmsford, MA 01824

FIGURE
1

H:\Textron-Gorham\Providence_RI\Task7\MXD\Fig1_ParcelC_MW-D.mxd May 08, 2019 DWN: emily.gardiner CHKD: AKN, Rev: MDM 11.02.22




# PARCEL C: MW-D

Former Gorham Manufacturing Site

333 Adelaide Avenue
Providence, Rhode Island

## Legend

- Existing Monitoring Well
- Abandoned Monitoring Well
- Approximate Site Boundary
- Mashapaug Pond
- Elevation Contour

## Location of Site

## Notes & Sources

0 140 Feet

N

WSP USA, Inc.
100 Apollo Road
Chelmsford, MA 01824

FIGURE 2

H:\Textron-Gorham\Providence_RI\Task7\MXD\Fig1_ParcelC_MW-D.mxd May 08, 2019 DWN: emily.gardiner CHKD: HWC, Rev: MDM 11.02.22

# Appendix A

Stabilization Parameters August 2022 Sampling Event

| Appendix A - Stabilization Parameters for MW-D, August 2022 Sampling Event | |
|---|---|
| Date | 8/29/2022 |
| pH | 6.36 |
| Temp (°C) | 13.32 |
| Conductivity (µS/cm) | 375 |
| DO (mg/L) | 0.93 |
| ORP (mV) | 115.6 |
| Turbidity (NTU) | 0.4 |
| Depth to Water (ft) | 21.18 |
| Depth to Bottom (ft) | 33.75 |

**Prepared by:** MDM 11/02/2022
**Checked by:** JPK 11/02/2022

# Appendix B

Laboratory Report, August 2022 Sampling Event

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

September 2, 2022

Catherine Joe Mainville
APTIM - MA
150 Royall Street
Canton, MA 02021

Project Location: 333 Adelaide Ave., Providence, RI
Client Job Number:
Project Number: 631010697
Laboratory Work Order Number: 22H1729

Enclosed are results of analyses for samples as received by the laboratory on August 30, 2022. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Scott C. Basal
Project Manager

# Table of Contents

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

APTIM - MA
150 Royall Street
Canton, MA 02021
ATTN: Catherine Joe Mainville

REPORT DATE: 9/2/2022

PURCHASE ORDER NUMBER: 216859

PROJECT NUMBER: 631010697

**ANALYTICAL SUMMARY**

WORK ORDER NUMBER: 22H1729

The results of analyses performed on the following samples submitted to CON-TEST, a Pace Analytical Laboratory, are found in this report.

PROJECT LOCATION: 333 Adelaide Ave., Providence, RI

| FIELD SAMPLE # | LAB ID: | MATRIX | SAMPLE DESCRIPTION | TEST | SUB LAB |
|---|---|---|---|---|---|
| MW-112-20220829 | 22H1729-01 | Ground Water | | SW-846 8260D | |
| MW-116D-20220829 | 22H1729-02 | Ground Water | | SW-846 8260D | |
| MW-116-20220829 | 22H1729-03 | Ground Water | | SW-846 8260D | |

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## CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

### SW-846 8260D

**Qualifications:**

**L-02**

Laboratory fortified blank/laboratory control sample recovery and duplicate recoveries outside of control limits. Data validation is not affected since all results are "not detected" for associated samples in this batch and bias is on the high side.

**Analyte & Samples(s) Qualified:**

**Bromochloromethane**
B316234-BS1, B316234-BSD1

**Carbon Disulfide**
B316234-BS1, B316234-BSD1

**Chloromethane**
B316234-BS1, B316234-BSD1

**Methyl Acetate**
B316234-BS1, B316234-BSD1

**Vinyl Chloride**
B316234-BS1, B316234-BSD1

**R-05**

Laboratory fortified blank duplicate RPD is outside of control limits. Reduced precision is anticipated for any reported value for this compound.

**Analyte & Samples(s) Qualified:**

**2,2-Dichloropropane**
22H1729-01[MW-112-20220829], 22H1729-02[MW-116D-20220829], 22H1729-03[MW-116-20220829], B316234-BLK1, B316234-BS1, B316234-BSD1

**V-05**

Continuing calibration verification (CCV) did not meet method specifications and was biased on the low side for this compound.

**Analyte & Samples(s) Qualified:**

**Naphthalene**
22H1729-01[MW-112-20220829], 22H1729-02[MW-116D-20220829], 22H1729-03[MW-116-20220829], B316234-BLK1, B316234-BS1, B316234-BSD1, S076072-CCV1

**V-20**

Continuing calibration verification (CCV) did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound.

**Analyte & Samples(s) Qualified:**

**Bromochloromethane**
B316234-BS1, B316234-BSD1, S076072-CCV1

**Carbon Disulfide**
B316234-BS1, B316234-BSD1, S076072-CCV1

**Chloromethane**
B316234-BS1, B316234-BSD1, S076072-CCV1

**Methyl Acetate**
B316234-BS1, B316234-BSD1, S076072-CCV1

**Vinyl Chloride**
B316234-BS1, B316234-BSD1, S076072-CCV1

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

The results of analyses reported only relate to samples submitted to Con-Test, a Pace Analytical Laboratory, for testing.
I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Tod E. Kopyscinski
Laboratory Director

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 333 Adelaide Ave., Providence, R  Sample Description:  Work Order: 22H1729

Date Received: 8/30/2022

**Field Sample #: MW-112-20220829**  Sampled: 8/29/2022 09:50

**Sample ID: 22H1729-01**

Sample Matrix: Ground Water

**Volatile Organic Compounds by GC/MS**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 50 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 15:59 | EEH |
| Acrylonitrile | ND | 5.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 15:59 | EEH |
| tert-Amyl Methyl Ether (TAME) | ND | 0.50 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 15:59 | EEH |
| Benzene | ND | 1.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 15:59 | EEH |
| Bromobenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 15:59 | EEH |
| Bromochloromethane | ND | 1.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 15:59 | EEH |
| Bromodichloromethane | ND | 0.50 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 15:59 | EEH |
| Bromoform | ND | 2.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 15:59 | EEH |
| Bromomethane | ND | 2.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 15:59 | EEH |
| 2-Butanone (MEK) | ND | 20 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 15:59 | EEH |
| tert-Butyl Alcohol (TBA) | ND | 20 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 15:59 | EEH |
| n-Butylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 15:59 | EEH |
| sec-Butylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 15:59 | EEH |
| tert-Butylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 15:59 | EEH |
| tert-Butyl Ethyl Ether (TBEE) | ND | 0.50 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 15:59 | EEH |
| Carbon Disulfide | ND | 5.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 15:59 | EEH |
| Carbon Tetrachloride | ND | 5.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 15:59 | EEH |
| Chlorobenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 15:59 | EEH |
| Chlorodibromomethane | ND | 0.50 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 15:59 | EEH |
| Chloroethane | ND | 2.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 15:59 | EEH |
| Chloroform | ND | 2.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 15:59 | EEH |
| Chloromethane | ND | 2.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 15:59 | EEH |
| 2-Chlorotoluene | ND | 1.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 15:59 | EEH |
| 4-Chlorotoluene | ND | 1.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 15:59 | EEH |
| 1,2-Dibromo-3-chloropropane (DBCP) | ND | 5.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 15:59 | EEH |
| 1,2-Dibromoethane (EDB) | ND | 0.50 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 15:59 | EEH |
| Dibromomethane | ND | 1.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 15:59 | EEH |
| 1,2-Dichlorobenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 15:59 | EEH |
| 1,3-Dichlorobenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 15:59 | EEH |
| 1,4-Dichlorobenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 15:59 | EEH |
| trans-1,4-Dichloro-2-butene | ND | 2.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 15:59 | EEH |
| Dichlorodifluoromethane (Freon 12) | ND | 2.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 15:59 | EEH |
| 1,1-Dichloroethane | ND | 1.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 15:59 | EEH |
| 1,2-Dichloroethane | ND | 1.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 15:59 | EEH |
| 1,1-Dichloroethylene | ND | 1.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 15:59 | EEH |
| cis-1,2-Dichloroethylene | ND | 1.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 15:59 | EEH |
| trans-1,2-Dichloroethylene | ND | 1.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 15:59 | EEH |
| 1,2-Dichloropropane | ND | 1.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 15:59 | EEH |
| 1,3-Dichloropropane | ND | 0.50 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 15:59 | EEH |
| 2,2-Dichloropropane | ND | 1.0 | µg/L | 1 | R-05 | SW-846 8260D | 8/31/22 | 9/1/22 15:59 | EEH |
| 1,1-Dichloropropene | ND | 2.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 15:59 | EEH |
| cis-1,3-Dichloropropene | ND | 0.50 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 15:59 | EEH |
| trans-1,3-Dichloropropene | ND | 0.50 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 15:59 | EEH |
| Diethyl Ether | ND | 2.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 15:59 | EEH |

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 333 Adelaide Ave., Providence, R  Sample Description:  Work Order: 22H1729

Date Received: 8/30/2022

**Field Sample #: MW-112-20220829**  Sampled: 8/29/2022 09:50

**Sample ID: 22H1729-01**

Sample Matrix: Ground Water

**Volatile Organic Compounds by GC/MS**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Diisopropyl Ether (DIPE) | ND | 0.50 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 15:59 | EEH |
| 1,4-Dioxane | ND | 50 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 15:59 | EEH |
| Ethylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 15:59 | EEH |
| Hexachlorobutadiene | ND | 0.60 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 15:59 | EEH |
| 2-Hexanone (MBK) | ND | 10 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 15:59 | EEH |
| Isopropylbenzene (Cumene) | ND | 1.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 15:59 | EEH |
| p-Isopropyltoluene (p-Cymene) | ND | 1.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 15:59 | EEH |
| Methyl Acetate | ND | 1.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 15:59 | EEH |
| Methyl tert-Butyl Ether (MTBE) | ND | 1.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 15:59 | EEH |
| Methyl Cyclohexane | ND | 1.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 15:59 | EEH |
| Methylene Chloride | ND | 5.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 15:59 | EEH |
| 4-Methyl-2-pentanone (MIBK) | ND | 10 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 15:59 | EEH |
| Naphthalene | ND | 2.0 | µg/L | 1 | V-05 | SW-846 8260D | 8/31/22 | 9/1/22 15:59 | EEH |
| n-Propylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 15:59 | EEH |
| Styrene | ND | 1.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 15:59 | EEH |
| 1,1,1,2-Tetrachloroethane | ND | 1.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 15:59 | EEH |
| 1,1,2,2-Tetrachloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 15:59 | EEH |
| Tetrachloroethylene | 45 | 1.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 15:59 | EEH |
| Tetrahydrofuran | ND | 10 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 15:59 | EEH |
| Toluene | ND | 1.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 15:59 | EEH |
| 1,2,3-Trichlorobenzene | ND | 5.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 15:59 | EEH |
| 1,2,4-Trichlorobenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 15:59 | EEH |
| 1,3,5-Trichlorobenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 15:59 | EEH |
| 1,1,1-Trichloroethane | ND | 1.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 15:59 | EEH |
| 1,1,2-Trichloroethane | ND | 1.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 15:59 | EEH |
| Trichloroethylene | 1.8 | 1.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 15:59 | EEH |
| Trichlorofluoromethane (Freon 11) | ND | 2.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 15:59 | EEH |
| 1,2,3-Trichloropropane | ND | 2.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 15:59 | EEH |
| 1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113) | ND | 2.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 15:59 | EEH |
| 1,2,4-Trimethylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 15:59 | EEH |
| 1,3,5-Trimethylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 15:59 | EEH |
| Vinyl Chloride | ND | 2.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 15:59 | EEH |
| m+p Xylene | ND | 2.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 15:59 | EEH |
| o-Xylene | ND | 1.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 15:59 | EEH |
| Xylenes (total) | ND | 1.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 15:59 | EEH |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| 1,2-Dichloroethane-d4 | 103 | 70-130 | | 9/1/22 15:59 |
| Toluene-d8 | 101 | 70-130 | | 9/1/22 15:59 |
| 4-Bromofluorobenzene | 100 | 70-130 | | 9/1/22 15:59 |

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 333 Adelaide Ave., Providence, R  Sample Description:  Work Order: 22H1729

Date Received: 8/30/2022

**Field Sample #: MW-116D-20220829**  Sampled: 8/29/2022 12:00

**Sample ID: 22H1729-02**

Sample Matrix: Ground Water

**Volatile Organic Compounds by GC/MS**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 50 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:26 | EEH |
| Acrylonitrile | ND | 5.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:26 | EEH |
| tert-Amyl Methyl Ether (TAME) | ND | 0.50 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:26 | EEH |
| Benzene | ND | 1.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:26 | EEH |
| Bromobenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:26 | EEH |
| Bromochloromethane | ND | 1.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:26 | EEH |
| Bromodichloromethane | ND | 0.50 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:26 | EEH |
| Bromoform | ND | 2.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:26 | EEH |
| Bromomethane | ND | 2.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:26 | EEH |
| 2-Butanone (MEK) | ND | 20 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:26 | EEH |
| tert-Butyl Alcohol (TBA) | ND | 20 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:26 | EEH |
| n-Butylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:26 | EEH |
| sec-Butylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:26 | EEH |
| tert-Butylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:26 | EEH |
| tert-Butyl Ethyl Ether (TBEE) | ND | 0.50 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:26 | EEH |
| Carbon Disulfide | ND | 5.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:26 | EEH |
| Carbon Tetrachloride | ND | 5.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:26 | EEH |
| Chlorobenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:26 | EEH |
| Chlorodibromomethane | ND | 0.50 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:26 | EEH |
| Chloroethane | ND | 2.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:26 | EEH |
| Chloroform | ND | 2.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:26 | EEH |
| Chloromethane | ND | 2.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:26 | EEH |
| 2-Chlorotoluene | ND | 1.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:26 | EEH |
| 4-Chlorotoluene | ND | 1.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:26 | EEH |
| 1,2-Dibromo-3-chloropropane (DBCP) | ND | 5.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:26 | EEH |
| 1,2-Dibromoethane (EDB) | ND | 0.50 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:26 | EEH |
| Dibromomethane | ND | 1.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:26 | EEH |
| 1,2-Dichlorobenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:26 | EEH |
| 1,3-Dichlorobenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:26 | EEH |
| 1,4-Dichlorobenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:26 | EEH |
| trans-1,4-Dichloro-2-butene | ND | 2.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:26 | EEH |
| Dichlorodifluoromethane (Freon 12) | ND | 2.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:26 | EEH |
| 1,1-Dichloroethane | ND | 1.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:26 | EEH |
| 1,2-Dichloroethane | ND | 1.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:26 | EEH |
| 1,1-Dichloroethylene | ND | 1.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:26 | EEH |
| cis-1,2-Dichloroethylene | ND | 1.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:26 | EEH |
| trans-1,2-Dichloroethylene | ND | 1.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:26 | EEH |
| 1,2-Dichloropropane | ND | 1.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:26 | EEH |
| 1,3-Dichloropropane | ND | 0.50 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:26 | EEH |
| 2,2-Dichloropropane | ND | 1.0 | µg/L | 1 | R-05 | SW-846 8260D | 8/31/22 | 9/1/22 16:26 | EEH |
| 1,1-Dichloropropene | ND | 2.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:26 | EEH |
| cis-1,3-Dichloropropene | ND | 0.50 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:26 | EEH |
| trans-1,3-Dichloropropene | ND | 0.50 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:26 | EEH |
| Diethyl Ether | ND | 2.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:26 | EEH |

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 333 Adelaide Ave., Providence, R  Sample Description:  Work Order: 22H1729

Date Received: 8/30/2022

**Field Sample #: MW-116D-20220829**  Sampled: 8/29/2022 12:00

**Sample ID: 22H1729-02**

Sample Matrix: Ground Water

**Volatile Organic Compounds by GC/MS**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Diisopropyl Ether (DIPE) | ND | 0.50 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:26 | EEH |
| 1,4-Dioxane | ND | 50 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:26 | EEH |
| Ethylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:26 | EEH |
| Hexachlorobutadiene | ND | 0.60 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:26 | EEH |
| 2-Hexanone (MBK) | ND | 10 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:26 | EEH |
| Isopropylbenzene (Cumene) | ND | 1.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:26 | EEH |
| p-Isopropyltoluene (p-Cymene) | ND | 1.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:26 | EEH |
| Methyl Acetate | ND | 1.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:26 | EEH |
| Methyl tert-Butyl Ether (MTBE) | ND | 1.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:26 | EEH |
| Methyl Cyclohexane | ND | 1.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:26 | EEH |
| Methylene Chloride | ND | 5.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:26 | EEH |
| 4-Methyl-2-pentanone (MIBK) | ND | 10 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:26 | EEH |
| Naphthalene | ND | 2.0 | µg/L | 1 | V-05 | SW-846 8260D | 8/31/22 | 9/1/22 16:26 | EEH |
| n-Propylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:26 | EEH |
| Styrene | ND | 1.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:26 | EEH |
| 1,1,1,2-Tetrachloroethane | ND | 1.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:26 | EEH |
| 1,1,2,2-Tetrachloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:26 | EEH |
| Tetrachloroethylene | ND | 1.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:26 | EEH |
| Tetrahydrofuran | ND | 10 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:26 | EEH |
| Toluene | ND | 1.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:26 | EEH |
| 1,2,3-Trichlorobenzene | ND | 5.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:26 | EEH |
| 1,2,4-Trichlorobenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:26 | EEH |
| 1,3,5-Trichlorobenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:26 | EEH |
| 1,1,1-Trichloroethane | ND | 1.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:26 | EEH |
| 1,1,2-Trichloroethane | ND | 1.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:26 | EEH |
| Trichloroethylene | ND | 1.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:26 | EEH |
| Trichlorofluoromethane (Freon 11) | ND | 2.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:26 | EEH |
| 1,2,3-Trichloropropane | ND | 2.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:26 | EEH |
| 1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113) | ND | 2.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:26 | EEH |
| 1,2,4-Trimethylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:26 | EEH |
| 1,3,5-Trimethylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:26 | EEH |
| Vinyl Chloride | ND | 2.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:26 | EEH |
| m+p Xylene | ND | 2.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:26 | EEH |
| o-Xylene | ND | 1.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:26 | EEH |
| Xylenes (total) | ND | 1.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:26 | EEH |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| 1,2-Dichloroethane-d4 | 102 | 70-130 | | 9/1/22 16:26 |
| Toluene-d8 | 101 | 70-130 | | 9/1/22 16:26 |
| 4-Bromofluorobenzene | 103 | 70-130 | | 9/1/22 16:26 |

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 333 Adelaide Ave., Providence, R  Sample Description:  Work Order: 22H1729

Date Received: 8/30/2022

**Field Sample #: MW-116-20220829**  Sampled: 8/29/2022 10:40

**Sample ID: 22H1729-03**

Sample Matrix: Ground Water

**Volatile Organic Compounds by GC/MS**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 50 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:53 | EEH |
| Acrylonitrile | ND | 5.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:53 | EEH |
| tert-Amyl Methyl Ether (TAME) | ND | 0.50 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:53 | EEH |
| Benzene | ND | 1.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:53 | EEH |
| Bromobenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:53 | EEH |
| Bromochloromethane | ND | 1.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:53 | EEH |
| Bromodichloromethane | ND | 0.50 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:53 | EEH |
| Bromoform | ND | 2.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:53 | EEH |
| Bromomethane | ND | 2.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:53 | EEH |
| 2-Butanone (MEK) | ND | 20 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:53 | EEH |
| tert-Butyl Alcohol (TBA) | ND | 20 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:53 | EEH |
| n-Butylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:53 | EEH |
| sec-Butylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:53 | EEH |
| tert-Butylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:53 | EEH |
| tert-Butyl Ethyl Ether (TBEE) | ND | 0.50 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:53 | EEH |
| Carbon Disulfide | ND | 5.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:53 | EEH |
| Carbon Tetrachloride | ND | 5.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:53 | EEH |
| Chlorobenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:53 | EEH |
| Chlorodibromomethane | ND | 0.50 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:53 | EEH |
| Chloroethane | ND | 2.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:53 | EEH |
| Chloroform | ND | 2.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:53 | EEH |
| Chloromethane | ND | 2.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:53 | EEH |
| 2-Chlorotoluene | ND | 1.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:53 | EEH |
| 4-Chlorotoluene | ND | 1.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:53 | EEH |
| 1,2-Dibromo-3-chloropropane (DBCP) | ND | 5.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:53 | EEH |
| 1,2-Dibromoethane (EDB) | ND | 0.50 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:53 | EEH |
| Dibromomethane | ND | 1.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:53 | EEH |
| 1,2-Dichlorobenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:53 | EEH |
| 1,3-Dichlorobenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:53 | EEH |
| 1,4-Dichlorobenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:53 | EEH |
| trans-1,4-Dichloro-2-butene | ND | 2.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:53 | EEH |
| Dichlorodifluoromethane (Freon 12) | ND | 2.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:53 | EEH |
| 1,1-Dichloroethane | ND | 1.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:53 | EEH |
| 1,2-Dichloroethane | ND | 1.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:53 | EEH |
| 1,1-Dichloroethylene | ND | 1.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:53 | EEH |
| cis-1,2-Dichloroethylene | ND | 1.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:53 | EEH |
| trans-1,2-Dichloroethylene | ND | 1.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:53 | EEH |
| 1,2-Dichloropropane | ND | 1.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:53 | EEH |
| 1,3-Dichloropropane | ND | 0.50 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:53 | EEH |
| 2,2-Dichloropropane | ND | 1.0 | µg/L | 1 | R-05 | SW-846 8260D | 8/31/22 | 9/1/22 16:53 | EEH |
| 1,1-Dichloropropene | ND | 2.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:53 | EEH |
| cis-1,3-Dichloropropene | ND | 0.50 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:53 | EEH |
| trans-1,3-Dichloropropene | ND | 0.50 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:53 | EEH |
| Diethyl Ether | ND | 2.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:53 | EEH |

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Project Location: 333 Adelaide Ave., Providence, R  Sample Description:  Work Order: 22H1729

Date Received: 8/30/2022

**Field Sample #: MW-116-20220829**  Sampled: 8/29/2022 10:40

**Sample ID: 22H1729-03**

Sample Matrix: Ground Water

**Volatile Organic Compounds by GC/MS**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Diisopropyl Ether (DIPE) | ND | 0.50 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:53 | EEH |
| 1,4-Dioxane | ND | 50 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:53 | EEH |
| Ethylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:53 | EEH |
| Hexachlorobutadiene | ND | 0.60 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:53 | EEH |
| 2-Hexanone (MBK) | ND | 10 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:53 | EEH |
| Isopropylbenzene (Cumene) | ND | 1.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:53 | EEH |
| p-Isopropyltoluene (p-Cymene) | ND | 1.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:53 | EEH |
| Methyl Acetate | ND | 1.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:53 | EEH |
| Methyl tert-Butyl Ether (MTBE) | ND | 1.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:53 | EEH |
| Methyl Cyclohexane | ND | 1.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:53 | EEH |
| Methylene Chloride | ND | 5.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:53 | EEH |
| 4-Methyl-2-pentanone (MIBK) | ND | 10 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:53 | EEH |
| Naphthalene | ND | 2.0 | µg/L | 1 | V-05 | SW-846 8260D | 8/31/22 | 9/1/22 16:53 | EEH |
| n-Propylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:53 | EEH |
| Styrene | ND | 1.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:53 | EEH |
| 1,1,1,2-Tetrachloroethane | ND | 1.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:53 | EEH |
| 1,1,2,2-Tetrachloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:53 | EEH |
| Tetrachloroethylene | ND | 1.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:53 | EEH |
| Tetrahydrofuran | ND | 10 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:53 | EEH |
| Toluene | ND | 1.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:53 | EEH |
| 1,2,3-Trichlorobenzene | ND | 5.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:53 | EEH |
| 1,2,4-Trichlorobenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:53 | EEH |
| 1,3,5-Trichlorobenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:53 | EEH |
| 1,1,1-Trichloroethane | ND | 1.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:53 | EEH |
| 1,1,2-Trichloroethane | ND | 1.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:53 | EEH |
| Trichloroethylene | ND | 1.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:53 | EEH |
| Trichlorofluoromethane (Freon 11) | ND | 2.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:53 | EEH |
| 1,2,3-Trichloropropane | ND | 2.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:53 | EEH |
| 1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113) | ND | 2.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:53 | EEH |
| 1,2,4-Trimethylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:53 | EEH |
| 1,3,5-Trimethylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:53 | EEH |
| Vinyl Chloride | ND | 2.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:53 | EEH |
| m+p Xylene | ND | 2.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:53 | EEH |
| o-Xylene | ND | 1.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:53 | EEH |
| Xylenes (total) | ND | 1.0 | µg/L | 1 | | SW-846 8260D | 8/31/22 | 9/1/22 16:53 | EEH |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| 1,2-Dichloroethane-d4 | 103 | 70-130 | | 9/1/22 16:53 |
| Toluene-d8 | 102 | 70-130 | | 9/1/22 16:53 |
| 4-Bromofluorobenzene | 98.8 | 70-130 | | 9/1/22 16:53 |

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## Sample Extraction Data

**Prep Method: SW-846 5030B** **Analytical Method: SW-846 8260D**

| Lab Number [Field ID] | Batch | Initial [mL] | Final [mL] | Date |
|---|---|---|---|---|
| 22H1729-01 [MW-112-20220829] | B316234 | 5 | 5.00 | 08/31/22 |
| 22H1729-02 [MW-116D-20220829] | B316234 | 5 | 5.00 | 08/31/22 |
| 22H1729-03 [MW-116-20220829] | B316234 | 5 | 5.00 | 08/31/22 |

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**QUALITY CONTROL**

**Volatile Organic Compounds by GC/MS - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B316234 - SW-846 5030B** | | | | | | | | | | |
| **Blank (B316234-BLK1)** | | | | Prepared: 08/31/22 Analyzed: 09/01/22 | | | | | | |
| Acetone | ND | 50 | µg/L | | | | | | | |
| Acrylonitrile | ND | 5.0 | µg/L | | | | | | | |
| tert-Amyl Methyl Ether (TAME) | ND | 0.50 | µg/L | | | | | | | |
| Benzene | ND | 1.0 | µg/L | | | | | | | |
| Bromobenzene | ND | 1.0 | µg/L | | | | | | | |
| Bromochloromethane | ND | 1.0 | µg/L | | | | | | | |
| Bromodichloromethane | ND | 0.50 | µg/L | | | | | | | |
| Bromoform | ND | 1.0 | µg/L | | | | | | | |
| Bromomethane | ND | 2.0 | µg/L | | | | | | | |
| 2-Butanone (MEK) | ND | 20 | µg/L | | | | | | | |
| tert-Butyl Alcohol (TBA) | ND | 20 | µg/L | | | | | | | |
| n-Butylbenzene | ND | 1.0 | µg/L | | | | | | | |
| sec-Butylbenzene | ND | 1.0 | µg/L | | | | | | | |
| tert-Butylbenzene | ND | 1.0 | µg/L | | | | | | | |
| tert-Butyl Ethyl Ether (TBEE) | ND | 0.50 | µg/L | | | | | | | |
| Carbon Disulfide | ND | 5.0 | µg/L | | | | | | | |
| Carbon Tetrachloride | ND | 5.0 | µg/L | | | | | | | |
| Chlorobenzene | ND | 1.0 | µg/L | | | | | | | |
| Chlorodibromomethane | ND | 0.50 | µg/L | | | | | | | |
| Chloroethane | ND | 2.0 | µg/L | | | | | | | |
| Chloroform | ND | 2.0 | µg/L | | | | | | | |
| Chloromethane | ND | 2.0 | µg/L | | | | | | | |
| 2-Chlorotoluene | ND | 1.0 | µg/L | | | | | | | |
| 4-Chlorotoluene | ND | 1.0 | µg/L | | | | | | | |
| 1,2-Dibromo-3-chloropropane (DBCP) | ND | 5.0 | µg/L | | | | | | | |
| 1,2-Dibromoethane (EDB) | ND | 0.50 | µg/L | | | | | | | |
| Dibromomethane | ND | 1.0 | µg/L | | | | | | | |
| 1,2-Dichlorobenzene | ND | 1.0 | µg/L | | | | | | | |
| 1,3-Dichlorobenzene | ND | 1.0 | µg/L | | | | | | | |
| 1,4-Dichlorobenzene | ND | 1.0 | µg/L | | | | | | | |
| trans-1,4-Dichloro-2-butene | ND | 2.0 | µg/L | | | | | | | |
| Dichlorodifluoromethane (Freon 12) | ND | 2.0 | µg/L | | | | | | | |
| 1,1-Dichloroethane | ND | 1.0 | µg/L | | | | | | | |
| 1,2-Dichloroethane | ND | 1.0 | µg/L | | | | | | | |
| 1,1-Dichloroethylene | ND | 1.0 | µg/L | | | | | | | |
| cis-1,2-Dichloroethylene | ND | 1.0 | µg/L | | | | | | | |
| trans-1,2-Dichloroethylene | ND | 1.0 | µg/L | | | | | | | |
| 1,2-Dichloropropane | ND | 1.0 | µg/L | | | | | | | |
| 1,3-Dichloropropane | ND | 0.50 | µg/L | | | | | | | |
| 2,2-Dichloropropane | ND | 1.0 | µg/L | | | | | | | R-05 |
| 1,1-Dichloropropene | ND | 2.0 | µg/L | | | | | | | |
| cis-1,3-Dichloropropene | ND | 0.50 | µg/L | | | | | | | |
| trans-1,3-Dichloropropene | ND | 0.50 | µg/L | | | | | | | |
| Diethyl Ether | ND | 2.0 | µg/L | | | | | | | |
| Diisopropyl Ether (DIPE) | ND | 0.50 | µg/L | | | | | | | |
| 1,4-Dioxane | ND | 50 | µg/L | | | | | | | |
| Ethylbenzene | ND | 1.0 | µg/L | | | | | | | |
| Hexachlorobutadiene | ND | 0.60 | µg/L | | | | | | | |
| 2-Hexanone (MBK) | ND | 10 | µg/L | | | | | | | |
| Isopropylbenzene (Cumene) | ND | 1.0 | µg/L | | | | | | | |
| p-Isopropyltoluene (p-Cymene) | ND | 1.0 | µg/L | | | | | | | |
| Methyl Acetate | ND | 1.0 | µg/L | | | | | | | |

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**QUALITY CONTROL**

**Volatile Organic Compounds by GC/MS - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | | %REC Limits | RPD | RPD Limit | Notes | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B316234 - SW-846 5030B** | | | | | | | | | | | | |
| **Blank (B316234-BLK1)** | | | | Prepared: 08/31/22 Analyzed: 09/01/22 | | | | | | | | |
| Methyl tert-Butyl Ether (MTBE) | ND | 1.0 | µg/L | | | | | | | | | |
| Methyl Cyclohexane | ND | 1.0 | µg/L | | | | | | | | | |
| Methylene Chloride | ND | 5.0 | µg/L | | | | | | | | | |
| 4-Methyl-2-pentanone (MIBK) | ND | 10 | µg/L | | | | | | | | | |
| Naphthalene | ND | 2.0 | µg/L | | | | | | | | V-05 | |
| n-Propylbenzene | ND | 1.0 | µg/L | | | | | | | | | |
| Styrene | ND | 1.0 | µg/L | | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | 1.0 | µg/L | | | | | | | | | |
| 1,1,2,2-Tetrachloroethane | ND | 0.50 | µg/L | | | | | | | | | |
| Tetrachloroethylene | ND | 1.0 | µg/L | | | | | | | | | |
| Tetrahydrofuran | ND | 10 | µg/L | | | | | | | | | |
| Toluene | ND | 1.0 | µg/L | | | | | | | | | |
| 1,2,3-Trichlorobenzene | ND | 5.0 | µg/L | | | | | | | | | |
| 1,2,4-Trichlorobenzene | ND | 1.0 | µg/L | | | | | | | | | |
| 1,3,5-Trichlorobenzene | ND | 1.0 | µg/L | | | | | | | | | |
| 1,1,1-Trichloroethane | ND | 1.0 | µg/L | | | | | | | | | |
| 1,1,2-Trichloroethane | ND | 1.0 | µg/L | | | | | | | | | |
| Trichloroethylene | ND | 1.0 | µg/L | | | | | | | | | |
| Trichlorofluoromethane (Freon 11) | ND | 2.0 | µg/L | | | | | | | | | |
| 1,2,3-Trichloropropane | ND | 2.0 | µg/L | | | | | | | | | |
| 1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113) | ND | 1.0 | µg/L | | | | | | | | | |
| 1,2,4-Trimethylbenzene | ND | 1.0 | µg/L | | | | | | | | | |
| 1,3,5-Trimethylbenzene | ND | 1.0 | µg/L | | | | | | | | | |
| Vinyl Chloride | ND | 2.0 | µg/L | | | | | | | | | |
| m+p Xylene | ND | 2.0 | µg/L | | | | | | | | | |
| o-Xylene | ND | 1.0 | µg/L | | | | | | | | | |
| Xylenes (total) | ND | 1.0 | µg/L | | | | | | | | | |
| Surrogate: 1,2-Dichloroethane-d4 | *25.5* | | µg/L | 25.0 | | 102 | | 70-130 | | | | |
| Surrogate: Toluene-d8 | *25.3* | | µg/L | 25.0 | | 101 | | 70-130 | | | | |
| Surrogate: 4-Bromofluorobenzene | *25.4* | | µg/L | 25.0 | | 102 | | 70-130 | | | | |
| **LCS (B316234-BS1)** | | | | Prepared: 08/31/22 Analyzed: 09/01/22 | | | | | | | | |
| Acetone | 101 | 50 | µg/L | 100 | | 101 | | 70-160 | | | | † |
| Acrylonitrile | 9.85 | 5.0 | µg/L | 10.0 | | 98.5 | | 70-130 | | | | |
| tert-Amyl Methyl Ether (TAME) | 10.1 | 0.50 | µg/L | 10.0 | | 101 | | 70-130 | | | | |
| Benzene | 10.2 | 1.0 | µg/L | 10.0 | | 102 | | 70-130 | | | | |
| Bromobenzene | 11.4 | 1.0 | µg/L | 10.0 | | 114 | | 70-130 | | | | |
| **Bromochloromethane** | 13.2 | 1.0 | µg/L | 10.0 | | **132** | * | 70-130 | | | L-02, V-20 | |
| Bromodichloromethane | 11.6 | 0.50 | µg/L | 10.0 | | 116 | | 70-130 | | | | |
| Bromoform | 10.7 | 1.0 | µg/L | 10.0 | | 107 | | 70-130 | | | | |
| Bromomethane | 12.3 | 2.0 | µg/L | 10.0 | | 123 | | 40-160 | | | | † |
| 2-Butanone (MEK) | 100 | 20 | µg/L | 100 | | 100 | | 40-160 | | | | † |
| tert-Butyl Alcohol (TBA) | 94.2 | 20 | µg/L | 100 | | 94.2 | | 40-160 | | | | † |
| n-Butylbenzene | 10.6 | 1.0 | µg/L | 10.0 | | 106 | | 70-130 | | | | |
| sec-Butylbenzene | 10.6 | 1.0 | µg/L | 10.0 | | 106 | | 70-130 | | | | |
| tert-Butylbenzene | 10.4 | 1.0 | µg/L | 10.0 | | 104 | | 70-130 | | | | |
| tert-Butyl Ethyl Ether (TBEE) | 11.4 | 0.50 | µg/L | 10.0 | | 114 | | 70-130 | | | | |
| **Carbon Disulfide** | 159 | 5.0 | µg/L | 100 | | **159** | * | 70-130 | | | L-02, V-20 | |
| Carbon Tetrachloride | 12.0 | 5.0 | µg/L | 10.0 | | 120 | | 70-130 | | | | |
| Chlorobenzene | 10.5 | 1.0 | µg/L | 10.0 | | 105 | | 70-130 | | | | |
| Chlorodibromomethane | 11.5 | 0.50 | µg/L | 10.0 | | 115 | | 70-130 | | | | |
| Chloroethane | 13.0 | 2.0 | µg/L | 10.0 | | 130 | | 70-130 | | | | |

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**QUALITY CONTROL**

**Volatile Organic Compounds by GC/MS - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | | %REC Limits | RPD | RPD Limit | Notes | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B316234 - SW-846 5030B** | | | | | | | | | | | | |
| **LCS (B316234-BS1)** | | | | Prepared: 08/31/22 Analyzed: 09/01/22 | | | | | | | | |
| Chloroform | 11.2 | 2.0 | µg/L | 10.0 | | 112 | | 70-130 | | | | |
| **Chloromethane** | 16.2 | 2.0 | µg/L | 10.0 | | **162** | * | 40-160 | | | L-02, V-20 | † |
| 2-Chlorotoluene | 10.3 | 1.0 | µg/L | 10.0 | | 103 | | 70-130 | | | | |
| 4-Chlorotoluene | 10.7 | 1.0 | µg/L | 10.0 | | 107 | | 70-130 | | | | |
| 1,2-Dibromo-3-chloropropane (DBCP) | 10.1 | 5.0 | µg/L | 10.0 | | 101 | | 70-130 | | | | |
| 1,2-Dibromoethane (EDB) | 10.4 | 0.50 | µg/L | 10.0 | | 104 | | 70-130 | | | | |
| Dibromomethane | 11.3 | 1.0 | µg/L | 10.0 | | 113 | | 70-130 | | | | |
| 1,2-Dichlorobenzene | 10.7 | 1.0 | µg/L | 10.0 | | 107 | | 70-130 | | | | |
| 1,3-Dichlorobenzene | 10.4 | 1.0 | µg/L | 10.0 | | 104 | | 70-130 | | | | |
| 1,4-Dichlorobenzene | 10.4 | 1.0 | µg/L | 10.0 | | 104 | | 70-130 | | | | |
| trans-1,4-Dichloro-2-butene | 9.83 | 2.0 | µg/L | 10.0 | | 98.3 | | 70-130 | | | | |
| Dichlorodifluoromethane (Freon 12) | 11.6 | 2.0 | µg/L | 10.0 | | 116 | | 40-160 | | | | † |
| 1,1-Dichloroethane | 11.6 | 1.0 | µg/L | 10.0 | | 116 | | 70-130 | | | | |
| 1,2-Dichloroethane | 10.8 | 1.0 | µg/L | 10.0 | | 108 | | 70-130 | | | | |
| 1,1-Dichloroethylene | 11.3 | 1.0 | µg/L | 10.0 | | 113 | | 70-130 | | | | |
| cis-1,2-Dichloroethylene | 11.7 | 1.0 | µg/L | 10.0 | | 117 | | 70-130 | | | | |
| trans-1,2-Dichloroethylene | 11.3 | 1.0 | µg/L | 10.0 | | 113 | | 70-130 | | | | |
| 1,2-Dichloropropane | 11.9 | 1.0 | µg/L | 10.0 | | 119 | | 70-130 | | | | |
| 1,3-Dichloropropane | 11.6 | 0.50 | µg/L | 10.0 | | 116 | | 70-130 | | | | |
| 2,2-Dichloropropane | 5.54 | 1.0 | µg/L | 10.0 | | 55.4 | | 40-130 | | | R-05 | † |
| 1,1-Dichloropropene | 11.2 | 2.0 | µg/L | 10.0 | | 112 | | 70-130 | | | | |
| cis-1,3-Dichloropropene | 11.3 | 0.50 | µg/L | 10.0 | | 113 | | 70-130 | | | | |
| trans-1,3-Dichloropropene | 11.2 | 0.50 | µg/L | 10.0 | | 112 | | 70-130 | | | | |
| Diethyl Ether | 11.2 | 2.0 | µg/L | 10.0 | | 112 | | 70-130 | | | | |
| Diisopropyl Ether (DIPE) | 12.4 | 0.50 | µg/L | 10.0 | | 124 | | 70-130 | | | | |
| 1,4-Dioxane | 92.6 | 50 | µg/L | 100 | | 92.6 | | 40-130 | | | | † |
| Ethylbenzene | 10.6 | 1.0 | µg/L | 10.0 | | 106 | | 70-130 | | | | |
| Hexachlorobutadiene | 12.0 | 0.60 | µg/L | 10.0 | | 120 | | 70-130 | | | | |
| 2-Hexanone (MBK) | 111 | 10 | µg/L | 100 | | 111 | | 70-160 | | | | † |
| Isopropylbenzene (Cumene) | 10.7 | 1.0 | µg/L | 10.0 | | 107 | | 70-130 | | | | |
| p-Isopropyltoluene (p-Cymene) | 10.5 | 1.0 | µg/L | 10.0 | | 105 | | 70-130 | | | | |
| **Methyl Acetate** | 14.8 | 1.0 | µg/L | 10.0 | | **148** | * | 70-130 | | | L-02, V-20 | |
| Methyl tert-Butyl Ether (MTBE) | 10.7 | 1.0 | µg/L | 10.0 | | 107 | | 70-130 | | | | |
| Methyl Cyclohexane | 11.5 | 1.0 | µg/L | 10.0 | | 115 | | 70-130 | | | | |
| Methylene Chloride | 12.8 | 5.0 | µg/L | 10.0 | | 128 | | 70-130 | | | | |
| 4-Methyl-2-pentanone (MIBK) | 113 | 10 | µg/L | 100 | | 113 | | 70-160 | | | | † |
| Naphthalene | 8.56 | 2.0 | µg/L | 10.0 | | 85.6 | | 40-130 | | | V-05 | † |
| n-Propylbenzene | 10.8 | 1.0 | µg/L | 10.0 | | 108 | | 70-130 | | | | |
| Styrene | 10.3 | 1.0 | µg/L | 10.0 | | 103 | | 70-130 | | | | |
| 1,1,1,2-Tetrachloroethane | 11.6 | 1.0 | µg/L | 10.0 | | 116 | | 70-130 | | | | |
| 1,1,2,2-Tetrachloroethane | 10.2 | 0.50 | µg/L | 10.0 | | 102 | | 70-130 | | | | |
| Tetrachloroethylene | 11.8 | 1.0 | µg/L | 10.0 | | 118 | | 70-130 | | | | |
| Tetrahydrofuran | 11.1 | 10 | µg/L | 10.0 | | 111 | | 70-130 | | | | |
| Toluene | 10.7 | 1.0 | µg/L | 10.0 | | 107 | | 70-130 | | | | |
| 1,2,3-Trichlorobenzene | 10.7 | 5.0 | µg/L | 10.0 | | 107 | | 70-130 | | | | |
| 1,2,4-Trichlorobenzene | 11.0 | 1.0 | µg/L | 10.0 | | 110 | | 70-130 | | | | |
| 1,3,5-Trichlorobenzene | 10.6 | 1.0 | µg/L | 10.0 | | 106 | | 70-130 | | | | |
| 1,1,1-Trichloroethane | 11.4 | 1.0 | µg/L | 10.0 | | 114 | | 70-130 | | | | |
| 1,1,2-Trichloroethane | 11.1 | 1.0 | µg/L | 10.0 | | 111 | | 70-130 | | | | |
| Trichloroethylene | 11.8 | 1.0 | µg/L | 10.0 | | 118 | | 70-130 | | | | |
| Trichlorofluoromethane (Freon 11) | 11.1 | 2.0 | µg/L | 10.0 | | 111 | | 70-130 | | | | |
| 1,2,3-Trichloropropane | 9.95 | 2.0 | µg/L | 10.0 | | 99.5 | | 70-130 | | | | |

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**QUALITY CONTROL**

**Volatile Organic Compounds by GC/MS - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | | %REC Limits | RPD | RPD Limit | Notes | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B316234 - SW-846 5030B** | | | | | | | | | | | | |
| **LCS (B316234-BS1)** | | | | Prepared: 08/31/22 Analyzed: 09/01/22 | | | | | | | | |
| 1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113) | 12.4 | 1.0 | µg/L | 10.0 | | 124 | | 70-130 | | | | |
| 1,2,4-Trimethylbenzene | 10.0 | 1.0 | µg/L | 10.0 | | 100 | | 70-130 | | | | |
| 1,3,5-Trimethylbenzene | 10.6 | 1.0 | µg/L | 10.0 | | 106 | | 70-130 | | | | |
| **Vinyl Chloride** | 46.4 | 2.0 | µg/L | 10.0 | | **464** | * | 40-160 | | | L-02, V-20 | † |
| m+p Xylene | 21.6 | 2.0 | µg/L | 20.0 | | 108 | | 70-130 | | | | |
| o-Xylene | 10.8 | 1.0 | µg/L | 10.0 | | 108 | | 70-130 | | | | |
| Xylenes (total) | 32.4 | 1.0 | µg/L | 30.0 | | 108 | | 0-200 | | | | |
| Surrogate: 1,2-Dichloroethane-d4 | *25.6* | | µg/L | 25.0 | | 103 | | 70-130 | | | | |
| Surrogate: Toluene-d8 | *24.9* | | µg/L | 25.0 | | 99.6 | | 70-130 | | | | |
| Surrogate: 4-Bromofluorobenzene | *26.7* | | µg/L | 25.0 | | 107 | | 70-130 | | | | |
| **LCS Dup (B316234-BSD1)** | | | | Prepared: 08/31/22 Analyzed: 09/01/22 | | | | | | | | |
| Acetone | 102 | 50 | µg/L | 100 | | 102 | | 70-160 | 0.896 | 25 | | † |
| Acrylonitrile | 10.8 | 5.0 | µg/L | 10.0 | | 108 | | 70-130 | 9.02 | 25 | | |
| tert-Amyl Methyl Ether (TAME) | 10.4 | 0.50 | µg/L | 10.0 | | 104 | | 70-130 | 3.12 | 25 | | |
| Benzene | 10.2 | 1.0 | µg/L | 10.0 | | 102 | | 70-130 | 0.391 | 25 | | |
| Bromobenzene | 11.8 | 1.0 | µg/L | 10.0 | | 118 | | 70-130 | 3.45 | 25 | | |
| **Bromochloromethane** | 13.2 | 1.0 | µg/L | 10.0 | | **132** | * | 70-130 | 0.00 | 25 | L-02, V-20 | |
| Bromodichloromethane | 11.9 | 0.50 | µg/L | 10.0 | | 119 | | 70-130 | 2.72 | 25 | | |
| Bromoform | 11.2 | 1.0 | µg/L | 10.0 | | 112 | | 70-130 | 4.38 | 25 | | |
| Bromomethane | 12.6 | 2.0 | µg/L | 10.0 | | 126 | | 40-160 | 1.85 | 25 | | † |
| 2-Butanone (MEK) | 103 | 20 | µg/L | 100 | | 103 | | 40-160 | 2.62 | 25 | | † |
| tert-Butyl Alcohol (TBA) | 96.9 | 20 | µg/L | 100 | | 96.9 | | 40-160 | 2.89 | 25 | | † |
| n-Butylbenzene | 10.1 | 1.0 | µg/L | 10.0 | | 101 | | 70-130 | 5.21 | 25 | | |
| sec-Butylbenzene | 10.3 | 1.0 | µg/L | 10.0 | | 103 | | 70-130 | 2.69 | 25 | | |
| tert-Butylbenzene | 10.4 | 1.0 | µg/L | 10.0 | | 104 | | 70-130 | 0.577 | 25 | | |
| tert-Butyl Ethyl Ether (TBEE) | 11.3 | 0.50 | µg/L | 10.0 | | 113 | | 70-130 | 0.707 | 25 | | |
| **Carbon Disulfide** | 154 | 5.0 | µg/L | 100 | | **154** | * | 70-130 | 2.68 | 25 | L-02, V-20 | |
| Carbon Tetrachloride | 11.5 | 5.0 | µg/L | 10.0 | | 115 | | 70-130 | 3.91 | 25 | | |
| Chlorobenzene | 10.7 | 1.0 | µg/L | 10.0 | | 107 | | 70-130 | 2.07 | 25 | | |
| Chlorodibromomethane | 11.8 | 0.50 | µg/L | 10.0 | | 118 | | 70-130 | 2.58 | 25 | | |
| Chloroethane | 13.0 | 2.0 | µg/L | 10.0 | | 130 | | 70-130 | 0.231 | 25 | | |
| Chloroform | 11.3 | 2.0 | µg/L | 10.0 | | 113 | | 70-130 | 0.802 | 25 | | |
| **Chloromethane** | 17.2 | 2.0 | µg/L | 10.0 | | **172** | * | 40-160 | 5.91 | 25 | L-02, V-20 | † |
| 2-Chlorotoluene | 10.3 | 1.0 | µg/L | 10.0 | | 103 | | 70-130 | 0.486 | 25 | | |
| 4-Chlorotoluene | 10.9 | 1.0 | µg/L | 10.0 | | 109 | | 70-130 | 1.20 | 25 | | |
| 1,2-Dibromo-3-chloropropane (DBCP) | 9.51 | 5.0 | µg/L | 10.0 | | 95.1 | | 70-130 | 5.82 | 25 | | |
| 1,2-Dibromoethane (EDB) | 11.1 | 0.50 | µg/L | 10.0 | | 111 | | 70-130 | 6.99 | 25 | | |
| Dibromomethane | 11.6 | 1.0 | µg/L | 10.0 | | 116 | | 70-130 | 2.63 | 25 | | |
| 1,2-Dichlorobenzene | 10.6 | 1.0 | µg/L | 10.0 | | 106 | | 70-130 | 1.13 | 25 | | |
| 1,3-Dichlorobenzene | 10.7 | 1.0 | µg/L | 10.0 | | 107 | | 70-130 | 2.65 | 25 | | |
| 1,4-Dichlorobenzene | 10.3 | 1.0 | µg/L | 10.0 | | 103 | | 70-130 | 0.965 | 25 | | |
| trans-1,4-Dichloro-2-butene | 9.68 | 2.0 | µg/L | 10.0 | | 96.8 | | 70-130 | 1.54 | 25 | | |
| Dichlorodifluoromethane (Freon 12) | 11.1 | 2.0 | µg/L | 10.0 | | 111 | | 40-160 | 4.77 | 25 | | † |
| 1,1-Dichloroethane | 11.6 | 1.0 | µg/L | 10.0 | | 116 | | 70-130 | 0.0865 | 25 | | |
| 1,2-Dichloroethane | 11.2 | 1.0 | µg/L | 10.0 | | 112 | | 70-130 | 4.01 | 25 | | |
| 1,1-Dichloroethylene | 11.3 | 1.0 | µg/L | 10.0 | | 113 | | 70-130 | 0.177 | 25 | | |
| cis-1,2-Dichloroethylene | 11.6 | 1.0 | µg/L | 10.0 | | 116 | | 70-130 | 1.37 | 25 | | |
| trans-1,2-Dichloroethylene | 11.4 | 1.0 | µg/L | 10.0 | | 114 | | 70-130 | 0.528 | 25 | | |
| 1,2-Dichloropropane | 12.1 | 1.0 | µg/L | 10.0 | | 121 | | 70-130 | 2.09 | 25 | | |
| 1,3-Dichloropropane | 11.8 | 0.50 | µg/L | 10.0 | | 118 | | 70-130 | 1.63 | 25 | | |
| 2,2-Dichloropropane | 11.3 | 1.0 | µg/L | 10.0 | | 113 | | 40-130 | **68.1** | * 25 | R-05 | † |

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**QUALITY CONTROL**

**Volatile Organic Compounds by GC/MS - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | | %REC Limits | RPD | RPD Limit | Notes | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B316234 - SW-846 5030B** | | | | | | | | | | | | |
| **LCS Dup (B316234-BSD1)** | | | | Prepared: 08/31/22 Analyzed: 09/01/22 | | | | | | | | |
| 1,1-Dichloropropene | 11.0 | 2.0 | µg/L | 10.0 | | 110 | | 70-130 | 2.43 | 25 | | |
| cis-1,3-Dichloropropene | 11.7 | 0.50 | µg/L | 10.0 | | 117 | | 70-130 | 3.65 | 25 | | |
| trans-1,3-Dichloropropene | 11.5 | 0.50 | µg/L | 10.0 | | 115 | | 70-130 | 3.26 | 25 | | |
| Diethyl Ether | 11.5 | 2.0 | µg/L | 10.0 | | 115 | | 70-130 | 2.56 | 25 | | |
| Diisopropyl Ether (DIPE) | 12.2 | 0.50 | µg/L | 10.0 | | 122 | | 70-130 | 1.38 | 25 | | |
| 1,4-Dioxane | 99.0 | 50 | µg/L | 100 | | 99.0 | | 40-130 | 6.72 | 50 | | † ‡ |
| Ethylbenzene | 10.7 | 1.0 | µg/L | 10.0 | | 107 | | 70-130 | 0.282 | 25 | | |
| Hexachlorobutadiene | 11.8 | 0.60 | µg/L | 10.0 | | 118 | | 70-130 | 1.43 | 25 | | |
| 2-Hexanone (MBK) | 117 | 10 | µg/L | 100 | | 117 | | 70-160 | 5.67 | 25 | | † |
| Isopropylbenzene (Cumene) | 10.8 | 1.0 | µg/L | 10.0 | | 108 | | 70-130 | 1.21 | 25 | | |
| p-Isopropyltoluene (p-Cymene) | 10.3 | 1.0 | µg/L | 10.0 | | 103 | | 70-130 | 2.41 | 25 | | |
| **Methyl Acetate** | 15.4 | 1.0 | µg/L | 10.0 | | **154** | * | 70-130 | 3.71 | 25 | L-02, V-20 | |
| Methyl tert-Butyl Ether (MTBE) | 10.8 | 1.0 | µg/L | 10.0 | | 108 | | 70-130 | 0.930 | 25 | | |
| Methyl Cyclohexane | 11.7 | 1.0 | µg/L | 10.0 | | 117 | | 70-130 | 1.73 | 25 | | |
| Methylene Chloride | 12.6 | 5.0 | µg/L | 10.0 | | 126 | | 70-130 | 1.26 | 25 | | |
| 4-Methyl-2-pentanone (MIBK) | 119 | 10 | µg/L | 100 | | 119 | | 70-160 | 5.33 | 25 | | † |
| Naphthalene | 8.69 | 2.0 | µg/L | 10.0 | | 86.9 | | 40-130 | 1.51 | 25 | V-05 | † |
| n-Propylbenzene | 10.7 | 1.0 | µg/L | 10.0 | | 107 | | 70-130 | 0.653 | 25 | | |
| Styrene | 10.6 | 1.0 | µg/L | 10.0 | | 106 | | 70-130 | 2.20 | 25 | | |
| 1,1,1,2-Tetrachloroethane | 11.4 | 1.0 | µg/L | 10.0 | | 114 | | 70-130 | 2.00 | 25 | | |
| 1,1,2,2-Tetrachloroethane | 10.7 | 0.50 | µg/L | 10.0 | | 107 | | 70-130 | 5.09 | 25 | | |
| Tetrachloroethylene | 12.1 | 1.0 | µg/L | 10.0 | | 121 | | 70-130 | 2.51 | 25 | | |
| Tetrahydrofuran | 12.6 | 10 | µg/L | 10.0 | | 126 | | 70-130 | 13.0 | 25 | | |
| Toluene | 10.7 | 1.0 | µg/L | 10.0 | | 107 | | 70-130 | 0.00 | 25 | | |
| 1,2,3-Trichlorobenzene | 10.9 | 5.0 | µg/L | 10.0 | | 109 | | 70-130 | 1.95 | 25 | | |
| 1,2,4-Trichlorobenzene | 10.7 | 1.0 | µg/L | 10.0 | | 107 | | 70-130 | 2.76 | 25 | | |
| 1,3,5-Trichlorobenzene | 10.6 | 1.0 | µg/L | 10.0 | | 106 | | 70-130 | 0.754 | 25 | | |
| 1,1,1-Trichloroethane | 11.6 | 1.0 | µg/L | 10.0 | | 116 | | 70-130 | 0.956 | 25 | | |
| 1,1,2-Trichloroethane | 11.8 | 1.0 | µg/L | 10.0 | | 118 | | 70-130 | 6.29 | 25 | | |
| Trichloroethylene | 11.6 | 1.0 | µg/L | 10.0 | | 116 | | 70-130 | 1.79 | 25 | | |
| Trichlorofluoromethane (Freon 11) | 10.8 | 2.0 | µg/L | 10.0 | | 108 | | 70-130 | 3.01 | 25 | | |
| 1,2,3-Trichloropropane | 10.3 | 2.0 | µg/L | 10.0 | | 103 | | 70-130 | 3.55 | 25 | | |
| 1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113) | 12.5 | 1.0 | µg/L | 10.0 | | 125 | | 70-130 | 0.322 | 25 | | |
| 1,2,4-Trimethylbenzene | 9.90 | 1.0 | µg/L | 10.0 | | 99.0 | | 70-130 | 1.10 | 25 | | |
| 1,3,5-Trimethylbenzene | 10.7 | 1.0 | µg/L | 10.0 | | 107 | | 70-130 | 1.22 | 25 | | |
| **Vinyl Chloride** | 44.3 | 2.0 | µg/L | 10.0 | | **443** | * | 40-160 | 4.65 | 25 | L-02, V-20 | † |
| m+p Xylene | 21.6 | 2.0 | µg/L | 20.0 | | 108 | | 70-130 | 0.0926 | 25 | | |
| o-Xylene | 10.9 | 1.0 | µg/L | 10.0 | | 109 | | 70-130 | 0.0921 | 25 | | |
| Xylenes (total) | 32.5 | 1.0 | µg/L | 30.0 | | 108 | | 0-200 | 0.0924 | | | |
| Surrogate: 1,2-Dichloroethane-d4 | *25.1* | | µg/L | 25.0 | | 101 | | 70-130 | | | | |
| Surrogate: Toluene-d8 | *25.3* | | µg/L | 25.0 | | 101 | | 70-130 | | | | |
| Surrogate: 4-Bromofluorobenzene | *26.5* | | µg/L | 25.0 | | 106 | | 70-130 | | | | |

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**FLAG/QUALIFIER SUMMARY**

| | |
|---|---|
| * | QC result is outside of established limits. |
| † | Wide recovery limits established for difficult compound. |
| ‡ | Wide RPD limits established for difficult compound. |
| # | Data exceeded client recommended or regulatory level |
| ND | Not Detected |
| RL | Reporting Limit is at the level of quantitation (LOQ) |
| DL | Detection Limit is the lower limit of detection determined by the MDL study |
| MCL | Maximum Contaminant Level |
| | Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded. |
| | No results have been blank subtracted unless specified in the case narrative section. |
| L-02 | Laboratory fortified blank/laboratory control sample recovery and duplicate recoveries outside of control limits. Data validation is not affected since all results are "not detected" for associated samples in this batch and bias is on the high side. |
| R-05 | Laboratory fortified blank duplicate RPD is outside of control limits. Reduced precision is anticipated for any reported value for this compound. |
| V-05 | Continuing calibration verification (CCV) did not meet method specifications and was biased on the low side for this compound. |
| V-20 | Continuing calibration verification (CCV) did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound. |

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**CERTIFICATIONS**

**Certified Analyses included in this Report**

| Analyte | Certifications |
|---|---|
| ***SW-846 8260D in Water*** | |
| Acetone | CT,ME,NH,VA,NY |
| Acrylonitrile | CT,ME,NH,VA,NY |
| tert-Amyl Methyl Ether (TAME) | ME,NH,VA,NY |
| Benzene | CT,ME,NH,VA,NY |
| Bromobenzene | ME,NY |
| Bromochloromethane | ME,NH,VA,NY |
| Bromodichloromethane | CT,ME,NH,VA,NY |
| Bromoform | CT,ME,NH,VA,NY |
| Bromomethane | CT,ME,NH,VA,NY |
| 2-Butanone (MEK) | CT,ME,NH,VA,NY |
| tert-Butyl Alcohol (TBA) | ME,NH,VA,NY |
| n-Butylbenzene | ME,VA,NY |
| sec-Butylbenzene | ME,VA,NY |
| tert-Butylbenzene | ME,VA,NY |
| tert-Butyl Ethyl Ether (TBEE) | ME,NH,VA,NY |
| Carbon Disulfide | CT,ME,NH,VA,NY |
| Carbon Tetrachloride | CT,ME,NH,VA,NY |
| Chlorobenzene | CT,ME,NH,VA,NY |
| Chlorodibromomethane | CT,ME,NH,VA,NY |
| Chloroethane | CT,ME,NH,VA,NY |
| Chloroform | CT,ME,NH,VA,NY |
| Chloromethane | CT,ME,NH,VA,NY |
| 2-Chlorotoluene | ME,NH,VA,NY |
| 4-Chlorotoluene | ME,NH,VA,NY |
| 1,2-Dibromo-3-chloropropane (DBCP) | ME,NY |
| 1,2-Dibromoethane (EDB) | ME,NY |
| Dibromomethane | ME,NH,VA,NY |
| 1,2-Dichlorobenzene | CT,ME,NH,VA,NY |
| 1,3-Dichlorobenzene | CT,ME,NH,VA,NY |
| 1,4-Dichlorobenzene | CT,ME,NH,VA,NY |
| trans-1,4-Dichloro-2-butene | ME,NH,VA,NY |
| Dichlorodifluoromethane (Freon 12) | ME,NH,VA,NY |
| 1,1-Dichloroethane | CT,ME,NH,VA,NY |
| 1,2-Dichloroethane | CT,ME,NH,VA,NY |
| 1,1-Dichloroethylene | CT,ME,NH,VA,NY |
| cis-1,2-Dichloroethylene | ME,NY |
| trans-1,2-Dichloroethylene | CT,ME,NH,VA,NY |
| 1,2-Dichloropropane | CT,ME,NH,VA,NY |
| 1,3-Dichloropropane | ME,VA,NY |
| 2,2-Dichloropropane | ME,NH,VA,NY |
| 1,1-Dichloropropene | ME,NH,VA,NY |
| cis-1,3-Dichloropropene | CT,ME,NH,VA,NY |
| trans-1,3-Dichloropropene | CT,ME,NH,VA,NY |
| Diethyl Ether | ME,NY |
| Diisopropyl Ether (DIPE) | ME,NH,VA,NY |
| 1,4-Dioxane | ME,NY |
| Ethylbenzene | CT,ME,NH,VA,NY |

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**CERTIFICATIONS**

**Certified Analyses included in this Report**

| Analyte | Certifications |
|---|---|
| ***SW-846 8260D in Water*** | |
| Hexachlorobutadiene | CT,ME,NH,VA,NY |
| 2-Hexanone (MBK) | CT,ME,NH,VA,NY |
| Isopropylbenzene (Cumene) | ME,VA,NY |
| p-Isopropyltoluene (p-Cymene) | CT,ME,NH,VA,NY |
| Methyl Acetate | ME,NY |
| Methyl tert-Butyl Ether (MTBE) | CT,ME,NH,VA,NY |
| Methyl Cyclohexane | NY |
| Methylene Chloride | CT,ME,NH,VA,NY |
| 4-Methyl-2-pentanone (MIBK) | CT,ME,NH,VA,NY |
| Naphthalene | ME,NH,VA,NY |
| n-Propylbenzene | CT,ME,NH,VA,NY |
| Styrene | CT,ME,NH,VA,NY |
| 1,1,1,2-Tetrachloroethane | CT,ME,NH,VA,NY |
| 1,1,2,2-Tetrachloroethane | CT,ME,NH,VA,NY |
| Tetrachloroethylene | CT,ME,NH,VA,NY |
| Toluene | CT,ME,NH,VA,NY |
| 1,2,3-Trichlorobenzene | ME,NH,VA,NY |
| 1,2,4-Trichlorobenzene | CT,ME,NH,VA,NY |
| 1,3,5-Trichlorobenzene | ME |
| 1,1,1-Trichloroethane | CT,ME,NH,VA,NY |
| 1,1,2-Trichloroethane | CT,ME,NH,VA,NY |
| Trichloroethylene | CT,ME,NH,VA,NY |
| Trichlorofluoromethane (Freon 11) | CT,ME,NH,VA,NY |
| 1,2,3-Trichloropropane | ME,NH,VA,NY |
| 1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113) | VA,NY |
| 1,2,4-Trimethylbenzene | ME,VA,NY |
| 1,3,5-Trimethylbenzene | ME,VA,NY |
| Vinyl Chloride | CT,ME,NH,VA,NY |
| m+p Xylene | CT,ME,NH,VA,NY |
| o-Xylene | CT,ME,NH,VA,NY |
| Xylenes (total) | ME,NY |

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Con-Test, a Pace Environmental Laboratory, operates under the following certifications and accreditations:

| Code | Description | Number | Expires |
|---|---|---|---|
| AIHA | AIHA-LAP, LLC - ISO 17025:2017 | 100033 | 03/1/2024 |
| MA | Massachusetts DEP | M-MA100 | 06/30/2023 |
| CT | Connecticut Department of Public Health | PH-0165 | 12/31/2022 |
| NY | New York State Department of Health | 10899 NELAP | 04/1/2023 |
| NH | New Hampshire Environmental Lab | 2516 NELAP | 02/5/2023 |
| RI | Rhode Island Department of Health | LAO00373 | 12/30/2022 |
| NC | North Carolina Div. of Water Quality | 652 | 12/31/2022 |
| NJ | New Jersey DEP | MA007 NELAP | 06/30/2023 |
| FL | Florida Department of Health | E871027 NELAP | 06/30/2023 |
| VT | Vermont Department of Health Lead Laboratory | LL720741 | 07/30/2023 |
| VT-DW | Vermont Department of Health Drinking Water | VT-255716 | 06/12/2023 |
| ME | State of Maine | MA00100 | 06/9/2023 |
| VA | Commonwealth of Virginia | 460217 | 12/14/2022 |
| NH-P | New Hampshire Environmental Lab | 2557 NELAP | 09/6/2022 |
| NC-DW | North Carolina Department of Health and Human Services | 25703 | 07/31/2023 |
| PA | Commonwealth of Pennsylvania DEP | 68-05812 | 06/30/2023 |
| MI | Dept. of Env, Great Lakes, and Energy | 9100 | 09/6/2022 |

22H1729

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Email: info@contestlabs.com

# CHAIN OF CUSTODY RECORD

39 Spruce Street
East Longmeadow, MA 01028

Page 1 of 1

| | |
|---|---|
| Company Name: | Aptim Environmental & Infrastructure, Inc. |
| Address: | 150 Royall Street, Canton, MA 02021 |
| Phone: | 617-794-1767 |
| Project Name: | Textron Providence |
| Project Location: | 333 Adelaide Avenue, Providence, RI |
| Project Number: | 631010697 |
| Project Manager: | Catherine Joe |
| Con-Test Bid: | PO ~~216959~~ 216859 (2) |
| Invoice Recipient: | Catherine Joe |
| Sampled By: | DANIEL C. LEARY 617-212-8276 |

**Requested Turnaround Time**
7-Day ☐ 10-Day ☑
Other:

**Rush-Approval Required**
1-Day ☐ 3-Day ☐
2-Day ☐ 4-Day ☐

**Data Delivery**
Format: PDF ☑ EXCEL ☐
Other: Equis format
Enhanced Data Package Required: ☐
Email To: catherine.joe@aptim.com
Fax To #:

ANALYSIS REQUESTED

| Con-Test Work Order# | Client Sample ID / Description | Beginning Date/Time | Ending Date/Time | Composite | Grab | [1]Matrix Code | Conc Code | EPA 8260C (VOCs) | # of Containers |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | 3 | [2] Preservation Code |
| | | | | | | | | H | [3] Container Code |
| | | | | | | | | V | |
| 1 | MW-112-20220829 ~~MW-112~~ | 8/29/22 | 0950 | | G | GW | U | 3 | |
| 2 | MW-116D-20220829 ~~MW-116D~~ | 8/29/22 | 1200 | | G | GW | U | 3 | |
| 3 | MW-116-20220829 ~~MW-116S~~ | 8/29/22 | 1040 | | G | GW | U | 3 | |
| | ~~MW-D~~ (1) | | | | | | | | |

**Dissolved Metals Samples**
○ Field Filtered
○ Lab to Filter

**Orthophosphate Samples**
○ Field Filtered
○ Lab to Filter

[1] **Matrix Codes:**
**GW** = Ground Water
**WW** = Waste Water
**DW** = Drinking Water
**A** = Air
**S** = Soil/Solid
**SL** = Sludge
**O** = Other (please define)

[2] **Preservation Codes:**
**I** = Iced
**H** = HCL
**M** = Methanol
**N** = Nitric Acid
**S** = Sulfuric Acid
**B** = Sodium Bisulfate
**X** = Sodium Hydroxide
**T** = Sodium Thiosulfate
**O** = Other (please define)

[3] **Container Codes:**
**A** = Amber Glass
**G** = Glass
**P** = Plastic
**ST** = Sterile
**V** = Vial
**S** = Summa Canister
**T** = Tedlar Bag
**O** = Other (please define)

Comments: GIS Key to Catherine.joe@aptim.com

Please use the following codes to indicate possible sample concentration within the **Conc Code** column above:
**H - High; M - Medium; L - Low; C - Clean; U - Unknown**

| | |
|---|---|
| Relinquished by: (signature) | Date/Time: 0700 8/30/22 |
| Received by: (signature) | Date/Time: 8-30-22 1117 |
| Relinquished by: (signature) | Date/Time: 8-30-22 1605 |
| Received by: (signature) | Date/Time: 8/30/22 1605 |
| Relinquished by: (signature) | Date/Time: 8/30/22 1750 |
| Received by: (signature) | Date/Time: 8/31/22 1050 |

**Detection Limit Requirements**
MA
CT
Other:

## Program Information

○ MCP Analytical Certification Form Required
○ RCP Analysis Certification Form Required
○ MA State DW Form Required
PWSID # _____

NELAC and AIHA-LAP, LLC Accredited

TURNAROUND TIME (BUSINESS DAYS) STARTS AT 9:00 AM THE DAY AFTER SAMPLE RECEIPT UNLESS THERE ARE QUESTIONS ON THIS CHAIN. IF THIS FORM IS NOT FILLED OUT COMPLETELY OR IS INCORRECT, TURNAROUND TIME CANNOT START UNTIL ALL QUESTIONS HAVE BEEN ANSWERED.

PLEASE BE CAREFUL NOT TO CONTAMINATE THIS DOCUMENT



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Pace PEOPLE ADVANCING SCIENCE

Doc# 277 Rev 6 July 2022

**Login Sample Receipt Checklist - (Rejection Criteria Listing - Using Acceptance Policy) Any False Statement will be brought to the attention of the Client - State True or False**

Client Received By: ADTMW Date: 08/30/22 Time: 1750

How were the samples received? In Cooler: T No Cooler: _____ On Ice: T No Ice: _____ Direct From Sample: _____ Ambient: _____ Melted Ice: _____

Were samples within Tempurature? Within 2-6°C: T By Gun #: 5 Actual Temp - 2.1 By Blank #: _____ Actual Temp - _____

Was Custody Seal In tact? N/A Were Samples Tampered with? N/A

Was COC Relinquished ? T Does Chain Agree With Samples? T

Are there broken/leaking/loose caps on any samples? F

Is COC in ink/ Legible? T Were samples received within holding time? T

Did COC include all pertinent Information? Client? T Analysis? T Sampler Name? T Project? T ID's? T Collection Dates/Times? T

Are Sample labels filled out and legible? T

Are there Lab to Filters? F Who was notified? _____

Are there Rushes? F Who was notified? _____

Are there Short Holds? F Who was notified? _____

Samples are received within holding time? T Is there enough Volume? T

Is there Headspace where applicable? F MS/MSD? F

Proper Media/Containers Used? T splitting samples required F

Were trip blanks receive F On COC? F

Do All Samples Have the proper pH? Acid T Base N/A

| Vials | # | Containers: | # | | # | | # |
|---|---|---|---|---|---|---|---|
| Unp- | | 1 Liter Amb. | | 1 Liter Plastic | | 16 oz Amb. | |
| HCL- | 9 | 500 mL Amb. | | 500 mL Plastic | | 8oz Amb/Clear | |
| Meoh- | | 250 mL Amb. | | 250 mL Plastic | | 4oz Amb/Clear | |
| Bisulfate- | | Col./Bacteria | | Flashpoint | | 2oz Amb/Clear | |
| DI- | | Other Plastic | | Other Glass | | Encore | |
| Thiosulfate- | | SOC Kit | | Plastic Bag | | Frozen: | |
| Sulfuric- | | Perchlorate | | Ziplock | | | |

**Unused Media**

| Vials | # | Containers: | # | | # | | # |
|---|---|---|---|---|---|---|---|
| Unp- | | 1 Liter Amb. | | 1 Liter Plastic | | 16 oz Amb. | |
| HCL- | | 500 mL Amb. | | 500 mL Plastic | | 8oz Amb/Clear | |
| Meoh- | | 250 mL Amb. | | 250 mL Plastic | | 4oz Amb/Clear | |
| Bisulfate- | | Col./Bacteria | | Flashpoint | | 2oz Amb/Clear | |
| DI- | | Other Plastic | | Other Glass | | Encore | |
| Thiosulfate- | | SOC Kit | | Plastic Bag | | Frozen: | |
| Sulfuric- | | Perchlorate | | Ziplock | | | |

**Comments:**