NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Environmental Remediation, Region 8
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www.dec.ny.gov

September 10, 2024

H.B. Fuller Company
Derek Sharron
1200 Willow Lake Boulevard
St. Paul, Minnesota 55110

Re: Site Management
Periodic Review Report
Former H.B. Fuller – Monarch Div. Prop.
Site N°: V00119
Geneva (T), Ontario (C)

Dear Mr. Sharron:

The New York State Department of Environmental Conservation (Department) and New York State Department of Health (NYSDOH) have completed a review of your Periodic Review Report (PRR) and IC/EC Certification for following period: July 14, 2022, through July 14, 2023. In Section 4.0 of the PRR, you requested the reduction of groundwater sampling and elimination sub-slab vapor and indoor air sampling at the Site. The Department in conjunction with NYSDOH have evaluated the request. Based on the information presented the Department and the Site's site management sampling, the Department is approving the PRR and the request with the following modifications and clarifications.

1. The sub-slab soil vapor and indoor air monitoring program can be eliminated provided that no building expansions/renovations occur, or new structures are constructed at the Site. If any expansions, renovations, or new construction occurs at the Site, then sub-slab soil vapor and indoor air monitoring program will be re-instated.

2. The Department understands that any alteration to the on-site building's foundation, footprint, new building construction, etc. will require the sub-slab and indoor air monitoring program to be re-instated to ensure sub-slab soil vapor and indoor air concentrations have not changed and there are no exposures occurring due to soil vapor intrusion.

3. The Department understands that the next groundwater sampling event (scheduled in 2025) will include the following groundwater monitoring wells to be sampled: MW-114, MW-115, MW-117, MW-118, MW-122, and MW-124d. The groundwater sampling activities will be completed in accordance with the Site Management Plan (SMP) and current ASTM standards. The Department

understands that the groundwater samples will be analyzed for TCL VOCs + TICs at an ELAP certification laboratory and the laboratory data package will be Cat B. The Department understands that groundwater elevations will be collected from each monitoring well to confirm the flow direction and a groundwater contour figure will be generated and provided in the PRR.

Your next PRR was due on August 13, 2024. You should have received a courtesy reminder letter and updated certification form 75-days prior to the due date. Regardless of receipt or not, of the reminder notice, the next PRR including the signed certification form, was still due on the date specified above. For your convenience the IC/EC Certification form is attached to this letter.

If you have any questions or concerns regarding this letter or need further assistance with the Site, please feel free to contact me at (585) 226-5349 or via e-mail Joshua.Ramsey@dec.ny.gov.

Sincerely,

Joshua J. Ramsey
Project Manager

ec:
Jonathan Blaine (H.B. Fuller)
Jack Spicussa (Univar)
Jeff Rowe (Univar)
Scott Anderson (Haley & Aldrich)
Glenn White (Haley & Aldrich)
Justin Deming (NYSDOH)
Julia Kenney (NYSDOH)
David Pratt (NYSDEC)
Charlotte Theobald (NYSDEC)

Enclosure 1

Certification Instructions

I. Verification of Site Details (Box 1 and Box 2):

Answer the three questions in the Verification of Site Details Section. The Owner and/or Qualified Environmental Professional (QEP) may include handwritten changes and/or other supporting documentation, as necessary.

II. Certification of Institutional Controls/ Engineering Controls (IC/ECs)(Boxes 3, 4, and 5)

1.1.1. Review the listed IC/ECs, confirming that all existing controls are listed, and that all existing controls are still applicable. If there is a control that is no longer applicable the Owner / Remedial Party should petition the Department separately to request approval to remove the control.

2. In Box 5, complete certifications for all Plan components, as applicable, by checking the corresponding checkbox.

3. If you cannot certify "YES" for each Control listed in Box 3 & Box 4, sign and date the form in Box 5. Attach supporting documentation that explains why the **Certification** cannot be rendered, as well as a plan of proposed corrective measures, and an associated schedule for completing the corrective measures. Note that this **Certification** form must be submitted even if an IC or EC cannot be certified; however, the certification process will not be considered complete until corrective action is completed.

If the Department concurs with the explanation, the proposed corrective measures, and the proposed schedule, a letter authorizing the implementation of those corrective measures will be issued by the Department's Project Manager. Once the corrective measures are complete, a new Periodic Review Report (with IC/EC Certification) must be submitted within 45 days to the Department. If the Department has any questions or concerns regarding the PRR and/or completion of the IC/EC Certification, the Project Manager will contact you.

III. IC/EC Certification by Signature (Box 6 and Box 7**):**

If you certified "YES" for each Control, please complete and sign the IC/EC Certifications page as follows:

- For the Institutional Controls on the use of the property, the certification statement in Box 6 shall be completed and may be made by the property owner or designated representative.

- For the Engineering Controls, the certification statement in Box 7 must be completed by a Professional Engineer or Qualified Environmental Professional, as noted on the form.

Enclosure 2
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Site Management Periodic Review Report Notice
Institutional and Engineering Controls Certification Form

Site Details **Box 1**

Site No. **V00119**

Site Name Former H.B. Fuller- Monarch Div. Prop.

Site Address: 61 Gates Avenue Zip Code: 14456
City/Town: Geneva
County: Ontario
Site Acreage: 1.740

Reporting Period: July 14, 2023 to July 14, 2024

	YES	NO
1. Is the information above correct?	☐	☐
If NO, include handwritten above or on a separate sheet.		
2. Has some or all of the site property been sold, subdivided, merged, or undergone a tax map amendment during this Reporting Period?	☐	☐
3. Has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))?	☐	☐
4. Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period?	☐	☐
If you answered YES to questions 2 thru 4, include documentation or evidence that documentation has been previously submitted with this certification form.		
5. Is the site currently undergoing development?	☐	☐

Box 2

	YES	NO
6. Is the current site use consistent with the use(s) listed below? Commercial and Industrial	☐	☐
7. Are all ICs in place and functioning as designed?	☐	☐

IF THE ANSWER TO EITHER QUESTION 6 OR 7 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

_____ _____
Signature of Owner, Remedial Party or Designated Representative Date

SITE NO. V00119 **Box 3**

Description of Institutional Controls

Parcel	Owner	Institutional Control
	Univar USA	
		Ground Water Use Restriction
		Landuse Restriction
		Site Management Plan
		IC/EC Plan
		Monitoring Plan

A Site Management Plan is in place for the site and includes:
-groundwater use restriction
-restriction of the site to commercial and/or industrial use
-annual periodic review reports and certification of institutional and engineering controls
-annual groundwater and sub-slab/indoor air monitoring

Box 4

Description of Engineering Controls

Parcel	Engineering Control
	Cover System

Engineering controls as described in the Site Management Plan include:
-one foot cover consisting of soil, gravel, building, asphalt, concrete, etc.

Box 5

Periodic Review Report (PRR) Certification Statements

1. I certify by checking "YES" below that:

   a) the Periodic Review report and all attachments were prepared under the direction of, and reviewed by, the party making the Engineering Control certification;

   b) to the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted engineering practices; and the information presented is accurate and compete.

YES	NO
☐	☐

2. For each Engineering control listed in Box 4, I certify by checking "YES" below that all of the following statements are true:

   (a) The Engineering Control(s) employed at this site is unchanged since the date that the Control was put in-place, or was last approved by the Department;

   (b) nothing has occurred that would impair the ability of such Control, to protect public health and the environment;

   (c) access to the site will continue to be provided to the Department, to evaluate the remedy, including access to evaluate the continued maintenance of this Control;

   (d) nothing has occurred that would constitute a violation or failure to comply with the Site Management Plan for this Control; and

   (e) if a financial assurance mechanism is required by the oversight document for the site, the mechanism remains valid and sufficient for its intended purpose established in the document.

YES	NO
☐	☐

IF THE ANSWER TO QUESTION 2 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

_____ _____

Signature of Owner, Remedial Party or Designated Representative Date

IC CERTIFICATIONS
SITE NO. V00119

Box 6

SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE

I certify that all information and statements in Boxes 1,2, and 3 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I _____ at _____,
print name print business address

am certifying as _____(Owner or Remedial Party)

for the Site named in the Site Details Section of this form.

_____ _____
Signature of Owner, Remedial Party, or Designated Representative Rendering Certification Date

EC CERTIFICATIONS

Box 7

Qualified Environmental Professional Signature

I certify that all information in Boxes 4 and 5 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I _____ at _____,
print name print business address

am certifying as a Qualified Environmental Professional for the _____
(Owner or Remedial Party)

_____	_____	_____
Signature of Qualified Environmental Professional, for the Owner or Remedial Party, Rendering Certification	Stamp (Required for PE)	Date

Enclosure 3
Periodic Review Report (PRR) General Guidance

I. Executive Summary: (1/2-page or less)
   A. Provide a brief summary of site, nature and extent of contamination, and remedial history.
   B. Effectiveness of the Remedial Program - Provide overall conclusions regarding;
      1. progress made during the reporting period toward meeting the remedial objectives for the site
      2. the ultimate ability of the remedial program to achieve the remedial objectives for the site.
   C. Compliance
      1. Identify any areas of non-compliance regarding the major elements of the Site Management Plan (SMP, i.e., the Institutional/Engineering Control (IC/EC) Plan, the Monitoring Plan, and the Operation & Maintenance (O&M) Plan).
      2. Propose steps to be taken and a schedule to correct any areas of non-compliance.
   D. Recommendations
      1. recommend whether any changes to the SMP are needed
      2. recommend any changes to the frequency for submittal of PRRs (increase, decrease)
      3. recommend whether the requirements for discontinuing site management have been met.

II. Site Overview (one page or less)
   A. Describe the site location, boundaries (figure), significant features, surrounding area, and the nature and extent of contamination prior to site remediation.
   B. Describe the chronology of the main features of the remedial program for the site, the components of the selected remedy, cleanup goals, site closure criteria, and any significant changes to the selected remedy that have been made since remedy selection.

III. Evaluate Remedy Performance, Effectiveness, and Protectiveness
   Using tables, graphs, charts and bulleted text to the extent practicable, describe the effectiveness of the remedy in achieving the remedial goals for the site. Base findings, recommendations, and conclusions on objective data. Evaluations and should be presented simply and concisely.

IV. IC/EC Plan Compliance Report (if applicable)
   A. IC/EC Requirements and Compliance
      1. Describe each control, its objective, and how performance of the control is evaluated.
      2. Summarize the status of each goal (whether it is fully in place and its effectiveness).
      3. Corrective Measures: describe steps proposed to address any deficiencies in ICECs.
      4. Conclusions and recommendations for changes.
   B. IC/EC Certification
      1. The certification must be complete (even if there are IC/EC deficiencies), and certified by the appropriate party as set forth in a Department-approved certification form(s).

V. Monitoring Plan Compliance Report (if applicable)
   A. Components of the Monitoring Plan (tabular presentations preferred) - Describe the requirements of the monitoring plan by media (i.e., soil, groundwater, sediment, etc.) and by any remedial technologies being used at the site.
   B. Summary of Monitoring Completed During Reporting Period - Describe the monitoring tasks actually completed during this PRR reporting period. Tables and/or figures should be used to show all data.
   C. Comparisons with Remedial Objectives - Compare the results of all monitoring with the remedial objectives for the site. Include trend analyses where possible.
   D. Monitoring Deficiencies - Describe any ways in which monitoring did not fully comply with the monitoring plan.
   E. Conclusions and Recommendations for Changes - Provide overall conclusions regarding the monitoring completed and the resulting evaluations regarding remedial effectiveness.

VI. Operation & Maintenance (O&M) Plan Compliance Report (if applicable)
   A. Components of O&M Plan - Describe the requirements of the O&M plan including required activities, frequencies, recordkeeping, etc.
   B. Summary of O&M Completed During Reporting Period - Describe the O&M tasks actually completed during this PRR reporting period.
   C. Evaluation of Remedial Systems - Based upon the results of the O&M activities completed, evaluated

the ability of each component of the remedy subject to O&M requirements to perform as designed/expected.

D. O&M Deficiencies - Identify any deficiencies in complying with the O&M plan during this PRR reporting period.

E. Conclusions and Recommendations for Improvements - Provide an overall conclusion regarding O&M for the site and identify any suggested improvements requiring changes in the O&M Plan.

VII. Overall PRR Conclusions and Recommendations

A. Compliance with SMP - For each component of the SMP (i.e., IC/EC, monitoring, O&M), summarize;
   1. whether all requirements of each plan were met during the reporting period
   2. any requirements not met
   3. proposed plans and a schedule for coming into full compliance.

B. Performance and Effectiveness of the Remedy - Based upon your evaluation of the components of the SMP, form conclusions about the performance of each component and the ability of the remedy to achieve the remedial objectives for the site.

C. Future PRR Submittals
   1. Recommend, with supporting justification, whether the frequency of the submittal of PRRs should be changed (either increased or decreased).
   2. If the requirements for site closure have been achieved, contact the Departments Project Manager for the site to determine what, if any, additional documentation is needed to support a decision to discontinue site management.

VIII. Additional Guidance

Additional guidance regarding the preparation and submittal of an acceptable PRR can be obtained from the Departments Project Manager for the site.

PINNACLE ENGINEERING, INC.

2023 PERIODIC REVIEW REPORT
FORMER MONARCH CHEMICALS FACILITY
61 GATES AVENUE, GENEVA, NEW YORK 14456
NYSDEC SITE NO.V00119

AUGUST 10, 2023

Pinnacle Engineering
11541 95th Avenue North
Minneapolis, MN 55369

PINNACLE ENGINEERING

2023 PERIODIC REVIEW REPORT
FORMER MONARCH CHEMICALS FACILITY
61 GATES AVENUE, GENEVA, NEW YORK 14456
NYSDEC SITE NO.V00119

CERTIFICATION

I, Keith B. Rapp, certify that I am currently a Qualified Environmental Professional as defined in 6 NYCRR Part 375, and that this *Periodic Review Report* for the H.B. Fuller Company (NYSDEC Site No. V00119) was prepared in accordance with applicable statutes and regulations and in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation (DER-10) and that all activities were performed in full accordance with approved Workplan and any approved modifications.

_____QEP
Keith B. Rapp
Qualified Environmental Professional
PINNACLE ENGINEERING, INC.

_____10-August-2023____DATE
Revised 9-January-2024

EXECUTIVE SUMMARY

This report documents the fifth (5th) *Periodic Review Report* (PRR) describing the controls implemented for the former Monarch Chemicals property located at 61 Gates Avenue in Geneva, Ontario County, New York 14456 (Site), as well as inspections, monitoring, maintenance, and reporting activities to New York State Department of Environmental Conservation (NYSDEC). Monarch Chemical Company, a former operating division of the H.B. Fuller Company (Fuller), bought Antical Chemical in 1979, which operated the 1.7-acre Site, storing, assembling, mixing and packaging powdered and liquid cleaners and sanitizers for dairy-related industries. In 1996, Fuller sold the Site and business, leading to environmental investigations detecting volatile organic compounds (VOCs), and methyl blue active substances (MBAS) in soil and groundwater. On-site and off-site remedial investigations sampled groundwater, surface water, stream sediments, potential for light non-aqueous phase liquids (LNAPL), and sub-slab soil vapor and indoor air related to potential soil vapor intrusion (SVI) considerations.

Remedial investigation activities began in early-1998, were completed in June 2012, and approved by NYSDEC February 21, 2013. These investigations revealed site geology and hydrogeology typical of glacial sediments in the Finger Lakes Region of upstate New York. Borings confirm 0 - 4 feet of gravel to silt fill covering the Site, underlain by alternating native silt and clays ranging from 0 - 8 feet thick, overlying sand and sandy loam 2 - 10 feet thick. Beneath the glacial sediments is crystalline gray amorphous limestone and chert bedrock, encountered approximately 20 - 24 feet bgs.

On March 4, 2002, NYSDEC and Fuller entered into the voluntary investigation program to gather additional data and information to identify, design, and implement a remedial program. Pre-IRM groundwater data detected Tetrachloroethene (PCE), Trichloroethene (TCE), 1,1,1-Trichloroethane (111TCA), and their breakdown degradation products in soil and groundwater. These VOCs were highest north of the plant in the MW-118 Source Area at greater than 6,700 mg/Kg in soil, and greater than 15,000 ug/L in groundwater. These concentrations represent the IRM design criteria. In February 2007, Fuller and NYSDEC agreed to an IRM consisting of enhanced in-situ bioremediation (EISB) program via enhanced reductive dechlorination (ERD). IRM injections began October 9, 2008, and continued through October 21, 2008, consisting of amendments of carbon substrate of emulsified vegetable oil (EVO), coupled with source area injections of nano-structured zero-valent iron (nZVI).

Effectiveness

After more than fourteen (14) years of post-IRM groundwater monitoring, all site data have documented decreasing contaminant concentrations in all wells with the primary groundwater constituents consisting of degradation products of the chlorinated solvents. The sole exception to this is Chloroethane, one of the final breakdown (daughter) products of the original solvent release. Correspondingly, the sub-slab soil vapor environment has proportionally decreased in direct response

to decreasing groundwater-related contaminants. The soil vapor/indoor air matrix developed to address current and potential exposures recommends '*no further action*' for all Site COCs. The IRM has successfully achieved this intended result, and no further indoor air/sub-slab vapor monitoring is warranted.

Compliance

This 5th PRR results indicate the Site is in compliance with the applicable requirements as presented in the *Decision Document* (NYSDEC – July 2016), IC/EC conditions, *Site Management Plan* (SMP), and Deed Restrictions filed with Ontario County, New York.

Conclusions

The Site is in compliance with the inspection, monitoring, and reporting requirements for the SMP. The cap\soil cover remains intact and competent across the site, no changes have occurred during the reporting period, and no corrective action is required, no corrective action was completed for any element of this PRR.

Recommendations

The progress and results of the IRM, based on long-term monitoring for more than 15-years supports reducing the sampling program for groundwater, and eliminating the sub-slab soil vapor and indoor air monitoring. This recommendation includes groundwater sampling in 2025 at monitoring wells MW-114, MW-118, MW-122, and MW-124d for VOCs (EPA Test Method 8260D). This monitoring event would consist of a site-wide round of groundwater levels to confirm groundwater flow direction, and sampling wells which exceeded the NYSDEC groundwater standards in 2023.

The Departments VI matrix recommends no further sampling or monitoring is warranted. Soil vapor pins and vaults should be abandoned in accordance with the *Final NYSDOH CEH BEEI Soil Vapor Intrusion Guidance* (October 2006).

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2023 PERIODIC REVIEW REPORT
FORMER MONARCH CHEMICALS FACILITY
61 GATES AVENUE, GENEVA, NEW YORK 14456
SITE ID NO.V00119

AUGUST 10, 2023

1.0 SITE OVERVIEW

Pinnacle Engineering Inc., (Pinnacle), on behalf of the H.B. Fuller Company (Fuller), is pleased to submit this fifth *Periodic Review Report* (PRR), dated August 12, 2023, to New York State Department of Environmental Conservation (NYSDEC) for the Former Monarch Chemicals Facility located at 61 Gates Avenue, Geneva, New York. This report was prepared pursuant to the inspection and certification requirements of the *Site Management Plan* (SMP), dated September 22, 2017, for NYSDEC Site No.V00119.

1.1 Site History and Remedial Program

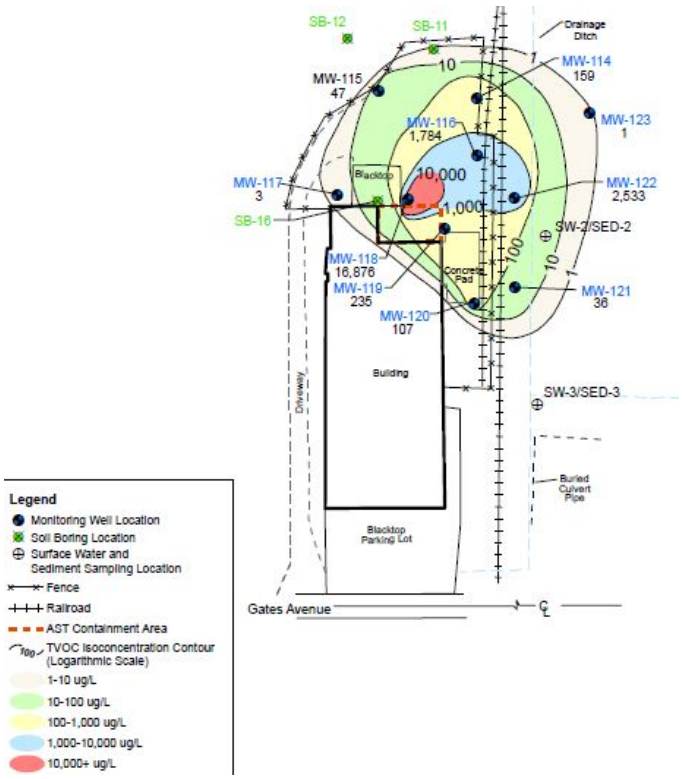
The former Monarch Chemicals Facility (Site) is located at 61 Gates Avenue, Ontario County, in Geneva, New York (Figure 1), a manufacturing plant with over one hundred twenty years of industrial operations. In 1979, Monarch Chemical Company (Monarch), a former operating division of the H.B. Fuller Company (Fuller), bought Antical Chemical, which operated on the 1.7-acre property storing, assembling, mixing and packaging powdered and liquid cleaners and sanitizers for dairy-related industries. In 1996, Fuller sold the property and business to HoltraChem Distribution Inc., which was later acquired by Basic Chemical Solutions, LLC (BCS). BCS later merged with Univar Solutions (Univar), a global distributor of commodity chemicals, which produces inorganic mineral acids and bases such as caustic soda, bleach, and sulfuric and hydrochloric acids on-site.

The Site is industrially developed with a manufacturing plant occupying approximately 33,700 ft^2, with accompanying loading and unloading areas, parking lots, and an above ground storage tank (AST) Containment Area (see adjacent photograph). Access to the Site is via Gates Avenue, which is contiguous along the southern property boundary. The Site is located in an industrial area of Geneva, north of Seneca Lake. Properties bordering the Site include a furniture manufacturer (CCN International) to the north, railroad tracks (Finger Lakes Railroad) to the

east, including an ephemeral stream and adjacent vacant lots and residences further east. Brownfield development properties, including vacated manufacturing facilities and residential developments, are located to the south and west.

In 1996, petroleum impacts were encountered in soil and groundwater north of the manufacturing plant (Figure 2) during the removal of a 3,000 gallon underground storage tank (UST). Also in 1996, methyl blue active substances (MBAS) were detected beneath the manufacturing plant in soil and groundwater, extending east to the drainage ditch (Figure 2). At this same time, chlorinated volatile organic compounds (VOCs) were detected north of the plant near and beneath the AST Containment Area, impacting shallow soils and groundwater to a depth of approximately fourteen (14) feet below ground surface (bgs). These conditions led to investigations into potential surface and subsurface impacts of soil, soil vapor, surface water, and groundwater under authority of New York State Department of Environmental Conservation (NYSDEC), Site No.V00119.

Remedial investigation activities began in early-1998, and were completed in June 2012. NYSDEC approved the RFI February 21, 2013. The highest VOC concentrations in groundwater were centered at monitoring well MW-118, which is considered the VOC mass source area. Prior to implementing Interim Remedial Measures (IRM) activities in October 2008, Tetrachloroethene (PCE) groundwater concentrations at MW-118 reached 4,900 ug/L, and Trichloroethene (TCE) concentration at MW-118 reached 2,700 ug/L. Pre-IRM groundwater total VOC (TVOCs) levels in January 2006 here reached 17,126 ug/L, and due to the apparent age of the release, multiple VOC degradation products were consistently detected in groundwater prior to implementing the IRM. Contemporaneously, corrective action activities were conducted in October 2008 by implementing the IRM described in the *Enhanced Reductive Dechlorination In-Situ Bioremediation Interim Remedial Measures Workplan* (May 20, 2008), *Interim Remedial Measures (IRM) Groundwater Monitoring Report* (January 15, 2010), and the *Final Engineering Report* (December 8, 2017). The objective of this IRM was treating and remediating VOCs in the soil and groundwater environment, resulting in a corresponding reduction of soil vapor intrusion (SVI) risks to workers in the BCS manufacturing plant. The IRM was carried out via injection of a carbon substrate of emulsified vegetable oil (EVO) across the groundwater plume north and east of the plant, coupled in the source area with injections of nano-structured zero-valent iron (nZVI).



Pinnacle Engineering, Inc.
11541 95th Avenue North
Minneapolis, MN 55369
(763) 315-4501

1.2 Remedy Evaluation and Recommendations Summary

In summary, this *Periodic Review Report* (PRR) is intended as an on-going management tool to evaluate the selected remedial program implemented through the ERD IRM. This ERD IRM destroyed *in-situ* VOCs in the shallow soil and groundwater environments, with the added benefit of reducing or eliminating the VOC mass contributing to soil vapor concentrations below the northern portion of the BCS manufacturing plant. As determined in the NYSDEC *Decision Document*, based on the implementation of the IRM, the investigation findings indicate the Site no longer poses a threat to human health or the environment (NYSDEC - July 2016), and there are no completed human pathways for COCs in groundwater, surface water, sediment, and sub-slab soil vapor contaminants to potential receptors.

Based on information reviewed and presented in this PRR, implementation of investigation and monitoring activities was required to ensure that the remedy performed properly and effectively, and remains protective of public health and the environment. In order to remain in compliance with the SMP, continued groundwater monitoring and SVI sampling were conducting during this reporting period in mid-March 2023. Summaries of recommended maintenance and monitoring activities are provided or referenced below. Certification of these criteria and standards are presented in Attachment 0.

Pre-IRM (October 2008) to present day, VOC groundwater concentrations in the MW-118 Source Area have decreased between 98% to 100%, as noted below.

	January 2006	December 2021
Total VOCs	17,126 ug/L	295 ug/L
Tetrachloroethene	4,900 ug/L	<2 ug/L
Trichloroethene	2,700 ug/L	15 ug/L
1,1,1-Trichloroethane	3,900 ug/L	<2 ug/L

Each groundwater monitoring event following the IRM implementation provides predictable data and trends of the intended outcome of the corrective action program. The IRM clearly demonstrates the efficiency and efficacy of the decades-long cleanup activities. All available data suggests a single chlorinated source area near MW-118 that led to a sustained pre-IRM VOC release to groundwater, which was directly affected and remediated through implementing the IRM. Over time, the IRM has positively affected the sub-slab VOC concentrations, and chlorinated VOCs in indoor air. The progress and results of the IRM, based on long-term monitoring, support reducing the sampling programs for groundwater to select wells on a biennial schedule, and eliminating sub-slab soil vapor and indoor air monitoring.

2.0 EVALUATE REMEDY PERFORMANCE, EFFECTIVENESS, AND PROTECTIVENESS

Multiple reports have been submitted pre- and post-IRM, detailing monitoring results from these sampling events. These data are not reiterated herein. Supporting documents which describe the requirements for these monitoring events include a *Site Health and Safety Plan* (September 21, 2007), and *Sampling and Analysis Plan* (October 30, 2007) prepared for health and safety procedures and protocol, and for sample collection and analysis at the Site. To direct the project to closure a *Site Management Plan* (September 22, 2017), was prepared to manage and report remaining contamination at the site until remediation activities are complete, and no further Site activities are required. Summarized below are measures for evaluating the performance and effectiveness of the remedy and to confirm that the remedy continues to be effective for the protection of public health and the environment. Following IRM implementation, the SMP is referenced as the site guidance document, and summarized below.

Inspections	**Frequency**
Screening\segregating soil per Excavation Workplan	As needed
Sitewide Inspections	Annual
Monitoring	**Frequency**
Groundwater, sub-slab soil vapor, indoor air	Biennial
Well and soil probe abandonment	one-time event
Maintenance	**Frequency**
none	As needed
Institutional Controls	The property may be used for commercial and industrial use
	Deed Restriction
	Monitoring soil conditions for ground-intrusive activities
	Groundwater restricted use
Engineering Controls	Maintain soil cover
Reporting	**Frequency**
Periodic Review Report	18-months after closure, annual thereafter

Consistent with the SMP, and the Certification requirements to maintain institutional controls and/or engineering controls (IC/EC), Attachment 0 contains signed Certifications for each element of the SMP, as follows:

Site Details	– Box 1 and Box 2
Description of Institution Controls	– Box 3
Description of Engineering Controls	– Box 4
Periodic Review Report (PRR) Certification Statements	– Box 5
IC Certifications	– Box 6
EC Certifications	– Box 7

2.1 Inspection Plan

2.1.1 Inspection Plan Compliance

This Inspection Plan describes the measures for evaluating the performance and effectiveness of the remedy and to confirm that the remedy continues to be effective for the protection of public health and the environment. On-site inspections are conducted annually, regardless of the frequency of the PRR. These inspections are intended to evaluate and document the following:

- Whether IC/ECs remain in place;
- Compliance with requirements of the SMP and the Deed Notice;
- Sampling and analysis completed during implementation of an Excavation Workplan (EWP);
- Evaluating site information to confirm if the remedy continues to be effective in protecting public health and the environment;
- Monitoring well decommissioning procedures;
- Annual inspection and periodic certification; and,
- Preparing the necessary reports documenting sampling activities.

Inspection programs are summarized below.

Site Inspection Schedule			
Task	**Frequency**	**Matrix**	**Analysis**
Screening\segregating soil samples per EWP. Confirmation samples per excavation dimension	As-needed; if disturbed >1' bgs	soil	PID; EPA Method 8260D
Sitewide inspection and documentation	Annually	not applicable	Visual inspection

There were no soil or cap excavations conducted during the reporting period, and no need to implement the EWP protocol. Sitewide inspection programs are summarized below.

2.1.2 Evaluation of Inspection Activities

Site inspections were initiated March 21, 2023, and confirmed July 6, 2023, and included the sub-slab sampling locations inside the plant, the groundwater monitoring wells on- and off-site, and the land cover and institutional controls described in the SMP. A copy of the *Site Inspection Form* is included in Appendix 0 of this PRR. No corrective action was required for any element of the SMP.

Inspection of the sub-slab monitoring locations (Figure 2) inside the BCS facility indicated each location was consistent with the previous sampling event, each point was sound, secure, and in working order, and no repairs or corrective action were necessary. Inspection of the on-site and off-site groundwater monitoring locations (Figure 2) also indicated each well was consistent with the previous sampling event, each well was sound, secure, and in working order, and other than removing minor sediment/dust on the sealed manhole covers, no repairs were necessary.

Figure 19 outlines the site surface cover type including areas which are vegetated, gravel and soil covered areas, or land covered by concrete or blacktop/asphalt. These areas remain intact and unchanged during the reporting period, and no corrective action was required. The inspection program was executed as planned, and no modifications are recommended to the plan. Consistent with the SMP, and the Certification requirements to maintain institutional controls and/or engineering controls (IC/EC), Appendix 0 contains signed Certifications for each element of the SMP.

2.2 Monitoring Plan

2.2.1 Groundwater Monitoring Plan Compliance Report

Twenty nine (29) sitewide groundwater sampling events have been completed over more than 24-years of groundwater monitoring at the Site, as noted in the table below.

Summary of Groundwater Sampling Dates

Groundwater Sampling Event	RI	Pre-IRM	Post-IRM	Sampling Frequency		Compliance Date
				As needed	Annual/ Biennial	
Mar-2023			X			3/21/2023
Dec-2021			X		X	12/14/2021
Mar-2020			X		X	3/4/2020
Dec-2019			X		X	12/5/2019
Dec-2017			X		X	12/10/2017
Nov-2008, Apr-2009, Aug-2009, Apr-2010, Aug-2010, Nov-2010, Apr-2011, Dec-2011, Mar-2013, Mar-2015, Aug-2016			X	X		
Oct-2005, Jan-2006, Sep-2007, Apr-2008, Aug-2008	X	X		X		
May-1996, Oct-1996, Jul-1997, Feb-1998, May-1998, Jul-1998, Apr-1999, Aug-1999	X			X		

On March 6, 2023, NYSDEC was notified of the schedule for groundwater and sub-slab soil vapor and indoor air quality (collectively SVI) sampling to be completed during 2023 Week 11–12. Sampling staff mobilized to the Site in preparation for groundwater sampling March 17, 2023. Groundwater levels were measured across the monitoring well network (Figure 2) to determine purge volumes, monitoring well water column thickness, and purge methods in preparation for sampling. This round of groundwater levels indicated that no (0%) wells were dry, however, well MW-121 exhibited a limited groundwater column (1.85 ft), and slow purge development methods were incorporated for this sampling event. Table 1 provides the groundwater monitoring well construction details. Groundwater sampling forms are included in Attachment 1 of this report.

March 18-20, 2023, Potentiometric Elevation Summary										
Well	**MW-114**	**MW-115**	**MW-115D**	**MW-116**	**MW-117**	**MW-118**	**MW-121**	**MW-122**	**MW-124S**	**MW-124D**
Potentiometric Elevation (ft AMSL)	452.96	455.47	451.8	458.13	460.84	457.56	449.67	453.96	458.68	449.65
Water Column (ft)	4.36	6.12	13.29	9.08	10.86	8.16	1.85	5.91	8.46	7.61

Groundwater samples collected in March 2023 were submitted for laboratory analysis of volatile organic compounds (VOCs) via EPA Test Method 8260D. As noted in the *Decision Document* (NYSDEC, July 2016) the Site contaminants of concern (COCs) are:

- Tetrachloroethene (PCE)
- cis-1,2-Dichloroethene (cDCE)
- Trichloroethene (TCE)
- Vinyl chloride (VC)
- 1,1,1-Trichloroethane (111TCA)
- 1,1-Dichloroethane (11DCA)
- Chloroethane

Attachment 11 to this report includes the Eurofins TestAmerica Laboratory Analytical Report SDG 240-182494 for groundwater analysis. The analytical program included a duplicate sample (MW-118) and a field trip blank analyzed with this sample data group (SDG). All groundwater monitoring wells were purged and sampled with a dampened peristaltic pump for low flow conditions (200 mL/min), except MW-121 which was sampled with a bailer due to slow recharge. These data are summarized below, and presented graphically in Attachment 2. These sampling methods are consistent with historical sampling protocols.

Groundwater Sampling Summary

The groundwater flow direction is conformable with historical flow, with a mound centered near the center of the Site at well MW-117, and a radial flow outward from this location to the northeast, east, and southeast, as noted on Figure 3. Ultimately, groundwater flow and discharge is toward the drainage ditch east of the property (Figure 3). Potentiometric levels across the Site rose

(recharged) moderately from prior measurements in December 2021, ranging from a rise of 0.43 feet at MW-115, to 4.1 feet at MW-116, as noted on hydrographs included in Attachment 3. Table 2 presents potentiometric data collected during the groundwater sampling event March 18 – 20, 2023. Historical site hydrographs are included in Attachment 3. As represented by all previous groundwater monitoring events, evapotranspiration exerts a great influence on groundwater conditions across the Site, and the water table conditions in the glaciofluvial sediments does not represent an aquifer. Groundwater analytical results from the March 2023 sampling event are summarized on Table 4a ('*hits*' table) attached to this report, with all analytes and concentrations provided in Table 4b. The historical VOC groundwater sampling summary is included in Table 5. A summary of the laboratory analytical data is provided below, and graphically in the cited figures.

- Figure 4, 1,1,1-Trichloroethane (111TCA) Detected in Groundwater - March 2023, indicates MW-114 was the only location to detect 111TCA at or above the laboratory method detection limit (MDL) at 2.2 ug/L. All other sampling locations did not detect 111TCA above their respective MDL. The NYSDEC 703.5 Standard for 111TCA is 5 ug/L in groundwater.
- Figure 5, 1,1-Dichloroethane (11DCA) Detected in Groundwater - March 2023, indicates MW-118 detected 11DCA at 100 ug/L, MW-122 detected at 12 ug/L, MW-115 detected at 3.8 ug/L, and MW-121 detected 11DCA at 2.4 ug/L. All other sampling locations did not detect 11DCA above their respective MDL. The NYSDEC 703.5 Standard for 11DCA is 5 ug/L in groundwater.
- Figure 6, Chloroethane (CA) Detected in Groundwater - March 2023, indicates MW-124d detected Chloroethane at 140 ug/L, MW-118 detected at 8.7 ug/L, and MW-122 detected Chloroethane at 2.9 ug/L. All other sampling locations did not detect Chloroethane above their respective MDL. The NYSDEC 703.5 Standard for Chloroethane is 5 ug/L in groundwater.
- Figure 7, cis-1,2-Dichloroethene (cDCE) Detected in Groundwater - March 2023, indicates MW-118 detected cDCE at 100 ug/L, MW-122 detected at 7.1 ug/L, MW-115 detected at 3.4 ug/L, and MW-121 detected cDCE at 2.8 ug/L. All other sampling locations did not detect cDCE above their respective MDL. The NYSDEC 703.5 Standard for cDCE is 5 ug/L in groundwater.
- Figure 8, trans-1,2-Dichloroethene (tDCE) Detected in Groundwater - March 2023, indicates MW-122 detected tDCE at 1 ug/L, and MW-124s detected at 1.2 ug/L. All other sampling locations did not detect tDCE above their respective MDL. The NYSDEC 703.5 Standard for tDCE is 5 ug/L in groundwater.
- Figure 9, Tetrachloroethene (PCE) Detected in Groundwater - March 2023, indicates MW-114 detected PCE at 6.5 ug/L, MW-115 detected at 2.8 ug/L, and MW-117 detected PCE at 2 ug/L. All other sampling locations did not detect PCE above their respective MDL. The NYSDEC 703.5 Standard for PCE is 5 ug/L in groundwater.

- Figure 10, Trichloroethene (TCE) Detected in Groundwater - March 2023, indicates MW-118 detected TCE at 15 ug/L, MW-114 detected at 6.5 ug/L, MW-121 detected at 1.7 ug/L, and MW-116 detected TCE at 1.4 ug/L. All other sampling locations did not detect TCE above their respective MDL. The NYSDEC 703.5 Standard for TCE is 5 ug/L in groundwater.
- Figure 11, Vinyl chloride (VC) Detected in Groundwater - March 2023, indicates MW-118 detected VC at 72 ug/L, MW-122 detected at 1.9 ug/L, and MW-124s detected VC at 1.3 ug/L. All other sampling locations did not detect VC above their respective MDL. The NYSDEC 703.5 Standard for VC is 2 ug/L in groundwater.
- Figure 12, Total VOCs Detected in Groundwater - March 2023 is the sum of all volatiles detected in EPA Test Method 8260D. During March 2023 MW-118 detected TVOCs at 295.7 ug/L, MW-124d detected at 140 ug/L, MW-122 detected at 24.9 ug/L, MW-114 detected at 15.2 ug/L, MW-115 detected at 10 ug/L, MW-121 detected at 6.9 ug/L, MW-124s detected at 2.5 ug/L, MW-117 detected at 2 ug/L, and MW-116 detected TVOCs at 1.4 ug/L. MW-115d did not detect any VOCs in groundwater during this sampling event.

This sampling event, continuing the trend of decreasing groundwater concentrations over time, depicts small areas where groundwater continues to exceed conservative NYSDEC groundwater standards (varying from 2 ug/L for VC, to 5 ug/L for all other detected VOCs), as shown on Figure 13. This includes groundwater conditions at:

Well	Contaminant Exceedance
MW-114	- PCE & TCE
MW-115	- none
MW-115d	- none
MW-116	- none
MW-117	- none
MW-118	- 11DCA, Chloroethane, cDCE, TCE, VC
MW-121	- none
MW-122	- 11DCA, cDCE
MW-124s	- none
MW-124d	- Chloroethane

Contaminant	Well Exceedance
111TCA	- None
11DCA	- MW-118, MW-122
Chloroethane	- MW-118, MW-124d
cDCE	- MW-118, MW-122
tDCE	- None
PCE	- MW-114
TCE	- MW-114, MW-118
VC	- MW-118

A duplicate sample was collected from MW-118, which provided good correlation between samples. The precision of duplicate results can be expressed as the Relative Percent Difference (RPD), which is calculated using the following equation:

$$RPD = [(C_1-C_2)x100]/[(C_1+C_2)/2]$$

RPD Relative Percent Difference [%]
C_1 larger of two values
C_2 smaller of two values

The lower the RPD value, the more precise are the measurements. Precision is the degree of agreement among repeated measurements of the same characteristic on the same sample or on

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separate samples collected as close as possible in time and place. Precision does not measure the difference between the "true" value of sample results. Low precision can be caused by poor instrument performance, inconsistent application of method protocols (both laboratory and sampling), inhomogeneous nature of sample, concentrations of contaminants reported at or near the laboratory's MDL, and the nature of contaminants to be monitored. In general, an RPD value of up to 50% is considered acceptable. A RPD value of 0% means identical results in both samples.

Analyte (ug/L)	MW-118	Duplicate	RPD (%)
1,1-Dichloroethane	100	110	9.5
1,1-Dichloroethene	1.6 J	<5	-
Chloroethane	8.7	9.2	5.6
cis-1,2-Dichloroethene	100	120	18.2
Trichloroethene	15	17	12.5
Vinyl chloride	72	75	4.1

Field parameters were again monitored and reported as important information regarding the anaerobic conditions within the groundwater monitoring network. The March 2023 data indicates that all wells are within a pH of 6.53 – 7.18 SU, and continue to remain near neutral conditions (Figure 14). Dissolved oxygen (DO) levels continue to rise as the injection events gets farther away, with only the source area at MW-118 remaining below the 0.65 mg/L optimum DO level (Figure 15), and the Oxidation Reduction Potential (ORP) levels remain below 0 mV in the treatment zone at wells MW-118, MW-116, WM-122, MW-124 nest (Figure 16), however, these levels are increasing over time, as expected. This data is consistent with historical well stabilization parameters, and is considered representative of site conditions (Attachment 2).

Stabilization Field Parameter Measurements – March 18 - 20, 2023

Well	pH (SU)	Temp. (°C)	Cond. (umhos/cm)	Turbidity (NTU)	D.O. (mg/l)	ORP (mV)
MW-114	7.18	7.68	1,191	46	7.43	16.2
MW-115	6.53	9.51	2,398	103	1.26	57.9
MW-115d	7.08	10.51	1,113	14	2.78	54.9
MW-116	6.79	6.80	969	226	2.45	-7.1
MW-117	6.86	11.06	493	9	2.76	56
MW-118	6.93	8.52	2,545	19	0.48	-59.6
MW-121	6.78	10.61	973	55	4.69	45.6
MW-122	6.76	10.77	991	1	1.52	0.3
MW-124s	6.75	7.53	1,163	46	0.45	-174.6
MW-124d	6.81	9.15	1,338	111	0.58	-173.5

Statistical evaluation for groundwater trends through the Mann-Kendall test, a non-parametric test that can be used to assess concentrations exhibiting either increasing or decreasing trends over time to a specified level of confidence. As a non-parametric test, this evaluation is not dependent upon

the magnitude of data, assumptions of distribution, missing data or irregularly spaced monitoring periods. Mann-Kendall assesses whether a time-ordered data set exhibits an increasing or decreasing trend within a predetermined level of significance. While it is expected that stable water quality conditions will pass the no-trend null hypothesis of the Mann-Kendall test, this result alone does not necessarily mean groundwater concentrations are stable. This is because the Mann-Kendall test does not take into account magnitude or variation of data, therefore, data sets that exhibit no trend in the Mann-Kendall analysis should also test for data variability by assessing the coefficient of variation, or a similar assessment tool. The Mann-Kendall non-parametric statistical test is used to assess trends in groundwater concentration data.

After 14.3-years (5,273-days) from the IRM injection program, the groundwater trend for all constituents, except Chloroethane at MW-122 and MW-124d, either depict decreasing, probably decreasing (PD), stable, or no trend. Following similar degradation pathways as the PCE\TCE trends, chloroethanes and chloromethanes are also sequentially reduced under biological anaerobic dechlorination conditions; for chloroethanes, 111TCA is reduced to 11DCA, then Chloroethane (CA) and finally to Ethane. Monitoring wells MW-122 and MW-124d are the farthest downgradient wells impacted from the MW-118 VOC source area, and this is the final step in completing the reductive dechlorination pathway, as noted in the Mann-Kendall summary table, below.

Mann-Kendall Groundwater Statistical Trend Summary

Well	PCE	TCE	111TCA	11DCE	11DCA	cDCE	VC	Acetone	Chloro-ethane
MW-114	decrease	decrease	decrease	decrease	decrease	no trend	decrease	-	-
MW-115	decrease	decrease	decrease	decrease	decrease	no trend	stable	-	-
MW-115d	stable	stable	-	no trend	decrease	-	-	stable	no trend
MW-116	decrease	decrease	decrease	decrease	stable	PD	no trend	-	-
MW-117	decrease	-	-	-	-	stable	-	no trend	-
MW-118	decrease	decrease	decrease	decrease	decrease	decrease	decrease	-	-
MW-121	stable	PD	decrease	-	stable	stable	stable	-	-
MW-122	decrease	decrease	decrease	-	decrease	decrease	decrease	-	increase
MW-124s	-	no trend	stable	-	decrease	decrease	-	decrease	decrease
MW-124d	-	decrease	-	decrease	decrease	decrease	decrease	-	increase

PD = probably decreasing
= parameter not routinely detected at this location

Statistical trends of VOC conditions in groundwater upgradient of the VOC Source Area show the following:

MW-114 – decreasing or no trend for all compounds;

MW-115 – decreasing, stable, or no trend for all compounds;

MW-115d – decreasing, stable, or no trend for all compounds; and,

MW-116 – decreasing, probably decreasing, stable, or no trend for all compounds.

Statistical trends of VOC conditions in groundwater in the VOC MW-118 Source Area indicate the following:

MW-117 – decreasing, stable, or no trend for all compounds; and,

MW-118 – decreasing trends for all compounds.

Statistical trends of VOC conditions in groundwater downgradient of VOC MW-118 Source Area show the following:

MW-121 – stable or decreasing trends for all compounds;

MW-122 – decreasing trends for all compounds except Chloroethane, which exhibits an increasing trend;

MW-124s – decreasing, stable, or no trend for all compounds; and,

MW-124d – decreasing trends for all compounds except Chloroethane, which exhibits an increasing trend.

This statistical analysis is more thoroughly defined in Appendix I of the *Site Management Plan* (September 22, 2017).

2.2.2 Soil Vapor and Indoor Air Monitoring Plan Compliance Report

Consistent with the *Site Management Plan* (September 22, 2017), the March 21, 2023, sampling event continued the SVI sampling program at the previous sampling locations. With a west to east wind flow, the upwind location (OUTDOORS) for this monitoring event was located south of the BCS plant, along Gates Avenue.

SVI Sampling Event	RI	Pre-IRM	Post-IRM	Sampling Frequency		Compliance Date
				As needed	Annual\ Biennial	
March-2023			X		X	Mar. 21, 2023
December-2021			X		X	Dec. 16, 2021
December-2019			X		X	Dec. 5, 2019
March-2018			X	X		Mar. 2-4, 2018
December-2017			X	X		Dec. 11, 2017
March-2015			X	X		Mar. 24, 2015
March-2013			X	X		Mar. 28, 2013
December-2010			X	X		Dec. 20, 2010
January-2008	X	X				Jan. 31, 2008
March-2007 (baseline)	X	X		X		Mar. 27, 2007

Air samples were collected in clean, laboratory certified, six (6) liter Summa^{tm} canisters. Samples were collected by clean, laboratory supplied flow controllers over a period of approximately eight (8) hours, at an estimated flow rate of 10 mL/minute (Table 6). The laboratory canister ID and flow

controller ID used at each sampling point are noted on the SVI *Air Sampling Field Data Sheets* included in Attachment 6. Consistent with the *Site Management Plan* (September 22, 2017), the March 2023 sampling event continued the SVI sampling program, however, NYSDEC/NYSDOH agreed to reduce the sampling to the SS-2\IA-2 and SS-4\IA-4 locations, including a background, upwind location (OUTDOORS). Due to continuing downward trends in site-related VOCs, SS-1/IA-1 and SS-3/IA-3 were not sampled (Figure 17) pursuant to the recommendations for sample reductions from the previous PRR. Accordingly, the Departments requested HB Fuller to validate analytical sampling conditions, and a *Data Usability Summary Report* (DUSR) was constructed to evaluate the efficacy of the analytical data to determine whether or not the data, as presented, meets the site/project specific criteria for data quality and use. Attachment 12 contains the DUSR for the indoor air and sub-slab vapor results for IA-2/SS-2 and IA/SS-4, which outlines the acceptable use of the sampling results.

Figure 18 provides a summary of the analytical results from the IA-2/SS-2 and IA-4/SS-4 sampling locations (Table 7). These results indicate that:

- **SS-2**, TCE was detected at 1.9 ug\m^3, PCE was detected at 220 ug\m^3, 111TCA was detected at 70 ug\m^3, and MEC was detected at 2.5 ug\m^3. Neither VC, cDCE, 11DCE, or CT was detected at or above the laboratory MDL;
- **IA-2**, CT was detected at 1.1 ug\m^3, PCE was detected at 1.9 ug\m^3, 111TCA was detected at 0.29 ug\m^3, and MEC was detected at 5.5 ug\m^3. Neither TCE, cDCE, 11DCE, or VC was detected at or above the laboratory MDL;
- **SS-4**, TCE was detected at 20 ug\m^3, CT was detected at 0.44 ug\m^3, PCE was detected at 57 ug\m^3, 111TCA was detected at 6.1 ug\m^3, and MEC was detected at 2.1 ug\m^3. Neither cDCE, 11DCE, nor VC was detected at or above the laboratory MDL; and,
- **IA-4**, CT was detected at 1 ug\m^3, PCE was detected at 0.91 ug\m^3 and , MEC was detected at 4.7 ug\m^3. Neither VC, TCE, cDCE, 11DCE, or 111TCA was detected at or above the laboratory MDL. There were no detections of TCE in indoor air at or above the laboratory MDL of <0.20 – 0.23 ug\m^3.

Since the Baseline Sampling Event in 2007, the New York State Department of Health (NYSDOH) has revised the list of COCs for indoor air and the decision matrix summarizing recommended actions to address current and potential exposures related to SVI. The discussion below generally includes those eight (8) compounds identified in the NYSDOH decision matrix including TCE, cDCE, 11DCE, CT (Matrix A); PCE, 111TCA, MEC, (Matrix B); and VC (Matrix C). Figure 18 provides a summary of the compounds detected, and concentrations at the SS-2 and SS-4 sampling locations. No compounds exceeded indoor air quality standards, and again several constituents were detected which are not the Former Monarch Chemicals COPC (constituents of potential concern). Similar to the groundwater statistical analysis, the SVI statistical analysis of these VOCs are provided below.

Mann-Kendall Soil Vapor\Indoor Air Statistical Trend Summary

	PCE	TCE	111TCA	11DCE	cDCE	CT	MEC
SS-1	stable	no trend	no trend	stable	stable	no trend	no trend
IA-1	no trend	PD	no trend	stable	no trend	decrease	stable
SS-2	PD	decrease	decrease	stable	stable	decrease	stable
IA-2	no trend	decrease	stable	stable	stable	decrease	no trend
SS-3	no trend	PD	PD	no trend	no trend	no trend	stable
IA-3	no trend	stable	stable	stable	stable	decrease	no trend
SS-4	no trend	PD	stable	no trend	decrease	decrease	no trend
IA-4	PD	stable	PD	stable	stable	decrease	no trend

PD = Probably Decreasing

IA-1\SS-1 not sampled Mar 2023

IA-3\SS-3 not sampled Mar 2023

All sampling locations (except the baseline, OUTDOOR location) indicate the trend for decreasing, probably decreasing (PD), stable, or no trend for the NYSDOH SVI sampling matrix does not indicate any Site-related VOC exceeding the vapor all COPCs. A review of or indoor air risk criteria, and only one compound indicates any potential for further investigation, VC at SS-2. A point of note, VC has never been detected at or above any MDL in any IA samples throughout the 17-year monitoring period. Additionally, VC has never been detected at or above the laboratory MDL in any SS sampling location throughout that same time-period, but, due to a conservative MDL for VC (MDL <0.20 ug/m^3), and the MDLs at HB Fuller ~= 0.23 ug/m^3, the sample matrix suggests: **Identify Sources** and **Resample** or **Mitigate**. HB Fuller has adequately identified any potential VC sources, resampled repeatedly, and with no VC detections above <u>any</u> laboratory MDL, no further action or sampling is warranted for indoor air and sub-slab vapor sampling.

Table 8 provides a summary of Historical SVI Sub-Slab Sampling Results – VOCs, Table 9 provides a summary of Historical SVI Indoor Air Sampling Results – VOCs, and Table 10 provides a comparison of the detected sub-slab soil vapor and indoor air samples during the March 2023 sampling event. Table 11 provides the results of the March 2023 SVI Sampling Matrix Results. Attachment 6 provides the March 2023 Air Sampling Field Data Sheets, the SVI Isoconcentration Graphs are provided in Attachment 7. Attachment 8 provides the Mann-Kendall SVI Statistical Analysis for the SVI sampling locations, and Attachment 9 is the current BCS Chemical Inventory.

Reduction in Sub-Slab COPCs between March 2007 and March 2023

	TCE Reduction	cDCE Reduction	11DCE Reduction	CT Reduction	PCE Reduction	111TCA Reduction	MEC Reduction	VC Reduction
SS-1	--	--	--	45%	61%	0%	--	--
SS-2	83%	--	100%	100%	75%	71%	--	--
SS-3	99%	99%	100%	96%	99%	99%	--	--
SS-4	--	98%	93%	99%	53%	76%	60%	--

-- = analyte not detected sufficient for statistical evaluation

As defined in the *Site Management Plan* (September 22, 2017), and described in the *Final Engineering Report* (December 8, 2017), the IRM mitigated groundwater in the area of SS-3 with ERD injection points K1, K2, K3, K4, K7, and in the area of SS-4 was mitigated with ERD injection points M13, M15, K8, K9, K10, K11, K12.

Groundwater Monitoring Results

For more than a decade groundwater monitoring continues to depict the positive results of the ERD program implemented through the IRM. The primary groundwater concentrations are all breakdown products of the original chlorinated solvents. Without a continued VOC source to the groundwater environment the concentrations of each COC will continue to degrade and decline. Groundwater at the Site is not obtained from an aquifer, is non-economical, and is protected by Institutional Controls described in the *Site Management Plan* (September 22, 2017) and by *Deed Restriction* filed June 28, 2017, with Ontario County. There are no human or ecological receptors to VOC impacted groundwater, or surface water related to Former Monarch Chemical operations. As noted, groundwater impacts to sub-slab soil vapor have minimal contributions to indoor air quality inside the BCS plant.

SVI Monitoring Results

Through sixteen (16) years of monitoring sub-slab soil vapor sampling data and comparing those results to indoor air quality sampling, there is little correlation (Table 10) between sub-slab constituents and indoor air quality sampling results. This data is highlighted in Attachment 7, charts developed to show sub-slab vapor and indoor air isoconcentration results. Indoor air quality conditions are largely influenced by commercial operations and chemical handling.

Historically, sub-slab vapor constituents and concentrations do not correlate with indoor air quality sampling results (Table 11).

NYSDOH Soil Vapor\Indoor Air Matrix	Recommended Action
Soil Vapor/Indoor Air Matrix A –	SS-2, SS-4 *Identify Source and Resample or Mitigate for CT*. Carbon tetrachloride is not a COC for this site. **All Other Compounds - *No Further Action***
Soil Vapor/Indoor Air Matrix B –	***No Further Action***
Soil Vapor/Indoor Air Matrix C –	***No Further Action***

3.0 IC/EC PLAN COMPLIANCE REPORT

3.1 IC/EC Certification Plan

The Site has a series of ICs in the form of Site restrictions. Adherence to these ICs is required by the Deed Notice. Site restrictions that apply to the Property are:

- The Property may only be used for industrial use provided that the long-term IECs included in this SMP are employed;
- The Property may not be used for a higher level of use, such as unrestricted, residential, restricted residential use without additional remedial investigations and amendment of the Deed Notice, as approved by NYSDEC;
- All future activities on the Property that will disturb soil exceeding Unrestricted Use criteria must be conducted in accordance with the SMP;
- The use of groundwater underlying the Site is prohibited without treatment rendering it safe for the intended use;
- Vegetable gardens and farming on the Property are prohibited; and,
- The Site owner or remedial party will submit to NYSDEC a written statement that certifies, under penalty of perjury, that: (1) land use and groundwater restrictions employed at the Property are unchanged from the previous certification or that any changes to the restrictions were approved by NYSDEC; and, (2) nothing has occurred that impairs the ability of the controls to protect public health and environment or that constitute a violation or failure to comply with the SMP. NYSDEC retains the right to access the Property at any time in order to evaluate the continued maintenance of any and all controls. This certification shall be submitted annually, or an alternate period of time that NYSDEC may allow and will be made by an expert that NYSDEC finds acceptable.

ICs have been incorporated into the Site remedy to limit exposure to remaining soil and groundwater impacts to ensure protection of public health and the environment. A Declaration of Covenants and Restrictions, as recorded in the Deed Notice, has been filed and recorded with Ontario County, and documents all IC/ECs required for the Site. These IC/ECs were prepared to manage remaining soil, soil vapor, and groundwater impacts at the Site until the Deed Notice is extinguished in accordance with ECL Article 71, Title 36.

Engineering controls (ECs) are strategies designed to protect the public from potentially hazardous conditions by placing a barrier or system between the public and the hazard, or by removing or modifying a hazardous condition or substance via mechanical or physical means. Engineering controls involve a physical change to the condition or hazard, and not relying on public behavior changes. Maintaining the existing composite soil cover is the EC designed and implemented for the Site.

3.2 IC/EC Certification Forms

Certification that the site IC/ECs are in compliance with the requirements stated above are included in the forms included in Attachment 0. There were no identified or suspected irregularities with site conditions, and no exceptions were identified.

During the 5th PRR, the Site is in compliance with the IC/EC Certification requirements.

Certification of Institutional Controls - 2023 PERIODIC REVIEW REPORT (August 10, 2023)

"For each IEC identified at the Site, I, Keith B. Rapp, certify that all of the following statements are true:

- The inspection of the site to confirm the effectiveness of the institutional and engineering controls required by the remedial program was performed under my direction;
- The Site IECs are unchanged from the date the control was put in place, or last approved by the Department;
- Nothing has occurred that would impair the ability of the control to protect the public health and environment;
- Nothing has occurred that would constitute a violation or failure to comply with any SMP for this control;
- Access to the Site will continue to be provided to the Department to evaluate the remedy, including access to evaluate the continued maintenance of this control;
- If a financial assurance mechanism is required under the oversight document for the site, the mechanism remains valid and sufficient for the intended purpose under the document;
- Use of the Site is compliant with the Deed Notice; and,
- The information presented in this report is accurate and complete.

I certify that all information and statements in this certification form are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law. I, Keith B. Rapp, of Pinnacle Engineering, 11541 95th Avenue North, Maple Grove, MN 55369, am certifying as Owner's Designated Site Representative, and I have been authorized and designated to sign this certification for the Site."

_____QEP

Keith B. Rapp
Qualified Environmental Professional
PINNACLE ENGINEERING, INC.

9-January-2024 DATE

4.0 CONCLUSIONS AND RECOMMENDATIONS

Conclusions

The Site is in compliance with the inspection, monitoring, and reporting requirements for the SMP. The cap\soil cover remains intact and competent across the site, no changes have occurred during the reporting period, and no corrective action is required, no corrective action was completed for any element of this PRR.

Recommendations

The progress and results of the IRM, based on more than 15-years of long-term monitoring, support reducing the sampling program for groundwater, and eliminating the sub-slab soil vapor and indoor air monitoring. This recommendation would include groundwater sampling in 2025 at monitoring wells MW-114, MW-118, MW-122, and MW-124d for VOCs (EPA Test Method 8260D). This sampling event would consist of a full round of groundwater levels to confirm groundwater flow direction and sampling wells which exceed the NYSDEC groundwater standards in 2023, as noted below.

Contaminant	Well Exceedance
111TCA	- None
11DCA	- MW-118, MW-122
Chloroethane	- MW-118, MW-124d
cDCE	- MW-118, MW-122
tDCE	- None
PCE	- MW-114
TCE	- MW-114, MW-118
VC	- MW-118

Recommendations for post-2025 monitoring events would be structured based on the 2025 groundwater monitoring results and potential exceedance(s) of NYSDEC groundwater standards.

The Departments VI matrix recommends no further sampling or monitoring is warranted. Soil vapor pins and vaults should be abandoned in accordance with the *Final NYSDOH CEH BEEI Soil Vapor Intrusion Guidance* (October 2006).

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Tables

Table 1
Groundwater Monitoring Well Completion Summary
Former Monarch Chemicals Facility
61 Gates Avenue, Geneva, NY 14456
NYSDEC Site No.V00119

Pinnacle Engineering

	Ground Surface Elevation (ft AMSL)	Top of Casing Elevation (ft AMSL)	Depth of Borehole (ft below TOC)	Well Diameter (in)	Casing Material	Screen Material	Screen Slot Size (in)	Screen Length (ft)	Total Well Depth (ft below TOC)	Measured Well Depth (ft below TOC)	Occlusion Depth	Height of TOC (ft. above surface)	Bottom Sump Depth (ft)	Depth to Top of Screen (ft below TOC)	Top of Screen Elevation (ft AMSL)	Depth to Bottom of Screen (ft below TOC)	Bottom of Installed Screen Elevation (ft AMSL)	Bottom of Measured Screen Elevation (ft AMSL)	Date Installed	Date Abandoned
MW-114	462.0	462.03	16	2	PVC	unk	0.01	10	14.0	13.51	0.49	0	0	4.0	458.03	14.0	448.03	448.52	14-Jul-05	--
MW-115	462.3	462.25	16	2	PVC	unk	0.01	10	14.0	13.11	0.89	0	0	4.0	458.25	14.0	448.25	449.14	12-Jul-05	--
MW-115d	462.1	462.06	24	2	PVC	SS	0.01	5	24.0	24.00	0.00	0	0	19.0	443.06	24.0	438.06	438.06	12-Nov-10	--
MW-116	462.4	462.44	16	2	PVC	unk	0.01	10	13.9	13.48	0.42	0	0	3.9	458.54	13.9	448.54	448.96	12-Jul-05	--
MW-117	463.4	463.44	16	2	PVC	unk	0.01	10	13.7	13.50	0.20	unk	0	3.7	459.74	13.7	449.74	449.94	12-Jul-05	--
MW-118	462.4	462.40	16	2	PVC	unk	0.01	10	14.0	13.28	0.72	0	0	4.0	458.40	14.0	448.40	449.12	12-Jul-05	--
MW-121	461.8	461.77	16	2	PVC	unk	0.01	10	14.0	13.97	0.03	0	0	4.0	457.77	14.0	447.77	447.80	13-Jul-05	--
MW-122	461.7	461.65	16	2	PVC	unk	0.01	10	14.0	13.55	0.45	0	0	4.0	457.65	14.0	447.65	448.10	13-Jul-05	--
MW-124s	462.3	462.25	14	2	PVC	SS	0.01	10	12.5	12.50	0.00	0	0	2.5	459.75	12.5	449.75	449.75	14-Aug-08	--
MW-124d	462.3	462.33	24	2	PVC	SS	0.01	5	21.0	21.00	0.00	0	0	16.0	446.33	21.0	441.33	441.33	14-Aug-08	--
SW-1\Stream A	447.39	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	--	--
SW-2\Stream B	447.97	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	--	--
SW-3\Stream C	450.32	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	--	--
MW-119	462.7	462.68	16	2	PVC	unk	0.01	10	14.0	13.56	0.44	0	0	4.0	458.68	14.0	448.68	449.12	11-Jul-05	9-Aug-16
MW-120	462.1	462.12	16	2	PVC	unk	0.01	10	14.0	13.55	0.45	0	0	4.0	458.12	14.0	448.12	448.57	11-Jul-05	9-Aug-16
MW-123	455.9	456.42	16	2	PVC	unk	0.01	10	16.5	15.70	0.80	0.5	0	6.5	449.92	16.5	439.92	440.72	14-Jul-05	22-Apr-11
MW-125d	452.1	452.13	22.1	2	PVC	SS	0.01	5	22.1	22.10	0.00	0	0	17.1	435.03	22.1	430.03	430.03	12-Nov-10	9-Dec-11
MW-125s	452.0	451.98	14	2	PVC	SS	0.01	10	14.0	14.00	0.00	0	0	4.0	447.98	14.0	437.98	437.98	13-Nov-10	9-Dec-11
MW-126	450.7	450.66	14	2	PVC	SS	0.01	10	14.0	14.00	0.00	0	0	4.0	446.66	14.0	436.66	436.66	13-Nov-10	9-Dec-11
MW-127	449.6	449.59	16	2	PVC	SS	0.01	10	14.0	14.00	0.00	0	0	4.0	445.59	14.0	435.59	435.59	13-Nov-10	9-Dec-11
MPE-3s	447.14	448.12	6	1.25	LCS	SS	0.006	1	6.0	6.0	0.00	0.98	0	5.0	443.12	6.0	442.12	442.12	25-Apr-11	--
MPE-3i	447.23	448.81	8	1.25	LCS	SS	0.006	1	8.0	8.0	0.00	1.58	0	7.0	441.81	8.0	440.81	440.81	25-Apr-11	--
MPE-3d	447.13	448.99	10	1.25	LCS	SS	0.006	1	10.0	10.0	0.00	1.86	0	9.0	439.99	10.0	438.99	438.99	25-Apr-11	--
MPW-3s	447.72	449.18	6	1.25	LCS	SS	0.006	1	6.0	6.0	0.00	1.46	0	5.0	444.18	6.0	443.18	443.18	25-Apr-11	--
MPW-3i	447.71	450.30	8	1.25	LCS	SS	0.006	1	8.0	8.0	0.00	2.59	0	7.0	443.30	8.0	442.30	442.30	25-Apr-11	--
MPW-3d	447.56	449.83	10	1.25	LCS	SS	0.006	1	10.0	10.0	0.00	2.27	0	9.0	440.83	10.0	439.83	439.83	25-Apr-11	--
MPE-2s	449.53	451.36	6	1.25	LCS	SS	0.006	1	6.0	6.0	0.00	1.83	0	5.0	446.36	6.0	445.36	445.36	25-Apr-11	--
MPE-2i	449.53	451.29	8	1.25	LCS	SS	0.006	1	8.0	8.0	0.00	1.76	0	7.0	444.29	8.0	443.29	443.29	25-Apr-11	--
MPE-2d	449.41	451.25	10	1.25	LCS	SS	0.006	1	10.0	10.0	0.00	1.84	0	9.0	442.25	10.0	441.25	441.25	25-Apr-11	--
MPW-2s	449.27	451.30	6	1.25	LCS	SS	0.006	1	6.0	6.0	0.00	2.03	0	5.0	446.30	6.0	445.30	445.30	25-Apr-11	--
MPW-2i	449.25	451.09	8	1.25	LCS	SS	0.006	1	8.0	8.0	0.00	1.84	0	7.0	444.09	8.0	443.09	443.09	25-Apr-11	--
MPW-2d	449.42	451.31	10	1.25	LCS	SS	0.006	1	10.0	10.0	0.00	1.89	0	9.0	442.31	10.0	441.31	441.31	25-Apr-11	--
MPE-1s	449.45	451.29	6	1.25	LCS	SS	0.006	1	6.0	6.0	0.00	1.84	0	5.0	446.29	6.0	445.29	445.29	25-Apr-11	--
MPE-1i	449.47	451.28	8	1.25	LCS	SS	0.006	1	8.0	8.0	0.00	1.81	0	7.0	444.28	8.0	443.28	443.28	25-Apr-11	--
MPE-1d	449.41	451.26	10	1.25	LCS	SS	0.006	1	10.0	10.0	0.00	1.85	0	9.0	442.26	10.0	441.26	441.26	25-Apr-11	--
MPW-1s	450.42	452.31	7	1.25	LCS	SS	0.006	1	7.0	7.0	0.00	1.89	0	6.0	446.31	7.0	445.31	445.31	25-Apr-11	--
MPW-1i	450.45	452.32	9	1.25	LCS	SS	0.006	1	9.0	9.0	0.00	1.87	0	8.0	444.32	9.0	443.32	443.32	25-Apr-11	--
MPW-1d	450.60	452.59	11	1.25	LCS	SS	0.006	1	11.0	11.0	0.00	1.99	0	10.0	442.59	11.0	441.59	441.59	25-Apr-11	--
MP-122W	447.49	449.23	8	1.25	LCS	SS	0.006	1	8.0	8.0	0.00	1.74	0	7.0	442.23	8.0	441.23	441.23	8-Jun-11	--
MP-122E	447.65	449.53	8	1.25	LCS	SS	0.006	1	8.0	8.0	0.00	1.88	0	7.0	442.53	8.0	441.53	441.53	8-Jun-11	--
STAFF 1	448.44	451.20	--	--	--	--	--	--	--	--	--	2.76	--	--	--	--	--	--	25-Apr-11	--
STAFF 2	448.12	451.08	--	--	--	--	--	--	--	--	--	2.96	--	--	--	--	--	--	25-Apr-11	--
STAFF 3	445.88	448.98	--	--	--	--	--	--	--	--	--	3.10	--	--	--	--	--	--	25-Apr-11	--
TW-1	463.3	463.39	14	2	PVC	PVC	0.01	2.5	14.0	14.00	0.00	0	0	11.5	451.89	14.0	449.39	449.39	11-Nov-10	Nov-10
TW-2	462.5	462.53	14	2	PVC	PVC	0.01	2.5	11.5	11.50	0.00	0	0	9.0	453.53	11.5	451.03	451.03	11-Nov-10	Nov-10
TW-3	463.6	463.65	14	2	PVC	PVC	0.01	2.5	11.5	11.50	0.00	0	0	9.0	454.65	11.5	452.15	452.15	11-Nov-10	Nov-10
TW-4	463.0	463.08	14	2	PVC	PVC	0.01	2.5	14.0	14.00	0.00	0	0	11.5	451.58	14.0	449.08	449.08	11-Nov-10	Nov-10
MW-101	462.9	466.54	15	2	PVC	unk	0.01	10	15.0	- -	- -	3.64	0	5.0	461.54	15.0	451.54	- -	23-May-96	Feb-00
MW-102	463.1	462.72	15	2	PVC	unk	0.01	10	15.0	- -	- -	-0.36	0	5.0	457.72	15.0	447.72	- -	23-May-96	Feb-00
MW-103	463.0	462.69	15	2	PVC	unk	0.01	10	15.0	- -	- -	-0.35	0	5.0	457.69	15.0	447.69	- -	23-May-96	Feb-00
MW-104	462.7	462.43	15	2	PVC	unk	0.01	10	15.0	- -	- -	-0.3	0	5.0	457.43	15.0	447.43	- -	23-May-96	Feb-00

Table 1
Groundwater Monitoring Well Completion Summary
Former Monarch Chemicals Facility
61 Gates Avenue, Geneva, NY 14456
NYSDEC Site No.V00119

Pinnacle Engineering

	Ground Surface Elevation (ft AMSL)	Top of Casing Elevation (ft AMSL)	Depth of Borehole (ft below TOC)	Well Diameter (in)	Casing Material	Screen Material	Screen Slot Size (in)	Screen Length (ft)	Total Well Depth (ft below TOC)	Measured Well Depth (ft below TOC)	Occlusion Depth	Height of TOC (ft. above surface)	Bottom Sump Depth (ft)	Depth to Top of Screen (ft below TOC)	Top of Screen Elevation (ft AMSL)	Depth to Bottom of Screen (ft below TOC)	Bottom of Installed Screen Elevation (ft AMSL)	Bottom of Measured Screen Elevation (ft AMSL)	Date Installed	Date Abandoned
MW-105	457.9	457.61	15	2	PVC	unk	0.01	10	15.0	- -	- -	-0.31	0	5.0	452.61	15.0	442.61	- -	24-May-96	Feb-00
MW-106	452.0	451.5	15.51	2	PVC	unk	0.01	10	15.5	- -	- -	-0.49	0	5.5	445.99	15.5	435.99	- -	16-Jul-97	Feb-00
MW-107	463.0	465.76	16	2	PVC	unk	0.01	10	16.0	- -	- -	2.74	0	6.0	459.76	16.0	449.76	- -	16-Jul-97	Feb-00
MW-108	451.3	453.92	14	2	PVC	unk	0.01	10	14.0	- -	- -	2.63	0	4.0	449.92	14.0	439.92	- -	16-Jul-97	Feb-00
MW-109	462.8	462.46	15	1.25	PVC	unk	0.01	10	15.0	- -	- -	-0.32	0	5.0	457.46	15.0	447.46	- -	17-Feb-98	Feb-00
MW-110	454.7	458.00	12	1.25	PVC	unk	0.01	5	12.0	- -	- -	3.26	0	7.0	451.00	12.0	446.00	- -	17-Feb-98	Feb-00
MW-111	450.1	453.19	10	1.25	PVC	unk	0.01	5	10.0	- -	- -	3.14	0	5.0	448.19	10.0	443.19	- -	18-Feb-98	Feb-00
MW-201	463.6	465.75	26	2	PVC	unk	0.01	5	26.0	- -	- -	2.17	0	21.0	444.75	26.0	439.75	- -	16-Jul-97	Feb-00
MW-202	463.0	462.76	23.28	2	PVC	unk	0.01	5	23.3	- -	- -	-0.22	0	18.3	444.48	23.3	439.48	- -	16-Jul-97	Feb-00
MW-203	451.2	453.54	21.5	2	PVC	unk	0.01	5	21.5	- -	- -	2.38	0	16.5	437.04	21.5	432.04	- -	17-Jul-97	Feb-00
P-01	462.8	462.16	25	1	PVC	unk	0.01	2	25.0	- -	- -	-0.63	0	23.0	439.16	25.0	437.16	- -	19-Jul-97	Jul-97
SB-1	461.7	- -	16	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	17-Feb-98	Feb-98
SB-2	463.0	- -	20	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	17-Feb-98	Feb-98
SB-3	461.6	- -	8	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	17-Feb-98	Feb-98
BB1	462.8	- -	14.0	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	14-Oct-08	Oct-08
BB2	462.8	- -	14.0	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	14-Oct-08	Oct-08
BB3	462.8	- -	12.0	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	15-Oct-08	Oct-08
BB4	462.8	- -	14.0	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	15-Oct-08	Oct-08
BB5	462.8	- -	14.0	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	20-Oct-08	Oct-08
BB6	462.8	- -	14.0	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	20-Oct-08	Oct-08
BB7	462.8	- -	14.0	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	20-Oct-08	Oct-08
BB8	462.8	- -	14.0	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	20-Oct-08	Oct-08
GP-01	- -	- -	31	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	22-Oct-96	Oct-96
GP-02	- -	- -	15.5	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	22-Oct-96	Oct-96
GP-03	- -	- -	5	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	22-Oct-96	Oct-96
GP-04	- -	- -	10	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	22-Oct-96	Oct-96
GP-05	- -	- -	4	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	23-Oct-96	Oct-96
GP-06	- -	- -	10	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	23-Oct-96	Oct-96
GP-08	- -	- -	10	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	23-Oct-96	Oct-96
GP-09	- -	- -	10	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	23-Oct-96	Oct-96
GP-10	- -	- -	9	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	23-Oct-96	Oct-96
sba	- -	- -	12	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	14-Jul-05	Jul-05
sbc	- -	- -	16	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	14-Jul-05	Jul-05
sbe	- -	- -	16	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	14-Jul-05	Jul-05
B-1	- -	- -	16	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	17-Oct-05	Oct-05
B-2	- -	- -	16	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	17-Oct-05	Oct-05
B-3	- -	- -	12	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	17-Oct-05	Oct-05
B-4	- -	- -	16	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	17-Oct-05	Oct-05
B-5	- -	- -	12	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	17-Oct-05	Oct-05
B-6	- -	- -	12	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	17-Oct-05	Oct-05
B-7	- -	- -	12	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	17-Oct-05	Oct-05
B-8	- -	- -	12	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	17-Oct-05	Oct-05
B-9	- -	- -	4	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	17-Oct-05	Oct-05
B-10	- -	- -	4	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	17-Oct-05	Oct-05

active wells
surface water
abandoned locations

PVC = polyvinyl chloride
SS = stainless steel
LCS = low carbon black steel
unk = unknown

Table 2
March 2023 Water Level Measurements
Former Monarch Chemicals Facility
61 Gates Avenue North, Geneva, NY 14456

Well ID	Date	Casing Elevation (ft AMSL)	Well Depth	Depth to Water (ft bTOC)	Potentiometric Elevation (ft AMSL)	Water Column (ft)
MW-114	3/18/2023	462.03	13.43	9.07	452.96	4.36
MW-115	3/20/2023	462.25	12.90	6.78	455.47	6.12
MW-115D	3/20/2023	462.06	23.55	10.26	451.80	13.29
MW-116	3/19/2023	462.44	13.39	4.31	458.13	9.08
MW-117	3/18/2023	463.44	13.46	2.60	460.84	10.86
MW-118	3/18/2023	462.40	13.00	4.84	457.56	8.16
MW-121	3/22/2023	461.77	13.95	12.10	449.67	1.85
MW-122	3/22/2023	461.65	13.60	7.69	453.96	5.91
MW-124S	3/19/2023	462.17	11.95	3.49	458.68	8.46
MW-124D	3/19/2023	462.24	20.20	12.59	449.65	7.61

Table 3a
March 2023 Well Sampling Field Parameters
Former Monarch Chemicals Facility
61 Gates Ave. - Geneva, NY
NYSDEC Site No. V00019

	Date Measured	pH (SU)	Temp. (^{o}C)	Cond. (umhos/cm)	Turbidity (NTU)	D.O. (mg/l)	ORP (mV)
MW-114	18-Mar-23	7.18	7.68	1191	46	7.43	16.2
MW-115	18-Mar-23	6.53	9.51	2398	103	1.26	57.9
MW-115d	18-Mar-23	7.08	10.51	1113	14	2.78	54.9
MW-116	18-Mar-23	6.79	6.8	969	226	2.45	-7.1
MW-117	18-Mar-23	6.86	11.06	493	9	2.76	56
MW-118	18-Mar-23	6.93	8.52	2545	19	0.48	-59.6
MW-121	18-Mar-23	6.78	10.61	973	55	4.69	45.6
MW-122	18-Mar-23	6.76	10.77	991	1	1.52	0.3
MW-124s	18-Mar-23	6.75	7.53	1163	46	0.45	-174.6
MW-124d	18-Mar-23	6.81	9.15	1338	111	0.58	-173.5

Table 3b
Historical Groundwater Stabilization Parameters
Former Monarch Chemicals Facility
61 Gates Ave. - Geneva, NY
NYSDEC Site No. V00019

	Date Measured	pH (SU)	Temp. (°C)	Cond. (umhos/cm)	Turbidity (NTU)	D.O. (mg/l)	ORP (mV)
MW-114	26-Sep-07	--	--	--	--	--	--
MW-114	8-Apr-08	6.56	9.38	1,285	30.9	0.38	124
MW-114	4-Aug-08	7.46	17.39	1,188	17.1	1.54	-36
MW-114	17-Nov-08	7.48	12.14	1,172	73.8	0.21	-201
MW-114	28-Apr-09	7.01	11.4	972	23.8	1.41	-46
MW-114	4-Aug-09	7.00	15.9	887	148	0.74	-127
MW-114	14-Apr-10	6.86	16.17	1,086	32.9	0.48	-119
MW-114	11-Aug-10	6.66	16.59	1,390	83	2.02	-75
MW-114	16-Nov-10	6.98	13.52	1,313	11	1.29	-99
MW-114	10-Dec-11	7.23	6.28	1,178	-	4.27	-80
MW-114	27-Mar-13	6.87	14.26	1,380	14.26	0.71	-168
MW-114	9-Dec-17	--	--	--	--	--	--
MW-114	4-Dec-19	--	--	--	--	--	--
MW-114	4-Mar-20	7.30	7.72	1,390	683	7.07	91
MW-114	14-Dec-21	7.12	10.11	12.88	213	0.77	-62.3
MW-114	18-Mar-23	7.18	7.68	1191	46	7.43	16.2
MW-115	26-Sep-07	--	--	--	--	--	--
MW-115	8-Apr-08	5.49	9.53	1,213	8.09	1.28	229
MW-115	4-Aug-08	6.66	21.49	2,081	15.4	0.25	68
MW-115	17-Nov-08	7.18	13.29	2,130	59.9	0.36	127
MW-115	28-Apr-09	6.65	9.5	1,337	29.8	2.11	80
MW-115	4-Aug-09	6.87	15.25	1,361	74.2	1.77	126
MW-115	14-Apr-10	6.63	10.09	1,474	7.89	1.78	60
MW-115	10-Aug-10	6.64	15.68	2,130	157	6.36	54
MW-115	17-Nov-10	6.90	11.61	1,911	68.8	1.4	52
MW-115	9-Dec-11	6.99	8.87	1,700	-	3.65	22
MW-115	27-Mar-13	6.76	8.6	2,210	1.63	0.35	-98
MW-115	9-Dec-17	6.69	11	2,244	7.49	1.76	-68
MW-115	3-Dec-19	6.85	10.94	2,608	161	1.6	-32
MW-115	5-Mar-20	6.78	9.48	3,188	68.2	1.23	-14
MW-115	14-Dec-21	7.51	12.5	11.12	0	10.23	-66.1
MW-115	18-Mar-23	6.53	9.51	2398	103	1.26	57.9
MW-115d	16-Nov-10	6.83	11.81	1,022	15.9	0.99	38
MW-115d	9-Dec-11	7.46	7.29	778	-	2.68	-94
MW-115d	27-Mar-13	6.76	8.6	2,210	1.36	0.35	-98
MW-115d	9-Aug-16	7.23	17.76	921	2.64	0.48	-39
MW-115d	9-Dec-17	7.32	10.21	888	8.47	1.46	-129
MW-115d	3-Dec-19	7.40	10.62	893	15	1.49	-31
MW-115d	4-Mar-20	7.29	9.87	899	6.36	2.82	77
MW-115d	14-Dec-21	7.36	12.17	6.05	0.19	10.26	-57.5
MW-115d	18-Mar-23	7.08	10.51	1113	14	2.78	54.9
MW-116	26-Sep-07	--	--	--	--	--	--
MW-116	8-Apr-08	6.63	10.96	1,188	9.1	0.19	130

Table 3b
Historical Groundwater Stabilization Parameters
Former Monarch Chemicals Facility
61 Gates Ave. - Geneva, NY
NYSDEC Site No. V00019

	Date Measured	pH (SU)	Temp. (°C)	Cond. (umhos/cm)	Turbidity (NTU)	D.O. (mg/l)	ORP (mV)
MW-116	4-Aug-08	7.75	17.1	1,083	12.4	1.98	-46
MW-116	18-Nov-08	7.00	13.55	746	-	0.28	-183
MW-116	28-Apr-09	6.73	11.31	717	40.9	1.9	-68
MW-116	4-Aug-09	6.90	16.71	524	16.1	0.48	-107
MW-116	14-Apr-10	6.81	17.32	810	114	0.2	-135
MW-116	11-Aug-10	6.64	15.83	1,170	100	0.75	-105
MW-116	16-Nov-10	6.97	13.94	992	29	0.73	-111
MW-116	10-Dec-11	7.03	4.39	700	-	3.18	-32
MW-116	29-Mar-13	6.91	7.54	1,220	-	2.99	-150
MW-116	10-Dec-17	6.76	11.07	1,270	93.2	2.27	-27
MW-116	4-Dec-19	6.69	12.26	1,289	88	2.11	-10
MW-116	4-Mar-20	6.99	8.59	1,004	138	3.26	89
MW-116	15-Dec-21	6.77	11.64	1084	114.25	0.48	-65.1
MW-116	18-Mar-23	6.79	6.8	969	226	2.45	-7.1
MW-117	26-Sep-07	6.38	18.19	861	4.26	0.59	-92
MW-117	8-Apr-08	6.80	7.27	424	7.78	5.9	125
MW-117	4-Aug-08	6.56	20.5	801	20.5	0.16	-56
MW-117	17-Nov-08	6.78	11.63	1,197	1200	0.18	-147
MW-117	28-Apr-09	6.46	8.54	449	18.8	0.28	-55
MW-117	4-Aug-09	6.56	16.7	784	17.5	0.31	-58
MW-117	15-Apr-10	6.53	9.9	874	27.3	0.19	-76
MW-117	11-Aug-10	6.44	19.44	1,288	98	0.61	-87
MW-117	17-Nov-10	6.76	11.74	1,025	12.5	1.19	-74
MW-117	10-Dec-11	6.69	6.46	631	-	1.26	-120
MW-117	29-Mar-13	6.41	9.55	1,270	21.1	1.43	-133
MW-117	9-Aug-16	6.65	17.16	1,033	787	4.15	-68
MW-117	9-Dec-17	6.97	9.65	-	4.83	1.46	-157
MW-117	3-Dec-19	7.20	10.3	502	5	1.78	75
MW-117	4-Mar-20	7.13	6.95	463	7	1.04	121
MW-117	15-Dec-21	7.16	10.89	501.46	7.17	0.34	-93
MW-117	18-Mar-23	6.86	11.06	493	9	2.76	56
MW-118	26-Sep-07	6.63	26.69	2,406	34	0.93	-1
MW-118	8-Apr-08	6.46	8.78	2,360	53.8	0.11	8
MW-118	4-Aug-08	6.66	18.32	2,394	31.5	0.15	-12
MW-118	18-Nov-08	6.20	12.3	2,414	748	0.29	-113
MW-118	29-Apr-09	6.22	9.59	2,041	16.1	0.94	-54
MW-118	4-Aug-09	6.39	20.25	2,068	16.8	0.51	-46
MW-118	15-Apr-10	6.56	12.28	2,457	32.6	0.11	-89
MW-118	10-Aug-10	6.50	17.26	3,383	142	0.66	-69
MW-118	17-Nov-10	6.66	12.3	2,254	144	1.97	-56
MW-118	10-Dec-11	6.87	5.42	2,650	-	1.32	-68
MW-118	29-Mar-13	6.71	9.82	2,500	224	2.53	-116
MW-118	24-Mar-15	7.66	4.03	3,080	-	2.94	-100
MW-118	9-Aug-16	6.69	16.85	2,000	75.5	0.84	-162

Table 3b
Historical Groundwater Stabilization Parameters
Former Monarch Chemicals Facility
61 Gates Ave. - Geneva, NY
NYSDEC Site No. V00019

	Date Measured	pH (SU)	Temp. (°C)	Cond. (umhos/cm)	Turbidity (NTU)	D.O. (mg/l)	ORP (mV)
MW-118	9-Dec-17	6.82	11.29	-	130	2.45	-153
MW-118	4-Dec-19	6.90	11.37	2,972	100	2.23	-95
MW-118	5-Mar-20	6.59	7.38	2,652	27.2	1.01	-6
MW-118	15-Dec-21	6.95	11.45	2142.7	79.25	0.5	-107.6
MW-118	18-Mar-23	6.93	8.52	2545	19	0.48	-59.6
MW-121	26-Sep-07	--	--	--	--	--	--
MW-121	8-Apr-08	6.94	11.28	809	3.93	5.14	120
MW-121	4-Aug-08	--	--	--	--	--	--
MW-121	17-Nov-08	7.54	10.37	885	0.93	5.38	144
MW-121	27-Apr-09	6.52	14.39	805	48.4	11.55	141
MW-121	4-Aug-09	7.13	17.8	878	24.9	3.6	109
MW-121	14-Apr-10	7.05	12.4	836	13.7	5.6	136
MW-121	11-Aug-10	--	--	--	--	--	--
MW-121	14-Nov-10	--	--	--	--	--	--
MW-121	11-Dec-11	--	--	--	--	--	--
MW-121	28-Mar-13	--	--	--	--	--	--
MW-121	9-Dec-17	--	--	--	--	--	--
MW-121	3-Dec-19	--	--	--	--	--	--
MW-121	5-Mar-20	-	-	-	-	-	-
MW-121	16-Dec-21	-	-	-	-	-	-
MW-121	18-Mar-23	6.78	10.61	973	55	4.69	45.6
MW-122	26-Sep-07	--	--	--	--	--	--
MW-122	8-Apr-08	6.79	9.76	590	6.95	1.11	125
MW-122	4-Aug-08	6.83	14.57	1,045	9.54	3.26	172
MW-122	17-Nov-08	7.28	12.21	911	2.72	1.65	127
MW-122	27-Apr-09	5.65	14.58	671	37.3	4.4	145
MW-122	4-Aug-09	7.17	15.37	600	17.7	3.74	80
MW-122	14-Apr-10	6.82	13.39	775	7.18	2.26	45
MW-122	11-Aug-10	-	-	-	-	-	-
MW-122	16-Nov-10	-	-	-	-	-	-
MW-122	11-Dec-11	7.16	5.92	839	-	4.55	1
MW-122	28-Mar-13	-	-	-	-	-	-
MW-122	9-Dec-17	-	-	-	-	-	-
MW-122	3-Dec-19	-	-	-	-	-	-
MW-122	5-Mar-20	7.03	8.96	851	-	7.61	16
MW-122	16-Dec-21	6.98	13.13	784.18	8.13	3.07	69.6
MW-122	18-Mar-23	6.76	10.77	991	1	1.52	0.3
MW-124s	18-Nov-08	6.21	13.24	2,259	56.9	0.24	-116
MW-124s	28-Apr-09	6.11	14.82	1,862	90.7	0.58	-61
MW-124s	4-Aug-09	6.68	14.15	1,569	24.2	0.53	-82
MW-124s	14-Apr-10	6.22	9.79	1,136	42.5	0.43	-105
MW-124s	11-Aug-10	6.60	18.44	2,203	--	0.39	-100
MW-124s	15-Nov-10	6.66	13.15	2,134	77.2	0.93	-117

Table 3b
Historical Groundwater Stabilization Parameters
Former Monarch Chemicals Facility
61 Gates Ave. - Geneva, NY
NYSDEC Site No. V00019

	Date Measured	pH (SU)	Temp. (°C)	Cond. (umhos/cm)	Turbidity (NTU)	D.O. (mg/l)	ORP (mV)
MW-124s	10-Dec-11	6.69	4.38	949	-	2.02	-58
MW-124s	29-Mar-13	6.64	7.68	1,390	10.02	1.14	-144
MW-124s	10-Dec-17	6.66	10.46	1,389	41.7	1.16	-141
MW-124s	3-Dec-19	7.01	10.97	1,255	239	1.3	-97
MW-124s	4-Mar-20	7.73	6.58	925	-	5.33	96
MW-124s	14-Dec-21	7.36	12.57	1085.2	72.56	0.44	-130.2
MW-124s	18-Mar-23	6.75	7.53	1163	46	0.45	-174.6
MW-124d	18-Nov-08	6.37	11.24	2,747	1200	0.19	-147
MW-124d	28-Apr-09	5.85	13.16	1,801	35.4	0.34	-28
MW-124d	4-Aug-09	6.05	16.09	1,428	42.7	0.34	-21
MW-124d	15-Apr-10	5.91	10.68	1,667	25.4	0.47	-52
MW-124d	11-Aug-10	6.29	15.9	2,373	82	1.72	-42
MW-124d	15-Nov-10	6.41	12.71	2,217	67.7	1.05	-39
MW-124d	10-Dec-11	6.33	5.45	1,910	-	1.41	-91
MW-124d	29-Mar-13	6.67	10.18	1,990	135	-	-91
MW-124d	9-Aug-16	6.74	15.57	1,577	568	2.06	-88
MW-124d	10-Dec-17	6.56	10.67	1,150	167	0.93	-120
MW-124d	3-Dec-19	6.88	11.07	1,348	109	1.41	-79
MW-124d	4-Mar-20	6.50	9.81	1,127	68.4	3.65	-19
MW-124d	14-Dec-21	7.29	13.23	1126.3	62.52	0.44	-129
MW-124d	18-Mar-23	6.81	9.15	1338	111	0.58	-173.5

Table 4a
2023 Groundwater Quality Hits Table
Former Monarch Chemicals Facility
61 Gates Avenue, Geneva, NY 14456
Site No. V00119-8

Analyte	240-182494-1 MW-114 3/18/2023	240-182494-2 MW-115 3/20/2023	240-182494-3 MW-115D 3/20/2023	240-182494-4 MW-116 3/19/2023	240-182494-5 MW-117 3/18/2023	240-182494-6 MW-118 3/18/2023	240-182494-7 MW-121 3/22/2023	240-182494-8 MW-122 3/22/2023	240-182494-9 MW-124S 3/19/2023	240-182494-10 MW-124D 3/19/2023	703.5 Standard	Units
	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result		
1,1,1-Trichloroethane	**2.2**	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<3.3	5	ug/L
1,1-Dichloroethane	<1.0	**3.8**	<1.0	<1.0	<1.0	**100**	**2.4**	**12**	<1.0	<3.3	5	ug/L
Chloroethane	<1.0	<1.0	<1.0	<1.0	<1.0	**8.7**	<1.0	**2.9**	<1.0	**140**	5	ug/L
cis-1,2-Dichloroethene	<1.0	**3.4**	<1.0	<1.0	<1.0	**100**	**2.8**	**7.1**	<1.0	<3.3	5	ug/L
Tetrachloroethene	**6.5**	**2.8**	<1.0	<1.0	**2.0**	<2.0	<1.0	<1.0	<1.0	<3.3	5	ug/L
trans-1,2-Dichloroethene	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	**1.0**	**1.2**	<3.3	5	ug/L
Trichloroethene	**6.5**	<1.0	<1.0	**1.4**	<1.0	**15**	**1.7**	<1.0	<1.0	<3.3	5	ug/L
Vinyl chloride	<1.0	<1.0	<1.0	<1.0	<1.0	**72**	<1.0	**1.9**	**1.3**	<3.3	2	ug/L
Total VOCs	**15.2**	**10**	**0**	**1.4**	**2**	**295.7**	**6.9**	**24.9**	**2.5**	**140**		

***Qualifier**

U - The analyte was not detected at the reported detection limit. J - The reported value is estimated as-is is between the lab's lower de *Units ug/L - Micrograms/Liter *Reports To UL - Upper Limit

Table 4b
March 18 - 22, 2023 Groundwater Quality Sampling Results - VOCs
Former Monarch Chemicals Facility
61 Gates Avenue, Geneva, NY 14456
Site No. V00119-8

Analyte	240-182494-1 MW-114 3/18/2023 4:25 PM		240-182494-2 MW-115 3/20/2023 11:55 AM		240-182494-3 MW-115D 3/20/2023 10:15 AM		240-182494-4 MW-116 3/19/2023 10:53 AM		240-182494-5 MW-117 3/18/2023 12:10 PM		240-182494-6 MW-118 3/18/2023 4:20 PM		240-182494-7 MW-121 3/22/2023 1:30 PM		240-182494-8 MW-122 3/22/2023 2:55 PM	
	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
1,1,1-Trichloroethane	**2.2**		<1.0		<1.0		<1.0		<1.0		<2.0		<1.0	J	<1.0	
1,1,2,2-Tetrachloroethane	<1.0		<1.0		<1.0		<1.0		<1.0		<2.0		<1.0		<1.0	
1,1,2-Trichloro-1,2,2-trifluoroethane	<1.0		<1.0		<1.0		<1.0		<1.0		<2.0		<1.0		<1.0	
1,1,2-Trichloroethane	<1.0		<1.0		<1.0		<1.0		<1.0		<2.0		<1.0		<1.0	
1,1-Dichloroethane	<1.0		**3.8**		<1.0	J	<1.0	J	<1.0		**100**		**2.4**		**12**	
1,1-Dichloroethene	<1.0		<1.0		<1.0		<1.0		<1.0		<2.0	J	<1.0		<1.0	
1,2,4-Trichlorobenzene	<1.0		<1.0		<1.0		<1.0		<1.0		<2.0		<1.0		<1.0	
1,2-Dibromo-3-Chloropropane	<2.0		<2.0		<2.0		<2.0		<2.0		<4.0		<2.0		<2.0	
Ethylene Dibromide	<1.0		<1.0		<1.0		<1.0		<1.0		<2.0		<1.0		<1.0	
1,2-Dichlorobenzene	<1.0		<1.0		<1.0		<1.0		<1.0		<2.0		<1.0		<1.0	
1,2-Dichloroethane	<1.0		<1.0		<1.0		<1.0		<1.0		<2.0		<1.0		<1.0	
1,2-Dichloropropane	<1.0		<1.0		<1.0		<1.0		<1.0		<2.0		<1.0		<1.0	
1,3-Dichlorobenzene	<1.0		<1.0		<1.0		<1.0		<1.0		<2.0		<1.0		<1.0	
1,4-Dichlorobenzene	<1.0		<1.0		<1.0		<1.0		<1.0		<2.0		<1.0		<1.0	
2-Butanone (MEK)	<10		<10		<10		<10		<10		<20		<10		<10	
2-Hexanone	<10		<10		<10		<10		<10		<20		<10		<10	
4-Methyl-2-pentanone (MIBK)	<10		<10		<10		<10		<10		<20		<10		<10	
Acetone	<10	*+	<10		<10		<10		<10		<20		<10		<10	
Benzene	<1.0		<1.0		<1.0		<1.0		<1.0		<2.0		<1.0		<1.0	J
Dichlorobromomethane	<1.0		<1.0		<1.0		<1.0		<1.0		<2.0		<1.0		<1.0	
Bromoform	<1.0		<1.0		<1.0		<1.0		<1.0		<2.0		<1.0		<1.0	
Bromomethane	<1.0		<1.0		<1.0		<1.0		<1.0		<2.0		<1.0		<1.0	
Carbon disulfide	<1.0		<1.0		<1.0		<1.0		<1.0		<2.0		<1.0		<1.0	
Carbon tetrachloride	<1.0		<1.0		<1.0		<1.0		<1.0		<2.0		<1.0		<1.0	
Chlorobenzene	<1.0		<1.0		<1.0		<1.0		<1.0		<2.0		<1.0		<1.0	
Chloroethane	<1.0		<1.0		<1.0		<1.0		<1.0		**8.7**		<1.0		**2.9**	
Chloroform	<1.0		<1.0		<1.0		<1.0		<1.0		<2.0		<1.0		<1.0	
Chloromethane	<1.0		<1.0		<1.0		<1.0		<1.0		<2.0		<1.0		<1.0	
cis-1,2-Dichloroethene	<1.0	J	**3.4**		<1.0		<1.0	J	<1.0		**100**		**2.8**		**7.1**	
cis-1,3-Dichloropropene	<1.0		<1.0		<1.0		<1.0		<1.0		<2.0		<1.0		<1.0	
Cyclohexane	<1.0		<1.0		<1.0		<1.0		<1.0		<2.0		<1.0		<1.0	
Chlorodibromomethane	<1.0		<1.0		<1.0		<1.0		<1.0		<2.0		<1.0		<1.0	
Dichlorodifluoromethane	<1.0		<1.0		<1.0		<1.0		<1.0		<2.0		<1.0		<1.0	
Ethylbenzene	<1.0		<1.0		<1.0		<1.0		<1.0		<2.0		<1.0		<1.0	
Isopropylbenzene	<1.0		<1.0		<1.0		<1.0		<1.0		<2.0		<1.0		<1.0	
Methyl acetate	<10		<10		<10		<10		<10		<20		<10		<10	
Methyl tert-butyl ether	<1.0		<1.0		<1.0		<1.0		<1.0		<2.0		<1.0		<1.0	
Methylcyclohexane	<1.0		<1.0		<1.0		<1.0		<1.0		<2.0		<1.0		<1.0	
Methylene Chloride	<5.0		<5.0		<5.0		<5.0		<5.0		<10		<5.0		<5.0	
Styrene	<1.0		<1.0		<1.0		<1.0		<1.0		<2.0		<1.0		<1.0	
Tetrachloroethene	**6.5**		**2.8**		<1.0		<1.0		**2**		<2.0		<1.0	J	<1.0	
Toluene	<1.0		<1.0		<1.0		<1.0		<1.0		<2.0		<1.0		<1.0	
trans-1,2-Dichloroethene	<1.0		<1.0		<1.0		<1.0		<1.0		<2.0	J	<1.0		**1**	
trans-1,3-Dichloropropene	<1.0		<1.0		<1.0		<1.0		<1.0		<2.0		<1.0		<1.0	
Trichloroethene	**6.5**		<1.0	J	<1.0		**1.4**		<1.0		**15**		**1.7**		<1.0	J
Trichlorofluoromethane	<1.0		<1.0		<1.0		<1.0		<1.0		<2.0		<1.0		<1.0	
Vinyl chloride	<1.0		<1.0		<1.0		<1.0		<1.0		**72**		<1.0		**1.9**	
Xylenes, Total	<2.0		<2.0		<2.0		<2.0		<2.0		<4.0		<2.0		<2.0	

***Qualifier**
U - The analyte was not detected at the reported detection limit.
J - The reported value is estimated as-is is between the lab's lower detection limit and reporting limit.
*Units ug/L - Micrograms/Liter

Table 4b
March 18 - 22, 2023 Groundwater Quality Sampling Results - VOCs
Former Monarch Chemicals Facility
61 Gates Avenue, Geneva, NY 14456
Site No. V00119-8

Analyte	240-182494-9 MW-124S 3/19/2023 2:40 PM		240-182494-10 MW-124D 3/19/2023 3:35 PM		240-182494-11 TRIP BLANK 3/22/2023 4:00 PM		240-182494-12 DUP-1 3/18/2023 8:00 AM		703.5 Standard	CAS #	Units
	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier			
1,1,1-Trichloroethane	<1.0		<3.3		<1.0		<5.0		5	71-55-6	ug/L
1,1,2,2-Tetrachloroethane	<1.0		<3.3	F2	<1.0		<5.0		5	79-34-5	ug/L
1,1,2-Trichloro-1,2,2-trifluoroethane	<1.0		<3.3		<1.0		<5.0		--	76-13-1	ug/L
1,1,2-Trichloroethane	<1.0		<3.3		<1.0		<5.0		1	79-00-5	ug/L
1,1-Dichloroethane	<1.0		<3.3		<1.0		110		5	75-34-3	ug/L
1,1-Dichloroethene	<1.0		<3.3		<1.0		<5.0		5	75-35-4	ug/L
1,2,4-Trichlorobenzene	<1.0		<3.3		<1.0		<5.0		--	120-82-1	ug/L
1,2-Dibromo-3-Chloropropane	<2.0		<6.7		<2.0		<10		--	96-12-8	ug/L
Ethylene Dibromide	<1.0		<3.3		<1.0		<5.0		--	106-93-4	ug/L
1,2-Dichlorobenzene	<1.0		<3.3		<1.0		<5.0		--	95-50-1	ug/L
1,2-Dichloroethane	<1.0		<3.3		<1.0		<5.0		0.6	107-06-2	ug/L
1,2-Dichloropropane	<1.0		<3.3		<1.0		<5.0		--	78-87-5	ug/L
1,3-Dichlorobenzene	<1.0		<3.3		<1.0		<5.0		--	541-73-1	ug/L
1,4-Dichlorobenzene	<1.0		<3.3		<1.0		<5.0		--	106-46-7	ug/L
2-Butanone (MEK)	<10		<33		<10		<50		--	78-93-3	ug/L
2-Hexanone	<10		<33		<10		<50		--	591-78-6	ug/L
4-Methyl-2-pentanone (MIBK)	<10		<33		<10		<50		--	108-10-1	ug/L
Acetone	<10		<33	F1	<10		<50		50	67-64-1	ug/L
Benzene	<1.0		<3.3		<1.0		<5.0		1	71-43-2	ug/L
Dichlorobromomethane	<1.0		<3.3		<1.0		<5.0		--	75-27-4	ug/L
Bromoform	<1.0		<3.3	F2	<1.0		<5.0		--	75-25-2	ug/L
Bromomethane	<1.0		<3.3		<1.0		<5.0		--	74-83-9	ug/L
Carbon disulfide	<1.0		<3.3		<1.0		<5.0		60	75-15-0	ug/L
Carbon tetrachloride	<1.0		<3.3		<1.0		<5.0		--	56-23-5	ug/L
Chlorobenzene	<1.0		<3.3		<1.0		<5.0		5	108-90-7	ug/L
Chloroethane	<1.0		140		<1.0		9.2		5	75-00-3	ug/L
Chloroform	<1.0		<3.3		<1.0		<5.0		7	67-66-3	ug/L
Chloromethane	<1.0		<3.3		<1.0		<5.0		5	74-87-3	ug/L
cis-1,2-Dichloroethene	<1.0		<3.3		<1.0		120		5	156-59-2	ug/L
cis-1,3-Dichloropropene	<1.0		<3.3		<1.0		<5.0		--	10061-01-	ug/L
Cyclohexane	<1.0		<3.3		<1.0		<5.0		--	110-82-7	ug/L
Chlorodibromomethane	<1.0		<3.3		<1.0		<5.0		--	124-48-1	ug/L
Dichlorodifluoromethane	<1.0		<3.3		<1.0		<5.0		--	75-71-8	ug/L
Ethylbenzene	<1.0		<3.3		<1.0		<5.0		5	100-41-4	ug/L
Isopropylbenzene	<1.0		<3.3		<1.0		<5.0		5	98-82-8	ug/L
Methyl acetate	<10		<33		<10		<50		--	79-20-9	ug/L
Methyl tert-butyl ether	<1.0		<3.3		<1.0		<5.0		--	1634-04-4	ug/L
Methylcyclohexane	<1.0		<3.3		<1.0		<5.0		--	108-87-2	ug/L
Methylene Chloride	<5.0		<17		<5.0		<25		5	75-09-2	ug/L
Styrene	<1.0		<3.3		<1.0		<5.0		--	100-42-5	ug/L
Tetrachloroethene	<1.0		<3.3		<1.0		<5.0		5	127-18-4	ug/L
Toluene	<1.0		<3.3		<1.0		<5.0		5	108-88-3	ug/L
trans-1,2-Dichloroethene	1.2		<3.3		<1.0		<5.0		5	156-60-5	ug/L
trans-1,3-Dichloropropene	<1.0		<3.3		<1.0		<5.0		--	10061-02-	ug/L
Trichloroethene	<1.0		<3.3		<1.0		17		5	79-01-6	ug/L
Trichlorofluoromethane	<1.0		<3.3		<1.0		<5.0		--	75-69-4	ug/L
Vinyl chloride	1.3		<3.3		<1.0		75		2	75-01-4	ug/L
Xylenes, Total	<2.0		<6.7		<2.0		<10		5	1330-20-7	ug/L

***Qualifier**
U - The analyte was not detected at the *Reports To UL - Upper Limit

Table 5
Historical Groundwater Sampling Summary - VOCs
Former Monarch Chemicals
61 Gates Avenue, Geneva, NY 14456
NYSDEC Site No. V00119

		Tetrachloroethene	Trichloroethene	1,1-Dichloroethene	cis-1,2-Dichloroethene	trans 1,2-Dichloroethene	Vinyl chloride	1,1,1-Trichloroethane	1,1,2-Trichloroethane	1,1-Dichloroethane	Chloroform	Chloromethane	Chlorobenzene	Methyl Ethyl Ketone	Methyl Isobutyl Ketone	Methylene Chloride	Benzene	Toluene
703.5 Standard		5	5	5	5	5	2	5	1	5	7	5	5	NA	NA	5	1	5
	DATE	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l
DEC-GW-STD		5	5	5	5	5	2	5	5	5	7	5	5	50	50	5	0.7	5
MW-114	10/18/2005	37	24	2	4	< 10	< 10	7	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
MW-114	1/12/2006	98	33	3	6	< 10	2	14	< 10	3	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
MW-114	4/8/2008	62	18	1.6	4.2	< 1	1	6.9	< 1	2.2	< 1	< 1	< 1	< 5	< 5	< 1	< 1	< 1
MW-114	8/5/2008	75	30	3.7	7.3	< 1	2.2	13	< 1	4	< 1	< 1	< 1	< 5	< 5	< 1	< 1	< 1
MW-114	11/17/2008	71	23	2.8	5.5	< 1	1.5	9	< 1	3.2	< 1	< 1	< 1	< 5	< 5	< 1	< 1	< 1
MW-114	4/28/2009	53	16	1.9	4.5	< 1	1.4	7.3	< 1	2.3	0.79	< 1	< 1	< 5	< 5	< 1	< 1	< 1
MW-114	8/4/2009	23	57	2.6	17	< 1	2.4	11	< 1	4	1.3	< 1	< 1	< 5	< 5	< 1	< 1	< 1
MW-114	4/14/2010	36	20	1.4	8.6	< 1	1.3	5.7	< 1	2.3	0.89	< 1	< 1	< 5	< 5	< 1	< 1	< 1
MW-114	8/10/2010	5.4	37	2.2	41	< 1	1.2	7.8	< 1	5	1.2	< 1	< 1	< 10	< 5	< 1	< 1	< 1
MW-114	11/17/2010	6.6	24	1.2	43	< 1	1.4	3.8	< 1	2.2	2.4	< 1	< 1	< 10	< 5	< 1	< 1	< 1
MW-114	4/20/2011	10	12	< 1	16	< 1	1.1	2.9	< 1	1.3	2.3	< 1	< 1	< 10	< 5	< 1	< 1	< 1
MW-114	12/10/2011	6.3	10	0.94	29	< 1	1	2.6	< 1	1.5	< 1	< 1	< 1	< 10	< 5	< 1	< 1	< 1
MW-114	3/27/2013	0.57	5.9	0.89	36	< 1	1.8	1.6	< 1	2.1	< 1	< 1	< 1	< 5	< 5	< 1	< 1	< 1
MW-114	12/9/2017	2.3	3.9	< 1	7	< 1	1	1.9	< 1	1.1	< 1	< 1	< 1	< 10	< 5	< 1	< 1	< 1
MW-114	12/3/2019	1.7	3.3	< 1	4.1	< 1	< 1	1.9	< 1	1.5	< 1	< 1	< 1	< 10	< 5	< 1	< 1	< 1
MW-114	3/4/2020	2.1	1.3	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 10	< 5	< 1	< 1	< 1
MW-114	12/14/2021	< 1	J 0.8	< 1	4.1	< 1	< 1	< 1	< 1	1.8	< 1	< 1	< 1	< 10	< 5	< 1	< 1	< 1
MW-114	3/18/2023	6.5	6.5	< 1	J 0.49	< 1	< 1	2.2	< 1	< 1	< 1	< 1	< 1	< 10	< 10	< 5	< 1	< 1
MW-115	10/18/2005	34	11	9	15	< 10	8	38	< 10	50	1	< 10	< 10	< 10	< 10	< 10	< 10	< 10
MW-115	1/12/2006	42	< 10	< 10	< 10	< 10	< 10	4	< 10	1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
MW-115	9/26/2007	23	2.8	3	3.4	< 1	< 1	9	< 1	11	0.19	< 1	< 1	< 5	< 5	< 1	< 1	< 1
MW-115	4/8/2008	13	< 1	< 1	< 1	< 1	< 1	1.5	< 1	1.2	< 1	< 1	< 1	< 5	< 5	< 1	< 1	< 1
MW-115	8/5/2008	30	7.7	8.8	9.4	< 1	2.9	22	< 1	34	0.52	< 1	< 1	< 5	< 5	< 1	< 1	< 1
MW-115	11/17/2008	30	9.1	16	16	< 1	9.2	24	< 1	47	0.77	< 1	< 1	< 5	< 5	< 1	< 1	< 1
MW-115	4/28/2009	22	3.9	2.4	4.4	< 1	0.72	9.6	< 1	12	< 1	< 1	< 1	< 5	< 5	< 1	< 1	< 1
MW-115	8/3/2009	33	9.5	7.7	13	< 1	3.7	22	0.3	33	0.49	< 1	< 1	< 5	< 5	< 1	< 1	< 1
MW-115	4/14/2010	21	6	2	5.6	< 1	< 1	9.1	< 1	12	< 1	< 1	< 1	< 5	< 5	< 1	< 1	< 1
MW-115	8/10/2010	18	5.3	3	5.9	< 1	< 1	7.3	< 1	12	< 1	< 1	< 1	< 10	< 5	< 1	< 1	< 1
MW-115	11/17/2010	29	11	4.1	17	< 1	1.1	8.8	< 1	13	< 1	< 1	< 1	< 10	< 5	< 1	< 1	< 1
MW-115	4/18/2011	18	3.4	1	3.6	< 1	< 1	3.1	< 1	7.3	< 1	< 1	< 1	< 10	< 5	< 1	< 1	< 1
MW-115	12/9/2011	17	8.1	2.9	70	< 1	2.1	4.5	< 1	13	< 1	< 1	< 1	< 10	< 5	< 1	< 1	< 1
MW-115	3/27/2013	14	4.6	1.8	60	< 1	2.5	1.1	< 1	14	< 1	< 1	< 1	< 10	< 5	< 1	< 1	< 1
MW-115	12/9/2017	3.6	3.6	J 0.96	40	< 1	6.3	< 1	< 1	8.9	< 1	< 1	< 1	< 10	< 5	< 1	< 1	< 1
MW-115	12/3/2019	< 4	< 4	< 4	13	< 1	6.1	< 1	< 1	5.2	< 1	< 1	< 1	< 10	< 5	< 1	< 1	< 1
MW-115	3/5/2020	4.4	< 4	< 4	J 3.2	< 4	< 3.6	< 4	< 4	J 3.1	< 1.4	< 4	< 4	< 10	< 5	< 4	< 4	< 4
MW-115	12/14/2021	1.2	1.2	< 1	7.9	< 1	< 1	< 1	< 1	J 2.6	< 1	< 1	< 1	< 10	< 5	< 1	< 1	< 1
MW-115	3/20/2023	2.8	J 0.6	< 1	3.4	< 1	< 1	< 1	< 1	J 2.8	< 1	< 1	< 1	< 10	< 5	< 5	< 1	< 1
MW-115d	11/16/2010	< 1	< 1	0.61	< 1	< 1	< 1	< 1	< 1	2.4	< 1	< 1	< 1	4.3	< 1	< 1	< 1	< 1
MW-115d	4/19/2011	1.6	< 1	1.2	< 1	< 1	< 1	< 1	< 1	4	< 1	< 1	< 1	< 10	< 1	< 1	< 1	< 1
MW-115d	12/9/2011	< 1	< 1	0.81	< 1	< 1	< 1	< 1	< 1	2	< 1	< 1	< 1	< 10	< 1	< 1	< 1	< 1
MW-115d	3/27/2013	< 1	< 1	0.75	< 1	< 1	< 1	< 1	< 1	2	< 1	< 1	< 1	< 10	< 1	< 1	< 1	< 1
MW-115d	8/9/2016	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 10	< 5	< 1	< 1	< 1
MW-115d	12/9/2017	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	1.3	< 1	< 1	< 1	< 10	< 5	< 1	< 1	< 1
MW-115d	12/3/2019	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	J 0.78	< 1	< 1	< 1	< 10	< 5	< 1	< 1	< 1

Table 5
Historical Groundwater Sampling Summary - VOCs
Former Monarch Chemicals
61 Gates Avenue, Geneva, NY 14456
NYSDEC Site No. V00119

		Tetrachloroethene	Trichloroethene	1,1-Dichloroethene	cis-1,2-Dichloroethene	trans 1,2-Dichloroethene	Vinyl chloride	1,1,1-Trichloroethane	1,1,2-Trichloroethane	1,1-Dichloroethane	Chloroform	Chloromethane	Chlorobenzene	Methyl Ethyl Ketone	Methyl Isobutyl Ketone	Methylene Chloride	Benzene	Toluene
703.5 Standard		5	5	5	5	5	2	5	1	5	7	5	5	NA	NA	5	1	5
	DATE	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l
DEC-GW-STD		5	5	5	5	5	2	5	5	5	7	5	5	50	50	5	0.7	5
MW-115d	3/4/2020	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	J 0.74	< 1	< 1	< 1	< 10	< 5	< 1	< 1	< 1
MW-115d	12/14/2021	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	J 0.79	< 1	< 1	< 1	< 10	< 5	< 1	< 1	< 1
MW-115d	3/20/2023	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	J 0.78	< 1	< 1	< 1	< 10	< 5	< 5	< 1	< 1
MW-116	10/18/2005	1100	130	38	140	2	11	440	< 10	11	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
MW-116	1/12/2006	1100	110	14	110	< 50	< 50	440	< 50	10	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
MW-116	4/8/2008	180	22	3.5	19	< 1	2.4	68	< 1	4.8	< 1	< 1	< 1	< 5	< 5	< 1	< 1	< 1
MW-116	8/5/2008	530	62	14	40	0.49	6.5	260	< 1	9.3	< 1	< 1	< 1	< 5	< 5	< 1	< 1	< 1
MW-116	11/18/2008	3.6	1.1	< 1	1.4	< 1	< 1	< 1	< 1	2.4	< 2	< 2	< 2	3.3	< 5	< 2	< 2	< 2
MW-116	4/28/2009	0.37	< 1	< 1	14	< 1	1.3	< 1	< 1	0.78	< 2	0.88	< 2	5.1	< 5	< 2	< 2	< 2
MW-116	8/4/2009	< 1	0.53	< 1	1.9	0.43	0.75	< 1	< 1	3.6	< 2	< 1	< 2	< 5	< 5	< 2	3.2	< 2
MW-116	4/14/2010	< 1	< 1	< 1	0.88	< 1	< 1	< 1	< 1	1.1	< 2	< 1	< 2	< 5	< 5	< 2	0.81	< 2
MW-116	8/11/2010	< 1	0.92	< 1	2.7	1.2	1.1	< 1	< 1	2	< 2	< 1	< 2	< 10	< 5	< 2	1.3	< 2
MW-116	11/17/2010	< 1	0.77	< 1	1.4	< 1	< 1	< 1	< 1	3.1	< 2	< 1	< 2	< 10	< 5	< 2	0.52	< 2
MW-116	4/20/2011	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2	< 1	< 2	< 10	< 5	< 2	< 1	< 2
MW-116	12/10/2011	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	1.2	< 2	< 1	< 2	< 10	< 5	< 2	< 1	< 2
MW-116	3/29/2013	< 1	4.3	< 1	13	< 1	6.1	< 1	< 1	5.6	< 2	< 1	< 2	< 10	< 5	< 2	1.1	< 2
MW-116	12/10/2017	< 1	< 1	< 1	3.2	< 1	3.0	< 1	< 1	6.2	< 2	< 1	< 2	< 10	< 5	< 2	J 0.46	< 2
MW-116	12/4/2019	< 1	< 1	< 1	17	< 1	7.8	< 1	< 1	7	< 2	< 1	< 2	< 10	< 5	< 2	J 0.49	< 2
MW-116	3/4/2020	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	J 0.77	< 1	< 1	< 1	< 10	< 5	< 1	< 1	< 1
MW-116	12/15/2021	< 1	< 1	< 1	21	< 1	12	< 1	< 1	5.7	< 1	< 1	< 1	< 10	< 5	< 1	J 0.82	< 1
MW-116	3/19/2023	< 1	1.4	< 1	J 0.92	< 1	< 1	< 1	< 1	J 0.95	< 1	< 1	< 1	< 10	< 5	< 5	< 1	< 1
MW-117	10/18/2005	1	< 10	< 10	3	< 10	< 10	1	< 10	< 10	< 10	< 10	< 10	2	< 10	< 10	< 10	< 10
MW-117	1/12/2006	3	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
MW-117	9/26/2007	< 4	< 4	< 4	4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 20	< 20	< 4	< 4	< 4
MW-117	4/8/2008	2.8	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 5	< 5	< 1	< 1	< 1
MW-117	8/5/2008	4.1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 5	< 5	< 1	< 1	< 1
MW-117	11/17/2008	26	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 5	< 5	< 1	< 1	< 1
MW-117	4/28/2009	4	0.73	< 1	0.41	< 1	< 1	< 1	< 1	< 1	< 1	0.51	< 1	3.4	< 5	< 1	0.48	< 1
MW-117	8/4/2009	2.1	< 1	< 1	6.9	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	10	< 5	< 1	0.45	< 1
MW-117	4/15/2010	2.5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	9.6	< 5	< 1	< 1	< 1
MW-117	8/10/2010	< 1	< 1	< 1	7	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	11	< 5	< 1	0.57	< 1
MW-117	11/18/2010	< 1	< 1	< 1	1.9	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 10	< 5	< 1	0.57	< 1
MW-117	4/19/2011	< 1	1.2	< 1	1.2	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 10	< 5	< 1	< 1	< 1
MW-117	12/10/2011	< 1	1.3	< 1	1.6	< 1	< 1	< 1	< 1	0.64	< 1	< 1	< 1	< 10	< 5	< 1	< 1	0.69
MW-117	3/29/2013	< 1	< 5	< 1	4.9	< 1	< 1	< 1	< 1	< 5	< 1	< 1	< 1	< 50	< 25	< 1	< 1	< 5
MW-117	8/9/2016	< 1	< 1	0.32	< 1	< 1	< 1	< 1	< 1	0.94	< 1	< 1	< 1	< 10	< 5	< 1	< 1	< 1
MW-117	12/9/2017	J 0.45	J 0.85	< 1	J 0.92	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 10	< 5	< 1	< 1	< 1
MW-117	12/3/2019	J 0.84	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 10	< 5	< 1	< 1	< 1
MW-117	3/4/2020	J 0.91	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 10	< 5	< 1	< 1	< 1
MW-117	12/15/2021	< 1	J 0.53	< 1	1.4	< 1	J 0.9	< 1	< 1	J 0.39	< 1	< 1	< 1	< 10	< 5	< 1	< 1	< 1
MW-117	3/18/2023	2	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 10	< 5	< 5	< 1	< 1
MW-118	10/18/2005	1800	1100	110	1400	14	510	530	< 10	250	10	< 10	< 10	< 10	48	< 10	< 10	< 10
MW-118	1/12/2006	4900	2700	240	3600	< 250	1000	3900	< 250	480	< 250	< 250	< 250	< 250	< 250	56	< 250	< 250
MW-118	9/26/2007	3000	1100	450	2000	< 330	400	7700	< 330	390	< 330	< 330	< 330	< 1700	< 1700	< 330	< 330	< 330

Table 5
Historical Groundwater Sampling Summary - VOCs
Former Monarch Chemicals
61 Gates Avenue, Geneva, NY 14456
NYSDEC Site No. V00119

		Tetrachloroethene	Trichloroethene	1,1-Dichloroethene	cis-1,2-Dichloroethene	trans 1,2-Dichloroethene	Vinyl chloride	1,1,1-Trichloroethane	1,1,2-Trichloroethane	1,1-Dichloroethane	Chloroform	Chloromethane	Chlorobenzene	Methyl Ethyl Ketone	Methyl Isobutyl Ketone	Methylene Chloride	Benzene	Toluene
703.5 Standard		5	5	5	5	5	2	5	1	5	7	5	5	NA	NA	5	1	5
	DATE	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l
DEC-GW-STD		5	5	5	5	5	2	5	5	5	7	5	5	50	50	5	0.7	5
MW-118	4/9/2008	3100	1700	1100	2300	32	630	4900	16	670	12	< 1	< 1	< 5	< 5	3.9	0.75	0.93
MW-118	8/4/2008	3200	1500	580	2400	26	800	3000	8.9	500	7.5	< 1	< 1	< 5	< 5	< 1	0.85	0.76
MW-118	11/18/2008	8.4	450	10	210	< 8	49	24	< 8	57	4.2	< 8	< 8	42	< 8	< 8	< 8	< 8
MW-118	4/29/2009	< 10	11	490	7800	100	310	1700	6.7	1400	3.9	< 8	< 8	38	< 8	4.8	< 8	< 8
MW-118	8/4/2009	< 10	< 10	460	10000	130	550	2300	6.5	1500	< 10	< 8	< 8	49	< 8	< 10	< 8	< 8
MW-118	4/15/2010	< 25	< 25	110	2200	60	1500	1100	6.5	700	< 25	< 25	< 8	< 120	< 25	< 10	< 25	< 25
MW-118	8/10/2010	< 10	< 10	6.8	170	25	460	260	< 10	600	< 10	< 10	< 8	31	< 10	< 10	< 10	< 10
MW-118	11/17/2010	3	1.9	5	72	7.9	150	160	< 10	260	< 10	< 10	< 8	14	< 10	0.64	0.59	0.73
MW-118	4/19/2011	9.2	34	8.6	93	15	120	78	0.49	470	< 10	< 10	< 8	22	< 10	0.8	0.79	0.87
MW-118	12/10/2011	1.1	2.9	< 1	4.8	4.3	13	10	< 1	250	< 10	< 10	< 8	18	< 10	0.5	1.1	0.98
MW-118	3/29/2013	< 1	0.83	< 1	2.1	< 1	< 1	< 1	< 1	0.9	< 1	< 1	< 1	6.2	< 5	< 1	< 1	< 0.98
MW-118	3/24/2015	< 2	< 2	< 2	2.3	< 2	< 2	< 2	< 2	5.7	< 2	< 2	< 2	< 20	< 10	1.7	< 2	< 2
MW-118	8/9/2016	< 2	< 2	< 2	1.6	< 2	< 2	< 2	< 2	9.7	< 2	< 2	< 2	14	< 10	< 2	< 2	< 2
MW-118	12/9/2017	< 2	< 2	< 2	2.3	< 2	4.4	< 2	< 2	24	< 2	< 2	< 2	< 20	< 10	< 2	< 2	< 2
MW-118	12/4/2019	< 1.8	< 2.3	< 5	230	< 5	100	< 5	< 5	120	< 5	< 5	< 5	< 50	< 25	< 5	< 5	< 5
MW-118	3/5/2020	< 1.8	23	J 2.4	170	< 5	230	< 5	< 5	140	< 5	< 5	< 5	< 50	< 25	< 5	< 5	< 5
MW-118	12/15/2021	< 5	< 5	< 5	100	< 5	67	< 5	< 5	82	< 5	< 5	< 5	< 50	< 25	< 5	< 5	< 5
MW-118	3/18/2023	< 2	15	1.6	100	J 1.1	72	< 2	< 2	100	< 2	< 2	< 2	< 20	< 20	< 2	< 2	< 2
MW-121	10/18/2005	7	11	6	24	< 10	3	4	< 10	15	< 10	< 10	< 10	< 10	18	< 10	< 10	< 10
MW-121	1/12/2006	3	6	2	11	< 10	2	3	< 10	9	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
MW-121	11/21/2006	1.5	3.7	< 1	5.1	< 1	< 1	1.8	< 1	2.2	< 1	< 1	< 1	< 5	< 5	< 1	< 1	< 1
MW-121	4/8/2008	1.2	2.7	< 1	2.7	< 1	< 1	1.5	< 1	1.6	< 1	< 1	< 1	< 5	< 5	< 1	< 1	< 1
MW-121	8/5/2008	4.7	4.1	< 1	9.3	< 1	< 1	4.5	< 1	6.2	< 1	< 1	< 1	< 5	< 5	< 1	< 1	< 1
MW-121	11/17/2008	8.4	7.7	< 1	12	< 1	2.1	4.4	< 1	8.1	< 1	< 1	< 1	< 5	< 5	< 1	< 1	< 1
MW-121	4/27/2009	0.7	3.1	< 1	5.7	< 1	< 1	2.2	< 1	3.7	< 1	< 1	< 1	2.5	< 5	< 1	< 1	< 1
MW-121	8/3/2009	13	8.7	0.37	18	< 1	7.1	5.4	< 1	12	0.49	< 1	< 1	2.3	< 5	< 1	< 1	< 1
MW-121	4/14/2010	4.6	5.2	< 1	7.3	< 1	1.4	2.9	< 1	5.1	< 1	< 1	< 1	2.3	< 5	< 1	< 1	< 1
MW-121	11/14/2010	13	6.3	0.68	16	< 1	7.7	2.8	< 1	12	< 1	< 1	< 1	< 1.3	< 5	< 1	< 1	< 1
MW-121	4/17/2011	0.97	1.8	< 1	3.1	< 1	< 1	< 1	< 1	1.6	< 1	< 1	< 1	< 10	< 5	< 1	< 1	< 1
MW-121	12/11/2011	3.9	5.2	< 1	6.4	< 1	3	1.7	< 1	6.6	< 1	< 1	< 1	< 10	< 5	< 1	< 1	< 1
MW-121	3/28/2013	3.1	3.7	< 1	4.6	< 1	0.96	1	< 1	4.2	< 1	< 1	< 1	< 10	< 5	< 1	< 1	< 1
MW-121	12/9/2017	8	8.6	< 1	19	< 1	4.9	3.2	< 1	13	< 1	< 1	< 1	< 10	< 5	< 1	< 1	< 1
MW-121	12/3/2019	4.8	7.1	< 4	11	< 4	< 4	< 4	< 4	9.3	< 4	< 4	< 4	< 40	< 20	< 4	< 4	< 4
MW-121	3/5/2020	< 4	J 3.5	< 4	9.3	< 4	< 3	< 4	< 4	6.2	< 4	< 4	< 4	< 40	< 20	< 4	< 4	< 4
MW-121	12/16/2021	J 0.66	3.2	< 1	6.6	< 1	< 1	1.1	< 1	4.2	< 1	< 1	< 1	< 10	< 5	< 1	< 1	< 1
MW-121	3/22/2023	J 0.75	1.7	< 1	2.8	< 1	< 1	J 0.74	< 1	2.4	< 1	< 1	< 1	< 10	< 5	< 5	< 1	< 1
MW-122	10/18/2005	10	100	31	1400	36	310	170	2	160	< 10	< 10	< 10	< 10	< 10	< 10	2	< 10
MW-122	1/12/2006	11	79	26	1600	27	450	160	< 10	180	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
MW-122	11/21/2006	2.8	29	11	760	13	210	55	< 10	91	< 10	< 10	< 10	< 50	< 50	< 10	< 10	< 10
MW-122	4/7/2008	4.7	68	24	1200	33	650	160	1.2	240	< 1	< 1	< 1	< 5	< 5	< 1	1.6	1.1
MW-122	8/4/2008	7.2	83	37	1600	45	1000	180	1.8	330	< 1	< 1	< 1	< 5	< 5	< 1	2.1	< 1
MW-122	11/17/2008	< 20	43	20	1200	21	580	81	< 20	160	< 1	< 1	< 1	< 5	< 5	< 1	< 20	< 1
MW-122	4/27/2009	< 20	44	16	1000	22	510	73	< 20	140	< 20	< 20	< 20	< 100	< 20	< 20	< 20	< 20
MW-122	8/3/2009	< 10	30	9.1	590	13	360	47	< 20	93	< 20	< 20	< 20	< 100	< 20	< 20	< 20	< 20
MW-122	4/14/2010	< 5	18	4.2	270	6.7	340	21	< 5	75	< 5	< 5	< 5	< 25	< 20	< 5	< 5	< 5

Table 5
Historical Groundwater Sampling Summary - VOCs
Former Monarch Chemicals
61 Gates Avenue, Geneva, NY 14456
NYSDEC Site No. V00119

		Tetrachloroethene	Trichloroethene	1,1-Dichloroethene	cis-1,2-Dichloroethene	trans 1,2-Dichloroethene	Vinyl chloride	1,1,1-Trichloroethane	1,1,2-Trichloroethane	1,1-Dichloroethane	Chloroform	Chloromethane	Chlorobenzene	Methyl Ethyl Ketone	Methyl Isobutyl Ketone	Methylene Chloride	Benzene	Toluene
703.5 Standard		5	5	5	5	5	2	5	1	5	7	5	5	NA	NA	5	1	5
	DATE	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l
DEC-GW-STD		5	5	5	5	5	2	5	5	5	7	5	5	50	50	5	0.7	5
MW-122	11/16/2010	< 5	14	2.7	150	5	190	12	< 5	76	< 5	< 5	< 5	< 25	< 20	< 5	< 5	< 5
MW-122	4/17/2011	< 1	0.57	2.7	2.9	< 1	11	0.83	< 5	9.9	< 1	< 1	< 1	< 10	< 5	< 1	< 1	< 1
MW-122	12/11/2011	< 1	1.1	2.7	3.3	0.9	10	1.1	< 5	27	< 1	< 1	< 1	< 10	< 5	< 1	< 1	< 1
MW-122	3/28/2013	0.99	3.9	0.49	23	2.8	27	3.2	< 5	87	< 1	< 1	< 1	< 10	< 5	< 1	0.45	< 1
MW-122	12/9/2017	< 1	4.8	< 1	8.5	1.6	2.6	< 1	< 5	31	< 1	< 1	< 1	< 10	< 5	< 1	J 0.52	< 1
MW-122	12/3/2019	< 1	3.6	< 1	2.9	< 1	< 1	< 1	< 1	18	< 1	< 1	< 1	< 10	< 5	< 1	< 1	< 1
MW-122	3/5/2020	< 1	J 0.97	< 1	11	J 0.98	1.5	< 1	< 1	19	< 1	< 1	< 1	< 10	< 5	< 1	< 1	< 1
MW-122	12/16/2021	< 1	2.9	< 1	13	1.90	1.6	< 1	< 1	19	< 1	< 1	< 1	< 10	< 5	< 1	J 0.78	< 1
MW-122	3/22/2023	< 1	J 0.49	< 1	7.1	1.0	1.9	< 1	< 1	12	< 1	< 1	< 1	< 10	< 5	< 5	J 0.52	< 1
MW-124s	8/18/2008	< 1	0.94	< 1	5.1	9.2	13	0.98	< 1	130	< 1	< 1	< 1	1.5	< 5	< 1	< 1	1.8
MW-124s	11/18/2008	< 4	< 4	< 1	5.2	6.7	4.3	< 4	< 1	160	< 1	2.8	< 1	34	< 5	< 1	< 1	11
MW-124s	4/28/2009	< 1	0.83	< 1	4.7	7	3.3	0.7	< 1	130	< 1	< 1	< 1	33	< 5	< 1	0.24	15
MW-124s	8/4/2009	< 1	0.51	< 1	1.3	7.2	1.4	< 1	< 1	4.5	< 1	< 1	< 1	10	< 5	< 1	< 1	17
MW-124s	4/14/2010	< 2	< 2	< 2	< 2	5.9	< 2	< 2	< 2	1.2	< 2	< 2	< 2	< 10	< 5	< 2	< 2	2.6
MW-124s	8/11/2010	< 1	0.9	< 1	3.3	8.1	< 2	< 2	< 2	3.6	< 2	< 2	< 2	5.8	< 10	< 2	< 2	2.1
MW-124s	11/15/2010	< 1	< 1	< 1	1.1	4.2	< 2	< 2	< 2	19	< 2	< 2	< 2	< 10	< 10	< 2	< 2	< 1
MW-124s	4/19/2011	< 1	< 1	< 1	1.5	6.9	1.3	< 2	< 2	38	< 2	< 2	< 2	< 10	< 10	< 2	< 2	0.86
MW-124s	12/10/2011	< 1	< 1	< 1	< 1	3.7	< 1	< 1	< 2	32	< 2	< 2	< 2	< 10	< 5	< 1	< 2	< 1
MW-124s	3/29/2013	< 1	< 1	< 1	< 1	3.6	< 1	< 1	< 2	8.6	< 2	< 2	< 2	< 10	< 5	< 1	< 2	< 1
MW-124s	12/10/2017	< 2	< 2	< 2	< 2	3.5	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 20	< 10	< 2	< 2	< 2
MW-124s	12/3/2019	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 20	< 10	< 2	< 2	< 2
MW-124s	3/4/2020	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 10	< 5	< 1	< 1	< 1
MW-124s	12/14/2021	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 40	< 20	< 4	< 4	< 4
MW-124s	3/19/2023	< 1	< 1	< 1	< 1	1.2	1.3	< 1	< 1	< 1	< 1	< 1	< 1	< 10	< 10	< 1	< 1	< 1
MW-124d	8/18/2008	< 1	49	31	260	2.4	81	0.7	< 1	460	1.1	< 1	< 1	< 5	< 5	< 1	< 1	< 1
MW-124d	11/18/2008	< 1	120	34	1600	20	770	< 20	< 20	510	< 20	< 1	< 1	54	< 5	< 1	< 1	< 1
MW-124d	4/28/2009	4.2	30	27	1300	15	760	44	< 5	720	< 5	2.2	< 1	72	< 5	4.3	< 1	3.2
MW-124d	8/4/2009	< 5	17	17	720	12	510	8.4	< 5	470	< 5	< 5	< 1	76	< 5	4.3	< 1	< 5
MW-124d	4/15/2010	< 10	< 10	< 10	210	13	59	< 10	< 10	570	< 10	< 10	< 10	830	< 50	< 10	< 10	< 10
MW-124d	8/11/2010	< 8	< 8	< 8	110	9.9	42	< 8	< 8	470	< 8	< 8	< 8	280	< 50	< 10	< 10	< 10
MW-124d	11/15/2010	< 8	< 8	< 8	76	8.6	39	< 8	< 8	340	< 8	< 8	< 8	350	< 50	< 10	< 10	< 10
MW-124d	4/21/2011	< 1	1.1	0.98	47	7.2	12	< 1	< 1	220	< 1	< 1	< 1	500	< 50	< 10	0.93	1.1
MW-124d	12/10/2011	< 1	0.61	1.3	32	17	12	< 1	< 1	280	< 1	< 1	< 1	130	< 5	< 1	1.1	1.1
MW-124d	3/29/2013	< 1	< 5	< 5	4.9	< 5	< 5	< 1	< 1	4.6	< 1	< 1	< 1	17	< 5	< 1	< 5	< 5
MW-124d	8/9/2016	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	4.3	< 5	< 5	< 5	< 50	< 25	< 5	< 5	< 5
MW-124d	12/10/2017	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 50	< 25	< 5	< 5	< 5
MW-124d	12/3/2019	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 50	< 25	J 2.2	< 5	< 5
MW-124d	3/6/2020	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 10	< 5	< 1.0	< 1	< 1
MW-124d	12/14/2021	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	12	< 5	< 5	< 5	< 50	< 25	< 5.0	< 5	< 5
MW-124d	3/19/2023	< 3.3	< 3.3	< 3.3	< 3.3	< 3.3	< 3.3	< 3.3	< 3.3	< 3.3	< 3.3	< 3.3	< 3.3	< 33	< 33	< 3.3	< 3.3	< 3.3

Table 5
Historical Groundwater Sampling Summary - VOCs
Former Monarch Chemicals
61 Gates Avenue, Geneva, NY 14456
NYSDEC Site No. V00119

		Ethylbenzene	Xylene (total)	Cyclohexane	Isopropylbenzene	Acetone	1,2-Dichloroethane	2-Hexanone	Chloroethane	Methyl Acetate	Carbon disulfide	1,1,1,2,2-tetrachloroethane	Methylcyclohexane	TVOCs
703.5 Standard		5	5	NA	5	50	0.6	NA	5	NA	60	5	NA	
	DATE	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l
DEC-GW-STD		5	5	NS	5	50	5	NS	5	NS	60	5	NS	
MW-114	10/18/2005	< 10	< 10	< 1	< 1	< 10	< 1	< 5	< 1	< 1	< 1	< 1	< 1	74
MW-114	1/12/2006	< 10	< 10	< 1	< 1	< 10	< 1	< 5	< 1	< 1	< 1	< 1	< 1	159
MW-114	4/8/2008	< 1	< 3	< 1	< 1	< 10	< 1	< 5	< 1	< 1	< 1	< 1	< 1	96
MW-114	8/5/2008	< 1	< 3	< 1	< 1	**2.2**	< 1	< 5	< 1	< 1	< 1	< 1	< 1	137
MW-114	11/17/2008	< 1	< 3	< 1	< 1	**7**	< 1	< 5	< 1	< 1	< 1	< 1	< 1	123
MW-114	4/28/2009	< 1	< 3	< 1	< 1	< 5	< 1	< 5	< 1	< 1	< 1	< 1	< 1	87
MW-114	8/4/2009	< 1	< 3	< 1	< 1	< 5	< 1	< 5	< 1	< 1	< 1	< 1	< 1	118
MW-114	4/14/2010	< 1	< 3	< 1	< 1	< 5	< 1	< 5	< 1	< 1	< 1	< 1	< 1	76
MW-114	8/10/2010	< 1	< 3	< 1	< 1	< 10	< 1	< 5	< 1	< 1	< 1	< 1	< 1	101
MW-114	11/17/2010	< 1	< 3	< 1	< 1	< 10	< 1	< 5	< 1	< 1	< 1	< 1	< 1	85
MW-114	4/20/2011	< 1	< 3	< 1	< 1	< 10	< 1	< 5	< 1	< 1	< 1	< 1	< 1	46
MW-114	12/10/2011	< 1	< 3	< 1	< 1	< 10	< 1	< 5	< 1	< 1	< 1	< 1	< 1	51
MW-114	3/27/2013	< 1	< 3	< 1	< 1	< 10	< 1	< 5	< 1	< 1	< 1	< 1	< 1	49
MW-114	12/9/2017	< 1	< 2	< 1	< 1	< 10	< 1	< 5	< 1	< 1	< 1	< 1	< 1	17
MW-114	12/3/2019	< 1	< 2	< 1	< 1	< 10	< 1	< 5	< 1	< 1	< 1	< 1	< 1	13
MW-114	3/4/2020	< 1	< 2	< 1	< 1	< 10	< 1	< 5	< 1	< 1	< 1	< 1	< 1	3
MW-114	12/14/2021	< 1	< 2	< 1	< 1	< 10	< 1	< 5	< 1	< 1	< 1	< 1	< 1	7
MW-114	3/18/2023	< 1	< 2	< 1	< 1	< 10	< 1	< 5	< 1	< 10	< 1	< 1	< 1	15
MW-115	10/18/2005	< 10	< 10	< 1	< 1	< 10	< 1	< 5	< 1	< 1	< 1	< 1	< 1	166
MW-115	1/12/2006	< 10	< 10	< 1	< 1	< 10	< 1	< 5	< 1	< 1	< 1	< 1	< 1	47
MW-115	9/26/2007	< 1	< 2	< 1	< 1	< 10	< 1	< 5	< 1	< 1	< 1	< 1	< 1	52
MW-115	4/8/2008	< 1	< 3	< 1	< 1	< 10	< 1	< 5	< 1	< 1	< 1	< 1	< 1	16
MW-115	8/5/2008	< 1	< 3	< 1	< 1	< 10	< 1	< 5	< 1	< 1	< 1	< 1	< 1	115
MW-115	11/17/2008	< 1	< 3	< 1	< 1	< 10	**10**	< 5	< 1	< 1	< 1	< 1	< 1	162
MW-115	4/28/2009	< 1	< 3	< 1	< 1	< 5	< 1	< 5	< 1	< 1	< 1	< 1	< 1	55
MW-115	8/3/2009	< 1	< 3	< 1	< 1	< 5	< 1	< 5	< 1	< 1	< 1	< 1	< 1	123
MW-115	4/14/2010	< 1	< 3	< 1	< 1	< 5	< 1	< 5	< 1	< 1	< 1	< 1	< 1	56
MW-115	8/10/2010	< 1	< 3	< 1	< 1	< 10	< 1	< 5	< 1	< 1	< 1	< 1	< 1	52
MW-115	11/17/2010	< 1	< 3	< 1	< 1	< 10	< 1	< 5	< 1	< 1	< 1	< 1	< 1	84
MW-115	4/18/2011	< 1	< 2	< 1	< 1	< 10	< 1	< 5	< 1	< 1	< 1	< 1	< 1	36
MW-115	12/9/2011	< 1	< 2	< 1	< 1	< 10	< 1	< 5	< 1	< 1	< 1	< 1	< 1	118
MW-115	3/27/2013	< 1	< 2	< 1	< 1	< 10	< 1	< 5	**0.67**	< 1	< 1	< 1	< 1	99
MW-115	12/9/2017	< 1	< 2	< 1	< 1	J **4.3**	< 1	< 5	**2.7**	< 1	< 1	< 1	< 1	70
MW-115	12/3/2019	< 1	< 2	< 1	< 1	< 12	< 1	< 5	< 4	< 1	< 1	< 1	< 1	24
MW-115	3/5/2020	< 4	< 8	< 4	< 4	< 40	< 4	< 20	< 4	< 10	< 4	< 4	< 4	11
MW-115	12/14/2021	< 1	< 2	< 1	< 1	< 10	< 1	< 5	< 1	< 2.5	< 1	< 1	< 1	13
MW-115	3/20/2023	< 1	< 2	< 1	< 1	< 10	< 1	< 5	< 1	< 10	< 1	< 1	< 1	10
MW-115d	11/16/2010	< 1	< 2	< 1	< 1	**17**	< 1	< 5	< 1	< 1	**1.2**	< 1	< 1	26
MW-115d	4/19/2011	< 1	< 2	< 1	< 1	< 10	< 1	< 5	< 1	< 1	< 1	< 1	< 1	7
MW-115d	12/9/2011	< 1	< 2	< 1	< 1	< 10	< 1	< 5	< 1	< 1	< 1	< 1	< 1	3
MW-115d	3/27/2013	< 1	< 2	< 1	< 1	< 10	< 1	< 5	< 1	< 1	< 1	< 1	< 1	3
MW-115d	8/9/2016	< 1	< 2	< 1	< 1	< 10	< 1	< 5	**18**	< 2.5	< 1	< 1	< 1	18
MW-115d	12/9/2017	< 1	< 2	< 1	< 1	< 10	< 1	< 5	< 1	< 2.5	< 1	< 1	< 1	1.3
MW-115d	12/3/2019	< 1	< 2	< 1	< 1	< 10	< 1	< 5	< 1	< 2.5	< 1	< 1	< 1	0.8

Table 5
Historical Groundwater Sampling Summary - VOCs
Former Monarch Chemicals
61 Gates Avenue, Geneva, NY 14456
NYSDEC Site No. V00119

		Ethylbenzene	Xylene (total)	Cyclohexane	Isopropylbenzene	Acetone	1,2-Dichloroethane	2-Hexanone	Chloroethane	Methyl Acetate	Carbon disulfide	1,1,2,2-tetrachloroethane	Methylcyclohexane	TVOCs
703.5 Standard		5	5	NA	5	50	0.6	NA	5	NA	60	5	NA	
	DATE	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l
DEC-GW-STD		5	5	NS	5	50	5	NS	5	NS	60	5	NS	
MW-115d	3/4/2020	< 1	< 2	< 1	< 1	< 10	< 1	< 5	< 1	< 2.5	< 1	< 1	< 1	**0.7**
MW-115d	12/14/2021	< 1	< 2	< 1	< 1	< 10	< 1	< 5	< 1	< 2.5	< 1	< 1	< 1	**0.8**
MW-115d	3/20/2023	< 1	< 2	< 1	< 1	< 10	< 1	< 5	< 1	< 10	< 1	< 1	< 1	**0.8**
MW-116	10/18/2005	< 10	< 10	< 1	< 1	< 10	< 1	< 5	< 1	< 1	< 1	< 1	< 1	**1,872**
MW-116	1/12/2006	< 50	< 50	< 1	< 1	< 10	< 1	< 5	< 1	< 1	< 1	< 1	< 1	**1,784**
MW-116	4/8/2008	< 1	< 3	< 1	< 1	< 10	< 1	< 5	< 1	< 1	< 1	< 1	< 1	**300**
MW-116	8/5/2008	< 1	< 3	< 1	< 1	**2.4**	< 1	< 5	< 1	< 1	< 1	< 1	< 1	**925**
MW-116	11/18/2008	< 2	< 3	< 1	< 1	**23**	< 1	< 5	< 1	< 1	< 1	< 1	< 1	**32**
MW-116	4/28/2009	< 2	< 3	< 1	< 1	**33**	< 1	< 5	**2.6**	< 1	< 1	< 1	< 1	**58**
MW-116	8/4/2009	**0.56**	< 3	< 1	< 1	**3.2**	< 1	< 5	**1.6**	< 1	< 1	< 1	< 1	**16**
MW-116	4/14/2010	< 1	< 3	< 1	< 1	< 10	< 1	< 5	**3.1**	< 1	< 1	< 1	< 1	**6**
MW-116	8/11/2010	< 1	< 3	< 1	< 1	< 10	< 1	< 5	**17**	< 1	< 1	< 1	< 1	**26**
MW-116	11/17/2010	< 1	< 3	< 1	< 1	< 10	< 1	< 5	**2.4**	< 1	< 1	< 1	< 1	**8**
MW-116	4/20/2011	< 1	< 2	< 1	< 1	< 10	< 1	< 5	< 1	< 1	< 1	< 1	< 1	**0**
MW-116	12/10/2011	< 1	< 2	< 1	< 1	< 10	< 1	< 5	< 1	< 1	< 1	< 1	< 1	**1**
MW-116	3/29/2013	< 1	< 2	< 1	< 1	< 10	< 1	< 5	< 1	< 1	< 1	< 1	< 1	**30**
MW-116	12/10/2017	< 1	< 2	< 1	< 1	< 10	< 1	< 5	< 1	< 1	< 1	< 1	< 1	**13**
MW-116	12/4/2019	< 1	< 2	< 1	< 1	< 10	< 1	< 5	< 1	< 1	< 1	< 1	< 1	**32**
MW-116	3/4/2020	< 1	< 2	< 1	< 1	< 10	< 1	< 5	< 1	< 1	< 1	< 1	< 1	**0.8**
MW-116	12/15/2021	< 1	< 2	< 1	< 1	< 10	< 1	< 5	< 1	< 1	< 1	< 1	< 1	**39.5**
MW-116	3/19/2023	< 1	< 2	< 1	< 1	< 10	< 1	< 5	< 1	< 10	< 1	< 1	< 1	**3.3**
MW-117	10/18/2005	**69**	**58**	**2**	**28**	< 5	< 1	< 5	< 1	< 1	< 1	< 1	**5**	**169**
MW-117	1/12/2006	< 10	< 10	< 1	< 1	< 5	< 1	< 5	< 1	< 1	< 1	< 1	< 1	**3**
MW-117	9/26/2007	**71**	**33**	**0.65**	**27**	< 5	< 1	< 5	< 1	< 1	< 1	< 1	< 1	**136**
MW-117	4/8/2008	< 1	< 3	< 1	< 1	< 5	< 1	< 5	< 1	< 1	< 1	< 1	< 1	**3**
MW-117	8/5/2008	**14**	< 3	< 1	**6.6**	**6.4**	< 1	< 5	< 1	< 1	< 1	< 1	< 1	**31**
MW-117	11/17/2008	**17**	< 3	< 1	**25**	< 5	< 1	< 5	< 1	< 1	< 1	< 1	< 1	**68**
MW-117	4/28/2009	**1.7**	< 3	< 1	**1.1**	< 5	< 1	< 5	**0.95**	< 1	< 1	< 1	< 1	**13**
MW-117	8/4/2009	**1.2**	**1**	< 1	**1.4**	**85**	< 1	**1.4**	**0.95**	< 1	< 1	< 1	< 1	**110**
MW-117	4/15/2010	< 1	< 1	< 1	< 1	< 5	< 1	< 5	< 1	< 1	**0.76**	< 1	< 1	**13**
MW-117	8/10/2010	**1.6**	< 1	< 1	**0.99**	**37**	< 1	< 5	< 1	< 1	< 1	< 1	< 1	**58**
MW-117	11/18/2010	**1.3**	< 1	< 1	**0.81**	**14**	< 1	< 5	< 1	< 1	< 1	< 1	< 1	**19**
MW-117	4/19/2011	**1.6**	< 0.83	< 1	**1**	**16**	< 1	< 5	< 1	< 1	< 1	< 1	**0.41**	**22**
MW-117	12/10/2011	**1.3**	**0.66**	< 1	**0.99**	**9.7**	< 1	< 5	< 1	< 1	< 1	< 1	< 1	**17**
MW-117	3/29/2013	**11**	**5.1**	< 1	**5.9**	**17**	< 1	< 5	< 1	< 1	< 1	< 1	< 1	**44**
MW-117	8/9/2016	< 1	< 2	< 1	< 1	< 10	< 1	< 5	< 1	< 2.5	< 1	< 1	< 1	**1**
MW-117	12/9/2017	< 1	< 2	< 1	< 1	< 10	< 1	< 5	< 1	< 2.5	< 1	< 1	< 1	**2**
MW-117	12/3/2019	< 1	< 2	< 1	< 1	J **4.6**	< 1	< 5	< 1	< 2.5	< 1	< 1	< 1	**5**
MW-117	3/4/2020	< 1	< 2	< 1	< 1	**10**	< 1	< 5	< 1	< 2.5	< 1	< 1	< 1	**1**
MW-117	12/15/2021	< 1	< 2	< 1	< 1	< 10	< 1	< 5	< 1	< 2.5	< 1	< 1	< 1	**3**
MW-117	3/18/2023	< 1	< 2	< 1	< 1	< 10	< 1	< 5	< 1	< 10	< 1	< 1	< 1	**2**
MW-118	10/18/2005	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	**37**	< 10	**5,809**
MW-118	1/12/2006	< 250	< 250	< 330	< 250	< 330	< 250	< 250	< 250	< 250	< 250	< 250	< 250	**17,126**
MW-118	9/26/2007	< 330	< 670	< 330	< 330	< 330	< 330	< 330	< 330	< 330	< 330	< 330	< 330	**15,061**

Table 5
Historical Groundwater Sampling Summary - VOCs
Former Monarch Chemicals
61 Gates Avenue, Geneva, NY 14456
NYSDEC Site No. V00119

		Ethylbenzene	Xylene (total)	Cyclohexane	Isopropylbenzene	Acetone	1,2-Dichloroethane	2-Hexanone	Chloroethane	Methyl Acetate	Carbon disulfide	1,1,2,2-tetrachloroethane	Methylcyclohexane	TVOCs
703.5 Standard		5	5	NA	5	50	0.6	NA	5	NA	60	5	NA	
	DATE	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l
DEC-GW-STD		5	5	NS	5	50	5	NS	5	NS	60	5	NS	
MW-118	4/9/2008	< 1	3.3	< 1	< 1	4.6	2.1	540	< 1	< 1	< 1	< 1	< 1	15,004
MW-118	8/4/2008	< 1	2.3	< 1	< 1	< 10	1.3	< 5	2.8	< 1	< 1	< 1	< 1	12,023
MW-118	11/18/2008	< 8	< 8	< 1	< 1	100	< 1	< 5	< 1	< 1	< 1	< 1	< 1	955
MW-118	4/29/2009	< 8	< 8	< 1	< 1	240	< 1	< 5	< 1	< 1	< 1	< 1	< 1	12,098
MW-118	8/4/2009	< 8	< 1	< 1	< 1	130	2.9	< 5	< 1	< 1	< 1	< 1	< 1	15,128
MW-118	4/15/2010	< 25	< 25	< 1	< 1	98	< 1	< 5	< 1	< 1	< 1	< 1	< 1	5,768
MW-118	8/10/2010	< 10	< 10	< 1	< 1	100	< 1	< 5	< 1	< 1	< 1	< 1	< 1	1,653
MW-118	11/17/2010	< 10	1.9	< 1	< 1	120	0.66	< 5	2.8	2	4.2	< 1	< 1	807
MW-118	4/19/2011	< 10	1.5	< 1	< 1	110	1.1	< 5	15	1.1	4.2	< 1	< 1	986
MW-118	12/10/2011	< 1	1.3	< 1	< 1	100	< 1	< 5	18	< 1	0.41	< 1	< 1	426
MW-118	3/29/2013	< 1	< 2	< 1	< 1	58	< 1	< 5	35	1.1	< 1	< 1	< 1	104
MW-118	3/24/2015	< 2	< 2	< 2	< 2	30	< 2	< 10	23	< 5	< 2	< 2	< 2	63
MW-118	8/9/2016	< 2	< 4	< 2	< 2	77	< 2	< 10	9.9	< 5	< 2	< 2	< 2	112
MW-118	12/9/2017	< 2	< 4	< 2	< 2	J 12	< 2	< 10	18	< 5	< 2	< 2	< 2	61
MW-118	12/4/2019	< 5	< 10	< 5	< 5	J 19	< 5	< 10	24	< 13	< 5	< 2	< 5	493
MW-118	3/5/2020	< 5	< 10	< 5	< 5	< 50	< 5	< 10	17	< 13	< 5	< 2	< 5	582
MW-118	12/15/2021	< 5	< 10	< 5	< 5	< 50	< 5	< 10	19	< 13	< 5	< 2	< 5	268
MW-118	3/18/2023	< 2	< 4	< 2	< 2	< 20	< 2	< 20	8.7	< 10	< 2	< 2	< 2	296
MW-121	10/18/2005	< 10	< 10	< 1	< 1	< 10	< 1	< 10	< 1	< 1	< 1	< 1	< 1	88
MW-121	1/12/2006	< 10	< 10	< 1	< 1	< 10	< 1	< 10	< 1	< 1	< 1	< 1	< 1	36
MW-121	11/21/2006	< 1	< 3	< 1	< 1	< 5	< 1	< 5	< 1	< 1	< 1	< 1	< 1	14
MW-121	4/8/2008	< 1	< 3	< 1	< 1	< 5	< 1	< 5	< 1	< 1	< 1	< 1	< 1	10
MW-121	8/5/2008	< 1	< 3	< 1	< 1	18	< 1	< 5	< 1	< 1	< 1	< 1	< 1	47
MW-121	11/17/2008	< 1	< 3	< 1	< 1	< 5	< 1	< 5	< 1	< 1	< 1	< 1	< 1	43
MW-121	4/27/2009	< 1	< 3	< 1	< 1	< 5	< 1	< 5	< 1	< 1	< 1	< 1	< 1	18
MW-121	8/3/2009	< 1	< 3	< 1	< 1	< 5	0.23	< 5	< 1	< 1	< 1	< 1	< 1	68
MW-121	4/14/2010	< 1	< 3	< 1	< 1	< 5	< 1	< 5	< 1	< 1	< 1	< 1	< 1	29
MW-121	11/14/2010	< 1	< 3	< 1	< 1	< 5	< 1	< 5	< 1	< 1	< 1	< 1	< 1	58
MW-121	4/17/2011	< 1	< 3	< 1	< 1	< 10	< 1	< 5	< 1	< 1	< 1	< 1	< 1	7
MW-121	12/11/2011	< 1	< 3	< 1	< 1	< 10	< 1	< 5	< 1	< 1	< 1	< 1	< 1	27
MW-121	3/28/2013	< 1	< 3	< 1	< 1	< 10	< 1	< 5	< 1	< 1	1	< 1	< 1	19
MW-121	12/9/2017	< 1	< 3	< 1	< 1	< 10	< 1	< 5	< 1	< 1	< 1	< 1	< 1	57
MW-121	12/3/2019	< 4	< 8	< 4	< 4	< 40	< 4	< 20	< 4	< 10	< 4	< 4	< 4	32
MW-121	3/5/2020	< 4	< 8	< 4	< 4	< 40	< 4	< 20	< 4	< 10	< 4	< 4	< 4	19
MW-121	12/16/2021	< 1	< 2	< 1	< 1	< 10	< 1	< 5	< 1	< 2.5	< 1	< 1	< 1	16
MW-121	3/22/2023	< 1	< 2	< 1	< 1	< 10	< 1	< 5	< 1	< 10	< 1	< 1	< 1	7
MW-122	10/18/2005	< 10	< 10	< 1	< 1	< 25	< 1	< 10	< 1	< 1	< 1	< 1	< 1	2,221
MW-122	1/12/2006	< 10	< 10	< 1	< 1	< 25	< 1	< 10	< 1	< 1	< 1	< 1	< 1	2,533
MW-122	11/21/2006	< 10	< 30	< 1	< 1	< 10	< 1	< 5	< 1	< 1	< 1	< 1	< 1	1,172
MW-122	4/7/2008	< 1	0.93	< 1	< 1	< 10	0.61	< 5	2.3	< 1	< 1	< 1	< 1	2,387
MW-122	8/4/2008	< 1	< 3	< 1	< 1	2.5	1.1	< 5	2.8	< 1	< 1	< 1	< 1	3,293
MW-122	11/17/2008	< 1	< 3	< 1	< 1	< 10	< 1	< 5	< 1	< 1	< 1	< 1	< 1	2,105
MW-122	4/27/2009	< 20	< 40	< 1	< 1	< 100	< 1	< 5	< 1	< 1	< 1	< 1	< 1	1,805
MW-122	8/3/2009	< 20	< 40	< 1	< 1	< 100	< 1	< 5	< 1	< 1	< 1	< 1	< 1	1,142
MW-122	4/14/2010	< 4	< 5	< 1	< 1	< 25	< 1	< 5	< 1	< 1	< 1	< 1	< 1	735

Table 5
Historical Groundwater Sampling Summary - VOCs
Former Monarch Chemicals
61 Gates Avenue, Geneva, NY 14456
NYSDEC Site No. V00119

		Ethylbenzene	Xylene (total)	Cyclohexane	Isopropylbenzene	Acetone	1,2-Dichloroethane	2-Hexanone	Chloroethane	Methyl Acetate	Carbon disulfide	1,1,1,2,2-tetrachloroethane	Methylcyclohexane	TVOCs
703.5 Standard		5	5	NA	5	50	0.6	NA	5	NA	60	5	NA	
	DATE	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l
DEC-GW-STD		5	5	NS	5	50	5	NS	5	NS	60	5	NS	
MW-122	11/16/2010	< 4	< 5	< 1	< 1	< 25	< 1	< 5	2.6	< 1	< 1	< 1	< 1	452
MW-122	4/17/2011	< 1	< 2	< 1	< 1	< 10	< 1	< 5	1.4	< 1	< 1	< 1	< 1	29
MW-122	12/11/2011	< 1	< 2	< 1	< 1	13	< 1	< 5	2.3	< 1	< 1	< 1	< 1	61
MW-122	3/28/2013	< 1	< 2	< 1	< 1	4.6	< 1	< 5	30	< 1	< 1	< 1	< 1	183
MW-122	12/9/2017	< 1	< 2	< 1	< 1	56	< 1	< 5	9.8	< 1	< 1	< 1	< 1	115
MW-122	12/3/2019	< 1	< 2	< 1	< 1	82	< 1	< 5	J 0.59	< 1	< 1	< 1	< 1	107
MW-122	3/5/2020	< 1	< 2	< 1	< 1	130	< 1	< 5	12	< 1	< 1	< 1	< 1	175
MW-122	12/16/2021	< 1	< 2	< 1	< 1	< 10	< 1	< 5	13	< 1	< 1	< 1	< 1	52
MW-122	3/22/2023	< 1	< 2	< 1	< 1	< 10	< 1	< 5	2.9	< 10	< 1	< 1	< 1	25
MW-124s	8/18/2008	6.8	8.3	< 1	< 1	6.8	< 1	< 5	6.2	< 1	< 1	< 1	< 1	191
MW-124s	11/18/2008	36	37	< 1	< 1	23	< 1	< 5	14	< 1	< 1	< 1	< 1	334
MW-124s	4/28/2009	37	45	< 1	0.72	110	0.4	< 5	7	< 1	< 1	< 1	< 1	402
MW-124s	8/4/2009	34	35	< 1	0.64	39	0.34	< 5	100	< 1	3.1	< 1	< 1	254
MW-124s	4/14/2010	23	18	< 1	< 1	6.7	< 1	< 5	< 1	< 1	1.2	< 1	< 1	59
MW-124s	8/11/2010	20	18	< 1	< 1	8.4	< 1	< 5	86	< 1	1.1	< 1	< 1	157
MW-124s	11/15/2010	16	< 5.3	< 1	< 1	7.4	< 1	< 5	58	< 1	< 1	< 1	< 1	106
MW-124s	4/19/2011	19	15	< 1	< 1	< 10	< 1	< 5	50	< 1	< 1	< 1	< 1	133
MW-124s	12/10/2011	5	5	< 1	< 1	3.9	< 1	< 5	20	< 1	< 1	< 1	< 1	70
MW-124s	3/29/2013	1.6	5	< 1	< 1	< 20	< 1	< 5	57	< 1	< 1	< 1	< 1	76
MW-124s	12/10/2017	5.8	3	< 2	< 2	< 20	< 2	< 10	46	< 5	< 2	< 2	< 2	58
MW-124s	12/3/2019	< 2	< 4	< 2	< 2	6	< 2	< 10	< 2	< 5	< 2	< 2	< 2	6
MW-124s	3/4/2020	< 1	< 2	< 1	< 1	< 10	< 1	< 5	< 1	< 2.5	< 1	< 1	< 1	0
MW-124s	12/14/2021	< 4	< 8	< 4	< 4	< 40	< 1	< 20	J 1.6	< 10	< 2	< 2	< 4	2
MW-124s	3/19/2023	< 1	< 2	< 1	< 1	< 10	< 4	< 10	< 1	< 10	< 1	< 1	< 2	3
MW-124d	8/18/2008	0.54	< 3	< 1	< 1	4.9	0.6	< 5	5	< 1	< 1	< 1	< 1	896
MW-124d	11/18/2008	< 20	< 3	< 1	< 1	< 10	< 1	< 5	< 1	< 1	< 1	< 1	< 1	3,108
MW-124d	4/28/2009	< 5	4.2	< 1	< 1	20	1.5	< 5	7.3	< 1	< 1	< 1	< 1	3,015
MW-124d	8/4/2009	1.1	< 10	< 1	< 1	9.4	< 1	< 5	5	< 1	< 1	< 1	< 1	1,850
MW-124d	4/15/2010	< 10	< 10	< 1	< 1	110	< 1	< 5	69	< 1	< 1	< 1	< 1	1,861
MW-124d	8/11/2010	< 10	< 10	< 1	< 1	93	< 1	< 5	51	< 1	< 1	< 1	< 1	1,056
MW-124d	11/15/2010	< 10	< 10	< 1	< 1	53	< 1	< 5	100	< 1	< 1	< 1	< 1	967
MW-124d	4/21/2011	< 1	< 2	< 1	< 1	76	2.8	< 5	110	3	< 1	< 1	< 1	982
MW-124d	12/10/2011	< 1	< 2	< 1	< 1	27	2.8	3.5	140	0.74	< 1	< 1	< 1	649
MW-124d	3/29/2013	< 1	< 2	< 1	< 1	23	< 5	< 25	140	< 5	< 1	< 1	< 1	190
MW-124d	8/9/2016	< 5	< 10	< 5	< 5	< 50	< 5	< 25	< 5	< 13	< 5	< 5	< 5	4.3
MW-124d	12/10/2017	< 5	< 10	< 5	< 5	< 50	< 5	< 25	480	< 13	< 5	< 5	< 5	480
MW-124d	12/3/2019	< 5	< 10	< 5	< 5	< 50	< 5	< 25	260	< 13	< 5	< 5	< 5	262
MW-124d	3/6/2020	< 1	< 2	< 1	< 1	< 10	< 1	< 5	260	< 2.5	< 1	< 1	< 1	260
MW-124d	12/14/2021	< 5	< 10	< 5	< 5	< 50	< 5	< 25	150	< 13	< 5	< 5	< 5	162
MW-124d	3/19/2023	< 3.3	< 6.7	< 3.3	< 3.3	< 33	< 3.3	< 33	140	< 33	< 3.3	< 3.3	< 3.3	140

Table 5
Historical Groundwater Sampling Summary - VOCs
Former Monarch Chemicals
61 Gates Avenue, Geneva, NY 14456
NYSDEC Site No. V00119

		Tetrachloroethene	Trichloroethene	1,1-Dichloroethene	cis-1,2-Dichloroethene	trans 1,2-Dichloroethene	Vinyl chloride	1,1,1-Trichloroethane	1,1,2-Trichloroethane	1,1-Dichloroethane	Chloroform	Chloromethane	Chlorobenzene	Methyl Ethyl Ketone	Methyl Isobutyl Ketone	Methylene Chloride	Benzene	Toluene	Ethylbenzene	Xylene (total)	Cyclohexane	Isopropylbenzene	Acetone	1,2-Dichloroethane	2-Hexanone	Chloroethane	Methyl Acetate	Carbon disulfide	1,1,2,2-tetrachloroethane	Methylcyclohexane	TVOCs
703.5 Standard		5	5	5	5	5	2	5	1	5	7	5	5	NA	NA	5	1	5	5	5	NA	5	50	0.6	NA	5	NA	60	5	NA	
	DATE	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l
DEC-GW-STD		5	5	5	5	5	2	5	5	5	7	5	5	50	50	5	0.7	5	5	5	NS	5	50	5	NS	5	NS	60	5	NS	
MW-114	10/18/2005	37	24	2	4	< 10	< 10	7	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 1	< 1	< 10	< 1	< 5	< 1	< 1	< 1	< 1	< 1	74
MW-114	1/12/2006	98	33	3	6	< 10	2	14	< 10	3	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 1	< 1	< 10	< 1	< 5	< 1	< 1	< 1	< 1	< 1	159
MW-114	4/8/2008	62	18	1.6	4.2	< 1	1	6.9	< 1	2.2	< 1	< 1	< 1	< 5	< 5	< 1	< 1	< 1	< 1	< 3	< 1	< 1	< 10	< 1	< 5	< 1	< 1	< 1	< 1	< 1	96
MW-114	8/5/2008	75	30	3.7	7.3	< 1	2.2	13	< 1	4	< 1	< 1	< 1	< 5	< 5	< 1	< 1	< 1	< 1	< 3	< 1	< 1	2.2	< 1	< 5	< 1	< 1	< 1	< 1	< 1	137
MW-114	11/17/2008	71	23	2.8	5.5	< 1	1.5	9	< 1	3.2	< 1	< 1	< 1	< 5	< 5	< 1	< 1	< 1	< 1	< 3	< 1	< 1	7	< 1	< 5	< 1	< 1	< 1	< 1	< 1	123
MW-114	4/28/2009	53	16	1.9	4.5	< 1	1.4	7.3	< 1	2.3	0.79	< 1	< 1	< 5	< 5	< 1	< 1	< 1	< 1	< 3	< 1	< 1	< 5	< 1	< 5	< 1	< 1	< 1	< 1	< 1	87
MW-114	8/4/2009	23	57	2.6	17	< 1	2.4	11	< 1	4	1.3	< 1	< 1	< 5	< 5	< 1	< 1	< 1	< 1	< 3	< 1	< 1	< 5	< 1	< 5	< 1	< 1	< 1	< 1	< 1	118
MW-114	4/14/2010	36	20	1.4	8.6	< 1	1.3	5.7	< 1	2.3	0.89	< 1	< 1	< 5	< 5	< 1	< 1	< 1	< 1	< 3	< 1	< 1	< 5	< 1	< 5	< 1	< 1	< 1	< 1	< 1	76
MW-114	8/10/2010	5.4	37	2.2	41	< 1	1.2	7.8	< 1	5	1.2	< 1	< 1	< 10	< 5	< 1	< 1	< 1	< 1	< 3	< 1	< 1	< 10	< 1	< 5	< 1	< 1	< 1	< 1	< 1	101
MW-114	11/17/2010	6.6	24	1.2	43	< 1	1.4	3.8	< 1	2.2	2.4	< 1	< 1	< 10	< 5	< 1	< 1	< 1	< 1	< 3	< 1	< 1	< 10	< 1	< 5	< 1	< 1	< 1	< 1	< 1	85
MW-114	4/20/2011	10	12	< 1	16	< 1	1.1	2.9	< 1	1.3	2.3	< 1	< 1	< 10	< 5	< 1	< 1	< 1	< 1	< 3	< 1	< 1	< 10	< 1	< 5	< 1	< 1	< 1	< 1	< 1	46
MW-114	12/10/2011	6.3	10	0.94	29	< 1	1	2.6	< 1	1.5	< 1	< 1	< 1	< 10	< 5	< 1	< 1	< 1	< 1	< 3	< 1	< 1	< 10	< 1	< 5	< 1	< 1	< 1	< 1	< 1	51
MW-114	3/27/2013	0.57	5.9	0.89	36	< 1	1.8	1.6	< 1	2.1	< 1	< 1	< 1	< 5	< 5	< 1	< 1	< 1	< 1	< 3	< 1	< 1	< 10	< 1	< 5	< 1	< 1	< 1	< 1	< 1	49
MW-114	12/9/2017	2.3	3.9	< 1	7	< 1	1	1.9	< 1	1.1	< 1	< 1	< 1	< 10	< 5	< 1	< 1	< 1	< 1	< 2	< 1	< 1	< 10	< 1	< 5	< 1	< 1	< 1	< 1	< 1	17
MW-114	12/3/2019	1.7	3.3	< 1	4.1	< 1	< 1	1.9	< 1	1.5	< 1	< 1	< 1	< 10	< 5	< 1	< 1	< 1	< 1	< 2	< 1	< 1	< 10	< 1	< 5	< 1	< 1	< 1	< 1	< 1	13
MW-114	3/4/2020	2.1	1.3	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 10	< 5	< 1	< 1	< 1	< 1	< 2	< 1	< 1	< 10	< 1	< 5	< 1	< 1	< 1	< 1	< 1	3
MW-114	12/14/2021	< 1	J 0.8	< 1	4.1	< 1	< 1	< 1	< 1	1.8	< 1	< 1	< 1	< 10	< 5	< 1	< 1	< 1	< 1	< 2	< 1	< 1	< 10	< 1	< 5	< 1	< 1	< 1	< 1	< 1	7
MW-114	3/18/2023	6.5	6.5	< 1	J 0.49	< 1	< 1	2.2	< 1	< 1	< 1	< 1	< 1	< 10	< 10	< 5	< 1	< 1	< 1	< 2	< 1	< 1	< 10	< 1	< 5	< 1	< 10	< 1	< 1	< 1	15
MW-115	10/18/2005	34	11	9	15	< 10	8	38	< 10	50	1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 1	< 1	< 10	< 1	< 5	< 1	< 1	< 1	< 1	< 1	166
MW-115	1/12/2006	42	< 10	< 10	< 10	< 10	< 10	4	< 10	1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 1	< 1	< 10	< 1	< 5	< 1	< 1	< 1	< 1	< 1	47
MW-115	9/26/2007	23	2.8	3	3.4	< 1	< 1	9	< 1	11	0.19	< 1	< 1	< 5	< 5	< 1	< 1	< 1	< 1	< 2	< 1	< 1	< 10	< 1	< 5	< 1	< 1	< 1	< 1	< 1	52
MW-115	4/8/2008	13	< 1	< 1	< 1	< 1	< 1	1.5	< 1	1.2	< 1	< 1	< 1	< 5	< 5	< 1	< 1	< 1	< 1	< 3	< 1	< 1	< 10	< 1	< 5	< 1	< 1	< 1	< 1	< 1	16
MW-115	8/5/2008	30	7.7	8.8	9.4	< 1	2.9	22	< 1	34	0.52	< 1	< 1	< 5	< 5	< 1	< 1	< 1	< 1	< 3	< 1	< 1	< 10	< 1	< 5	< 1	< 1	< 1	< 1	< 1	115
MW-115	11/17/2008	30	9.1	16	16	< 1	9.2	24	< 1	47	0.77	< 1	< 1	< 5	< 5	< 1	< 1	< 1	< 1	< 3	< 1	< 1	< 10	10	< 5	< 1	< 1	< 1	< 1	< 1	162
MW-115	4/28/2009	22	3.9	2.4	4.4	< 1	0.72	9.6	< 1	12	< 1	< 1	< 1	< 5	< 5	< 1	< 1	< 1	< 1	< 3	< 1	< 1	< 5	< 1	< 5	< 1	< 1	< 1	< 1	< 1	55
MW-115	8/3/2009	33	9.5	7.7	13	< 1	3.7	22	0.3	33	0.49	< 1	< 1	< 5	< 5	< 1	< 1	< 1	< 1	< 3	< 1	< 1	< 5	< 1	< 5	< 1	< 1	< 1	< 1	< 1	123
MW-115	4/14/2010	21	6	2	5.6	< 1	< 1	9.1	< 1	12	< 1	< 1	< 1	< 5	< 5	< 1	< 1	< 1	< 1	< 3	< 1	< 1	< 5	< 1	< 5	< 1	< 1	< 1	< 1	< 1	56
MW-115	8/10/2010	18	5.3	3	5.9	< 1	< 1	7.3	< 1	12	< 1	< 1	< 1	< 10	< 5	< 1	< 1	< 1	< 1	< 3	< 1	< 1	< 10	< 1	< 5	< 1	< 1	< 1	< 1	< 1	52
MW-115	11/17/2010	29	11	4.1	17	< 1	1.1	8.8	< 1	13	< 1	< 1	< 1	< 10	< 5	< 1	< 1	< 1	< 1	< 3	< 1	< 1	< 10	< 1	< 5	< 1	< 1	< 1	< 1	< 1	84
MW-115	4/18/2011	18	3.4	1	3.6	< 1	< 1	3.1	< 1	7.3	< 1	< 1	< 1	< 10	< 5	< 1	< 1	< 1	< 1	< 2	< 1	< 1	< 10	< 1	< 5	< 1	< 1	< 1	< 1	< 1	36
MW-115	12/9/2011	17	8.1	2.9	70	< 1	2.1	4.5	< 1	13	< 1	< 1	< 1	< 10	< 5	< 1	< 1	< 1	< 1	< 2	< 1	< 1	< 10	< 1	< 5	< 1	< 1	< 1	< 1	< 1	118
MW-115	3/27/2013	14	4.6	1.8	60	< 1	2.5	1.1	< 1	14	< 1	< 1	< 1	< 10	< 5	< 1	< 1	< 1	< 1	< 2	< 1	< 1	< 10	< 1	< 5	0.67	< 1	< 1	< 1	< 1	99
MW-115	12/9/2017	3.6	3.6	J 0.96	40	< 1	6.3	< 1	< 1	8.9	< 1	< 1	< 1	< 10	< 5	< 1	< 1	< 1	< 1	< 2	< 1	< 1	J 4.3	< 1	< 5	2.7	< 1	< 1	< 1	< 1	70
MW-115	12/3/2019	< 4	< 4	< 4	13	< 1	6.1	< 1	< 1	5.2	< 1	< 1	< 1	< 10	< 5	< 1	< 1	< 1	< 1	< 2	< 1	< 1	< 12	< 1	< 5	< 4	< 1	< 1	< 1	< 1	24
MW-115	3/5/2020	4.4	< 4	< 4	J 3.2	< 4	< 3.6	< 4	< 4	J 3.1	< 1.4	< 4	< 4	< 10	< 5	< 4	< 4	< 4	< 4	< 8	< 4	< 4	< 40	< 4	< 20	< 4	< 10	< 4	< 4	< 4	11
MW-115	12/14/2021	1.2	1.2	< 1	7.9	< 1	< 1	< 1	< 1	J 2.6	< 1	< 1	< 1	< 10	< 5	< 1	< 1	< 1	< 1	< 2	< 1	< 1	< 10	< 1	< 5	< 1	< 2.5	< 1	< 1	< 1	13
MW-115	3/20/2023	2.8	J 0.6	< 1	3.4	< 1	< 1	< 1	< 1	J 2.8	< 1	< 1	< 1	< 10	< 5	< 5	< 1	< 1	< 1	< 2	< 1	< 1	< 10	< 1	< 5	< 1	< 10	< 1	< 1	< 1	10
MW-115d	11/16/2010	< 1	< 1	0.61	< 1	< 1	< 1	< 1	< 1	2.4	< 1	< 1	< 1	4.3	< 1	< 1	< 1	< 1	< 1	< 2	< 1	< 1	17	< 1	< 5	< 1	< 1	1.2	< 1	< 1	26
MW-115d	4/19/2011	1.6	< 1	1.2	< 1	< 1	< 1	< 1	< 1	4	< 1	< 1	< 1	< 10	< 1	< 1	< 1	< 1	< 1	< 2	< 1	< 1	< 10	< 1	< 5	< 1	< 1	< 1	< 1	< 1	7
MW-115d	12/9/2011	< 1	< 1	0.81	< 1	< 1	< 1	< 1	< 1	2	< 1	< 1	< 1	< 10	< 1	< 1	< 1	< 1	< 1	< 2	< 1	< 1	< 10	< 1	< 5	< 1	< 1	< 1	< 1	< 1	3
MW-115d	3/27/2013	< 1	< 1	0.75	< 1	< 1	< 1	< 1	< 1	2	< 1	< 1	< 1	< 10	< 1	< 1	< 1	< 1	< 1	< 2	< 1	< 1	< 10	< 1	< 5	< 1	< 1	< 1	< 1	< 1	3
MW-115d	8/9/2016	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 10	< 5	< 1	< 1	< 1	< 1	< 2	< 1	< 1	< 10	< 1	< 5	18	< 2.5	< 1	< 1	< 1	18
MW-115d	12/9/2017	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	1.3	< 1	< 1	< 1	< 10	< 5	< 1	< 1	< 1	< 1	< 2	< 1	< 1	< 10	< 1	< 5	< 1	< 2.5	< 1	< 1	< 1	1.3
MW-115d	12/3/2019	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	J 0.78	< 1	< 1	< 1	< 10	< 5	< 1	< 1	< 1	< 1	< 2	< 1	< 1	< 10	< 1	< 5	< 1	< 2.5	< 1	< 1	< 1	0.8
MW-115d	3/4/2020	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	J 0.74	< 1	< 1	< 1	< 10	< 5	< 1	< 1	< 1	< 1	< 2	< 1	< 1	< 10	< 1	< 5	< 1	< 2.5	< 1	< 1	< 1	0.7
MW-115d	12/14/2021	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	J 0.79	< 1	< 1	< 1	< 10	< 5	< 1	< 1	< 1	< 1	< 2	< 1	< 1	< 10	< 1	< 5	< 1	< 2.5	< 1	< 1	< 1	0.8
MW-115d	3/20/2023	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	J 0.78	< 1	< 1	< 1	< 10	< 5	< 5	< 1	< 1	< 1	< 2	< 1	< 1	< 10	< 1	< 5	< 1	< 10	< 1	< 1	< 1	0.8
MW-116	10/18/2005	1100	130	38	140	2	11	440	< 10	11	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 1	< 1	< 10	< 1	< 5	< 1	< 1	< 1	< 1	< 1	1,872
MW-116	1/12/2006	1100	110	14	110	< 50	< 50	440	< 50	10	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 1	< 1	< 10	< 1	< 5	< 1	< 1	< 1	< 1	< 1	1,784
MW-116	4/8/2008	180	22	3.5	19	< 1	2.4	68	< 1	4.8	< 1	< 1	< 1	< 5	< 5	< 1	< 1	< 1	< 1	< 3	< 1	< 1	< 10	< 1	< 5	< 1	< 1	< 1	< 1	< 1	300
MW-116	8/5/2008	530	62	14	40	0.49	6.5	260	< 1	9.3	< 1	< 1	< 1	< 5	< 5	< 1	< 1	< 1	< 1	< 3	< 1	< 1	2.4	< 1	< 5	< 1	< 1	< 1	< 1	< 1	925
MW-116	11/18/2008	3.6	1.1	< 1	1.4	< 1	< 1	< 1	< 1	2.4	< 2	< 2	< 2	3.3	< 5	< 2	< 2	< 2	< 2	< 3	< 1	< 1	23	< 1	< 5	< 1	< 1	< 1	< 1	< 1	32
MW-116	4/28/2009	0.37	< 1	< 1	14	< 1	1.3	< 1	< 1	0.78	< 2	0.88	< 2	5.1	< 5	< 2	< 2	< 2	< 2	< 3	< 1	< 1	33	< 1	< 5	2.6	< 1	< 1	< 1	< 1	58
MW-116	8/4/2009	< 1	0.53	< 1	1.9	0.43	0.75	< 1	< 1	3.6	< 2	< 1	< 2	< 5	< 5	< 2	3.2	< 2	0.56	< 3	< 1	< 1	3.2	< 1	< 5	1.6	< 1	< 1	< 1	< 1	16
MW-116	4/14/2010	< 1	< 1	< 1	0.88	< 1	< 1	< 1	< 1	1.1	< 2	< 1	< 2	< 5	< 5	< 2	0.81	< 2	< 1	< 3	< 1	< 1	< 10	< 1	< 5	3.1	< 1	< 1	< 1	< 1	6
MW-116	8/11/2010	< 1	0.92	< 1	2.7	1.2	1.1	< 1	< 1	2	< 2	< 1	< 2	< 10	< 5	< 2	1.3	< 2	< 1	< 3	< 1	< 1	< 10	< 1	< 5	17	< 1	< 1	< 1	< 1	26
MW-116	11/17/2010	< 1	0.77	< 1	1.4	< 1	< 1	< 1	< 1	3.1	< 2	< 1	< 2	< 10	< 5	< 2	0.52	< 2	< 1	< 3	< 1	< 1	< 10	< 1	< 5	2.4	< 1	< 1	< 1	< 1	8
MW-116	4/20/2011	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2	< 1	< 2	< 10	< 5	< 2	< 1	< 2	< 1	< 2	< 1	< 1	< 10	< 1	< 5	< 1	< 1	< 1	< 1	< 1	0
MW-116	12/10/2011	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	1.2	< 2	< 1	< 2	< 10	< 5	< 2	< 1	< 2	< 1	< 2	< 1	< 1	< 10	< 1	< 5	< 1	< 1	< 1	< 1	< 1	1
MW-116	3/29/2013	< 1	4.3	< 1	13	< 1	6.1	< 1	< 1	5.6	< 2	< 1	< 2	< 10	< 5	< 2	1.1	< 2	< 1	< 2	< 1	< 1	< 10	< 1	< 5	< 1	< 1	< 1	< 1	< 1	30
MW-116	12/10/2017	< 1	< 1	< 1	3.2	< 1	3.0	< 1	< 1	6.2	< 2	< 1	< 2	< 10	< 5	< 2	J 0.46	< 2	< 1	< 2	< 1	< 1	< 10	< 1	< 5	< 1	< 1	< 1	< 1	< 1	13
MW-116	12/4/2019	< 1	< 1	< 1	17	< 1	7.8	< 1	< 1	7	< 2	< 1	< 2	< 10	< 5	< 2	J 0.49	< 2	< 1	< 2	< 1	< 1	< 10	< 1	< 5	< 1	< 1	< 1	< 1	< 1	32
MW-116	3/4/2020	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	J 0.77	< 1	< 1	< 1	< 10	< 5	< 1	< 1	< 1	< 1	< 2	< 1	< 1	< 10	< 1	< 5	< 1	< 1	< 1	< 1	< 1	0.8
MW-116	12/15/2021	< 1	< 1	< 1	21	< 1	12	< 1	< 1	5.7	< 1	< 1	< 1	< 10	< 5	< 1	J 0.82	< 1	< 1	< 2	< 1	< 1	< 10	< 1	< 5	< 1	< 1	< 1	< 1	< 1	39.5
MW-116	3/19/2023	< 1	1.4	< 1	J 0.92	< 1	< 1	< 1	< 1	J 0.95	< 1	< 1	< 1	< 10	< 5	< 5	< 1	< 1	< 1	< 2	< 1	< 1	< 10	< 1	< 5	< 1	< 10	< 1	< 1	< 1	3.3
MW-117	10/18/2005	1	< 10	< 10	3	< 10	< 10	1	< 10	< 10	< 10	< 10	< 10	2	< 10	< 10	< 10	< 10	69	58	2	28	< 5	< 1	< 5	< 1	< 1	< 1	< 1	5	169
MW-117	1/12/2006	3	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 1	< 1	< 5	< 1	< 5	< 1	< 1	< 1	< 1	< 1	3
MW-117	9/26/2007	< 4	< 4	< 4	4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 20	< 20	< 4	< 4	< 4	71	33	0.65	27	< 5	< 1	< 5	< 1	< 1	< 1	< 1	< 1	136
MW-117	4/8/2008	2.8	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 5	< 5	< 1	< 1	< 1	< 1	< 3	< 1	< 1	< 5	< 1	< 5	< 1	< 1	< 1	< 1	< 1	3
MW-117	8/5/2008	4.1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 5	< 5	< 1	< 1	< 1	14	< 3	< 1	6.6	6.4	< 1	< 5	< 1	< 1	< 1	< 1	< 1	31
MW-117	11/17/2008	26	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 5	< 5	< 1	< 1	< 1	17	< 3	< 1	25	< 5	< 1	< 5	< 1	< 1	< 1	< 1	< 1	68
MW-117	4/28/2009	4	0.73	< 1	0.41	< 1	< 1	< 1	< 1	< 1	< 1	0.51	< 1	3.4	< 5	< 1	0.48	< 1	1.7	< 3	< 1	1.1	< 5	< 1	< 5	0.95	< 1	< 1	< 1	< 1	13
MW-117	8/4/2009	2.1	< 1	< 1	6.9	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	10	< 5	< 1	0.45	< 1	1.2	1	< 1	1.4	85	< 1	1.4	0.95	< 1	< 1	< 1	< 1	110
MW-117	4/15/2010	2.5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	9.6	< 5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 5	< 1	< 5	< 1	< 1	0.76	< 1	< 1	13
MW-117	8/10/2010	< 1	< 1	< 1	7	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	11	< 5	< 1	0.57	< 1	1.6	< 1	< 1	0.99	37	< 1	< 5	< 1	< 1	< 1	< 1	< 1	58
MW-117	11/18/2010	< 1	< 1	< 1	1.9	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 10	< 5	< 1	0.57	< 1	1.3	< 1	< 1	0.81	14	< 1	< 5	< 1	< 1	< 1	< 1	< 1	19
MW-117	4/19/2011	< 1	1.2	< 1	1.2	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 10	< 5	< 1	< 1	< 1	1.6	< 0.83	< 1	1	16	< 1	< 5	< 1	< 1	< 1	< 1	0.41	22
MW-117	12/10/2011	< 1	1.3	< 1	1.6	< 1	< 1	< 1	< 1	0.64	< 1	< 1	< 1	< 10	< 5	< 1	< 1	0.69	1.3	0.66	< 1	0.99	9.7	< 1	< 5	< 1	< 1	< 1	< 1	< 1	17
MW-117	3/29/2013	< 1	< 5	< 1	4.9	< 1	< 1	< 1	< 1	< 5	< 1	< 1	< 1	< 50	< 25	< 1	< 1	< 5	11	5.1	< 1	5.9	17	< 1	< 5	< 1	< 1	< 1	< 1	< 1	44
MW-117	8/9/2016	< 1	< 1	0.32	< 1	< 1	< 1	< 1	< 1	0.94	< 1	< 1	< 1	< 10	< 5	< 1	< 1	< 1	< 1	< 2	< 1	< 1	< 10	< 1	< 5	< 1	< 2.5	< 1	< 1	< 1	1
MW-117	12/9/2017	J 0.45	J 0.85	< 1	J 0.92	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 10	< 5	< 1	< 1	< 1	< 1	< 2	< 1	< 1	< 10	< 1	< 5	< 1	< 2.5	< 1	< 1	< 1	2
MW-117	12/3/2019	J 0.84	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 10	< 5	< 1	< 1	< 1	< 1	< 2	< 1	< 1	J 4.6	< 1	< 5	< 1	< 2.5	< 1	< 1	< 1	5
MW-117	3/4/2020	J 0.91	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 10	< 5	< 1	< 1	< 1	< 1	< 2	< 1	< 1	10	< 1	< 5	< 1	< 2.5	< 1	< 1	< 1	1
MW-117	12/15/2021	< 1	J 0.53	< 1	1.4	< 1	J 0.9	< 1	< 1	J 0.39	< 1	< 1	< 1	< 10	< 5	< 1	< 1	< 1	< 1	< 2	< 1	< 1	< 10	< 1	< 5	< 1	< 2.5	< 1	< 1	< 1	3
MW-117	3/18/2023	2	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 10	< 5	< 5	< 1	< 1	< 1	< 2	< 1	< 1	< 10	< 1	< 5	< 1	< 10	< 1	< 1	< 1	2
MW-118	10/18/2005	1800	1100	110	1400	14	510	530	< 10	250	10	< 10	< 10	< 10	48	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	37	< 10	5,809
MW-118	1/12/2006	4900	2700	240	3600	< 250	1000	3900	< 250	480	< 250	< 250	< 250	< 250	< 250	56	< 250	< 250	< 250	< 250	< 330	< 250	< 330	< 250	< 250	< 250	< 250	< 250	< 250	< 250	17,126
MW-118	9/26/2007	3000	1100	450	2000	< 330	400	7700	< 330	390	< 330	< 330	< 330	< 1700	< 1700	< 330	< 330	< 330	< 330	< 670	< 330	< 330	< 330	< 330	< 330	< 330	< 330	< 330	< 330	< 330	15,061

Table 5
Historical Groundwater Sampling Summary - VOCs
Former Monarch Chemicals
61 Gates Avenue, Geneva, NY 14456
NYSDEC Site No. V00119

		Tetrachloroethene	Trichloroethene	1,1-Dichloroethene	cis-1,2-Dichloroethene	trans 1,2-Dichloroethene	Vinyl chloride	1,1,1-Trichloroethane	1,1,2-Trichloroethane	1,1-Dichloroethane	Chloroform	Chloromethane	Chlorobenzene	Methyl Ethyl Ketone	Methyl Isobutyl Ketone	Methylene Chloride	Benzene	Toluene	Ethylbenzene	Xylene (total)	Cyclohexane	Isopropylbenzene	Acetone	1,2-Dichloroethane	2-Hexanone	Chloroethane	Methyl Acetate	Carbon disulfide	1,1,2,2-tetrachloroethane	Methylcyclohexane	TVOCs
703.5 Standard		5	5	5	5	5	2	5	1	5	7	5	5	NA	NA	5	1	5	5	5	NA	5	50	0.6	NA	5	NA	60	5	NA	
	DATE	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l
DEC-GW-STD		5	5	5	5	5	2	5	5	5	7	5	5	50	50	5	0.7	5	5	5	NS	5	50	5	NS	5	NS	60	5	NS	
MW-118	4/9/2008	3100	1700	1100	2300	32	630	4900	16	670	12	< 1	< 1	< 5	< 5	3.9	0.75	0.93	< 1	3.3	< 1	< 1	4.6	2.1	540	< 1	< 1	< 1	< 1	< 1	15,004
MW-118	8/4/2008	3200	1500	580	2400	26	800	3000	8.9	500	7.5	< 1	< 1	< 5	< 5	< 1	0.85	0.76	< 1	2.3	< 1	< 1	< 10	1.3	< 5	2.8	< 1	< 1	< 1	< 1	12,023
MW-118	11/18/2008	8.4	450	10	210	< 8	49	24	< 8	57	4.2	< 8	< 8	42	< 8	< 8	< 8	< 8	< 8	< 8	< 1	< 1	100	< 1	< 5	< 1	< 1	< 1	< 1	< 1	955
MW-118	4/29/2009	< 10	11	490	7800	100	310	1700	6.7	1400	3.9	< 8	< 8	38	< 8	4.8	< 8	< 8	< 8	< 8	< 1	< 1	240	< 1	< 5	< 1	< 1	< 1	< 1	< 1	12,098
MW-118	8/4/2009	< 10	< 10	460	10000	130	550	2300	6.5	1500	< 10	< 8	< 8	49	< 8	< 10	< 8	< 8	< 8	< 1	< 1	< 1	130	2.9	< 5	< 1	< 1	< 1	< 1	< 1	15,128
MW-118	4/15/2010	< 25	< 25	110	2200	60	1500	1100	6.5	700	< 25	< 25	< 8	< 120	< 25	< 10	< 25	< 25	< 25	< 25	< 1	< 1	98	< 1	< 5	< 1	< 1	< 1	< 1	< 1	5,768
MW-118	8/10/2010	< 10	< 10	6.8	170	25	460	260	< 10	600	< 10	< 10	< 8	31	< 10	< 10	< 10	< 10	< 10	< 10	< 1	< 1	100	< 1	< 5	< 1	< 1	< 1	< 1	< 1	1,653
MW-118	11/17/2010	3	1.9	5	72	7.9	150	160	< 10	260	< 10	< 10	< 8	14	< 10	0.64	0.59	0.73	< 10	1.9	< 1	< 1	120	0.66	< 5	2.8	2	4.2	< 1	< 1	807
MW-118	4/19/2011	9.2	34	8.6	93	15	120	78	0.49	470	< 10	< 10	< 8	22	< 10	0.8	0.79	0.87	< 10	1.5	< 1	< 1	110	1.1	< 5	15	1.1	4.2	< 1	< 1	986
MW-118	12/10/2011	1.1	2.9	< 1	4.8	4.3	13	10	< 1	250	< 10	< 10	< 8	18	< 10	0.5	1.1	0.98	< 1	1.3	< 1	< 1	100	< 1	< 5	18	< 1	0.41	< 1	< 1	426
MW-118	3/29/2013	< 1	0.83	< 1	2.1	< 1	< 1	< 1	< 1	0.9	< 1	< 1	< 1	6.2	< 5	< 1	< 1	< 0.98	< 1	< 2	< 1	< 1	58	< 1	< 5	35	1.1	< 1	< 1	< 1	104
MW-118	3/24/2015	< 2	< 2	< 2	2.3	< 2	< 2	< 2	< 2	5.7	< 2	< 2	< 2	< 20	< 10	1.7	< 2	< 2	< 2	< 2	< 2	< 2	30	< 2	< 10	23	< 5	< 2	< 2	< 2	63
MW-118	8/9/2016	< 2	< 2	< 2	1.6	< 2	< 2	< 2	< 2	9.7	< 2	< 2	< 2	14	< 10	< 2	< 2	< 2	< 2	< 4	< 2	< 2	77	< 2	< 10	9.9	< 5	< 2	< 2	< 2	112
MW-118	12/9/2017	< 2	< 2	< 2	2.3	< 2	4.4	< 2	< 2	24	< 2	< 2	< 2	< 20	< 10	< 2	< 2	< 2	< 2	< 4	< 2	< 2	J 12	< 2	< 10	18	< 5	< 2	< 2	< 2	61
MW-118	12/4/2019	< 1.8	< 2.3	< 5	230	< 5	100	< 5	< 5	120	< 5	< 5	< 5	< 50	< 25	< 5	< 5	< 5	< 5	< 10	< 5	< 5	J 19	< 5	< 10	24	< 13	< 5	< 2	< 5	493
MW-118	3/5/2020	< 1.8	23	J 2.4	170	< 5	230	< 5	< 5	140	< 5	< 5	< 5	< 50	< 25	< 5	< 5	< 5	< 5	< 10	< 5	< 5	< 50	< 5	< 10	17	< 13	< 5	< 2	< 5	582
MW-118	12/15/2021	< 5	< 5	< 5	100	< 5	67	< 5	< 5	82	< 5	< 5	< 5	< 50	< 25	< 5	< 5	< 5	< 5	< 10	< 5	< 5	< 50	< 5	< 10	19	< 13	< 5	< 2	< 5	268
MW-118	3/18/2023	< 2	15	1.6	100	J 1.1	72	< 2	< 2	100	< 2	< 2	< 2	< 20	< 20	< 2	< 2	< 2	< 2	< 4	< 2	< 2	< 20	< 2	< 20	8.7	< 10	< 2	< 2	< 2	296
MW-121	10/18/2005	7	11	6	24	< 10	3	4	< 10	15	< 10	< 10	< 10	< 10	18	< 10	< 10	< 10	< 10	< 10	< 1	< 1	< 10	< 1	< 10	< 1	< 1	< 1	< 1	< 1	88
MW-121	1/12/2006	3	6	2	11	< 10	2	3	< 10	9	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 1	< 1	< 10	< 1	< 10	< 1	< 1	< 1	< 1	< 1	36
MW-121	11/21/2006	1.5	3.7	< 1	5.1	< 1	< 1	1.8	< 1	2.2	< 1	< 1	< 1	< 5	< 5	< 1	< 1	< 1	< 1	< 3	< 1	< 1	< 5	< 1	< 5	< 1	< 1	< 1	< 1	< 1	14
MW-121	4/8/2008	1.2	2.7	< 1	2.7	< 1	< 1	1.5	< 1	1.6	< 1	< 1	< 1	< 5	< 5	< 1	< 1	< 1	< 1	< 3	< 1	< 1	< 5	< 1	< 5	< 1	< 1	< 1	< 1	< 1	10
MW-121	8/5/2008	4.7	4.1	< 1	9.3	< 1	< 1	4.5	< 1	6.2	< 1	< 1	< 1	< 5	< 5	< 1	< 1	< 1	< 1	< 3	< 1	< 1	18	< 1	< 5	< 1	< 1	< 1	< 1	< 1	47
MW-121	11/17/2008	8.4	7.7	< 1	12	< 1	2.1	4.4	< 1	8.1	< 1	< 1	< 1	< 5	< 5	< 1	< 1	< 1	< 1	< 3	< 1	< 1	< 5	< 1	< 5	< 1	< 1	< 1	< 1	< 1	43
MW-121	4/27/2009	0.7	3.1	< 1	5.7	< 1	< 1	2.2	< 1	3.7	< 1	< 1	< 1	2.5	< 5	< 1	< 1	< 1	< 1	< 3	< 1	< 1	< 5	< 1	< 5	< 1	< 1	< 1	< 1	< 1	18
MW-121	8/3/2009	13	8.7	0.37	18	< 1	7.1	5.4	< 1	12	0.49	< 1	< 1	2.3	< 5	< 1	< 1	< 1	< 1	< 3	< 1	< 1	< 5	0.23	< 5	< 1	< 1	< 1	< 1	< 1	68
MW-121	4/14/2010	4.6	5.2	< 1	7.3	< 1	1.4	2.9	< 1	5.1	< 1	< 1	< 1	2.3	< 5	< 1	< 1	< 1	< 1	< 3	< 1	< 1	< 5	< 1	< 5	< 1	< 1	< 1	< 1	< 1	29
MW-121	11/14/2010	13	6.3	0.68	16	< 1	7.7	2.8	< 1	12	< 1	< 1	< 1	< 1.3	< 5	< 1	< 1	< 1	< 1	< 3	< 1	< 1	< 5	< 1	< 5	< 1	< 1	< 1	< 1	< 1	58
MW-121	4/17/2011	0.97	1.8	< 1	3.1	< 1	< 1	< 1	< 1	1.6	< 1	< 1	< 1	< 10	< 5	< 1	< 1	< 1	< 1	< 3	< 1	< 1	< 10	< 1	< 5	< 1	< 1	< 1	< 1	< 1	7
MW-121	12/11/2011	3.9	5.2	< 1	6.4	< 1	3	1.7	< 1	6.6	< 1	< 1	< 1	< 10	< 5	< 1	< 1	< 1	< 1	< 3	< 1	< 1	< 10	< 1	< 5	< 1	< 1	< 1	< 1	< 1	27
MW-121	3/28/2013	3.1	3.7	< 1	4.6	< 1	0.96	1	< 1	4.2	< 1	< 1	< 1	< 10	< 5	< 1	< 1	< 1	< 1	< 3	< 1	< 1	< 10	< 1	< 5	< 1	< 1	1	< 1	< 1	19
MW-121	12/9/2017	8	8.6	< 1	19	< 1	4.9	3.2	< 1	13	< 1	< 1	< 1	< 10	< 5	< 1	< 1	< 1	< 1	< 3	< 1	< 1	< 10	< 1	< 5	< 1	< 1	< 1	< 1	< 1	57
MW-121	12/3/2019	4.8	7.1	< 4	11	< 4	< 4	< 4	< 4	9.3	< 4	< 4	< 4	< 40	< 20	< 4	< 4	< 4	< 4	< 8	< 4	< 4	< 40	< 4	< 20	< 4	< 10	< 4	< 4	< 4	32
MW-121	3/5/2020	< 4	J 3.5	< 4	9.3	< 4	< 3	< 4	< 4	6.2	< 4	< 4	< 4	< 40	< 20	< 4	< 4	< 4	< 4	< 8	< 4	< 4	< 40	< 4	< 20	< 4	< 10	< 4	< 4	< 4	19
MW-121	12/16/2021	J 0.66	3.2	< 1	6.6	< 1	< 1	1.1	< 1	4.2	< 1	< 1	< 1	< 10	< 5	< 1	< 1	< 1	< 1	< 2	< 1	< 1	< 10	< 1	< 5	< 1	< 2.5	< 1	< 1	< 1	16
MW-121	3/22/2023	J 0.75	1.7	< 1	2.8	< 1	< 1	J 0.74	< 1	2.4	< 1	< 1	< 1	< 10	< 5	< 5	< 1	< 1	< 1	< 2	< 1	< 1	< 10	< 1	< 5	< 1	< 10	< 1	< 1	< 1	7
MW-122	10/18/2005	10	100	31	1400	36	310	170	2	160	< 10	< 10	< 10	< 10	< 10	< 10	2	< 10	< 10	< 10	< 1	< 1	< 25	< 1	< 10	< 1	< 1	< 1	< 1	< 1	2,221
MW-122	1/12/2006	11	79	26	1600	27	450	160	< 10	180	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 1	< 1	< 25	< 1	< 10	< 1	< 1	< 1	< 1	< 1	2,533
MW-122	11/21/2006	2.8	29	11	760	13	210	55	< 10	91	< 10	< 10	< 10	< 50	< 50	< 10	< 10	< 10	< 10	< 30	< 1	< 1	< 10	< 1	< 5	< 1	< 1	< 1	< 1	< 1	1,172
MW-122	4/7/2008	4.7	68	24	1200	33	650	160	1.2	240	< 1	< 1	< 1	< 5	< 5	< 1	1.6	1.1	< 1	0.93	< 1	< 1	< 10	0.61	< 5	2.3	< 1	< 1	< 1	< 1	2,387
MW-122	8/4/2008	7.2	83	37	1600	45	1000	180	1.8	330	< 1	< 1	< 1	< 5	< 5	< 1	2.1	< 1	< 1	< 3	< 1	< 1	2.5	1.1	< 5	2.8	< 1	< 1	< 1	< 1	3,293
MW-122	11/17/2008	< 20	43	20	1200	21	580	81	< 20	160	< 1	< 1	< 1	< 5	< 5	< 1	< 20	< 1	< 1	< 3	< 1	< 1	< 10	< 1	< 5	< 1	< 1	< 1	< 1	< 1	2,105
MW-122	4/27/2009	< 20	44	16	1000	22	510	73	< 20	140	< 20	< 20	< 20	< 100	< 20	< 20	< 20	< 20	< 20	< 40	< 1	< 1	< 100	< 1	< 5	< 1	< 1	< 1	< 1	< 1	1,805
MW-122	8/3/2009	< 10	30	9.1	590	13	360	47	< 20	93	< 20	< 20	< 20	< 100	< 20	< 20	< 20	< 20	< 20	< 40	< 1	< 1	< 100	< 1	< 5	< 1	< 1	< 1	< 1	< 1	1,142
MW-122	4/14/2010	< 5	18	4.2	270	6.7	340	21	< 5	75	< 5	< 5	< 5	< 25	< 20	< 5	< 5	< 5	< 4	< 5	< 1	< 1	< 25	< 1	< 5	< 1	< 1	< 1	< 1	< 1	735
MW-122	11/16/2010	< 5	14	2.7	150	5	190	12	< 5	76	< 5	< 5	< 5	< 25	< 20	< 5	< 5	< 5	< 4	< 5	< 1	< 1	< 25	< 1	< 5	2.6	< 1	< 1	< 1	< 1	452
MW-122	4/17/2011	< 1	0.57	2.7	2.9	< 1	11	0.83	< 5	9.9	< 1	< 1	< 1	< 10	< 5	< 1	< 1	< 1	< 1	< 2	< 1	< 1	< 10	< 1	< 5	1.4	< 1	< 1	< 1	< 1	29
MW-122	12/11/2011	< 1	1.1	2.7	3.3	0.9	10	1.1	< 5	27	< 1	< 1	< 1	< 10	< 5	< 1	< 1	< 1	< 1	< 2	< 1	< 1	13	< 1	< 5	2.3	< 1	< 1	< 1	< 1	61
MW-122	3/28/2013	0.99	3.9	0.49	23	2.8	27	3.2	< 5	87	< 1	< 1	< 1	< 10	< 5	< 1	0.45	< 1	< 1	< 2	< 1	< 1	4.6	< 1	< 5	30	< 1	< 1	< 1	< 1	183
MW-122	12/9/2017	< 1	4.8	< 1	8.5	1.6	2.6	< 1	< 5	31	< 1	< 1	< 1	< 10	< 5	< 1	J 0.52	< 1	< 1	< 2	< 1	< 1	56	< 1	< 5	9.8	< 1	< 1	< 1	< 1	115
MW-122	12/3/2019	< 1	3.6	< 1	2.9	< 1	< 1	< 1	< 1	18	< 1	< 1	< 1	< 10	< 5	< 1	< 1	< 1	< 1	< 2	< 1	< 1	82	< 1	< 5	J 0.59	< 1	< 1	< 1	< 1	107
MW-122	3/5/2020	< 1	J 0.97	< 1	11	J 0.98	1.5	< 1	< 1	19	< 1	< 1	< 1	< 10	< 5	< 1	< 1	< 1	< 1	< 2	< 1	< 1	130	< 1	< 5	12	< 1	< 1	< 1	< 1	175
MW-122	12/16/2021	< 1	2.9	< 1	13	1.90	1.6	< 1	< 1	19	< 1	< 1	< 1	< 10	< 5	< 1	J 0.78	< 1	< 1	< 2	< 1	< 1	< 10	< 1	< 5	13	< 1	< 1	< 1	< 1	52
MW-122	3/22/2023	< 1	J 0.49	< 1	7.1	1.0	1.9	< 1	< 1	12	< 1	< 1	< 1	< 10	< 5	< 5	J 0.52	< 1	< 1	< 2	< 1	< 1	< 10	< 1	< 5	2.9	< 10	< 1	< 1	< 1	25
MW-124s	8/18/2008	< 1	0.94	< 1	5.1	9.2	13	0.98	< 1	130	< 1	< 1	< 1	1.5	< 5	< 1	< 1	1.8	6.8	8.3	< 1	< 1	6.8	< 1	< 5	6.2	< 1	< 1	< 1	< 1	191
MW-124s	11/18/2008	< 4	< 4	< 1	5.2	6.7	4.3	< 4	< 1	160	< 1	2.8	< 1	34	< 5	< 1	< 1	11	36	37	< 1	< 1	23	< 1	< 5	14	< 1	< 1	< 1	< 1	334
MW-124s	4/28/2009	< 1	0.83	< 1	4.7	7	3.3	0.7	< 1	130	< 1	< 1	< 1	33	< 5	< 1	0.24	15	37	45	< 1	0.72	110	0.4	< 5	7	< 1	< 1	< 1	< 1	402
MW-124s	8/4/2009	< 1	0.51	< 1	1.3	7.2	1.4	< 1	< 1	4.5	< 1	< 1	< 1	10	< 5	< 1	< 1	17	34	35	< 1	0.64	39	0.34	< 5	100	< 1	3.1	< 1	< 1	254
MW-124s	4/14/2010	< 2	< 2	< 2	< 2	5.9	< 2	< 2	< 2	1.2	< 2	< 2	< 2	< 10	< 5	< 2	< 2	2.6	23	18	< 1	< 1	6.7	< 1	< 5	< 1	< 1	1.2	< 1	< 1	59
MW-124s	8/11/2010	< 1	0.9	< 1	3.3	8.1	< 2	< 2	< 2	3.6	< 2	< 2	< 2	5.8	< 10	< 2	< 2	2.1	20	18	< 1	< 1	8.4	< 1	< 5	86	< 1	1.1	< 1	< 1	157
MW-124s	11/15/2010	< 1	< 1	< 1	1.1	4.2	< 2	< 2	< 2	19	< 2	< 2	< 2	< 10	< 10	< 2	< 2	< 1	16	< 5.3	< 1	< 1	7.4	< 1	< 5	58	< 1	< 1	< 1	< 1	106
MW-124s	4/19/2011	< 1	< 1	< 1	1.5	6.9	1.3	< 2	< 2	38	< 2	< 2	< 2	< 10	< 10	< 2	< 2	0.86	19	15	< 1	< 1	< 10	< 1	< 5	50	< 1	< 1	< 1	< 1	133
MW-124s	12/10/2011	< 1	< 1	< 1	< 1	3.7	< 1	< 1	< 2	32	< 2	< 2	< 2	< 10	< 5	< 1	< 2	< 1	5	5	< 1	< 1	3.9	< 1	< 5	20	< 1	< 1	< 1	< 1	70
MW-124s	3/29/2013	< 1	< 1	< 1	< 1	3.6	< 1	< 1	< 2	8.6	< 2	< 2	< 2	< 10	< 5	< 1	< 2	< 1	1.6	5	< 1	< 1	< 20	< 1	< 5	57	< 1	< 1	< 1	< 1	76
MW-124s	12/10/2017	< 2	< 2	< 2	< 2	3.5	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 20	< 10	< 2	< 2	< 2	5.8	3	< 2	< 2	< 20	< 2	< 10	46	< 5	< 2	< 2	< 2	58
MW-124s	12/3/2019	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 20	< 10	< 2	< 2	< 2	< 2	< 4	< 2	< 2	6	< 2	< 10	< 2	< 5	< 2	< 2	< 2	6
MW-124s	3/4/2020	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 10	< 5	< 1	< 1	< 1	< 1	< 2	< 1	< 1	< 10	< 1	< 5	< 1	< 2.5	< 1	< 1	< 1	0
MW-124s	12/14/2021	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 40	< 20	< 4	< 4	< 4	< 4	< 8	< 4	< 4	< 40	< 1	< 20	J 1.6	< 10	< 2	< 2	< 4	2
MW-124s	3/19/2023	< 1	< 1	< 1	< 1	1.2	1.3	< 1	< 1	< 1	< 1	< 1	< 1	< 10	< 10	< 1	< 1	< 1	< 1	< 2	< 1	< 1	< 10	< 4	< 10	< 1	< 10	< 1	< 1	< 2	3
MW-124d	8/18/2008	< 1	49	31	260	2.4	81	0.7	< 1	460	1.1	< 1	< 1	< 5	< 5	< 1	< 1	< 1	0.54	< 3	< 1	< 1	4.9	0.6	< 5	5	< 1	< 1	< 1	< 1	896
MW-124d	11/18/2008	< 1	120	34	1600	20	770	< 20	< 20	510	< 20	< 1	< 1	54	< 5	< 1	< 1	< 1	< 20	< 3	< 1	< 1	< 10	< 1	< 5	< 1	< 1	< 1	< 1	< 1	3,108
MW-124d	4/28/2009	4.2	30	27	1300	15	760	44	< 5	720	< 5	2.2	< 1	72	< 5	4.3	< 1	3.2	< 5	4.2	< 1	< 1	20	1.5	< 5	7.3	< 1	< 1	< 1	< 1	3,015
MW-124d	8/4/2009	< 5	17	17	720	12	510	8.4	< 5	470	< 5	< 5	< 1	76	< 5	4.3	< 1	< 5	1.1	< 10	< 1	< 1	9.4	< 1	< 5	5	< 1	< 1	< 1	< 1	1,850
MW-124d	4/15/2010	< 10	< 10	< 10	210	13	59	< 10	< 10	570	< 10	< 10	< 10	830	< 50	< 10	< 10	< 10	< 10	< 10	< 1	< 1	110	< 1	< 5	69	< 1	< 1	< 1	< 1	1,861
MW-124d	8/11/2010	< 8	< 8	< 8	110	9.9	42	< 8	< 8	470	< 8	< 8	< 8	280	< 50	< 10	< 10	< 10	< 10	< 10	< 1	< 1	93	< 1	< 5	51	< 1	< 1	< 1	< 1	1,056
MW-124d	11/15/2010	< 8	< 8	< 8	76	8.6	39	< 8	< 8	340	< 8	< 8	< 8	350	< 50	< 10	< 10	< 10	< 10	< 10	< 1	< 1	53	< 1	< 5	100	< 1	< 1	< 1	< 1	967
MW-124d	4/21/2011	< 1	1.1	0.98	47	7.2	12	< 1	< 1	220	< 1	< 1	< 1	500	< 50	< 10	0.93	1.1	< 1	< 2	< 1	< 1	76	2.8	< 5	110	3	< 1	< 1	< 1	982
MW-124d	12/10/2011	< 1	0.61	1.3	32	17	12	< 1	< 1	280	< 1	< 1	< 1	130	< 5	< 1	1.1	1.1	< 1	< 2	< 1	< 1	27	2.8	3.5	140	0.74	< 1	< 1	< 1	649
MW-124d	3/29/2013	< 1	< 5	< 5	4.9	< 5	< 5	< 1	< 1	4.6	< 1	< 1	< 1	17	< 5	< 1	< 5	< 5	< 1	< 2	< 1	< 1	23	< 5	< 25	140	< 5	< 1	< 1	< 1	190
MW-124d	8/9/2016	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	4.3	< 5	< 5	< 5	< 50	< 25	< 5	< 5	< 5	< 5	< 10	< 5	< 5	< 50	< 5	< 25	< 5	< 13	< 5	< 5	< 5	4.3
MW-124d	12/10/2017	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 50	< 25	< 5	< 5	< 5	< 5	< 10	< 5	< 5	< 50	< 5	< 25	480	< 13	< 5	< 5	< 5	480
MW-124d	12/3/2019	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 50	< 25	J 2.2	< 5	< 5	< 5	< 10	< 5	< 5	< 50	< 5	< 25	260	< 13	< 5	< 5	< 5	262
MW-124d	3/6/2020	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 10	< 5	< 1.0	< 1	< 1	< 1	< 2	< 1	< 1	< 10	< 1	< 5	260	< 2.5	< 1	< 1	< 1	260
MW-124d	12/14/2021	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	12	< 5	< 5	< 5	< 50	< 25	< 5.0	< 5	< 5	< 5	< 10	< 5	< 5	< 50	< 5	< 25	150	< 13	< 5	< 5	< 5	162
MW-124d	3/19/2023	< 3.3	< 3.3	< 3.3	< 3.3	< 3.3	< 3.3	< 3.3	< 3.3	< 3.3	< 3.3	< 3.3	< 3.3	< 33	< 33	< 3.3	< 3.3	< 3.3	< 3.3	< 6.7	< 3.3	< 3.3	< 33	< 3.3	< 33	140	< 33	< 3.3	< 3.3	< 3.3	140

Table 6
March 2023 SVI Sub-Slab and Indoor Air Sample Monitoring Data
Former Monarch Chemicals
61 Gates Avenue, Geneva, NY 14456
NYSDEC Site No. V00119

Location	March 21, 2023 Time	Vacuum Pressure ("Hg)	Temp (^oF)	PID (ppb)	Barometric Pressure ("H_2O)	Minutes	Hours	Comment
SS-2	8:12	-30	64.1	nm	29.72	0	0	Start Sampling
SS-2	9:55	-29	66.8	nm	29.74	103	1:43	Canister Serial #34001125
SS-2	12:45	-21	68.2	nm	29.75	277	4:33	Flow Controller Serial #7596
SS-2	16:12	-13	68.5	nm	29.72	480	8:00	Stop Sampling
SS-4	8:17	-30	68.6	nm	29.72	0	0	Start Sampling
SS-4	10:00	-26	62.1	nm	29.74	103	1:43	Canister Serial #11058
SS-4	12:48	-20	66.6	nm	29.75	271	4:31	Flow Controller Serial #11931
SS-4	16:17	-13	65.2	nm	29.72	480	8:00	Stop Sampling
IA-2	8:13	-30	64.1	nm	29.72	0	0	Start Sampling
IA-2	9:56	-29	66.8	nm	29.74	103	1:43	Canister Serial #34000177
IA-2	12:45	-25	68.2	nm	29.75	272	4:32	Flow Controller Serial #11292
IA-2	16:13	-22	68.5	nm	29.72	480	8:00	Stop Sampling
IA-4	8:18	-30	68.6	nm	29.72	0	0	Start Sampling
IA-4	10:00	-26	62.1	nm	29.74	102	1:42	Canister Serial #12173
IA-4	12:49	-20	66.6	nm	29.75	271	4:31	Flow Controller Serial #11513
IA-4	16:18	-13	65.2	nm	29.72	480	8:00	Stop Sampling
Outdoor	8:24	-29	43.6	nm	29.72	0	0	Start Sampling
Outdoor	10:05	-25	48.8	nm	29.74	101	1:41	Canister Serial #10553
Outdoor	12:58	-19	58.7	nm	29.75	274	4:34	Flow Controller Serial #09952
Outdoor	16:24	-10	60.2	nm	29.73	480	8:00	Stop Sampling

PID readings are ambient, units are parts per billion (ppb)
Temperature readings are ambient, units are in degrees Farenheit
Barometer readings are ambient and are total pressure, units are in inches of water

Table 7 - March 21, 2023 Sub-Slab Soil Vapor and Indoor Air Sampling
Former Monarch Chemicals Facility
61 Gates Avenue North, Geneva, NY 14456
Site No. V00019-8

Pinnacle Engineering

Analyte	IA-2		IA-4		SS-2		SS-4		OUTDOOR		Units
	Qualifier		Qualifier		Qualifier		Qualifier		Qualifier		
1,1,1-Trichloroethane	**0.29**	J	1.1	U	**70**		**6.1**		1.1	U	ug/m^3
1,1,2,2-Tetrachloroethane	1.6	U	1.4	U	4.1	U	4.1	U	1.4	U	ug/m^3
1,1,2-Trichloroethane	1.2	U	1.1	U	3.3	U	3.3	U	1.1	U	ug/m^3
1,1,2-Trichlorotrifluoroethane	1.7	U	**0.43**	J	4.6	U	4.6	U	1.5	U	ug/m^3
1,1-Dichloroethane	0.92	U	0.81	U	**1.2**	J	**2.3**	J	0.81	U	ug/m^3
1,1-Dichloroethene	0.23	U	0.2	U	0.6	U	0.6	U	0.2	U	ug/m^3
1,2,4-Trichlorobenzene	4.2	U	3.7	U	11	U	11	U	3.7	U	ug/m^3
1,2,4-Trimethylbenzene	1.1	U	**0.5**	J	**1.2**	J	2.9	U	0.98	U	ug/m^3
1,2-Dibromoethane	1.8	U	1.5	U	4.6	U	4.6	U	1.5	U	ug/m^3
1,2-Dichlorobenzene	1.4	U	1.2	U	3.6	U	3.6	U	1.2	U	ug/m^3
1,2-Dichloroethane	0.92	U	0.81	U	2.4	U	2.4	U	0.81	U	ug/m^3
1,2-Dichloropropane	1.1	U	0.92	U	2.8	U	2.8	U	0.92	U	ug/m^3
1,2-Dichlorotetrafluoroethane	1.6	U	1.4	U	4.2	U	4.2	U	1.4	U	ug/m^3
1,3,5-Trimethylbenzene	1.1	U	0.98	U	2.9	U	2.9	U	0.98	U	ug/m^3
1,3-Butadiene	0.5	U	0.44	U	1.3	U	1.3	U	0.44	U	ug/m^3
1,3-Dichlorobenzene	1.4	U	1.2	U	3.6	U	3.6	U	1.2	U	ug/m^3
1,4-Dichlorobenzene	1.4	U	1.2	U	3.6	U	3.6	U	1.2	U	ug/m^3
1,4-Dioxane	21	U	18	U	54	U	54	U	18	U	ug/m^3
2,2,4-Trimethylpentane	1.1	U	**0.25**	J	2.8	U	2.8	U	0.93	U	ug/m^3
2-Chlorotoluene	1.2	U	1	U	3.1	U	3.1	U	1	U	ug/m^3
3-Chloropropene	1.8	U	1.6	U	4.7	U	4.7	U	1.6	U	ug/m^3
4-Ethyltoluene	1.1	U	0.98	U	2.9	U	2.9	U	0.98	U	ug/m^3
4-Isopropyltoluene	1.3	U	1.1	U	3.3	U	3.3	U	1.1	U	ug/m^3
4-Methyl-2-pentanone	2.3	U	2	U	6.1	U	6.1	U	2	U	ug/m^3
Acetone	**10**	J	**10**	J	**730**	E	**650**	E	**4.9**	J	ug/m^3
Benzene	**0.42**	J	**0.39**	J	1.9	U	1.9	U	**0.31**	J	ug/m^3
Benzyl chloride	1.2	U	1	U	3.1	U	3.1	U	1	U	ug/m^3
Bromodichloromethane	**0.95**	J	**1.5**		4	U	4	U	1.3	U	ug/m^3
Bromoethene(Vinyl Bromide)	1	U	0.87	U	2.6	U	2.6	U	0.87	U	ug/m^3
Bromoform	2.4	U	2.1	U	6.2	U	6.2	U	2.1	U	ug/m^3
Bromomethane	0.89	U	0.78	U	2.3	U	2.3	U	0.78	U	ug/m^3
Carbon disulfide	1.8	U	1.6	U	4.7	U	4.7	U	1.6	U	ug/m^3
Carbon tetrachloride	**1.1**		**1**		0.66	U	**0.44**	J	**0.39**		ug/m^3
Chlorobenzene	1	U	0.92	U	2.8	U	2.8	U	0.92	U	ug/m^3
Chlorodifluoromethane	**1.2**	J	**1.2**	J	5.3	U	5.3	U	**1**	J	ug/m^3
Chloroethane	1.5	U	1.3	U	4	U	4	U	1.3	U	ug/m^3
Chloroform	**3.1**		**4.1**		**12**		**46**		0.98	U	ug/m^3
Chloromethane	**1.2**		**1.2**		3.1	U	3.1	U	**1.2**		ug/m^3
cis-1,2-Dichloroethene	0.23	U	0.2	U	0.6	U	0.6	U	0.2	U	ug/m^3
cis-1,3-Dichloropropene	1	U	0.91	U	2.7	U	2.7	U	0.91	U	ug/m^3
Cumene	1.1	U	0.98	U	2.9	U	2.9	U	0.98	U	ug/m^3
Cyclohexane	**0.23**	J	0.69	U	2.1	U	2.1	U	0.69	U	ug/m^3
Dibromochloromethane	**0.86**	J	**1.3**	J	5.1	U	5.1	U	1.7	U	ug/m^3
Dichlorodifluoromethane	**1.4**	J	**2.2**	J	**2.1**	J	**2.1**	J	**1.8**	J	ug/m^3
Ethylbenzene	**0.32**	J	**0.28**	J	2.6	U	**0.72**	J	0.87	U	ug/m^3
Hexachlorobutadiene	2.4	U	2.1	U	6.4	U	6.4	U	2.1	U	ug/m^3
Isopropyl alcohol	**6**	J	**11**	J	37	U	37	U	12	U	ug/m^3
m,p-Xylene	**1.6**	J	0.95	J	**2.2**	J	**3.2**	J	2.2	U	ug/m^3
Methyl Butyl Ketone (2-Hexanone)	2.3	U	2	U	**3.9**	J	**3.5**	J	2	U	ug/m^3
Methyl Ethyl Ketone (2-Butanone)	1.7	U	1.5	U	**16**		**18**		1.5	U	ug/m^3
Methyl methacrylate	2.3	U	2	U	6.1	U	6.1	U	2	U	ug/m^3
Methyl tert-butyl ether	0.82	U	0.72	U	2.2	U	2.2	U	0.72	U	ug/m^3
Methylene Chloride	**5.5**		**4.7**		**2.5**	J	**2.1**	J	**1.2**	J	ug/m^3
Naphthalene	3	U	2.6	U	7.9	U	7.9	U	2.6	U	ug/m^3
n-Butane	**5.1**		**4.1**		3.6	U	3.8		**1.9**		ug/m^3
n-Butylbenzene	1.3	U	1.1	U	3.3	U	3.3	U	1.1	U	ug/m^3
n-Heptane	**0.48**	J	**0.65**	J	**1.2**	J	**1.4**	J	0.82	U	ug/m^3
n-Hexane	**3.8**		**1.9**		**1.2**	J	**1.4**	J	**2**		ug/m^3
n-Propylbenzene	1.1	U	0.98	U	2.9	U	2.9	U	0.98	U	ug/m^3
o-Xylene	**0.34**	J	**0.32**	J	**0.86**	J	**0.95**	J	0.87	U	ug/m^3
sec-Butylbenzene	1.3	U	1.1	U	3.3	U	3.3	U	1.1	U	ug/m^3
Styrene	**0.35**	J	**0.32**	J	**0.84**	J	2.6	U	0.85	U	ug/m^3
tert-Butyl alcohol	17	U	15	U	45	U	45	U	15	U	ug/m^3
tert-Butylbenzene	1.3	U	1.1	U	3.3	U	3.3	U	1.1	U	ug/m^3
Tetrachloroethene	**1.9**		**0.91**	J	**220**		**57**		1.4	U	ug/m^3
Tetrahydrofuran	17	U	15	U	44	U	44	U	15	U	ug/m^3
Toluene	**1.3**		**1**		**4.2**		**4.1**		**0.31**	J	ug/m^3
trans-1,2-Dichloroethene	0.9	U	0.79	U	2.4	U	2.4	U	0.79	U	ug/m^3
trans-1,3-Dichloropropene	1	U	0.91	U	2.7	U	2.7	U	0.91	U	ug/m^3
Trichloroethene	0.23	U	0.2	U	**1.9**		**20**		0.2	U	ug/m^3
Trichlorofluoromethane	**1.6**		**1.3**		**1**	J	**1.1**	J	**1.1**		ug/m^3
Vinyl chloride	0.23	U	0.2	U	0.6	U	0.6	U	0.2	U	ug/m^3

Qualifier
J = Result less than RL, greater than or equal to MDL, and concentration is approximate.
D = Sample results are obtained from a dilution; the surrogate or matrix spike recoveries reported are calculated from diluted samples
E = Result exceeded calibration range.
U = Indicates analyte was not detected.

Table 8 - Summary of Historical SVI Sub-Slab Sampling Results
Former Monarch Chemicals
61 Gates Avenue, Geneva, New York
Site No. V00119-8

Location	Trichloroethene	cis-1,2-Dichloroethene	1,1-Dichloroethene	Carbon tetrachloride	Tetrachloroethene	1,1,1-Trichloroethane	Methylene chloride	Vinyl chloride
SS-1								
3/27/2007	<0.21	<0.16	<0.16	**1.1**	**33**	**17**	--	--
1/31/2008	<1.1	<0.16	<0.79	<1.3	**20**	**14**	--	<0.51
12/20/2010	<1.1	<0.79	<0.79	<1.3	**15**	**16**	<1.7	<0.51
3/28/2013	<1.07	<0.79	<0.79	**18.4**	**3.07**	**6.53**	<1.74	<0.10
3/24/2015	**0.33**	<0.12	<0.04	**0.44**	**14**	**7.1**	**1.4**	<0.06
12/11/2017	<1.1	<0.79	<0.79	<1.3	**24**	**22**	<1.7	<0.51
3/4/2018	<1.1	<0.79	<0.79	<1.3	**23**	**9.9**	<1.7	<0.51
12/5/2019	<0.2	<0.2	<0.2	**0.24**	**20**	**18**	<1.7	<0.2
12/16/2021	**0.76**	<0.39	<0.34	<0.6	**13**	**17**	<1.8	<0.21
3/21/2023	--	--	--	--	--	--	--	--
SS-2								
3/27/2007	**11**	<0.16	**10**	**20**	**880**	**240**	--	--
1/31/2008	**4.8**	<2.4	<2.4	<3.8	**750**	**200**	--	<1.5
12/20/2010	**4.7**	<2.0	<2.0	<3.1	**400**	**200**	<4.3	<1.3
3/28/2013	**2.5**	<0.79	<0.79	**11.2**	**175**	**130**	**2.26**	<0.10
3/24/2015	**3.5**	<0.42	<0.14	**0.62**	**510**	**100**	<1.5	<0.23
12/11/2017	<4.3	<3.2	<3.2	<5.0	**420**	**130**	<6.9	<2.0
3/4/2018	**3.0**	<1.6	<1.6	<2.5	**460**	**97**	<3.5	<1.0
12/5/2019	**2.7**	<0.8	<0.8	<0.88	**550**	**130**	<6.9	<0.8
12/16/2021	**3.0**	<0.26	<0.23	**0.62**	**350**	**180**	**1.7**	<0.14
3/21/2023	**1.9**	<0.60	<0.60	<0.66	**220**	**70**	**2.5**	<0.60
SS-3								
3/27/2007	**640**	**15**	**36**	**33**	**1,000**	**190**	--	--
1/31/2008	**1.3**	<0.79	<0.79	**4.7**	**2.7**	<1.1	--	<0.51
12/20/2010	**300**	<2.4	<2.4	<3.8	**450**	**60**	<5.2	<1.5
3/28/2013	**136**	<0.79	<0.79	**70.5**	**152**	**40.9**	**3.01**	<0.10
3/24/2015	**140**	<0.18	<0.05	**26**	**260**	**15**	**2.0**	<0.10
12/11/2017	**330**	<6.4	**13**	**34**	**1,100**	**490**	<14.0	<4.1
3/4/2018	**80**	<0.79	<0.79	**5.5**	**93**	**18**	<1.7	<0.51
12/5/2019	**42**	<0.2	<0.2	**0.86**	**86**	**6.5**	<1.7	<0.2
12/16/2021	**6**	<0.13	<0.11	**1.4**	**11**	**1.0**	**0.6**	<0.072
3/21/2023	--	--	--	--	--	--	--	--
SS-4								
3/27/2007	<0.21	**25**	**8.5**	**60**	**120**	**25**	--	--
1/31/2008	**1.7**	**1.2**	<0.79	**4.8**	**4.5**	<1.1	--	<0.51
12/20/2010	**26**	**7.8**	<0.79	**2**	**47**	**15**	<1.7	<0.51
3/28/2013	**31.7**	**19.5**	<0.79	**104**	**54.2**	**19.6**	**1.89**	<0.10
3/24/2015	**20**	**7.8**	<0.04	**53**	**46**	**9.7**	**5.2**	<0.06
12/11/2017	**27**	**7.1**	<0.79	**2.9**	**77**	**10**	<1.7	<0.51
3/4/2018	**25**	**7.5**	<0.79	**3.7**	**65**	**8.6**	**2.5**	<0.51
12/5/2019	**29**	**5.0**	<0.2	**0.51**	**87**	**11**	**1.7**	<0.2
12/16/2021	**33**	**6.2**	**0.16**	**0.69**	**54**	**13**	**2.7**	<0.072
3/21/2023	**20**	<0.60	<0.60	**0.44**	**57**	**6.1**	**2.1**	<0.60

Table 9 - Summary of Historical Indoor Air Sampling Results
Former Monarch Chemicals
61 Gates Avenue, Geneva, New York
Site No. V00119-8

Location	Trichloroethene	cis-1,2-Dichloroethene	1,1-Dichloroethene	Carbon tetrachloride	Tetrachloroethene	1,1,1-Trichloroethane	Methylene chloride	Vinyl chloride
IA-1								
3/27/2007	<0.21	<0.16	<0.16	**75**	**0.75**	<0.22	--	--
1/31/2008	<0.21	<0.79	<0.16	**2.8**	**0.81**	**0.25**	--	<0.20
12/20/2010	**0.31**	<0.16	<0.16	**2.1**	**1.1**	**0.32**	<2.8	<0.20
3/28/2013	<1.07	<0.79	<0.79	**95.6**	**1.08**	<1.09	<1.74	<0.10
12/11/2017	**32**	**51**	<0.79	**26**	**2.6**	<0.20	<1.7	<0.51
3/2/2018	<1.1	<0.79	<0.79	**9.7**	**1.4**	<1.1	**8.3**	<0.51
3/4/2018	<1.1	<0.79	<0.79	**9.4**	**1.7**	<1.1	<1.7	<0.51
12/5/2019	<0.2	<0.2	<0.2	**1.0**	**1.3**	**0.21**	<1.7	<0.2
12/16/2021	<0.13	<0.13	<0.11	**0.95**	**0.82**	<0.21	<0.59	<0.072
3/21/2023	--	--	--	--	--	--	--	--
IA-2								
3/27/2007	**0.36**	<0.16	<0.16	**250**	**1.6**	**0.37**	--	--
1/31/2008	<0.32	<0.24	<0.16	**5.5**	**1.4**	**0.38**	--	<0.20
12/20/2010	**0.35**	<0.25	<0.25	**4.3**	**2**	**0.56**	<4.3	<0.32
3/28/2013	<1.07	<0.79	<0.79	**210**	**2.93**	<1.09	**2.85**	<0.10
12/11/2017	<1.1	<0.79	<0.79	**36**	**2.0**	<0.20	<1.7	<0.51
3/2/2018	<1.1	<0.79	<0.79	**11**	**1.5**	<1.1	**14**	<0.51
3/4/2018	<1.1	<0.79	<0.79	**15**	**1.9**	<1.1	**2.1**	<0.51
12/5/2019	<0.2	<0.2	<0.2	**1.2**	**3.0**	**0.22**	<1.7	<0.2
12/16/2021	<0.13	<0.13	<0.11	**2.3**	**0.78**	**0.37**	<0.59	<0.072
3/21/2023	<0.23	<0.23	<0.23	**1.1**	**1.90**	**0.29**	**5.5**	<0.23
IA-3								
3/27/2007	**0.37**	<0.16	**0.52**	**370**	**1.4**	**0.34**	--	--
1/31/2008	<1.1	<0.79	<0.16	**7.5**	**1.4**	<1.1	--	<0.20
12/20/2010	**0.29**	<0.16	<0.16	**2.7**	**1.1**	**0.36**	<2.8	<0.20
3/28/2013	<2.69	<1.98	<1.98	**418**	<3.39	<2.73	**7.49**	<0.26
12/11/2017	<1.1	<0.79	<0.79	**17**	<1.4	<0.20	<1.7	<0.51
3/2/2018	<1.1	<0.79	<0.79	**6**	<1.4	<1.1	**13**	<0.51
3/4/2018	<1.1	<0.79	<0.79	**8.5**	<1.4	<1.1	<1.7	<0.51
12/5/2019	<0.2	<0.2	<0.2	**0.95**	**1.5**	<1.1	<1.7	<0.2
12/16/2021	<0.13	<0.13	<0.11	**0.93**	**0.86**	<0.21	**2.2**	<0.072
3/21/2023	--	--	--	--	--	--	--	--
IA-4								
3/27/2007	**0.37**	<0.16	**0.38**	**750**	**1.4**	**0.33**	--	--
1/31/2008	<0.32	<0.24	<0.16	**6.3**	**1.6**	**0.4**	--	<0.20
12/20/2010	**0.37**	<0.16	<0.16	**4.4**	**1.4**	**0.47**	<2.8	<0.20
3/28/2013	<3.77	<2.78	<2.78	**610**	<4.76	<3.83	**6.59**	<0.36
12/11/2017	<1.1	<0.79	<0.79	**15**	<1.4	<0.20	<1.7	<0.51
3/2/2018	<1.1	<0.79	<0.79	**5.9**	<1.4	<1.1	**14**	<0.51
3/4/2018	<1.1	<0.79	<0.79	**20**	**1.4**	<1.1	<1.7	<0.51
12/5/2019	<0.2	<0.2	<0.2	**0.98**	**1.5**	<1.1	<1.7	<0.2
12/16/2021	<0.13	<0.13	<0.11	**1.3**	**0.93**	<0.21	<0.59	<0.072
3/21/2023	<0.20	<0.20	<0.20	**1**	**0.91**	<1.1	**4.7**	<0.20

all results in ug/m^3 **exceeds NYSDOH standard** -- = not analyzed

Table 10
March 2023 Comparison of Detected Sub-Slab Soil Vapor and Indoor Air Samples
Former Monarch Chemicals
61 Gates Avenue, Geneva, NY 14456
NYSDEC Site No. V00119

	Sub-Slab		Indoor Air		Background	Units	CAS#
Analyte	SS-2	SS-4	IA-2	IA-4	OUTDOOR		
1,1,1-Trichloroethane	70	6.1	--	--	--	ug/m^3	71-55-6
Acetone	710	770	--	--	--	ug/m^3	67-64-1
Bromodichloromethane	--	--	--	1.5	--	ug/m^3	75-27-4
Carbon tetrachloride	--	--	1.1	1	0.39	ug/m^3	56-23-5
Chloroform	12	46	3.1	4.1	--	ug/m^3	67-66-3
Chloromethane	--	--	1.2	1.2	1.2	ug/m^3	74-87-3
Methyl Ethyl Ketone	16	18	--	--	--	ug/m^3	78-93-3
Methylene Chloride	--	--	5.5	4.7	--	ug/m^3	75-09-2
n-Butane	--	3.8	5.1	4.1	1.9	ug/m^3	106-97-8
n-Hexane	--	--	3.8	1.9	2	ug/m^3	110-54-3
Tetrachloroethene	220	57	1.9	--	--	ug/m^3	127-18-4
Toluene	4.2	4.1	1.3	1	--	ug/m^3	108-88-3
Trichloroethene	1.9	20	--	--	--	ug/m^3	79-01-6
Trichlorofluoromethane	--	--	1.6	1.3	1.1	ug/m^3	75-69-4

-- = not detected

Table 11 - Summary of March 21, 2023 SVI Sampling Matrix Results
Former Monarch Chemicals
61 Gates Avenue, Geneva, NY 14456
NYSDEC Site No. V00119

Pinnacle Engineering

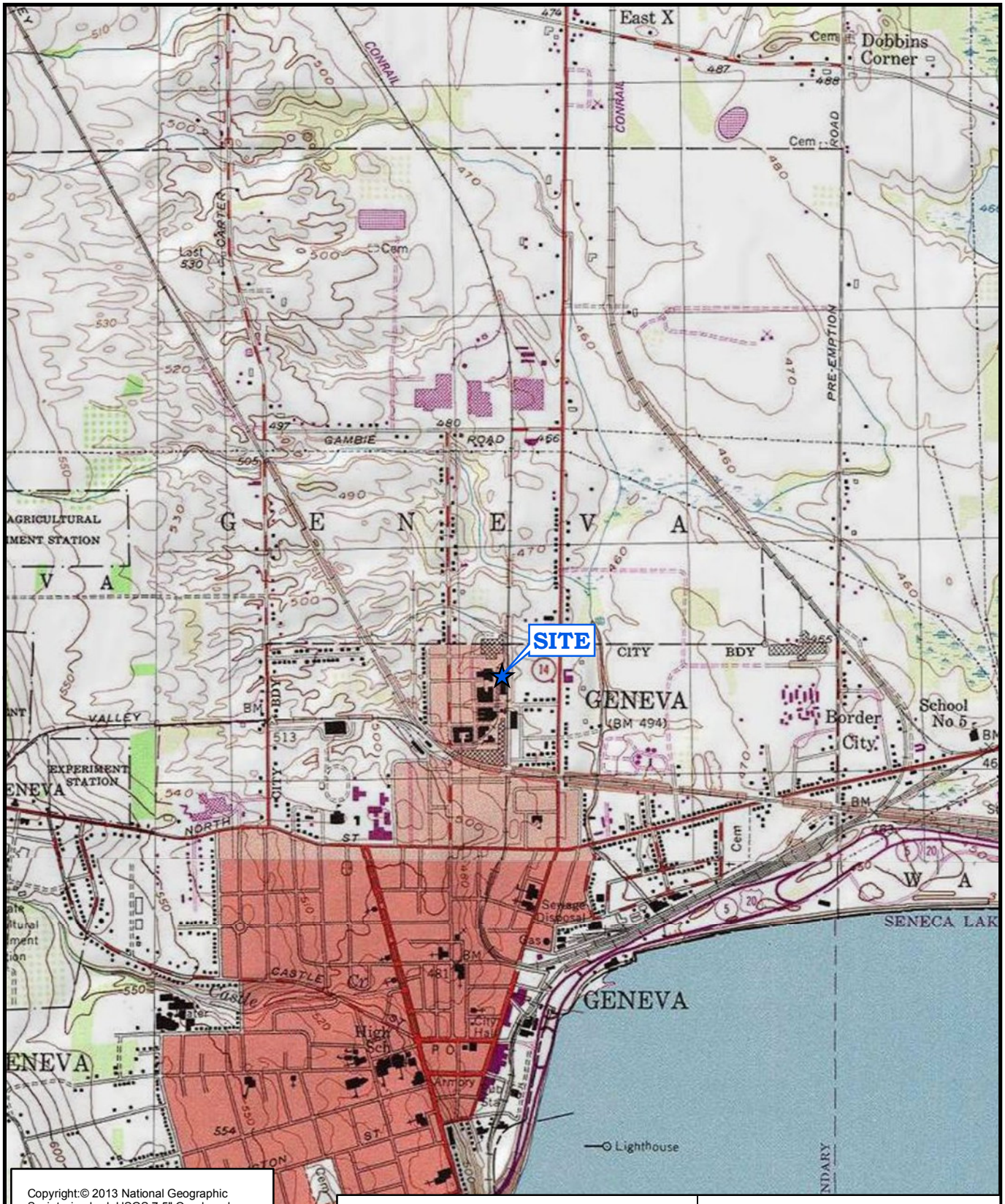
Soil Vapor/Indoor Air Matrix A			INDOOR AIR CONCENTRATION of COMPOUND (ug/m^3)		
	sample date	SUB-SLAB VAPOR CONCENTRATION of COMPOUND (ug/m^3)	< 0.2	0.2 to < 1	1 and above
Analyte Trichloroethene (TCE) cis-1,2-Dichloroethene (cDCE) 1,1-Dichloroethene (11DCE) Carbon Tetrachloride (CT) (CT not COPC)	Mar-23	< 6	1. No further action SS-4, SS-4	2. No Further Action SS-2, SS-2, SS-2	3. IDENTIFY SOURCE(S) and RESAMPLE or MITIGATE SS-2, SS-4
		6 to < 60	4. No further action SS-4	5. MONITOR	6. MITIGATE
		60 and above	7. MITIGATE	8. MITIGATE	9. MITIGATE

Soil Vapor/Indoor Air Matrix B			INDOOR AIR CONCENTRATION of COMPOUND (ug/m^3)		
	sample date	SUB-SLAB VAPOR CONCENTRATION of COMPOUND (ug/m^3)	< 3	3 to < 10	10 and above
Analyte Tetrachloroethene (PCE) 1,1,1-Trichloroethane (111TCA) Methylene Chloride (MEC)	Mar-23	< 100	1. No further action SS-4; SS-2, SS-4	2. No Further Action SS-2, SS-4	3. IDENTIFY SOURCE(S) and RESAMPLE or MITIGATE
		100 to < 1,000	4. No further action SS-2	5. MONITOR	6. MITIGATE
		1,000 and above	7. MITIGATE	8. MITIGATE	9. MITIGATE

Soil Vapor/Indoor Air Matrix C			INDOOR AIR CONCENTRATION of COMPOUND (ug/m^3)		
	sample date	SUB-SLAB VAPOR CONCENTRATION of COMPOUND (ug/m^3)	< 0.2	0.2 and above	
Analyte Vinyl chloride (VC)	Mar-23	< 6	1. No further action SS-4	2. IDENTIFY SOURCE(S) and RESAMPLE or MITIGATE SS-2	
		6 to < 60	3. MONITOR	4. MITIGATE	
		60 and above	5. MITIGATE	6. MITIGATE	

Mar-23	No Further Action	SS-4	NYSDOH Limits - none exceeded TCE Ambient Indoor Conc. = 2 ug/m^3 PCE Ambient Indoor Conc. = 30 ug/m^3
	ID/Resample or Mitigate	SS-2 (VC - analyte not detected above MDL)	
	Monitor	None (CT not COPC)	
	Mitigate	None (CT not COPC)	
	No Further Action	TCE, cDCE, 11DCE, PCE, 111TCA, MEC	Air Matrix A - No Further Action all constituents
	ID/Resample or Mitigate	VC (MDL reliant), CT (not COPC)	Air Matrix B - No Further Action all constituents
	Monitor	None	Air Matrix C - VC not detected in SS or IA sampling. No Further Action all constituents
	Mitigate	None	

Figures

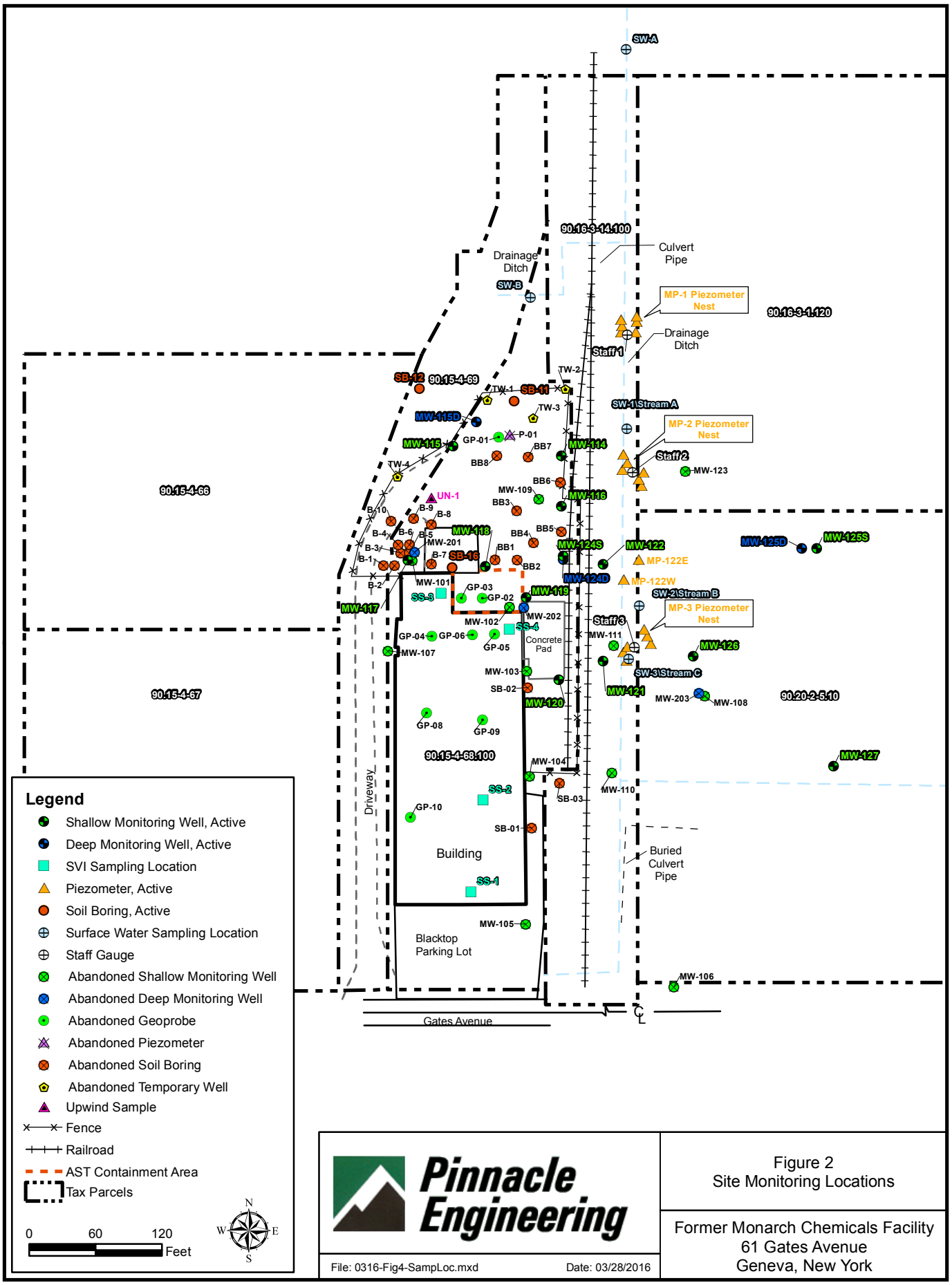


Pinnacle Engineering

File: 0316-Fig2-TopoSLM.mxd Date: 03/25/2016

Figure 1
Topographic & Site Location Map

Former Monarch Chemicals Facility
61 Gates Avenue
Geneva, New York



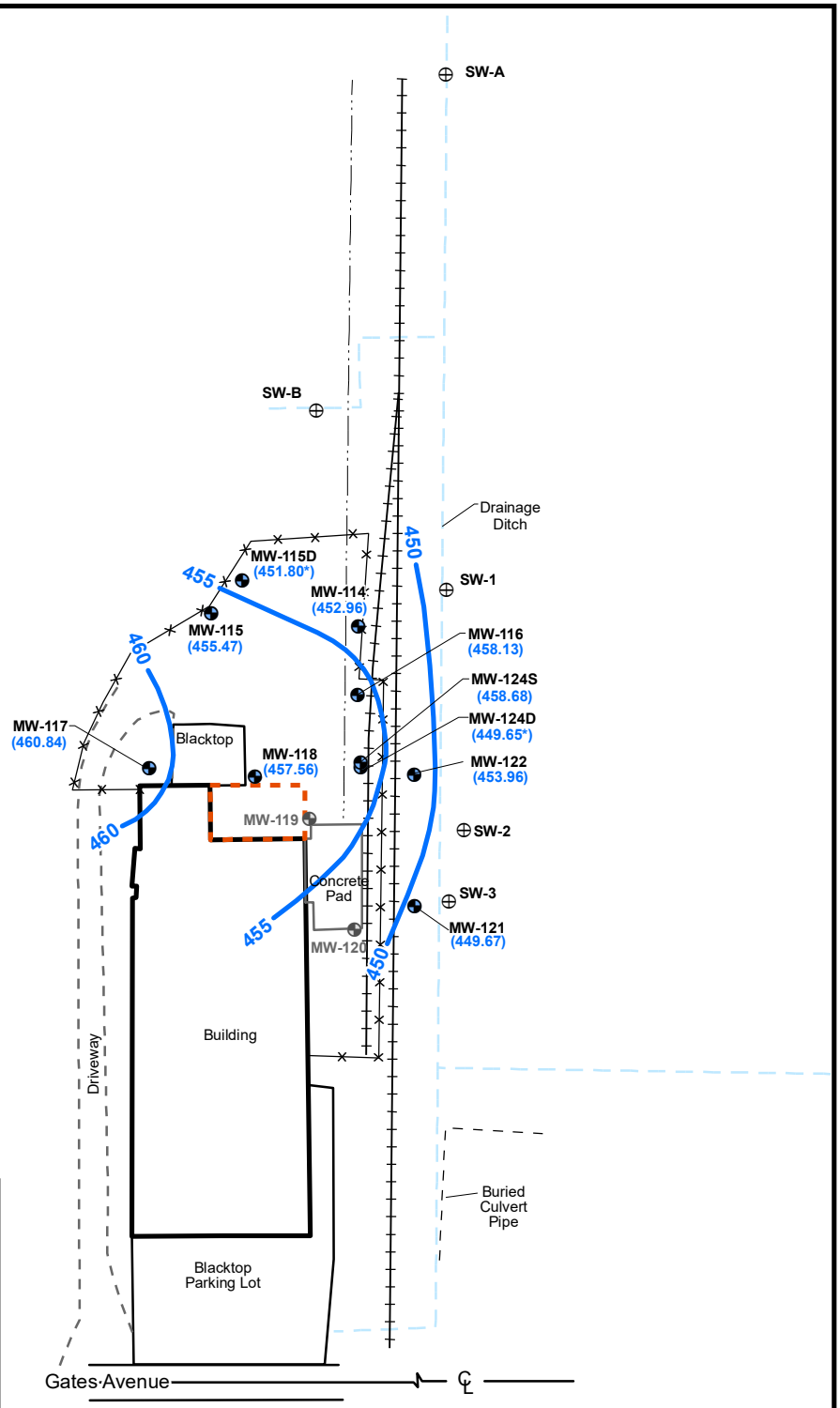
Pinnacle Engineering

File: 0316-Fig4-SampLoc.mxd

Date: 03/28/2016

Figure 2
Site Monitoring Locations

Former Monarch Chemicals Facility
61 Gates Avenue
Geneva, New York



Legend

- Monitoring Well Location
- Abandoned Monitoring Well Location
- Surface Water and Sediment Sampling Location
- Fence
- Railroad
- AST Containment
- PVC Drain Pipe
- (455.47) Potentiometric Elevation (March 2023)
- Groundwater Contour (Contour Interval = 5 Feet)

* Well Not Used For Contouring

0 60 120 Feet

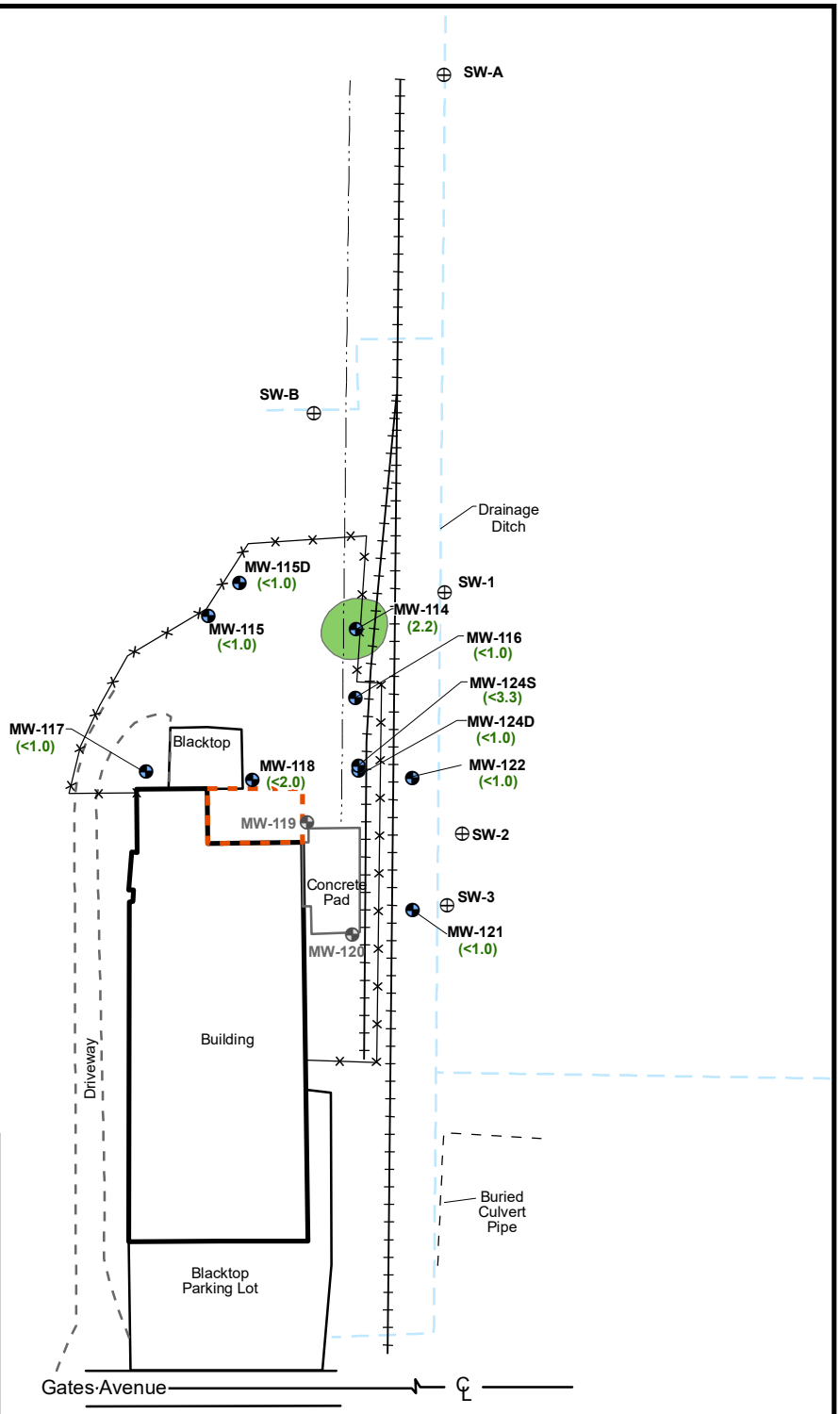
N W E S

Pinnacle Engineering

File: 0423-Fig3_GWC_March2023.mxd Date: 04/10/2023

Figure 3
Potentiometric Elevation
Contour Map
March 2023

Former Monarch Chemicals Facility
61 Gates Avenue
Geneva, New York



Legend

- Monitoring Well Location
- Abandoned Monitoring Well Location
- Surface Water and Sediment Sampling Location
- Fence
- Railroad
- AST Containment
- PVC Drain Pipe
- (2.2) 111TCA Concentration Detected in Groundwater (µg/L) March 2023

111TCA Concentration in Groundwater

- MDL - 5 µg/L

1,1,1-Trichloroethane (111TCA) NYDEC GW Cleanup Standard = 5 µg/L

0 60 120 Feet

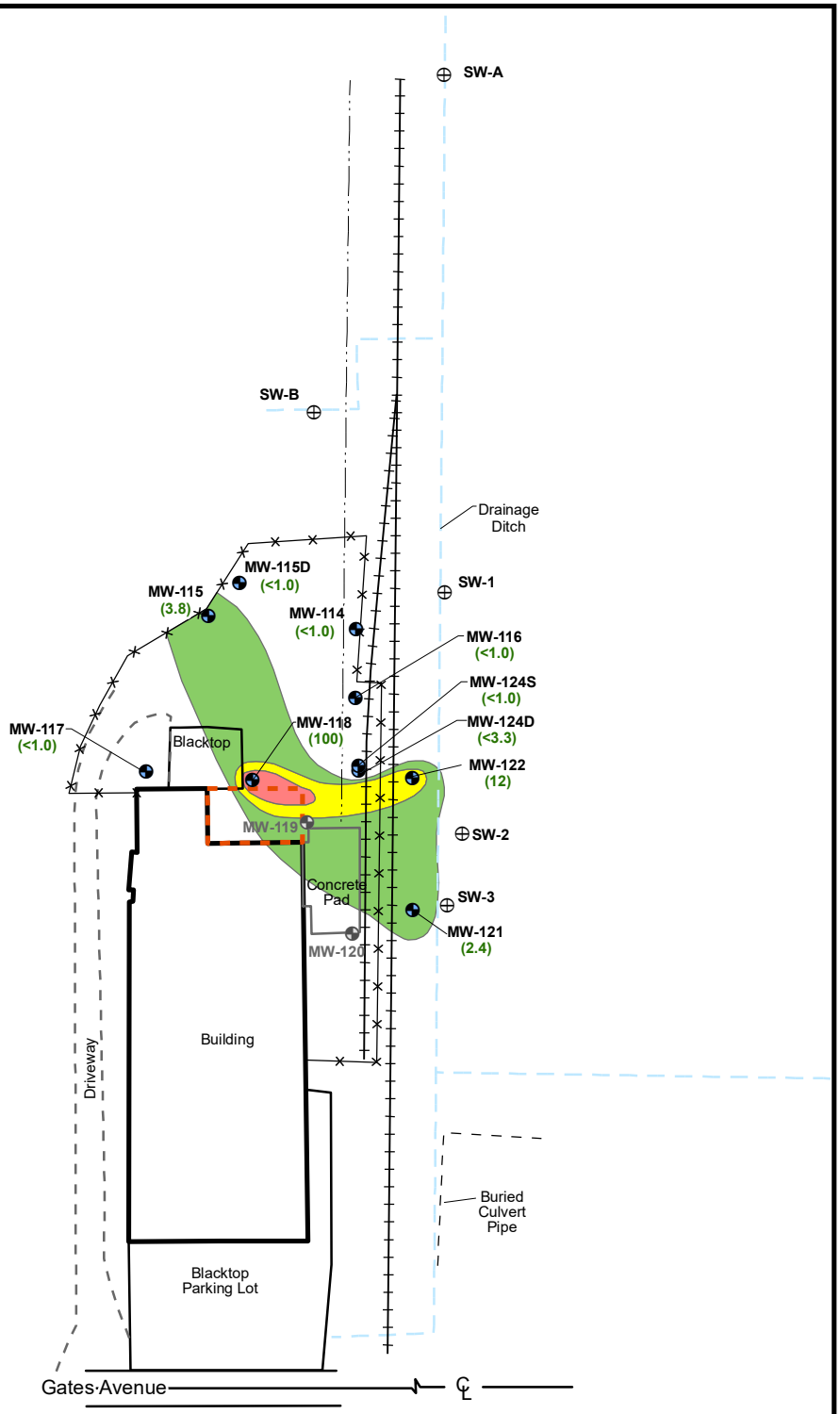
N W E S

Pinnacle Engineering

File: 0423-Fig4_111TCA_March2023.mxd Date: 04/10/2023

Figure 4
1,1,1-Trichloroethane (111TCA) Detected in Groundwater
March 2023

Former Monarch Chemicals Facility
61 Gates Avenue
Geneva, New York



Legend

- Monitoring Well Location
- Abandoned Monitoring Well Location
- Surface Water and Sediment Sampling Location
- Fence
- Railroad
- AST Containment Area
- PVC Drain Pipe
- (3.8) 11DCA Concentration Detected in Groundwater (µg/L) March 2023

11DCA Concentration in Groundwater

- MDL-10 µg/L
- 10-100 µg/L
- 100+ µg/L

1,1-Dichloroethane (11DCA) NYDEC GW Cleanup Standard = 5 µg/L

0 60 120 Feet

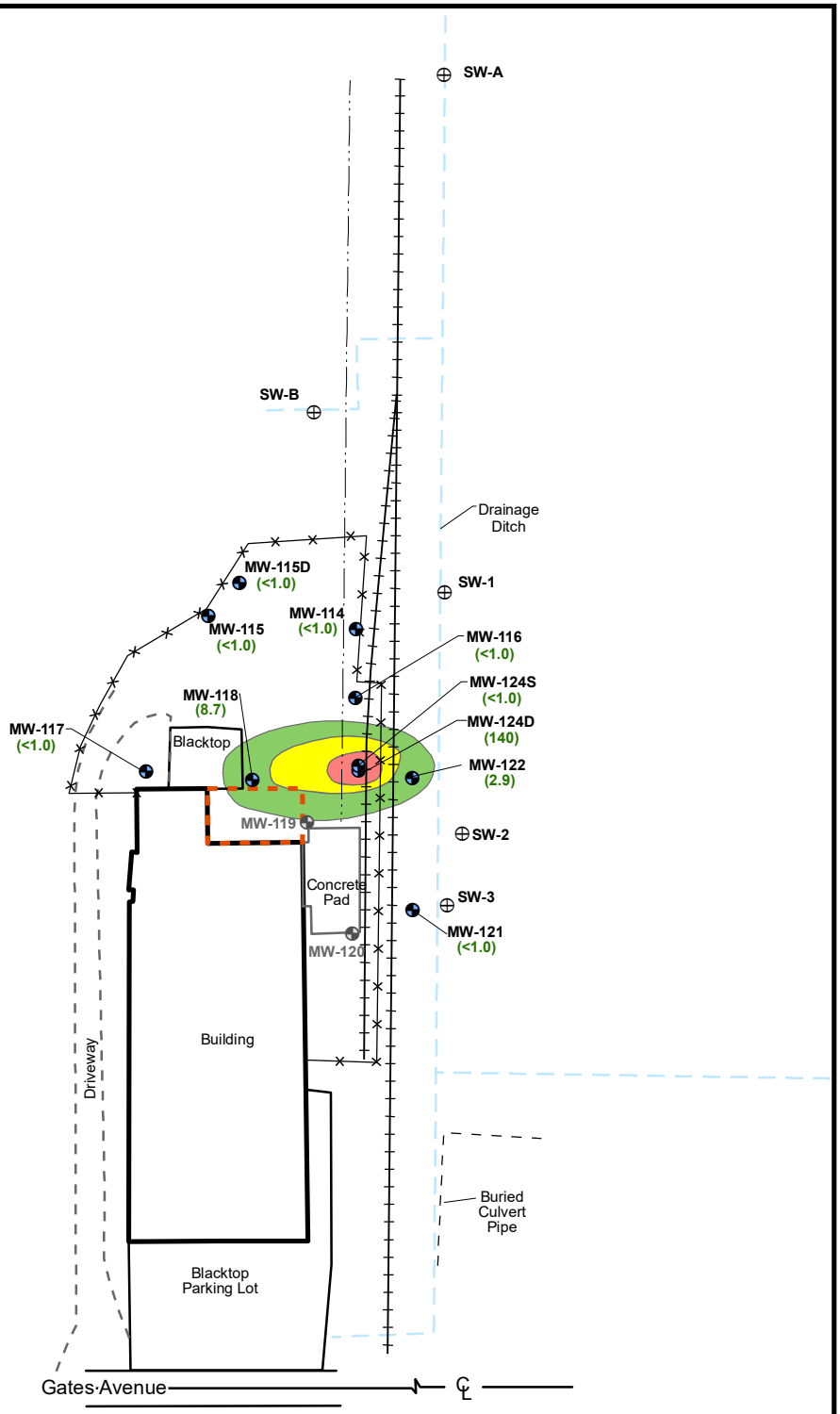
N W E S

Pinnacle Engineering

File: 0423-Fig5_11DCA_March2023.mxd Date: 04/10/2023

Figure 5
1,1-Dichloroethane (11DCA) Detected in Groundwater
March 2023

Former Monarch Chemicals Facility
61 Gates Avenue
Geneva, New York



Legend

- Monitoring Well Location
- Abandoned Monitoring Well Location
- Surface Water and Sediment Sampling Location
- Fence
- Railroad
- AST Containment Area
- PVC Drain Pipe
- (2.9) Chloroethane Concentration Detected in Groundwater (µg/L) March 2023

Chloroethane Concentration in Groundwater

- MDL-10 µg/L
- 10-100 µg/L
- 100+ µg/L

Chloroethane NYDEC GW Cleanup Standard = 5 µg/L

0 60 120 Feet

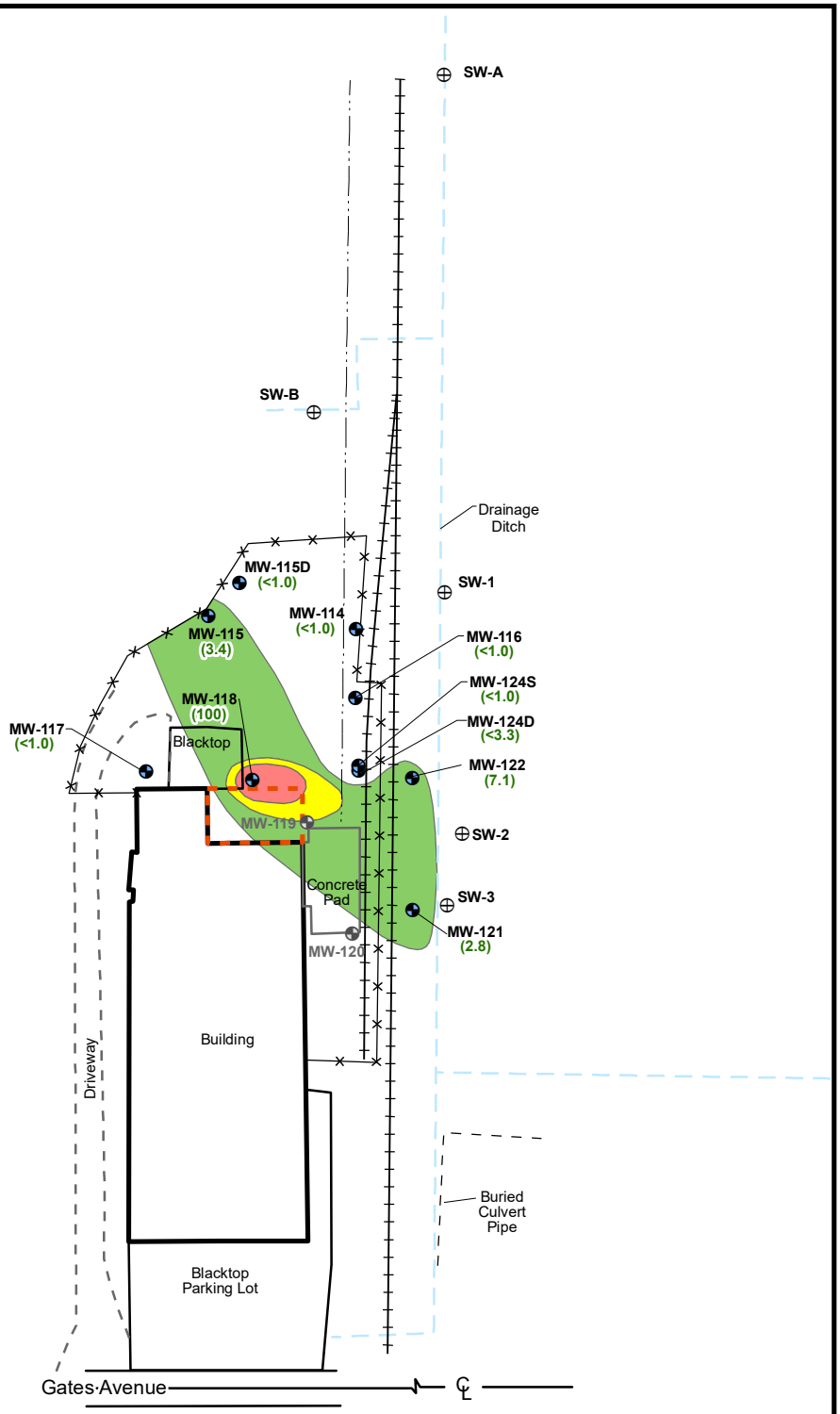
N W E S

Pinnacle Engineering

File: 0423-Fig6_Chloroethane_March2023.mxd Date: 04/10/2023

Figure 6
Chloroethane
Detected in Groundwater
March 2023

Former Monarch Chemicals Facility
61 Gates Avenue
Geneva, New York



Legend

- Monitoring Well Location
- Abandoned Monitoring Well Location
- Surface Water and Sediment Sampling Location
- Fence
- Railroad
- AST Containment Area
- PVC Drain Pipe
- (3.4) cDCE Concentration Detected in Groundwater (µg/L) March 2023

cDCE Concentration in Groundwater

- MDL-10 µg/L
- 10-100 µg/L
- 100+ µg/L

Cis-1,2-Dichloroethene (cDCE) NYDEC GW Cleanup Standard = 5 µg/L

0 60 120 Feet

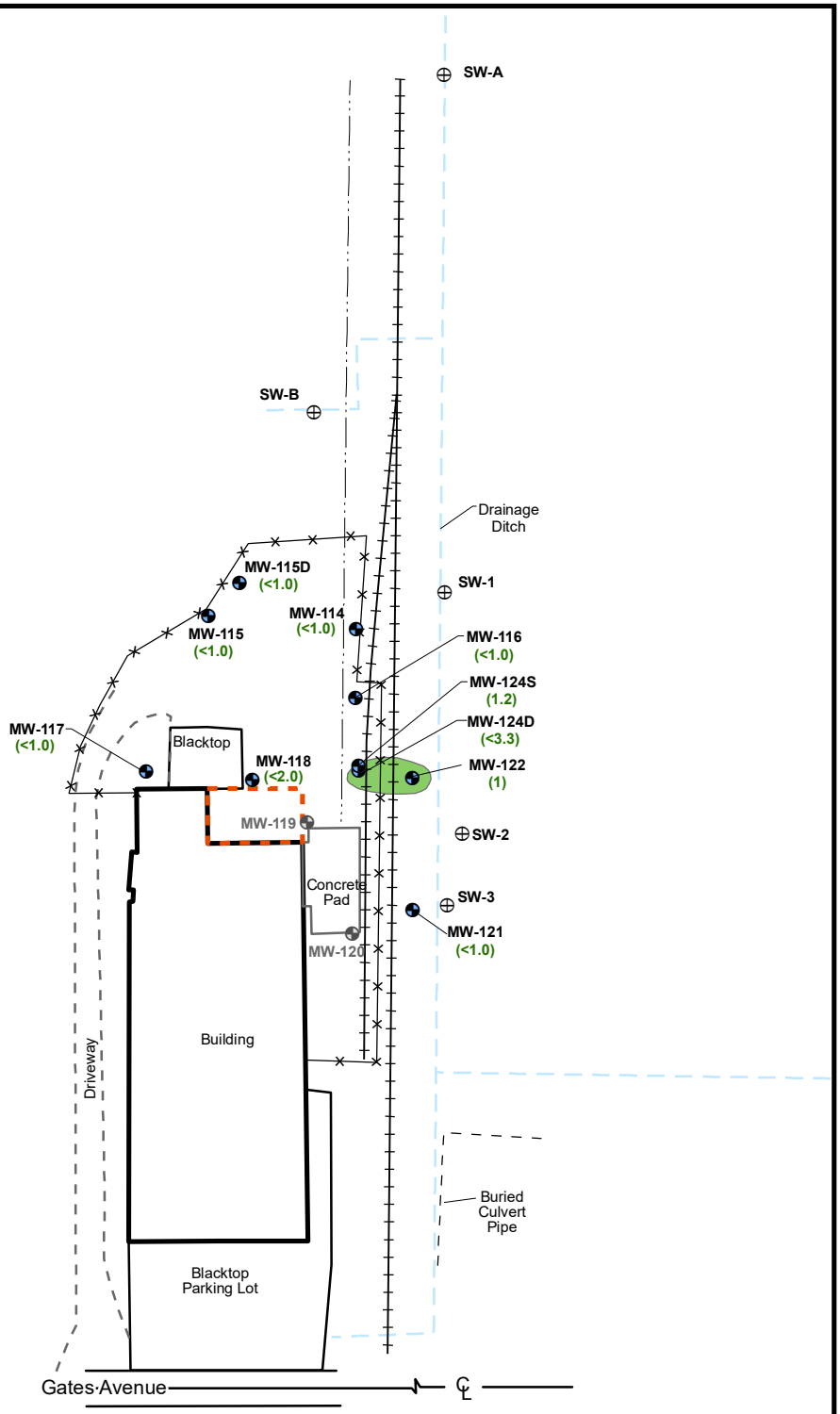
N W E S

Pinnacle Engineering

File: 0423-Fig7_cDCE_March2023.mxd Date: 04/10/2023

Figure 7
Cis-1,2-Dichloroethene (cDCE) Detected in Groundwater
March 2023

Former Monarch Chemicals Facility
61 Gates Avenue
Geneva, New York



Legend

- Monitoring Well Location
- Abandoned Monitoring Well Location
- Surface Water and Sediment Sampling Location
- Fence
- Railroad
- AST Containment Area
- PVC Drain Pipe
- (1.2) tDCE Concentration Detected in Groundwater (µg/L) March 2023

tDCE Concentration in Groundwater

- >MDL

Trans-1,2-Dichloroethene (tDCE) NYDEC GW Cleanup Standard = 5 µg/L

0 60 120 Feet

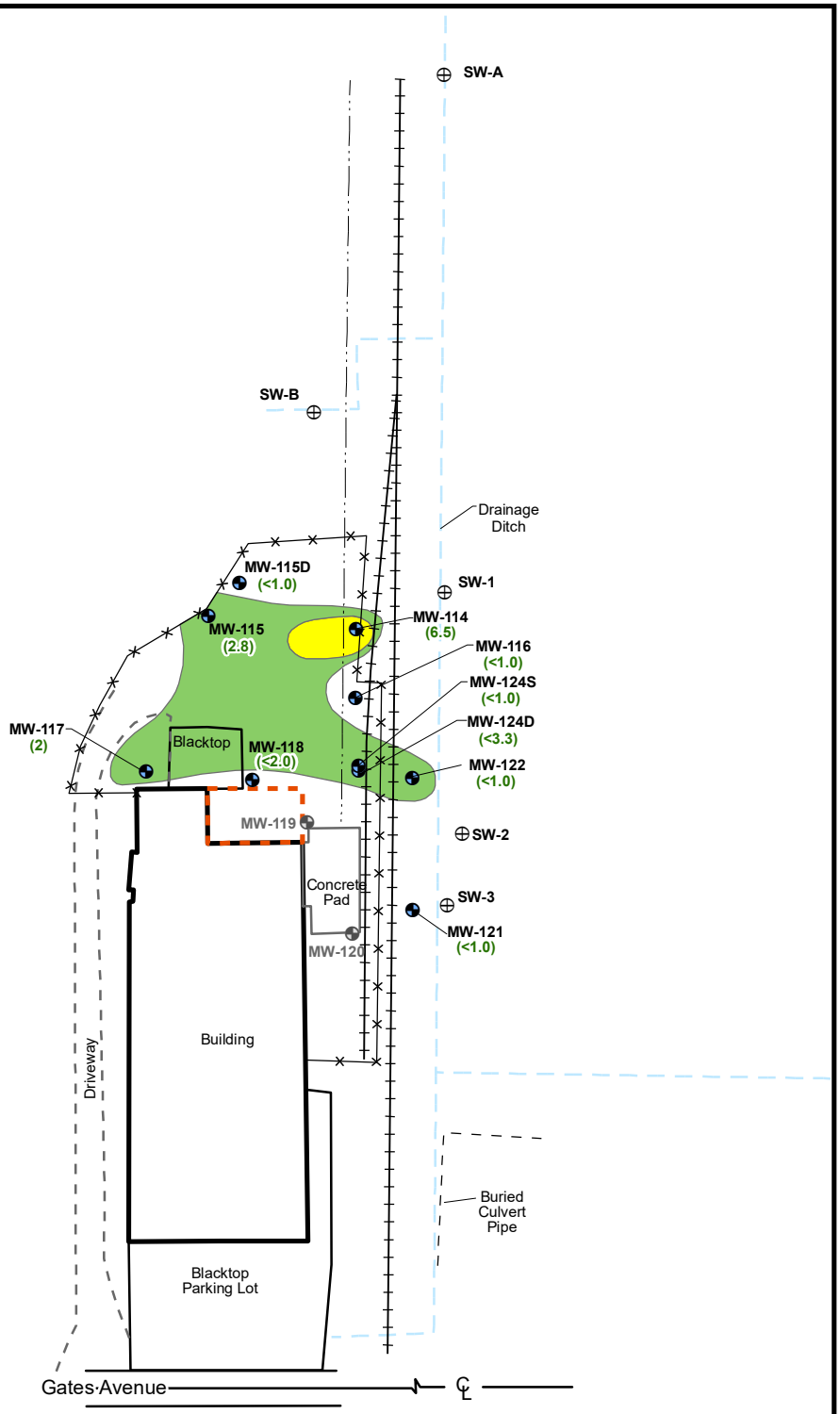
N W E S

Pinnacle Engineering

File: 0423-Fig8_tDCE_March2023.mxd Date: 04/10/2023

Figure 8
Trans-1,2-Dichloroethene (cDCE) Detected in Groundwater
March 2023

Former Monarch Chemicals Facility
61 Gates Avenue
Geneva, New York



Legend

- Monitoring Well Location
- Abandoned Monitoring Well Location
- Surface Water and Sediment Sampling Location
- Fence
- Railroad
- AST Containment
- PVC Drain Pipe
- (2) PCE Concentration in Groundwater (µg/L) March 2023

PCE Concentration in Groundwater

- MDL-5 µg/L
- 5+ µg/L

Tetrachloroethene (PCE) NYDEC GW Cleanup Standard = 5 µg/L

0 60 120 Feet

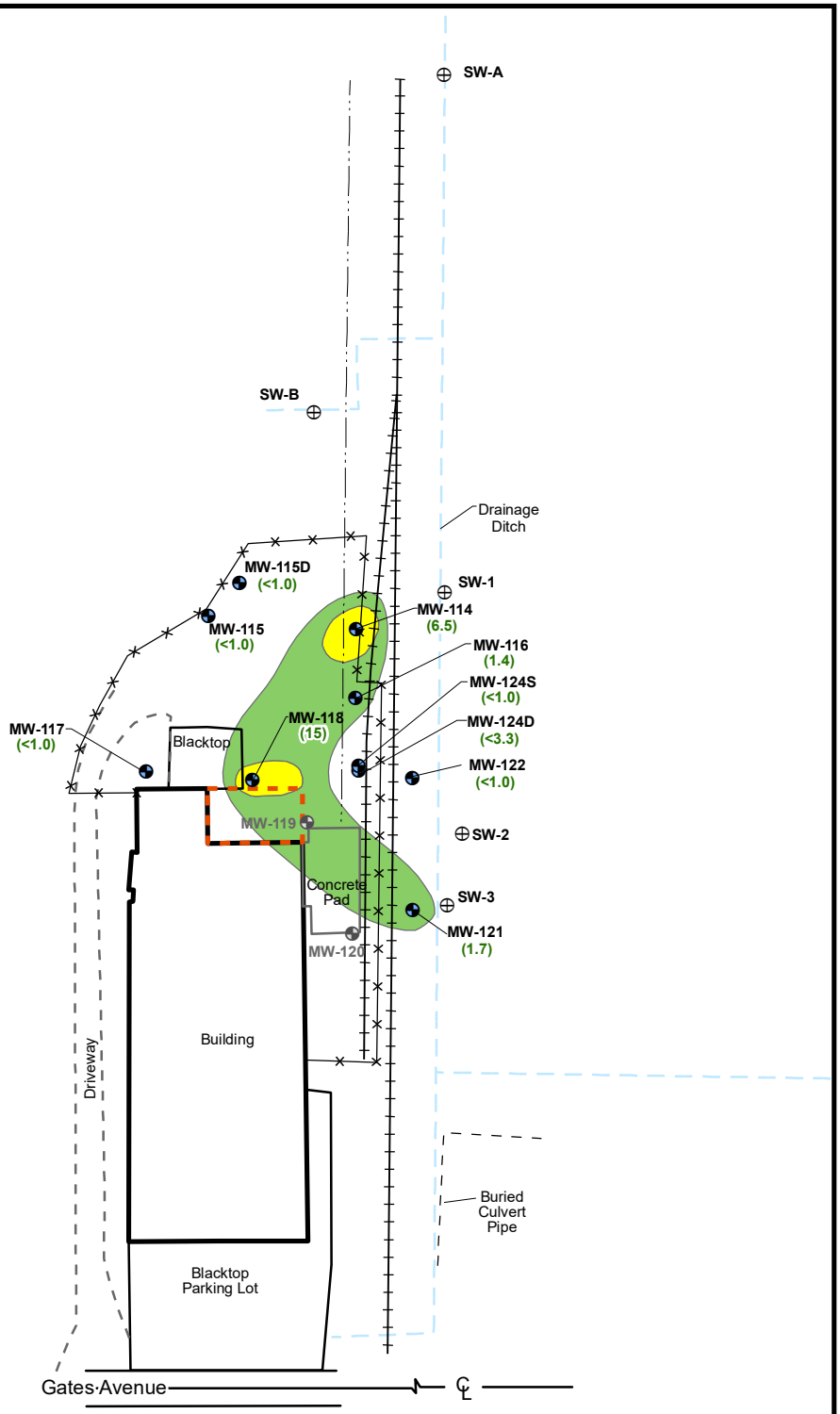
N W E S

Pinnacle Engineering

File: 0423-Fig9_PCE_March2023.mxd Date: 04/10/2023

Figure 9
Tetrachloroethene (PCE) Detected in Groundwater
March 2023

Former Monarch Chemicals Facility
61 Gates Avenue
Geneva, New York



Legend

- Monitoring Well Location
- Abandoned Monitoring Well Location
- Surface Water and Sediment Sampling Location
- Fence
- Railroad
- AST Containment
- PVC Drain Pipe
- (3.2) TCE Concentration in Groundwater (µg/L) March 2023

TCE Concentration in Groundwater

- MDL-5 µg/L
- 5+ µg/L

Trichloroethene (TCE) NYDEC GW Cleanup Standard = 5 µg/L

0 60 120 Feet

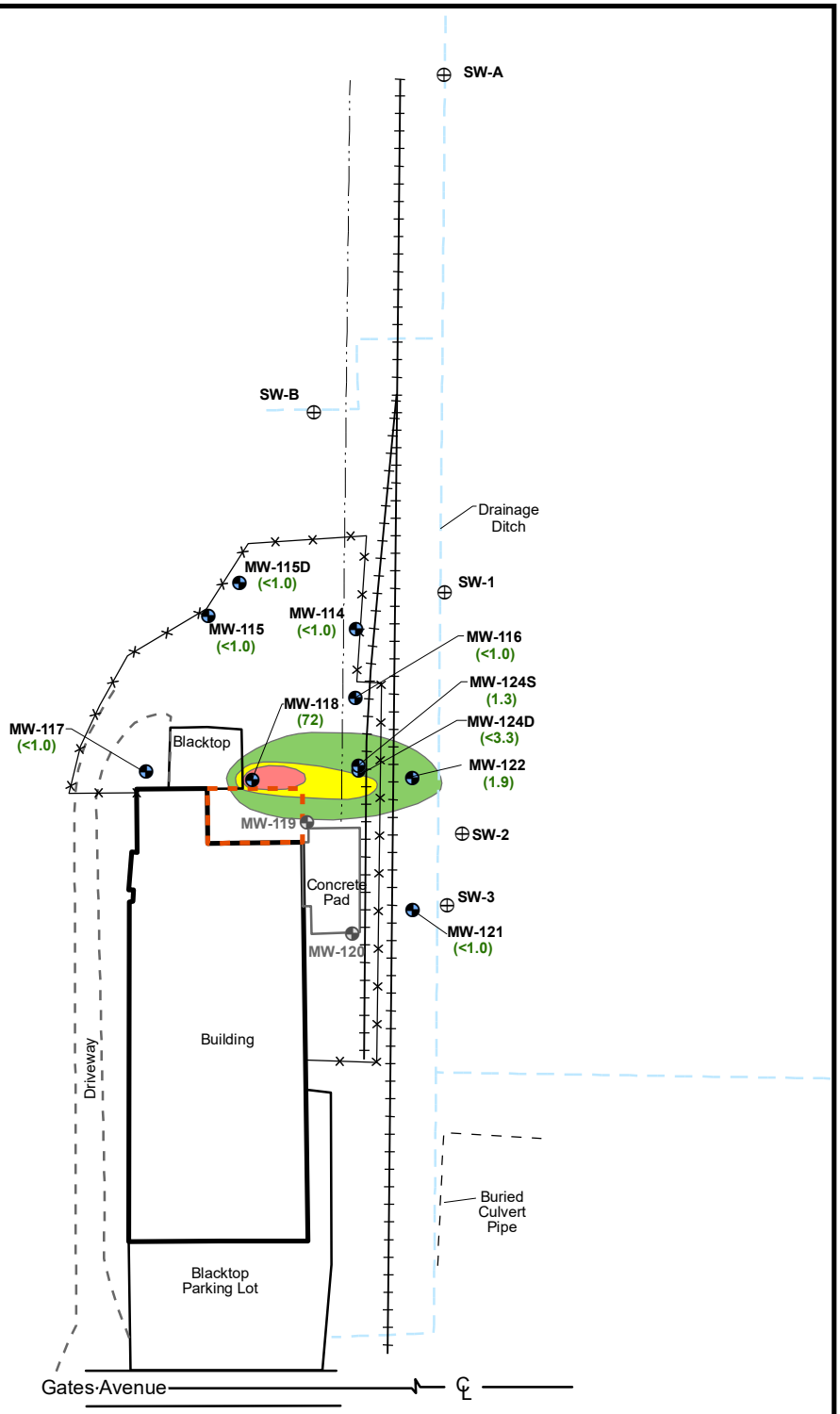
N W E S

Pinnacle Engineering

File: 0423-Fig10TCE_March2023.mxd Date: 04/10/2023

Figure 10
Trichloroethene (TCE) Detected in Groundwater
March 2023

Former Monarch Chemicals Facility
61 Gates Avenue
Geneva, New York



Legend

- Monitoring Well Location
- Abandoned Monitoring Well Location
- Surface Water and Sediment Sampling Location
- Fence
- Railroad
- AST Containment
- PVC Drain Pipe
- (1.9) VC Concentration in Groundwater (µg/L) March 2023

VC Concentration in Groundwater

- MDL-2 µg/L
- 2-20 µg/L
- 20+ µg/L

Vinyl Chloride (VC) NYDEC GW Cleanup Standard = 2 µg/L

0 60 120 Feet

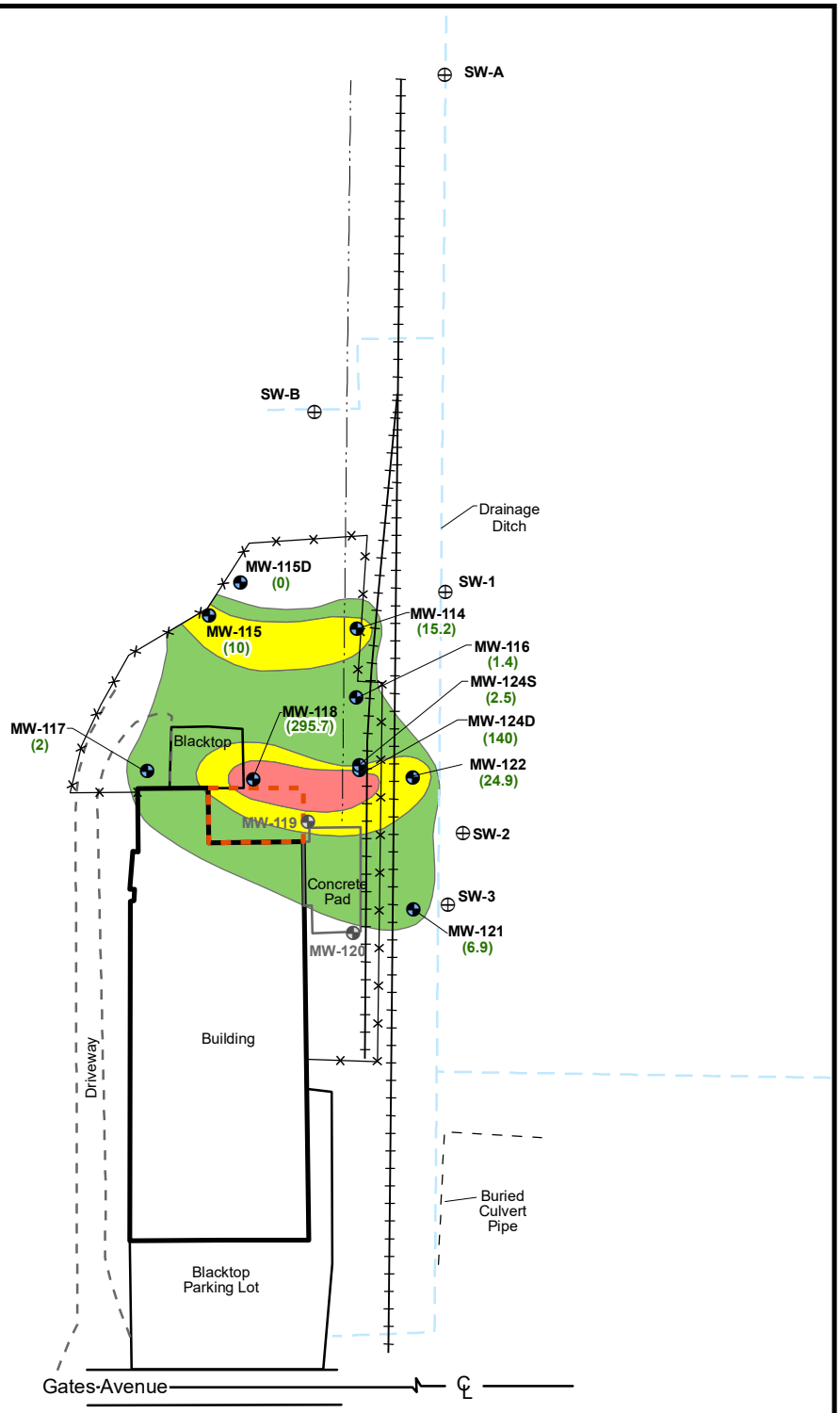
N W E S

Pinnacle Engineering

File: 0423-Fig11_VC_March2023.mxd Date: 04/10/2023

Figure 11
Vinyl Chloride (VC)
Detected in Groundwater
March 2023

Former Monarch Chemicals Facility
61 Gates Avenue
Geneva, New York



Legend

- Monitoring Well Location
- Abandoned Monitoring Well Location
- Surface Water and Sediment Sampling Location
- Fence
- Railroad
- AST Containment Area
- PVC Drain Pipe
- (24.9) TVOC Concentration Detected in Groundwater (µg/L)

Total VOC Concentration in Groundwater

- 1-10 µg/L
- 10-100 µg/L
- 100+ µg/L

0 60 120 Feet

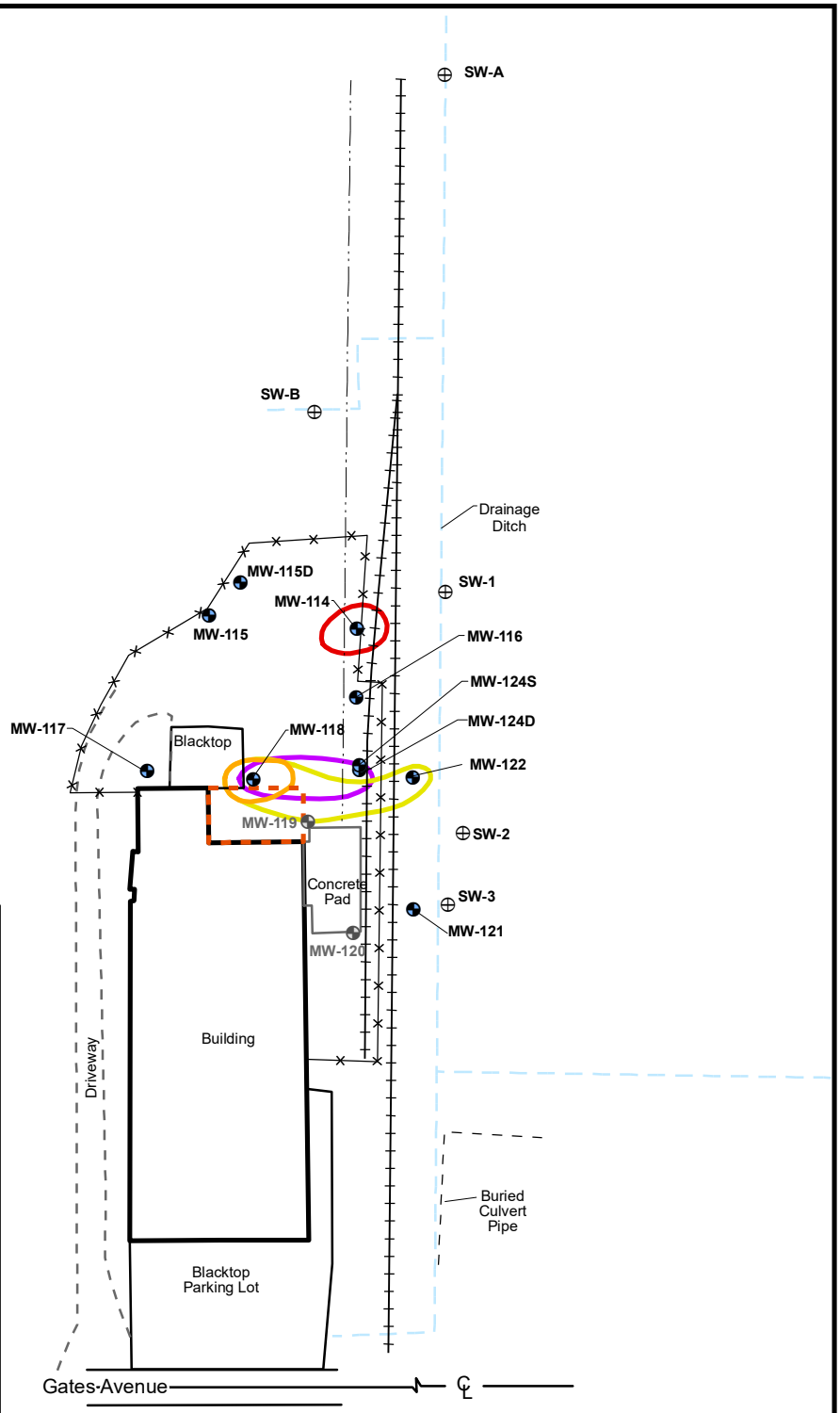
N W E S

Pinnacle Engineering

File: 0423-Fig12_TVOC_March2023.mxd Date: 04/10/2023

Figure 12
Total VOCs
Concentrations in Groundwater
March 2023

Former Monarch Chemicals Facility
61 Gates Avenue
Geneva, New York



Legend

- Monitoring Well Location
- Abandoned Monitoring Well Location
- Surface Water and Sediment Sampling Location
- Fence
- Railroad
- AST Containment
- PVC Drain Pipe

Extent of Groundwater Exceedances

- 11DCA, cDCE
- Chloroethane
- PCE, TCE
- TCE, VC

Contaminant - Wells

111TCA - None
11DCA - MW-118, MW-122
Chloroethane - MW-118, MW-124D
cDCE - MW-118, MW-122
tDCE - None
PCE - MW-114
TCE - MW-114, MW-118
VC - MW-118

0 60 120 Feet

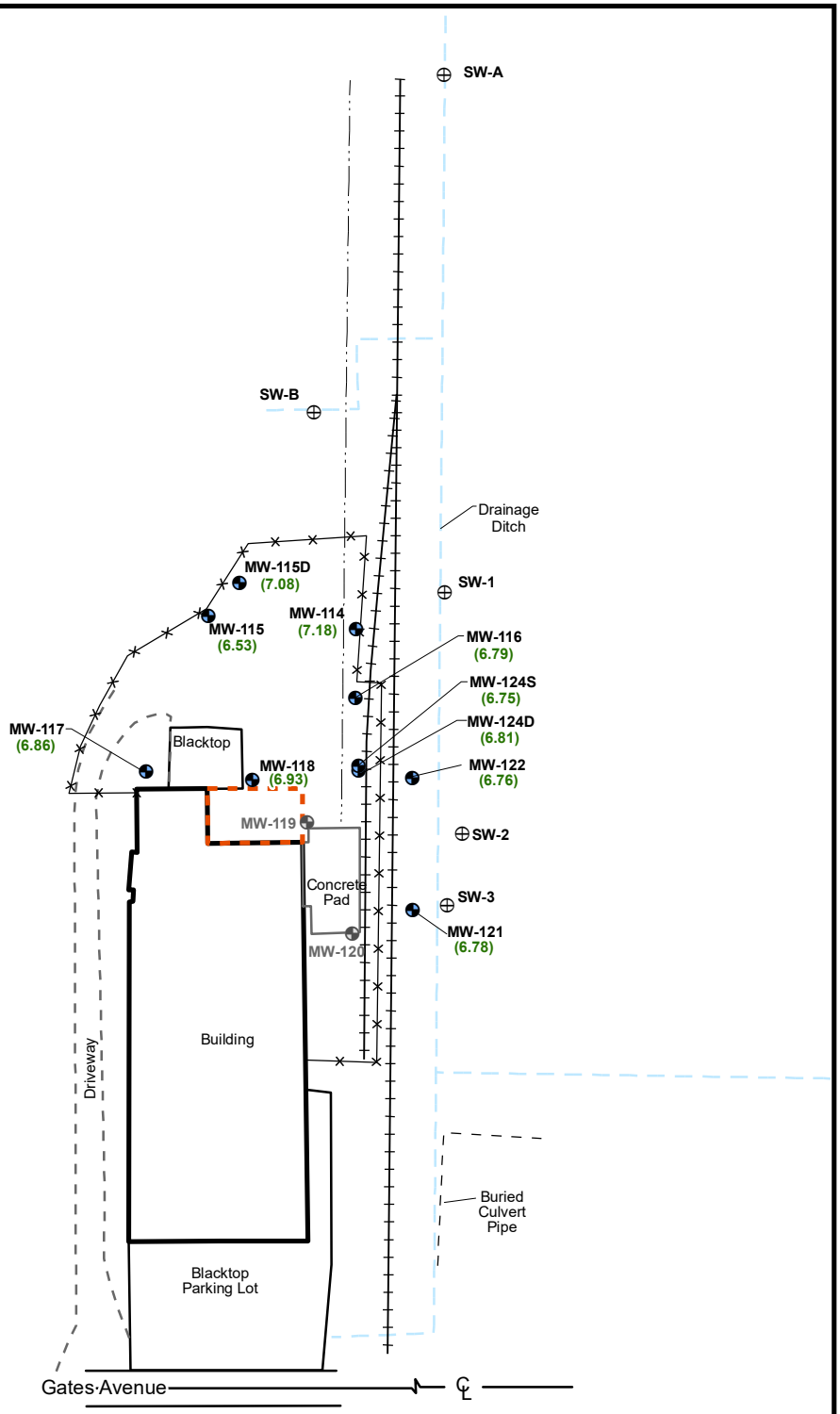
N W E S

Pinnacle Engineering

File: 0423-Fig13_VOCs_March2023.mxd Date: 04/21/2023

Figure 13
Areal Extent of Groundwater Exceeding NYSDEC Water Quality Standards VOCs - March 2023

Former Monarch Chemicals Facility
61 Gates Avenue
Geneva, New York



Legend

- Monitoring Well Location
- Abandoned Monitoring Well Location
- Surface Water and Sediment Sampling Location
- Fence
- Railroad
- AST Containment Area
- PVC Drain Pipe
- (6.86) PH Levels Measured in Groundwater (SU) March 2023

0 60 120 Feet

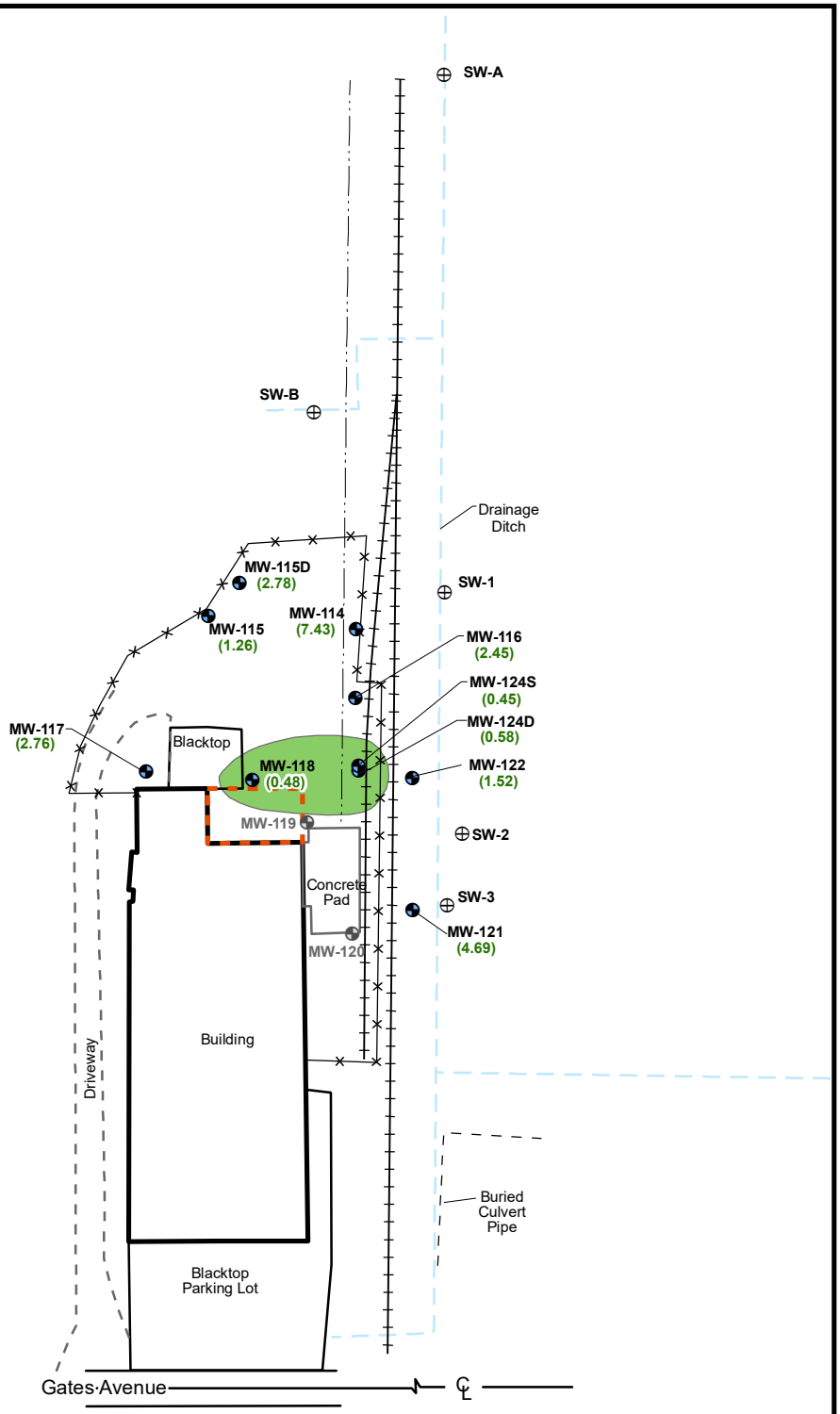
N W E S

Pinnacle Engineering

File: 0423-Fig14_PH_March2023.mxd Date: 04/10/2023

Figure 14
PH Levels
Measured in Groundwater
March 2023

Former Monarch Chemicals Facility
61 Gates Avenue
Geneva, New York



Legend

- Monitoring Well Location
- Abandoned Monitoring Well Location
- Surface Water and Sediment Sampling Location
- Fence
- Railroad
- AST Containment
- PVC Drain Pipe
- (2.76) DO Concentration in Groundwater (mg/L) March 2023

DO Concentration in Groundwater

- <0.65 mg/L

0 60 120 Feet

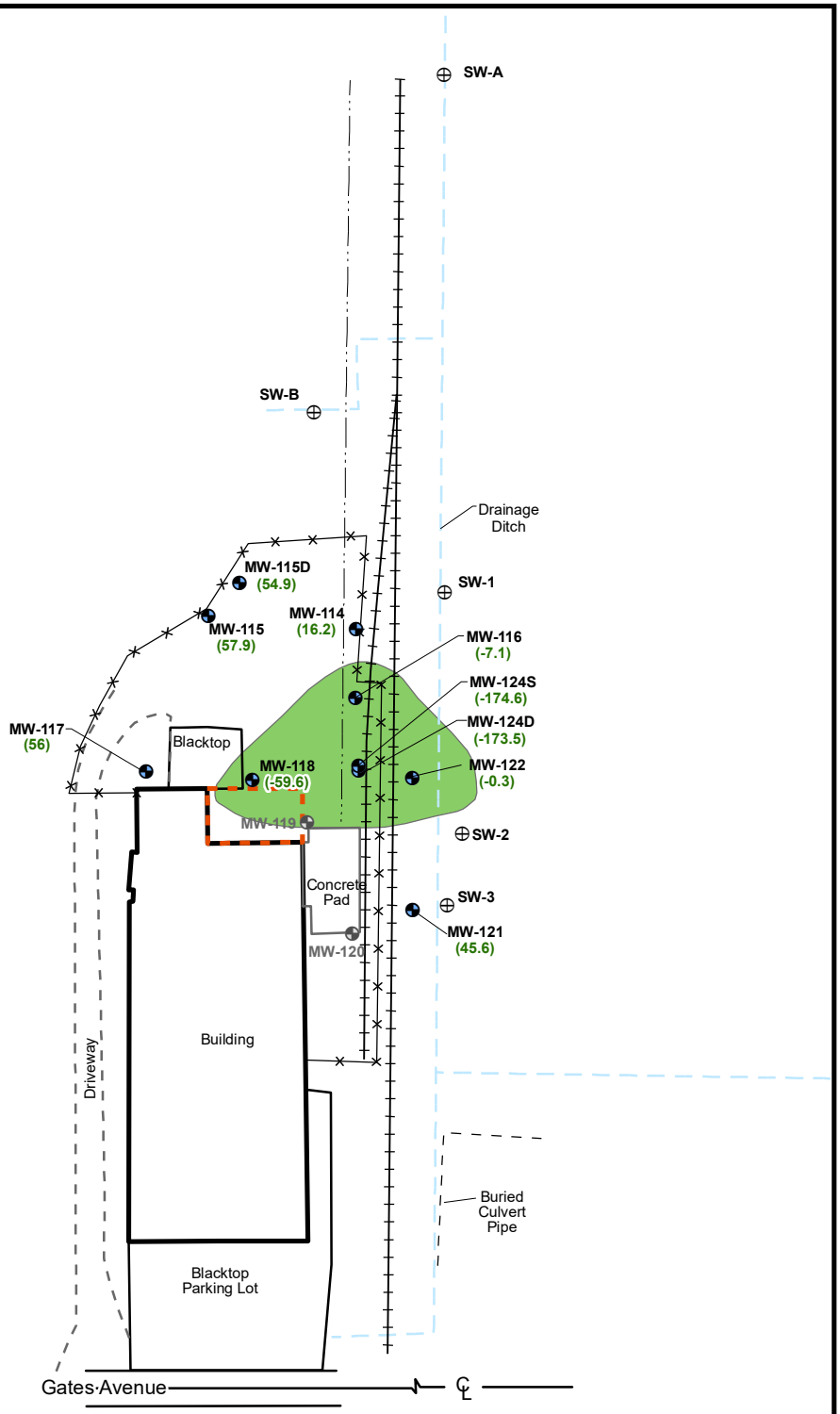
N W E S

Pinnacle Engineering

File: 0423-Fig15_DO_March2023.mxd Date: 04/10/2023

Figure 15
Dissolved Oxygen (DO) Levels Measured in Groundwater
March 2023

Former Monarch Chemicals Facility
61 Gates Avenue
Geneva, New York



Legend

- Monitoring Well Location
- Abandoned Monitoring Well Location
- Surface Water and Sediment Sampling Location
- Fence
- Railroad
- AST Containment Area
- PVC Drain Pipe
- (56) ORP Levels Measured in Groundwater (mV) March 2023

ORP Concentration in Groundwater

- >0 mV

0 60 120 Feet

N W E S

Pinnacle Engineering

File: 0423-Fig16_ORP_March2023.mxd Date: 04/10/2023

Figure 16
Oxidation Reduction Potential (ORP) Levels Measured in Groundwater March 2023

Former Monarch Chemicals Facility
61 Gates Avenue
Geneva, New York

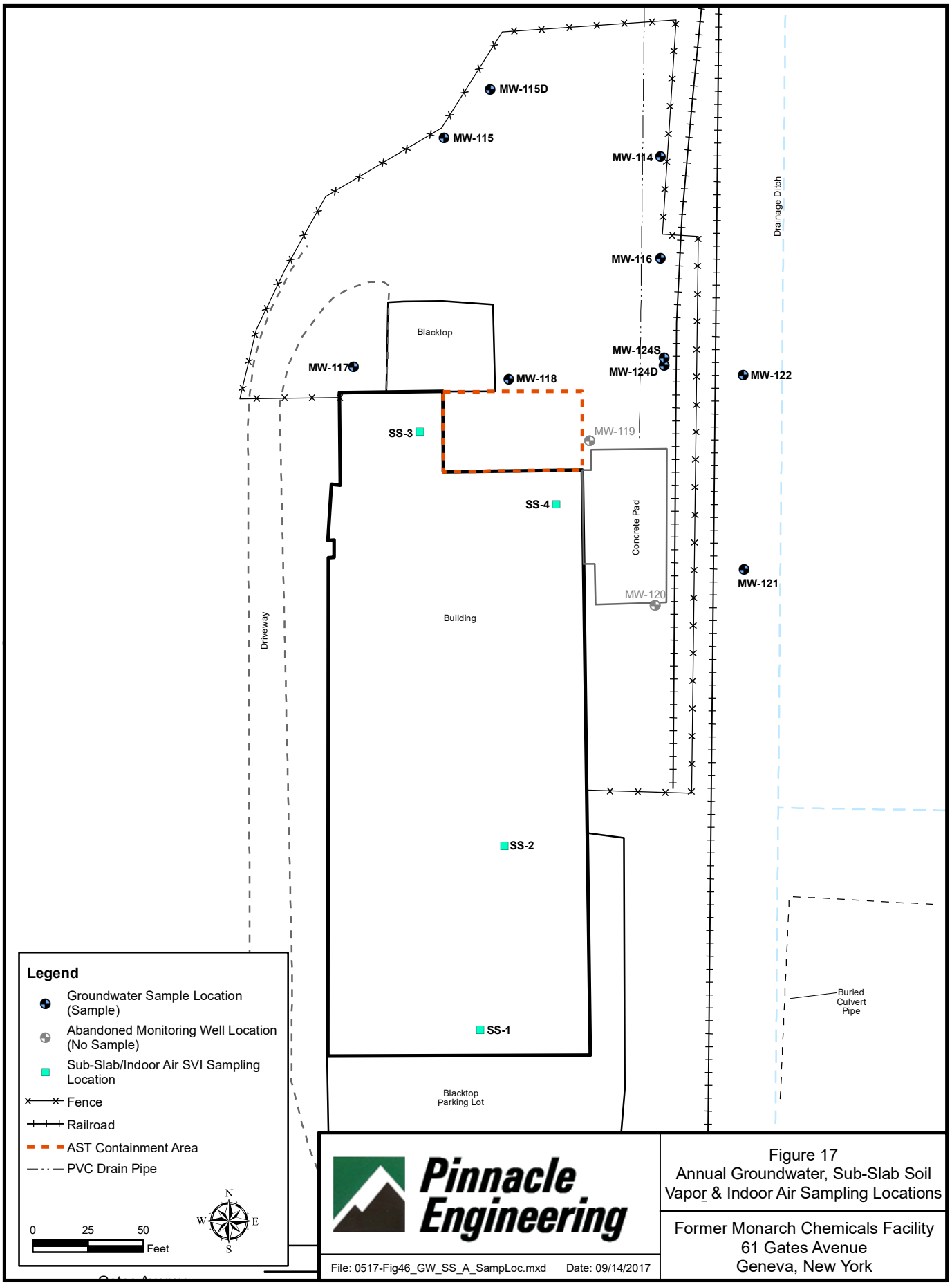
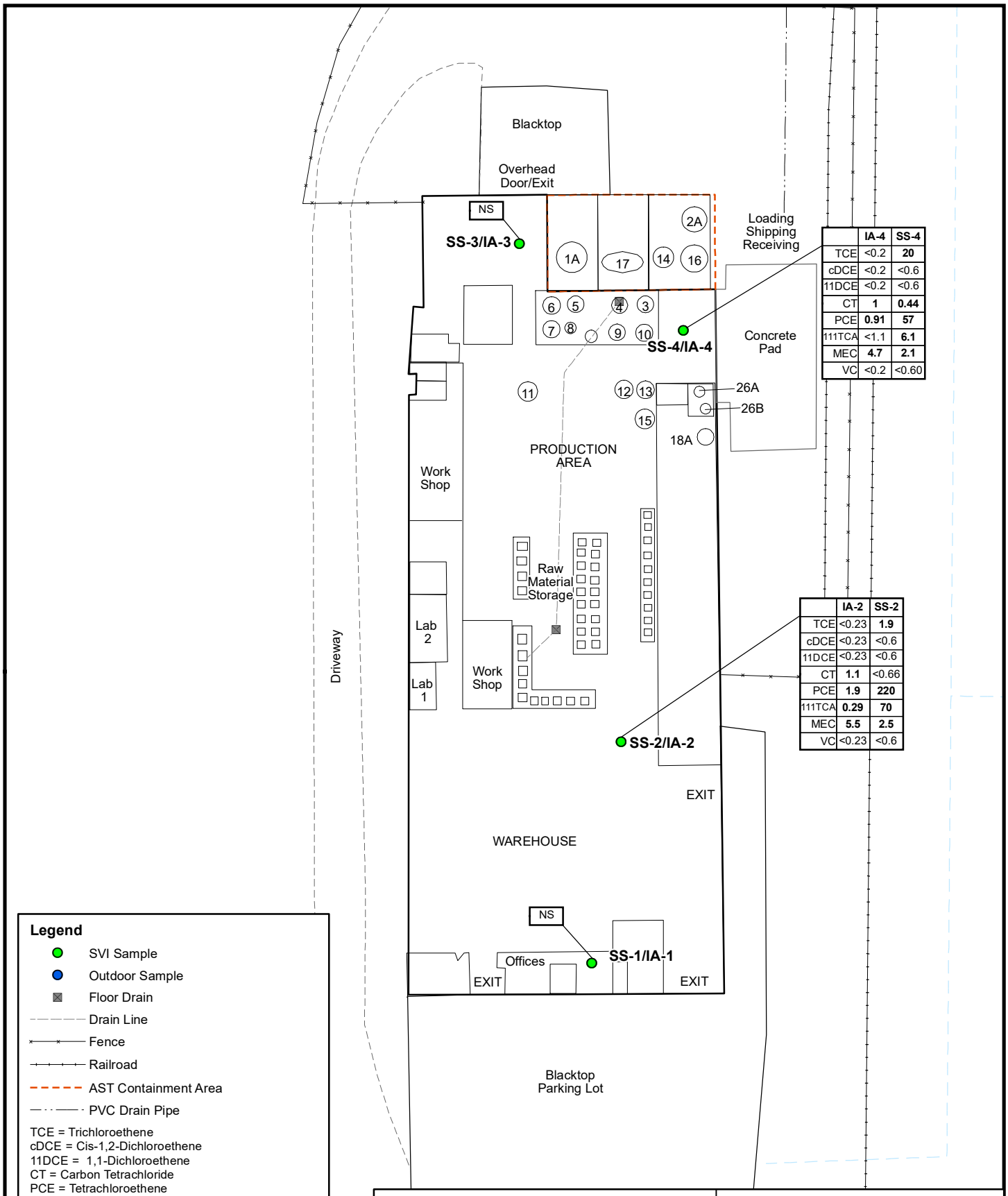


Figure 17
Annual Groundwater, Sub-Slab Soil Vapor & Indoor Air Sampling Locations

Former Monarch Chemicals Facility
61 Gates Avenue
Geneva, New York



	IA-4	SS-4
TCE	<0.2	**20**
cDCE	<0.2	<0.6
11DCE	<0.2	<0.6
CT	**1**	**0.44**
PCE	**0.91**	**57**
111TCA	<1.1	**6.1**
MEC	**4.7**	**2.1**
VC	<0.2	<0.60

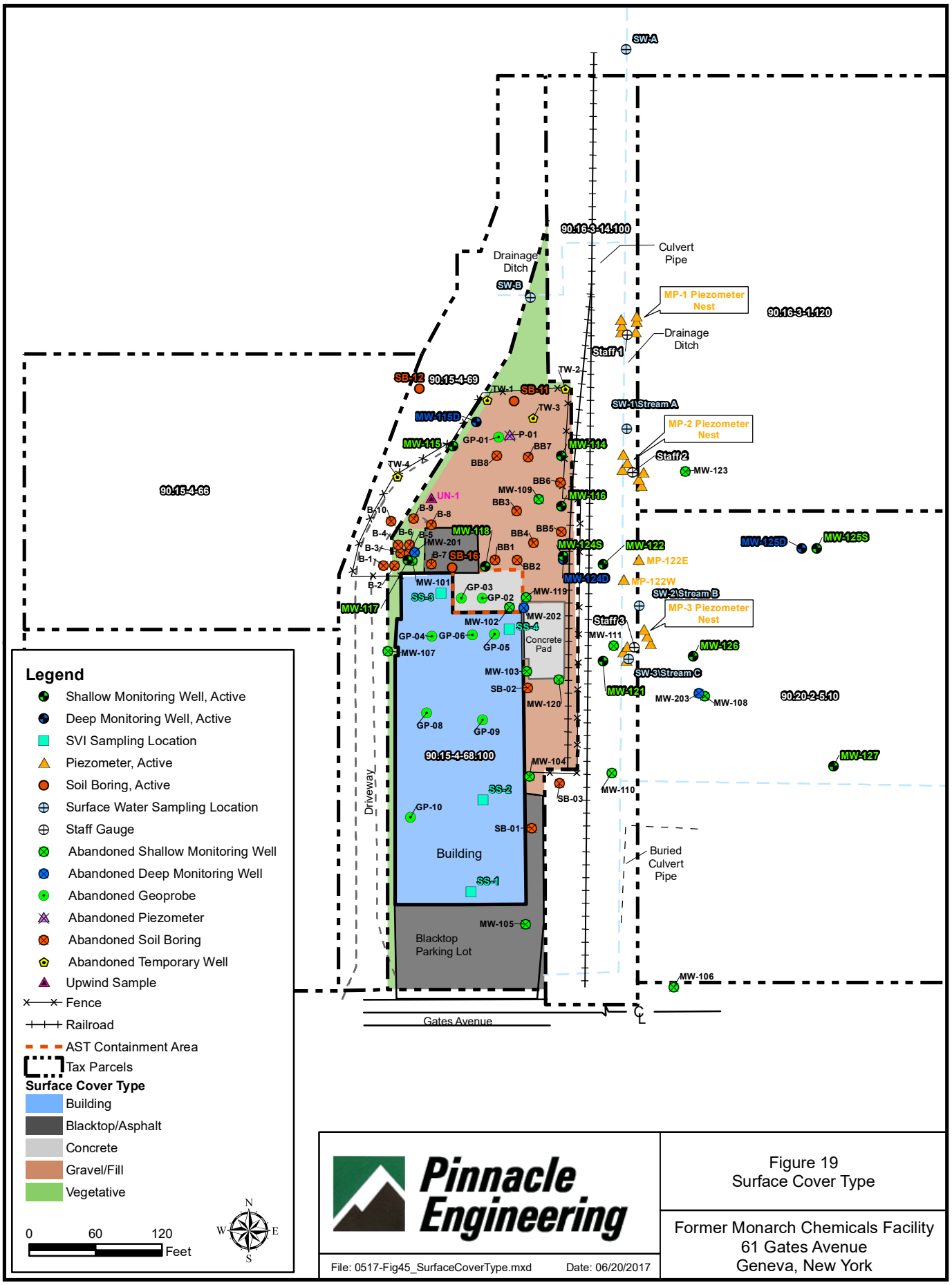
	IA-2	SS-2
TCE	<0.23	**1.9**
cDCE	<0.23	<0.6
11DCE	<0.23	<0.6
CT	**1.1**	<0.66
PCE	**1.9**	**220**
111TCA	**0.29**	**70**
MEC	**5.5**	**2.5**
VC	<0.23	<0.6

Pinnacle Engineering

File: 0423-Fig18_Annual_Sample_Locations_Map2024.mxd Date: 09/11/2023

Figure 18
Annual Groundwater, Sub-Slab Soil Vapor & Indoor Air Sampling Locations

Former Monarch Chemicals Facility
61 Gates Avenue
Geneva, New York



Pinnacle Engineering

File: 0517-Fig45_SurfaceCoverType.mxd Date: 06/20/2017

Figure 19
Surface Cover Type

Former Monarch Chemicals Facility
61 Gates Avenue
Geneva, New York

Attachment 0

Site Inspection Form & IC/EC Certification

INSPECTION LOG - GENEVA, NY SITE

Date: JULY 6, 2023
Name: KEITH B. RAPP

	Yes Ok	No Not Ok
Cap\Soil Cover		
Vegetation	X	
No Trash or Debris	X	
Gates Locked	X	
Corrective Action		
Drainage		
Surface water drainage	X	
Ponding	X	
Railroad ballast contained	X	
Parking lot condition	X	
Drainage ditch	X	
Corrective Action		
Monitoring Wells\Piezometers		
Located - cover	X	
Manhole (secure)	X	
Water accumulation\damage	X	
Corrective Action		
Safety Equipment		
Fire Extinguishers	X	
Eye Wash	X	
Air Monitoring Equipment	X	
Adequate Supply of Tyvek Suits, Rubber Gloves, Hard	X	
Hats, Eye Protection, ect.	X	
Communication System - Two Way Radios, Air Horns,	X	
Telephone	X	
Corrective Action		
Sample Collection\Storage		
Samples Intact	X	
Refrigerated	X	
Corrective Action		

Comments:

Keith B. Rapp
7/6/2023

Enclosure 2

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Site Management Periodic Review Report Notice

Institutional and Engineering Controls Certification Form

Site Details **Box 1**

Site No. **V00119**

Site Name Former H.B. Fuller- Monarch Div. Prop.

Site Address: 61 Gates Avenue Zip Code: 14456
City/Town: Geneva
County: Ontario
Site Acreage: 1.740

Reporting Period: July 14, 2022 to July 14, 2023

	YES	NO
1. Is the information above correct?	X	☐
If NO, include handwritten above or on a separate sheet.		
2. Has some or all of the site property been sold, subdivided, merged, or undergone a tax map amendment during this Reporting Period?	☐	X
3. Has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))?	☐	X
4. Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period?	☐	X
If you answered YES to questions 2 thru 4, include documentation or evidence that documentation has been previously submitted with this certification form.		
5. Is the site currently undergoing development?	☐	X

Box 2

	YES	NO
6. Is the current site use consistent with the use(s) listed below? Commercial and Industrial	X	☐
7. Are all ICs in place and functioning as designed?	X	☐

IF THE ANSWER TO EITHER QUESTION 6 OR 7 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

K. B. Raff 7/6/2023

Signature of Owner, Remedial Party or Designated Representative Date

SITE NO. V00119

Box 3

Description of Institutional Controls

Parcel	Owner	Institutional Control
	Univar USA	
		Ground Water Use Restriction
		Landuse Restriction
		Site Management Plan
		IC/EC Plan
		Monitoring Plan

A Site Management Plan is in place for the site and includes:
-groundwater use restriction
-restriction of the site to commercial and/or industrial use
-annual periodic review reports and certification of institutional and engineering controls
-annual groundwater and sub-slab/indoor air monitoring

Box 4

Description of Engineering Controls

Parcel	Engineering Control
	Cover System

Engineering controls as described in the Site Management Plan include:
-one foot cover consisting of soil, gravel, building, asphalt, concrete, etc.

7/6/2023

Box 5

Periodic Review Report (PRR) Certification Statements

1. I certify by checking "YES" below that:

   a) the Periodic Review report and all attachments were prepared under the direction of, and reviewed by, the party making the Engineering Control certification;

   b) to the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted engineering practices; and the information presented is accurate and compete.

YES	NO
☒	☐

2. For each Engineering control listed in Box 4, I certify by checking "YES" below that all of the following statements are true:

   (a) The Engineering Control(s) employed at this site is unchanged since the date that the Control was put in-place, or was last approved by the Department;

   (b) nothing has occurred that would impair the ability of such Control, to protect public health and the environment;

   (c) access to the site will continue to be provided to the Department, to evaluate the remedy, including access to evaluate the continued maintenance of this Control;

   (d) nothing has occurred that would constitute a violation or failure to comply with the Site Management Plan for this Control; and

   (e) if a financial assurance mechanism is required by the oversight document for the site, the mechanism remains valid and sufficient for its intended purpose established in the document.

YES	NO
☒	☐

IF THE ANSWER TO QUESTION 2 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

Signature of Owner, Remedial Party or Designated Representative

7/6/2023
Date

IC CERTIFICATIONS
SITE NO. V00119

Box 6

SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE

I certify that all information and statements in Boxes 1,2, and 3 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I KEITH B. RAPP at 11541 95TH AVE. N. MINNEAPOLIS MN 55369
print name print business address

am certifying as REMEDIAL PARTY (Owner or Remedial Party)

for the Site named in the Site Details Section of this form.

Signature of Owner, Remedial Party, or Designated Representative Rendering Certification

7/6/2023
Date

EC CERTIFICATIONS

Box 7

Qualified Environmental Professional Signature

I certify that all information in Boxes 4 and 5 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I KEITH B. RAPP (print name) at 11541 95TH AVE. N. MINNEAPOLIS, MN 55369 (print business address),

am certifying as a Qualified Environmental Professional for the REMEDIAL PARTY (Owner or Remedial Party)

Signature of Qualified Environmental Professional, for the Owner or Remedial Party, Rendering Certification	Stamp (Required for PE)	7/6/2023 Date

Attachment 1

Groundwater Sampling Forms

GROUNDWATER SAMPLE LOG SHEET

Project Name: FORMER MONARCH CHEMICAL
Project No.: GENEVA, NY

Sample ID: MW-114
Location: E prop line, N of RR gate
Sampled By: Rowe

SAMPLING DATA: **FINAL VALUES:**

Date: 3/18/23
Time: 16:25
Purge Method: LO FLO

Color (visual)	Temp. (°C)	Conductivity (uS/cm²)	DO (mg/L)	pH (SU)	ORP (mV)	Turbitity (NTU)
CLEAR	7.68	1191.7	7.43	7.18	16.2	46.05

PURGE DATA: COLORLESS

Date: 3/18/23
Purge Method: LO FLO, PERISTALTIC PUMP INTAKE SET IN SCREEN INTERVAL
PID Reading (ppm): 0.0 @ TOC
Well Casing Diam. & Material: 2" PVC
Total Well Depth (ft): 13.60
Static Water Level (FT BTOC): 9.07
Purge Start (hrs): 18:06
Purge End (hrs): 18:23
Total Purge Time (min): 17
Total Volume Purged ~~(gal/L)~~: 3,060 ml

Purge Calculations

1" = 0.040 gal	6" = 1.468 gal
2" = 0.163 gal	8" = 2.611 gal
3" = 0.367 gal	10" = 4.079 gal
4" = 0.652 gal	12" = 5.874 gal

SAMPLE COLLECTION INFORMATION:

Analysis	Preservation	Container Requirements	# Containers Collected
VOC	HCl	3-40 ml P & T	3-40 ml P & T

Weather Conditions:

37° F, 50% OVERCAST, WINDY

OBSERVATIONS\NOTES:

sample appearance clear, colorless, no sediment, no odor

Circle if Applicable:

MS/MSD | Dulicate ID No:

Signature(s): R. A. Wyrick

EXPANDABLE PLUG SEEMED SOMEWHAT LOOSE, CLEAN LOCK & PLUG BEFORE RE-INSERTING
MUD ON BOTTOM OF INTAKE PROBE

PURGE DATA LOG SHEET

page 1 of 1

Sample ID: MW-114

Date: 3/18/23

Time (hrs)	Water Level (ft below TOC)	Flow Rate (mL/min)	Temp. (°C)	Conductivity (uS/cm²)	DO (mg/L)	pH (SU)	ORP (mV)	Turbitity (NTU)	Comments
	target ≤ 0.3'	100 - 200	± 10%	± 10%	± 10%	± 10%	± 10%	± 10%	
17:45	9.07								static
18:03									start pump
18:06		180							adjust flow
18:14	9.91	180	7.59	1205.7	8.70	7.18	9.8	99.54	
18:17	10.08	180	7.60	1207.3	8.62	7.19	12.8	86.33	
18:20	10.23	180	7.56	1203.8	8.09	7.19	14.4	69.69	
18:23	10.39		7.68	1191.7	7.43	7.18	16.2	46.05	
18:25	sample	time							sample

Signature(s): R.a. Wozniak

GROUNDWATER SAMPLE LOG SHEET

Project Name: FORMER MONARCH CHEMICAL
Project No.: GENEVA, NY

Sample ID: MW-115
Location: along north fence line south of MW-115D
Sampled By: RAW

SAMPLING DATA:

Date: 3/20/23
Time: 11:55
Purge Method: LO FLO

FINAL VALUES:

Color (visual)	Temp. (°C)	Conductivity (uS/cm²)	DO (mg/L)	pH (SU)	ORP (mV)	Turbitity (NTU)
CLEAR	9.51	2398.5	1.26	6.53	57.9	103.42

PURGE DATA: COLORLESS

Date: 3/20/23
Purge Method: LO FLO. PERISTALTIC PUMP INTAKE SET IN SCREENED INTERVAL
PID Reading (ppm): 0.0 @ TOC
Well Casing Diam. & Material: 2" PVC
Total Well Depth (ft): 13.00
Static Water Level (FT BTOC): 6.78
Purge Start (hrs): 11:35
Purge End (hrs): 11:52
Total Purge Time (min): 17
Total Volume Purged ~~(gal/L)~~: 3,060 ml

Purge Calculations

1" = 0.040 gal	6" = 1.468 gal
2" = 0.163 gal	8" = 2.611 gal
3" = 0.367 gal	10" = 4.079 gal
4" = 0.652 gal	12" = 5.874 gal

SAMPLE COLLECTION INFORMATION:

Analysis	Preservation	Container Requirements	# Containers Collected
VOC	HCl	3-40ml P&T	3-40ml P&T

Weather Conditions:

38°F, SUNNY 0% OVERCAST, SLIGHT BREEZE

OBSERVATIONS\NOTES:

sample appearance

Circle if Applicable:

MS/MSD

Dulicate ID No:

Signature(s):

PURGE DATA LOG SHEET

page 1 of 1

Sample ID: MW-115

Date: 3/20/23

Time (hrs)	Water Level (ft below TOC)	Flow Rate (mL/min)	Temp. (°C)	Conductivity (uS/cm²)	DO (mg/L)	pH (SU)	ORP (mV)	Turbitity (NTU)	Comments
	target ≤ 0.3'	*100 - 200*	*± 10%*	*± 10%*	*± 10%*	*± 10%*	*± 10%*	*± 10%*	
10:48	6.78								static
11:33									start pump
11:35		190							adjust flow
11:43	7.49	180	9.71	2411.3	1.55	6.52	64.4	95.50	
11:46	7.56	180	9.60	2406.2	1.50	6.52	62.3	98.23	
11:49	7.64	180	9.61	2399.1	1.35	6.52	60.1	97.29	
11:52	7.72	180	9.51	2398.5	1.26	6.53	57.9	103.42	
11:55	sample time								sample

Signature(s): R.a. Wojcik

GROUNDWATER SAMPLE LOG SHEET

Project Name: FORMER MONARCH CHEMICAL
Project No.: GENEVA, NY

Sample ID: MW- 115 D
Location: ALONG NORTH FENCE LINE
Sampled By: RDW

SAMPLING DATA:	FINAL VALUES:						
Date: 3/20/23	Color (visual)	Temp. (°C)	Conductivity (uS/cm²)	DO (mg/L)	pH (SU)	ORP (mV)	Turbitity (NTU)
Time: 10:15							
Purge Method: LO FLO	CLEAR	10.51	1113.6	2.78	7.08	54.9	14.30

PURGE DATA: COLORLESS

Date: 3/20/23
Purge Method: LO FLO, PERISTALTIC PUMP INTAKE SET IN SCREEN INTERVAL
PID Reading (ppm): 0.0 @ TOC
Well Casing Diam. & Material: 2" PVC
Total Well Depth (ft): 23.68
Static Water Level (FT BTOC): 10.26
Purge Start (hrs): 9:54
Purge End (hrs): 10:11
Total Purge Time (min): 17
Total Volume Purged (~~gal/L~~): 3060 ml

Purge Calculations

1" = 0.040 gal	6" = 1.468 gal
2" = 0.163 gal	8" = 2.611 gal
3" = 0.367 gal	10" = 4.079 gal
4" = 0.652 gal	12" = 5.874 gal

SAMPLE COLLECTION INFORMATION:

Analysis	Preservation	Container Requirements	# Containers Collected
VOC	HCl	3-40 ml P & T	3 . 40 ml P & T

Weather Conditions:

31°F, ~~[illegible]~~ 0% OVERCAST, BREEZY

OBSERVATIONS\NOTES:

sample appearance clear, colorless, no sediment, no odor

Circle if Applicable:

MS/MSD | Dulicate ID No:

Signature(s): R.A. Wyrick

PURGE DATA LOG SHEET

page 1 of 1

Sample ID: MW-115D

Date: 3/20/23

Time (hrs)	Water Level (ft below TOC)	Flow Rate (mL/min)	Temp. (°C)	Conductivity (uS/cm²)	DO (mg/L)	pH (SU)	ORP (mV)	Turbitity (NTU)	Comments
	target ≤ 0.3'	100 - 200	± 10%	± 10%	± 10%	± 10%	± 10%	± 10%	
9:37	10.26								static
9:52									start pump
9:54		180							adjust flow
10:02	11.89	180	10.37	1111.7	3.20	7.07	58.4	21.70	
10:05	11.98	180	10.32	1131.0	3.10	7.07	57.6	21.60	
10:08	12.03	180	10.44	1113.5	2.93	7.07	56.9	19.67	
10:11	12.08	180	10.51	1113.6	2.78	7.08	54.9	19.30	
10:15	sample	time							sample
	180								
	17								
	1260								
	180								
	3060								

Signature(s): R.a. Wojciak

GROUNDWATER SAMPLE LOG SHEET

Project Name: FORMER MONARCH CHEMICAL
Project No.: GENEVA, NY

Sample ID: MW-116
Location: IN FRONT OF RR GATE
Sampled By: RAW

SAMPLING DATA: **FINAL VALUES:**

Date: 3/19/23
Time: 10:53
Purge Method: LO FLO

Color (visual)	Temp. (°C)	Conductivity (uS/cm²)	DO (mg/L)	pH (SU)	ORP (mV)	Turbitity (NTU)
TRANSLUCENT	6.80	969.48	2.45	6.79	-7.1	226.74

PURGE DATA: LIGHT TAN COLOR

Date: 3/19/23
Purge Method: LO FLO, PERISTALTIC PUMP INTAKE SET IN SCREEN INTERVAL
PID Reading (ppm): 0.0 @ TOC
Well Casing Diam. & Material: 2" PVC
Total Well Depth (ft): 13.50
Static Water Level (FT BTOC): 4.31
Purge Start (hrs): 10:33
Purge End (hrs): 10:50
Total Purge Time (min): 17
Total Volume Purged (~~gal/L~~): 2980 ml

Purge Calculations

1" = 0.040 gal	6" = 1.468 gal
2" = 0.163 gal	8" = 2.611 gal
3" = 0.367 gal	10" = 4.079 gal
4" = 0.652 gal	12" = 5.874 gal

SAMPLE COLLECTION INFORMATION:

Analysis	Preservation	Container Requirements	# Containers Collected
VOC	HCl	3-40 ml P & T	3-40 ml P & T

Weather Conditions:

22° F, 50% OVERCAST, WINDY

OBSERVATIONS\NOTES:

sample appearance translucent, light tan color, abundant fine to very fine brown sediment, no odor

Circle if Applicable:

MS/MSD | Dulicate ID No:

Signature(s): R. A. Wagner

PURGE DATA LOG SHEET

page 1 of 1

Sample ID: MW - 116

Date: 3/19/23

Time (hrs)	Water Level (ft below TOC)	Flow Rate (mL/min)	Temp. (°C)	Conductivity (uS/cm²)	DO (mg/L)	pH (SU)	ORP (mV)	Turbitity (NTU)	Comments
	target ≤ 0.3'	100 - 200	± 10%	± 10%	± 10%	± 10%	± 10%	± 10%	
10:17	4.31								static
10:30									start pump
10:33		180							adjust flow
10:41	4.94	160	7.20	969.18	2.89	6.80	-13.6	288.63	
10:44	4.86	160	6.90	967.97	2.69	6.80	-12.0	265.44	
10:47	4.89	160	6.96	966.50	2.58	6.80	-9.5	237.72	
10:50	4.89	160	6.80	969.48	2.45	6.79	-7.1	226.74	
10:53	sample	time							sample
180	160								
8	9								
1440	1440								
	1440								
	2880								

Signature(s): R. C. Wgiah

GROUNDWATER SAMPLE LOG SHEET

page 1 of 1

Project Name: FORMER MONARCH CHEMICAL
Project No.: GENEVA, NY
Sample ID: MW-117
Location: outside NW corner of bldg
Sampled By: RCW

SAMPLING DATA: **FINAL VALUES:** IN SITU READINGS

	Color (visual)	Temp. (°C)	Conductivity (uS/cm²)	DO (mg/L)	pH (SU)	ORP (mV)	Turbitity (NTU)
Date: 3/18/23							
Time: 12:10							
Purge Method: LO FLO	CLEAR	~~7.48~~	~~0.08~~	~~5.12~~	~~9.28~~	~~27.2~~	~~4.20~~
PURGE DATA:	COLORLESS	11.06	493.12	2.76	6.86	56.0	8.56

Date: 3/18/22
Purge Method: LO FLO PERISTALTIC PUMP INTAKE WITHIN SCREEN INTERVAL
PID Reading (ppm): 0.0 @ TOC
Well Casing Diam. & Material: 2" PVC
Total Well Depth (ft): 13.55
Static Water Level (FT BTOC): 2.60
Purge Start (hrs): 11:51
Purge End (hrs): 12:08
Total Purge Time (min): 17
Total Volume Purged ~~(gal/L)~~: 3060 ml

Purge Calculations

1" = 0.040 gal	6" = 1.468 gal
2" = 0.163 gal	8" = 2.611 gal
3" = 0.367 gal	10" = 4.079 gal
4" = 0.652 gal	12" = 5.874 gal

in situ readings see NOTE

SAMPLE COLLECTION INFORMATION:

Analysis	Preservation	Container Requirements	# Containers Collected
VOC	HCl	3 40ml P&T	3-40 ml P&T

Weather Conditions:

38°F, 75% OVERCAST, WINDY
grew windier & started snowing while purging

OBSERVATIONS\NOTES:

sample appearance clear, colorless, no odor, no sediment
DO seemed high so I shook flow cell to free any trapped air. No trapped air was apparent

Circle if Applicable:

MS/MSD | Dulicate ID No:

Signature(s): R. A. Wziah

NOTE - when disassembling the flow cell after sampling it was observed that the flow cell was run in reverse. None of the parameter readings should be considered accurate although their consistency & the ~~on~~ purge time indicate that a representative sample was obtained. Following the sampling insitu parameter readings were taken see purge data log sheet

PURGE DATA LOG SHEET

page 1 of 1

Sample ID: MW-117

Date: 3/18/22

Time (hrs)	Water Level (ft below TOC)	Flow Rate (mL/min)	Temp. (°C)	Conductivity (uS/cm²)	DO (mg/L)	pH (SU)	ORP (mV)	Turbitity (NTU)	Comments
	target ≤ 0.3'	100 - 200	± 10%	± 10%	± 10%	± 10%	± 10%	± 10%	
11:13	2.60								static
11:49		~~180~~							start pump
11:51		180							adjust flow
11:59	2.65	180	8.36	0.08	5.32	8.42	-13.9	7.05	
12:02	2.65	180	8.13	0.08	5.96	8.22	-9.6	6.98	
12:05	2.65	180	7.92	0.08	7.76 *	9.86	26.2	12.24	shake sonde to see if
12:08	2.65	180	7.48	0.08	5.12	9.28	29.2	4.20	air bubbles on
									RDO sensor
12:10	sample	time							
	180								
	17								
	1260								
	180								
	3060								
* see NOTE on GW sample log sheet									
3/21/23									
16:40	in situ	N/A	9.10	490.07	4.38	7.37	82.5	66.20	sonde on bottom
16:45			10.78	491.08	2.63	6.91	66.5	8.75	
16:50			11.06	493.12	2.76	6.86	56.0	8.56	

* DO seemed high, shook flow cell to free trapped air but didn't seem to make a difference possible

Signature(s): R. A. Wojcik

GROUNDWATER SAMPLE LOG SHEET

Project Name: FORMER MONARCH CHEMICAL
Project No.: GENEVA, NY

Sample ID: MW-118
Location: IMMEDIATELY N. OF TANK FARM
Sampled By: RCW

SAMPLING DATA:

Date: 3/18/23
Time: 16:20
Purge Method: LO FLO

FINAL VALUES:

Color (visual)	Temp. (°C)	Conductivity (uS/cm²)	DO (mg/L)	pH (SU)	ORP (mV)	Turbitity (NTU)
CLEAR	8.52	2545.1	0.48	6.93	-159.6	19.36

COLORLESS

PURGE DATA:

Date: 3/18/23
Purge Method: LO FLO, PERISTALTIC PUMP INTAKE SET IN SCREEN
PID Reading (ppm): 1.0 @ TOC
Well Casing Diam. & Material: 2" PVC
Total Well Depth (ft): 13.12 soft bottom
Static Water Level (FT BTOC): 4.84
Purge Start (hrs): 16:01
Purge End (hrs): 16:18
Total Purge Time (min): 17
Total Volume Purged ~~(gal/L)~~: 3060 ml

Purge Calculations

1" = 0.040 gal	6" = 1.468 gal
2" = 0.163 gal	8" = 2.611 gal
3" = 0.367 gal	10" = 4.079 gal
4" = 0.652 gal	12" = 5.874 gal

SAMPLE COLLECTION INFORMATION:

Analysis	Preservation	Container Requirements	# Containers Collected
VOC	HCl	3 - 40 ml P&T	3 - 40 ml P&T
DUPE-1			
VOC	HCl	3 - 40 ml P&T	3 - 40 ml P&T

Weather Conditions:

34°F, 75% OVERCAST, WINDY

OBSERVATIONS\NOTES:

Sample appearance clear, no color, abundant black sediment fine to coarse size, larger sediment is ~~and~~ angular in shape, no odor

Circle if Applicable:

MS/MSD

Dulicate ID No: DUPE-1

Signature(s): R. A. Wgrial

DUPE SAMPLE DATE 3/18/23
DUPE SAMPLE TIME 8:00

bottom of well felt soft when checking total depth
2 MANHOLE BOLTS WOULD NOT TIGHTEN

PURGE DATA LOG SHEET

page 1 of 1

Sample ID: MW - 118

Date: 3/18/23

Time (hrs)	Water Level (ft below TOC)	Flow Rate (mL/min)	Temp. (°C)	Conductivity (uS/cm²)	DO (mg/L)	pH (SU)	ORP (mV)	Turbitity (NTU)	Comments
	target ≤ 0.3'	100 - 200	± 10%	± 10%	± 10%	± 10%	± 10%	± 10%	
15:25	4.84								static
16:00									start pump
16:01		180							adjust flow
16:09	switch w.l. ind *		8.83	2541.3	0.64	6.92	-160.9	12.12	
16:12	6.30	180	8.92	2542.0	0.58	6.92	-160.4	14.05	
16:15	6.49	180	8.96	2544.8	0.51	6.92	-160.2	16.88	
16:18	6.63		8.52	2545.1	0.48	6.93	-159.6	19.36	
16:20	sample time								sample

* trigger stops on w.l. indicator, switch out to another

Signature(s): A.G. Wyrial

GROUNDWATER SAMPLE LOG SHEET

page 1 of 1

Project Name: FORMER MONARCH CHEMICAL
Project No.: GENEVA, NY

Sample ID: MW-121
Location: EAST SIDE OF RR TRACKS
Sampled By: RCW

SAMPLING DATA: FINAL VALUES: IN SITU READINGS

Date: 3/22/23	Color (visual)	Temp. (°C)	Conductivity (uS/cm²)	DO (mg/L)	pH (SU)	ORP (mV)	Turbitity (NTU)
Time: 13:30							
Purge Method: GRAB SAMP	CLEAR	10.61	973.89	4.69	6.78	45.6	55.41

COLORLESS

PURGE DATA:

Date: 3/22/23
Purge Method: ~~ATTEMPT TO FLO, PERISTALTIC PUMP TO TAKE SET IN SCREEN INTERVAL~~
PID Reading (ppm): 0.0 @ TOC
Well Casing Diam. & Material: 2" PVC
Total Well Depth (ft): 14.08
Static Water Level (FT BTOC): 12.10
Purge Start (hrs): N/A
Purge End (hrs): N/A
Total Purge Time (min): N/A
Total Volume Purged (gal/L): N/A

Purge Calculations

1" = 0.040 gal	6" = 1.468 gal
2" = 0.163 gal	8" = 2.611 gal
3" = 0.367 gal	10" = 4.079 gal
4" = 0.652 gal	12" = 5.874 gal

TAKE GRAB SAMPLE W/ BAILER AS THERE IS SO LITTLE WATER IN THE WELL & WELL IS KNOWN TO BE LOW YIELDING

SAMPLE COLLECTION INFORMATION:

Analysis	Preservation	Container Requirements	# Containers Collected
VOC	HCl	3-40ml P&T	3-40ml P&T

Weather Conditions:

:15 at time of sonde readings 49°F, 10% OVERCAST, SLIGHT BREEZE
3:30 at time to grab sample 58°F, 50% OVERCAST, SLIGHT BREEZE

OBSERVATIONS\NOTES:

LESS THAN 2' OF WATER IN THE WELL. TAKE GRAB SAMPLE WITH BAILER
sample appearance clear, colorless, no sediment, no odor

Circle if Applicable:		Signature(s):
MS/MSD	Dulicate ID No:	R.C. Wyzik

ONE BOLT MISSING FROM MANHOLE. MANHOLE LIKELY SHIFTED AS TOC IS HIGH ENOUGH THAT THE EXPANDABLE PLUG & LOCK INTERFERE WITH BOLTING DOWN THE MANHOLE LID. RECOMMEND REPLACING PLUG W/ LOW PROFILE OR GRINDING DOWN THE INSIDE OF THE LID

PURGE DATA LOG SHEET

page 1 of 1

Sample ID: MW-121

Date: 3/22/23

Time (hrs)	Water Level (ft below TOC)	Flow Rate (mL/min)	Temp. (°C)	Conductivity (uS/cm²)	DO (mg/L)	pH (SU)	ORP (mV)	Turbitity (NTU)	Comments
	target ≤ 0.3'	100 - 200	± 10%	± 10%	± 10%	± 10%	± 10%	± 10%	
11:15	N/A	N/A	10.62	966.16	4.26	6.85	65.5	76.76	in filter reading
11:20	N/A	N/A	10.62	971.82	4.63	6.77	49.7	54.17	
11:25	N/A	N/A	10.61	973.89	4.69	6.78	45.6	55.41	
	sensor on bottom of well								
TAKE	GRAB SAMPLE @	13:30							sample
							grab sample by trailer		

Signature(s): R.A. Wjeiah

GROUNDWATER SAMPLE LOG SHEET

Project Name: FORMER MONARCH CHEMICAL
Project No.: GENEVA, NY

Sample ID: MW-122
Location: EAST SIDE OF RR TRACKS
Sampled By: RCW

SAMPLING DATA:

Date: 3/22/23
Time: 14:55
Purge Method: LO FLO

FINAL VALUES:

Color (visual)	Temp. (°C)	Conductivity (uS/cm²)	DO (mg/L)	pH (SU)	ORP (mV)	Turbitity (NTU)
CLEAR	10.77	991.08	1.52	6.76	0.3	0.55

PURGE DATA: COLORLESS

Date: 3/22/23
Purge Method: LO FLO, PERISTALTIC PUMP INTAKE SET IN SCREENED INTERVAL
PID Reading (ppm): 0.0 @ TOC
Well Casing Diam. & Material: 2" PVC
Total Well Depth (ft): 13.60
Static Water Level (FT BTOC): ~~7.51~~ 7.69
Purge Start (hrs): 14:35
Purge End (hrs): 14:52
Total Purge Time (min): 17
Total Volume Purged ~~(gal/L)~~: 3,060 ml

Purge Calculations

1" = 0.040 gal	6" = 1.468 gal
2" = 0.163 gal	8" = 2.611 gal
3" = 0.367 gal	10" = 4.079 gal
4" = 0.652 gal	12" = 5.874 gal

SAMPLE COLLECTION INFORMATION:

Analysis	Preservation	Container Requirements	# Containers Collected
VOC	HCl	3-40 ml P&T	3-40 ml P&T

Weather Conditions:

58° F, 100% OVERCAST, BREEZY

OBSERVATIONS\NOTES:

sample appearance clear, colorless, trace fine black sediment, trace dark green vegetation pieces, no odor

Circle if Applicable:

MS/MSD | Dulicate ID No:

Signature(s): R.C. Wyrick

WELL WAS COVERED WITH BALLAST, ONE BOLT MISSING FROM MANHOLE COVER

PURGE DATA LOG SHEET

page 1 of 1

Sample ID: MW-122

Date: 3/22/23

Time (hrs)	Water Level (ft below TOC)	Flow Rate (mL/min)	Temp. (°C)	Conductivity (uS/cm²)	DO (mg/L)	pH (SU)	ORP (mV)	Turbitity (NTU)	Comments
	target ≤ 0.3'	*100 - 200*	*± 10%*	*± 10%*	*± 10%*	*± 10%*	*± 10%*	*± 10%*	
14:30	7.69								start
14:33									start pump
14:35		180							adjust flow
14:43	8.40	180	10.63	965.19	2.39	6.71	2.7	0.59	
14:46	8.52	180	10.88	973.50	2.29	6.71	4.4	0.22	
14:49	8.68	180	10.75	985.47	1.83	6.73	4.3	0.29	
14:52	8.90	180	10.77	991.08	1.52	6.76	0.3	0.55	
14:55	sample time								sample
	180								
	-17								
	1260								
	180								
	3060								

Signature(s): R.A. Wyciak

GROUNDWATER SAMPLE LOG SHEET

Project Name: FORMER MONARCH CHEMICAL
Project No.: GENEVA, NY

Sample ID: MW-124D
Location: adjacent to RR track near loading dock (south of) North of well pair ROW
Sampled By:

SAMPLING DATA:

Date: 3/19/23
Time: 15:35
Purge Method: LO FLO

FINAL VALUES:

Color (visual)	Temp. (°C)	Conductivity (uS/cm²)	DO (mg/L)	pH (SU)	ORP (mV)	Turbitity (NTU)
CLEAR	9.15	1338.0	0.58	6.81	-173.5	110.55

PURGE DATA: COLORLESS

Date: 3/19/23
Purge Method: LO FLO, PERISTALTIC PUMP INTAKE SET IN SCREENED INTERVAL
PID Reading (ppm): 0.0 @ TOC organic-like odor when plug pulled
Well Casing Diam. & Material: 2" PVC
Total Well Depth (ft): 20.23
Static Water Level (FT BTOC): 12.59
Purge Start (hrs): 15:13
Purge End (hrs): 15:30
Total Purge Time (min): 17
Total Volume Purged ~~(gal/L)~~: 2880 ml

Purge Calculations

1" = 0.040 gal	6" = 1.468 gal
2" = 0.163 gal	8" = 2.611 gal
3" = 0.367 gal	10" = 4.079 gal
4" = 0.652 gal	12" = 5.874 gal

SAMPLE COLLECTION INFORMATION:

Analysis	Preservation	Container Requirements	# Containers Collected
VOC	HCl	3-40 ml P&T	3-40ml P&T

Weather Conditions:

31°F, 100% OVERCAST, WINDY

OBSERVATIONS\NOTES:

sample appearance clear, colorless, trace of very fine black sediment, no odor

Circle if Applicable:

MS/MSD

Dulicate ID No:

Signature(s): R.A. Wyciah

MANHOLE WAS FLOODED. EXPANDABLE PLUG HELD. NO WATER DOWN WELL

PURGE DATA LOG SHEET

page 1 of 1

Sample ID: MW-124D

Date: 3/19/23

Time (hrs)	Water Level (ft below TOC)	Flow Rate (mL/min)	Temp. (°C)	Conductivity (uS/cm²)	DO (mg/L)	pH (SU)	ORP (mV)	Turbitity (NTU)	Comments
	target ≤ 0.3'	100 - 200	± 10%	± 10%	± 10%	± 10%	± 10%	± 10%	
14:50	12.59								static
15:09									start pump
15:13		180							adjust flow
15:21	13.92	180	9.81	1337.8	0.72	6.81	-169.9	113.75	
15:24	14.20	160	9.21	1338.4	0.67	6.82	-171.8	106.20	
15:27	14.43	160	9.17	1336.7	0.63	6.81	-172.8	107.93	
15:30	14.66	160	9.15	1338.0	0.58	6.81	-173.5	110.55	
									sample
15:35	sample	time							
	180	160							
	8	9							
	1440	1440							
		2880							

Signature(s): R. A. Wojciak

GROUNDWATER SAMPLE LOG SHEET

Project Name: FORMER MONARCH CHEMICAL
Project No.: GENEVA, NY

Sample ID: MW-1245
Location: ADJACENT TO RR TRACK NEAR LOADING DOCK. South well of pair
Sampled By: Reed

SAMPLING DATA:	FINAL VALUES:						
Date: 3/19/23	Color (visual)	Temp. (°C)	Conductivity (uS/cm²)	DO (mg/L)	pH (SU)	ORP (mV)	Turbitity (NTU)
Time: 14:40							
Purge Method: Lo Flo	clear	7.53	1163.7	0.45	6.75	-174.6	46.03

PURGE DATA: colorless

Date: 3/19/23
Purge Method: LO FLO, PERISTALTIC PUMP INTAKE SET IN SCREENED INTERVAL
PID Reading (ppm): 0.0 @ TOC organic-like odor when plug removed
Well Casing Diam. & Material: 2" PVC
Total Well Depth (ft): 12.05
Static Water Level (FT BTOC): 3.49
Purge Start (hrs): 14:18
Purge End (hrs): 14:35
Total Purge Time (min): 17
Total Volume Purged (~~gal/L~~): 3,400 ml

Purge Calculations

1" = 0.040 gal	6" = 1.468 gal
2" = 0.163 gal	8" = 2.611 gal
3" = 0.367 gal	10" = 4.079 gal
4" = 0.652 gal	12" = 5.874 gal

SAMPLE COLLECTION INFORMATION:

Analysis	Preservation	Container Requirements	# Containers Collected
VOC	HCl	3-40 ml P&T	3-40 ml P&T

Weather Conditions:
28°F, 75% OVERCAST, WINDY

OBSERVATIONS\NOTES:
sample appearance clear, colorless, minor amount of very fine black sediment, no odor

Circle if Applicable:
MS/MSD | Dulicate ID No:

Signature(s): R.G. Wyziak

manhole flooded. expandable plug held no water down well

PURGE DATA LOG SHEET

page 1 of 1

Sample ID: MW-124 S

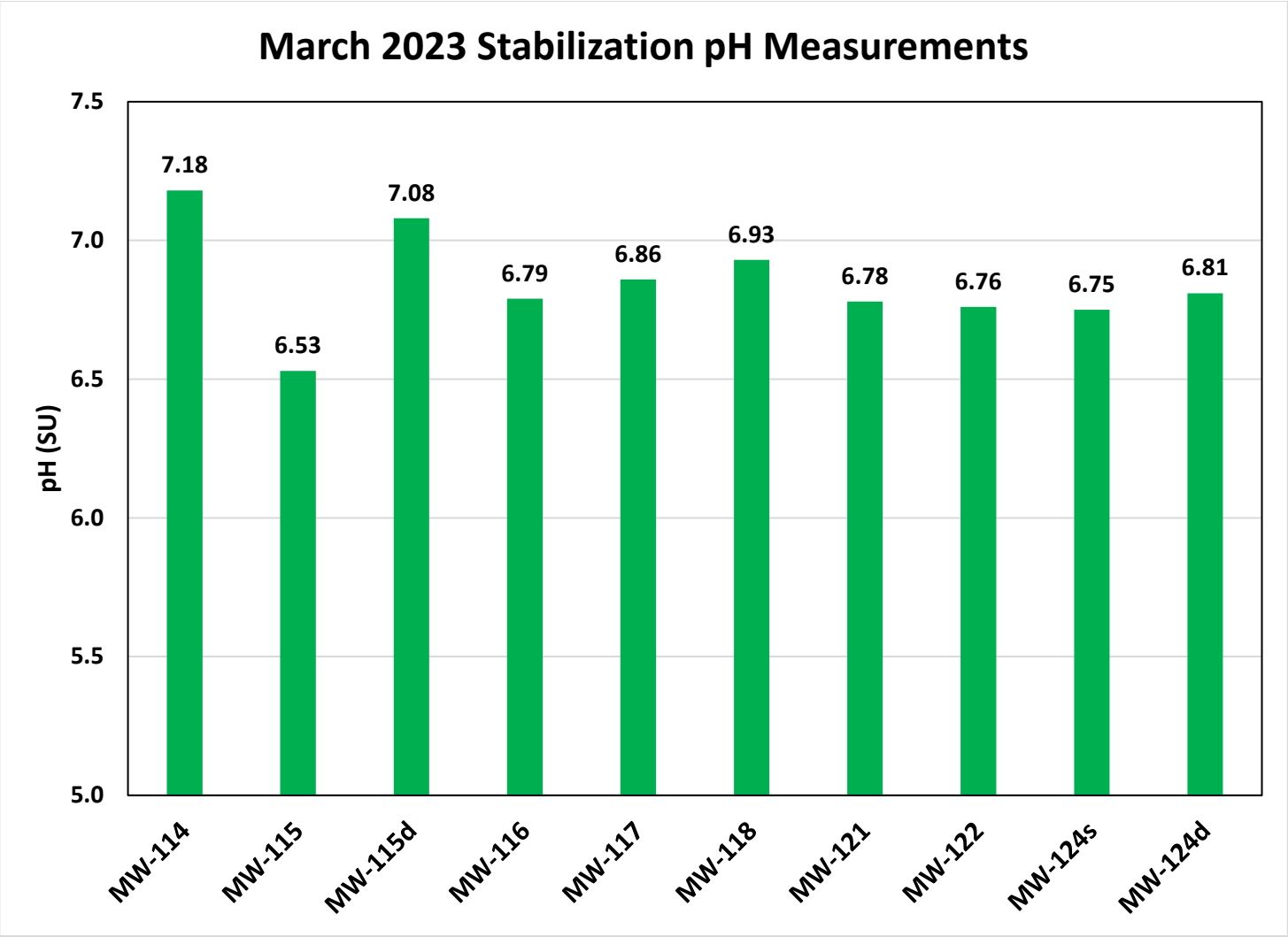
Date: 3/19/23

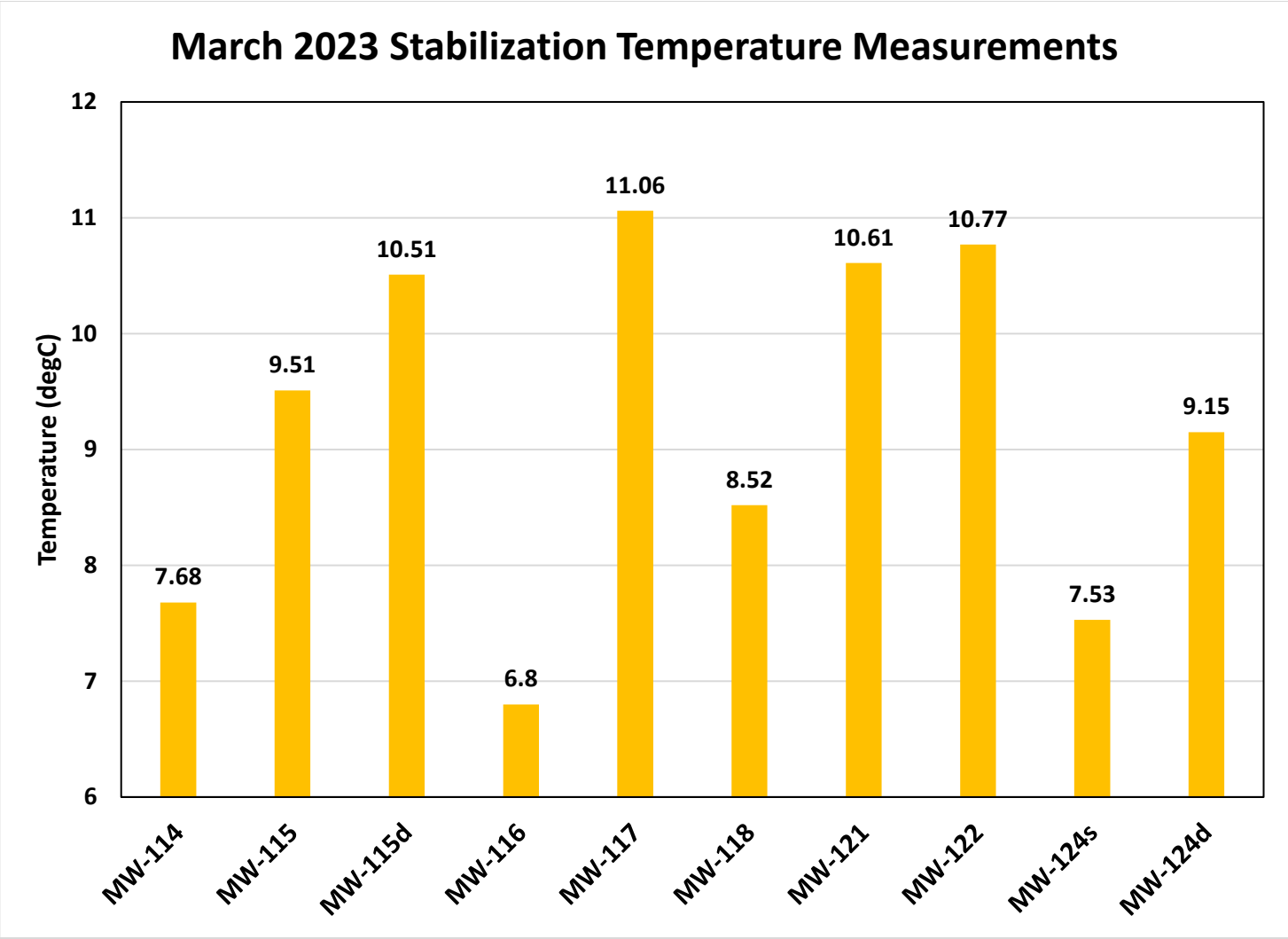
Time (hrs)	Water Level (ft below TOC)	Flow Rate (mL/min)	Temp. (°C)	Conductivity (uS/cm²)	DO (mg/L)	pH (SU)	ORP (mV)	Turbitity (NTU)	Comments
	target ≤ 0.3'	100 - 200	± 10%	± 10%	± 10%	± 10%	± 10%	± 10%	
14:10	3.49								static
14:17									start pump
14:18		200							adjust flow
14:26	4.95	200	7.60	1172.9	0.55	6.76	-172.4	57.23	
14:29	5.21	200	7.53	1172.2	0.51	6.75	-173.2	50.33	
14:32	5.37	200	7.55	1172.0	0.48	6.75	-173.8	43.12	
14:35	5.62	200	7.53	1163.7	0.45	6.75	-174.6	46.05	
14:40	sample time								sample

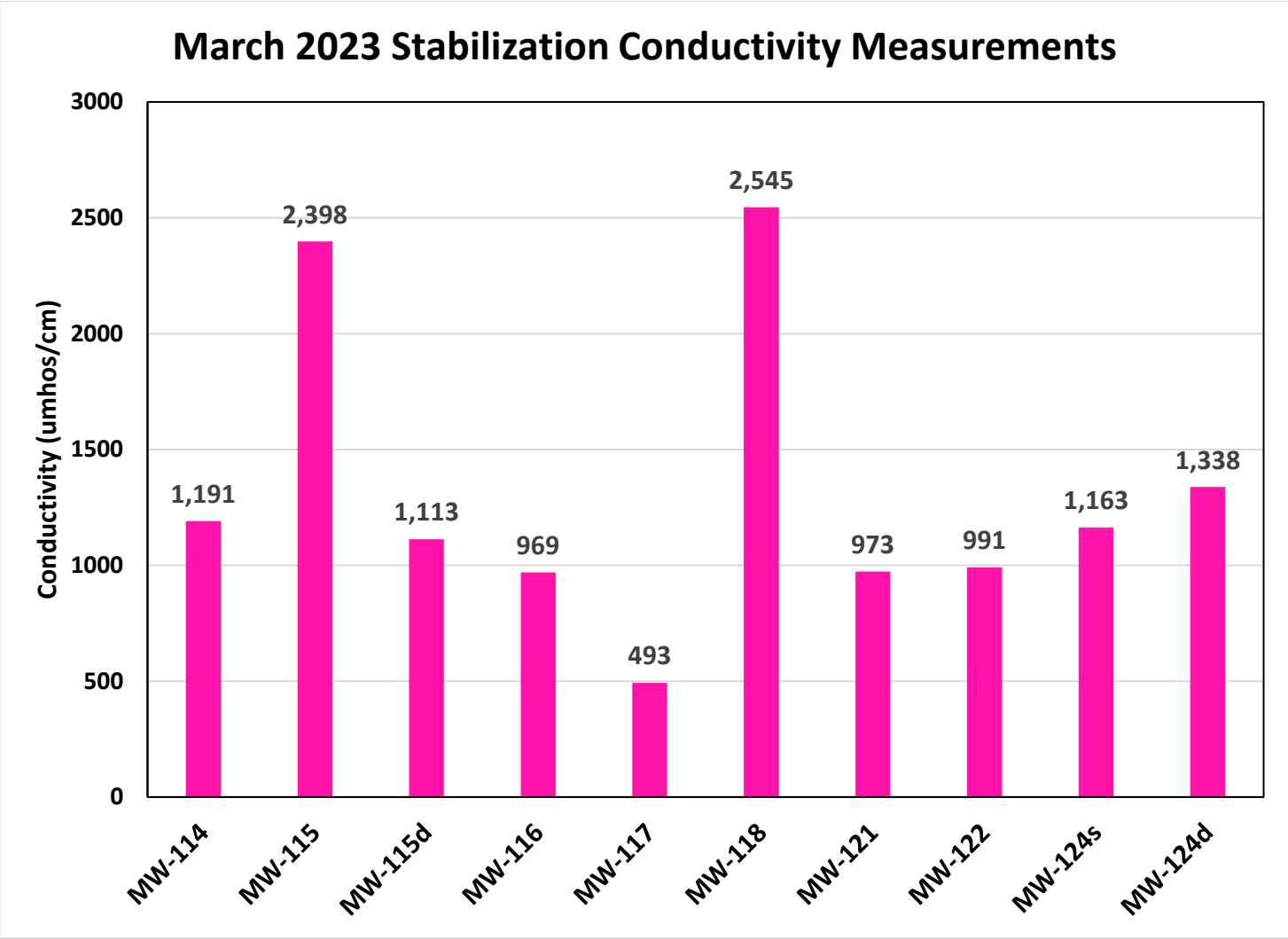
Signature(s): R. A. Wziah

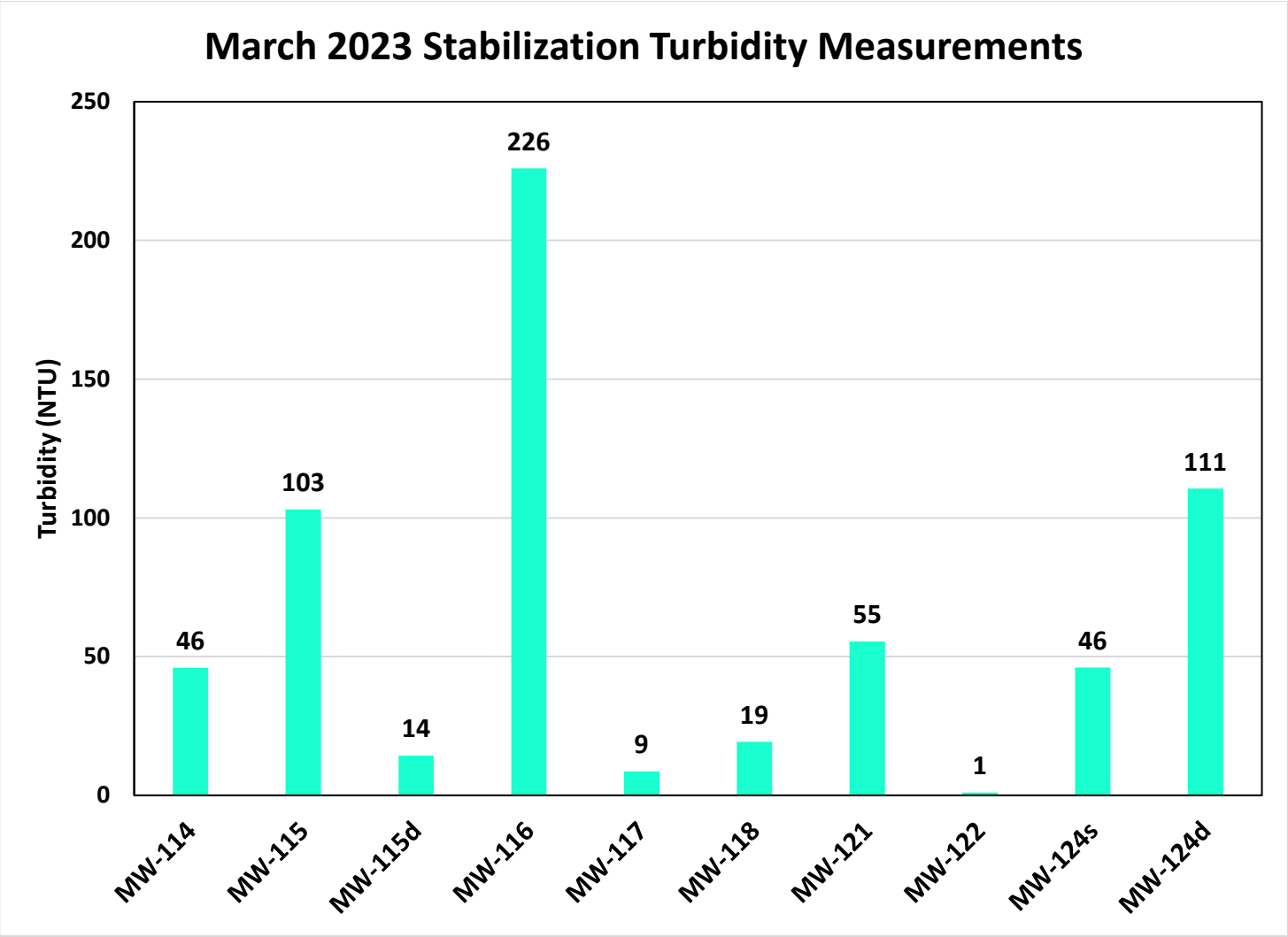
Attachment 2

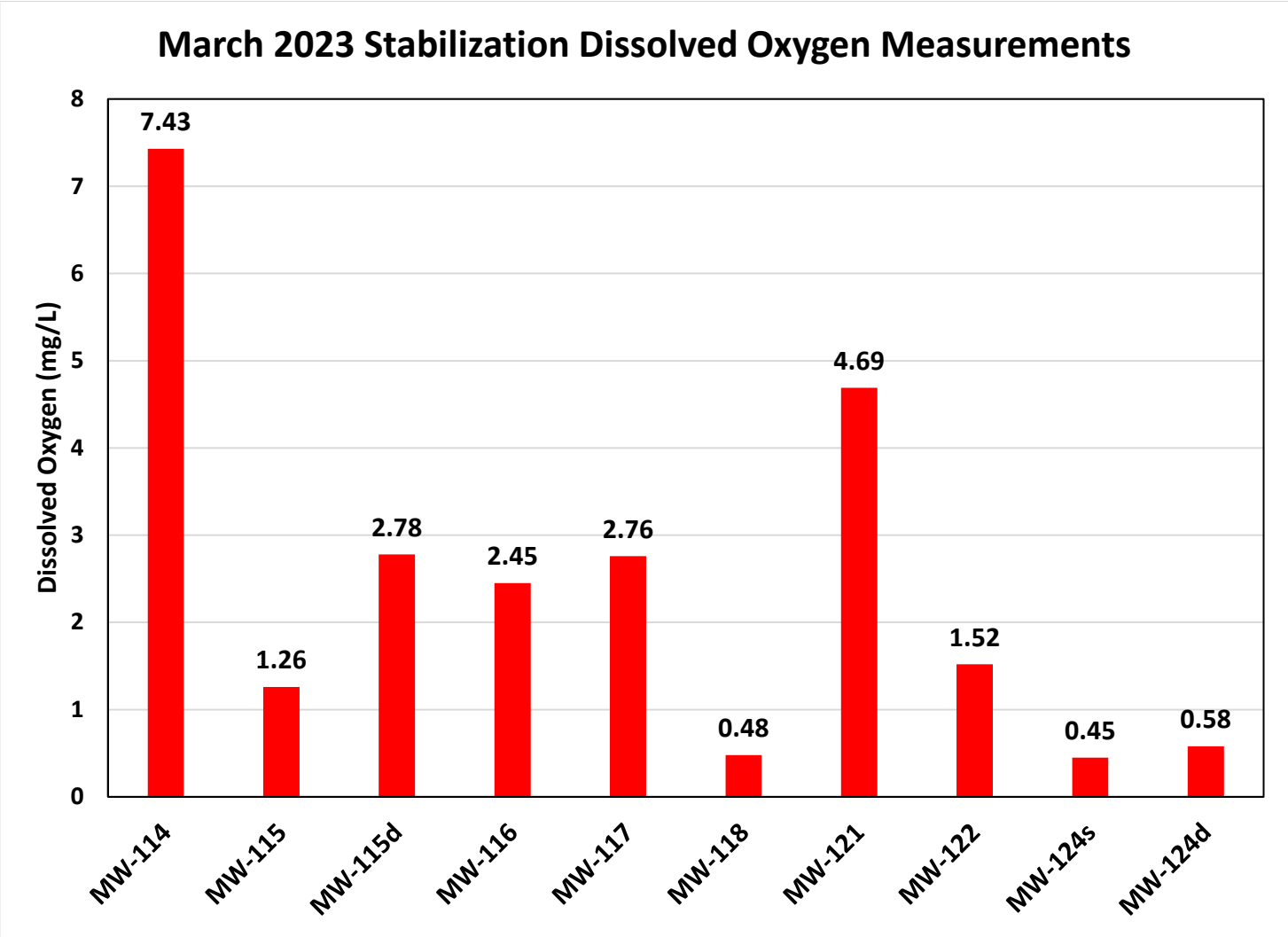
Groundwater Stabilization Data

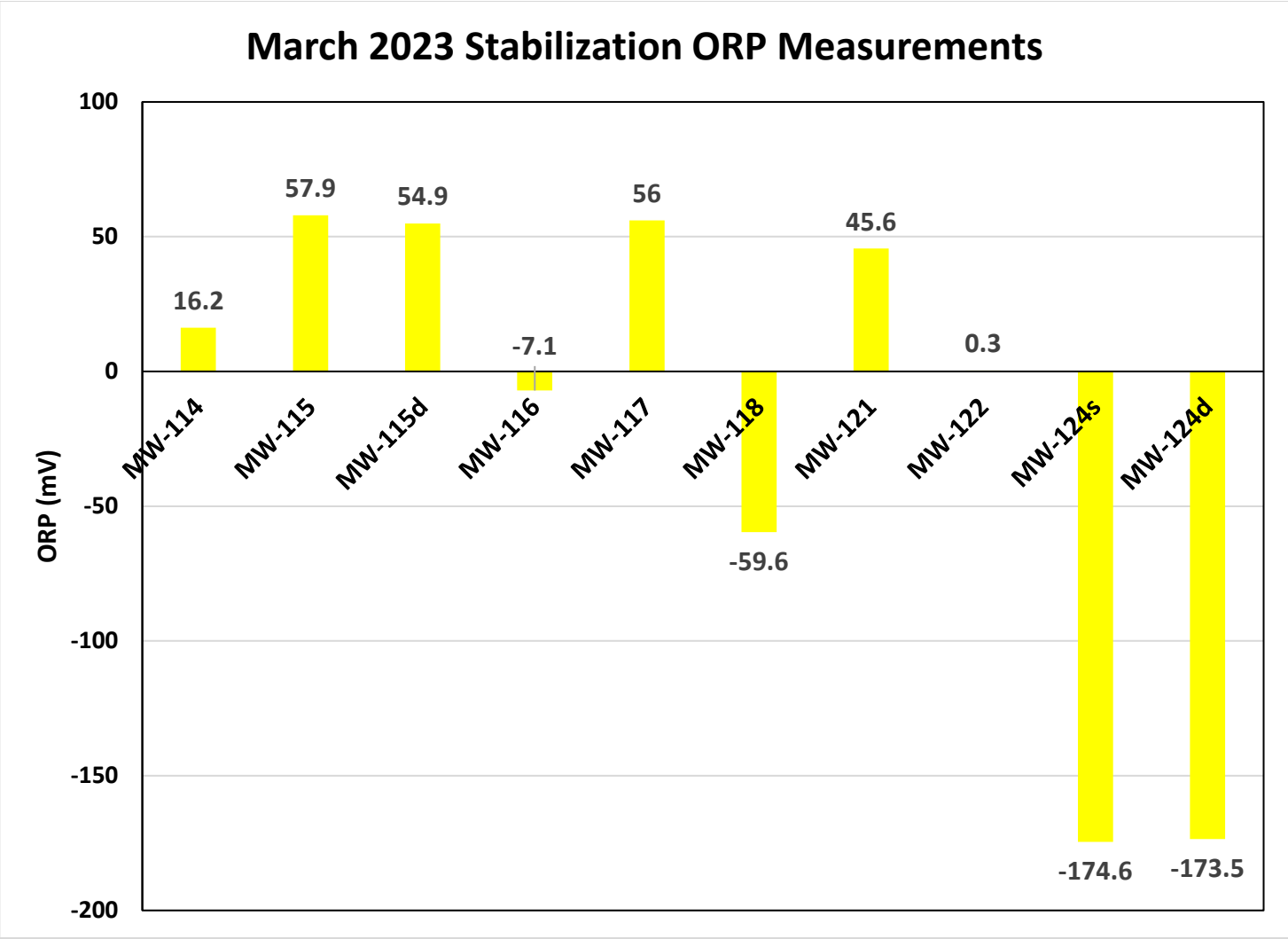

March 2023 Stabilization pH Measurements
pH (SU)
7.5
7.0
6.5
6.0
5.5
5.0
7.18
6.53
7.08
6.79
6.86
6.93
6.78
6.76
6.75
6.81
MW-114
MW-115
MW-115d
MW-116
MW-117
MW-118
MW-121
MW-122
MW-124s
MW-124d

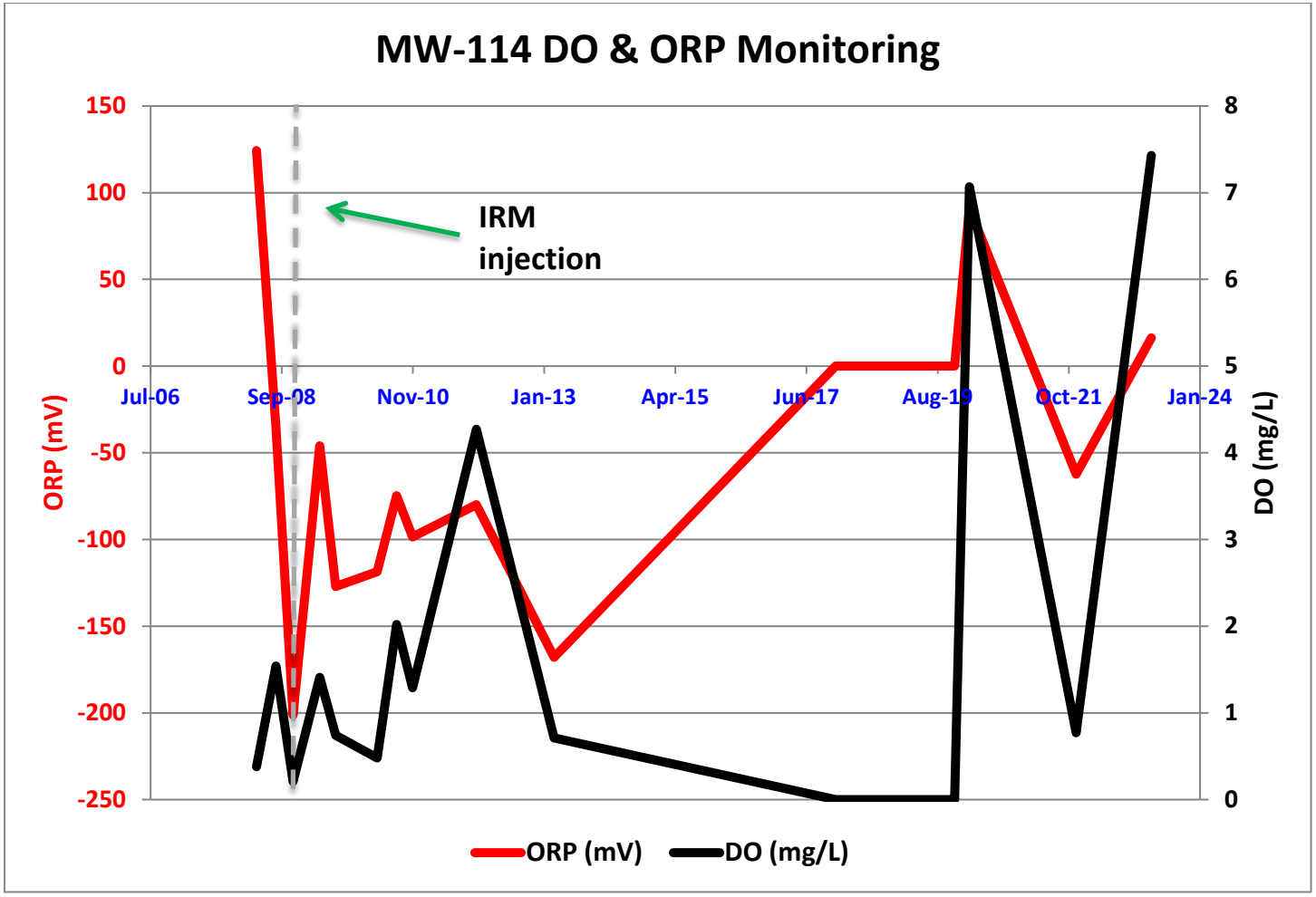

March 2023 Stabilization Temperature Measurements
Temperature (degC)
12
11
10
9
8
7
6
7.68
9.51
10.51
6.8
11.06
8.52
10.61
10.77
7.53
9.15
MW-114
MW-115
MW-115d
MW-116
MW-117
MW-118
MW-121
MW-122
MW-124s
MW-124d

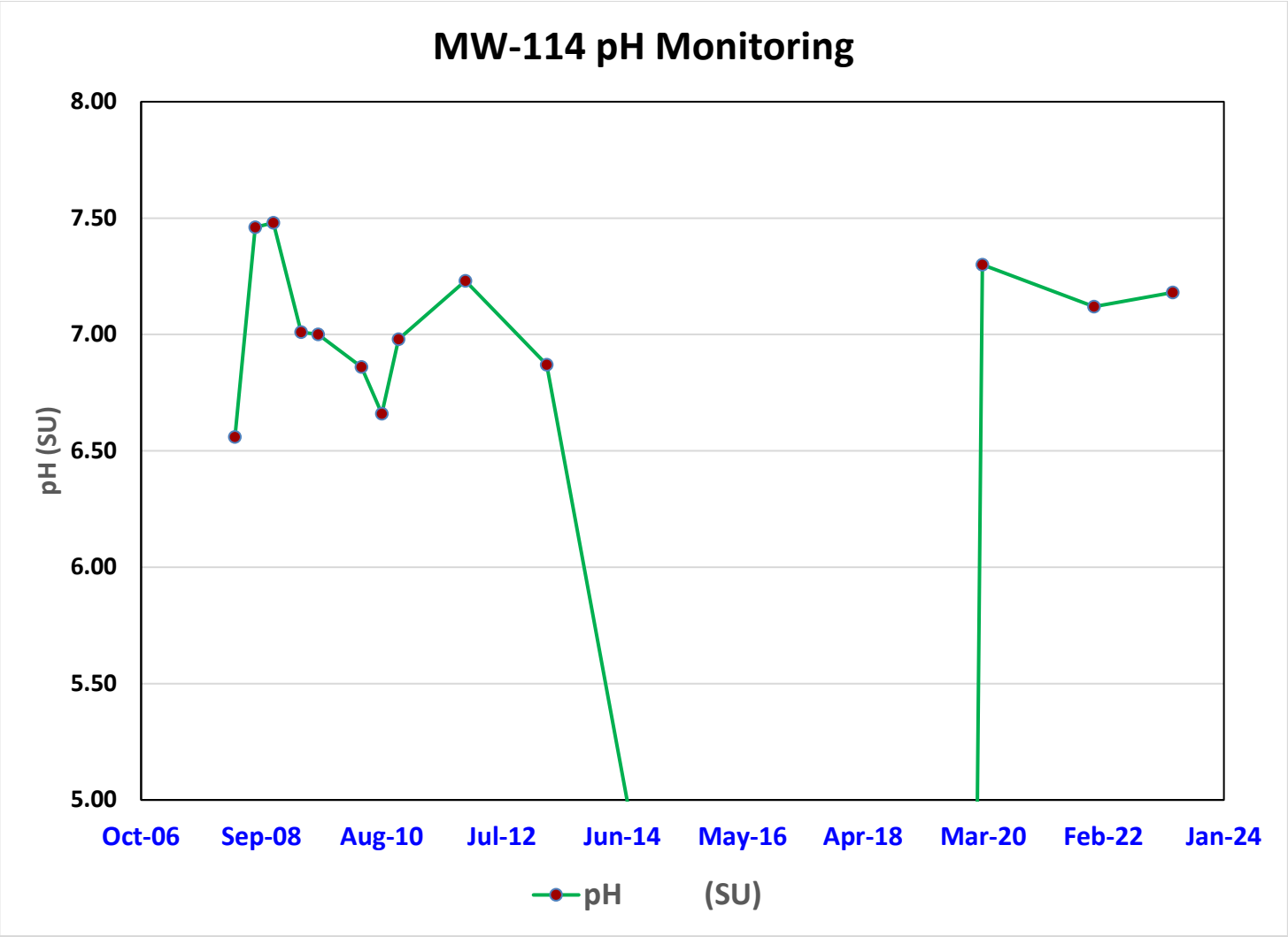

March 2023 Stabilization Conductivity Measurements
Conductivity (umhos/cm)
3000
2500
2000
1500
1000
500
0
1,191
2,398
1,113
969
493
2,545
973
991
1,163
1,338
MW-114
MW-115
MW-115d
MW-116
MW-117
MW-118
MW-121
MW-122
MW-124s
MW-124d

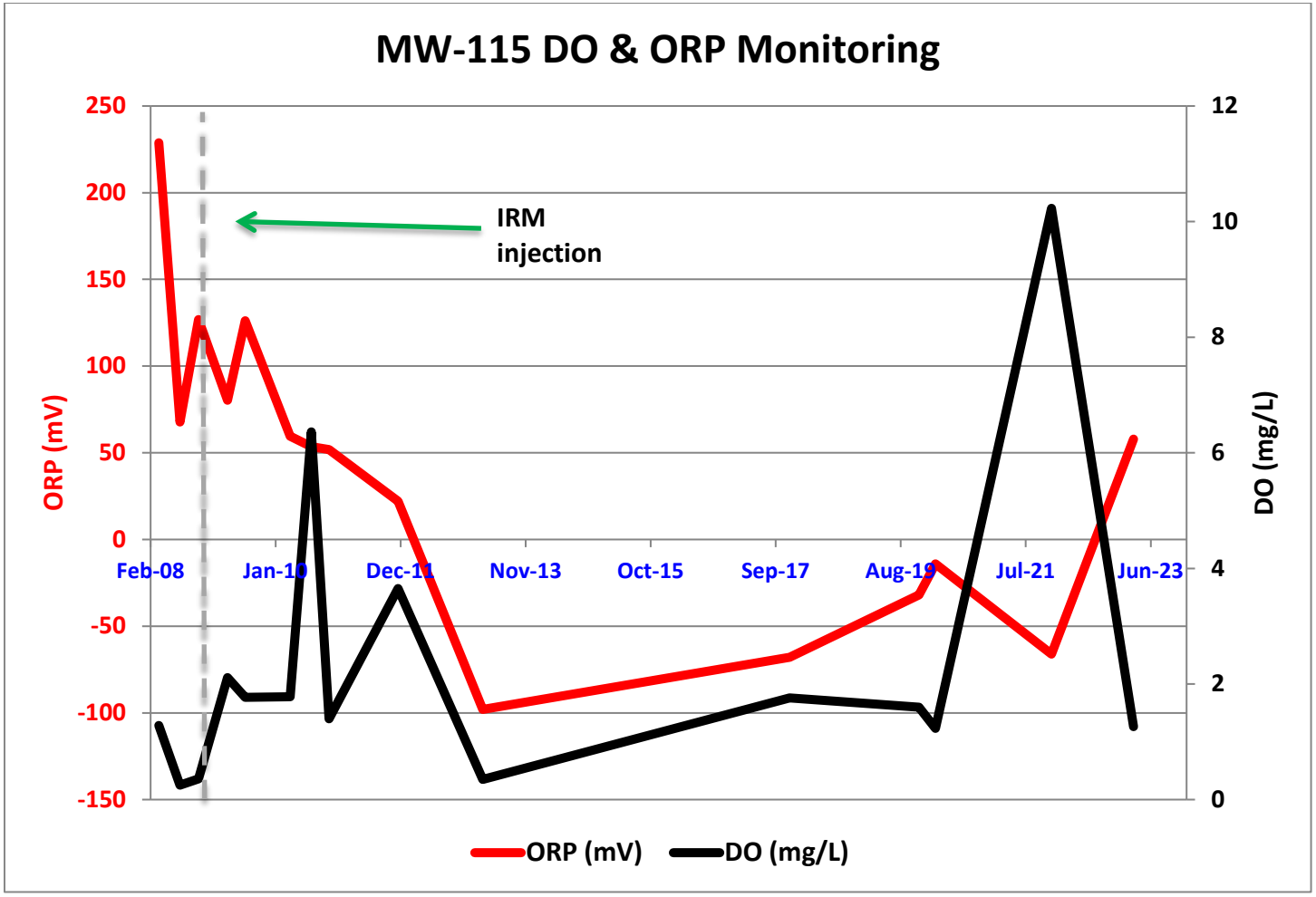

March 2023 Stabilization Turbidity Measurements
Turbidity (NTU)
250
200
150
100
50
0
46
103
14
226
9
19
55
1
46
111
MW-114
MW-115
MW-115d
MW-116
MW-117
MW-118
MW-121
MW-122
MW-124s
MW-124d

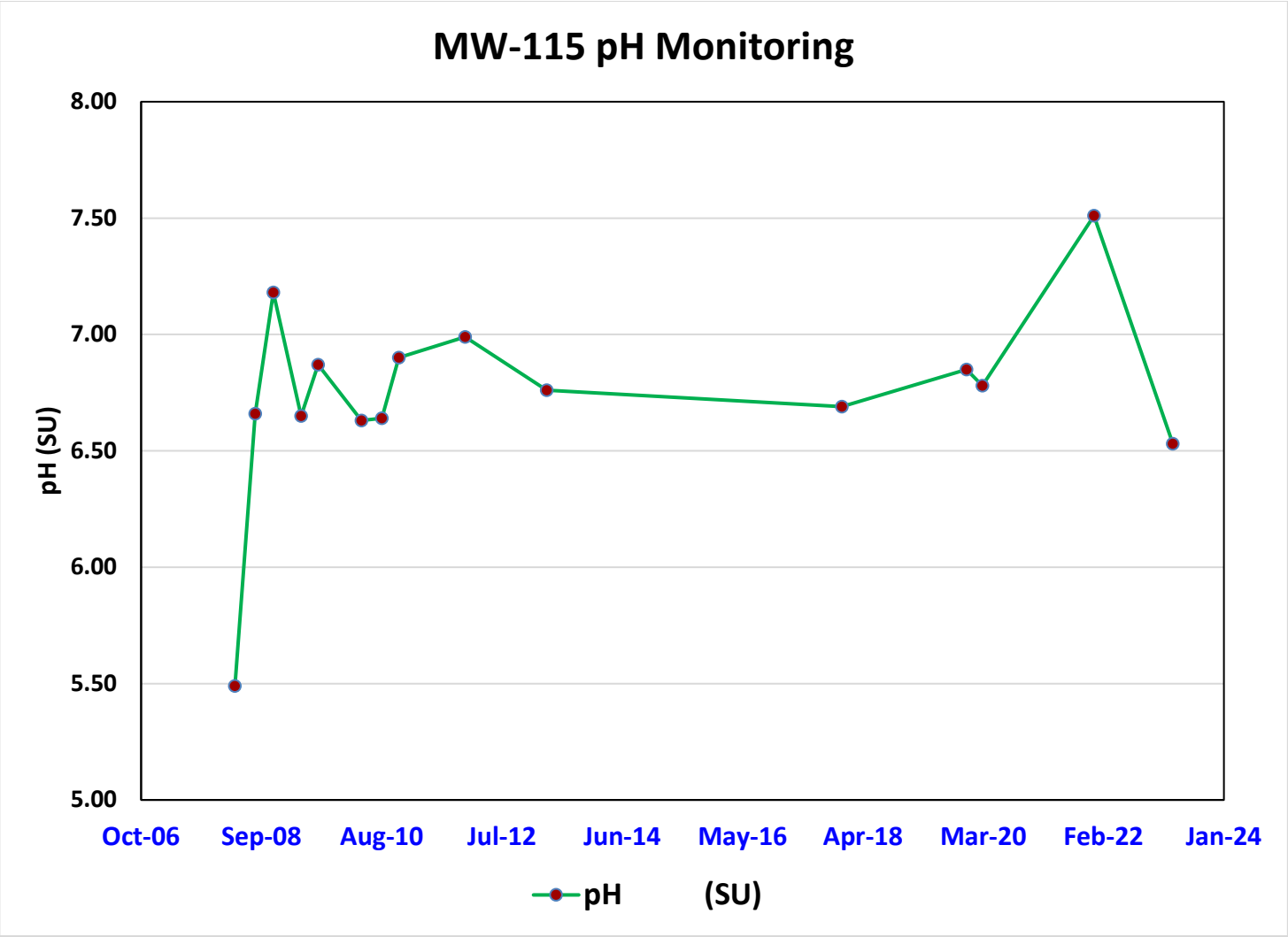

March 2023 Stabilization Dissolved Oxygen Measurements
Dissolved Oxygen (mg/L)
0
1
2
3
4
5
6
7
8
7.43
1.26
2.78
2.45
2.76
0.48
4.69
1.52
0.45
0.58
MW-114
MW-115
MW-115d
MW-116
MW-117
MW-118
MW-121
MW-122
MW-124s
MW-124d

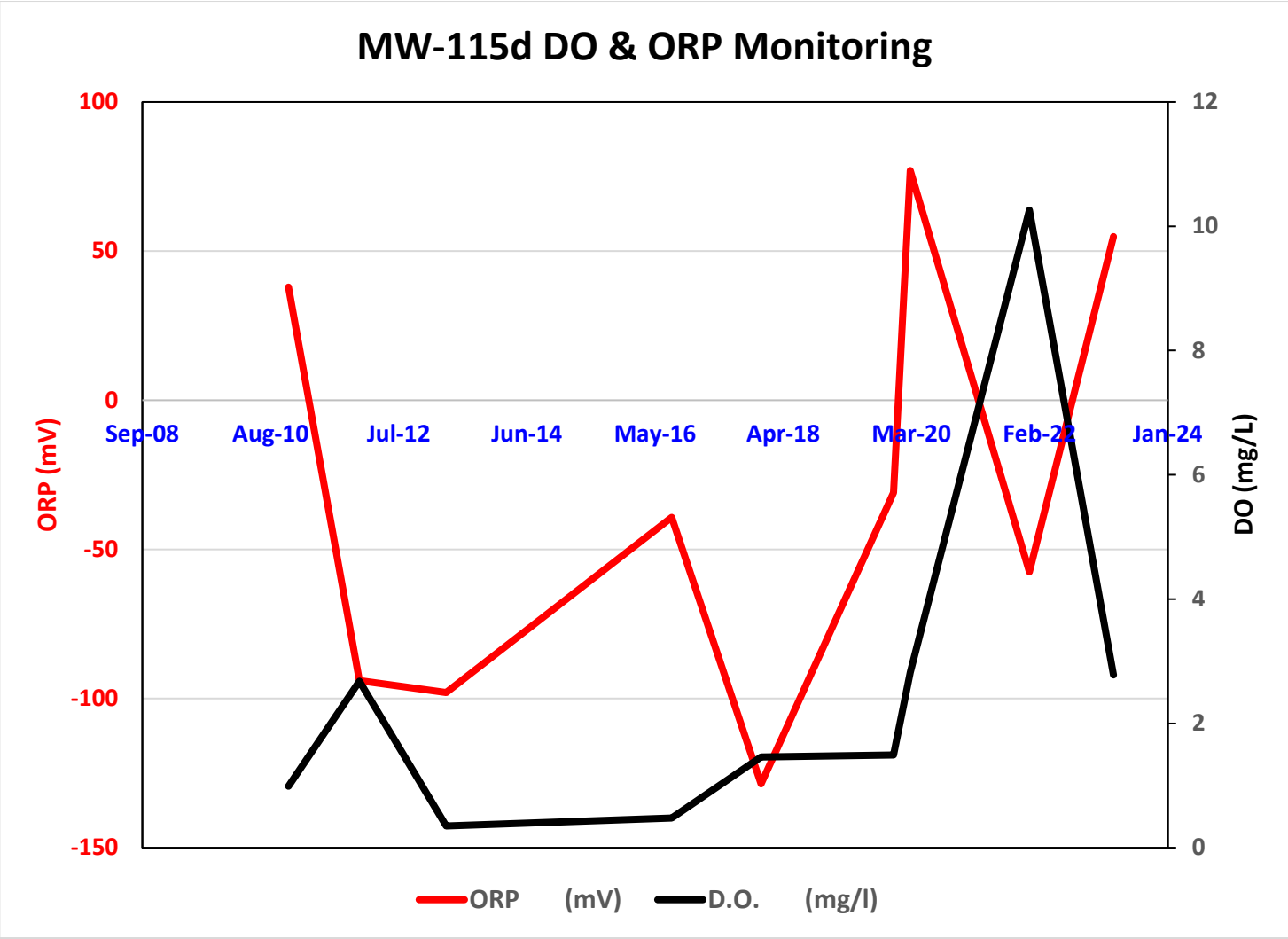

March 2023 Stabilization ORP Measurements
ORP (mV)
100
50
0
-50
-100
-150
-200
16.2
57.9
54.9
-7.1
56
-59.6
45.6
0.3
-174.6
-173.5
MW-114
MW-115
MW-115d
MW-116
MW-117
MW-118
MW-121
MW-122
MW-124s
MW-124d

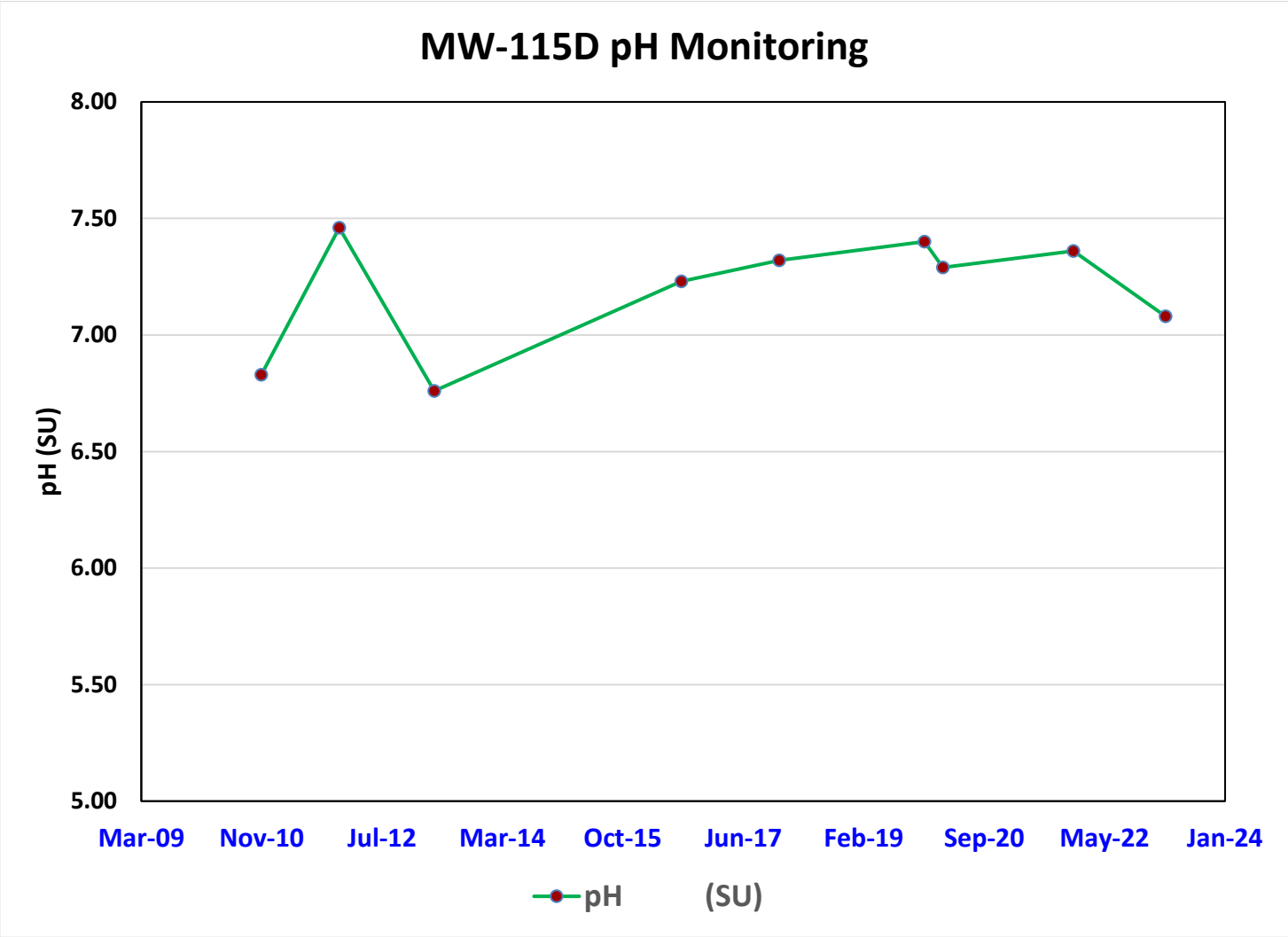

MW-114 DO & ORP Monitoring
150
100
50
0
-50
-100
-150
-200
-250
ORP (mV)
8
7
6
5
4
3
2
1
0
DO (mg/L)
Jul-06
Sep-08
Nov-10
Jan-13
Apr-15
Jun-17
Aug-19
Oct-21
Jan-24
IRM
injection
ORP (mV)
DO (mg/L)

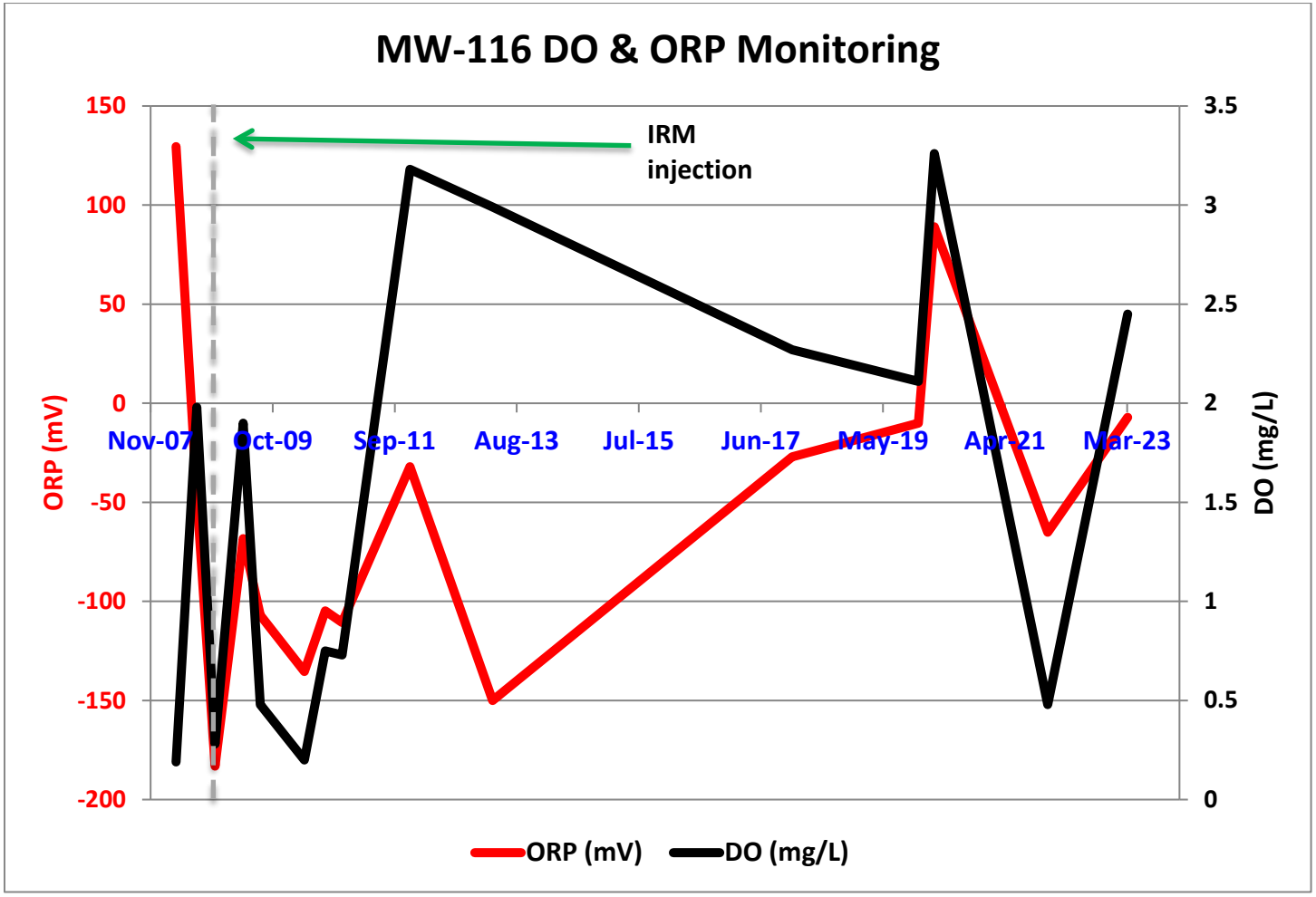

MW-114 pH Monitoring
8.00
7.50
7.00
6.50
6.00
5.50
5.00
pH (SU)
Oct-06
Sep-08
Aug-10
Jul-12
Jun-14
May-16
Apr-18
Mar-20
Feb-22
Jan-24
pH (SU)

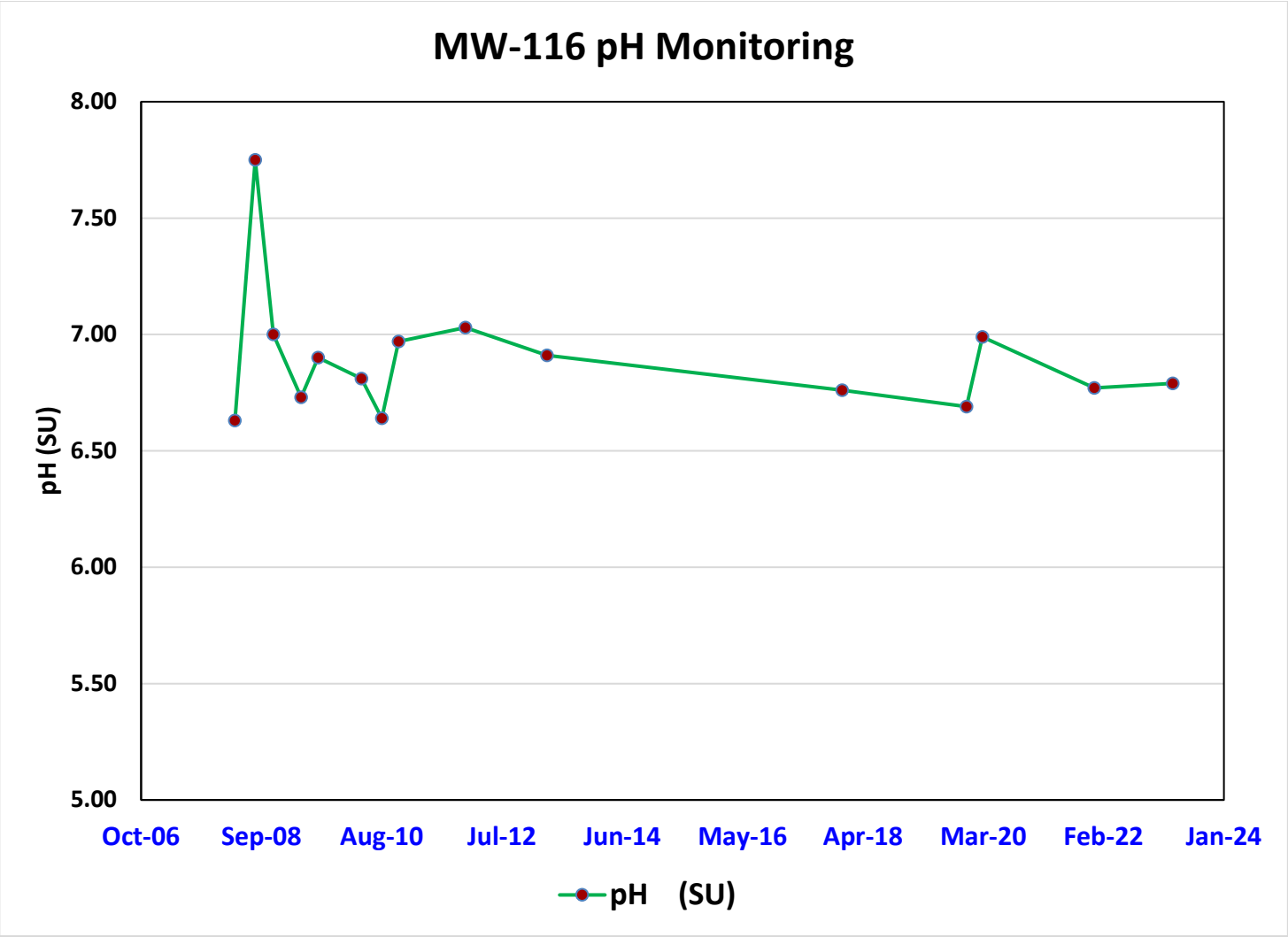

MW-115 DO & ORP Monitoring
ORP (mV)
DO (mg/L)
250
200
150
100
50
0
-50
-100
-150
12
10
8
6
4
2
0
Feb-08
Jan-10
Dec-11
Nov-13
Oct-15
Sep-17
Aug-19
Jul-21
Jun-23
IRM
injection
ORP (mV)
DO (mg/L)

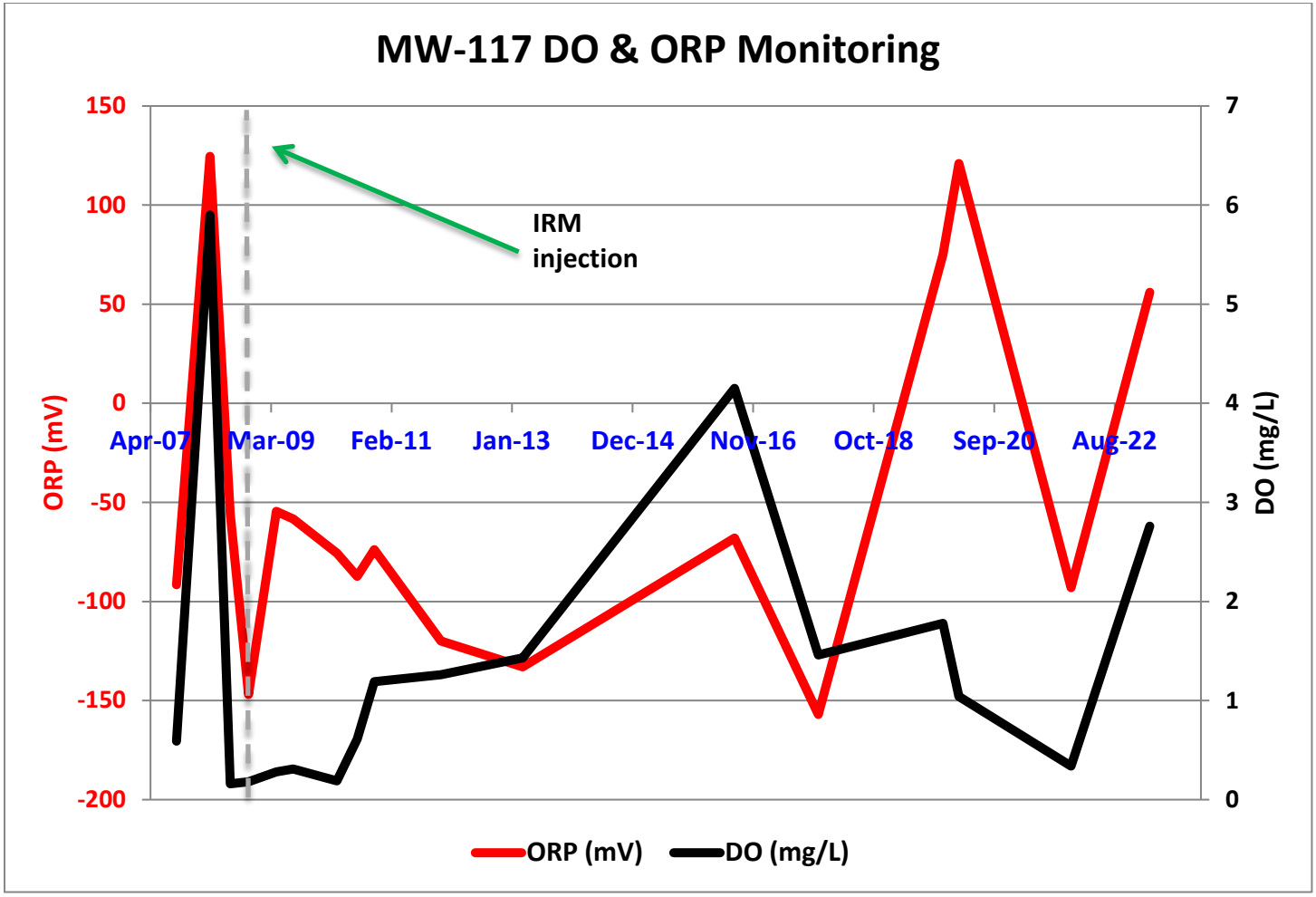

MW-115 pH Monitoring
8.00
7.50
7.00
6.50
6.00
5.50
5.00
pH (SU)
Oct-06
Sep-08
Aug-10
Jul-12
Jun-14
May-16
Apr-18
Mar-20
Feb-22
Jan-24
pH (SU)

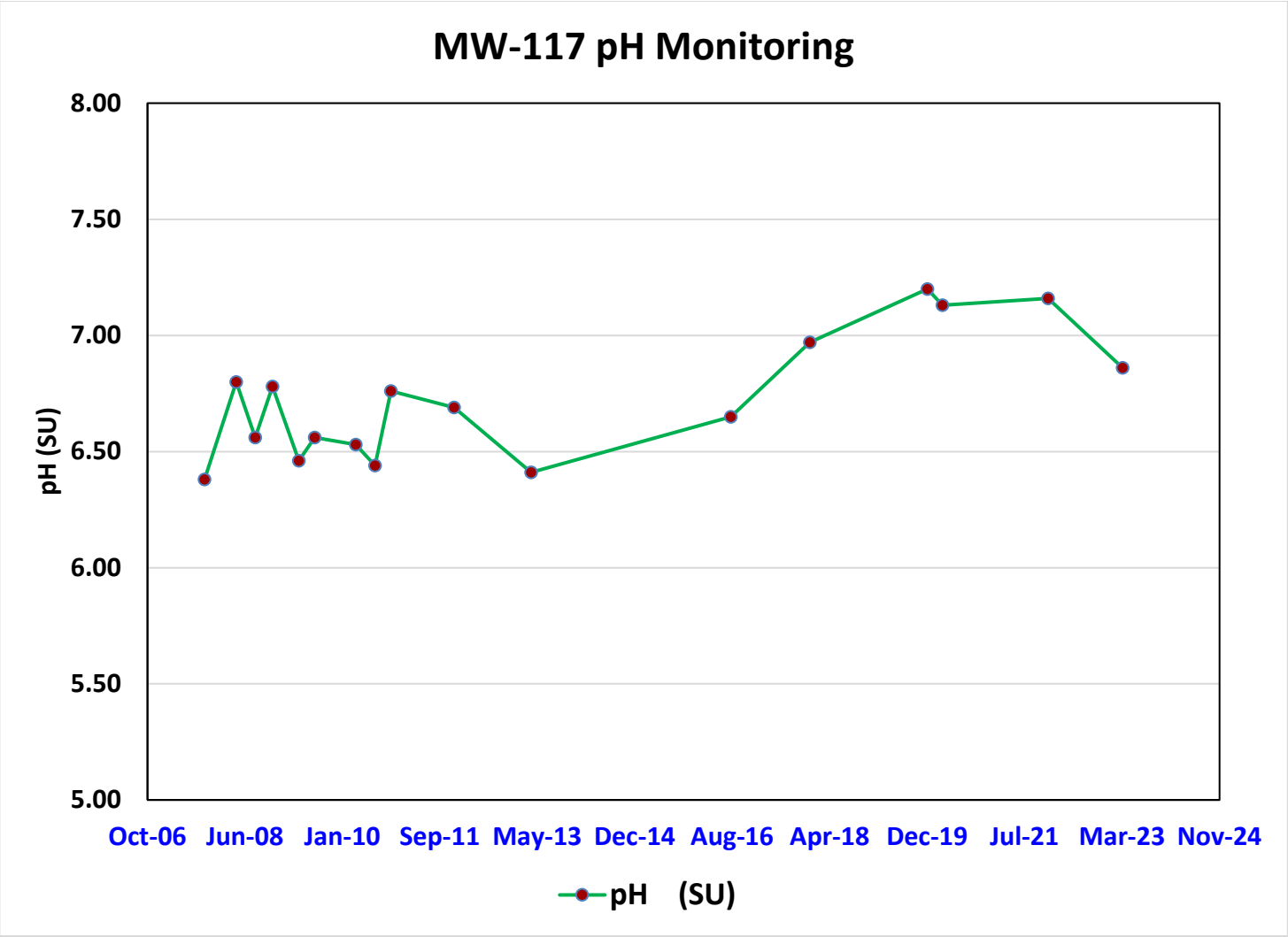

MW-115d DO & ORP Monitoring
100
50
0
-50
-100
-150
ORP (mV)
12
10
8
6
4
2
0
DO (mg/L)
Sep-08
Aug-10
Jul-12
Jun-14
May-16
Apr-18
Mar-20
Feb-22
Jan-24
ORP (mV)
D.O. (mg/l)

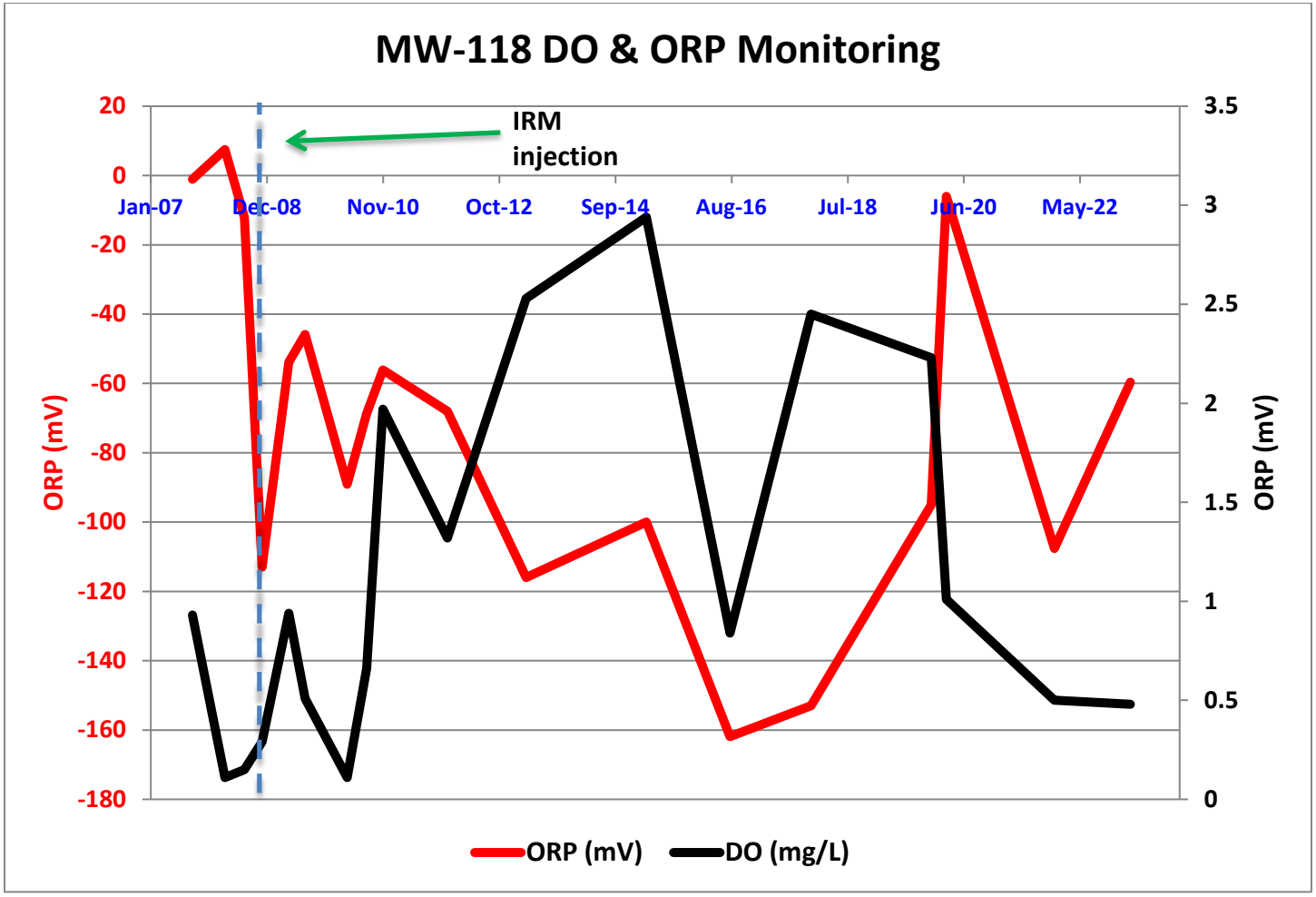

MW-115D pH Monitoring
8.00
7.50
7.00
6.50
6.00
5.50
5.00
pH (SU)
Mar-09
Nov-10
Jul-12
Mar-14
Oct-15
Jun-17
Feb-19
Sep-20
May-22
Jan-24
pH (SU)

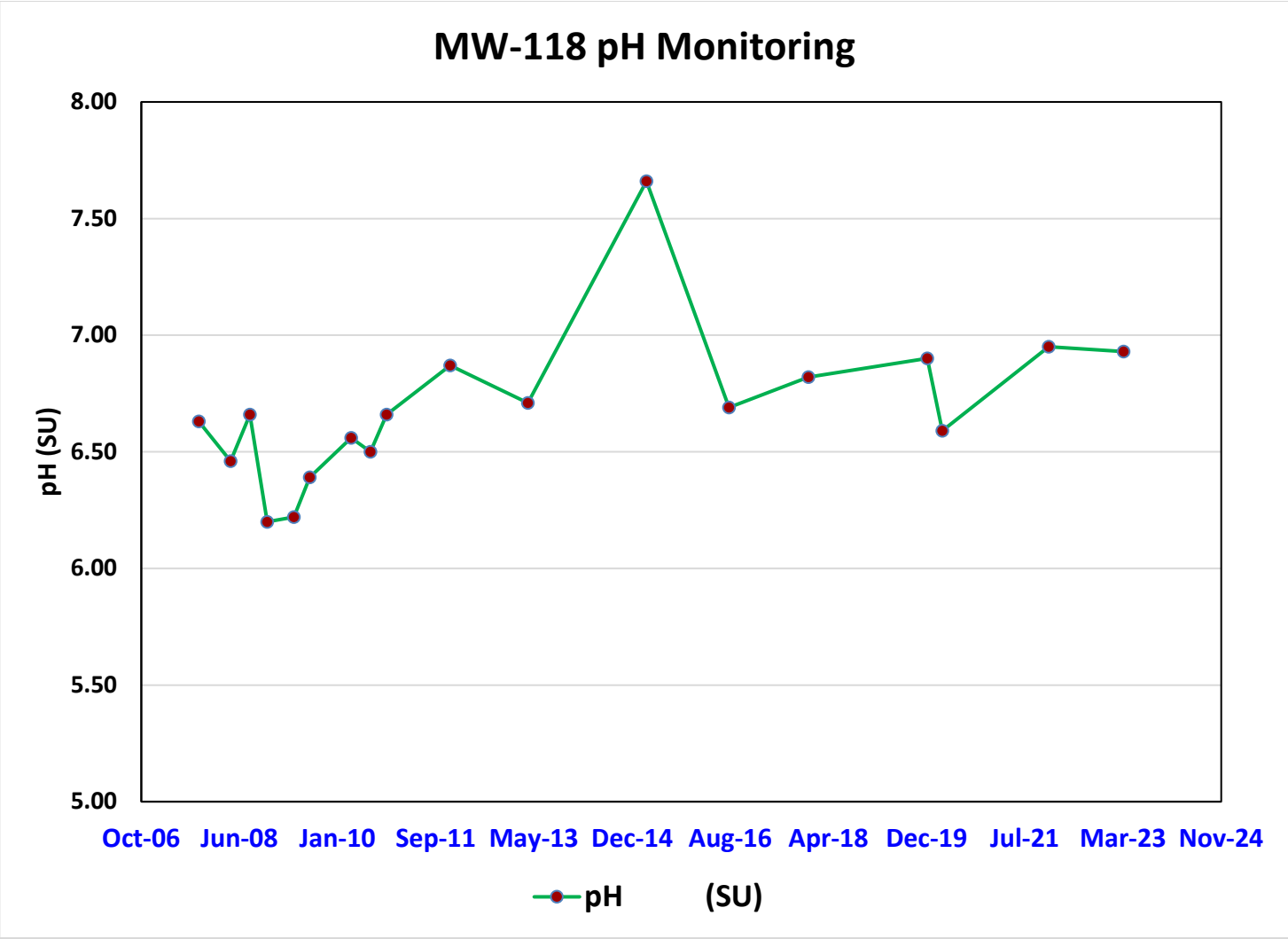

MW-116 DO & ORP Monitoring
IRM injection
ORP (mV)
DO (mg/L)
150
100
50
0
-50
-100
-150
-200
3.5
3
2.5
2
1.5
1
0.5
0
Nov-07
Oct-09
Sep-11
Aug-13
Jul-15
Jun-17
May-19
Apr-21
Mar-23
ORP (mV)
DO (mg/L)

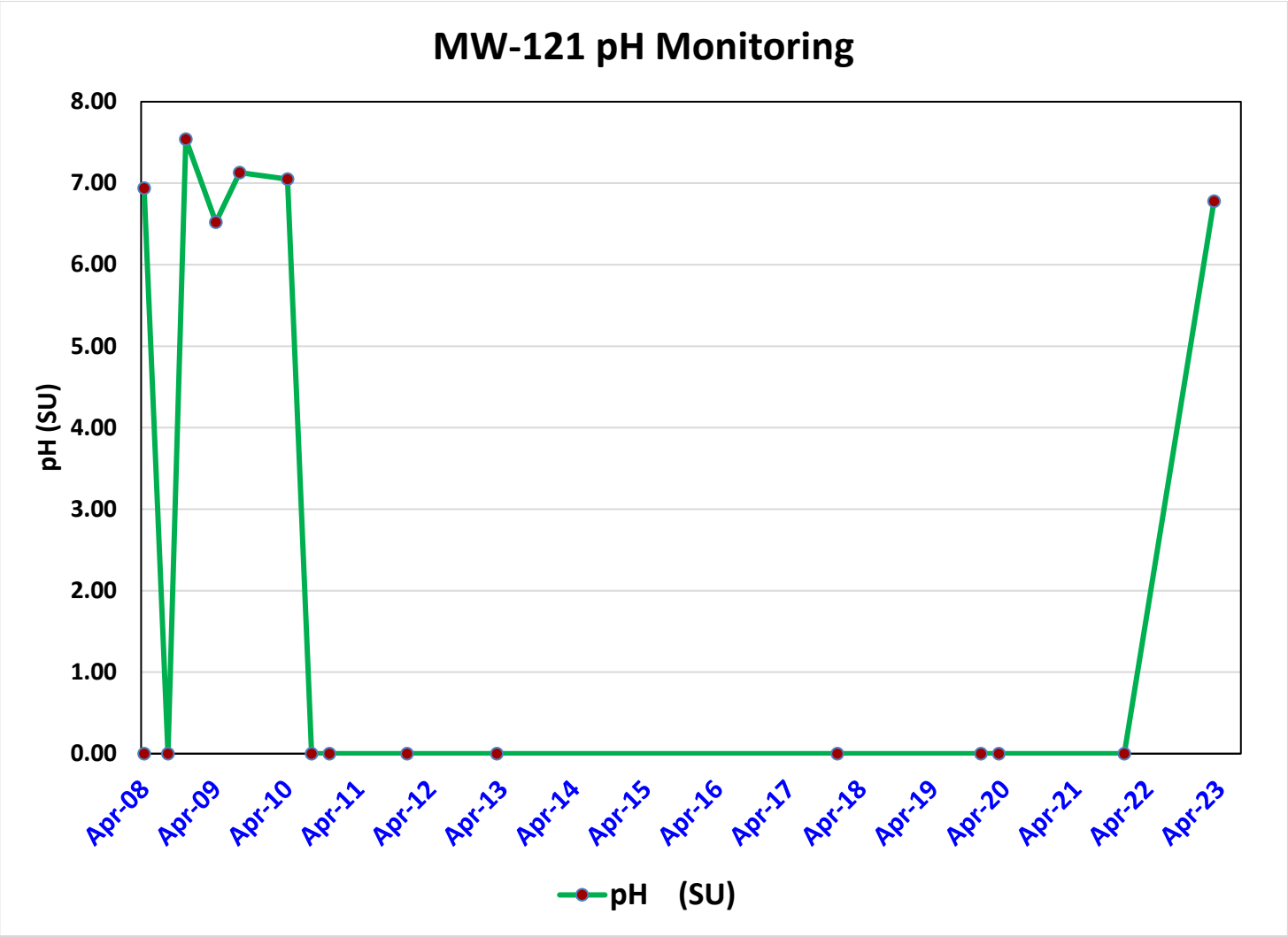

MW-116 pH Monitoring
8.00
7.50
7.00
6.50
6.00
5.50
5.00
pH (SU)
Oct-06
Sep-08
Aug-10
Jul-12
Jun-14
May-16
Apr-18
Mar-20
Feb-22
Jan-24
pH (SU)

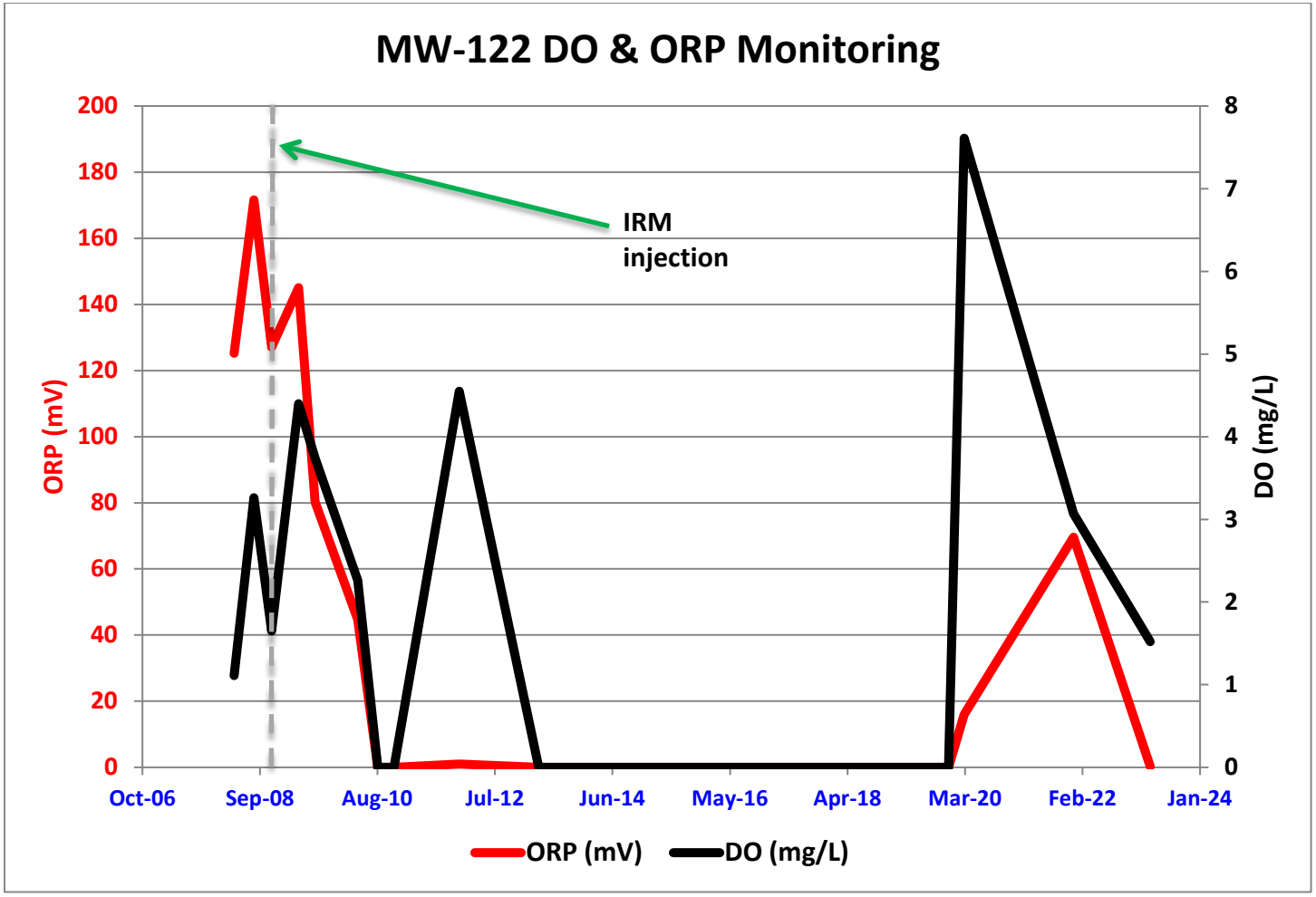

MW-117 DO & ORP Monitoring
150
100
50
0
-50
-100
-150
-200
ORP (mV)
7
6
5
4
3
2
1
0
DO (mg/L)
Apr-07
Mar-09
Feb-11
Jan-13
Dec-14
Nov-16
Oct-18
Sep-20
Aug-22
IRM
injection
ORP (mV)
DO (mg/L)

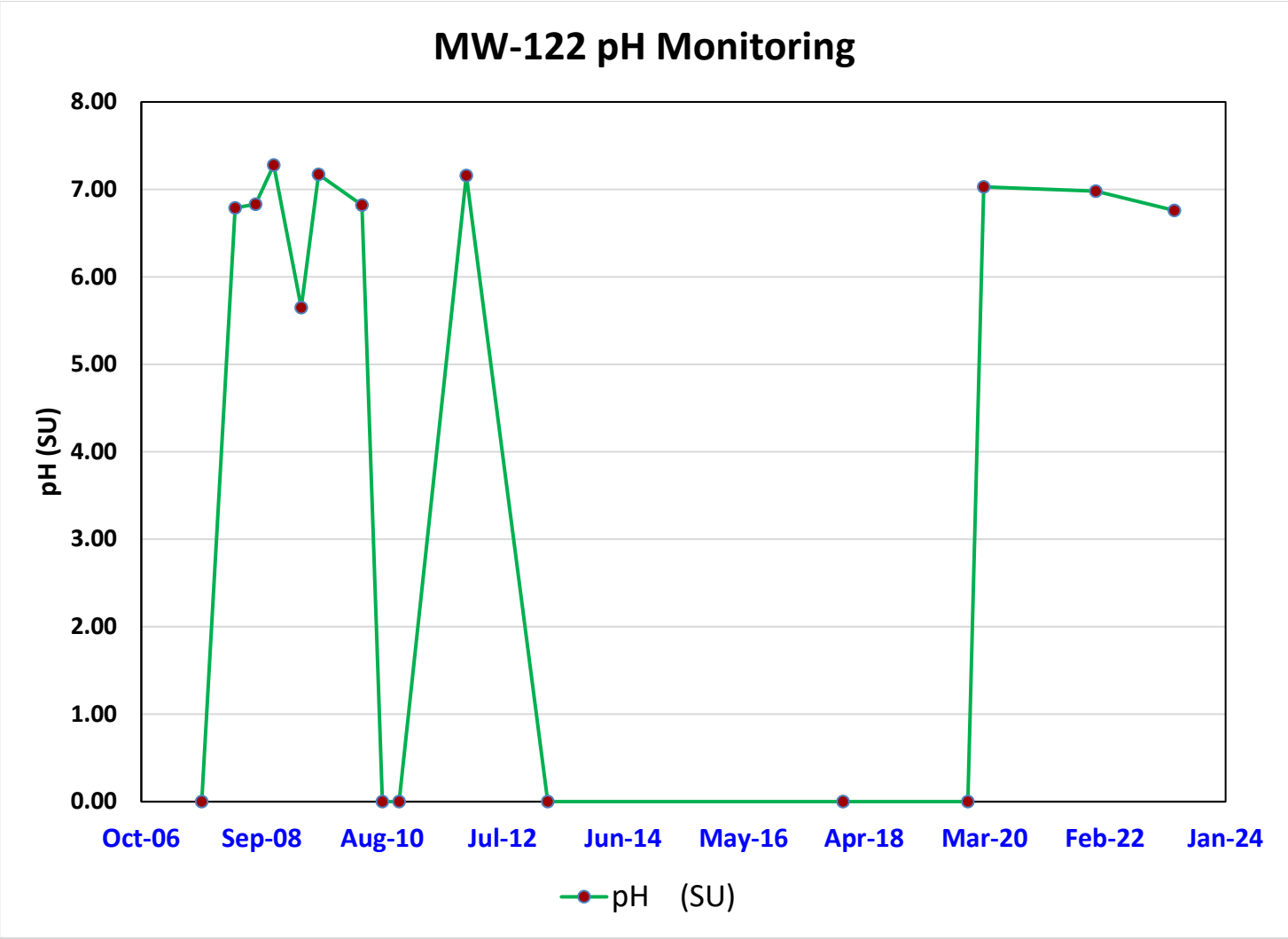

MW-117 pH Monitoring
8.00
7.50
7.00
6.50
6.00
5.50
5.00
pH (SU)
Oct-06
Jun-08
Jan-10
Sep-11
May-13
Dec-14
Aug-16
Apr-18
Dec-19
Jul-21
Mar-23
Nov-24
pH (SU)

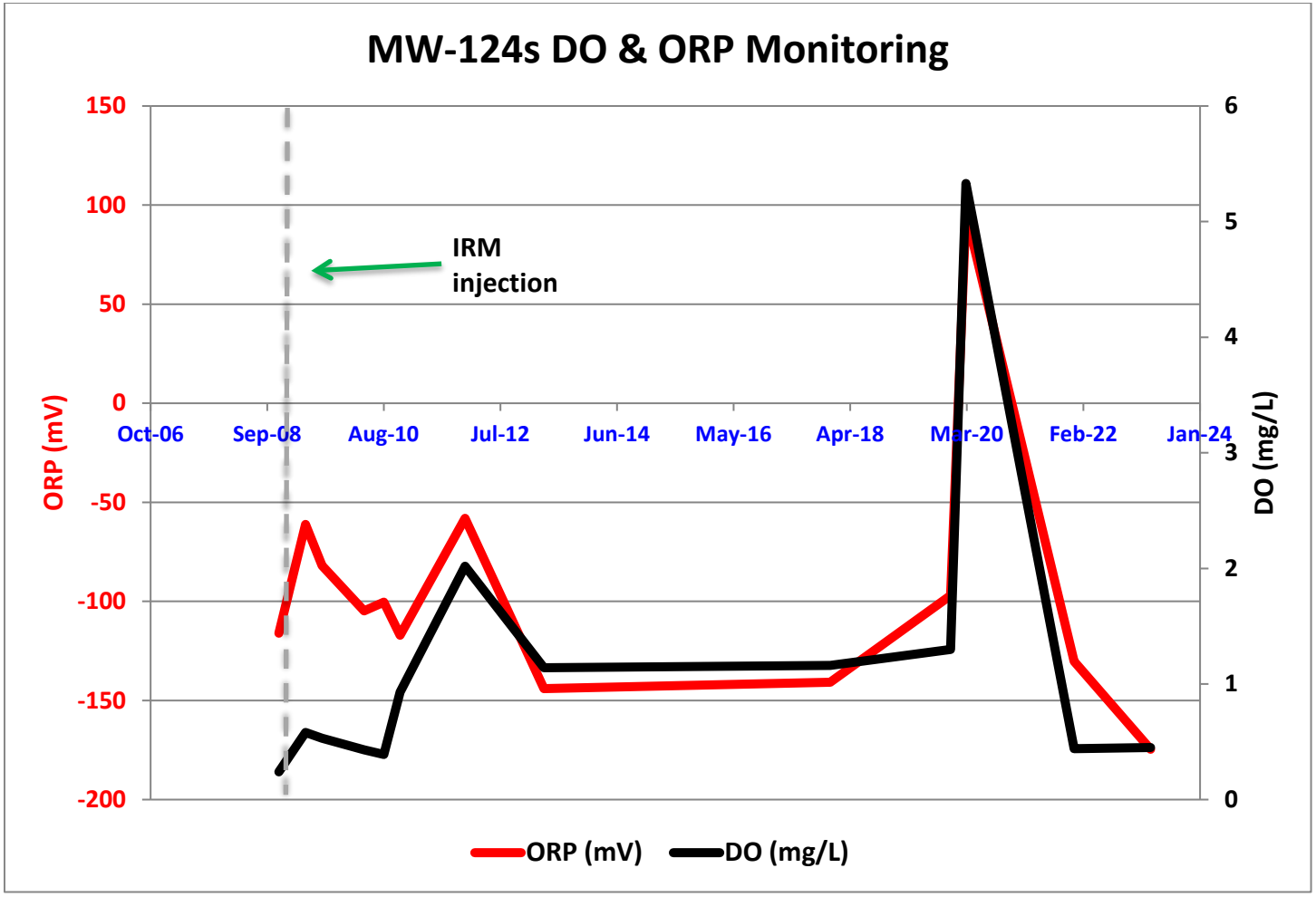

MW-118 DO & ORP Monitoring
IRM injection
20
0
-20
-40
-60
-80
-100
-120
-140
-160
-180
ORP (mV)
3.5
3
2.5
2
1.5
1
0.5
0
ORP (mV)
Jan-07
Dec-08
Nov-10
Oct-12
Sep-14
Aug-16
Jul-18
Jun-20
May-22
ORP (mV)
DO (mg/L)

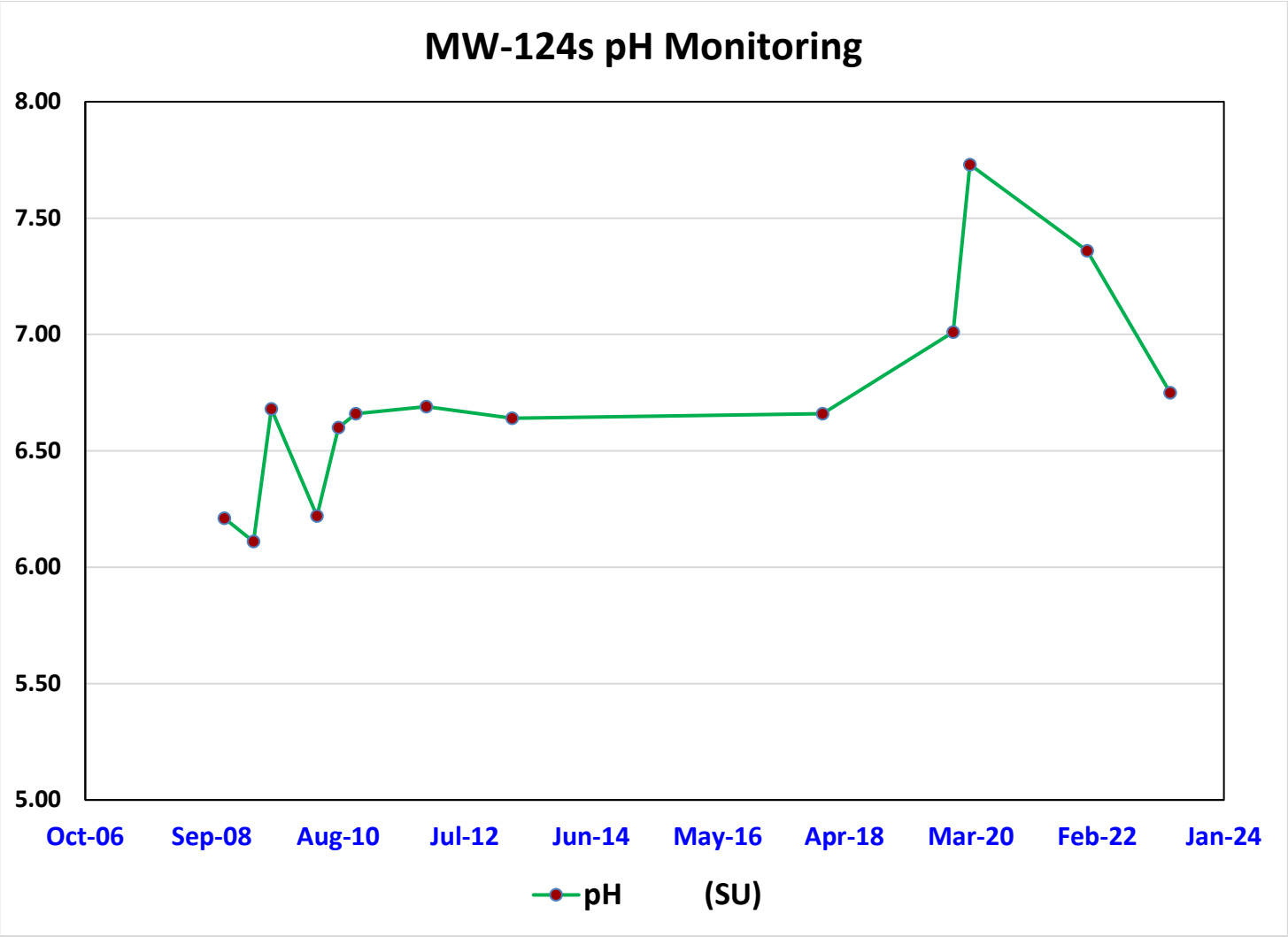

MW-118 pH Monitoring
8.00
7.50
7.00
6.50
6.00
5.50
5.00
pH (SU)
Oct-06
Jun-08
Jan-10
Sep-11
May-13
Dec-14
Aug-16
Apr-18
Dec-19
Jul-21
Mar-23
Nov-24
pH (SU)

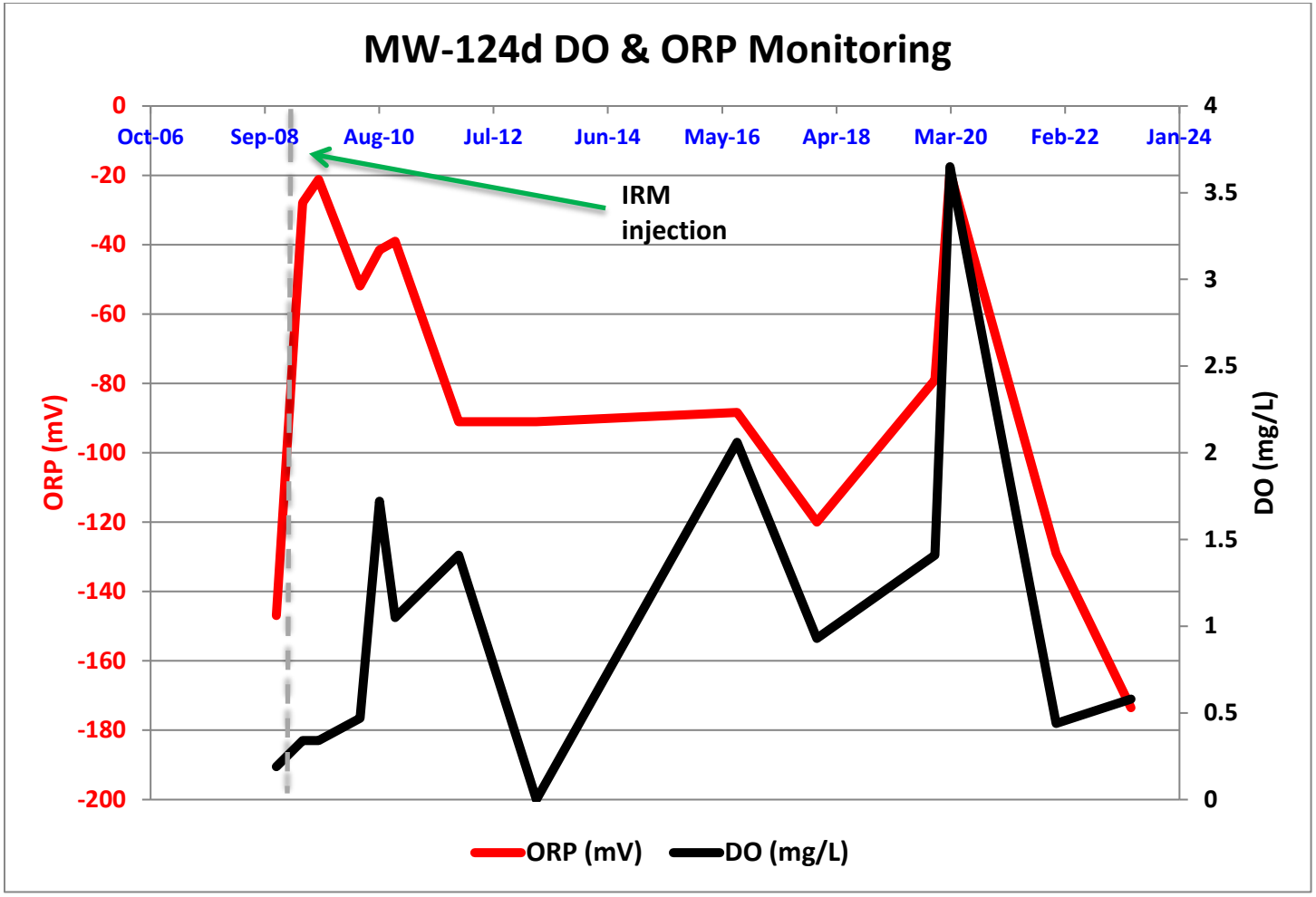

MW-121 pH Monitoring
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
pH (SU)
Apr-08
Apr-09
Apr-10
Apr-11
Apr-12
Apr-13
Apr-14
Apr-15
Apr-16
Apr-17
Apr-18
Apr-19
Apr-20
Apr-21
Apr-22
Apr-23
pH (SU)

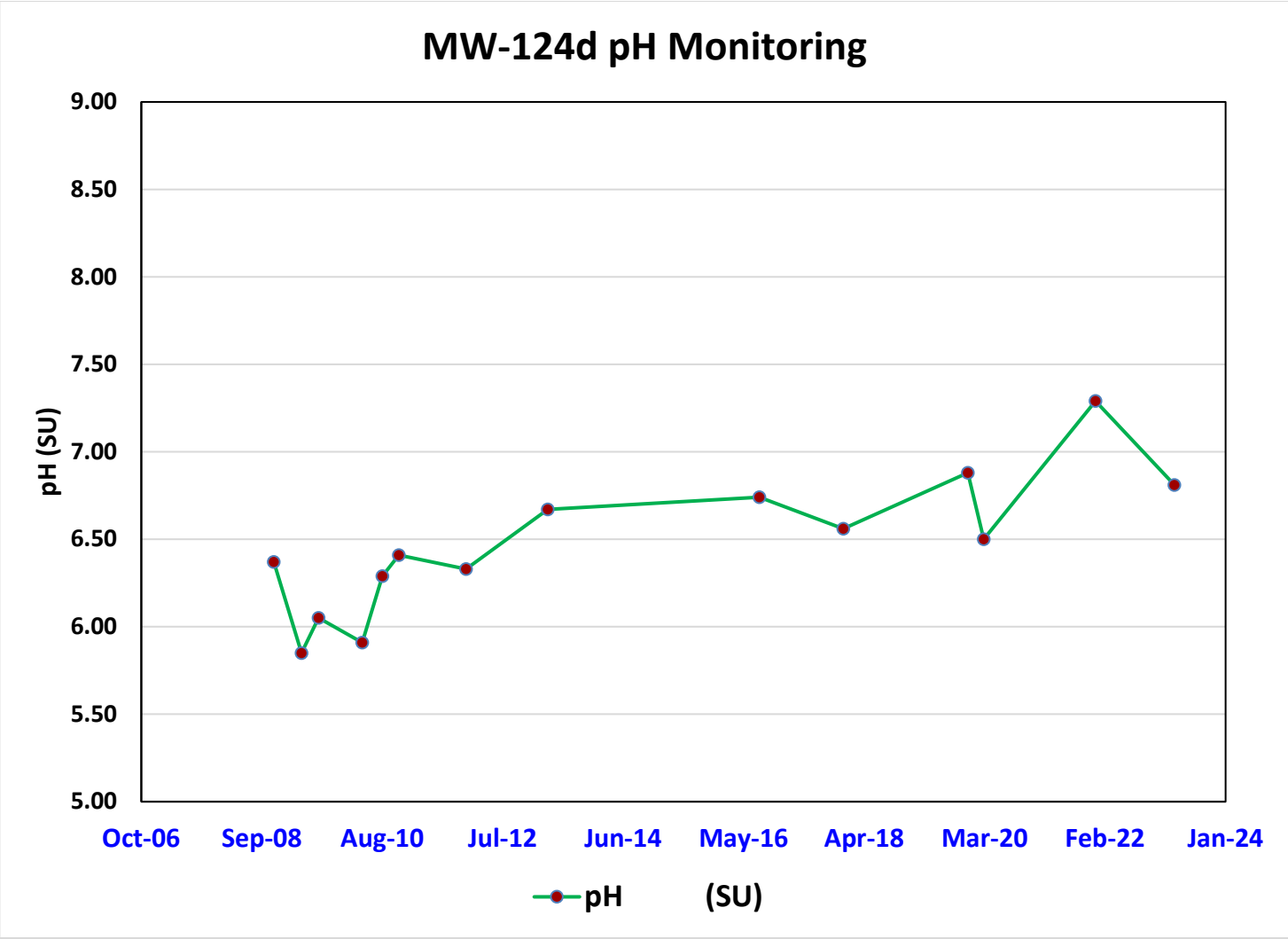

MW-122 DO & ORP Monitoring
ORP (mV)
DO (mg/L)
200
180
160
140
120
100
80
60
40
20
0
8
7
6
5
4
3
2
1
0
IRM
injection
Oct-06
Sep-08
Aug-10
Jul-12
Jun-14
May-16
Apr-18
Mar-20
Feb-22
Jan-24
ORP (mV)
DO (mg/L)

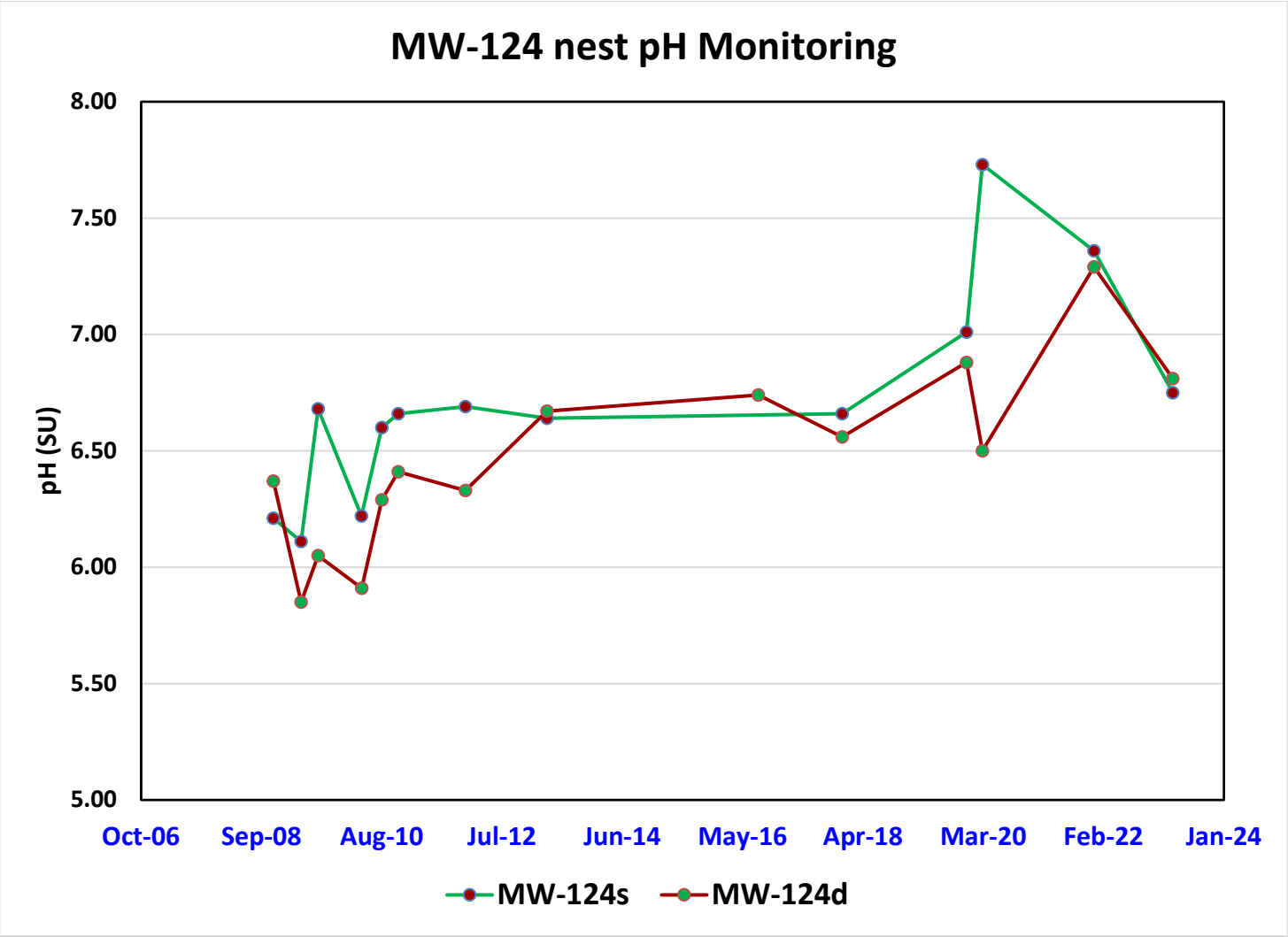

MW-122 pH Monitoring
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
pH (SU)
Oct-06
Sep-08
Aug-10
Jul-12
Jun-14
May-16
Apr-18
Mar-20
Feb-22
Jan-24
pH (SU)


MW-124s DO & ORP Monitoring
150
100
50
0
-50
-100
-150
-200
ORP (mV)
6
5
4
3
2
1
0
DO (mg/L)
Oct-06
Sep-08
Aug-10
Jul-12
Jun-14
May-16
Apr-18
Mar-20
Feb-22
Jan-24
IRM
injection
ORP (mV)
DO (mg/L)


MW-124s pH Monitoring
8.00
7.50
7.00
6.50
6.00
5.50
5.00
Oct-06
Sep-08
Aug-10
Jul-12
Jun-14
May-16
Apr-18
Mar-20
Feb-22
Jan-24
pH (SU)

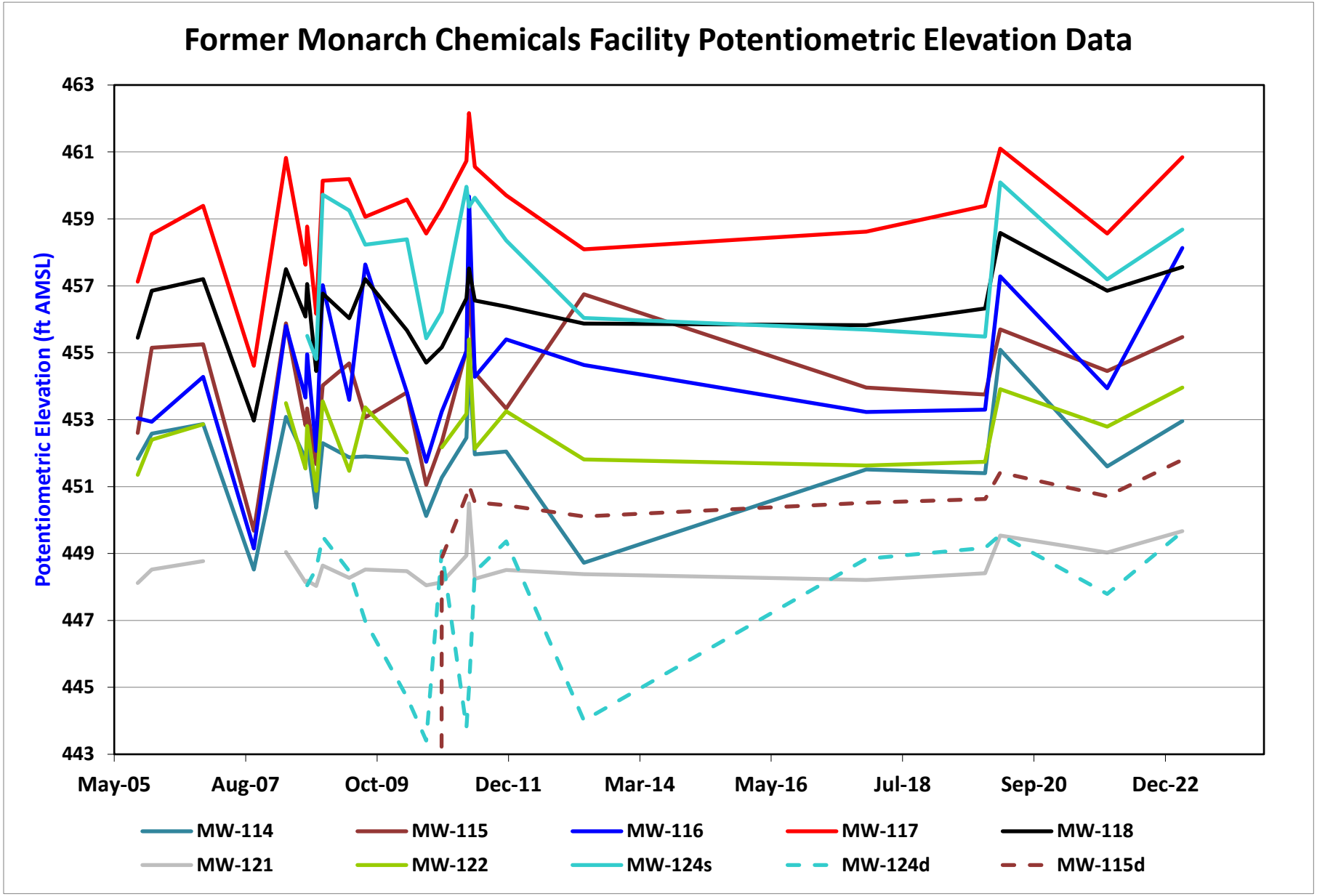

MW-124d DO & ORP Monitoring
0
-20
-40
-60
-80
-100
-120
-140
-160
-180
-200
ORP (mV)
4
3.5
3
2.5
2
1.5
1
0.5
0
DO (mg/L)
Oct-06
Sep-08
Aug-10
Jul-12
Jun-14
May-16
Apr-18
Mar-20
Feb-22
Jan-24
IRM
injection
ORP (mV)
DO (mg/L)

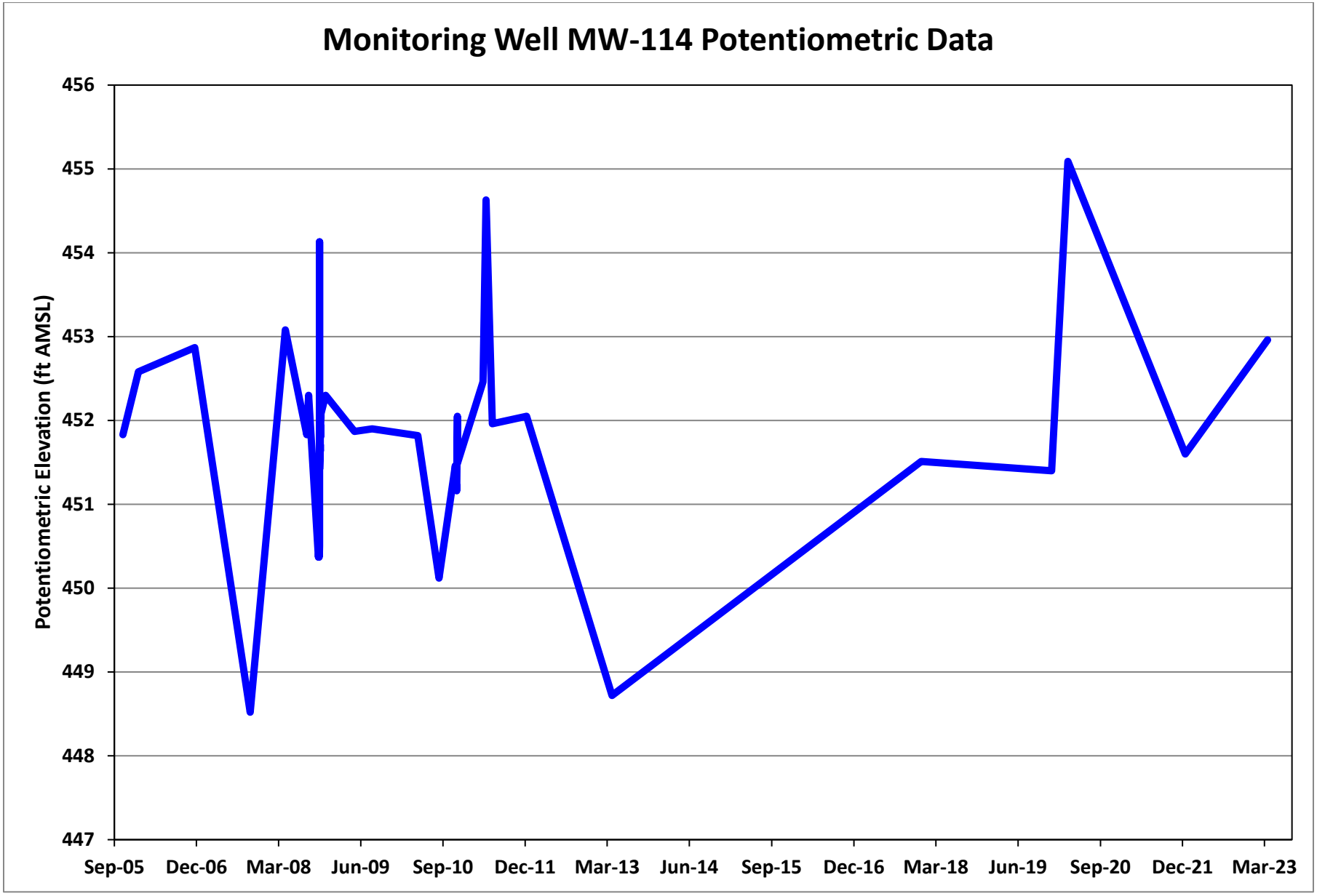

MW-124d pH Monitoring
9.00
8.50
8.00
7.50
7.00
6.50
6.00
5.50
5.00
pH (SU)
Oct-06
Sep-08
Aug-10
Jul-12
Jun-14
May-16
Apr-18
Mar-20
Feb-22
Jan-24
pH (SU)

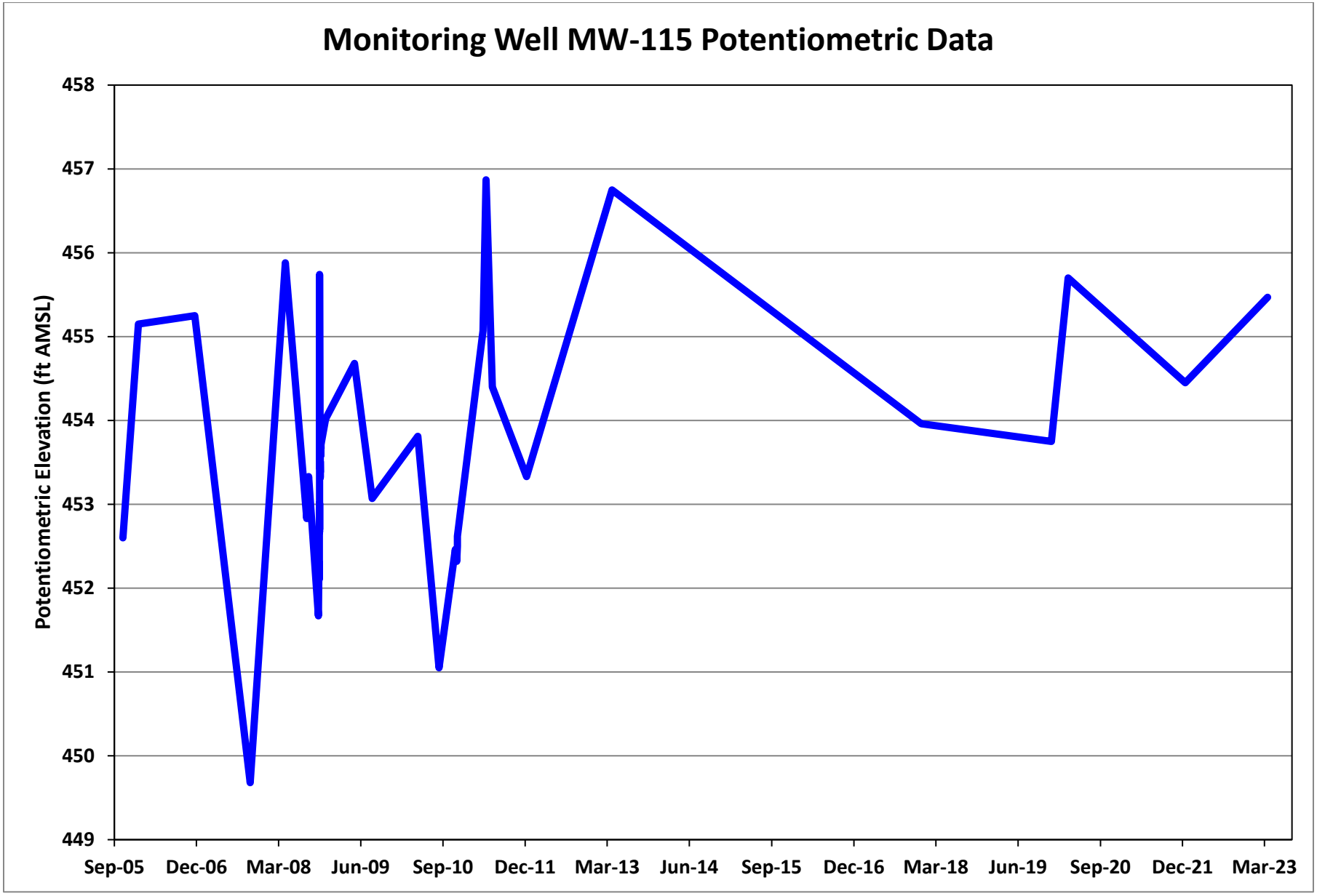

MW-124 nest pH Monitoring
8.00
7.50
7.00
6.50
6.00
5.50
5.00
pH (SU)
Oct-06
Sep-08
Aug-10
Jul-12
Jun-14
May-16
Apr-18
Mar-20
Feb-22
Jan-24
MW-124s
MW-124d

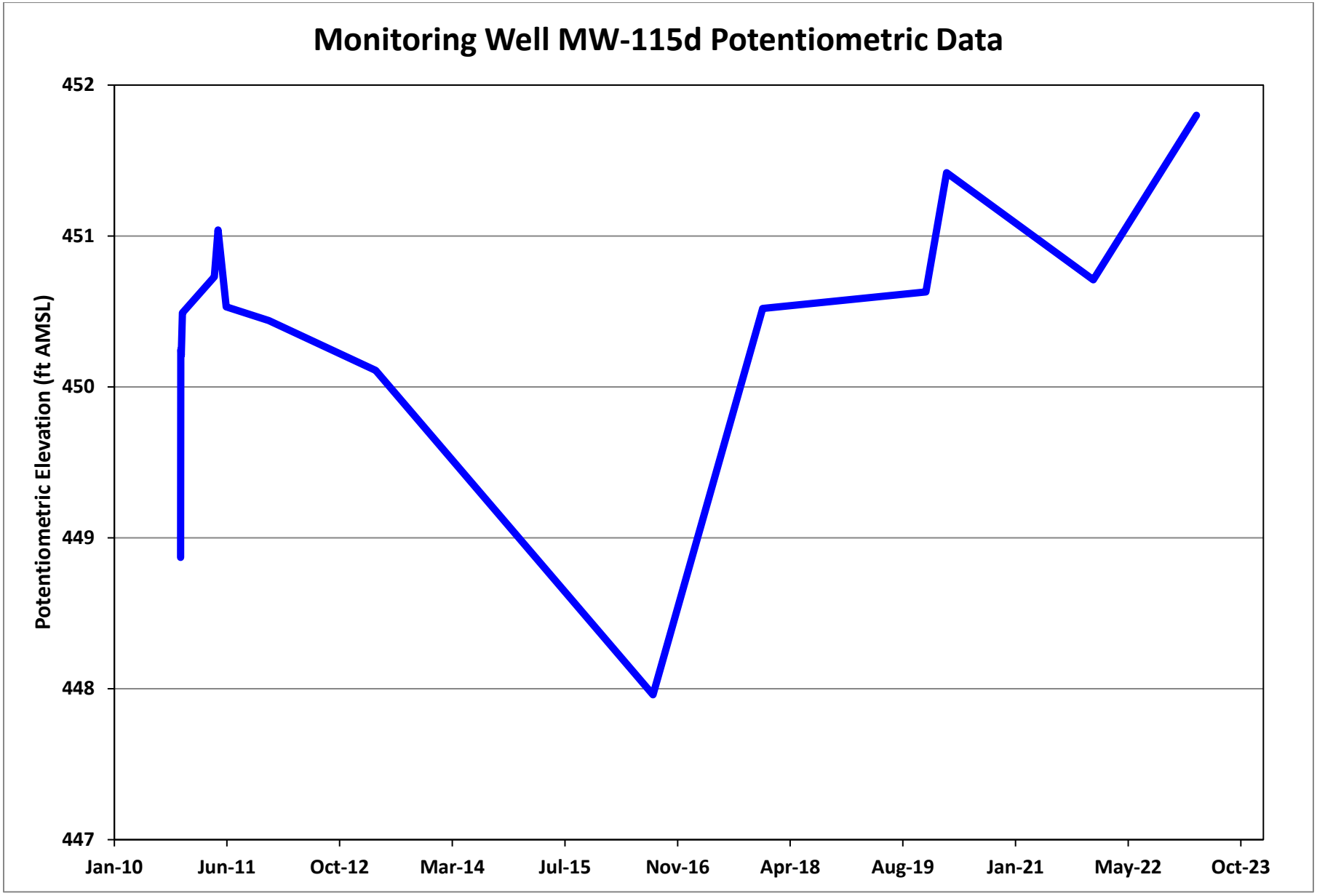
Attachment 3

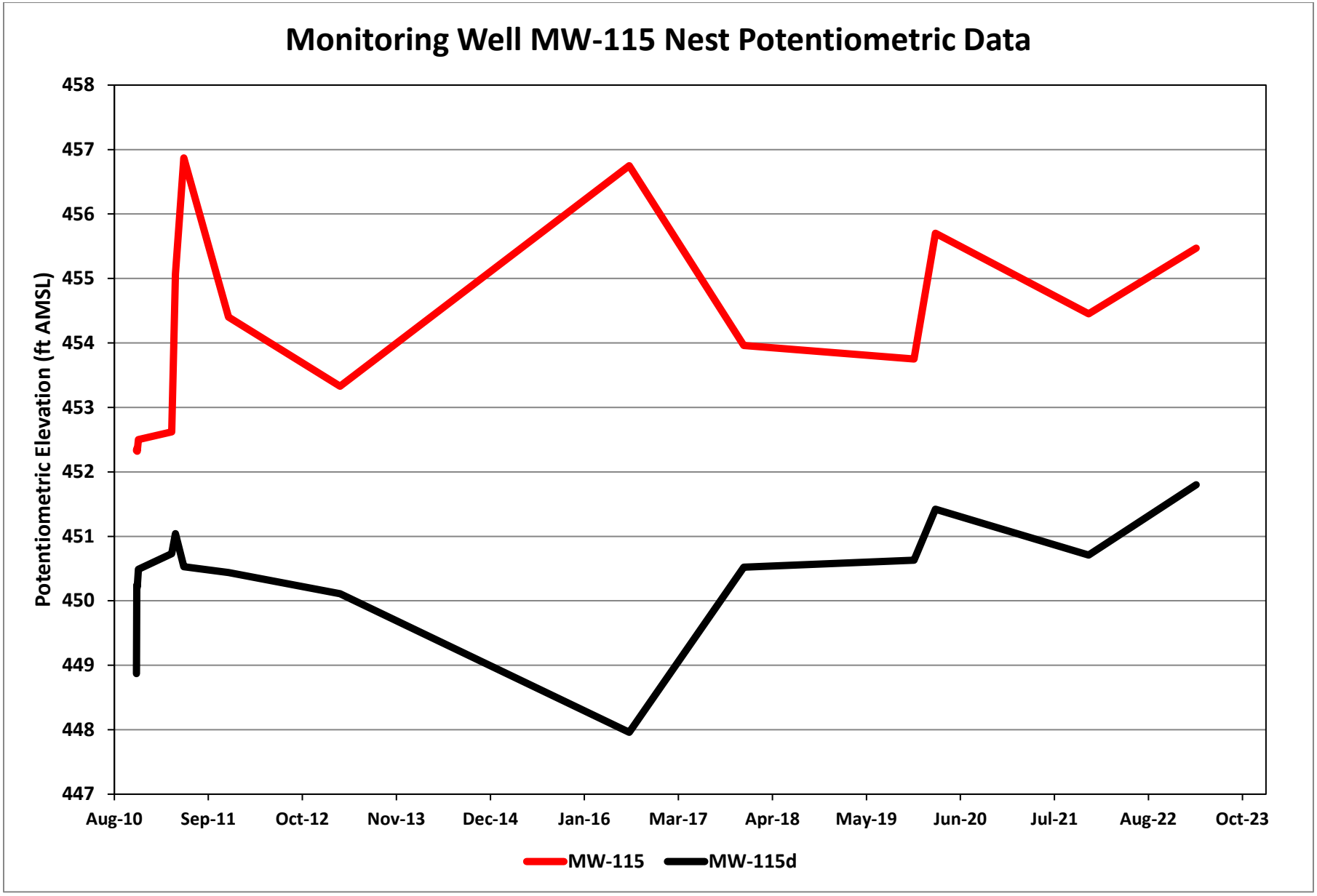
Site Hydrographs

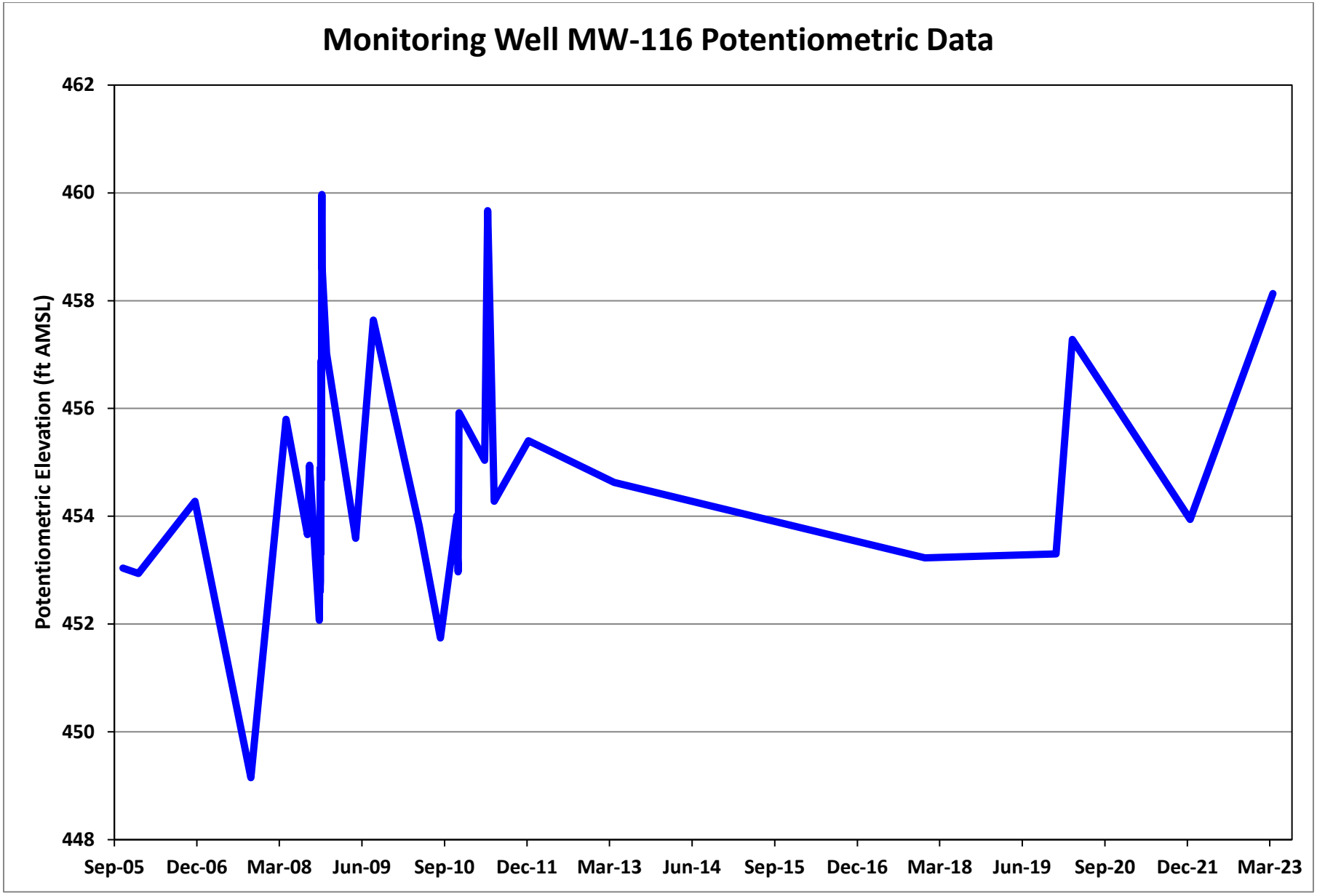

Former Monarch Chemicals Facility Potentiometric Elevation Data
Potentiometric Elevation (ft AMSL)
463
461
459
457
455
453
451
449
447
445
443
May-05
Aug-07
Oct-09
Dec-11
Mar-14
May-16
Jul-18
Sep-20
Dec-22
MW-114
MW-115
MW-116
MW-117
MW-118
MW-121
MW-122
MW-124s
MW-124d
MW-115d

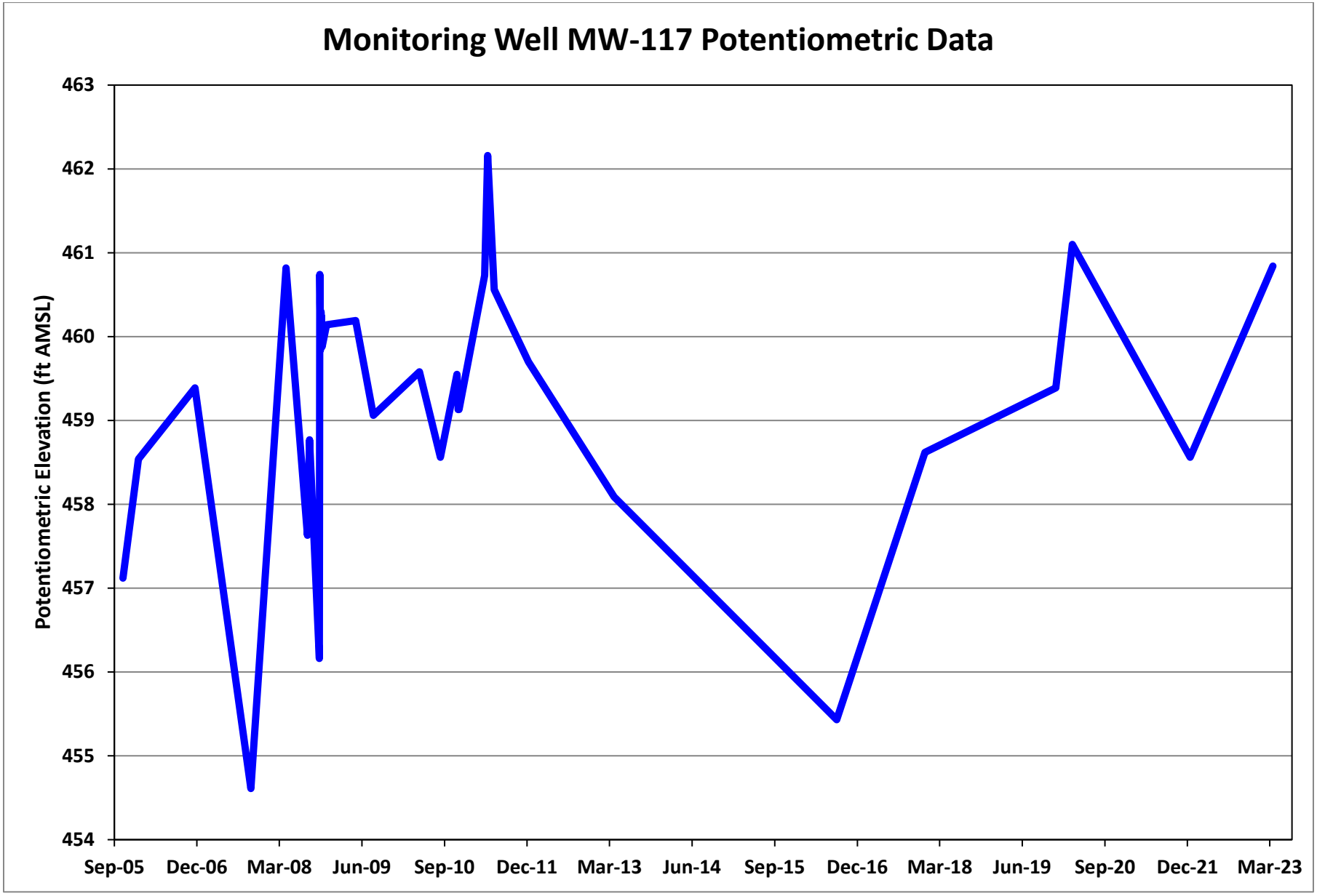

Monitoring Well MW-114 Potentiometric Data
Potentiometric Elevation (ft AMSL)
456
455
454
453
452
451
450
449
448
447
Sep-05
Dec-06
Mar-08
Jun-09
Sep-10
Dec-11
Mar-13
Jun-14
Sep-15
Dec-16
Mar-18
Jun-19
Sep-20
Dec-21
Mar-23

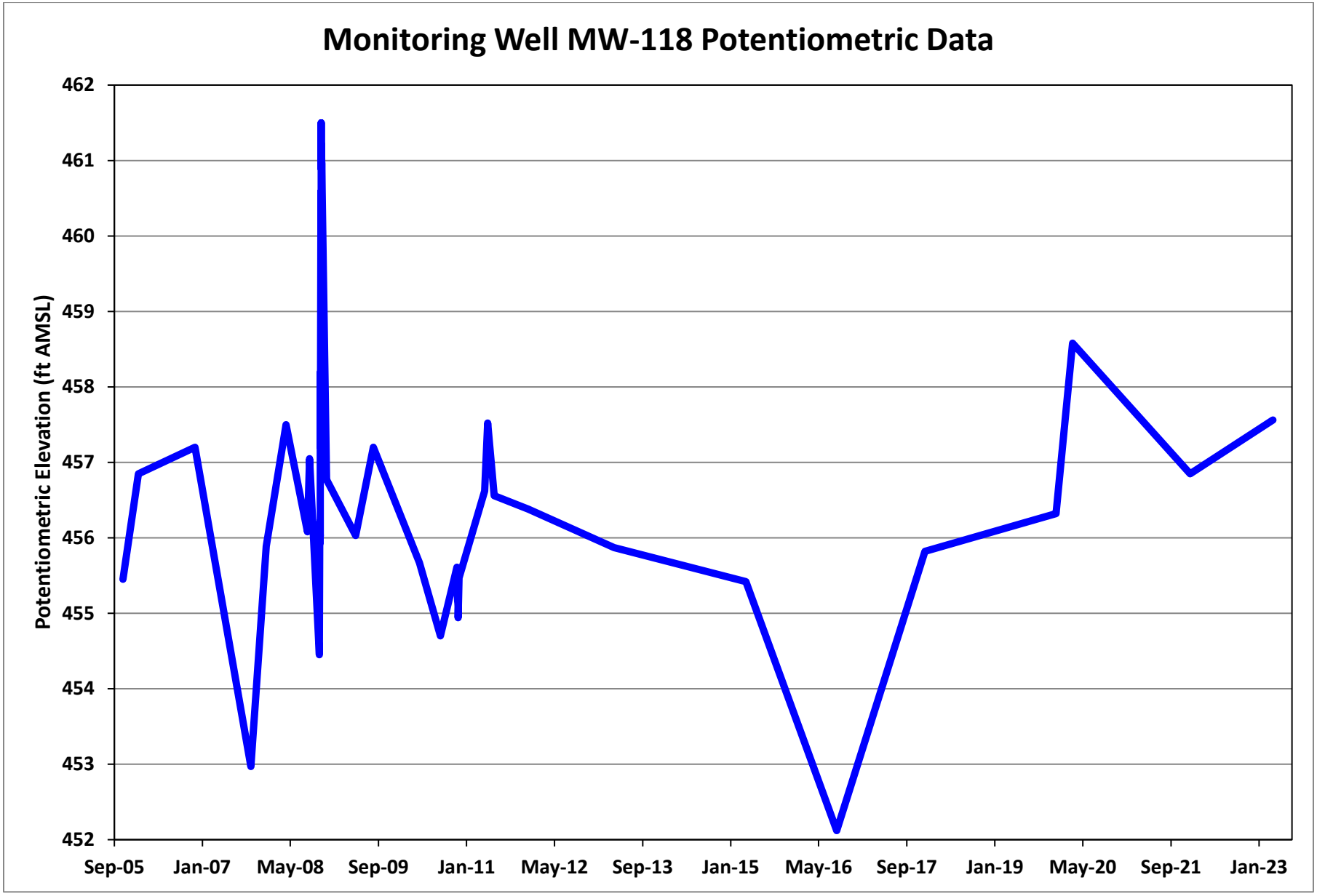

Monitoring Well MW-115 Potentiometric Data
Potentiometric Elevation (ft AMSL)
458
457
456
455
454
453
452
451
450
449
Sep-05
Dec-06
Mar-08
Jun-09
Sep-10
Dec-11
Mar-13
Jun-14
Sep-15
Dec-16
Mar-18
Jun-19
Sep-20
Dec-21
Mar-23

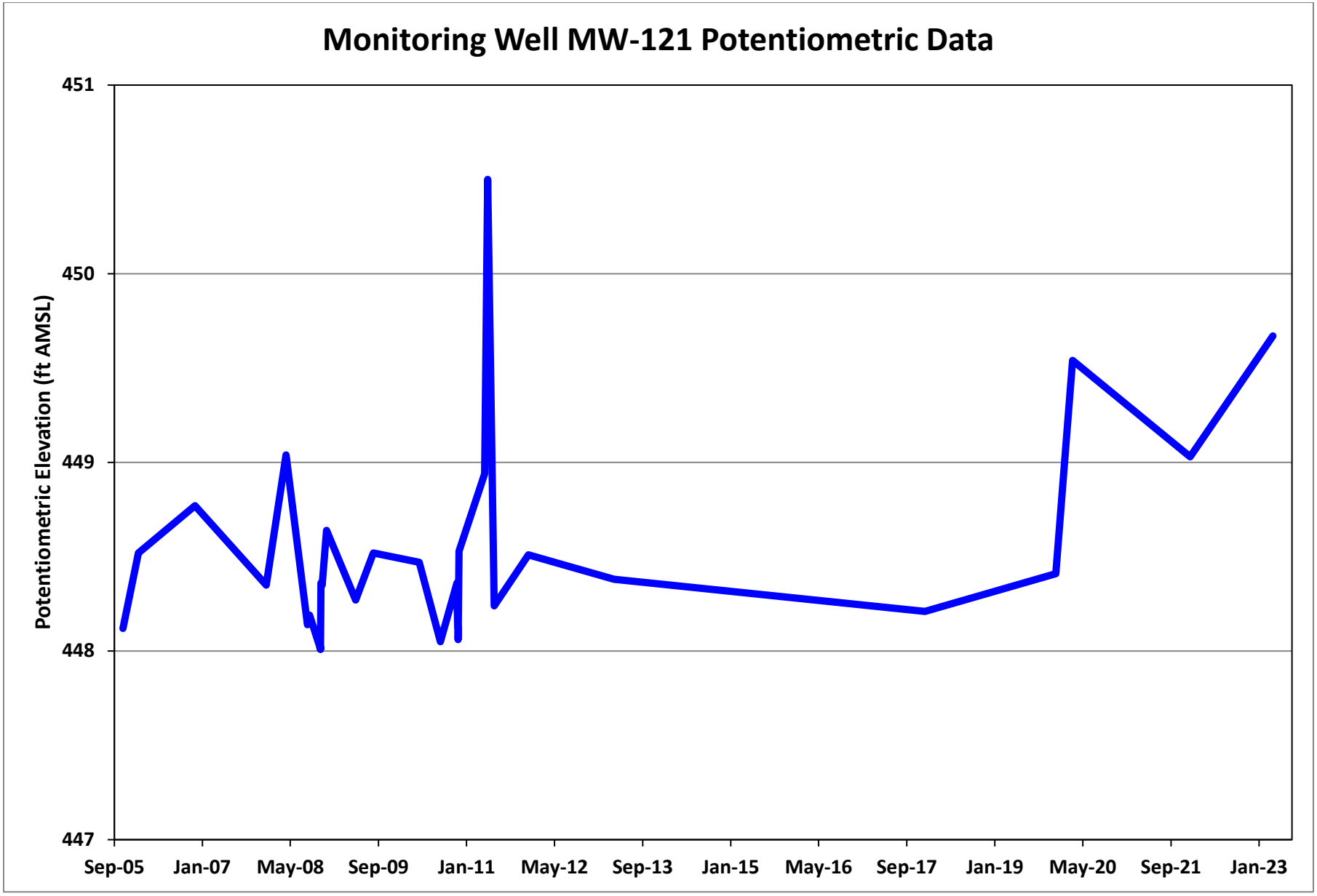

Monitoring Well MW-115d Potentiometric Data
Potentiometric Elevation (ft AMSL)
452
451
450
449
448
447
Jan-10
Jun-11
Oct-12
Mar-14
Jul-15
Nov-16
Apr-18
Aug-19
Jan-21
May-22
Oct-23

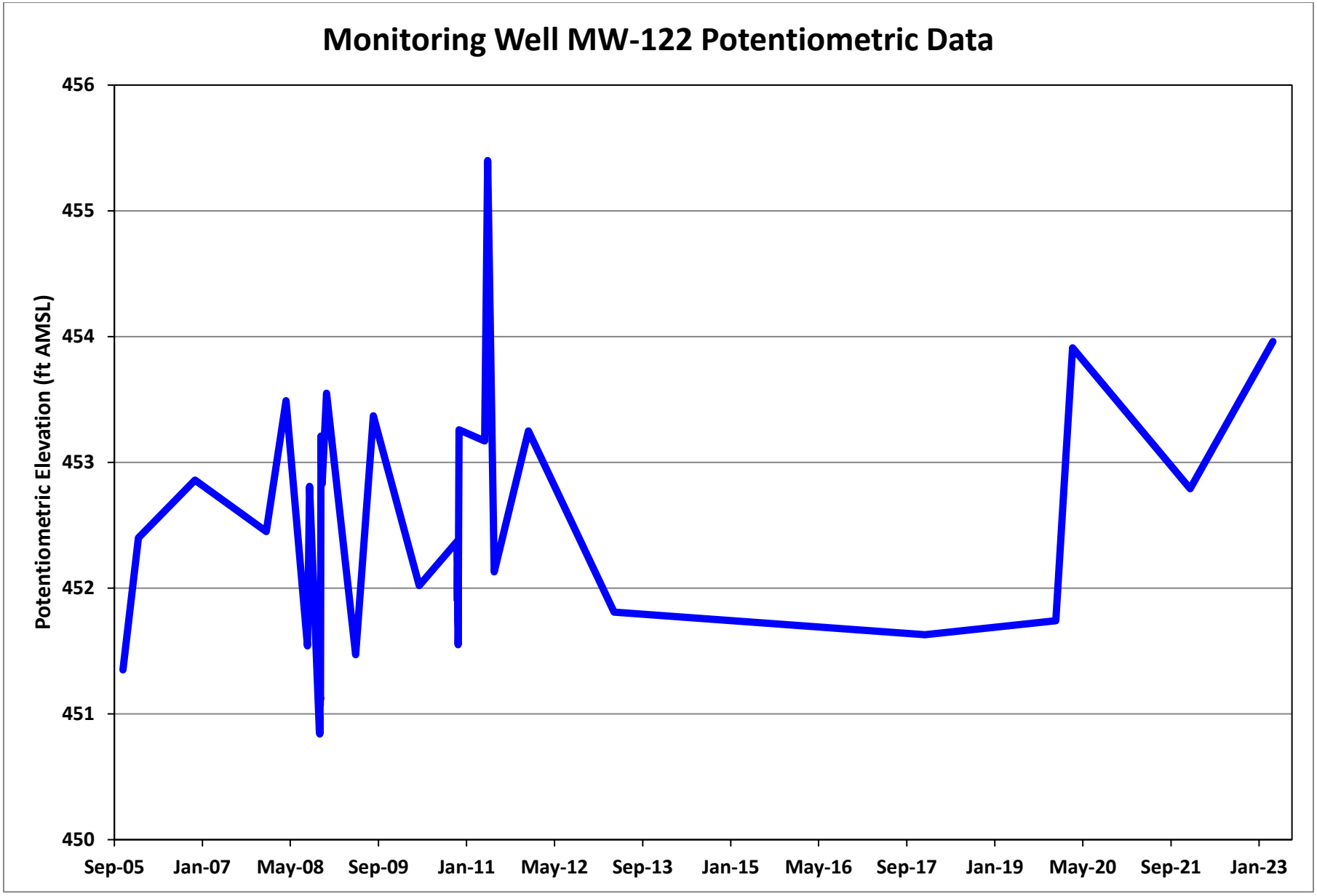

Monitoring Well MW-115 Nest Potentiometric Data
Potentiometric Elevation (ft AMSL)
458
457
456
455
454
453
452
451
450
449
448
447
Aug-10
Sep-11
Oct-12
Nov-13
Dec-14
Jan-16
Mar-17
Apr-18
May-19
Jun-20
Jul-21
Aug-22
Oct-23
MW-115
MW-115d

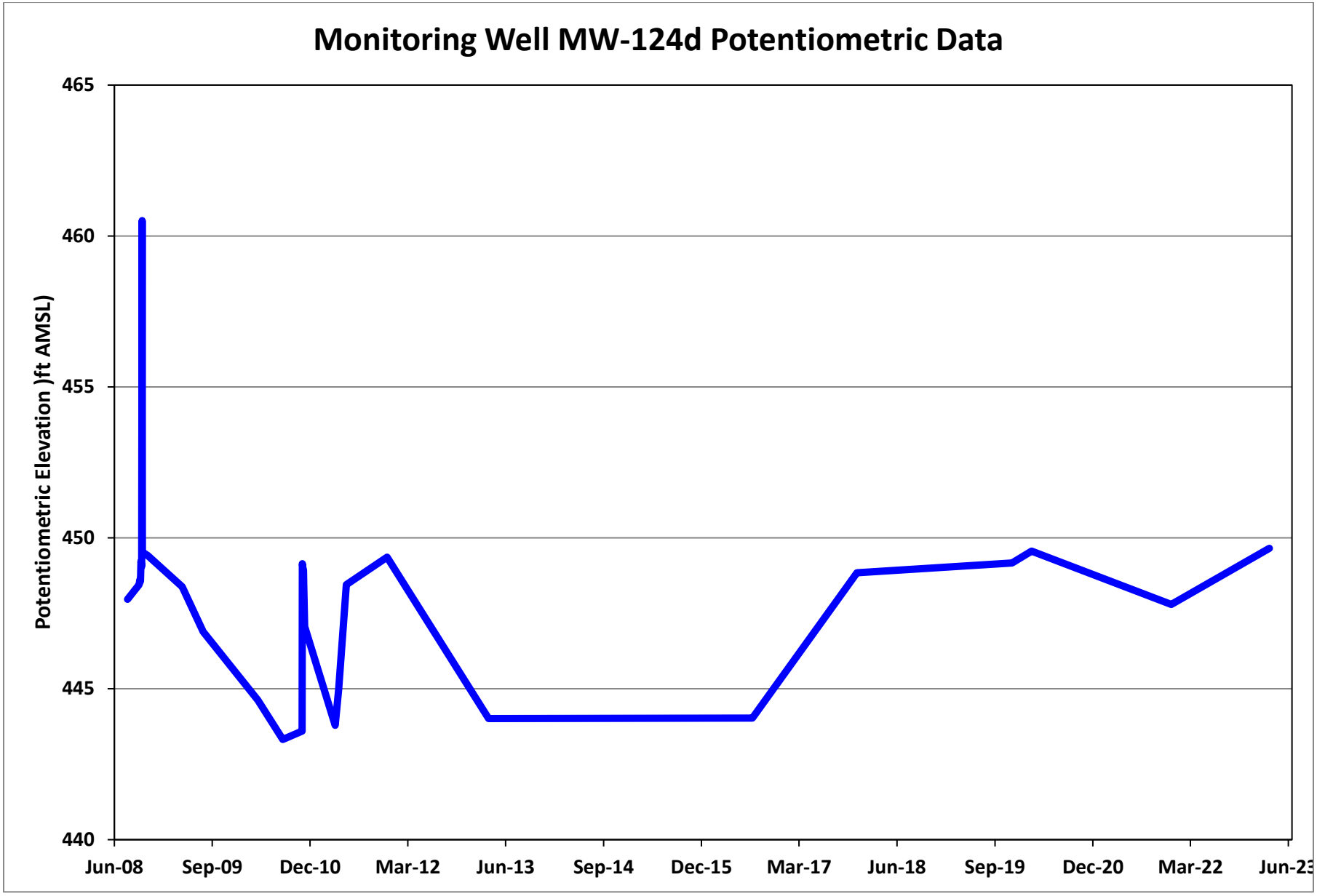

Monitoring Well MW-116 Potentiometric Data
Potentiometric Elevation (ft AMSL)
462
460
458
456
454
452
450
448
Sep-05
Dec-06
Mar-08
Jun-09
Sep-10
Dec-11
Mar-13
Jun-14
Sep-15
Dec-16
Mar-18
Jun-19
Sep-20
Dec-21
Mar-23

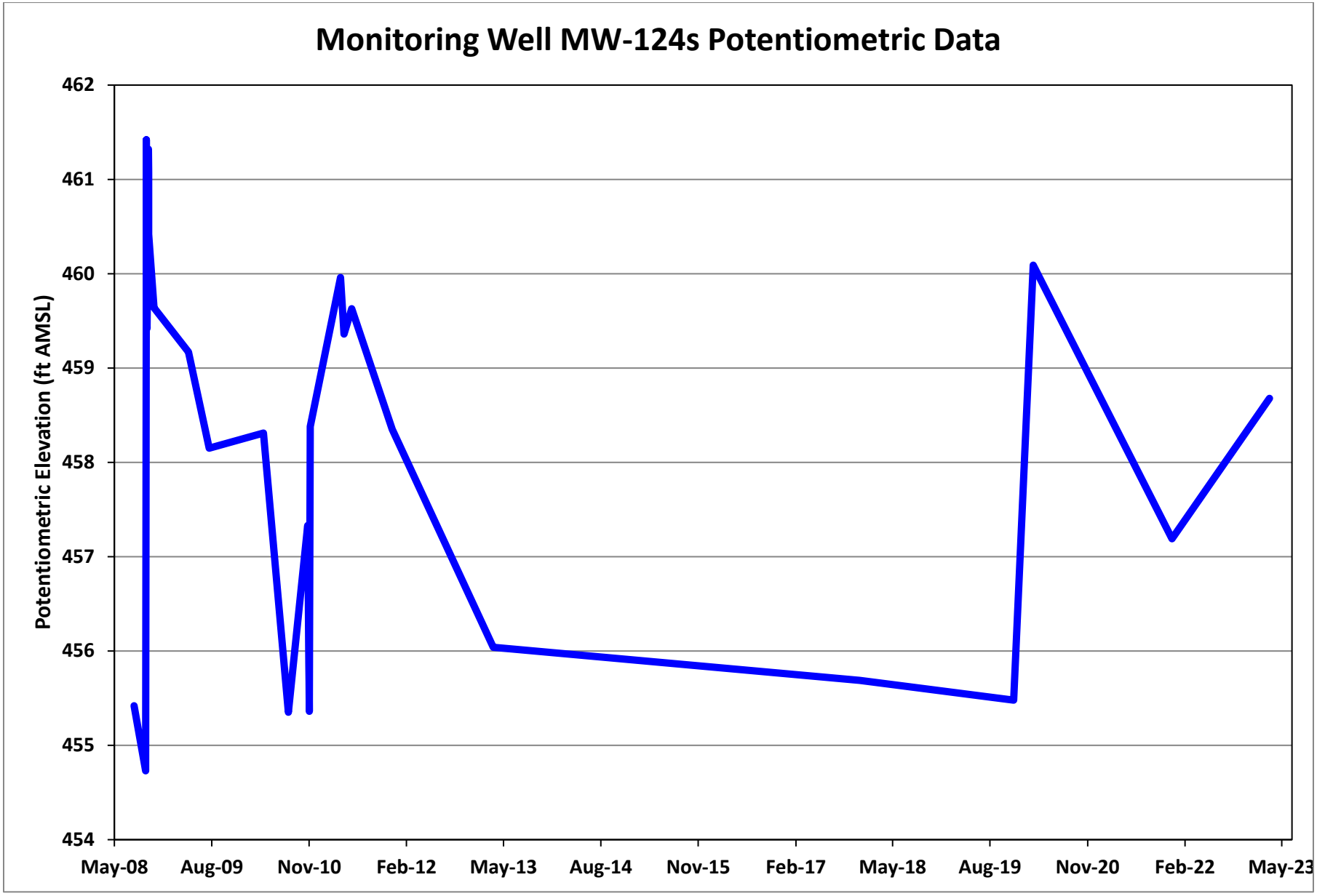

Monitoring Well MW-117 Potentiometric Data
Potentiometric Elevation (ft AMSL)
463
462
461
460
459
458
457
456
455
454
Sep-05
Dec-06
Mar-08
Jun-09
Sep-10
Dec-11
Mar-13
Jun-14
Sep-15
Dec-16
Mar-18
Jun-19
Sep-20
Dec-21
Mar-23

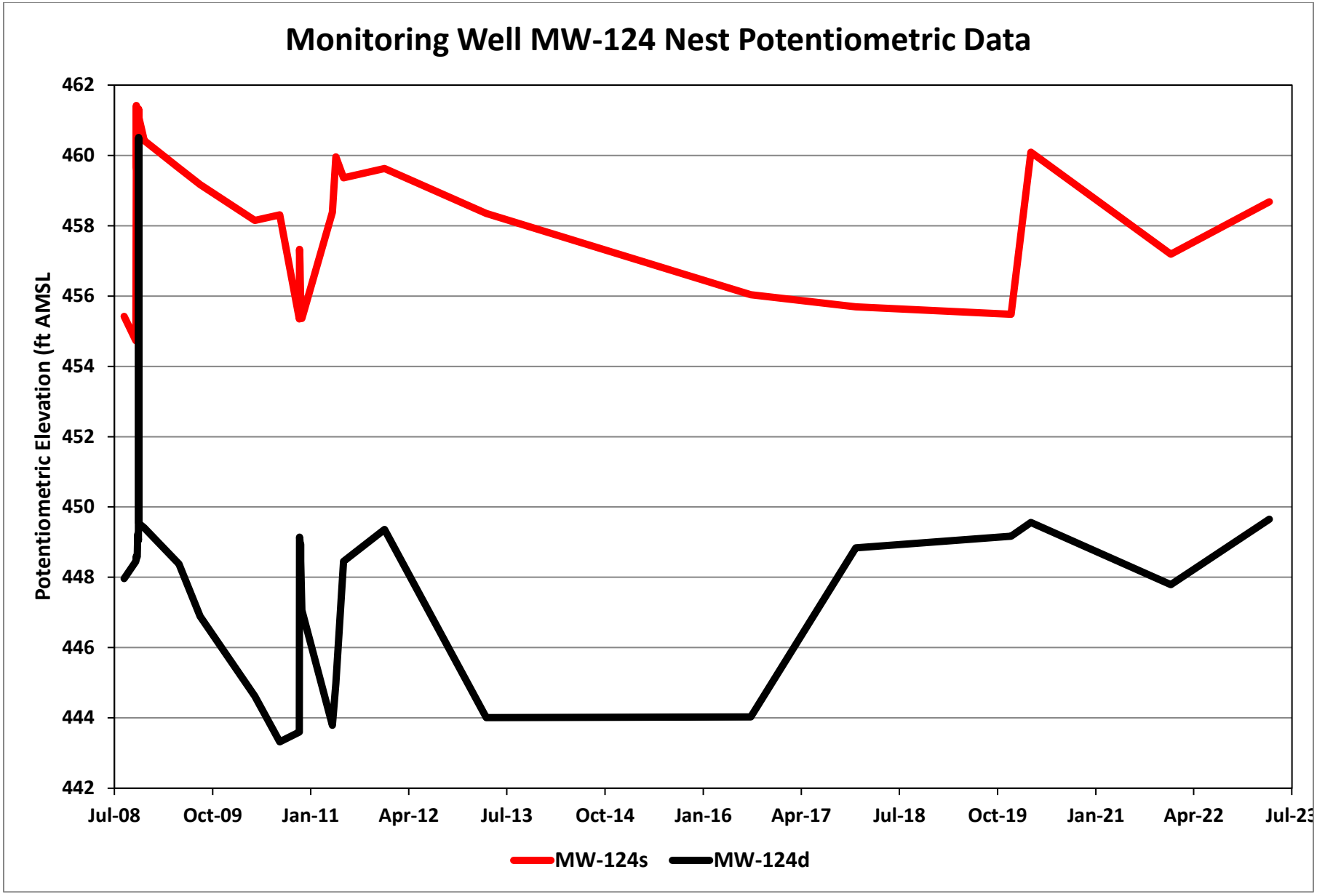

Monitoring Well MW-118 Potentiometric Data
Potentiometric Elevation (ft AMSL)
462
461
460
459
458
457
456
455
454
453
452
Sep-05
Jan-07
May-08
Sep-09
Jan-11
May-12
Sep-13
Jan-15
May-16
Sep-17
Jan-19
May-20
Sep-21
Jan-23


Monitoring Well MW-121 Potentiometric Data
Potentiometric Elevation (ft AMSL)
451
450
449
448
447
Sep-05
Jan-07
May-08
Sep-09
Jan-11
May-12
Sep-13
Jan-15
May-16
Sep-17
Jan-19
May-20
Sep-21
Jan-23


Monitoring Well MW-122 Potentiometric Data
Potentiometric Elevation (ft AMSL)
456
455
454
453
452
451
450
Sep-05
Jan-07
May-08
Sep-09
Jan-11
May-12
Sep-13
Jan-15
May-16
Sep-17
Jan-19
May-20
Sep-21
Jan-23

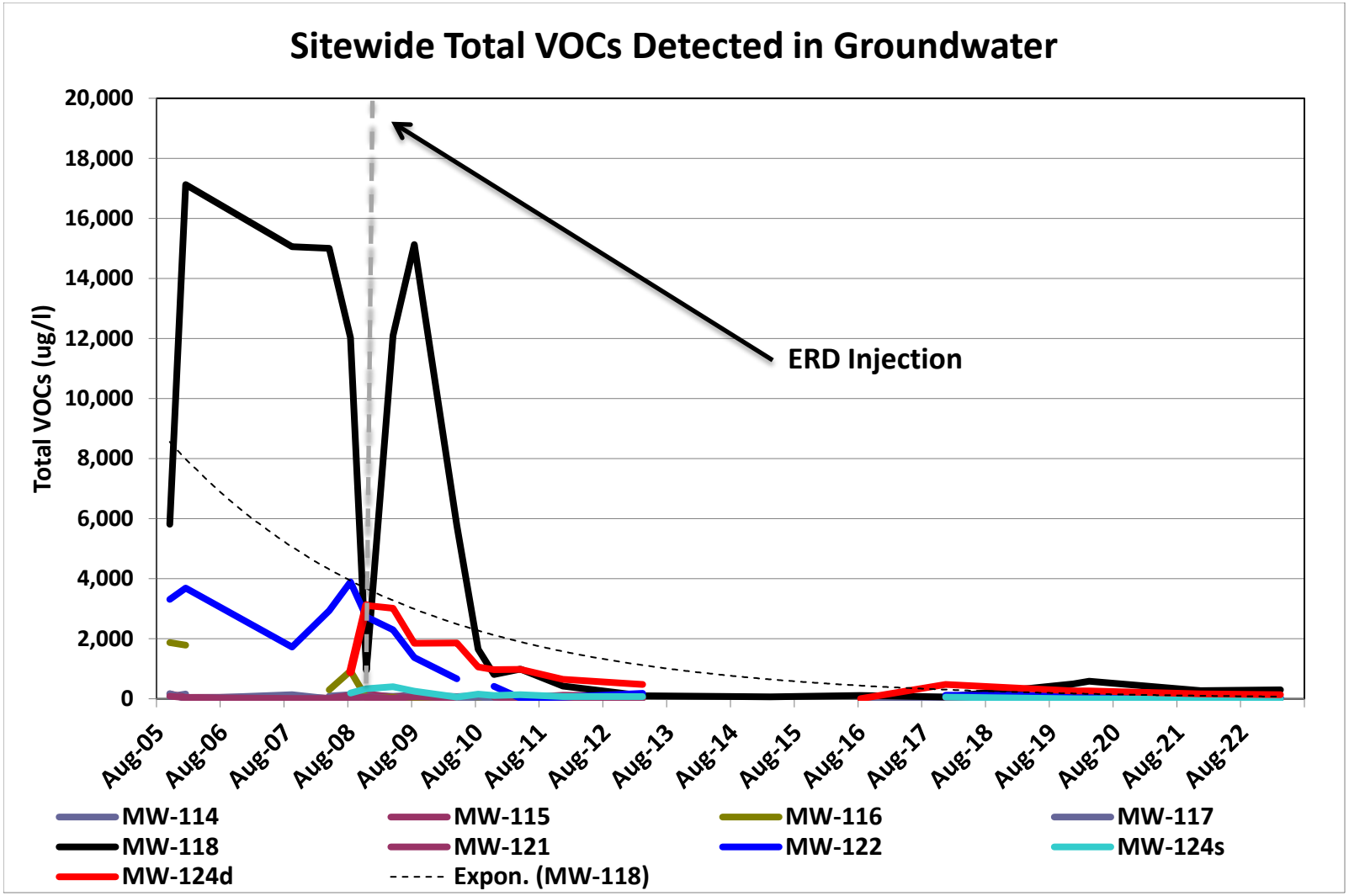

Monitoring Well MW-124d Potentiometric Data
Potentiometric Elevation)ft AMSL)
465
460
455
450
445
440
Jun-08
Sep-09
Dec-10
Mar-12
Jun-13
Sep-14
Dec-15
Mar-17
Jun-18
Sep-19
Dec-20
Mar-22
Jun-23

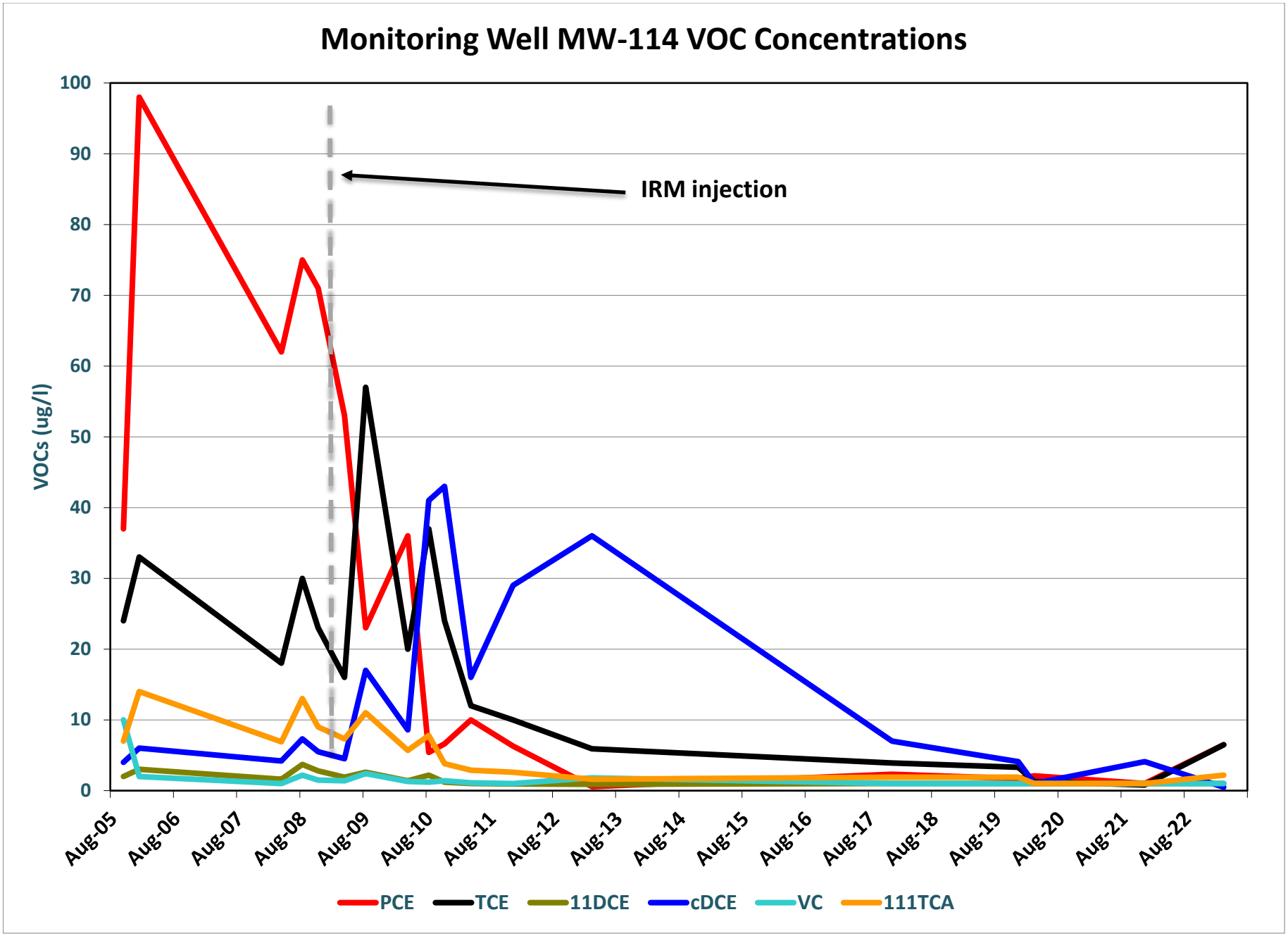

Monitoring Well MW-124s Potentiometric Data
Potentiometric Elevation (ft AMSL)
462
461
460
459
458
457
456
455
454
May-08
Aug-09
Nov-10
Feb-12
May-13
Aug-14
Nov-15
Feb-17
May-18
Aug-19
Nov-20
Feb-22
May-23

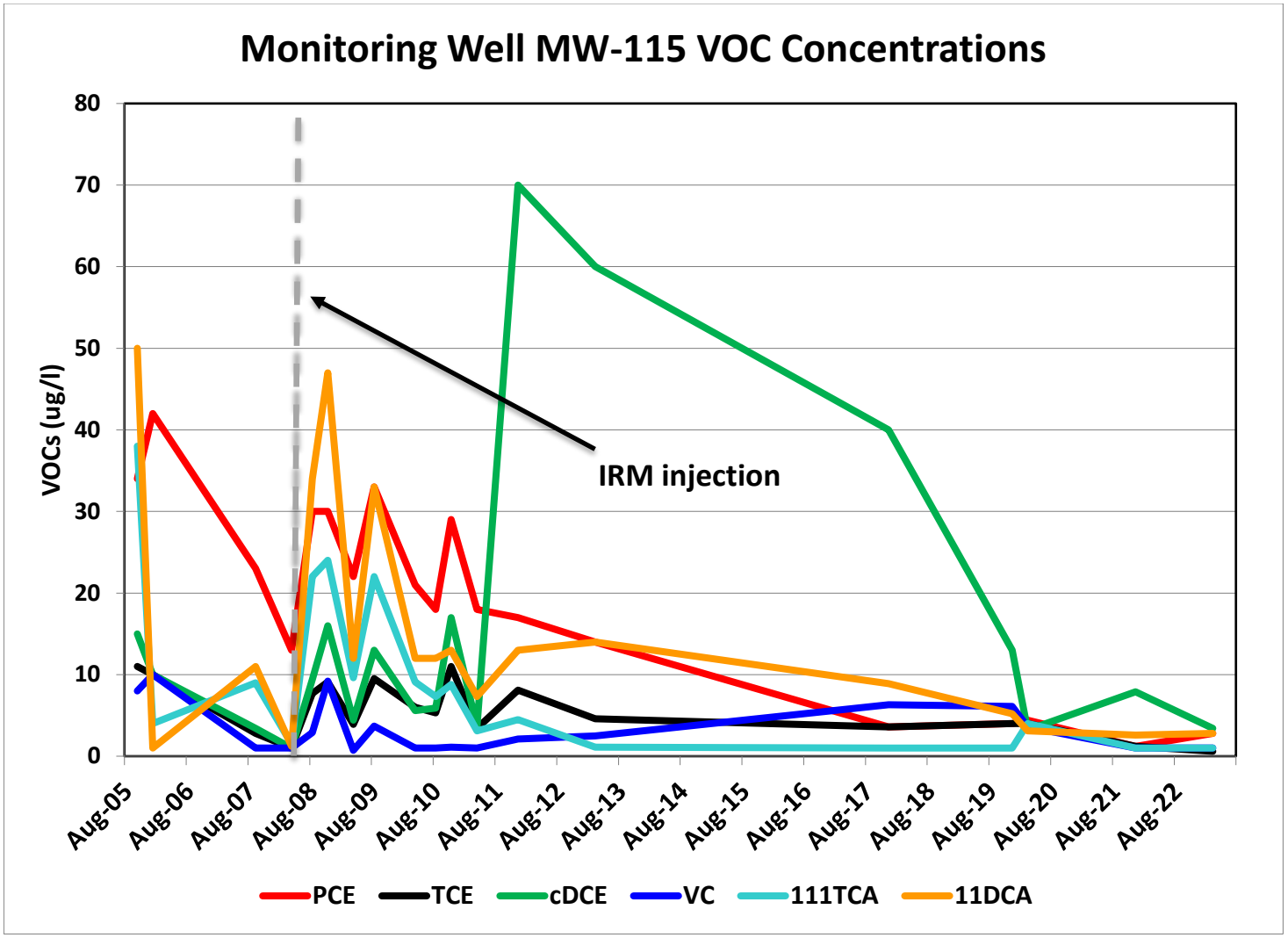

Monitoring Well MW-124 Nest Potentiometric Data
Potentiometric Elevation (ft AMSL
462
460
458
456
454
452
450
448
446
444
442
Jul-08
Oct-09
Jan-11
Apr-12
Jul-13
Oct-14
Jan-16
Apr-17
Jul-18
Oct-19
Jan-21
Apr-22
Jul-23
MW-124s
MW-124d

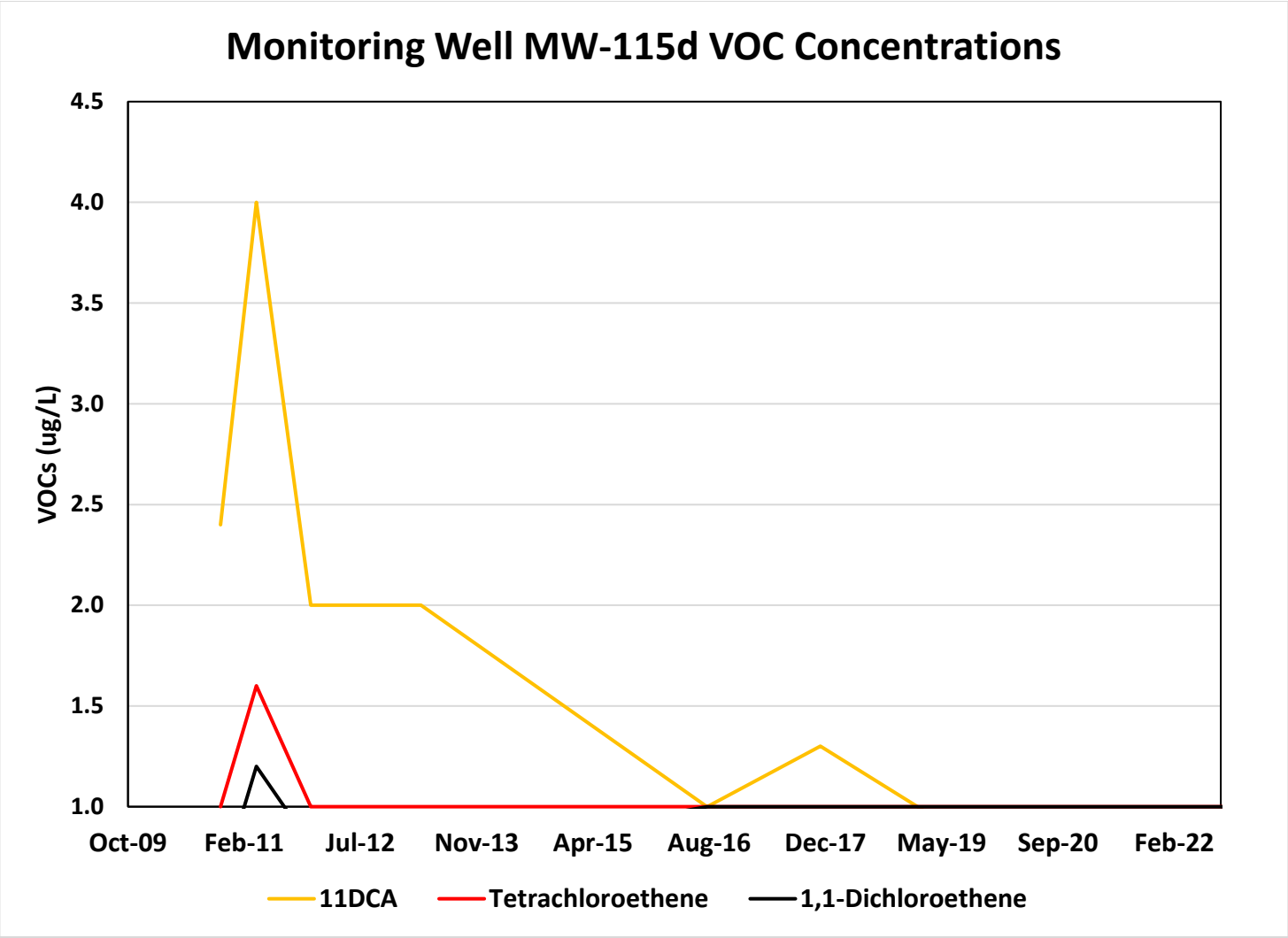
Attachment 4

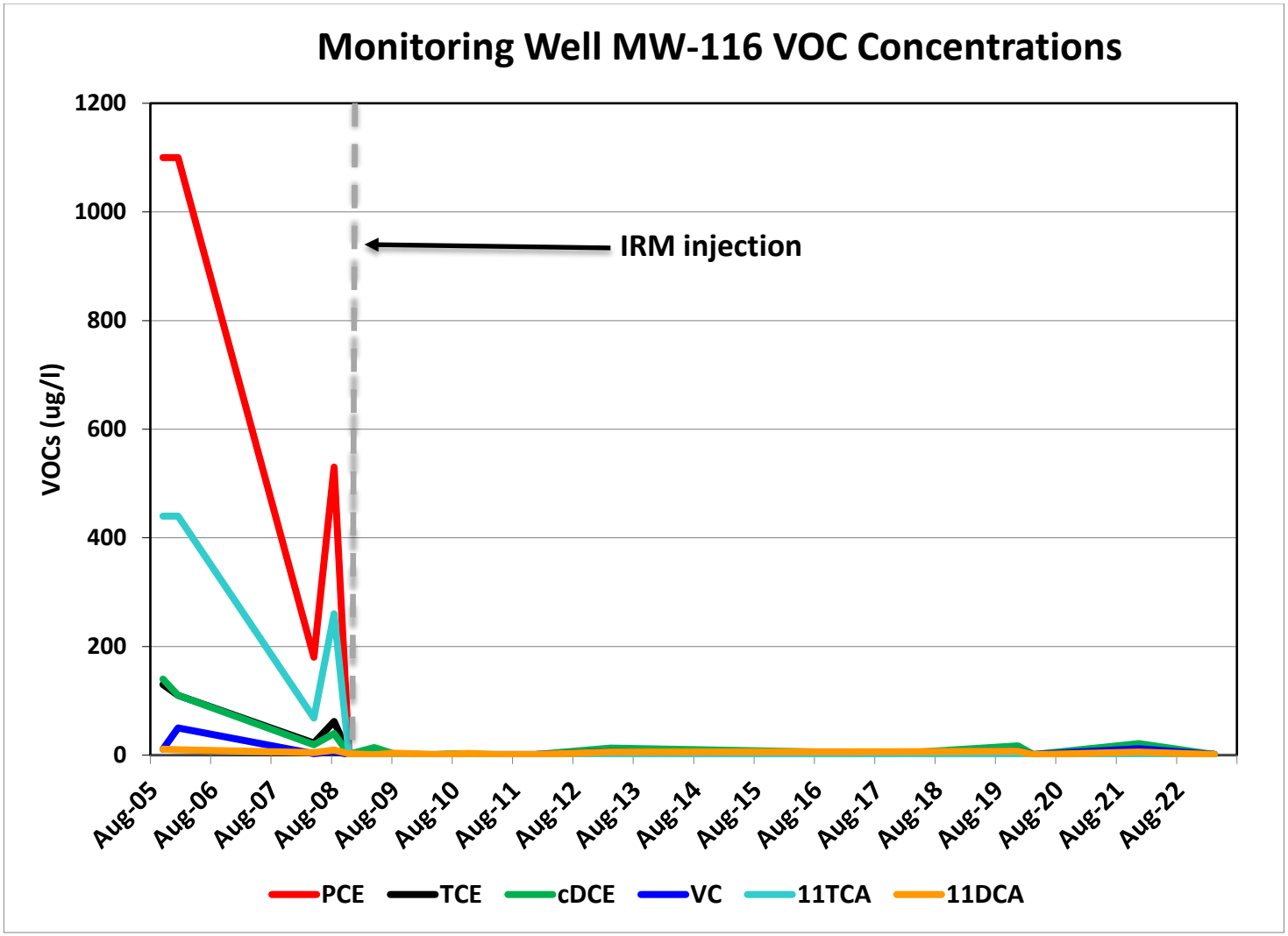
Groundwater Isoconcentration Graphs

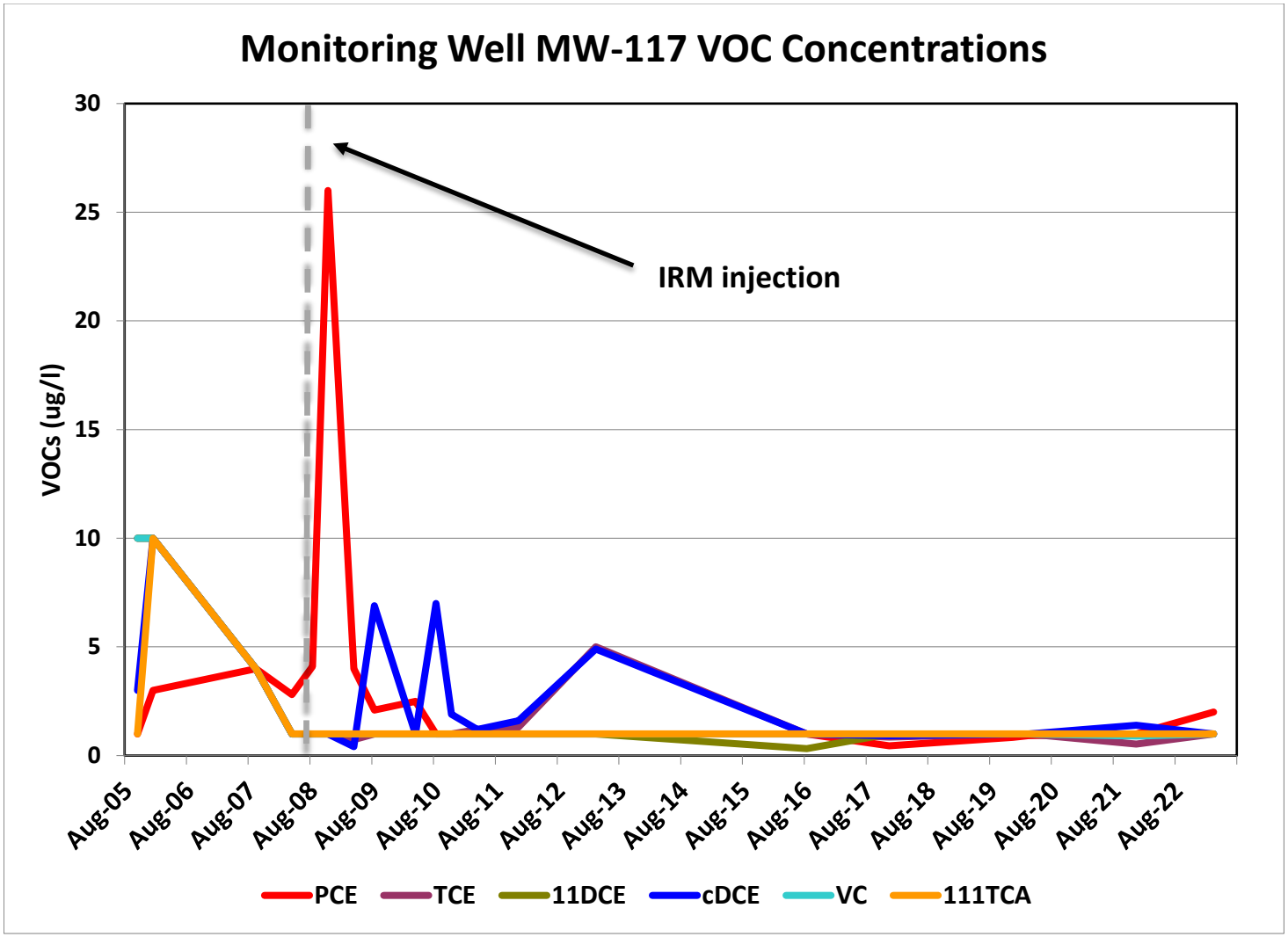

Sitewide Total VOCs Detected in Groundwater
Total VOCs (ug/l)
20,000
18,000
16,000
14,000
12,000
10,000
8,000
6,000
4,000
2,000
0
ERD Injection
Aug-05
Aug-06
Aug-07
Aug-08
Aug-09
Aug-10
Aug-11
Aug-12
Aug-13
Aug-14
Aug-15
Aug-16
Aug-17
Aug-18
Aug-19
Aug-20
Aug-21
Aug-22
MW-114
MW-115
MW-116
MW-117
MW-118
MW-121
MW-122
MW-124s
MW-124d
Expon. (MW-118)

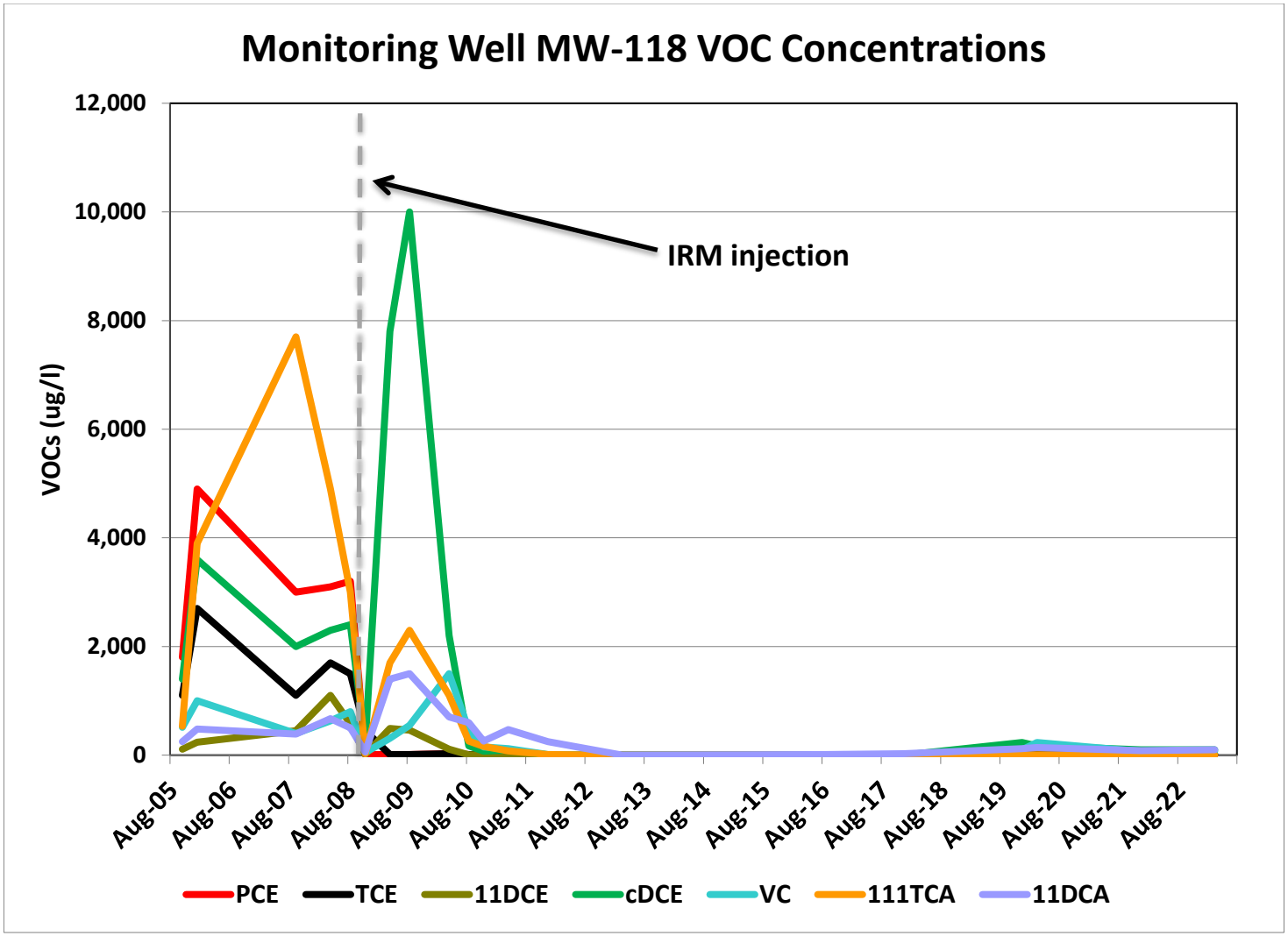

Monitoring Well MW-114 VOC Concentrations
VOCs (ug/l)
100
90
80
70
60
50
40
30
20
10
0
IRM injection
Aug-05
Aug-06
Aug-07
Aug-08
Aug-09
Aug-10
Aug-11
Aug-12
Aug-13
Aug-14
Aug-15
Aug-16
Aug-17
Aug-18
Aug-19
Aug-20
Aug-21
Aug-22
PCE
TCE
11DCE
cDCE
VC
111TCA

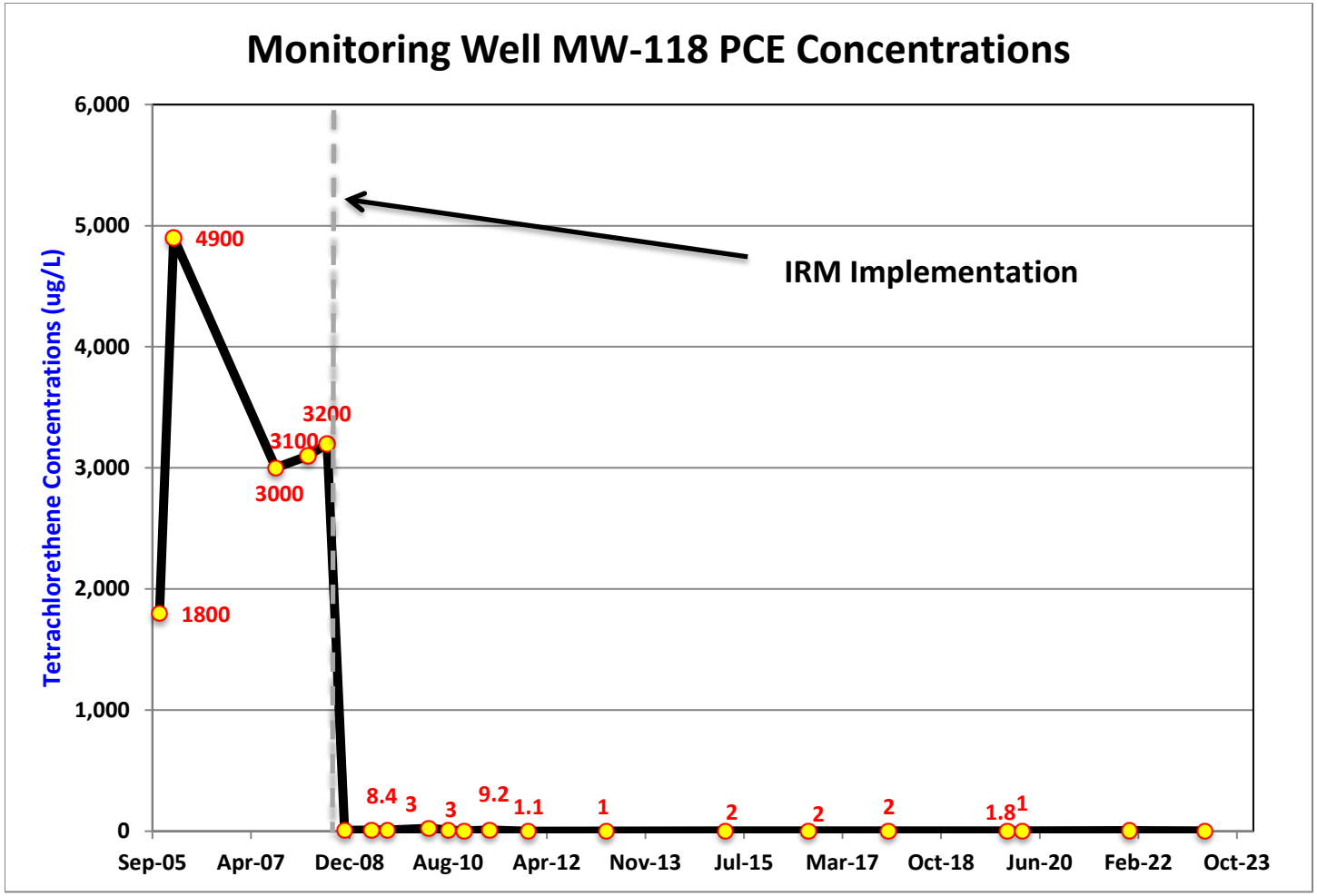

Monitoring Well MW-115 VOC Concentrations
VOCs (ug/l)
80
70
60
50
40
30
20
10
0
IRM injection
Aug-05
Aug-06
Aug-07
Aug-08
Aug-09
Aug-10
Aug-11
Aug-12
Aug-13
Aug-14
Aug-15
Aug-16
Aug-17
Aug-18
Aug-19
Aug-20
Aug-21
Aug-22
PCE
TCE
cDCE
VC
111TCA
11DCA

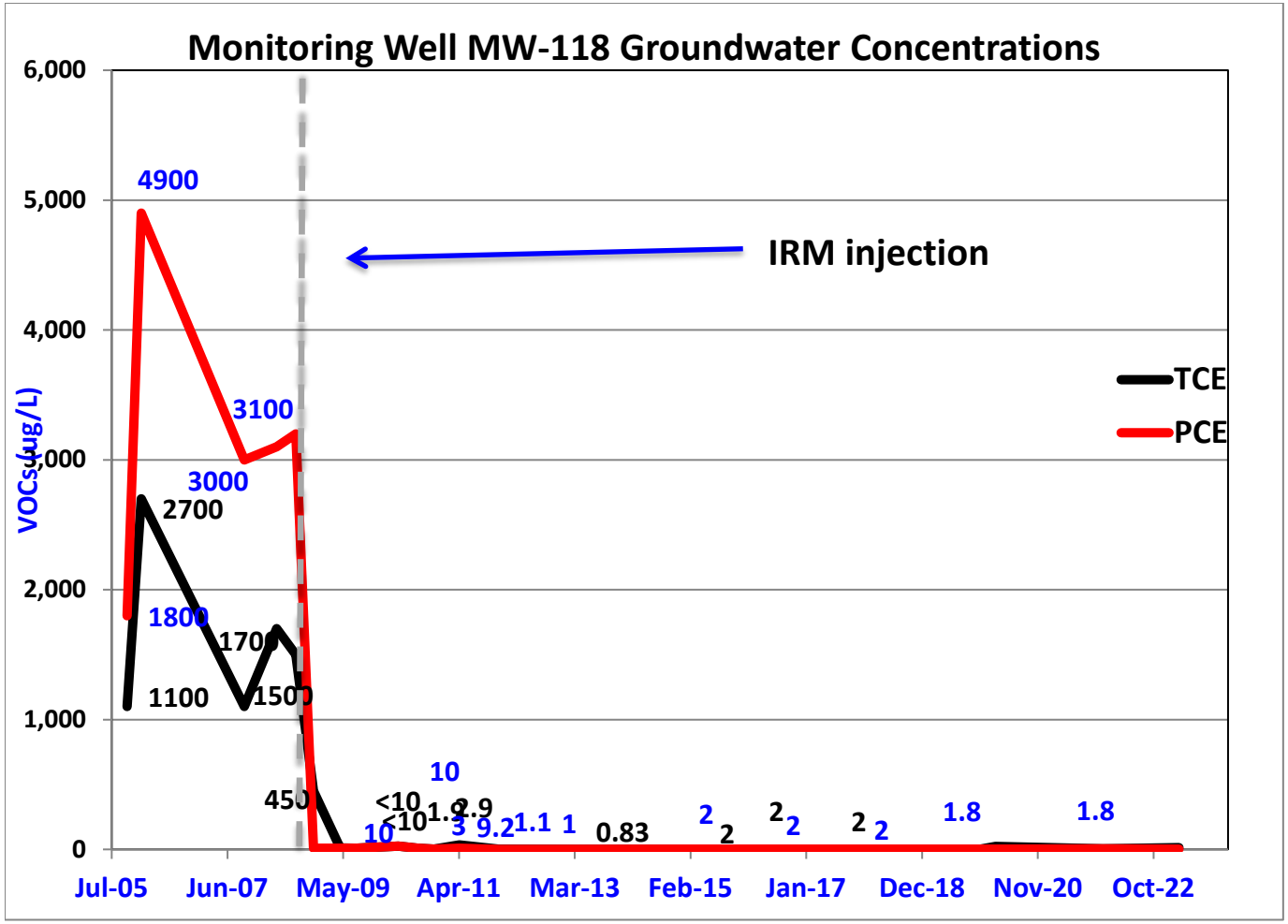

Monitoring Well MW-115d VOC Concentrations
VOCs (ug/L)
4.5
4.0
3.5
3.0
2.5
2.0
1.5
1.0
Oct-09
Feb-11
Jul-12
Nov-13
Apr-15
Aug-16
Dec-17
May-19
Sep-20
Feb-22
11DCA
Tetrachloroethene
1,1-Dichloroethene

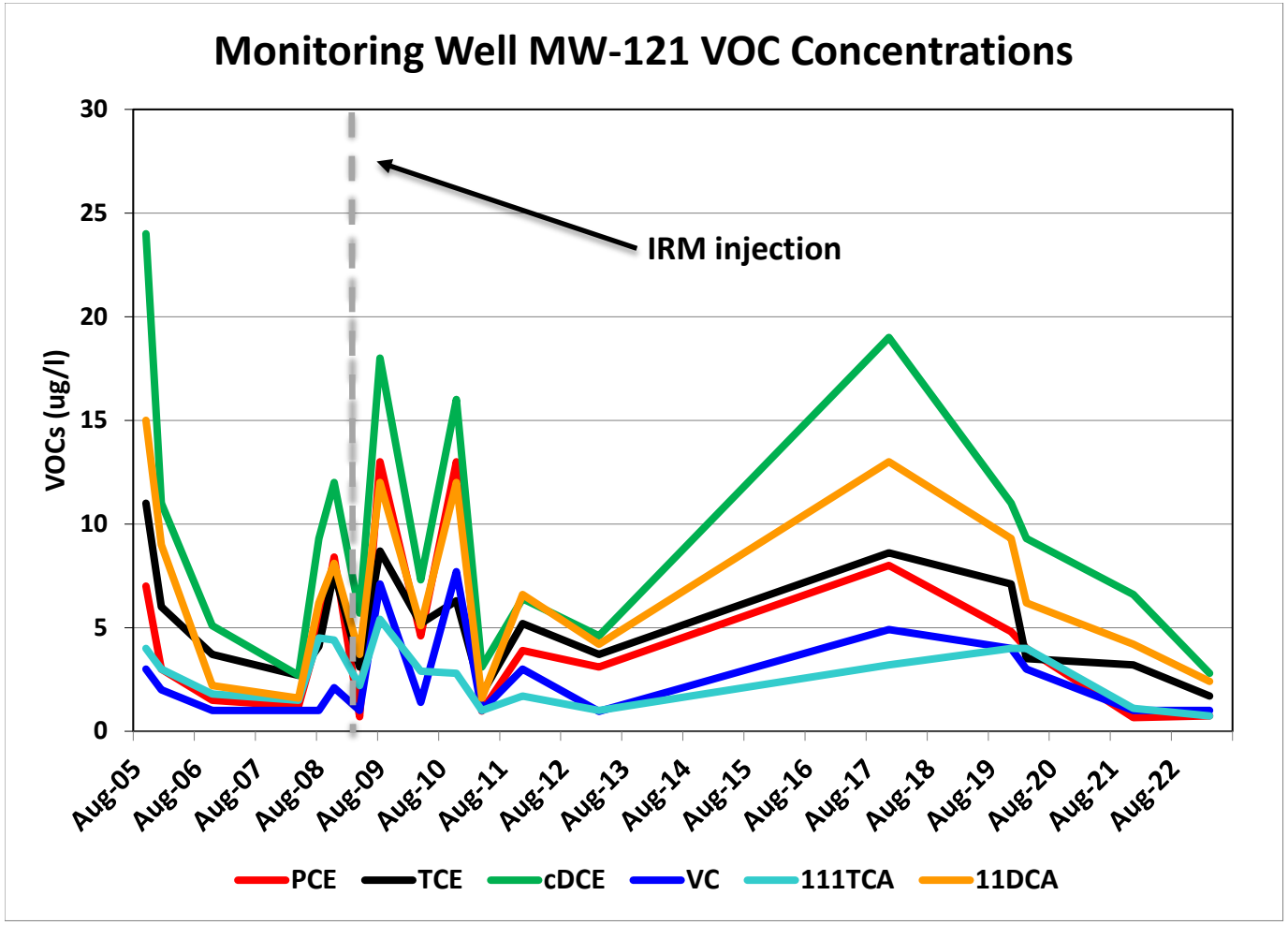

Monitoring Well MW-116 VOC Concentrations
VOCs (ug/l)
1200
1000
800
600
400
200
0
IRM injection
Aug-05
Aug-06
Aug-07
Aug-08
Aug-09
Aug-10
Aug-11
Aug-12
Aug-13
Aug-14
Aug-15
Aug-16
Aug-17
Aug-18
Aug-19
Aug-20
Aug-21
Aug-22
PCE
TCE
cDCE
VC
11TCA
11DCA

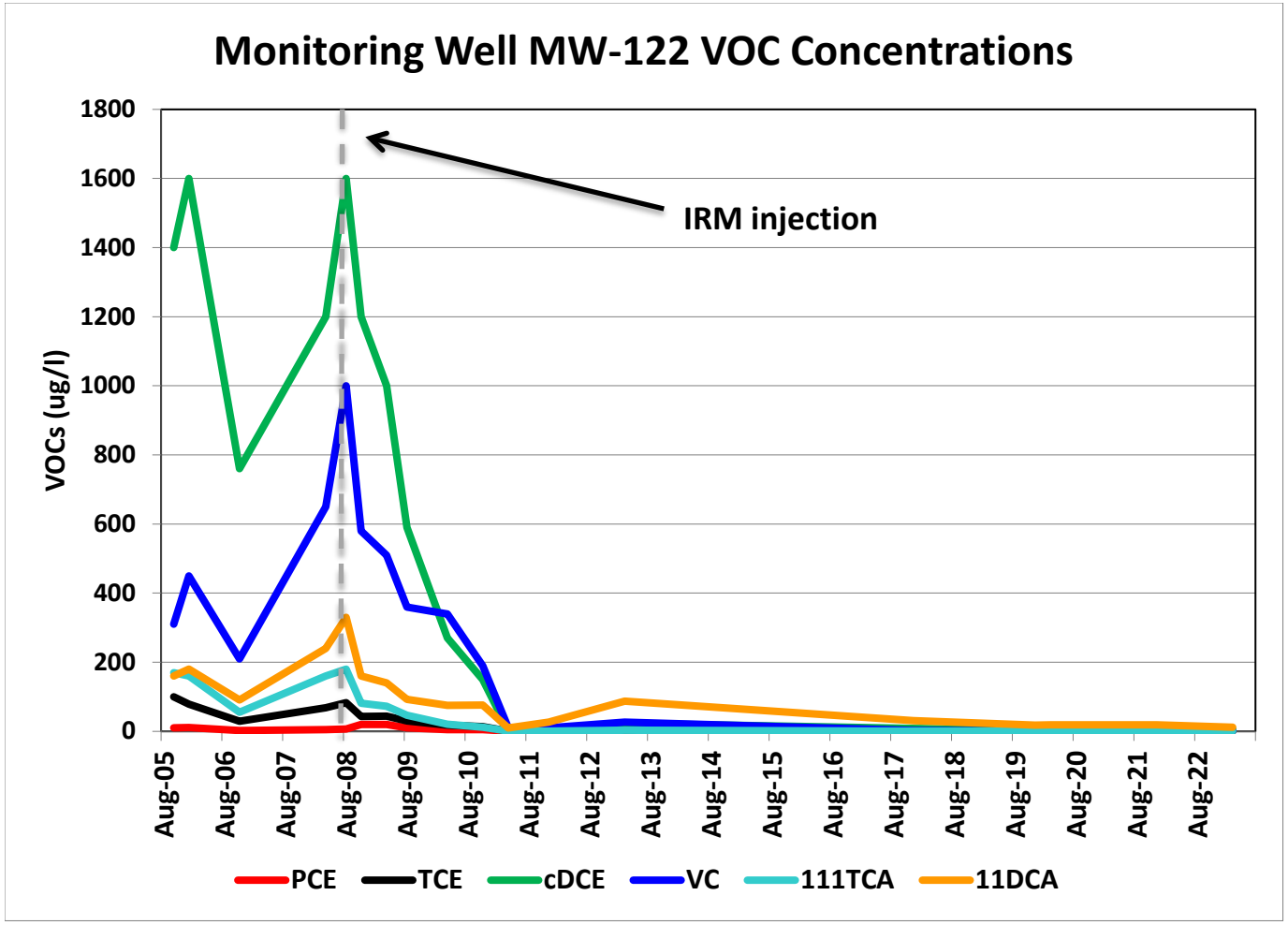

Monitoring Well MW-117 VOC Concentrations
VOCs (ug/l)
30
25
20
15
10
5
0
IRM injection
Aug-05
Aug-06
Aug-07
Aug-08
Aug-09
Aug-10
Aug-11
Aug-12
Aug-13
Aug-14
Aug-15
Aug-16
Aug-17
Aug-18
Aug-19
Aug-20
Aug-21
Aug-22
PCE
TCE
11DCE
cDCE
VC
111TCA

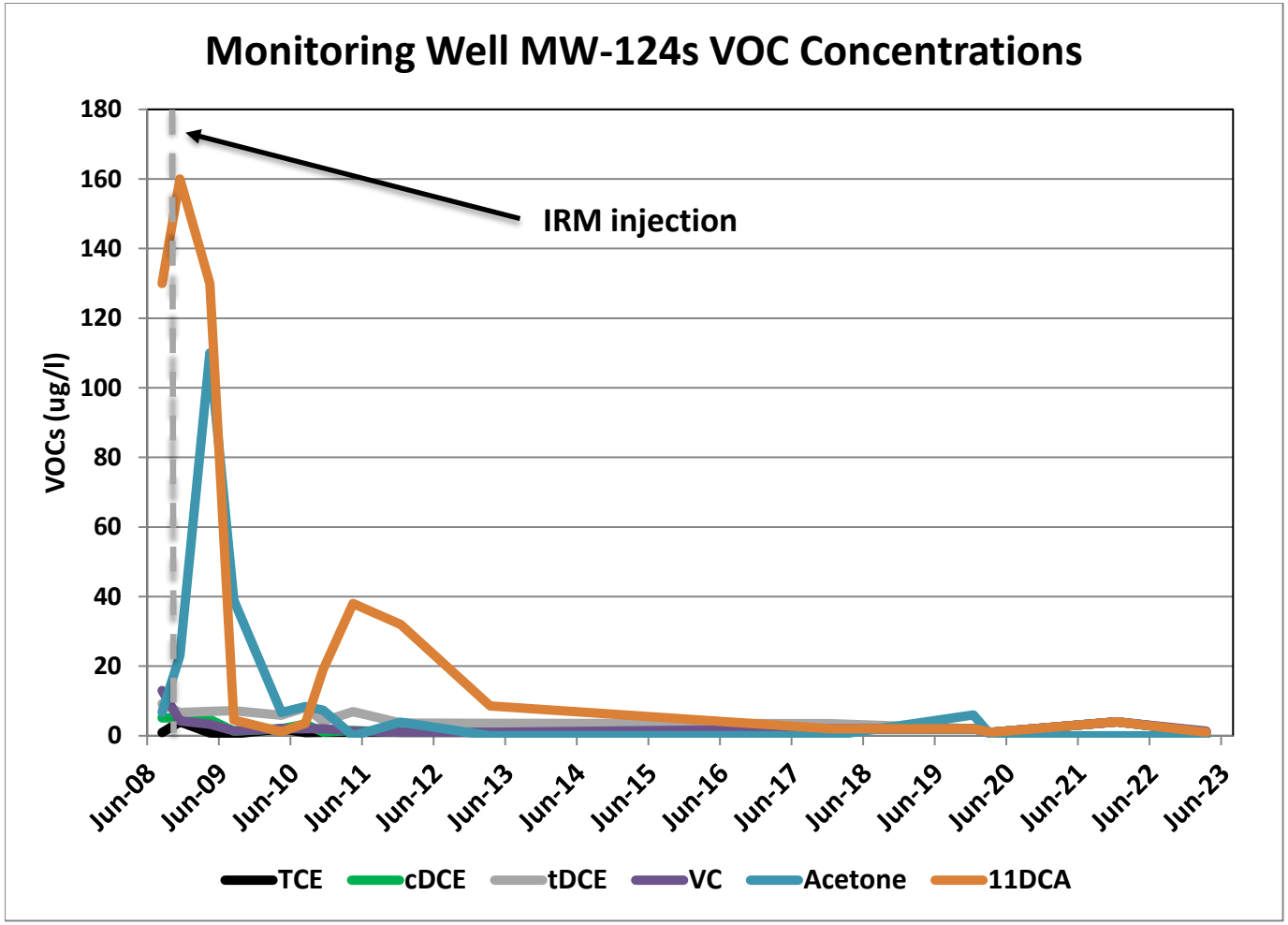

Monitoring Well MW-118 VOC Concentrations
VOCs (ug/l)
12,000
10,000
8,000
6,000
4,000
2,000
0
IRM injection
Aug-05
Aug-06
Aug-07
Aug-08
Aug-09
Aug-10
Aug-11
Aug-12
Aug-13
Aug-14
Aug-15
Aug-16
Aug-17
Aug-18
Aug-19
Aug-20
Aug-21
Aug-22
PCE
TCE
11DCE
cDCE
VC
111TCA
11DCA

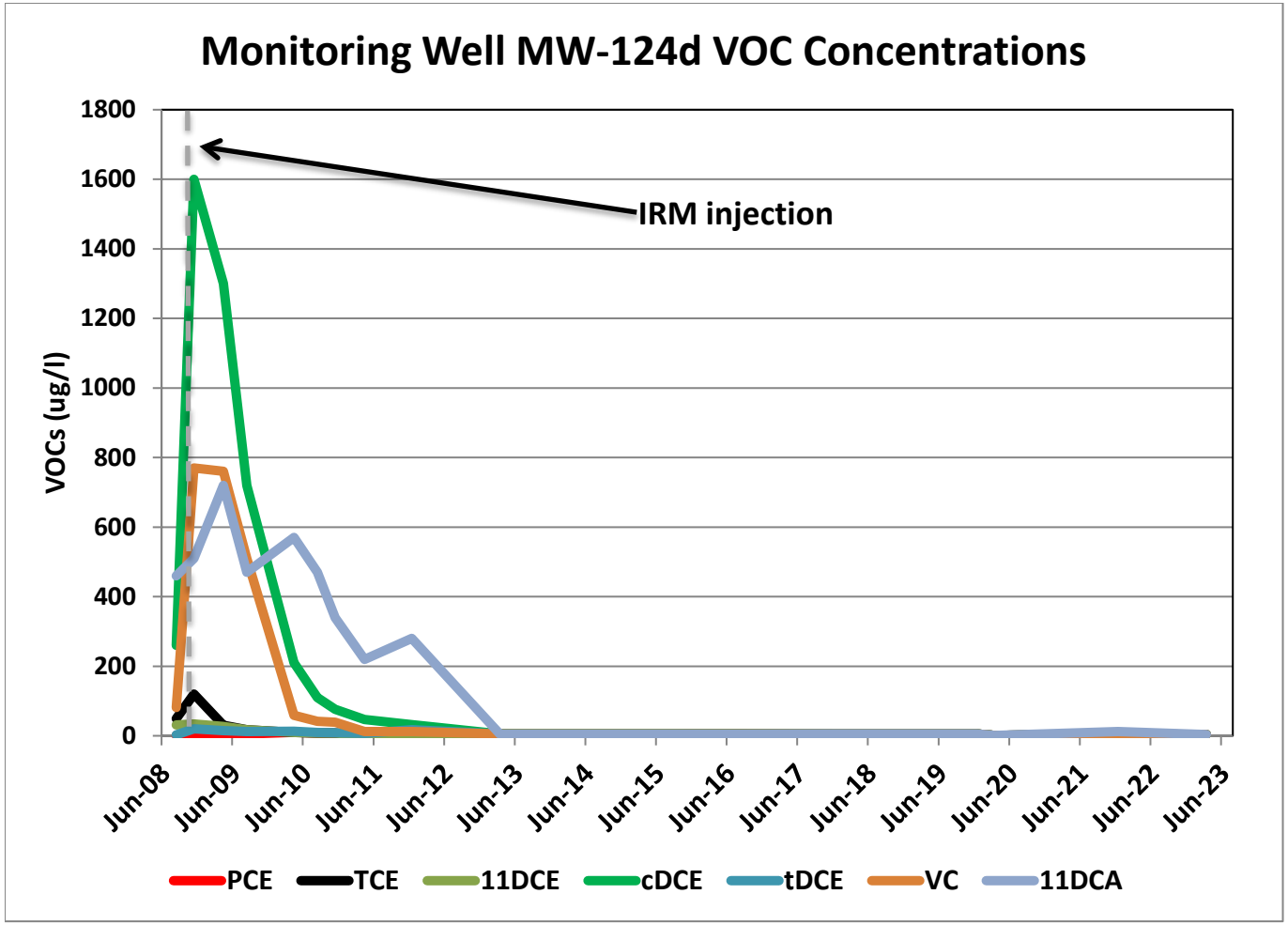

Monitoring Well MW-118 PCE Concentrations
Tetrachlorethene Concentrations (ug/L)
6,000
5,000
4,000
3,000
2,000
1,000
0
Sep-05
Apr-07
Dec-08
Aug-10
Apr-12
Nov-13
Jul-15
Mar-17
Oct-18
Jun-20
Feb-22
Oct-23
IRM Implementation
4900
1800
3000
3100
3200
8.4
3
3
9.2
1.1
1
2
2
2
1.8
1


Monitoring Well MW-118 Groundwater Concentrations
VOCs (ug/L)
6,000
5,000
4,000
3,000
2,000
1,000
0
IRM injection
TCE
PCE
4900
3100
3000
2700
1800
1700
1100
1500
450
<10
<10
10
10
1.9
2.9
3
9.2
1.1
1
0.83
2
2
2
2
2
2
1.8
1.8
Jul-05
Jun-07
May-09
Apr-11
Mar-13
Feb-15
Jan-17
Dec-18
Nov-20
Oct-22


Monitoring Well MW-121 VOC Concentrations
VOCs (ug/l)
30
25
20
15
10
5
0
IRM injection
Aug-05
Aug-06
Aug-07
Aug-08
Aug-09
Aug-10
Aug-11
Aug-12
Aug-13
Aug-14
Aug-15
Aug-16
Aug-17
Aug-18
Aug-19
Aug-20
Aug-21
Aug-22
PCE
TCE
cDCE
VC
111TCA
11DCA


Monitoring Well MW-122 VOC Concentrations
VOCs (ug/l)
1800
1600
1400
1200
1000
800
600
400
200
0
IRM injection
Aug-05
Aug-06
Aug-07
Aug-08
Aug-09
Aug-10
Aug-11
Aug-12
Aug-13
Aug-14
Aug-15
Aug-16
Aug-17
Aug-18
Aug-19
Aug-20
Aug-21
Aug-22
PCE
TCE
cDCE
VC
111TCA
11DCA


Monitoring Well MW-124s VOC Concentrations
VOCs (ug/l)
180
160
140
120
100
80
60
40
20
0
IRM injection
Jun-08
Jun-09
Jun-10
Jun-11
Jun-12
Jun-13
Jun-14
Jun-15
Jun-16
Jun-17
Jun-18
Jun-19
Jun-20
Jun-21
Jun-22
Jun-23
TCE
cDCE
tDCE
VC
Acetone
11DCA


Monitoring Well MW-124d VOC Concentrations
VOCs (ug/l)
1800
1600
1400
1200
1000
800
600
400
200
0
IRM injection
Jun-08
Jun-09
Jun-10
Jun-11
Jun-12
Jun-13
Jun-14
Jun-15
Jun-16
Jun-17
Jun-18
Jun-19
Jun-20
Jun-21
Jun-22
Jun-23
PCE
TCE
11DCE
cDCE
tDCE
VC
11DCA

Attachment 5

Mann-Kendall Groundwater Statistical Analysis

Mann-Kendall Statistical Analysis Matrix of Water Quality Trends
Former Monarch Chemical Facility
61 Gates Ave., Geneva, NY
VCP No. V00119-8

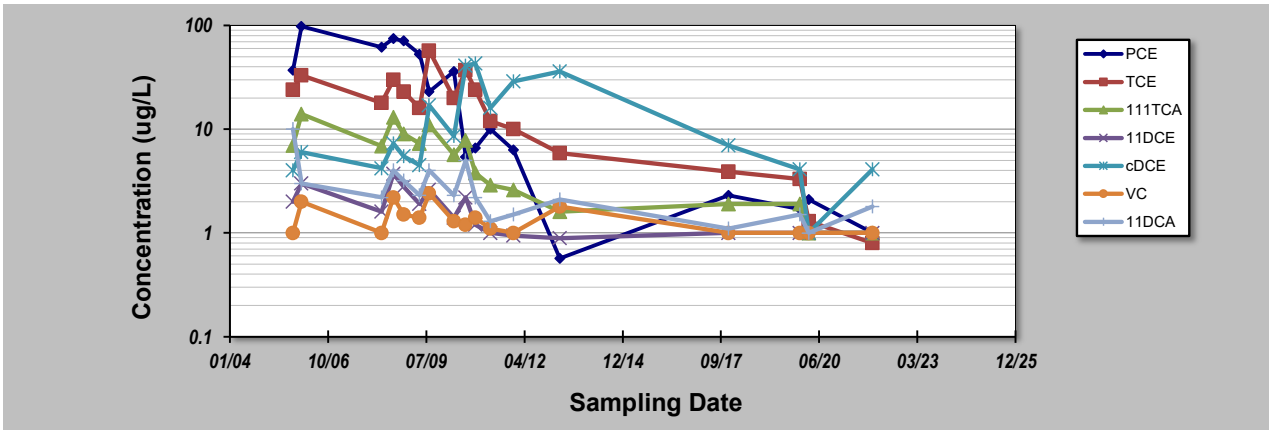
	PCE	TCE	111TCA	11DCE	11DCA	cDCE	VC	Acetone	Chloro-ethane	CT	Ethyl Benzene	Xylenes	MEK	Isopropyl-benzene
MW-114	decrease	decrease	decrease	decrease	decrease	no trend	decrease	-	-	-	-	-	-	-
MW-115	decrease	decrease	decrease	decrease	decrease	no trend	stable	-	-	-	-	-	-	-
MW-115d	stable	stable	-	no trend	decrease	-	-	stable	no trend	-	-	-	no trend	-
MW-116	decrease	decrease	decrease	decrease	stable	PD	no trend	-	-	-	-	-	-	-
MW-117	decrease	-	-	-	-	stable	-	no trend	-	-	decrease	stable	-	PD
MW-118	decrease	decrease	decrease	decrease	decrease	decrease	decrease	-	-	-	-	-	-	-
MW-121	stable	PD	decrease	-	stable	stable	stable	-	-	-	-	-	-	-
MW-122	decrease	decrease	decrease	-	decrease	decrease	decrease	-	increasing	-	-	-	-	-
MW-124s	-	no trend	stable	-	decrease	decrease	-	decrease	decrease	-	-	decrease	-	-
MW-124d	-	decrease	-	decrease	decrease	decrease	decrease	-	increase	-	-	-	decrease	-

Mann-Kendall Statistical Analysis of Select Wells - MW-114
Former Monarch Chemical Facility
61 Gates Ave., Geneva, NY
VCP No. V00119-8

GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date:	19-Apr-23	Job ID:	R013023.000
Facility Name:	Former Monarch Chemical Facility	Constituent:	MW-114
Conducted By:	Keith Rapp	Concentration Units:	ug/L

Sampling Point ID:		PCE	TCE	111TCA	11DCE	cDCE	VC	11DCA
Sampling Event	Sampling Date	MW-114 CONCENTRATION (ug/L)						
1	18-Oct-05	37	24	7	2	4	1	10
2	12-Jan-06	98	33	14	3	6	2	3
3	8-Apr-08	62	18	6.9	1.6	4.2	1	2.2
4	5-Aug-08	75	30	13	3.7	7.3	2.2	4
5	17-Nov-08	71	23	9	2.8	5.5	1.5	3.2
6	28-Apr-09	53	16	7.3	1.9	4.5	1.4	2.3
7	4-Aug-09	23	57	11	2.6	17	2.4	4
8	14-Apr-10	36	20	5.7	1.4	8.6	1.3	2.3
9	10-Aug-10	5.4	37	7.8	2.2	41	1.2	5
10	17-Nov-10	6.6	24	3.8	1.2	43	1.4	2.2
11	20-Apr-11	10	12	2.9	1	16	1.1	1.3
12	10-Dec-11	6.3	10	2.6	0.94	29	1	1.5
13	27-Mar-13	0.57	5.9	1.6	0.89	36	1.8	2.1
14	9-Dec-17	2.3	3.9	1.9	1	7	1	1.1
15	4-Dec-19	1.7	3.3	1.9	1	4.1	1	1.5
16	4-Mar-20	2.1	1.3	1	1	1	1	1
17	14-Dec-21	1	0.8	1	1	4.1	1	1.8
18	19-Mar-23	6.5	6.5	2.2	1	1	1	1
19								
20								
Coefficient of Variation:		1.10	0.80	0.73	0.51	1.01	0.34	0.75
Mann-Kendall Statistic (S):		-102	-89	-100	-82	9	-48	-78
Confidence Factor:		>99.9%	>99.9%	>99.9%	>99.9%	62.7%	97.4%	100.0%
Concentration Trend:		Decreasing	Decreasing	Decreasing	Decreasing	No Trend	Decreasing	Decreasing



Notes:

1. At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
2. Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
3. Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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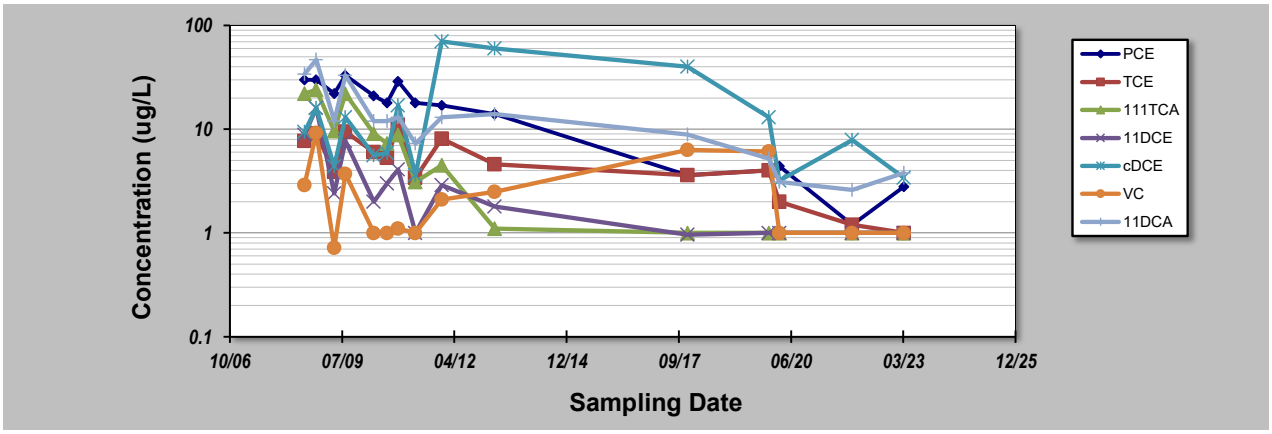
Mann-Kendall Statistical Analysis of Select Wells - MW-115
Former Monarch Chemical Facility
61 Gates Ave., Geneva, NY
VCP No. V00119-8

GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date:	19-Apr-23	Job ID:	R013023.000
Facility Name:	Former Monarch Chemical Facility	Constituent:	MW-115
Conducted By:	Keith Rapp	Concentration Units:	ug/L

Sampling Point ID:		PCE	TCE	111TCA	11DCE	cDCE	VC	11DCA
Sampling Event	Sampling Date	MW-115 CONCENTRATION (ug/L)						
1	5-Aug-08	30	7.7	22	8.8	9.4	2.9	34
2	17-Nov-08	30	9.1	24	16	16	9.2	47
3	28-Apr-09	22	3.9	9.6	2.4	4.4	0.72	12
4	3-Aug-09	33	9.5	22	7.7	13	3.7	33
5	14-Apr-10	21	6	9.1	2	5.6	1	12
6	10-Aug-10	18	5.3	7.3	3	5.9	1	12
7	17-Nov-10	29	11	8.8	4.1	17	1.1	13
8	20-Apr-11	18	3.4	3.1	1	3.6	1	7.3
9	10-Dec-11	17	8.1	4.5	2.9	70	2.1	13
10	27-Mar-13	14	4.6	1.1	1.8	60	2.5	14
11	9-Dec-17	3.6	3.6	1	0.96	40	6.3	8.9
12	3-Dec-19	4	4	1	1	13	6.1	5.2
13	5-Mar-20	4.4	2	1	1	3.2	1	3.1
14	14-Dec-21	1.2	1.2	1	1	7.9	1	2.6
15	20-Mar-23	2.8	1	1	1	3.4	1	3.8
16								
17								
18								
19								
20								
Coefficient of Variation:		0.68	0.58	1.08	1.15	1.17	0.95	0.88
Mann-Kendall Statistic (S):		-83	-59	-86	-65	-10	-8	-65
Confidence Factor:		>99.9%	99.9%	>99.9%	100.0%	66.9%	63.3%	100.0%
Concentration Trend:		Decreasing	Decreasing	Decreasing	Decreasing	No Trend	Stable	Decreasing



Notes:

1. At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
2. Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
3. Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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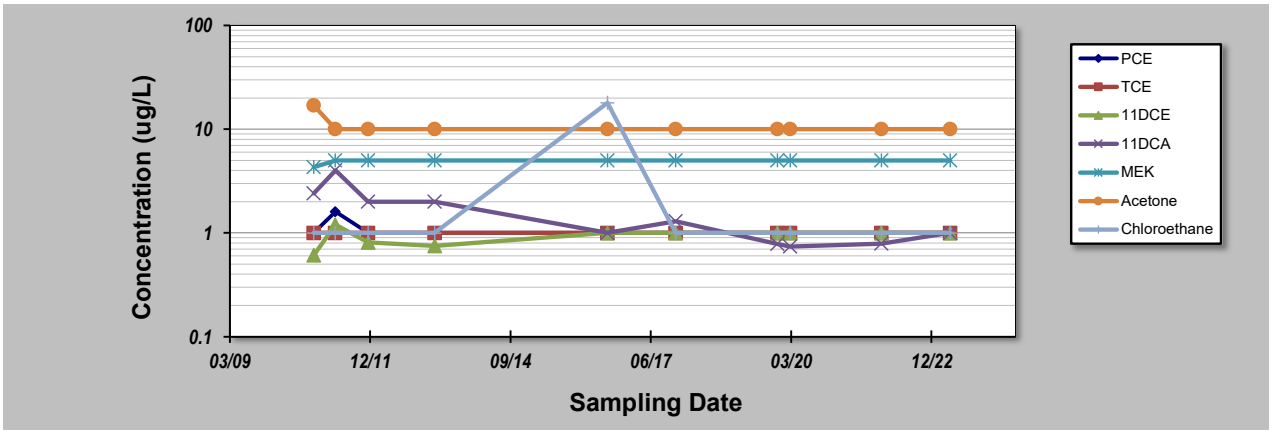
Mann-Kendall Statistical Analysis of Select Wells - MW-115d
Former Monarch Chemical Facility
61 Gates Ave., Geneva, NY
VCP No. V00119-8

GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date:	19-Apr-23	Job ID:	R013023.000
Facility Name:	Former Monarch Chemical Facility	Constituent:	MW-115d
Conducted By:	Keith Rapp	Concentration Units:	ug/L

Sampling Point ID:		PCE	TCE	11DCE	11DCA	MEK	Acetone	Chloroethane
Sampling Event	Sampling Date	MW-115D CONCENTRATION (ug/L)						
1	16-Nov-10	1	1	0.61	2.4	4.3	17	1
2	19-Apr-11	1.6	1	1.2	4	5	10	1
3	9-Dec-11	1	1	0.81	2	5	10	1
4	27-Mar-13	1	1	0.75	2	5	10	1
5	9-Aug-16	1	1	1	1	5	10	18
6	9-Dec-17	1	1	1	1.3	5	10	1
7	3-Dec-19	1	1	1	0.78	5	10	1
8	4-Mar-20	1	1	1	0.74	5	10	1
9	14-Dec-21	1	1	1	0.79	5	10	1
10	19-Apr-23	1	1	1	1	5	10	1
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
Coefficient of Variation:		0.18	0.00	0.18	0.65	0.04	0.21	1.99
Mann-Kendall Statistic (S):		-7	0	12	-29	9	-9	-1
Confidence Factor:		70.0%	45.6%	83.2%	99.5%	75.8%	75.8%	50.0%
Concentration Trend:		Stable	Stable	No Trend	Decreasing	No Trend	Stable	No Trend



Notes:

1. At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
2. Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
3. Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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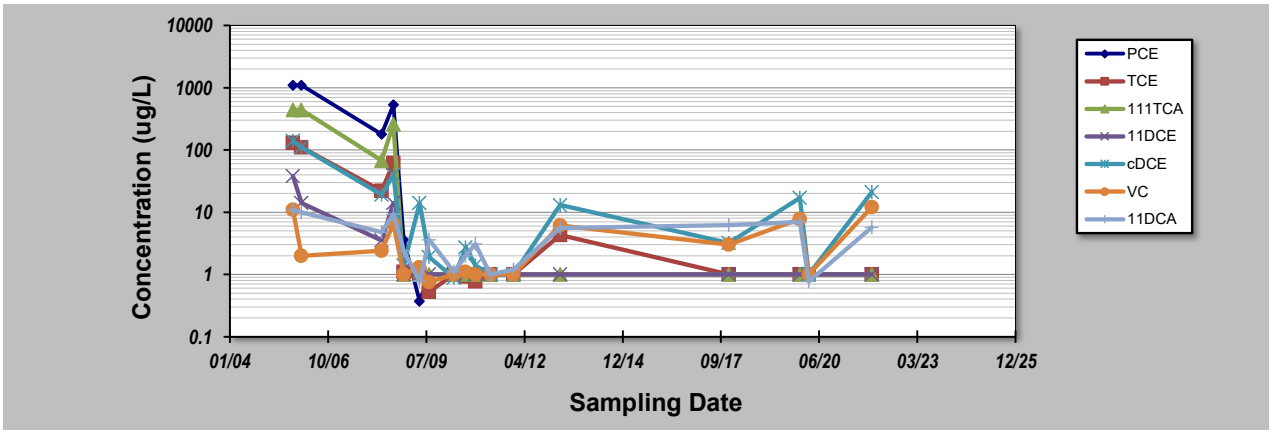
Mann-Kendall Statistical Analysis of Select Wells - MW-116
Former Monarch Chemical Facility
61 Gates Ave., Geneva, NY
VCP No. V00119-8

GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date:	19-Apr-23	Job ID:	R013023.000
Facility Name:	Former Monarch Chemical Facility	Constituent:	MW-116
Conducted By:	Keith Rapp	Concentration Units:	ug/L

Sampling Point ID:		PCE	TCE	111TCA	11DCE	cDCE	VC	11DCA
Sampling Event	Sampling Date	MW-116 CONCENTRATION (ug/L)						
1	18-Oct-05	1100	130	440	38	140	11	11
2	12-Jan-06	1100	110	440	14	110	2	10
3	8-Apr-08	180	22	68	3.5	19	2.4	4.8
4	5-Aug-08	530	62	260	14	40	6.5	9.3
5	18-Nov-08	3.6	1.1	1	1	1.4	1	2.4
6	28-Apr-09	0.37	1	1	1	14	1.3	0.78
7	4-Aug-09	1	0.53	1	1	1.9	0.75	3.6
8	14-Apr-10	1	1	1	1	0.88	1	1.1
9	10-Aug-10	1	0.92	1	1	2.7	1.1	2
10	17-Nov-10	1	0.77	1	1	1.4	1	3.1
11	20-Apr-11	1	1	1	1	1	1	1
12	10-Dec-11	1	1	1	1	1	1	1.2
13	29-Mar-13	1	4.3	1	1	13	6.1	5.6
14	10-Dec-17	1	1	1	1	3.2	3	6.2
15	4-Dec-19	1	1	1	1	17	7.8	7
16	4-Mar-20	1	1	1	1	1	1	0.77
17	5-Dec-21	1	1	1	1	21	12	5.7
18	19-Mar-23	1	1.4	1	1	1	1	1
19								
20								
Coefficient of Variation:		2.17	2.04	2.12	1.97	1.76	1.06	0.76
Mann-Kendall Statistic (S):		-56	-48	-55	-55	-38	1	-26
Confidence Factor:		98.9%	97.4%	98.8%	98.8%	93.6%	50.0%	84.6%
Concentration Trend:		Decreasing	Decreasing	Decreasing	Decreasing	Prob. Decreasing	No Trend	Stable



Notes:

1. At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
2. Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
3. Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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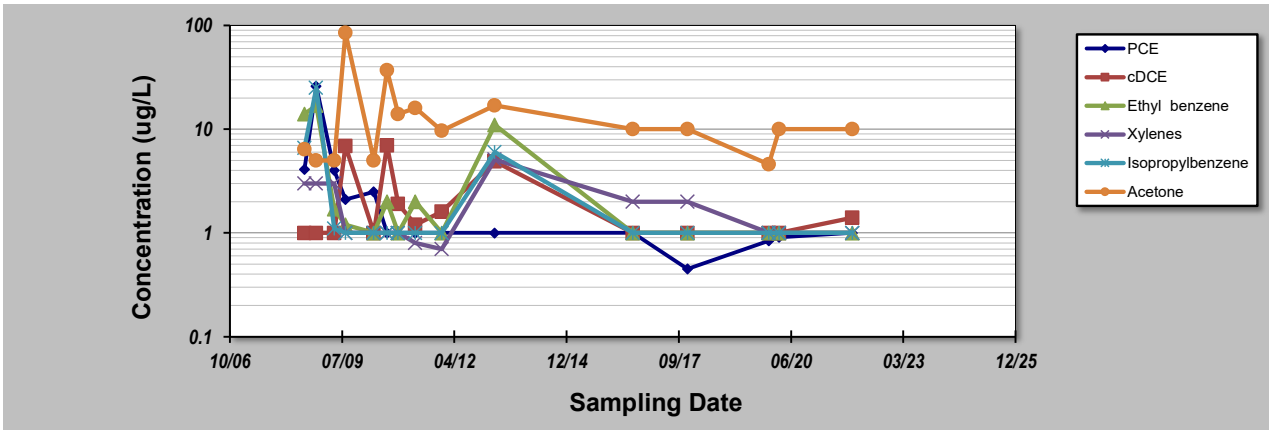
Mann-Kendall Statistical Analysis of Select Wells - MW-117
Former Monarch Chemical Facility
61 Gates Ave., Geneva, NY
VCP No. V00119-8

GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date:	19-Apr-23	Job ID:	R013023.000
Facility Name:	Former Monarch Chemical Facility	Constituent:	MW-117
Conducted By:	Keith Rapp	Concentration Units:	ug/L

Sampling Point ID:		PCE	cDCE	Ethyl benzene	Xylenes	Isopropylbenzene	Acetone	
Sampling Event	Sampling Date	MW-117 CONCENTRATION (ug/L)						
1	5-Aug-08	4.1	1	14	3	6.6	6.4	
2	17-Nov-08	26	1	17	3	25	5	
3	28-Apr-09	4	1	1.7	3	1.1	5	
4	4-Aug-09	2.1	6.9	1.2	1	1	85	
5	14-Apr-10	2.5	1	1	1	1	5	
6	10-Aug-10	1	7	2	1	1	37	
7	17-Nov-10	1	1.9	1	1	1	14	
8	20-Apr-11	1	1.2	2	0.8	1	16	
9	10-Dec-11	1	1.6	1	0.7	1	9.7	
10	27-Mar-13	1	4.9	11	5.1	6	17	
11	9-Aug-16	1	1	1	2	1	5	
12	9-Dec-17	0.45	1	1	2	1	5	
13	3-Dec-19	0.84	1	1	1	1	4.6	
14	4-Mar-20	0.91	1	1	1	1	5	
15	15-Dec-21	1	1.4	1	1	1	5	
16	18-Mar-23	2	1	1	1	1	5	
17								
18								
19								
20								
Coefficient of Variation:		2.01	0.99	1.43	0.71	1.90	1.27	
Mann-Kendall Statistic (S):		-68	-3	-46	-26	-34	2	
Confidence Factor:		>99.9%	53.9%	98.8%	89.0%	94.9%	52.0%	
Concentration Trend:		Decreasing	Stable	Decreasing	Stable	Prob. Decreasing	No Trend	



Notes:

1. At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
2. Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
3. Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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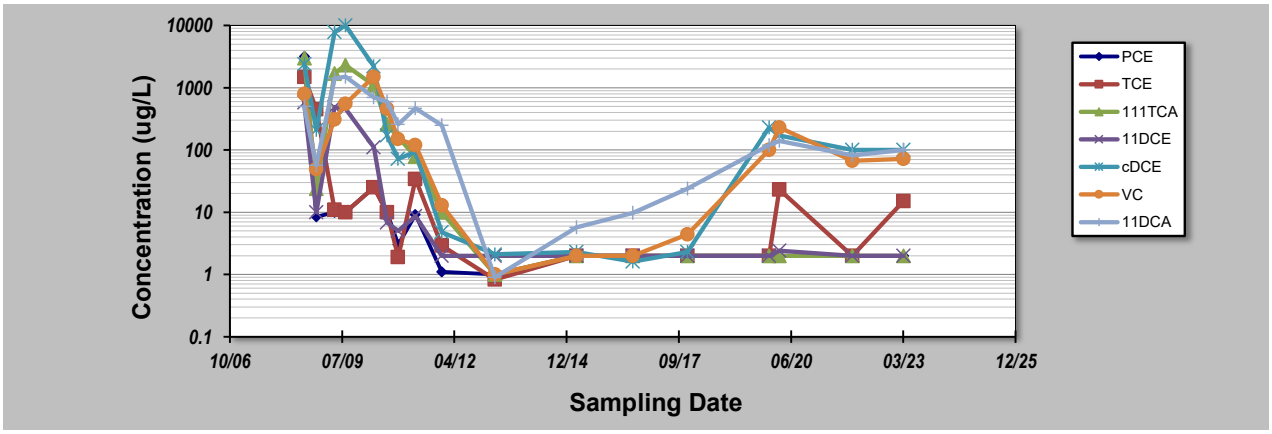
Mann-Kendall Statistical Analysis of Select Wells - MW-118
Former Monarch Chemical Facility
61 Gates Ave., Geneva, NY
VCP No. V00119-8

GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date:	19-Apr-23	Job ID:	R013023.000
Facility Name:	Former Monarch Chemical Facility	Constituent:	MW-118
Conducted By:	Keith Rapp	Concentration Units:	ug/L

Sampling Point ID:		PCE	TCE	111TCA	11DCE	cDCE	VC	11DCA
Sampling Event	Sampling Date	MW-118 CONCENTRATION (ug/L)						
1	4-Aug-08	3200	1500	3000	580	2400	800	500
2	18-Nov-08	8.4	450	24	10	210	49	57
3	29-Apr-09	10	11	1700	490	7800	310	1400
4	4-Aug-09	10	10	2300	460	10000	550	1500
5	14-Apr-10	25	25	1100	110	2200	1500	700
6	10-Aug-10	10	10	260	6.8	170	460	600
7	17-Nov-10	3	1.9	160	5	72	150	260
8	20-Apr-11	9.2	34	78	8.6	93	120	470
9	10-Dec-11	1.1	2.9	10	2	4.8	13	250
10	29-Mar-13	1	0.83	1	2	2.1	1	0.9
11	24-Mar-15	2	2	2	2	2.3	2	5.7
12	9-Aug-16	2	2	2	2	1.6	2	9.7
13	9-Dec-17	2	2	2	2	2.3	4.4	24
14	4-Dec-19	2	2	2	2	230	100	120
15	5-Mar-20	2	23	2	2.4	170	230	140
16	15-Dec-21	2	2	2	2	100	67	82
17	18-Mar-23	2	15	2	2	100	72	100
18								
19								
20								
Coefficient of Variation:		4.00	3.01	1.85	2.00	2.13	1.50	1.27
Mann-Kendall Statistic (S):		-68	-47	-87	-86	-53	-47	-54
Confidence Factor:		99.8%	97.1%	>99.9%	>99.9%	98.5%	97.1%	98.6%
Concentration Trend:		Decreasing	Decreasing	Decreasing	Decreasing	Decreasing	Decreasing	Decreasing



Notes:

1. At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
2. Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
3. Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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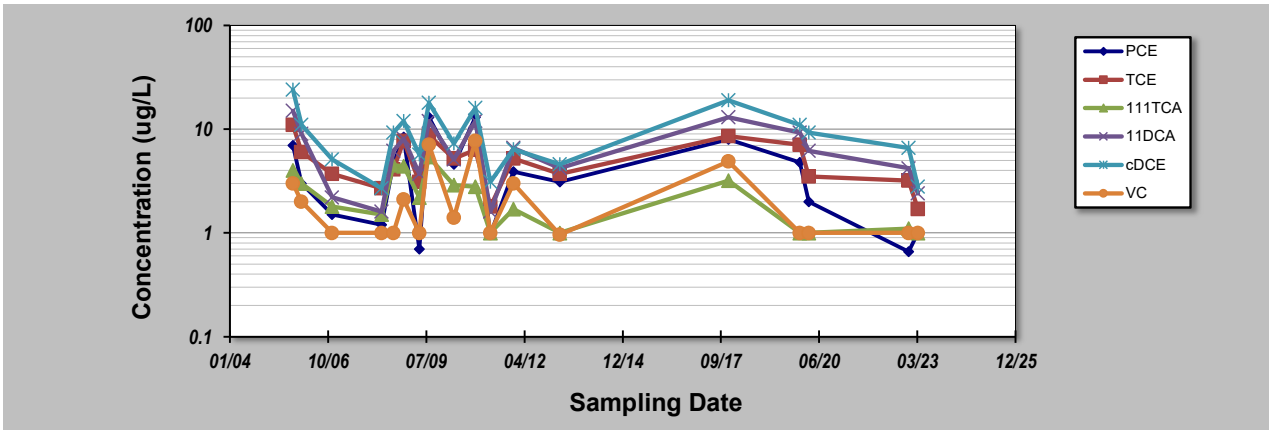
Mann-Kendall Statistical Analysis of Select Wells - MW-121
Former Monarch Chemical Facility
61 Gates Ave., Geneva, NY
VCP No. V00119-8

GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date:	19-Apr-23	Job ID:	R013023.000
Facility Name:	Former Monarch Chemical Facility	Constituent:	MW-121
Conducted By:	Keith Rapp	Concentration Units:	ug/L

Sampling Point ID:		PCE	TCE	111TCA	11DCA	cDCE	VC	
Sampling Event	Sampling Date	MW-121 CONCENTRATION (ug/L)						
1	18-Oct-05	7	11	4	15	24	3	
2	12-Jan-06	3	6	3	9	11	2	
3	21-Nov-06	1.5	3.7	1.8	2.2	5.1	1	
4	8-Apr-08	1.2	2.7	1.5	1.6	2.7	1	
5	5-Aug-08	4.7	4.1	4.5	6.2	9.3	1	
6	17-Nov-08	8.4	7.7	4.4	8.1	12	2.1	
7	27-Apr-09	0.7	3.1	2.2	3.7	5.7	1	
8	3-Aug-09	13	8.7	5.4	12	18	7.1	
9	14-Apr-10	4.6	5.2	2.9	5.1	7.3	1.4	
10	17-Nov-10	13	6.3	2.8	12	16	7.7	
11	20-Apr-11	0.97	1.8	1	1.6	3.1	1	
12	10-Dec-11	3.9	5.2	1.7	6.6	6.4	3	
13	28-Mar-13	3.1	3.7	1	4.2	4.6	0.96	
14	9-Dec-17	8	8.6	3.2	13	19	4.9	
15	3-Dec-19	4.8	7.1	1	9.3	11	1	
16	5-Mar-20	2	3.5	1	6.2	9.3	1	
17	16-Dec-22	0.66	3.2	1.1	4.2	6.6	1	
18	21-Mar-23	1	1.7	1	2.4	2.8	1	
19								
20								
Coefficient of Variation:		0.87	0.50	0.59	0.61	0.63	0.94	
Mann-Kendall Statistic (S):		-24	-35	-67	-13	-21	-22	
Confidence Factor:		80.6%	90.0%	99.5%	67.3%	77.3%	78.4%	
Concentration Trend:		Stable	Prob. Decreasing	Decreasing	Stable	Stable	Stable	



Notes:

1. At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
2. Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
3. Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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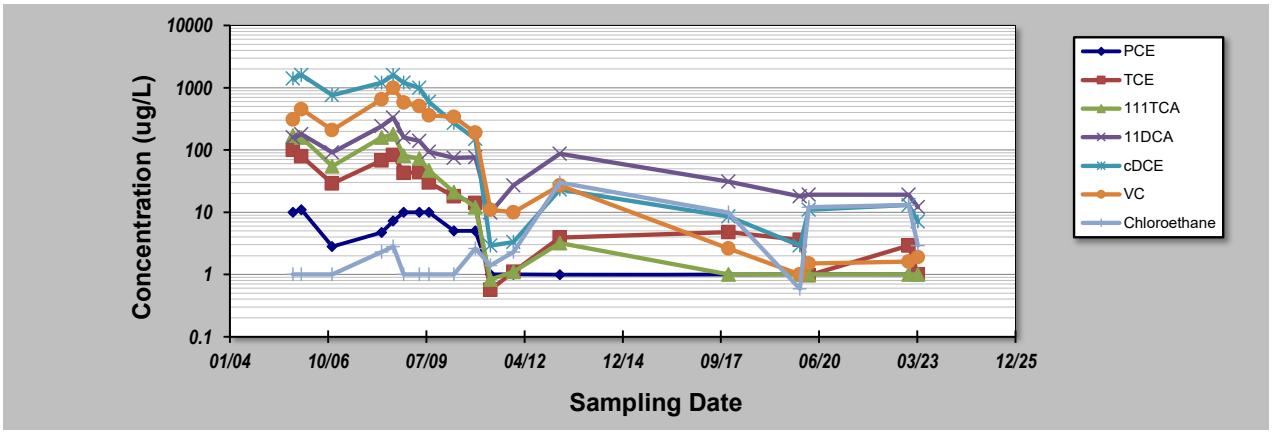
Mann-Kendall Statistical Analysis of Select Wells - MW-122
Former Monarch Chemical Facility
61 Gates Ave., Geneva, NY
VCP No. V00119-8

GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date:	19-Apr-23	Job ID:	R013023.000
Facility Name:	Former Monarch Chemical Facility	Constituent:	MW-122
Conducted By:	Keith Rapp	Concentration Units:	ug/L

Sampling Point ID:		PCE	TCE	111TCA	11DCA	cDCE	VC	Chloroethane
Sampling Event	Sampling Date	MW-122 CONCENTRATION (ug/L)						
1	18-Oct-05	10	100	170	160	1400	310	1
2	12-Jan-06	11	79	160	180	1600	450	1
3	21-Nov-06	2.8	29	55	91	760	210	1
4	7-Apr-08	4.7	68	160	240	1200	650	2.3
5	4-Aug-08	7.2	83	180	330	1600	1000	2.8
6	17-Nov-08	10	43	81	160	1200	580	1
7	27-Apr-09	10	44	73	140	1000	510	1
8	3-Aug-09	10	30	47	93	590	360	1
9	14-Apr-10	5	18	21	75	270	340	1
10	17-Nov-10	5	14	12	76	150	190	2.6
11	20-Apr-11	1	0.57	0.83	9.9	2.9	11	1.4
12	10-Dec-11	1	1.1	1.1	27	3.3	10	2.3
13	28-Mar-13	0.99	3.9	3.2	87	23	27	30
14	9-Dec-17	1	4.8	1	31	8.5	2.6	9.8
15	3-Dec-19	1	3.6	1	18	2.9	1	1
16	5-Mar-20	1	0.97	1	19	11	1.5	12
17	16-Dec-22	1	2.9	1	19	13	1.6	13
18	22-Mar-23	1	1	1	12	7.1	1.9	2.9
19								
20								
Coefficient of Variation:		0.86	1.13	1.26	0.91	1.14	1.12	1.54
Mann-Kendall Statistic (S):		-81	-109	-112	-101	-102	-101	61
Confidence Factor:		99.9%	>99.9%	>99.9%	>99.9%	>99.9%	>99.9%	98.9%
Concentration Trend:		Decreasing	Decreasing	Decreasing	Decreasing	Decreasing	Decreasing	Increasing



Notes:

1. At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
2. Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
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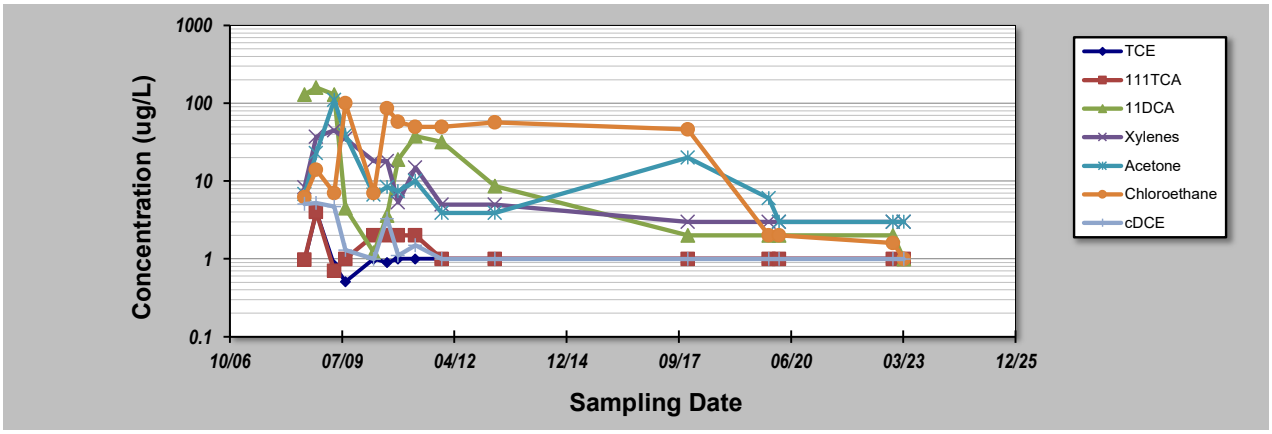
Mann-Kendall Statistical Analysis of Select Wells - MW-124s
Former Monarch Chemical Facility
61 Gates Ave., Geneva, NY
VCP No. V00119-8

GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date:	19-Apr-23	Job ID:	R013023.000
Facility Name:	Former Monarch Chemical Facility	Constituent:	MW-124s
Conducted By:	Keith Rapp	Concentration Units:	ug/L

Sampling Point ID:		TCE	111TCA	11DCA	Xylenes	Acetone	Chloroethane	cDCE
Sampling Event	Sampling Date	MW-124S CONCENTRATION (ug/L)						
1	5-Aug-08	0.94	0.98	130	8.3	6.8	6.2	5.1
2	17-Nov-08	4	4	160	37	23	14	5.2
3	28-Apr-09	0.83	0.7	130	45	110	7	4.7
4	4-Aug-09	0.51	1	4.5	35	39	100	1.3
5	14-Apr-10	1	2	1.2	18	6.7	7	1
6	10-Aug-10	0.9	2	3.6	18	8.4	86	3.3
7	17-Nov-10	1	2	19	5.3	7.4	58	1.1
8	20-Apr-11	1	2	38	15	10	50	1.5
9	10-Dec-11	1	1	32	5	3.9	50	1
10	29-Mar-13	1	1	8.6	5	3.9	57	1
11	10-Dec-17	1	1	2	3.0	20	46	1
12	3-Dec-19	1	1	2	3	6	2	1
13	4-Mar-20	1	1	2	3	3	2	1
14	14-Dec-22	1	1	2	3	3	1.6	1
15	19-Mar-23	1	1	1	3	3	1	1
16								
17								
18								
19								
20								
Coefficient of Variation:		0.70	0.59	1.55	1.03	1.63	1.03	0.82
Mann-Kendall Statistic (S):		24	-13	-58	-77	-57	-38	-63
Confidence Factor:		87.0%	72.1%	99.9%	>99.9%	99.8%	96.7%	99.9%
Concentration Trend:		No Trend	Stable	Decreasing	Decreasing	Decreasing	Decreasing	Decreasing



Notes:

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2. Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
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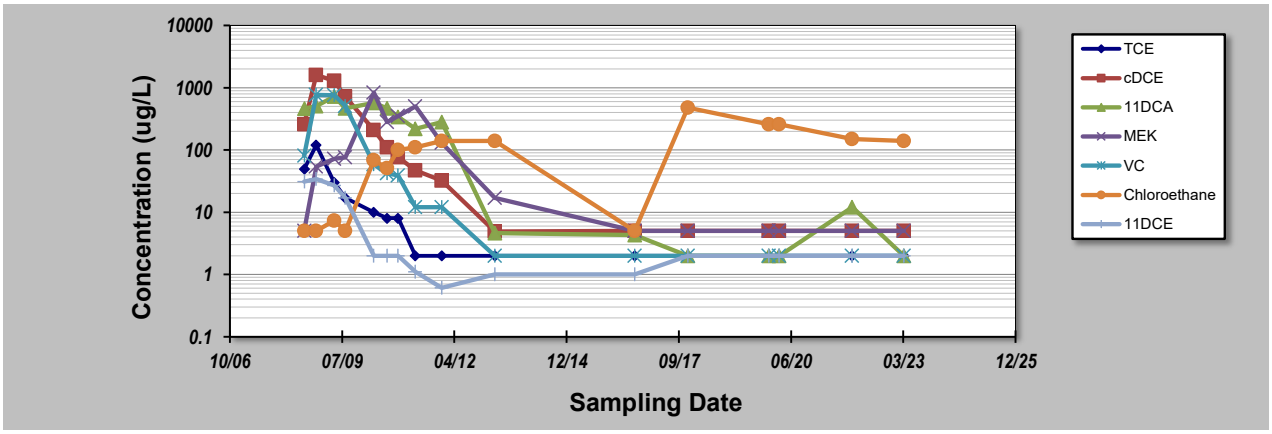
Mann-Kendall Statistical Analysis of Select Wells - MW-124d
Former Monarch Chemical Facility
61 Gates Ave., Geneva, NY
VCP No. V00119-8

GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date:	19-Apr-23	Job ID:	R013023.000
Facility Name:	Former Monarch Chemical Facility	Constituent:	MW-124d
Conducted By:	Keith Rapp	Concentration Units:	ug/L

Sampling Point ID:		TCE	cDCE	11DCA	MEK	VC	Chloroethane	11DCE
Sampling Event	Sampling Date	MW-124D CONCENTRATION (ug/L)						
1	4-Aug-08	49	260	460	5	81	5	31
2	17-Nov-08	120	1600	510	54	770	5	34
3	27-Apr-09	30	1300	720	72	760	7.3	27
4	3-Aug-09	17	720	470	76	510	5	17
5	14-Apr-10	10	210	570	830	59	69	2
6	10-Aug-10	8	110	470	280	42	51	2
7	17-Nov-10	8	76	340	350	39	100	2
8	20-Apr-11	2	47	220	500	12	110	1.1
9	10-Dec-11	2	32	280	130	12	140	0.61
10	29-Mar-13	2	4.9	4.6	17	2	140	1
11	25-Aug-16	2	5	4.3	5	2	5	1
12	10-Dec-17	2	5	2	5	2	480	2
13	3-Dec-19	2	5	2	5	2	260	2
14	4-Mar-20	2	5	2	5	2	260	2
15	14-Dec-21	2	5	12	5	2	150	2
16	19-Mar-23	2	5	2	5	2	140	2
17								
18								
19								
20								
Coefficient of Variation:		1.88	1.81	1.00	1.60	1.90	1.06	1.48
Mann-Kendall Statistic (S):		-81	-87	-85	-39	-92	74	-45
Confidence Factor:		>99.9%	>99.9%	>99.9%	95.7%	>99.9%	>99.9%	97.7%
Concentration Trend:		Decreasing	Decreasing	Decreasing	Decreasing	Decreasing	Increasing	Decreasing



Notes:

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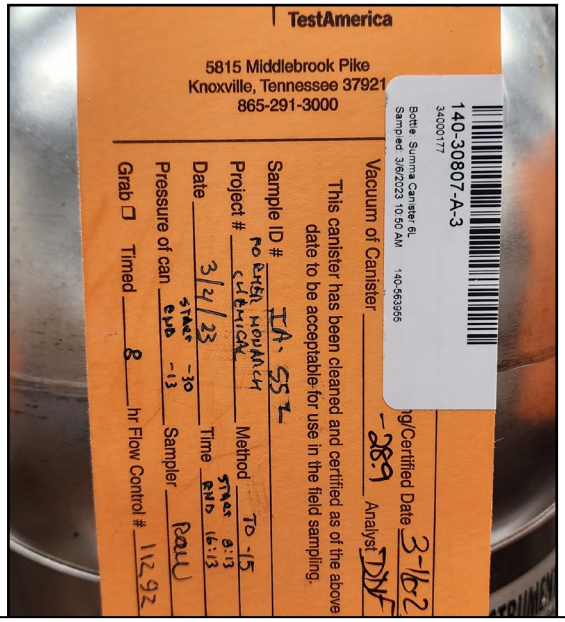
Attachment 6

March 2023 Air Sampling Field Data Sheets

PINNACLE ENGINEERING

PROJECT TITLE: Former Monarch Chemicals
PROJECT NUMBER: R013023.000
CLIENT: HB Fuller
DATE: March 21, 2023

IA-2/SS-2 Sample Location

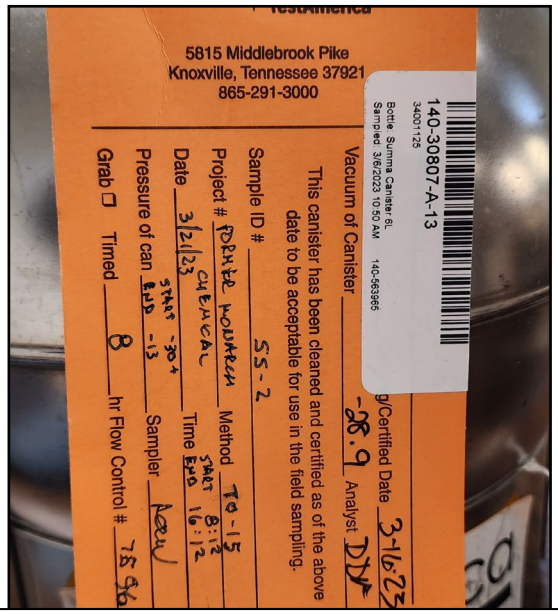


TestAmerica
5815 Middlebrook Pike
Knoxville, Tennessee 37921
865-291-3000

140-30807-A-3
34001177
Bottle: Summa Canister, 6L
Sampled: 3/6/2023 10:50 AM 140-563965

Vacuum of Canister -28.9 Certified Date 3-16-23 Analyst DDF
This canister has been cleaned and certified as of the above date to be acceptable for use in the field sampling.
Sample ID # IA-SS-2
Project # Former Monarch Chemical Method TO-15
Date 3/2/23 Time Start 8:13 End 16:13
Pressure of can Start -30 End -13 Sampler Rau
Grab ☐ Timed 8 hr Flow Control # 11292

IA-2 Sample Canister

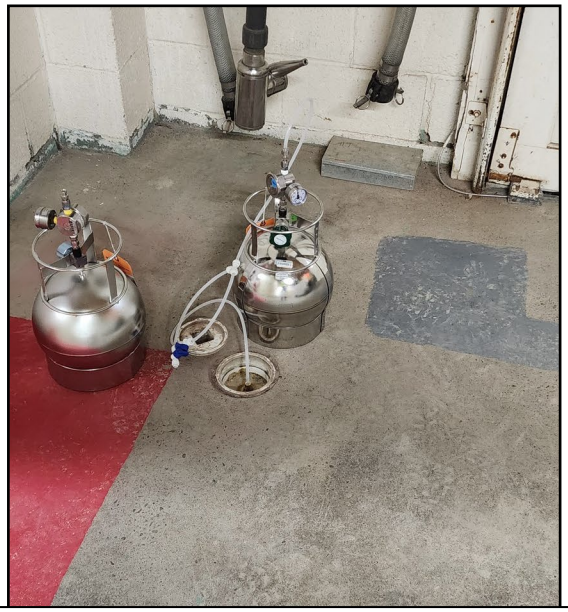


TestAmerica
5815 Middlebrook Pike
Knoxville, Tennessee 37921
865-291-3000

140-30807-A-13
34001125
Bottle: Summa Canister, 6L
Sampled: 3/6/2023 10:50 AM 140-563965

Vacuum of Canister -28.9 Certified Date 3-16-23 Analyst DDF
This canister has been cleaned and certified as of the above date to be acceptable for use in the field sampling.
Sample ID # SS-2
Project # Former Monarch Chemical Method TO-15
Date 3/2/23 Time Start 8:12 End 16:12
Pressure of can Start -30 End -13 Sampler Rau
Grab ☐ Timed 8 hr Flow Control # 7896

SS-2 Sample Canister

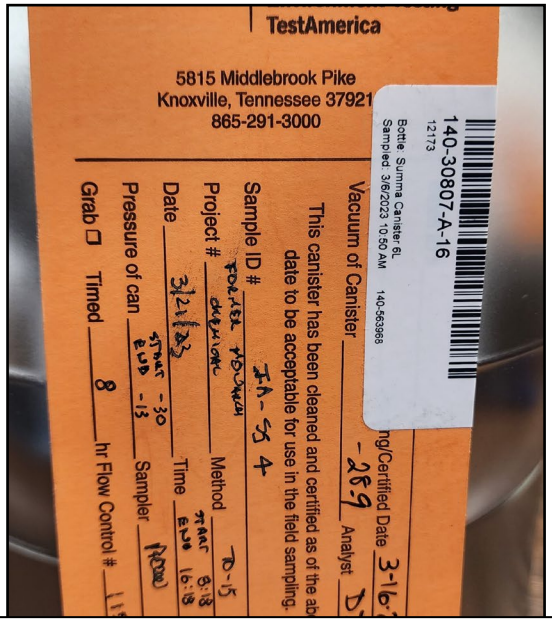


IA-4/SS-4 Sample Location

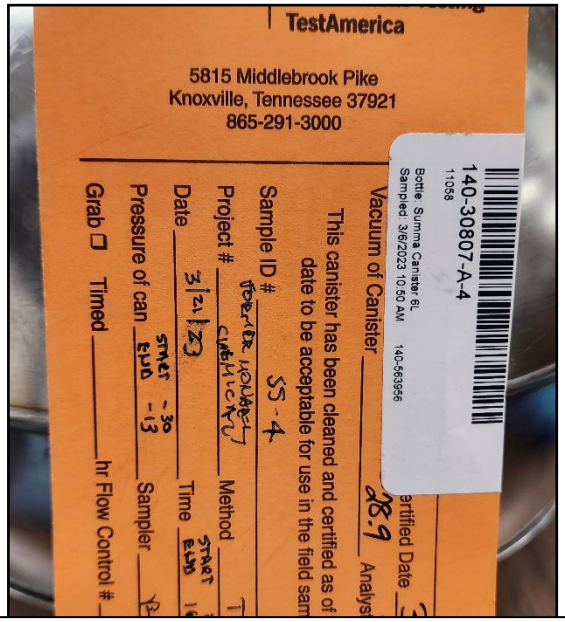
ADDITIONAL INFO:
.

PINNACLE ENGINEERING

PROJECT TITLE: Former Monarch Chemicals
PROJECT NUMBER: R013023.000
CLIENT: HB Fuller
DATE: March 21, 2023



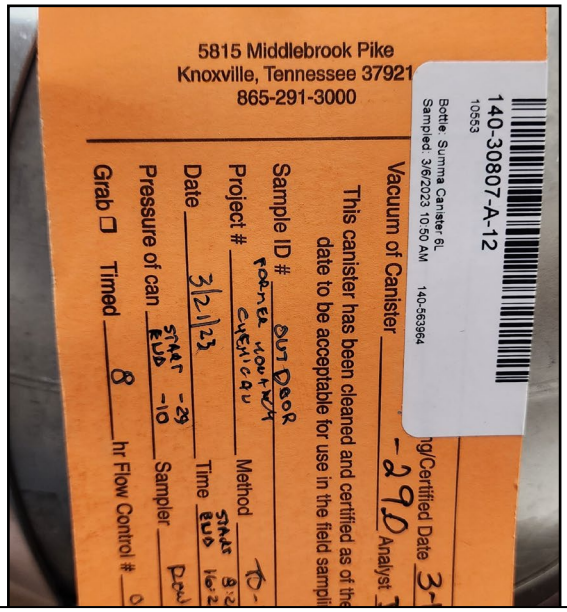
IA-2 Sample Canister



SS-4 Sample Canister

Outdoor Sample Location

(near front of Univar plant)



Outdoor Sample Canister

ADDITIONAL INFO:
Wind direction was west to east. Outdoor (upwind) sample location was in front of (south) of BCS plant main entrance, near their fire hydrant.

AIR SAMPLING FIELD DATA SHEET

A) General Information

Sample Identification Number: IA - SS 2
Site Address: 61 GATES AVE GENEVA, NY 14456
Sample Canister Location: CENTER OF WAREHOUSE

Sample source: Indoor Air / Sub-Slab / Near Slab Soil Gas / Exterior Soil Gas
Sample Date: 3/21/23 Sampler: RA WOSCIAK
Sample Time: Start: 8:13 Stop: 16:13
Shipping Date: 3/22/23 delivered to Eurofins Syracuse service center by sampler

Canister Type: 400 mL – 1.0 L Summa Canister / 6 L Summa Canister / Other (specify):

Canister Serial No.: 34 000177
Flow Controller Serial No.: 11292

Were "Instructions for Occupants" followed?
☒ Yes ☐ No

B) Sampling Information

	Start		Stop	
	Ambient	Interior	Ambient	Interior
Temperature °F	43.6	64.1	60.2	68.5

	Start	Stop	
Canister Pressure Gauge Reading:	-30	-22	in Hg
Time:	8:13	16:13	
PID Reading (ppm):	NM	NM	
Basement Depth (ft below grade):	N/A		
Window Marked:	~~Yes/No~~ N/A		

Was there significant precipitation within 12 hours prior to (or during) the sampling event?
☐ Yes ☒ No

Describe the general weather conditions: mid 40's (morning) to 60°F (afternoon), breezy to windy, partly cloudy to mostly overcast

wind out of the south @ start of sampling, quickly shifting from out of the west. stayed out of the west for the remainder of the day

AIR SAMPLING FIELD DATA SHEET

Provide Drawing of Sample Location(s) in Building

See attached drawing

C) Comments

PID not available due to problems w/ battery connection

IA - SS2

DATE	TIME	TEMP	BARO	EC VAC	PID	COMMENT
3/21/23	8:13	64.1	29.72	-30		open sample valve
	9:56	66.8	29.74	-29		
	12:45	68.2	29.75	-25		
	16:13	68.5	29.72	-22		close sample valve

AIR SAMPLING FIELD DATA SHEET

A) General Information

Sample Identification Number: IA SS-4
Site Address: 61 GATES AVE GENEVA, NY 14456
Sample Canister Location: INSIDE LOAD OUT DOOR

Sample source: (Indoor Air) / Sub-Slab / Near Slab Soil Gas / Exterior Soil Gas
Sample Date: 3/21/23 Sampler: R.A. WOSC/AK
Sample Time: Start: 8:18 Stop: ~~16~~ 16:18
Shipping Date: 3/22/23 delivered to Eurofins Syracuse service center by sampler

Canister Type: 400 mL – 1.0 L Summa Canister / (6 L Summa Canister) / Other (specify):

Canister Serial No.: 12173
Flow Controller Serial No.: 11513

Were "Instructions for Occupants" followed?
☒ Yes ☐ No

B) Sampling Information

	Start		Stop	
	Ambient	Interior	Ambient	Interior
Temperature °F	43.6	68.6	60.2	65.2

	Start	Stop
Canister Pressure Gauge Reading:	-30	-13 in Hg
Time:	8:18	16:18
PID Reading (ppm):	NM	NM
Basement Depth (ft below grade):	N/A	
Window Marked:	~~Yes/No~~ N/A	

Was there significant precipitation within 12 hours prior to (or during) the sampling event?
☐ Yes ☒ No

Describe the general weather conditions: mid 40's (morning) to 60°F (afternoon), breezy to windy, partly cloudy to mostly overcast

wind out of the south early and shifting from the west quickly & remained from that direction the rest of the day

AIR SAMPLING FIELD DATA SHEET

Provide Drawing of Sample Location(s) in Building

see attached drawing

C) Comments

PID not available due to problem w/ connection to the battery

IA - SS4

DATE	TIME	TEMP	BARO	EC VAC	PID	COMMENT
3/21/23	8:18	68.6	29.72	-30		open sample valve
	10:00	62.1	29.74	-26		
	12:49	66.6	29.75	-20		
	16:18	65.2	29.72	-13		close sample valve

AIR SAMPLING FIELD DATA SHEET

A) General Information

Sample Identification Number: SS-2
Site Address: 61 GATES AVE GENEVA, NY 14456
Sample Canister Location: CENTER OF WAREHOUSE

Sample source: Indoor Air / Sub-Slab / Near Slab Soil Gas / Exterior Soil Gas
Sample Date: 3/21/23 Sampler: ROBINSON/AK
Sample Time: Start: 8:12 Stop: 16:12
Shipping Date: 3/22/23 DROP OFF AT SYRACUSE SERVICE CENTER

Canister Type: 400 mL – 1.0 L Summa Canister / 6 L Summa Canister / Other (specify):

Canister Serial No.: 34001125
Flow Controller Serial No.: 7596

Were "Instructions for Occupants" followed?
☒ Yes ☐ No

B) Sampling Information

	Start		Stop	
	Ambient	Interior	Ambient	Interior
Temperature °F	43.6	64.1	60.2	68.5

	Start	Stop	
Canister Pressure Gauge Reading:	-30+	-13	in Hg
Time:	8:12	16.12	
PID Reading (ppm):	NM	NM	
Basement Depth (ft below grade):	N/A		
Window Marked:	~~Yes/No~~ N/A		

Was there significant precipitation within 12 hours prior to (or during) the sampling event?
☐ Yes ☒ No

Describe the general weather conditions: MID 40'S (morning) to 60 °F (afternoon), breezy to windy, partly cloudy to mostly overcast
wind out of the south early and shifting from the west quickly & remained from that direction the rest of the day

AIR SAMPLING FIELD DATA SHEET

Provide Drawing of Sample Location(s) in Building

see attached map

C) Comments

no PID readings taken as there was a problem w/ battery connection

SS-2

DATE	TIME	TEMP	BARO	EC VAC	PID	COMMENT
3/21/23	8:12	64.1	29.72	-30		open sample valve
	9:55	66.8	29.74	-29		
	12:45	68.2	29.75	-21		
	16:12	68.5	29.72	-13		close sample valve

location passed helium test (sub slab seal integrity) immediately prior to sampling. greater than 10% helium atmosphere was contained around sub slab sample port while air was drawn for five (5) minutes through the sample port at 0.5 ml/min no helium was detected beneath the slab (0 ppm)

location failed first tubing vacuum test. all connections were tightened and the second tubing ~~pa~~ vacuum test was successful. held -17 in Hg for 5 minutes

AIR SAMPLING FIELD DATA SHEET

A) General Information

Sample Identification Number: SS-4
Site Address: 61 GATES AVE GENEVA, NY 14456
Sample Canister Location: INSIDE LOAD OUT DOOR

Sample source: Indoor Air / Sub-Slab / Near Slab Soil Gas / Exterior Soil Gas
Sample Date: 3/21/23 Sampler: R.A. WOJCIAK
Sample Time: Start: 8:17 Stop: 16:17
Shipping Date: 3/22/23 drop off at Caroline Syracuse service center by sampler

Canister Type: 400 mL – 1.0 L Summa Canister / 6 L Summa Canister / Other (specify):

Canister Serial No.: 11058
Flow Controller Serial No.: 11931

Were "Instructions for Occupants" followed?
☒ Yes ☐ No

B) Sampling Information

	Start		Stop	
	Ambient	Interior	Ambient	Interior
Temperature °F	43.6	68.6	60.2	65.2

	Start	Stop
Canister Pressure Gauge Reading:	-30	-13 inHg
Time:	8:17	16:17
PID Reading (ppm):	NM	NM
Basement Depth (ft below grade):	N/A	
Window Marked:	~~Yes/No~~ N/A	

Was there significant precipitation within 12 hours prior to (or during) the sampling event?
☐ Yes ☒ No

Describe the general weather conditions: mid 40's (morning) to 60°F (afternoon), breezy to windy, partly cloudy to mostly overcast
wind out of the south to start then gently shifting to out of ~~the~~ the west. ~~Remained~~ Remained from the west the rest of the day

AIR SAMPLING FIELD DATA SHEET

Provide Drawing of Sample Location(s) in Building

see attached drawing

C) Comments

PID not available due to a battery connection problem

SS-4

DATE	TIME	TEMP	BARO	EC VAC	PID	COMMENT
3/21/23	8:17	68.6	29.72	-30		open sample valve
	10:00	62.1	29.74	-26		
	12:48	66.6	29.75	-20		
	16:17	65.2	29.72	-13		close sample valve

location passed helium test (sub slab seal integrity) and tubing vacuum test (-18 in Hg held for 3 minutes) immediately prior to sampling.

for helium test a 10% + (20,000 + ppm) atmosphere of helium was contained around the sub slab sample port. air was drawn through the sample port for 5 (five) minutes w/ no helium detected (0 ppm)

AIR SAMPLING FIELD DATA SHEET

A) General Information

Sample Identification Number: OUTDOOR
Site Address: 61 GATES AVE GENEVA, NY 14456
Sample Canister Location:

Sample source: Indoor Air / Sub-Slab / Near Slab Soil Gas / Exterior Soil Gas OUTDOOR UPGRADIENT AMBIENT
Sample Date: 3/21/23 Sampler: R.A. WOSCIAK
Sample Time: Start: 8:24 Stop: 16:24
Shipping Date: 3/22/23 delivered to Eurofins Syracuse service center by the sampler

Canister Type: 400 mL – 1.0 L Summa Canister / 6 L Summa Canister / Other (specify):

Canister Serial No.: 10553
Flow Controller Serial No.: 09952

Were "Instructions for Occupants" followed?
☒ Yes ☐ No

B) Sampling Information

	Start		Stop	
	Ambient	Interior	Ambient	Interior
Temperature °F	43.6	N/A	60.2	N/A

	Start	Stop	
Canister Pressure Gauge Reading:	-29	-10	in Hg
Time:	8:24	16:24	
PID Reading (ppm):	NM	NM	
Basement Depth (ft below grade):	N/A		
Window Marked:	~~Yes/No~~ N/A		

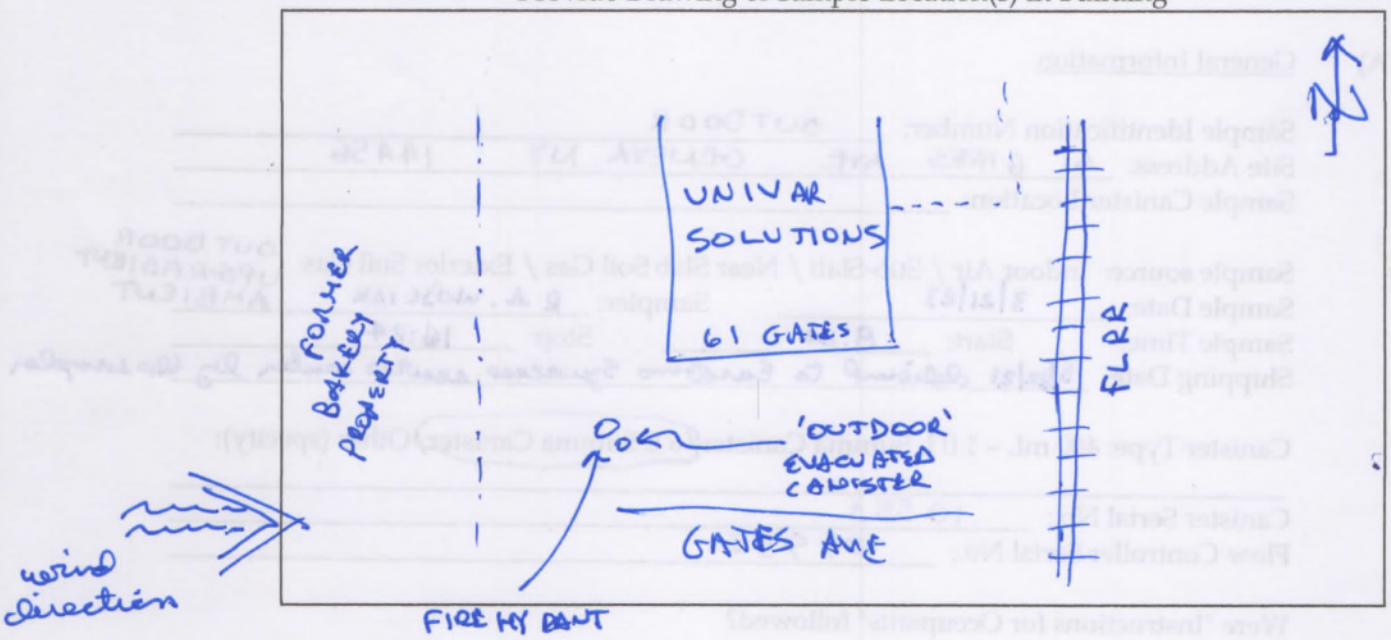
Was there significant precipitation within 12 hours prior to (or during) the sampling event?
☐ Yes ☒ No

Describe the general weather conditions: mid 40's (morning) to 60°F (afternoon), hazy to mostly overcast, partly cloudy to mostly overcast.

wind out of the south early then shifting to quickly from out of the west and ~~remained~~ remained out of the west for the rest of the day

AIR SAMPLING FIELD DATA SHEET

Provide Drawing of Sample Location(s) in Building



C) Comments

PID not available due to problems w/ connection to the battery

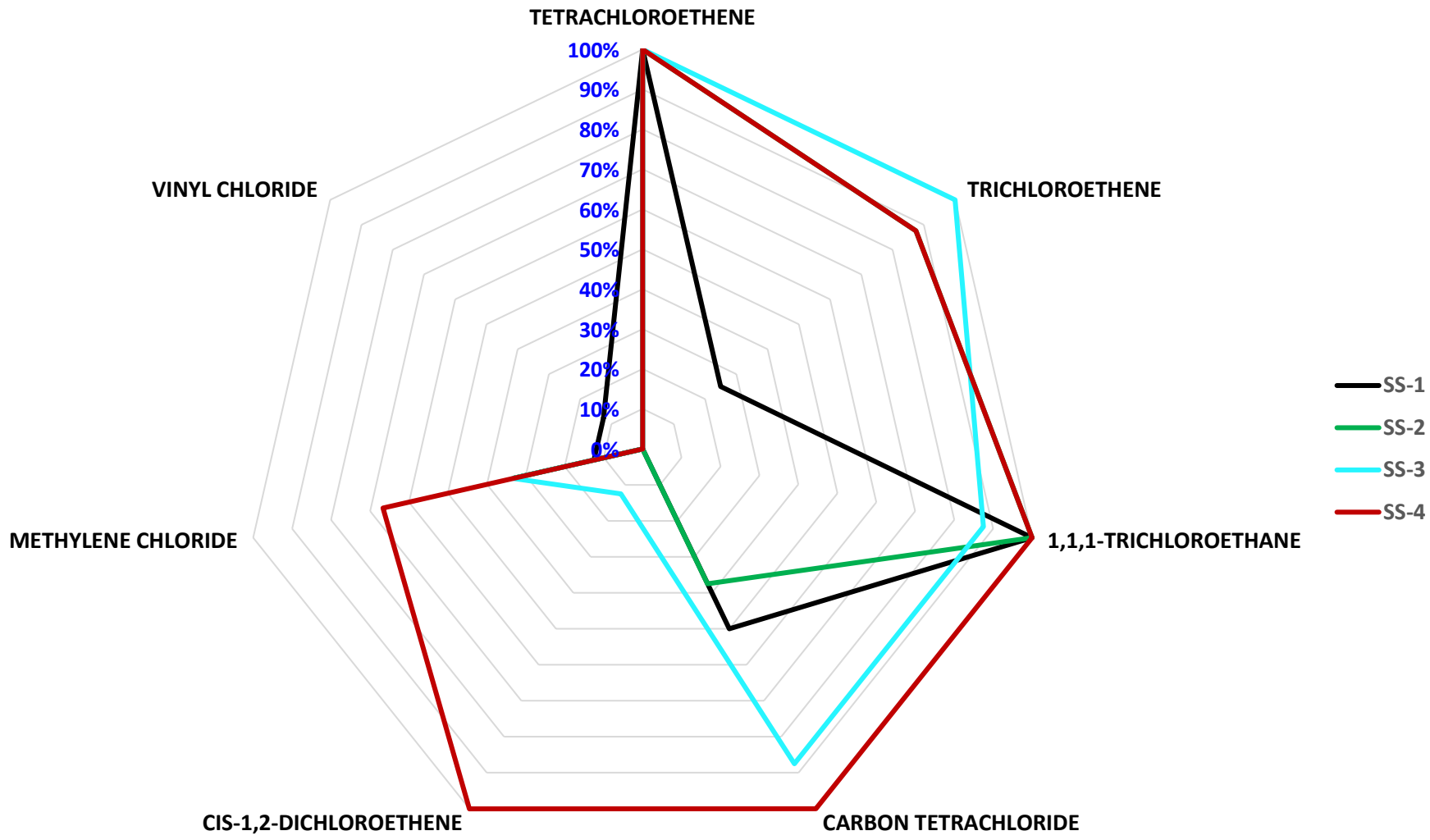
OUTDOOR (ambient)

DATE	TIME	TEMP	BARO	EC RAC	PID	COMMENT
3/21/23	8:24	43.6	29.72	-29		open sample valve
	10:05	48.8	29.74	-25		
	12:58	58.7	29.75	-19	0.055	
	16:24	60.2	29.73	-10		close sample valve
		°F	"Hg	"Hg		

Attachment 7

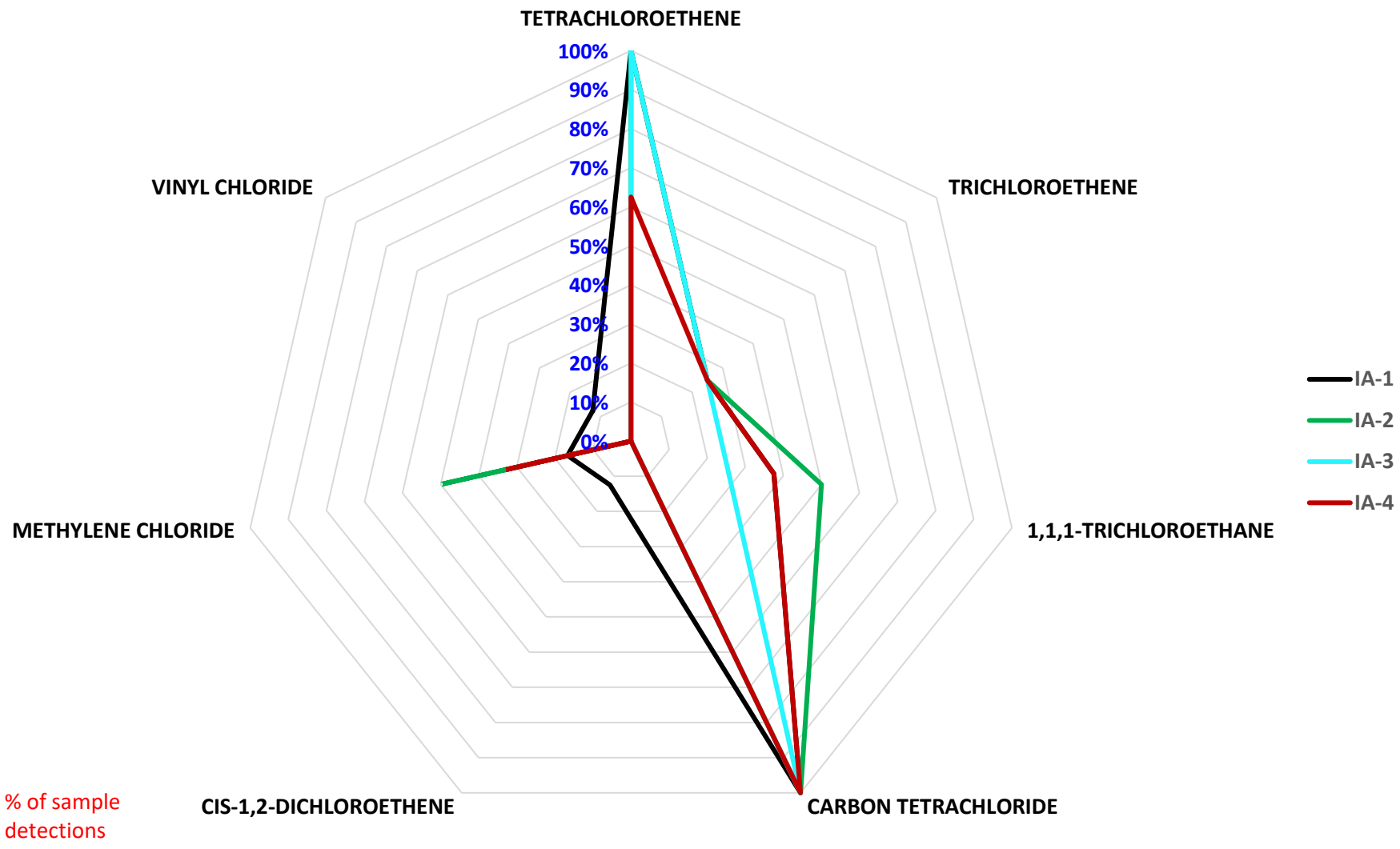
SVI Isoconcentration Graphs

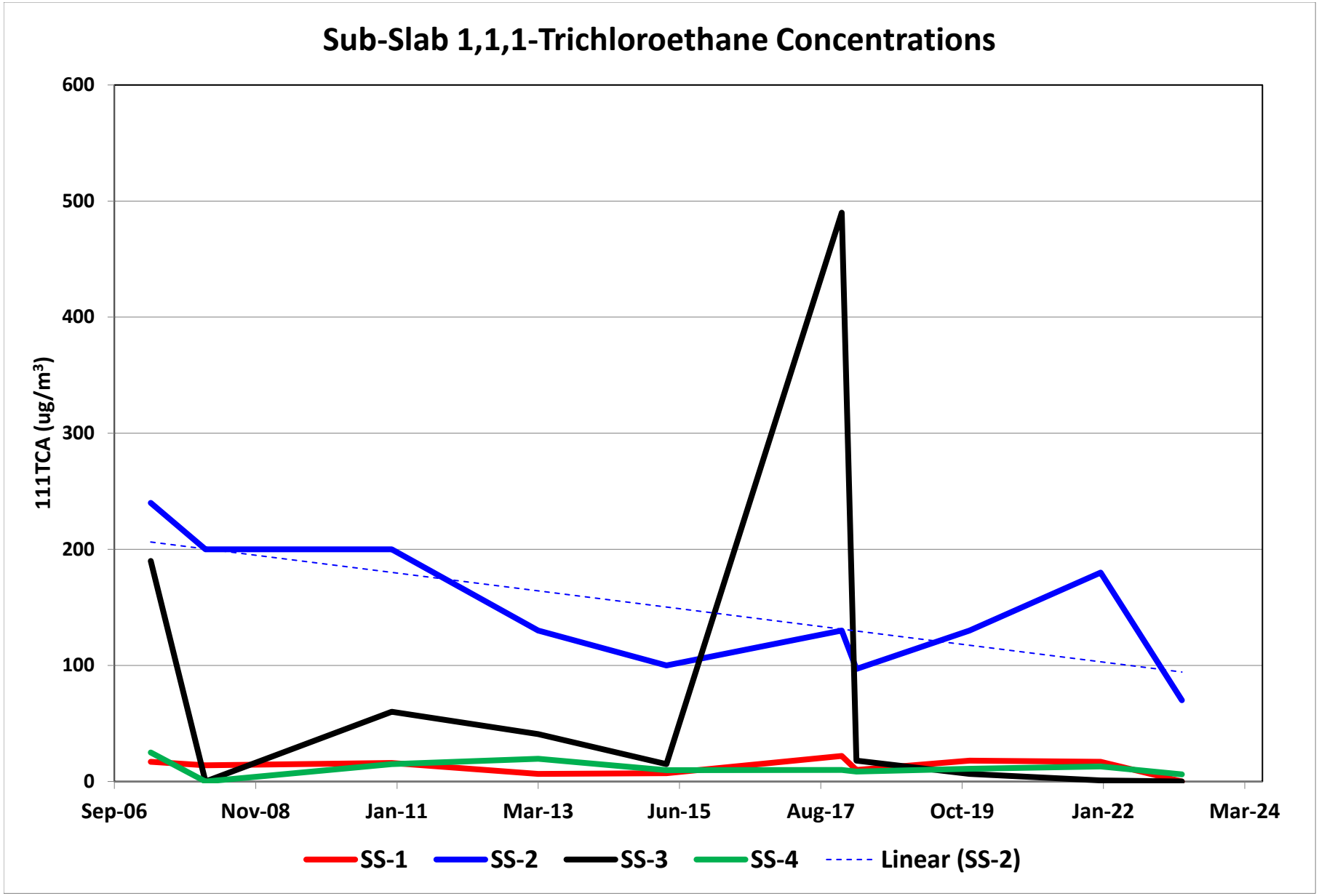
Former Monarch Chemicals Sub-Slab VOC Profile

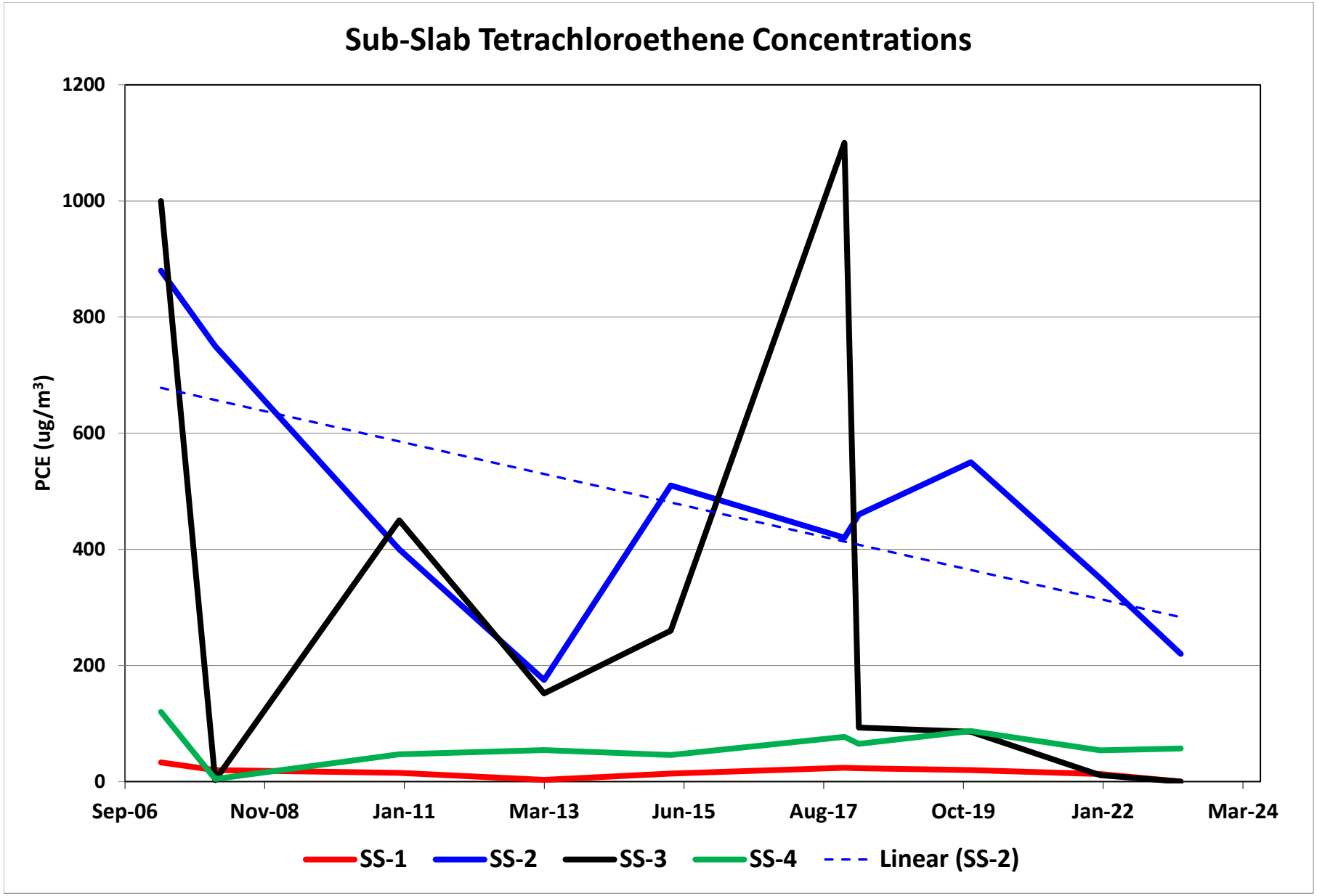


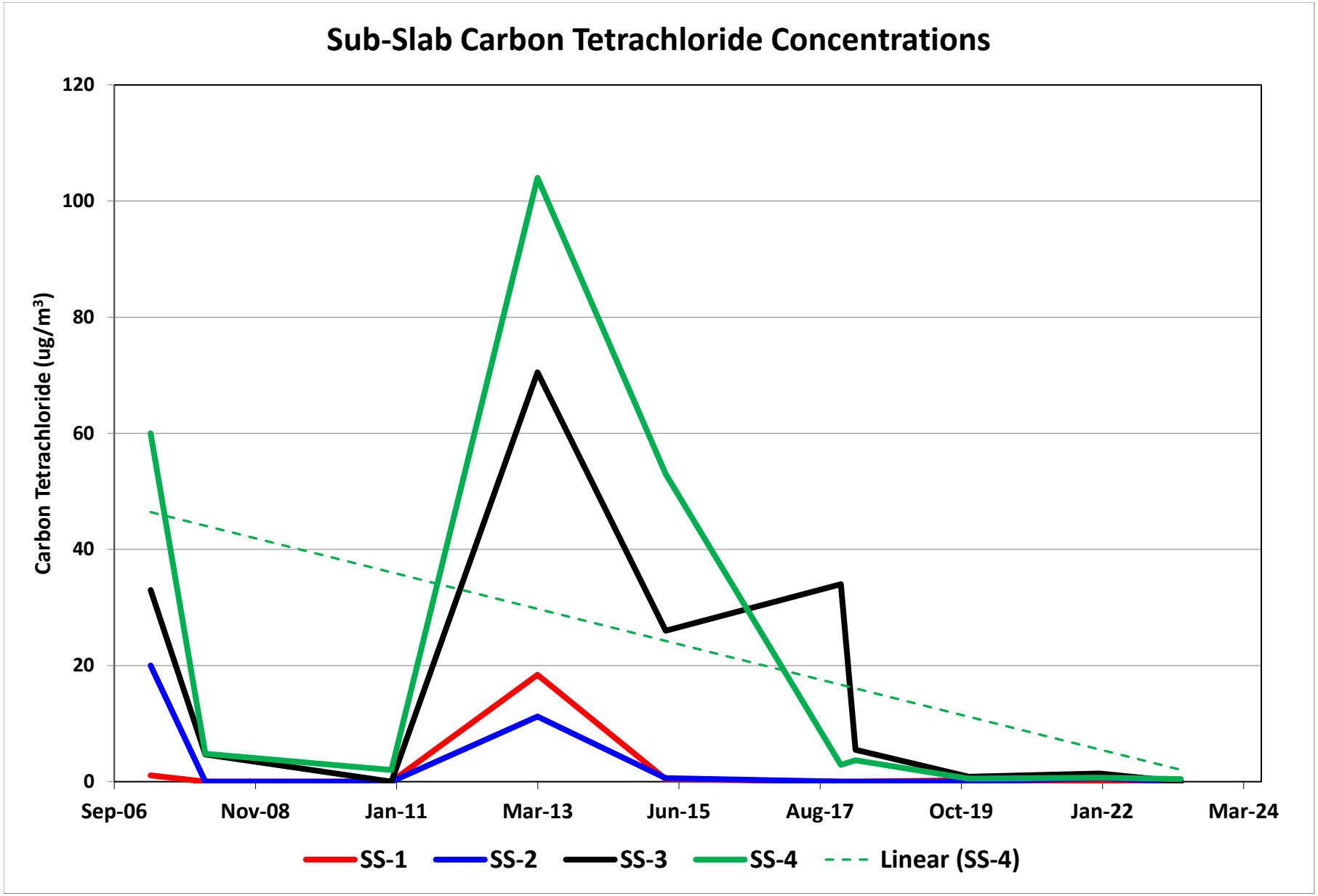
% of sample detections

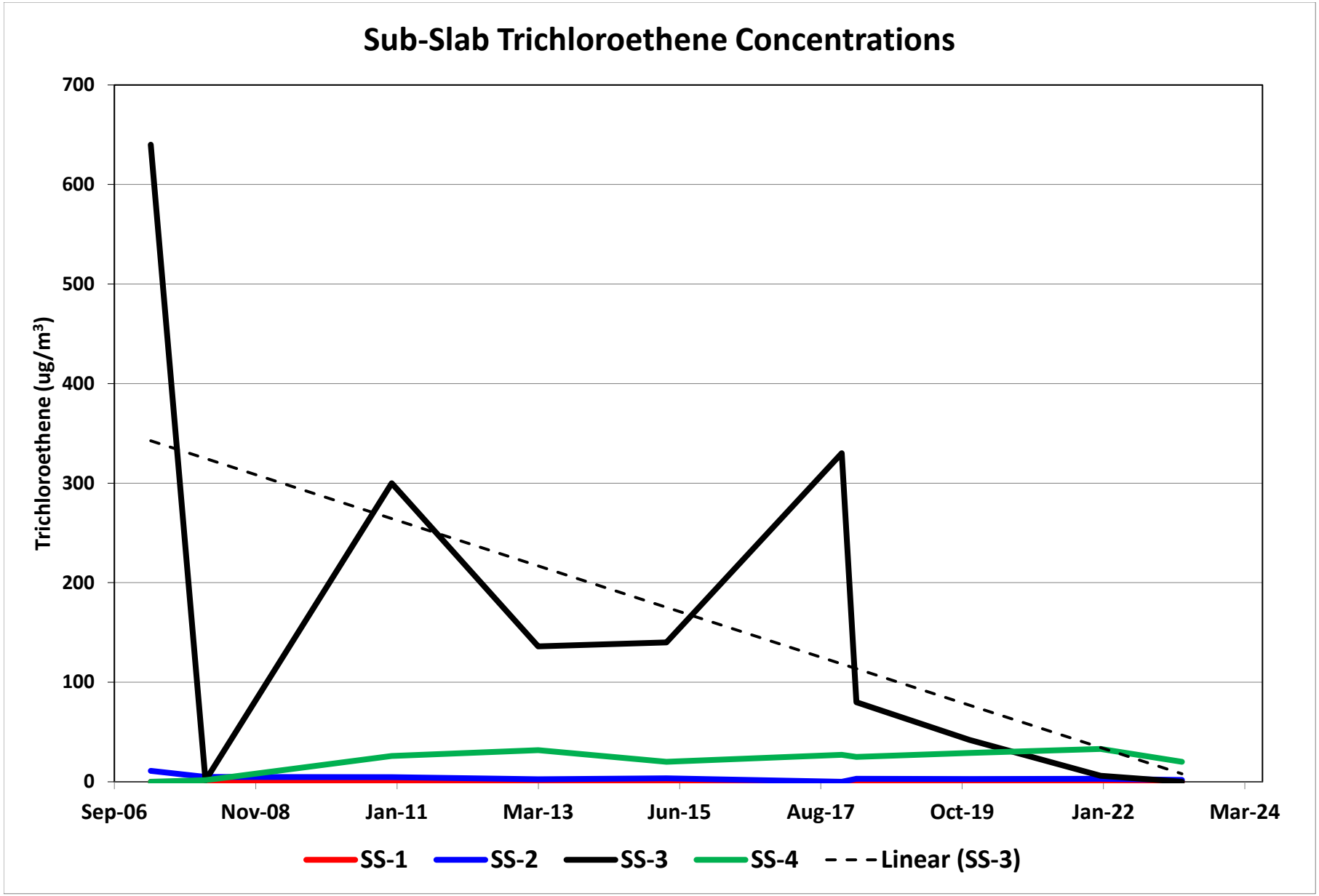
Former Monarch Chemicals Indoor Air VOC Profile




Sub-Slab 1,1,1-Trichloroethane Concentrations
111TCA (ug/m³)
600
500
400
300
200
100
0
Sep-06
Nov-08
Jan-11
Mar-13
Jun-15
Aug-17
Oct-19
Jan-22
Mar-24
SS-1
SS-2
SS-3
SS-4
Linear (SS-2)


Sub-Slab Tetrachloroethene Concentrations
PCE (ug/m³)
1200
1000
800
600
400
200
0
Sep-06
Nov-08
Jan-11
Mar-13
Jun-15
Aug-17
Oct-19
Jan-22
Mar-24
SS-1
SS-2
SS-3
SS-4
Linear (SS-2)


Sub-Slab Carbon Tetrachloride Concentrations
Carbon Tetrachloride (ug/m³)
120
100
80
60
40
20
0
Sep-06
Nov-08
Jan-11
Mar-13
Jun-15
Aug-17
Oct-19
Jan-22
Mar-24
SS-1
SS-2
SS-3
SS-4
Linear (SS-4)


Sub-Slab Trichloroethene Concentrations
Trichloroethene (ug/m³)
700
600
500
400
300
200
100
0
Sep-06
Nov-08
Jan-11
Mar-13
Jun-15
Aug-17
Oct-19
Jan-22
Mar-24
SS-1
SS-2
SS-3
SS-4
Linear (SS-3)

Attachment 8

Mann-Kendall SVI Statistical Analysis

Mann-Kendall Statistical Analysis Matrix of Groundwater Trends
Former Monarch Chemical Facility
61 Gates Ave., Geneva, NY
VCP No. V00119-8

	PCE	TCE	111TCA	11DCE	cDCE	CT	MEC
SS-1	stable	no trend	no trend	stable	stable	no trend	no trend
IA-1	no trend	PD	no trend	stable	no trend	decrease	stable
SS-2	PD	decrease	decrease	stable	stable	decrease	stable
IA-2	no trend	decrease	stable	stable	stable	decrease	no trend
SS-3	no trend	PD	PD	no trend	no trend	no trend	stable
IA-3	no trend	stable	stable	stable	stable	decrease	no trend
SS-4	no trend	PD	stable	no trend	decrease	decrease	no trend
IA-4	PD	stable	PD	stable	stable	decrease	no trend

PI = Probably Increasing
PD = Probably Decreasing
PCE = tetrachloroethene
TCE = trichloroethene
111TCA = 1,1,1-trichloroethane
11DCA = 1,1-dichloroethane
11DCE = 1,1-dichloroethene
cDCE = cis-1,2-dichloroethene
VC = vinyl chloride
CT= carbon tetrachloride
MEK = methyl ethyl ketone
MEC = methylene chloride
TVOCs = Total VOCs
-- = not analyzed

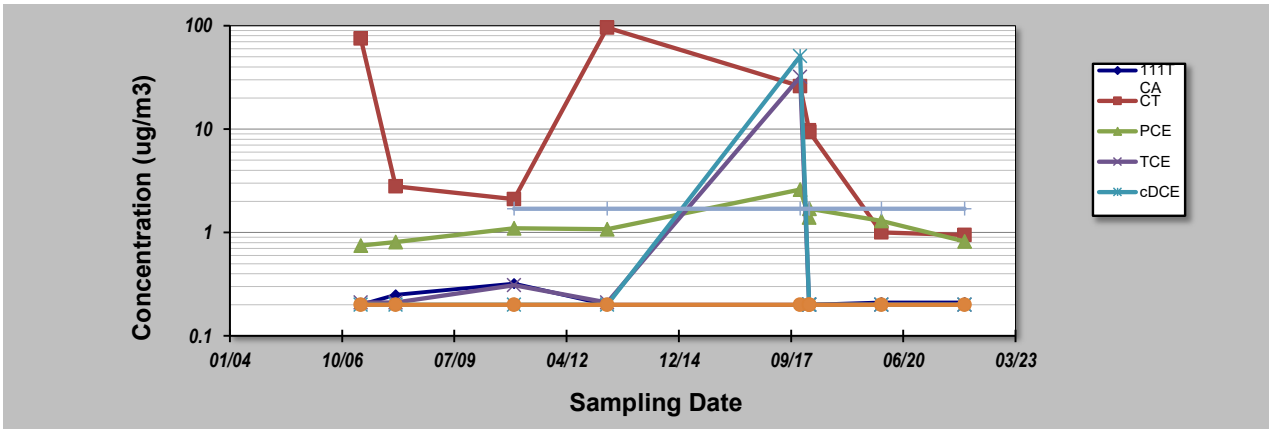
IA-1\SS-2 not sampled March 2023
IA-3\SS-3 not sampled March 2024

Mann-Kendall Statistical Analysis of SVI Sampling Results - IA-1
Former Monarch Chemical Facility
61 Gates Ave., Geneva, NY
VCP No. V00119-8

GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date:	18-May-22	Job ID:	R013023.000
Facility Name:	Former Monarch Chemical Facility	Constituent:	IA-1
Conducted By:	Keith Rapp	Concentration Units:	ug/m3

Sampling Point ID:		111TCA	CT	PCE	TCE	cDCE	11DCE	MEC
Sampling Event	Sampling Date	IA-1 CONCENTRATION (ug/m3)						
1	27-Mar-07	0.2	75	0.75	0.21	0.2	0.2	
2	31-Jan-08	0.25	2.8	0.81	0.21	0.2	0.2	
3	20-Dec-10	0.32	2.1	1.1	0.31	0.2	0.2	1.7
4	28-Mar-13	0.2	95.6	1.08	0.21	0.2	0.2	1.7
5	11-Dec-17	0.2	26	2.6	32	51	0.2	1.7
6	2-Mar-18	0.2	9.7	1.4	0.2	0.2	0.2	1.7
7	4-Mar-18	0.2	9.4	1.7	0.2	0.2	0.2	1.7
8	5-Dec-19	0.21	1	1.3	0.2	0.2	0.2	1.7
9	16-Dec-21	0.21	0.95	0.82	0.2	0.2	0.2	1.7
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
Coefficient of Variation:		0.18	1.44	0.45	2.83	2.90	0.00	0.00
Mann-Kendall Statistic (S):		1	-18	12	-15	0	0	0
Confidence Factor:		50.0%	96.2%	87.0%	92.5%	46.0%	46.0%	37.9%
Concentration Trend:		No Trend	Decreasing	No Trend	Prob. Decreasing	No Trend	Stable	Stable



Notes:

1. At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
2. Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
3. Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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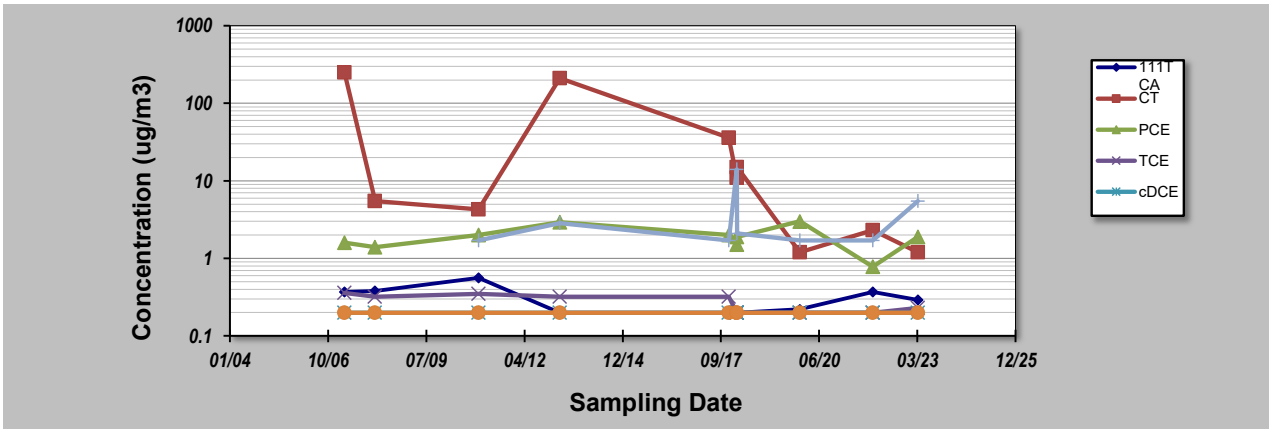
Mann-Kendall Statistical Analysis of SVI Sampling Results - IA-2
Former Monarch Chemical Facility
61 Gates Ave., Geneva, NY
VCP No. V00119-8

GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date:	19-Apr-23	Job ID:	R013023.000
Facility Name:	Former Monarch Chemical Facility	Constituent:	IA-2
Conducted By:	Keith Rapp	Concentration Units:	ug/m3

Sampling Point ID:		111TCA	CT	PCE	TCE	cDCE	11DCE	MEC
Sampling Event	Sampling Date	IA-2 CONCENTRATION (ug/m3)						
1	27-Mar-07	0.37	250	1.6	0.36	0.2	0.2	
2	31-Jan-08	0.38	5.5	1.4	0.32	0.2	0.2	
3	20-Dec-10	0.56	4.3	2	0.35	0.2	0.2	1.7
4	28-Mar-13	0.2	210	2.93	0.32	0.2	0.2	2.85
5	11-Dec-17	0.2	36	2	0.32	0.2	0.2	1.7
6	2-Mar-18	0.2	11	1.5	0.2	0.2	0.2	14
7	4-Mar-18	0.2	15	1.9	0.2	0.2	0.2	2.1
8	5-Dec-19	0.22	1.2	3	0.2	0.2	0.2	1.7
9	16-Dec-21	0.37	2.3	0.78	0.2	0.2	0.2	1.7
10	21-Mar-23	0.29	1.2	1.9	0.23	0.2	0.2	5.5
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
Coefficient of Variation:		0.40	1.75	0.35	0.26	0.00	0.00	1.10
Mann-Kendall Statistic (S):		-4	-24	1	-26	0	0	2
Confidence Factor:		60.3%	98.2%	50.0%	98.9%	45.6%	45.6%	54.8%
Concentration Trend:		Stable	Decreasing	No Trend	Decreasing	Stable	Stable	No Trend



Notes:

1. At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
2. Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
3. Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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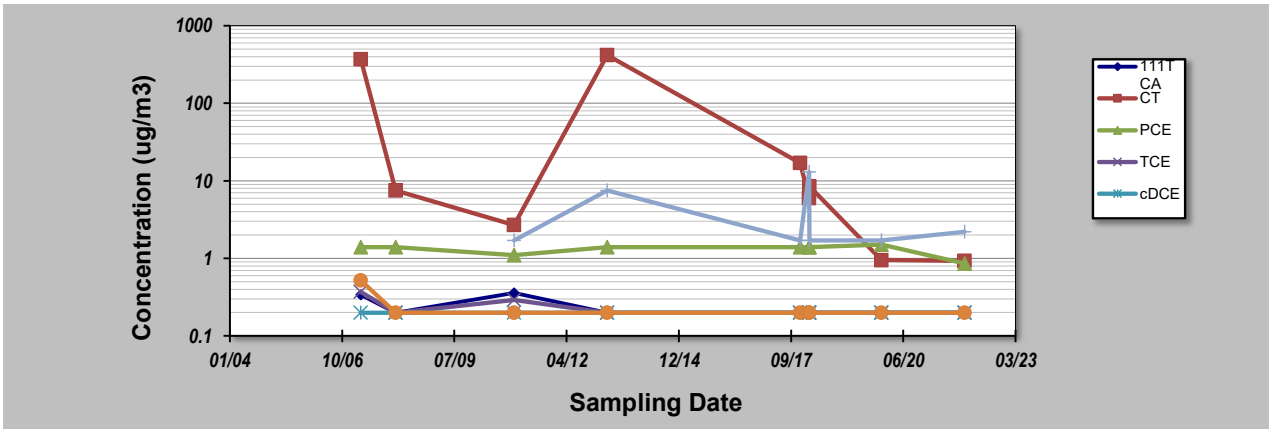
Mann-Kendall Statistical Analysis of SVI Sampling Results - IA-3
Former Monarch Chemical Facility
61 Gates Ave., Geneva, NY
VCP No. V00119-8

GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date:	18-May-22	Job ID:	R013023.000
Facility Name:	Former Monarch Chemical Facility	Constituent:	IA-3
Conducted By:	Keith Rapp	Concentration Units:	ug/m3

Sampling Point ID:		111TCA	CT	PCE	TCE	cDCE	11DCE	MEC
Sampling Event	Sampling Date	IA-3 CONCENTRATION (ug/m3)						
1	27-Mar-07	0.34	370	1.4	0.37	0.2	0.52	
2	31-Jan-08	0.2	7.5	1.4	0.2	0.2	0.2	
3	20-Dec-10	0.36	2.7	1.1	0.29	0.2	0.2	1.7
4	28-Mar-13	0.2	418	1.4	0.2	0.2	0.2	7.49
5	11-Dec-17	0.2	17	1.4	0.2	0.2	0.2	1.7
6	2-Mar-18	0.2	6	1.4	0.2	0.2	0.2	13
7	4-Mar-18	0.2	8.5	1.4	0.2	0.2	0.2	1.7
8	5-Dec-19	0.2	0.95	1.5	0.2	0.2	0.2	1.7
9	16-Dec-21	0.2	0.93	0.86	0.2	0.2	0.2	2.2
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
Coefficient of Variation:		0.28	1.86	0.15	0.27	0.00	0.45	1.05
Mann-Kendall Statistic (S):		-11	-18	1	-13	0	-8	1
Confidence Factor:		84.6%	96.2%	50.0%	89.0%	46.0%	76.2%	50.0%
Concentration Trend:		Stable	Decreasing	No Trend	Stable	Stable	Stable	No Trend



Notes:

1. At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
2. Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
3. Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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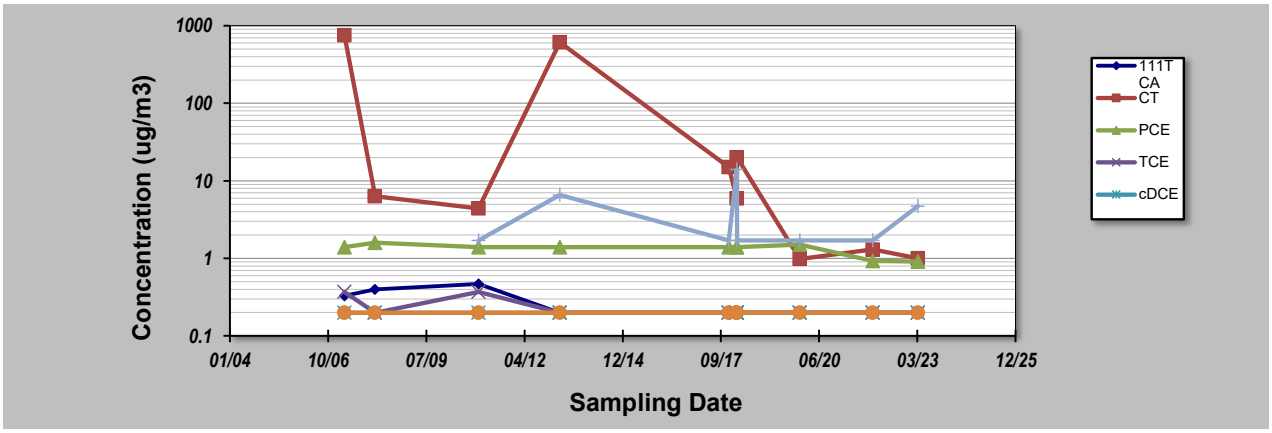
Mann-Kendall Statistical Analysis of SVI Sampling Results - IA-4
Former Monarch Chemical Facility
61 Gates Ave., Geneva, NY
VCP No. V00119-8

GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date:	19-Apr-23	Job ID:	R013023.000
Facility Name:	Former Monarch Chemical Facility	Constituent:	IA-4
Conducted By:	Keith Rapp	Concentration Units:	ug/m3

Sampling Point ID:		111TCA	CT	PCE	TCE	cDCE	11DCE	MEC
Sampling Event	Sampling Date	IA-4 CONCENTRATION (ug/m3)						
1	27-Mar-07	0.33	750	1.4	0.37	0.2	0.2	
2	31-Jan-08	0.4	6.3	1.6	0.2	0.2	0.2	
3	20-Dec-10	0.47	4.4	1.4	0.37	0.2	0.2	1.7
4	28-Mar-13	0.2	610	1.4	0.2	0.2	0.2	6.59
5	11-Dec-17	0.2	15	1.4	0.2	0.2	0.2	1.7
6	2-Mar-18	0.2	5.9	1.4	0.2	0.2	0.2	14
7	4-Mar-18	0.2	20	1.4	0.2	0.2	0.2	1.7
8	5-Dec-19	0.2	0.98	1.5	0.2	0.2	0.2	1.7
9	16-Dec-21	0.2	1.3	0.93	0.2	0.2	0.2	1.7
10	21-Mar-23	0.2	1	0.91	0.2	0.2	0.2	4.7
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
Coefficient of Variation:		0.39	2.02	0.17	0.31	0.00	0.00	1.03
Mann-Kendall Statistic (S):		-18	-23	-16	-14	0	0	0
Confidence Factor:		93.4%	97.7%	90.7%	87.3%	45.6%	45.6%	45.2%
Concentration Trend:		Prob. Decreasing	Decreasing	Prob. Decreasing	Stable	Stable	Stable	No Trend



Notes:

1. At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
2. Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
3. Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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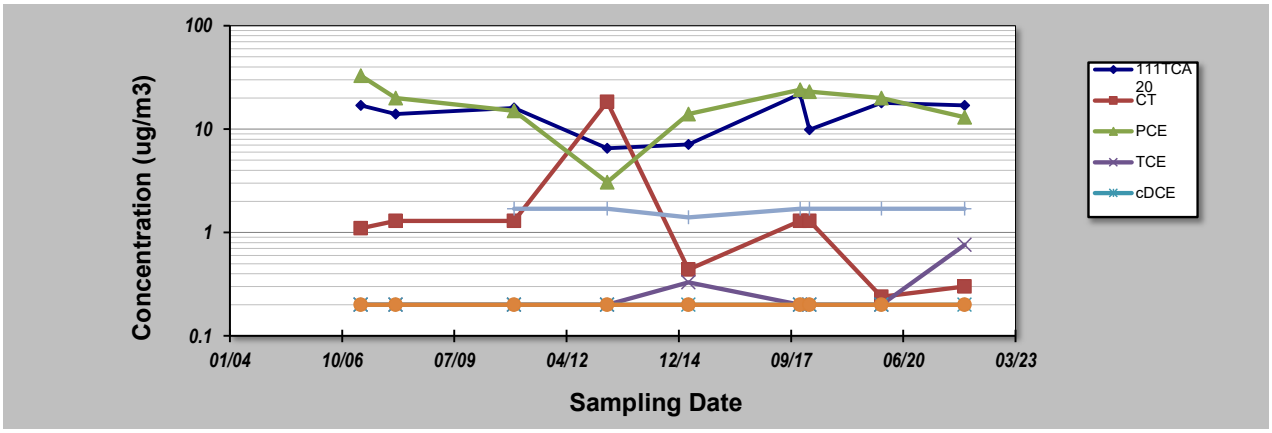
Mann-Kendall Statistical Analysis of SVI Sampling Results - SS-1
Former Monarch Chemical Facility
61 Gates Ave., Geneva, NY
VCP No. V00119-8

GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date:	18-May-22	Job ID:	R013023.000
Facility Name:	Former Monarch Chemical Facility	Constituent:	SS-1
Conducted By:	Keith Rapp	Concentration Units:	ug/m3

Sampling Point ID:		111TCA	CT	PCE	TCE	cDCE	11DCE	MEC
Sampling Event	Sampling Date	SS-1 CONCENTRATION (ug/L)						
1	27-Mar-07	17	1.1	33	0.2	0.2	0.2	NA
2	31-Jan-08	14	1.3	20	0.2	0.2	0.2	NA
3	20-Dec-10	16	1.3	15	0.2	0.2	0.2	1.7
4	28-Mar-13	6.53	18.4	3.07	0.2	0.2	0.2	1.7
5	24-Mar-15	7.1	0.44	14	0.33	0.2	0.2	1.4
6	11-Dec-17	22	1.3	24	0.2	0.2	0.2	1.7
7	4-Mar-18	9.9	1.3	23	0.2	0.2	0.2	1.7
8	5-Dec-19	18	0.24	20	0.2	0.2	0.2	1.7
9	16-Dec-21	17	0.3	13	0.76	0.2	0.2	1.7
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
Coefficient of Variation:		0.37	2.05	0.46	0.67	0.00	0.00	0.07
Mann-Kendall Statistic (S):		5	-10	-9	9	0	0	2
Confidence Factor:		65.7%	82.1%	79.2%	79.2%	46.0%	46.0%	55.7%
Concentration Trend:		No Trend	No Trend	Stable	No Trend	Stable	Stable	No Trend



Notes:

1. At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
2. Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
3. Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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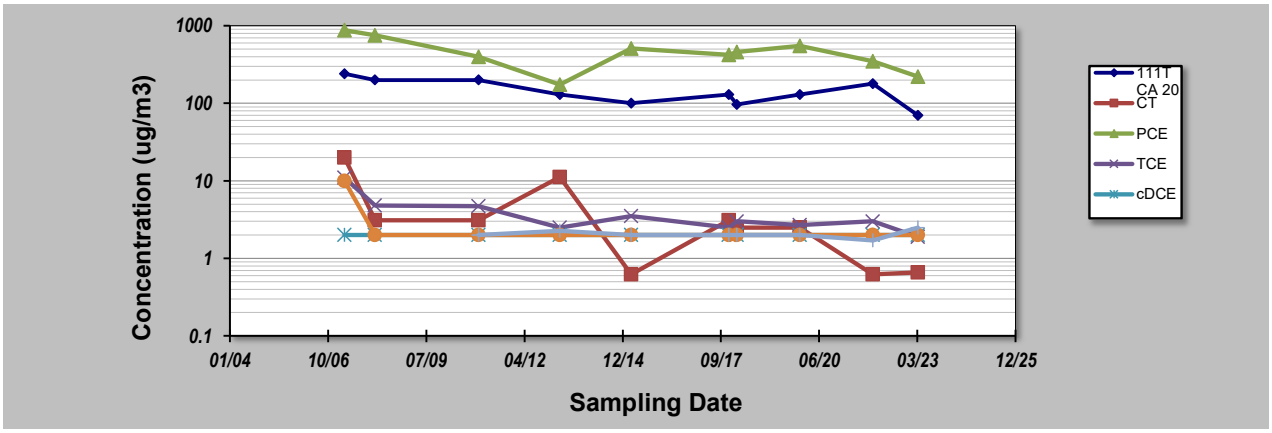
Mann-Kendall Statistical Analysis of SVI Sampling Results - SS-2
Former Monarch Chemical Facility
61 Gates Ave., Geneva, NY
VCP No. V00119-8

GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date:	19-Apr-23	Job ID:	R013023.000
Facility Name:	Former Monarch Chemical Facility	Constituent:	SS-2
Conducted By:	Keith Rapp	Concentration Units:	ug/m3

Sampling Point ID:		111TCA	CT	PCE	TCE	cDCE	11DCE	MEC
Sampling Event	Sampling Date	SS-2 CONCENTRATION (ug/m3)						
1	27-Mar-07	240	20	880	11	2	10	NA
2	31-Jan-08	200	3.1	750	4.8	2	2	NA
3	20-Dec-10	200	3.1	400	4.7	2	2	2
4	28-Mar-13	130	11.2	175	2.5	2	2	2.26
5	24-Mar-15	100	0.62	510	3.5	2	2	2
6	11-Dec-17	130	3.1	420	2.5	2	2	2
7	4-Mar-18	97	2.5	460	3	2	2	2
8	5-Dec-19	130	2.5	550	2.7	2	2	2
9	16-Dec-21	180	0.62	350	3	2	2	1.7
10	21-Mar-23	70	0.66	220	1.9	2	2	2.5
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
Coefficient of Variation:		0.37	1.30	0.46	0.67	0.00	0.90	0.11
Mann-Kendall Statistic (S):		-25	-26	-17	-27	0	-9	-2
Confidence Factor:		98.6%	98.9%	92.2%	99.2%	45.6%	75.8%	54.8%
Concentration Trend:		Decreasing	Decreasing	Prob. Decreasing	Decreasing	Stable	Stable	Stable



Notes:

1. At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
2. Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
3. Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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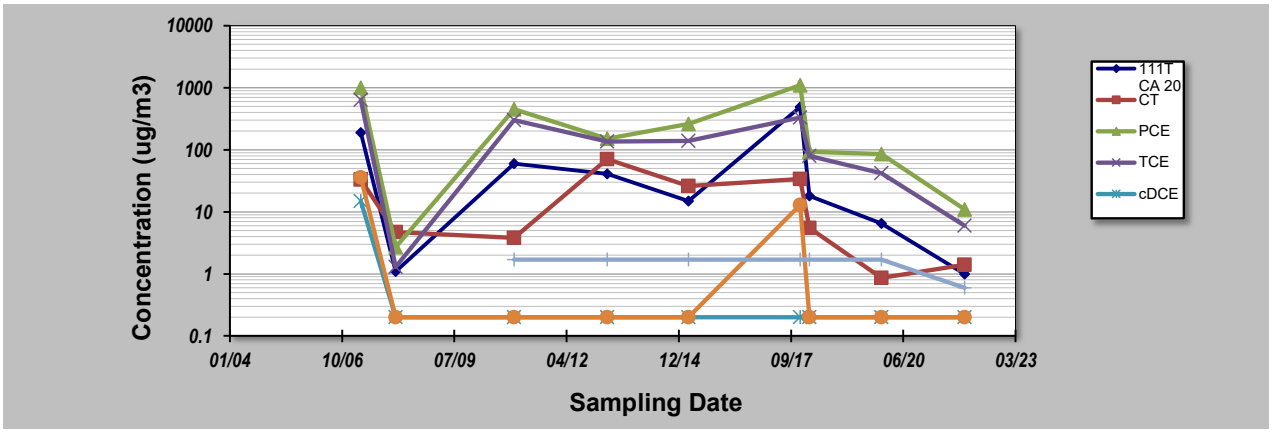
Mann-Kendall Statistical Analysis of SVI Sampling Results - SS-3
Former Monarch Chemical Facility
61 Gates Ave., Geneva, NY
VCP No. V00119-8

GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date:	18-May-22	Job ID:	R013023.000
Facility Name:	Former Monarch Chemical Facility	Constituent:	SS-3
Conducted By:	Keith Rapp	Concentration Units:	ug/m3

Sampling Point ID:		111TCA	CT	PCE	TCE	cDCE	11DCE	MEC
Sampling Event	Sampling Date	SS-3 CONCENTRATION (ug/L)						
1	27-Mar-07	190	33	1000	640	15	36	NA
2	31-Jan-08	1.1	4.7	2.7	1.3	0.2	0.2	NA
3	20-Dec-10	60	3.8	450	300	0.2	0.2	1.7
4	28-Mar-13	40.9	70.5	152	136	0.2	0.2	1.7
5	24-Mar-15	15	26	260	140	0.2	0.2	1.7
6	11-Dec-17	490	34	1100	330	0.2	13	1.7
7	4-Mar-18	18	5.5	93	80	0.2	0.2	1.7
8	5-Dec-19	6.5	0.86	86	42	0.2	0.2	1.7
9	16-Dec-21	1	1.4	11	6	0.2	0.2	0.6
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
Coefficient of Variation:		1.76	1.17	1.20	1.11	2.67	2.17	0.27
Mann-Kendall Statistic (S):		-14	-12	-12	-14	-8	-7	-6
Confidence Factor:		91.0%	87.0%	87.0%	91.0%	76.2%	72.8%	76.4%
Concentration Trend:		Prob. Decreasing	No Trend	No Trend	Prob. Decreasing	No Trend	No Trend	Stable



Notes:

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2. Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
3. Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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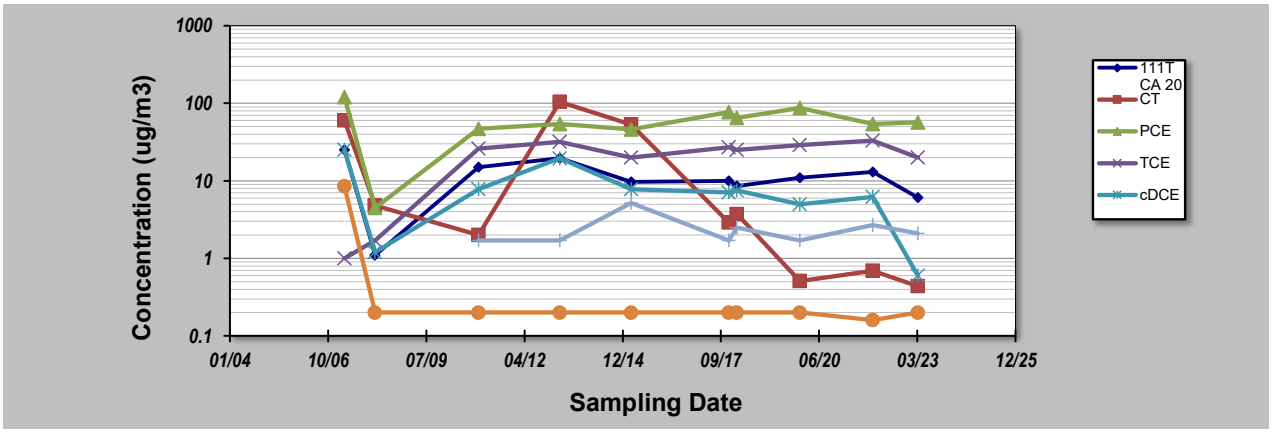
Mann-Kendall Statistical Analysis of SVI Sampling Results - SS-4
Former Monarch Chemical Facility
61 Gates Ave., Geneva, NY
VCP No. V00119-8

GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date:	19-Apr-23	Job ID:	R013023.000
Facility Name:	Former Monarch Chemical Facility	Constituent:	SS-4
Conducted By:	Keith Rapp	Concentration Units:	ug/m3

Sampling Point ID:		111TCA	CT	PCE	TCE	cDCE	11DCE	MEC
Sampling Event	Sampling Date	SS-4 CONCENTRATION (ug/m3)						
1	27-Mar-07	25	60	120	1	25	8.5	NA
2	31-Jan-08	1.1	4.8	4.5	1.7	1.2	0.2	NA
3	20-Dec-10	15	2	47	26	7.8	0.2	1.7
4	28-Mar-13	19.6	104	54.2	31.7	19.5	0.2	1.7
5	24-Mar-15	9.7	53	46	20	7.8	0.2	5.2
6	11-Dec-17	10	2.9	77	27	7.1	0.2	1.7
7	4-Mar-18	8.6	3.7	65	25	7.5	0.2	2.5
8	5-Dec-19	11	0.51	87	29	5	0.2	1.7
9	16-Dec-21	13	0.69	54	33	6.2	0.16	2.7
10	21-Mar-23	6.1	0.44	57	20	0.6	0.2	2.1
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
Coefficient of Variation:		0.57	1.57	0.49	0.53	0.87	2.56	0.50
Mann-Kendall Statistic (S):		-11	-27	7	18	-24	-15	6
Confidence Factor:		81.0%	99.2%	70.0%	93.4%	98.2%	89.2%	72.6%
Concentration Trend:		Stable	Decreasing	No Trend	Prob. Increasing	Decreasing	No Trend	No Trend



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Attachment 9

BCS Chemical Inventory (Dec 2021)

Material Description In Quality Insp.
XIAMETER AFE-0010 FG DR400 0.000
NITRIC ACID 42 DEG BE BULK 0.000
SULFURIC ACID 93% 66 DEG BULK 0.000
WATER DEIONIZED BULK 0.000
PETROLATUM SNOW WHITE DR400 0.000
CALFAX DB 45 DR400 0.000
WATER TAP 0.000
DR 55 GAL NEW POLY TH POLY/EPDM BLU 0.000
TERGITOL L-61 DR400 0.000
MALIC ACID BAG114 0.000
MAQUAT MQ 2525 M 80% DR400 0.000
SULFURIC ACID 66 DEG BE DR452 0.000
CALSOFT AOS 40 DR400 0.000
DEQUEST 2010 DR400 0.000
ELB BEVRO-SHEEN PRE-MIX IBC700 C 0.000
PHOSPHORIC ACID 75% IBC710 0.000
CAUSTIC SODA 50% BULK 0.000 0.000
SOD HYPO 12.5% BACTICIDE BULK 0.000
CAUSTIC SODA 50% MNBULK 0.000

Material Description In Quality Insp.
UREA 46% NITRGN NONCND NO FMLDHYD BAG114 0.000
VERSENE 100 DR452 0.000
ALMN SULFATE 48% IBC710 0.000 0.000
SULFURIC ACID 93% 66B MNBULK 0.000
ACUSOL 445N DR400 0.000
CALFOAM SLS-30 DR400 0.000
UREA 40% IBC710 0.000 0.000
CITRIC ACID 50% NA MG/L BULK 0.000
SOD HEXAMETAPHOS CRUSHED VITRAFOS BAG114 0.000 0.000
SOD HYPO 12.5% LIQUICHLOR MNBULK 0.000
GLYCOL ETHER DB DR453 0.000
CAUSTIC POTASH 45% BULK 0.000
SULFURIC ACID 93% 66B BULK 0.000
WATER SOFT BULK 0.000
SOD METASILICATE ANHY S-25 BAG114 0.000 0.000
PL 5GAL POLY TH NAT SQ 1H1/Y1.5/100 0.000
DR 15GL NEW EPOLY TH UNL NAT I SPC 0.000
IBC 275GL REC POLYCG 31/HA1/Y NB/RC BLK 0.000

Material Description In Quality Insp.
DR 55GL NEW POLY TH UNL NAT 0.000
IBC RET 300-499 GL POLY UNL 31 H/Y 0.000
CS IBC UNKNOWN 0.000 0.000
SOD METABISULFITE BAG114 0.000
CITRIC ACID ANHY F6000 BAG114 0.000 0.000 0.000 0.000 0.000
MAKON 12 DR400 0.000
CAFLON SXS 40% DR452 0.000
CAFLON SXS 40% DR452 0.000
OLEIC ACID 105 RED DR400 0.000
MAYOQUEST 2100 DR400 0.000
BIO-SOFT S-101 DR452 0.000
GLUTARALDEHYDE 50% LOW METHANOL DR400 0.000
PERASAN A DR400 0.000
2 ETHYLHEXANOIC ACID ESTMN DR452 0.000
AMMONYX LO DR400 0.000
SOD CITRATE 35% BULK 0.000
SOD GLUCONATE 30% BULK 0.000

Material Description In Quality Insp.
BLEND AB BALDWNSVL BREW BULK 0.000
FOAM BLAST 106 CTK DR400 0.000
CAUSTIC SODA 25% MNBULK 0.000
BLEND PWD CAUSTIC CLNR HD DR431 0.000
BLEND LUBE 45 DR446 0.000
BLEND FOAMNG CHLORINATED CLNR DR446 0.000
BLEND CIP CLNR 0300 DR446 0.000
BLEND CAUSTIC 5000 DR446 0.000
BLEND HD SPEC CLNR 650 DR446 0.000
BLEND CAUSTIC 150G DR446 0.000
BLEND LP ACID IBC710 0.000
BLEND LP ACID DR446 0.000 0.000
BLEND FOAMNG CHLORINATED CLNR-C DR407 0.000
CITRIC ACID ANHY UNSPEC PRTCL SZ SSK390 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000
WEST AGRO 126+ CONCENTRATE IBC700 0.000
JARFACTANT 225DK DR400 0.000

Material Description In Quality Insp.
SOD TRIPOLYPHOS BAG114 0.000
BLEND QUAT DS DR446 0.000
BLEND QUAT DS PL365 0.000
BLEND ACID SANTZR LF DR446 0.000
SOD CITRATE 35% IBC710 0.000
MALIC ACID 50% 275GL IBC710 0.000 0.000
CITRIC ACID 50% NA MG/L DR446 0.000
CLEARSOL LLR DR400 0.000
SOD GLUCONATE 30% IBC710 0.000
BLEND ALKALINE CLNR 20 GRAIN BULK 0.000
BLEND ALKALINE CLNR 20 GRAIN DR446 0.000
CITRIC ACID 50% NA MG/L BULK 0.000
CITRIC ACID 50% NA MG/L IBC710 0.000
ANTIPRO EP-3M IBC700 0.000
TRIETHANOLAMINE 99% LFG 50 DR453 0.000
UREA 46% NITRO COMM COND/CTD BAG114 0.000
DOWFAX 3B2 IBC711 0.000
CAL CHLORIDE 83-87% DOWFLAKE XTRA SSK390 0.000
MAYOQUEST 1320LA BULK 0.000

Material Description In Quality Insp.
MALIC ACID DL SSK390
0.000
0.000
0.000
0.000
0.000
0.000
MALIC ACID DL COARSE SSK390
0.000
0.000
RED XB 400% KEYACID CAN320
0.000
SOD GLUCONATE BAG114
0.000
0.000
0.000
SOD ALUMINATE 45% DR452
0.000
LIQ SOD GLUCONATE 60LT PMP FERM IBC710
0.000
CAUSTIC SODA 50% MEM IBC710
0.000
LERAPUR BC-41 PL365 C
0.000

Attachment 10

March 2023 Eurofins Groundwater Laboratory Analytical Report

(SDG 240-182494)

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Mr. Keith B Rapp
Pinnacle Engineering, Inc
11541 95th Avenue North
Minneapolis, Minnesota 55369

Generated 4/4/2023 3:15:02 PM

JOB DESCRIPTION

Monarch Chemical

JOB NUMBER

240-182494-1

Eurofins Canton
180 S. Van Buren Avenue
Barberton OH 44203

See page two for job notes and contact information.

my EOL

Eurofins Canton

Job Notes

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The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing North Central, LLC Project Manager.

Authorization

Roxanne Cisneros

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Authorized for release by
Roxanne Cisneros, Senior Project Manager
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Opal Johnson, Project Manager II
Opal.Johnson@et.eurofinsus.com
(330)966-9279

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Detection Summary 8
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QC Sample Results 35
QC Association Summary 43
Lab Chronicle 44
Certification Summary 46
Chain of Custody 47

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

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

Job ID: 240-182494-1

Laboratory: Eurofins Canton

Narrative

Job Narrative
240-182494-1

Receipt
The samples were received on 3/24/2023 9:30 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 3.1°C

GC/MS VOA
Method 8260D: The continuing calibration verification (CCV) analyzed in batch 240-567577 was outside the method criteria for 1,1,2-Trichloro-1,2,2-trifluoroethane, Acetone, Bromomethane and Dichlorodifluoromethane. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analytes is considered estimated.

Method 8260D: The laboratory control sample (LCS) for analytical batch 240-567577 recovered outside control limits for Acetone. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method 8260D: The continuing calibration verification (CCV) analyzed in batch 240-567450 was outside the method criteria for 1,1,2-Trichloro-1,2,2-trifluoroethane, 1,2-Dichlorobenzene, Bromomethane and Dichlorodifluoromethane. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analytes is considered estimated.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Method Summary

Client: Pinnacle Engineering, Inc
Project/Site: Monarch Chemical

Job ID: 240-182494-1

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	EET CAN
5030C	Purge and Trap	SW846	EET CAN

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET CAN = Eurofins Canton, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

Sample Summary

Client: Pinnacle Engineering, Inc
Project/Site: Monarch Chemical

Job ID: 240-182494-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-182494-1	MW-114	Water	03/18/23 16:25	03/24/23 09:30
240-182494-2	MW-115	Water	03/20/23 11:55	03/24/23 09:30
240-182494-3	MW-115D	Water	03/20/23 10:15	03/24/23 09:30
240-182494-4	MW-116	Water	03/19/23 10:53	03/24/23 09:30
240-182494-5	MW-117	Water	03/18/23 12:10	03/24/23 09:30
240-182494-6	MW-118	Water	03/18/23 16:20	03/24/23 09:30
240-182494-7	MW-121	Water	03/22/23 13:30	03/24/23 09:30
240-182494-8	MW-122	Water	03/22/23 14:55	03/24/23 09:30
240-182494-9	MW-124S	Water	03/19/23 14:40	03/24/23 09:30
240-182494-10	MW-124D	Water	03/19/23 15:35	03/24/23 09:30
240-182494-11	TRIP BLANK	Water	03/22/23 16:00	03/24/23 09:30
240-182494-12	DUPE-1	Water	03/18/23 08:00	03/24/23 09:30

Detection Summary

Client: Pinnacle Engineering, Inc
Project/Site: Monarch Chemical

Job ID: 240-182494-1

Client Sample ID: MW-114 — Lab Sample ID: 240-182494-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	2.2		1.0	0.48	ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	0.49	J	1.0	0.46	ug/L	1		8260D	Total/NA
Tetrachloroethene	6.5		1.0	0.44	ug/L	1		8260D	Total/NA
Trichloroethene	6.5		1.0	0.44	ug/L	1		8260D	Total/NA

Client Sample ID: MW-115 — Lab Sample ID: 240-182494-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	3.8		1.0	0.47	ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	3.4		1.0	0.46	ug/L	1		8260D	Total/NA
Tetrachloroethene	2.8		1.0	0.44	ug/L	1		8260D	Total/NA
Trichloroethene	0.60	J	1.0	0.44	ug/L	1		8260D	Total/NA

Client Sample ID: MW-115D — Lab Sample ID: 240-182494-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	0.78	J	1.0	0.47	ug/L	1		8260D	Total/NA

Client Sample ID: MW-116 — Lab Sample ID: 240-182494-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	0.95	J	1.0	0.47	ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	0.92	J	1.0	0.46	ug/L	1		8260D	Total/NA
Trichloroethene	1.4		1.0	0.44	ug/L	1		8260D	Total/NA

Client Sample ID: MW-117 — Lab Sample ID: 240-182494-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	2.0		1.0	0.44	ug/L	1		8260D	Total/NA

Client Sample ID: MW-118 — Lab Sample ID: 240-182494-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	100		2.0	0.94	ug/L	2		8260D	Total/NA
1,1-Dichloroethene	1.6	J	2.0	0.98	ug/L	2		8260D	Total/NA
Chloroethane	8.7		2.0	1.7	ug/L	2		8260D	Total/NA
cis-1,2-Dichloroethene	100		2.0	0.92	ug/L	2		8260D	Total/NA
trans-1,2-Dichloroethene	1.1	J	2.0	1.0	ug/L	2		8260D	Total/NA
Trichloroethene	15		2.0	0.88	ug/L	2		8260D	Total/NA
Vinyl chloride	72		2.0	0.90	ug/L	2		8260D	Total/NA

Client Sample ID: MW-121 — Lab Sample ID: 240-182494-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	0.74	J	1.0	0.48	ug/L	1		8260D	Total/NA
1,1-Dichloroethane	2.4		1.0	0.47	ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	2.8		1.0	0.46	ug/L	1		8260D	Total/NA
Tetrachloroethene	0.75	J	1.0	0.44	ug/L	1		8260D	Total/NA
Trichloroethene	1.7		1.0	0.44	ug/L	1		8260D	Total/NA

Client Sample ID: MW-122 — Lab Sample ID: 240-182494-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	12		1.0	0.47	ug/L	1		8260D	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Pinnacle Engineering, Inc
Project/Site: Monarch Chemical

Job ID: 240-182494-1

Client Sample ID: MW-122 (Continued) — Lab Sample ID: 240-182494-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.52	J	1.0	0.42	ug/L	1		8260D	Total/NA
Chloroethane	2.9		1.0	0.83	ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	7.1		1.0	0.46	ug/L	1		8260D	Total/NA
trans-1,2-Dichloroethene	1.0		1.0	0.51	ug/L	1		8260D	Total/NA
Trichloroethene	0.49	J	1.0	0.44	ug/L	1		8260D	Total/NA
Vinyl chloride	1.9		1.0	0.45	ug/L	1		8260D	Total/NA

Client Sample ID: MW-124S — Lab Sample ID: 240-182494-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
trans-1,2-Dichloroethene	1.2		1.0	0.51	ug/L	1		8260D	Total/NA
Vinyl chloride	1.3		1.0	0.45	ug/L	1		8260D	Total/NA

Client Sample ID: MW-124D — Lab Sample ID: 240-182494-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloroethane	140		3.3	2.8	ug/L	3.33		8260D	Total/NA

Client Sample ID: TRIP BLANK — Lab Sample ID: 240-182494-11

No Detections.

Client Sample ID: DUPE-1 — Lab Sample ID: 240-182494-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	110		5.0	2.4	ug/L	5		8260D	Total/NA
Chloroethane	9.2		5.0	4.2	ug/L	5		8260D	Total/NA
cis-1,2-Dichloroethene	120		5.0	2.3	ug/L	5		8260D	Total/NA
Trichloroethene	17		5.0	2.2	ug/L	5		8260D	Total/NA
Vinyl chloride	75		5.0	2.3	ug/L	5		8260D	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Pinnacle Engineering, Inc
Project/Site: Monarch Chemical

Job ID: 240-182494-1

Client Sample ID: MW-114

Date Collected: 03/18/23 16:25
Date Received: 03/24/23 09:30

Lab Sample ID: 240-182494-1

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	**2.2**		1.0	0.48	ug/L			04/01/23 12:16	1
1,1,2,2-Tetrachloroethane	<1.0		1.0	0.60	ug/L			04/01/23 12:16	1
1,1,2-Trichloro-1,2,2-trifluoroethane	<1.0		1.0	0.41	ug/L			04/01/23 12:16	1
1,1,2-Trichloroethane	<1.0		1.0	0.48	ug/L			04/01/23 12:16	1
1,1-Dichloroethane	<1.0		1.0	0.47	ug/L			04/01/23 12:16	1
1,1-Dichloroethene	<1.0		1.0	0.49	ug/L			04/01/23 12:16	1
1,2,4-Trichlorobenzene	<1.0		1.0	0.77	ug/L			04/01/23 12:16	1
1,2-Dibromo-3-Chloropropane	<2.0		2.0	0.91	ug/L			04/01/23 12:16	1
Ethylene Dibromide	<1.0		1.0	0.41	ug/L			04/01/23 12:16	1
1,2-Dichlorobenzene	<1.0		1.0	0.48	ug/L			04/01/23 12:16	1
1,2-Dichloroethane	<1.0		1.0	0.21	ug/L			04/01/23 12:16	1
1,2-Dichloropropane	<1.0		1.0	0.47	ug/L			04/01/23 12:16	1
1,3-Dichlorobenzene	<1.0		1.0	0.45	ug/L			04/01/23 12:16	1
1,4-Dichlorobenzene	<1.0		1.0	0.41	ug/L			04/01/23 12:16	1
2-Butanone (MEK)	<10		10	1.2	ug/L			04/01/23 12:16	1
2-Hexanone	<10		10	1.1	ug/L			04/01/23 12:16	1
4-Methyl-2-pentanone (MIBK)	<10		10	0.99	ug/L			04/01/23 12:16	1
Acetone	<10	*+	10	5.4	ug/L			04/01/23 12:16	1
Benzene	<1.0		1.0	0.42	ug/L			04/01/23 12:16	1
Dichlorobromomethane	<1.0		1.0	0.17	ug/L			04/01/23 12:16	1
Bromoform	<1.0		1.0	0.76	ug/L			04/01/23 12:16	1
Bromomethane	<1.0		1.0	0.42	ug/L			04/01/23 12:16	1
Carbon disulfide	<1.0		1.0	0.59	ug/L			04/01/23 12:16	1
Carbon tetrachloride	<1.0		1.0	0.26	ug/L			04/01/23 12:16	1
Chlorobenzene	<1.0		1.0	0.38	ug/L			04/01/23 12:16	1
Chloroethane	<1.0		1.0	0.83	ug/L			04/01/23 12:16	1
Chloroform	<1.0		1.0	0.47	ug/L			04/01/23 12:16	1
Chloromethane	<1.0		1.0	0.63	ug/L			04/01/23 12:16	1
cis-1,2-Dichloroethene	**0.49**	**J**	1.0	0.46	ug/L			04/01/23 12:16	1
cis-1,3-Dichloropropene	<1.0		1.0	0.61	ug/L			04/01/23 12:16	1
Cyclohexane	<1.0		1.0	0.48	ug/L			04/01/23 12:16	1
Chlorodibromomethane	<1.0		1.0	0.39	ug/L			04/01/23 12:16	1
Dichlorodifluoromethane	<1.0		1.0	0.35	ug/L			04/01/23 12:16	1
Ethylbenzene	<1.0		1.0	0.42	ug/L			04/01/23 12:16	1
Isopropylbenzene	<1.0		1.0	0.49	ug/L			04/01/23 12:16	1
Methyl acetate	<10		10	1.7	ug/L			04/01/23 12:16	1
Methyl tert-butyl ether	<1.0		1.0	0.47	ug/L			04/01/23 12:16	1
Methylcyclohexane	<1.0		1.0	0.33	ug/L			04/01/23 12:16	1
Methylene Chloride	<5.0		5.0	2.6	ug/L			04/01/23 12:16	1
Styrene	<1.0		1.0	0.45	ug/L			04/01/23 12:16	1
Tetrachloroethene	**6.5**		1.0	0.44	ug/L			04/01/23 12:16	1
Toluene	<1.0		1.0	0.44	ug/L			04/01/23 12:16	1
trans-1,2-Dichloroethene	<1.0		1.0	0.51	ug/L			04/01/23 12:16	1
trans-1,3-Dichloropropene	<1.0		1.0	0.67	ug/L			04/01/23 12:16	1
Trichloroethene	**6.5**		1.0	0.44	ug/L			04/01/23 12:16	1
Trichlorofluoromethane	<1.0		1.0	0.45	ug/L			04/01/23 12:16	1
Vinyl chloride	<1.0		1.0	0.45	ug/L			04/01/23 12:16	1
Xylenes, Total	<2.0		2.0	0.42	ug/L			04/01/23 12:16	1

Client Sample Results

Client: Pinnacle Engineering, Inc
Project/Site: Monarch Chemical

Job ID: 240-182494-1

Client Sample ID: MW-114

Date Collected: 03/18/23 16:25
Date Received: 03/24/23 09:30

Lab Sample ID: 240-182494-1

Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	97		78 - 122		04/01/23 12:16	1
Dibromofluoromethane (Surr)	106		73 - 120		04/01/23 12:16	1
4-Bromofluorobenzene (Surr)	90		56 - 136		04/01/23 12:16	1
1,2-Dichloroethane-d4 (Surr)	106		62 - 137		04/01/23 12:16	1

Client Sample Results

Client: Pinnacle Engineering, Inc
Project/Site: Monarch Chemical

Job ID: 240-182494-1

Client Sample ID: MW-115

Date Collected: 03/20/23 11:55
Date Received: 03/24/23 09:30

Lab Sample ID: 240-182494-2

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<1.0		1.0	0.48	ug/L			03/31/23 16:44	1
1,1,2,2-Tetrachloroethane	<1.0		1.0	0.60	ug/L			03/31/23 16:44	1
1,1,2-Trichloro-1,2,2-trifluoroethane	<1.0		1.0	0.41	ug/L			03/31/23 16:44	1
1,1,2-Trichloroethane	<1.0		1.0	0.48	ug/L			03/31/23 16:44	1
1,1-Dichloroethane	**3.8**		1.0	0.47	ug/L			03/31/23 16:44	1
1,1-Dichloroethene	<1.0		1.0	0.49	ug/L			03/31/23 16:44	1
1,2,4-Trichlorobenzene	<1.0		1.0	0.77	ug/L			03/31/23 16:44	1
1,2-Dibromo-3-Chloropropane	<2.0		2.0	0.91	ug/L			03/31/23 16:44	1
Ethylene Dibromide	<1.0		1.0	0.41	ug/L			03/31/23 16:44	1
1,2-Dichlorobenzene	<1.0		1.0	0.48	ug/L			03/31/23 16:44	1
1,2-Dichloroethane	<1.0		1.0	0.21	ug/L			03/31/23 16:44	1
1,2-Dichloropropane	<1.0		1.0	0.47	ug/L			03/31/23 16:44	1
1,3-Dichlorobenzene	<1.0		1.0	0.45	ug/L			03/31/23 16:44	1
1,4-Dichlorobenzene	<1.0		1.0	0.41	ug/L			03/31/23 16:44	1
2-Butanone (MEK)	<10		10	1.2	ug/L			03/31/23 16:44	1
2-Hexanone	<10		10	1.1	ug/L			03/31/23 16:44	1
4-Methyl-2-pentanone (MIBK)	<10		10	0.99	ug/L			03/31/23 16:44	1
Acetone	<10		10	5.4	ug/L			03/31/23 16:44	1
Benzene	<1.0		1.0	0.42	ug/L			03/31/23 16:44	1
Dichlorobromomethane	<1.0		1.0	0.17	ug/L			03/31/23 16:44	1
Bromoform	<1.0		1.0	0.76	ug/L			03/31/23 16:44	1
Bromomethane	<1.0		1.0	0.42	ug/L			03/31/23 16:44	1
Carbon disulfide	<1.0		1.0	0.59	ug/L			03/31/23 16:44	1
Carbon tetrachloride	<1.0		1.0	0.26	ug/L			03/31/23 16:44	1
Chlorobenzene	<1.0		1.0	0.38	ug/L			03/31/23 16:44	1
Chloroethane	<1.0		1.0	0.83	ug/L			03/31/23 16:44	1
Chloroform	<1.0		1.0	0.47	ug/L			03/31/23 16:44	1
Chloromethane	<1.0		1.0	0.63	ug/L			03/31/23 16:44	1
cis-1,2-Dichloroethene	**3.4**		1.0	0.46	ug/L			03/31/23 16:44	1
cis-1,3-Dichloropropene	<1.0		1.0	0.61	ug/L			03/31/23 16:44	1
Cyclohexane	<1.0		1.0	0.48	ug/L			03/31/23 16:44	1
Chlorodibromomethane	<1.0		1.0	0.39	ug/L			03/31/23 16:44	1
Dichlorodifluoromethane	<1.0		1.0	0.35	ug/L			03/31/23 16:44	1
Ethylbenzene	<1.0		1.0	0.42	ug/L			03/31/23 16:44	1
Isopropylbenzene	<1.0		1.0	0.49	ug/L			03/31/23 16:44	1
Methyl acetate	<10		10	1.7	ug/L			03/31/23 16:44	1
Methyl tert-butyl ether	<1.0		1.0	0.47	ug/L			03/31/23 16:44	1
Methylcyclohexane	<1.0		1.0	0.33	ug/L			03/31/23 16:44	1
Methylene Chloride	<5.0		5.0	2.6	ug/L			03/31/23 16:44	1
Styrene	<1.0		1.0	0.45	ug/L			03/31/23 16:44	1
Tetrachloroethene	**2.8**		1.0	0.44	ug/L			03/31/23 16:44	1
Toluene	<1.0		1.0	0.44	ug/L			03/31/23 16:44	1
trans-1,2-Dichloroethene	<1.0		1.0	0.51	ug/L			03/31/23 16:44	1
trans-1,3-Dichloropropene	<1.0		1.0	0.67	ug/L			03/31/23 16:44	1
Trichloroethene	**0.60**	**J**	1.0	0.44	ug/L			03/31/23 16:44	1
Trichlorofluoromethane	<1.0		1.0	0.45	ug/L			03/31/23 16:44	1
Vinyl chloride	<1.0		1.0	0.45	ug/L			03/31/23 16:44	1
Xylenes, Total	<2.0		2.0	0.42	ug/L			03/31/23 16:44	1

Client Sample Results

Client: Pinnacle Engineering, Inc
Project/Site: Monarch Chemical

Job ID: 240-182494-1

Client Sample ID: MW-115

Date Collected: 03/20/23 11:55
Date Received: 03/24/23 09:30

Lab Sample ID: 240-182494-2

Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	91		78 - 122		03/31/23 16:44	1
Dibromofluoromethane (Surr)	102		73 - 120		03/31/23 16:44	1
4-Bromofluorobenzene (Surr)	86		56 - 136		03/31/23 16:44	1
1,2-Dichloroethane-d4 (Surr)	97		62 - 137		03/31/23 16:44	1

Client Sample Results

Client: Pinnacle Engineering, Inc
Project/Site: Monarch Chemical

Job ID: 240-182494-1

Client Sample ID: MW-115D

Date Collected: 03/20/23 10:15
Date Received: 03/24/23 09:30

Lab Sample ID: 240-182494-3

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<1.0		1.0	0.48	ug/L			03/31/23 17:07	1
1,1,2,2-Tetrachloroethane	<1.0		1.0	0.60	ug/L			03/31/23 17:07	1
1,1,2-Trichloro-1,2,2-trifluoroethane	<1.0		1.0	0.41	ug/L			03/31/23 17:07	1
1,1,2-Trichloroethane	<1.0		1.0	0.48	ug/L			03/31/23 17:07	1
1,1-Dichloroethane	**0.78**	**J**	1.0	0.47	ug/L			03/31/23 17:07	1
1,1-Dichloroethene	<1.0		1.0	0.49	ug/L			03/31/23 17:07	1
1,2,4-Trichlorobenzene	<1.0		1.0	0.77	ug/L			03/31/23 17:07	1
1,2-Dibromo-3-Chloropropane	<2.0		2.0	0.91	ug/L			03/31/23 17:07	1
Ethylene Dibromide	<1.0		1.0	0.41	ug/L			03/31/23 17:07	1
1,2-Dichlorobenzene	<1.0		1.0	0.48	ug/L			03/31/23 17:07	1
1,2-Dichloroethane	<1.0		1.0	0.21	ug/L			03/31/23 17:07	1
1,2-Dichloropropane	<1.0		1.0	0.47	ug/L			03/31/23 17:07	1
1,3-Dichlorobenzene	<1.0		1.0	0.45	ug/L			03/31/23 17:07	1
1,4-Dichlorobenzene	<1.0		1.0	0.41	ug/L			03/31/23 17:07	1
2-Butanone (MEK)	<10		10	1.2	ug/L			03/31/23 17:07	1
2-Hexanone	<10		10	1.1	ug/L			03/31/23 17:07	1
4-Methyl-2-pentanone (MIBK)	<10		10	0.99	ug/L			03/31/23 17:07	1
Acetone	<10		10	5.4	ug/L			03/31/23 17:07	1
Benzene	<1.0		1.0	0.42	ug/L			03/31/23 17:07	1
Dichlorobromomethane	<1.0		1.0	0.17	ug/L			03/31/23 17:07	1
Bromoform	<1.0		1.0	0.76	ug/L			03/31/23 17:07	1
Bromomethane	<1.0		1.0	0.42	ug/L			03/31/23 17:07	1
Carbon disulfide	<1.0		1.0	0.59	ug/L			03/31/23 17:07	1
Carbon tetrachloride	<1.0		1.0	0.26	ug/L			03/31/23 17:07	1
Chlorobenzene	<1.0		1.0	0.38	ug/L			03/31/23 17:07	1
Chloroethane	<1.0		1.0	0.83	ug/L			03/31/23 17:07	1
Chloroform	<1.0		1.0	0.47	ug/L			03/31/23 17:07	1
Chloromethane	<1.0		1.0	0.63	ug/L			03/31/23 17:07	1
cis-1,2-Dichloroethene	<1.0		1.0	0.46	ug/L			03/31/23 17:07	1
cis-1,3-Dichloropropene	<1.0		1.0	0.61	ug/L			03/31/23 17:07	1
Cyclohexane	<1.0		1.0	0.48	ug/L			03/31/23 17:07	1
Chlorodibromomethane	<1.0		1.0	0.39	ug/L			03/31/23 17:07	1
Dichlorodifluoromethane	<1.0		1.0	0.35	ug/L			03/31/23 17:07	1
Ethylbenzene	<1.0		1.0	0.42	ug/L			03/31/23 17:07	1
Isopropylbenzene	<1.0		1.0	0.49	ug/L			03/31/23 17:07	1
Methyl acetate	<10		10	1.7	ug/L			03/31/23 17:07	1
Methyl tert-butyl ether	<1.0		1.0	0.47	ug/L			03/31/23 17:07	1
Methylcyclohexane	<1.0		1.0	0.33	ug/L			03/31/23 17:07	1
Methylene Chloride	<5.0		5.0	2.6	ug/L			03/31/23 17:07	1
Styrene	<1.0		1.0	0.45	ug/L			03/31/23 17:07	1
Tetrachloroethene	<1.0		1.0	0.44	ug/L			03/31/23 17:07	1
Toluene	<1.0		1.0	0.44	ug/L			03/31/23 17:07	1
trans-1,2-Dichloroethene	<1.0		1.0	0.51	ug/L			03/31/23 17:07	1
trans-1,3-Dichloropropene	<1.0		1.0	0.67	ug/L			03/31/23 17:07	1
Trichloroethene	<1.0		1.0	0.44	ug/L			03/31/23 17:07	1
Trichlorofluoromethane	<1.0		1.0	0.45	ug/L			03/31/23 17:07	1
Vinyl chloride	<1.0		1.0	0.45	ug/L			03/31/23 17:07	1
Xylenes, Total	<2.0		2.0	0.42	ug/L			03/31/23 17:07	1

Client Sample Results

Client: Pinnacle Engineering, Inc
Project/Site: Monarch Chemical

Job ID: 240-182494-1

Client Sample ID: MW-115D

Date Collected: 03/20/23 10:15
Date Received: 03/24/23 09:30

Lab Sample ID: 240-182494-3

Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	98		78 - 122		03/31/23 17:07	1
Dibromofluoromethane (Surr)	108		73 - 120		03/31/23 17:07	1
4-Bromofluorobenzene (Surr)	94		56 - 136		03/31/23 17:07	1
1,2-Dichloroethane-d4 (Surr)	110		62 - 137		03/31/23 17:07	1

Client Sample Results

Client: Pinnacle Engineering, Inc
Project/Site: Monarch Chemical

Job ID: 240-182494-1

Client Sample ID: MW-116

Date Collected: 03/19/23 10:53
Date Received: 03/24/23 09:30

Lab Sample ID: 240-182494-4

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<1.0		1.0	0.48	ug/L			03/31/23 17:30	1
1,1,2,2-Tetrachloroethane	<1.0		1.0	0.60	ug/L			03/31/23 17:30	1
1,1,2-Trichloro-1,2,2-trifluoroethane	<1.0		1.0	0.41	ug/L			03/31/23 17:30	1
1,1,2-Trichloroethane	<1.0		1.0	0.48	ug/L			03/31/23 17:30	1
1,1-Dichloroethane	**0.95**	**J**	1.0	0.47	ug/L			03/31/23 17:30	1
1,1-Dichloroethene	<1.0		1.0	0.49	ug/L			03/31/23 17:30	1
1,2,4-Trichlorobenzene	<1.0		1.0	0.77	ug/L			03/31/23 17:30	1
1,2-Dibromo-3-Chloropropane	<2.0		2.0	0.91	ug/L			03/31/23 17:30	1
Ethylene Dibromide	<1.0		1.0	0.41	ug/L			03/31/23 17:30	1
1,2-Dichlorobenzene	<1.0		1.0	0.48	ug/L			03/31/23 17:30	1
1,2-Dichloroethane	<1.0		1.0	0.21	ug/L			03/31/23 17:30	1
1,2-Dichloropropane	<1.0		1.0	0.47	ug/L			03/31/23 17:30	1
1,3-Dichlorobenzene	<1.0		1.0	0.45	ug/L			03/31/23 17:30	1
1,4-Dichlorobenzene	<1.0		1.0	0.41	ug/L			03/31/23 17:30	1
2-Butanone (MEK)	<10		10	1.2	ug/L			03/31/23 17:30	1
2-Hexanone	<10		10	1.1	ug/L			03/31/23 17:30	1
4-Methyl-2-pentanone (MIBK)	<10		10	0.99	ug/L			03/31/23 17:30	1
Acetone	<10		10	5.4	ug/L			03/31/23 17:30	1
Benzene	<1.0		1.0	0.42	ug/L			03/31/23 17:30	1
Dichlorobromomethane	<1.0		1.0	0.17	ug/L			03/31/23 17:30	1
Bromoform	<1.0		1.0	0.76	ug/L			03/31/23 17:30	1
Bromomethane	<1.0		1.0	0.42	ug/L			03/31/23 17:30	1
Carbon disulfide	<1.0		1.0	0.59	ug/L			03/31/23 17:30	1
Carbon tetrachloride	<1.0		1.0	0.26	ug/L			03/31/23 17:30	1
Chlorobenzene	<1.0		1.0	0.38	ug/L			03/31/23 17:30	1
Chloroethane	<1.0		1.0	0.83	ug/L			03/31/23 17:30	1
Chloroform	<1.0		1.0	0.47	ug/L			03/31/23 17:30	1
Chloromethane	<1.0		1.0	0.63	ug/L			03/31/23 17:30	1
cis-1,2-Dichloroethene	**0.92**	**J**	1.0	0.46	ug/L			03/31/23 17:30	1
cis-1,3-Dichloropropene	<1.0		1.0	0.61	ug/L			03/31/23 17:30	1
Cyclohexane	<1.0		1.0	0.48	ug/L			03/31/23 17:30	1
Chlorodibromomethane	<1.0		1.0	0.39	ug/L			03/31/23 17:30	1
Dichlorodifluoromethane	<1.0		1.0	0.35	ug/L			03/31/23 17:30	1
Ethylbenzene	<1.0		1.0	0.42	ug/L			03/31/23 17:30	1
Isopropylbenzene	<1.0		1.0	0.49	ug/L			03/31/23 17:30	1
Methyl acetate	<10		10	1.7	ug/L			03/31/23 17:30	1
Methyl tert-butyl ether	<1.0		1.0	0.47	ug/L			03/31/23 17:30	1
Methylcyclohexane	<1.0		1.0	0.33	ug/L			03/31/23 17:30	1
Methylene Chloride	<5.0		5.0	2.6	ug/L			03/31/23 17:30	1
Styrene	<1.0		1.0	0.45	ug/L			03/31/23 17:30	1
Tetrachloroethene	<1.0		1.0	0.44	ug/L			03/31/23 17:30	1
Toluene	<1.0		1.0	0.44	ug/L			03/31/23 17:30	1
trans-1,2-Dichloroethene	<1.0		1.0	0.51	ug/L			03/31/23 17:30	1
trans-1,3-Dichloropropene	<1.0		1.0	0.67	ug/L			03/31/23 17:30	1
Trichloroethene	**1.4**		1.0	0.44	ug/L			03/31/23 17:30	1
Trichlorofluoromethane	<1.0		1.0	0.45	ug/L			03/31/23 17:30	1
Vinyl chloride	<1.0		1.0	0.45	ug/L			03/31/23 17:30	1
Xylenes, Total	<2.0		2.0	0.42	ug/L			03/31/23 17:30	1

Client Sample Results

Client: Pinnacle Engineering, Inc
Project/Site: Monarch Chemical

Job ID: 240-182494-1

Client Sample ID: MW-116

Date Collected: 03/19/23 10:53
Date Received: 03/24/23 09:30

Lab Sample ID: 240-182494-4

Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	93		78 - 122		03/31/23 17:30	1
Dibromofluoromethane (Surr)	103		73 - 120		03/31/23 17:30	1
4-Bromofluorobenzene (Surr)	88		56 - 136		03/31/23 17:30	1
1,2-Dichloroethane-d4 (Surr)	101		62 - 137		03/31/23 17:30	1

Client Sample Results

Client: Pinnacle Engineering, Inc
Project/Site: Monarch Chemical

Job ID: 240-182494-1

Client Sample ID: MW-117

Date Collected: 03/18/23 12:10
Date Received: 03/24/23 09:30

Lab Sample ID: 240-182494-5

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<1.0		1.0	0.48	ug/L			03/31/23 17:53	1
1,1,2,2-Tetrachloroethane	<1.0		1.0	0.60	ug/L			03/31/23 17:53	1
1,1,2-Trichloro-1,2,2-trifluoroethane	<1.0		1.0	0.41	ug/L			03/31/23 17:53	1
1,1,2-Trichloroethane	<1.0		1.0	0.48	ug/L			03/31/23 17:53	1
1,1-Dichloroethane	<1.0		1.0	0.47	ug/L			03/31/23 17:53	1
1,1-Dichloroethene	<1.0		1.0	0.49	ug/L			03/31/23 17:53	1
1,2,4-Trichlorobenzene	<1.0		1.0	0.77	ug/L			03/31/23 17:53	1
1,2-Dibromo-3-Chloropropane	<2.0		2.0	0.91	ug/L			03/31/23 17:53	1
Ethylene Dibromide	<1.0		1.0	0.41	ug/L			03/31/23 17:53	1
1,2-Dichlorobenzene	<1.0		1.0	0.48	ug/L			03/31/23 17:53	1
1,2-Dichloroethane	<1.0		1.0	0.21	ug/L			03/31/23 17:53	1
1,2-Dichloropropane	<1.0		1.0	0.47	ug/L			03/31/23 17:53	1
1,3-Dichlorobenzene	<1.0		1.0	0.45	ug/L			03/31/23 17:53	1
1,4-Dichlorobenzene	<1.0		1.0	0.41	ug/L			03/31/23 17:53	1
2-Butanone (MEK)	<10		10	1.2	ug/L			03/31/23 17:53	1
2-Hexanone	<10		10	1.1	ug/L			03/31/23 17:53	1
4-Methyl-2-pentanone (MIBK)	<10		10	0.99	ug/L			03/31/23 17:53	1
Acetone	<10		10	5.4	ug/L			03/31/23 17:53	1
Benzene	<1.0		1.0	0.42	ug/L			03/31/23 17:53	1
Dichlorobromomethane	<1.0		1.0	0.17	ug/L			03/31/23 17:53	1
Bromoform	<1.0		1.0	0.76	ug/L			03/31/23 17:53	1
Bromomethane	<1.0		1.0	0.42	ug/L			03/31/23 17:53	1
Carbon disulfide	<1.0		1.0	0.59	ug/L			03/31/23 17:53	1
Carbon tetrachloride	<1.0		1.0	0.26	ug/L			03/31/23 17:53	1
Chlorobenzene	<1.0		1.0	0.38	ug/L			03/31/23 17:53	1
Chloroethane	<1.0		1.0	0.83	ug/L			03/31/23 17:53	1
Chloroform	<1.0		1.0	0.47	ug/L			03/31/23 17:53	1
Chloromethane	<1.0		1.0	0.63	ug/L			03/31/23 17:53	1
cis-1,2-Dichloroethene	<1.0		1.0	0.46	ug/L			03/31/23 17:53	1
cis-1,3-Dichloropropene	<1.0		1.0	0.61	ug/L			03/31/23 17:53	1
Cyclohexane	<1.0		1.0	0.48	ug/L			03/31/23 17:53	1
Chlorodibromomethane	<1.0		1.0	0.39	ug/L			03/31/23 17:53	1
Dichlorodifluoromethane	<1.0		1.0	0.35	ug/L			03/31/23 17:53	1
Ethylbenzene	<1.0		1.0	0.42	ug/L			03/31/23 17:53	1
Isopropylbenzene	<1.0		1.0	0.49	ug/L			03/31/23 17:53	1
Methyl acetate	<10		10	1.7	ug/L			03/31/23 17:53	1
Methyl tert-butyl ether	<1.0		1.0	0.47	ug/L			03/31/23 17:53	1
Methylcyclohexane	<1.0		1.0	0.33	ug/L			03/31/23 17:53	1
Methylene Chloride	<5.0		5.0	2.6	ug/L			03/31/23 17:53	1
Styrene	<1.0		1.0	0.45	ug/L			03/31/23 17:53	1
Tetrachloroethene	**2.0**		1.0	0.44	ug/L			03/31/23 17:53	1
Toluene	<1.0		1.0	0.44	ug/L			03/31/23 17:53	1
trans-1,2-Dichloroethene	<1.0		1.0	0.51	ug/L			03/31/23 17:53	1
trans-1,3-Dichloropropene	<1.0		1.0	0.67	ug/L			03/31/23 17:53	1
Trichloroethene	<1.0		1.0	0.44	ug/L			03/31/23 17:53	1
Trichlorofluoromethane	<1.0		1.0	0.45	ug/L			03/31/23 17:53	1
Vinyl chloride	<1.0		1.0	0.45	ug/L			03/31/23 17:53	1
Xylenes, Total	<2.0		2.0	0.42	ug/L			03/31/23 17:53	1

Client Sample Results

Client: Pinnacle Engineering, Inc
Project/Site: Monarch Chemical

Job ID: 240-182494-1

Client Sample ID: MW-117

Date Collected: 03/18/23 12:10
Date Received: 03/24/23 09:30

Lab Sample ID: 240-182494-5

Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	98		78 - 122		03/31/23 17:53	1
Dibromofluoromethane (Surr)	108		73 - 120		03/31/23 17:53	1
4-Bromofluorobenzene (Surr)	91		56 - 136		03/31/23 17:53	1
1,2-Dichloroethane-d4 (Surr)	107		62 - 137		03/31/23 17:53	1

Client Sample Results

Client: Pinnacle Engineering, Inc
Project/Site: Monarch Chemical

Job ID: 240-182494-1

Client Sample ID: MW-118

Date Collected: 03/18/23 16:20
Date Received: 03/24/23 09:30

Lab Sample ID: 240-182494-6

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<2.0		2.0	0.96	ug/L			03/31/23 18:16	2
1,1,2,2-Tetrachloroethane	<2.0		2.0	1.2	ug/L			03/31/23 18:16	2
1,1,2-Trichloro-1,2,2-trifluoroethane	<2.0		2.0	0.82	ug/L			03/31/23 18:16	2
1,1,2-Trichloroethane	<2.0		2.0	0.96	ug/L			03/31/23 18:16	2
1,1-Dichloroethane	**100**		2.0	0.94	ug/L			03/31/23 18:16	2
1,1-Dichloroethene	**1.6**	**J**	2.0	0.98	ug/L			03/31/23 18:16	2
1,2,4-Trichlorobenzene	<2.0		2.0	1.5	ug/L			03/31/23 18:16	2
1,2-Dibromo-3-Chloropropane	<4.0		4.0	1.8	ug/L			03/31/23 18:16	2
Ethylene Dibromide	<2.0		2.0	0.82	ug/L			03/31/23 18:16	2
1,2-Dichlorobenzene	<2.0		2.0	0.96	ug/L			03/31/23 18:16	2
1,2-Dichloroethane	<2.0		2.0	0.42	ug/L			03/31/23 18:16	2
1,2-Dichloropropane	<2.0		2.0	0.94	ug/L			03/31/23 18:16	2
1,3-Dichlorobenzene	<2.0		2.0	0.90	ug/L			03/31/23 18:16	2
1,4-Dichlorobenzene	<2.0		2.0	0.82	ug/L			03/31/23 18:16	2
2-Butanone (MEK)	<20		20	2.3	ug/L			03/31/23 18:16	2
2-Hexanone	<20		20	2.2	ug/L			03/31/23 18:16	2
4-Methyl-2-pentanone (MIBK)	<20		20	2.0	ug/L			03/31/23 18:16	2
Acetone	<20		20	11	ug/L			03/31/23 18:16	2
Benzene	<2.0		2.0	0.84	ug/L			03/31/23 18:16	2
Dichlorobromomethane	<2.0		2.0	0.34	ug/L			03/31/23 18:16	2
Bromoform	<2.0		2.0	1.5	ug/L			03/31/23 18:16	2
Bromomethane	<2.0		2.0	0.84	ug/L			03/31/23 18:16	2
Carbon disulfide	<2.0		2.0	1.2	ug/L			03/31/23 18:16	2
Carbon tetrachloride	<2.0		2.0	0.52	ug/L			03/31/23 18:16	2
Chlorobenzene	<2.0		2.0	0.76	ug/L			03/31/23 18:16	2
Chloroethane	**8.7**		2.0	1.7	ug/L			03/31/23 18:16	2
Chloroform	<2.0		2.0	0.94	ug/L			03/31/23 18:16	2
Chloromethane	<2.0		2.0	1.3	ug/L			03/31/23 18:16	2
cis-1,2-Dichloroethene	**100**		2.0	0.92	ug/L			03/31/23 18:16	2
cis-1,3-Dichloropropene	<2.0		2.0	1.2	ug/L			03/31/23 18:16	2
Cyclohexane	<2.0		2.0	0.96	ug/L			03/31/23 18:16	2
Chlorodibromomethane	<2.0		2.0	0.78	ug/L			03/31/23 18:16	2
Dichlorodifluoromethane	<2.0		2.0	0.70	ug/L			03/31/23 18:16	2
Ethylbenzene	<2.0		2.0	0.84	ug/L			03/31/23 18:16	2
Isopropylbenzene	<2.0		2.0	0.98	ug/L			03/31/23 18:16	2
Methyl acetate	<20		20	3.4	ug/L			03/31/23 18:16	2
Methyl tert-butyl ether	<2.0		2.0	0.94	ug/L			03/31/23 18:16	2
Methylcyclohexane	<2.0		2.0	0.66	ug/L			03/31/23 18:16	2
Methylene Chloride	<10		10	5.2	ug/L			03/31/23 18:16	2
Styrene	<2.0		2.0	0.90	ug/L			03/31/23 18:16	2
Tetrachloroethene	<2.0		2.0	0.88	ug/L			03/31/23 18:16	2
Toluene	<2.0		2.0	0.88	ug/L			03/31/23 18:16	2
trans-1,2-Dichloroethene	**1.1**	**J**	2.0	1.0	ug/L			03/31/23 18:16	2
trans-1,3-Dichloropropene	<2.0		2.0	1.3	ug/L			03/31/23 18:16	2
Trichloroethene	**15**		2.0	0.88	ug/L			03/31/23 18:16	2
Trichlorofluoromethane	<2.0		2.0	0.90	ug/L			03/31/23 18:16	2
Vinyl chloride	**72**		2.0	0.90	ug/L			03/31/23 18:16	2
Xylenes, Total	<4.0		4.0	0.84	ug/L			03/31/23 18:16	2

Client Sample Results

Client: Pinnacle Engineering, Inc
Project/Site: Monarch Chemical

Job ID: 240-182494-1

Client Sample ID: MW-118

Date Collected: 03/18/23 16:20
Date Received: 03/24/23 09:30

Lab Sample ID: 240-182494-6

Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	94		78 - 122		03/31/23 18:16	2
Dibromofluoromethane (Surr)	101		73 - 120		03/31/23 18:16	2
4-Bromofluorobenzene (Surr)	89		56 - 136		03/31/23 18:16	2
1,2-Dichloroethane-d4 (Surr)	100		62 - 137		03/31/23 18:16	2

Client Sample Results

Client: Pinnacle Engineering, Inc
Project/Site: Monarch Chemical

Job ID: 240-182494-1

Client Sample ID: MW-121

Date Collected: 03/22/23 13:30
Date Received: 03/24/23 09:30

Lab Sample ID: 240-182494-7

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	**0.74**	**J**	1.0	0.48	ug/L			03/31/23 18:39	1
1,1,2,2-Tetrachloroethane	<1.0		1.0	0.60	ug/L			03/31/23 18:39	1
1,1,2-Trichloro-1,2,2-trifluoroethane	<1.0		1.0	0.41	ug/L			03/31/23 18:39	1
1,1,2-Trichloroethane	<1.0		1.0	0.48	ug/L			03/31/23 18:39	1
1,1-Dichloroethane	**2.4**		1.0	0.47	ug/L			03/31/23 18:39	1
1,1-Dichloroethene	<1.0		1.0	0.49	ug/L			03/31/23 18:39	1
1,2,4-Trichlorobenzene	<1.0		1.0	0.77	ug/L			03/31/23 18:39	1
1,2-Dibromo-3-Chloropropane	<2.0		2.0	0.91	ug/L			03/31/23 18:39	1
Ethylene Dibromide	<1.0		1.0	0.41	ug/L			03/31/23 18:39	1
1,2-Dichlorobenzene	<1.0		1.0	0.48	ug/L			03/31/23 18:39	1
1,2-Dichloroethane	<1.0		1.0	0.21	ug/L			03/31/23 18:39	1
1,2-Dichloropropane	<1.0		1.0	0.47	ug/L			03/31/23 18:39	1
1,3-Dichlorobenzene	<1.0		1.0	0.45	ug/L			03/31/23 18:39	1
1,4-Dichlorobenzene	<1.0		1.0	0.41	ug/L			03/31/23 18:39	1
2-Butanone (MEK)	<10		10	1.2	ug/L			03/31/23 18:39	1
2-Hexanone	<10		10	1.1	ug/L			03/31/23 18:39	1
4-Methyl-2-pentanone (MIBK)	<10		10	0.99	ug/L			03/31/23 18:39	1
Acetone	<10		10	5.4	ug/L			03/31/23 18:39	1
Benzene	<1.0		1.0	0.42	ug/L			03/31/23 18:39	1
Dichlorobromomethane	<1.0		1.0	0.17	ug/L			03/31/23 18:39	1
Bromoform	<1.0		1.0	0.76	ug/L			03/31/23 18:39	1
Bromomethane	<1.0		1.0	0.42	ug/L			03/31/23 18:39	1
Carbon disulfide	<1.0		1.0	0.59	ug/L			03/31/23 18:39	1
Carbon tetrachloride	<1.0		1.0	0.26	ug/L			03/31/23 18:39	1
Chlorobenzene	<1.0		1.0	0.38	ug/L			03/31/23 18:39	1
Chloroethane	<1.0		1.0	0.83	ug/L			03/31/23 18:39	1
Chloroform	<1.0		1.0	0.47	ug/L			03/31/23 18:39	1
Chloromethane	<1.0		1.0	0.63	ug/L			03/31/23 18:39	1
cis-1,2-Dichloroethene	**2.8**		1.0	0.46	ug/L			03/31/23 18:39	1
cis-1,3-Dichloropropene	<1.0		1.0	0.61	ug/L			03/31/23 18:39	1
Cyclohexane	<1.0		1.0	0.48	ug/L			03/31/23 18:39	1
Chlorodibromomethane	<1.0		1.0	0.39	ug/L			03/31/23 18:39	1
Dichlorodifluoromethane	<1.0		1.0	0.35	ug/L			03/31/23 18:39	1
Ethylbenzene	<1.0		1.0	0.42	ug/L			03/31/23 18:39	1
Isopropylbenzene	<1.0		1.0	0.49	ug/L			03/31/23 18:39	1
Methyl acetate	<10		10	1.7	ug/L			03/31/23 18:39	1
Methyl tert-butyl ether	<1.0		1.0	0.47	ug/L			03/31/23 18:39	1
Methylcyclohexane	<1.0		1.0	0.33	ug/L			03/31/23 18:39	1
Methylene Chloride	<5.0		5.0	2.6	ug/L			03/31/23 18:39	1
Styrene	<1.0		1.0	0.45	ug/L			03/31/23 18:39	1
Tetrachloroethene	**0.75**	**J**	1.0	0.44	ug/L			03/31/23 18:39	1
Toluene	<1.0		1.0	0.44	ug/L			03/31/23 18:39	1
trans-1,2-Dichloroethene	<1.0		1.0	0.51	ug/L			03/31/23 18:39	1
trans-1,3-Dichloropropene	<1.0		1.0	0.67	ug/L			03/31/23 18:39	1
Trichloroethene	**1.7**		1.0	0.44	ug/L			03/31/23 18:39	1
Trichlorofluoromethane	<1.0		1.0	0.45	ug/L			03/31/23 18:39	1
Vinyl chloride	<1.0		1.0	0.45	ug/L			03/31/23 18:39	1
Xylenes, Total	<2.0		2.0	0.42	ug/L			03/31/23 18:39	1

Client Sample Results

Client: Pinnacle Engineering, Inc
Project/Site: Monarch Chemical

Job ID: 240-182494-1

Client Sample ID: MW-121

Date Collected: 03/22/23 13:30
Date Received: 03/24/23 09:30

Lab Sample ID: 240-182494-7

Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	92		78 - 122		03/31/23 18:39	1
Dibromofluoromethane (Surr)	105		73 - 120		03/31/23 18:39	1
4-Bromofluorobenzene (Surr)	84		56 - 136		03/31/23 18:39	1
1,2-Dichloroethane-d4 (Surr)	100		62 - 137		03/31/23 18:39	1

Client Sample Results

Client: Pinnacle Engineering, Inc
Project/Site: Monarch Chemical

Job ID: 240-182494-1

Client Sample ID: MW-122

Date Collected: 03/22/23 14:55
Date Received: 03/24/23 09:30

Lab Sample ID: 240-182494-8

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<1.0		1.0	0.48	ug/L			03/31/23 19:02	1
1,1,2,2-Tetrachloroethane	<1.0		1.0	0.60	ug/L			03/31/23 19:02	1
1,1,2-Trichloro-1,2,2-trifluoroethane	<1.0		1.0	0.41	ug/L			03/31/23 19:02	1
1,1,2-Trichloroethane	<1.0		1.0	0.48	ug/L			03/31/23 19:02	1
1,1-Dichloroethane	**12**		1.0	0.47	ug/L			03/31/23 19:02	1
1,1-Dichloroethene	<1.0		1.0	0.49	ug/L			03/31/23 19:02	1
1,2,4-Trichlorobenzene	<1.0		1.0	0.77	ug/L			03/31/23 19:02	1
1,2-Dibromo-3-Chloropropane	<2.0		2.0	0.91	ug/L			03/31/23 19:02	1
Ethylene Dibromide	<1.0		1.0	0.41	ug/L			03/31/23 19:02	1
1,2-Dichlorobenzene	<1.0		1.0	0.48	ug/L			03/31/23 19:02	1
1,2-Dichloroethane	<1.0		1.0	0.21	ug/L			03/31/23 19:02	1
1,2-Dichloropropane	<1.0		1.0	0.47	ug/L			03/31/23 19:02	1
1,3-Dichlorobenzene	<1.0		1.0	0.45	ug/L			03/31/23 19:02	1
1,4-Dichlorobenzene	<1.0		1.0	0.41	ug/L			03/31/23 19:02	1
2-Butanone (MEK)	<10		10	1.2	ug/L			03/31/23 19:02	1
2-Hexanone	<10		10	1.1	ug/L			03/31/23 19:02	1
4-Methyl-2-pentanone (MIBK)	<10		10	0.99	ug/L			03/31/23 19:02	1
Acetone	<10		10	5.4	ug/L			03/31/23 19:02	1
Benzene	**0.52**	**J**	1.0	0.42	ug/L			03/31/23 19:02	1
Dichlorobromomethane	<1.0		1.0	0.17	ug/L			03/31/23 19:02	1
Bromoform	<1.0		1.0	0.76	ug/L			03/31/23 19:02	1
Bromomethane	<1.0		1.0	0.42	ug/L			03/31/23 19:02	1
Carbon disulfide	<1.0		1.0	0.59	ug/L			03/31/23 19:02	1
Carbon tetrachloride	<1.0		1.0	0.26	ug/L			03/31/23 19:02	1
Chlorobenzene	<1.0		1.0	0.38	ug/L			03/31/23 19:02	1
Chloroethane	**2.9**		1.0	0.83	ug/L			03/31/23 19:02	1
Chloroform	<1.0		1.0	0.47	ug/L			03/31/23 19:02	1
Chloromethane	<1.0		1.0	0.63	ug/L			03/31/23 19:02	1
cis-1,2-Dichloroethene	**7.1**		1.0	0.46	ug/L			03/31/23 19:02	1
cis-1,3-Dichloropropene	<1.0		1.0	0.61	ug/L			03/31/23 19:02	1
Cyclohexane	<1.0		1.0	0.48	ug/L			03/31/23 19:02	1
Chlorodibromomethane	<1.0		1.0	0.39	ug/L			03/31/23 19:02	1
Dichlorodifluoromethane	<1.0		1.0	0.35	ug/L			03/31/23 19:02	1
Ethylbenzene	<1.0		1.0	0.42	ug/L			03/31/23 19:02	1
Isopropylbenzene	<1.0		1.0	0.49	ug/L			03/31/23 19:02	1
Methyl acetate	<10		10	1.7	ug/L			03/31/23 19:02	1
Methyl tert-butyl ether	<1.0		1.0	0.47	ug/L			03/31/23 19:02	1
Methylcyclohexane	<1.0		1.0	0.33	ug/L			03/31/23 19:02	1
Methylene Chloride	<5.0		5.0	2.6	ug/L			03/31/23 19:02	1
Styrene	<1.0		1.0	0.45	ug/L			03/31/23 19:02	1
Tetrachloroethene	<1.0		1.0	0.44	ug/L			03/31/23 19:02	1
Toluene	<1.0		1.0	0.44	ug/L			03/31/23 19:02	1
trans-1,2-Dichloroethene	**1.0**		1.0	0.51	ug/L			03/31/23 19:02	1
trans-1,3-Dichloropropene	<1.0		1.0	0.67	ug/L			03/31/23 19:02	1
Trichloroethene	**0.49**	**J**	1.0	0.44	ug/L			03/31/23 19:02	1
Trichlorofluoromethane	<1.0		1.0	0.45	ug/L			03/31/23 19:02	1
Vinyl chloride	**1.9**		1.0	0.45	ug/L			03/31/23 19:02	1
Xylenes, Total	<2.0		2.0	0.42	ug/L			03/31/23 19:02	1

Client Sample Results

Client: Pinnacle Engineering, Inc
Project/Site: Monarch Chemical

Job ID: 240-182494-1

Client Sample ID: MW-122

Date Collected: 03/22/23 14:55
Date Received: 03/24/23 09:30

Lab Sample ID: 240-182494-8

Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	93		78 - 122		03/31/23 19:02	1
Dibromofluoromethane (Surr)	105		73 - 120		03/31/23 19:02	1
4-Bromofluorobenzene (Surr)	87		56 - 136		03/31/23 19:02	1
1,2-Dichloroethane-d4 (Surr)	102		62 - 137		03/31/23 19:02	1

Client Sample Results

Client: Pinnacle Engineering, Inc
Project/Site: Monarch Chemical

Job ID: 240-182494-1

Client Sample ID: MW-124S

Date Collected: 03/19/23 14:40
Date Received: 03/24/23 09:30

Lab Sample ID: 240-182494-9

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<1.0		1.0	0.48	ug/L			03/31/23 19:26	1
1,1,2,2-Tetrachloroethane	<1.0		1.0	0.60	ug/L			03/31/23 19:26	1
1,1,2-Trichloro-1,2,2-trifluoroethane	<1.0		1.0	0.41	ug/L			03/31/23 19:26	1
1,1,2-Trichloroethane	<1.0		1.0	0.48	ug/L			03/31/23 19:26	1
1,1-Dichloroethane	<1.0		1.0	0.47	ug/L			03/31/23 19:26	1
1,1-Dichloroethene	<1.0		1.0	0.49	ug/L			03/31/23 19:26	1
1,2,4-Trichlorobenzene	<1.0		1.0	0.77	ug/L			03/31/23 19:26	1
1,2-Dibromo-3-Chloropropane	<2.0		2.0	0.91	ug/L			03/31/23 19:26	1
Ethylene Dibromide	<1.0		1.0	0.41	ug/L			03/31/23 19:26	1
1,2-Dichlorobenzene	<1.0		1.0	0.48	ug/L			03/31/23 19:26	1
1,2-Dichloroethane	<1.0		1.0	0.21	ug/L			03/31/23 19:26	1
1,2-Dichloropropane	<1.0		1.0	0.47	ug/L			03/31/23 19:26	1
1,3-Dichlorobenzene	<1.0		1.0	0.45	ug/L			03/31/23 19:26	1
1,4-Dichlorobenzene	<1.0		1.0	0.41	ug/L			03/31/23 19:26	1
2-Butanone (MEK)	<10		10	1.2	ug/L			03/31/23 19:26	1
2-Hexanone	<10		10	1.1	ug/L			03/31/23 19:26	1
4-Methyl-2-pentanone (MIBK)	<10		10	0.99	ug/L			03/31/23 19:26	1
Acetone	<10		10	5.4	ug/L			03/31/23 19:26	1
Benzene	<1.0		1.0	0.42	ug/L			03/31/23 19:26	1
Dichlorobromomethane	<1.0		1.0	0.17	ug/L			03/31/23 19:26	1
Bromoform	<1.0		1.0	0.76	ug/L			03/31/23 19:26	1
Bromomethane	<1.0		1.0	0.42	ug/L			03/31/23 19:26	1
Carbon disulfide	<1.0		1.0	0.59	ug/L			03/31/23 19:26	1
Carbon tetrachloride	<1.0		1.0	0.26	ug/L			03/31/23 19:26	1
Chlorobenzene	<1.0		1.0	0.38	ug/L			03/31/23 19:26	1
Chloroethane	<1.0		1.0	0.83	ug/L			03/31/23 19:26	1
Chloroform	<1.0		1.0	0.47	ug/L			03/31/23 19:26	1
Chloromethane	<1.0		1.0	0.63	ug/L			03/31/23 19:26	1
cis-1,2-Dichloroethene	<1.0		1.0	0.46	ug/L			03/31/23 19:26	1
cis-1,3-Dichloropropene	<1.0		1.0	0.61	ug/L			03/31/23 19:26	1
Cyclohexane	<1.0		1.0	0.48	ug/L			03/31/23 19:26	1
Chlorodibromomethane	<1.0		1.0	0.39	ug/L			03/31/23 19:26	1
Dichlorodifluoromethane	<1.0		1.0	0.35	ug/L			03/31/23 19:26	1
Ethylbenzene	<1.0		1.0	0.42	ug/L			03/31/23 19:26	1
Isopropylbenzene	<1.0		1.0	0.49	ug/L			03/31/23 19:26	1
Methyl acetate	<10		10	1.7	ug/L			03/31/23 19:26	1
Methyl tert-butyl ether	<1.0		1.0	0.47	ug/L			03/31/23 19:26	1
Methylcyclohexane	<1.0		1.0	0.33	ug/L			03/31/23 19:26	1
Methylene Chloride	<5.0		5.0	2.6	ug/L			03/31/23 19:26	1
Styrene	<1.0		1.0	0.45	ug/L			03/31/23 19:26	1
Tetrachloroethene	<1.0		1.0	0.44	ug/L			03/31/23 19:26	1
Toluene	<1.0		1.0	0.44	ug/L			03/31/23 19:26	1
trans-1,2-Dichloroethene	**1.2**		1.0	0.51	ug/L			03/31/23 19:26	1
trans-1,3-Dichloropropene	<1.0		1.0	0.67	ug/L			03/31/23 19:26	1
Trichloroethene	<1.0		1.0	0.44	ug/L			03/31/23 19:26	1
Trichlorofluoromethane	<1.0		1.0	0.45	ug/L			03/31/23 19:26	1
Vinyl chloride	**1.3**		1.0	0.45	ug/L			03/31/23 19:26	1
Xylenes, Total	<2.0		2.0	0.42	ug/L			03/31/23 19:26	1

Client Sample Results

Client: Pinnacle Engineering, Inc
Project/Site: Monarch Chemical

Job ID: 240-182494-1

Client Sample ID: MW-124S

Date Collected: 03/19/23 14:40
Date Received: 03/24/23 09:30

Lab Sample ID: 240-182494-9

Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	93		78 - 122		03/31/23 19:26	1
Dibromofluoromethane (Surr)	102		73 - 120		03/31/23 19:26	1
4-Bromofluorobenzene (Surr)	86		56 - 136		03/31/23 19:26	1
1,2-Dichloroethane-d4 (Surr)	102		62 - 137		03/31/23 19:26	1

Client Sample Results

Client: Pinnacle Engineering, Inc
Project/Site: Monarch Chemical

Job ID: 240-182494-1

Client Sample ID: MW-124D

Date Collected: 03/19/23 15:35
Date Received: 03/24/23 09:30

Lab Sample ID: 240-182494-10

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<3.3		3.3	1.6	ug/L			03/31/23 19:49	3.33
1,1,2,2-Tetrachloroethane	<3.3	F2	3.3	2.0	ug/L			03/31/23 19:49	3.33
1,1,2-Trichloro-1,2,2-trifluoroethane	<3.3		3.3	1.4	ug/L			03/31/23 19:49	3.33
1,1,2-Trichloroethane	<3.3		3.3	1.6	ug/L			03/31/23 19:49	3.33
1,1-Dichloroethane	<3.3		3.3	1.6	ug/L			03/31/23 19:49	3.33
1,1-Dichloroethene	<3.3		3.3	1.6	ug/L			03/31/23 19:49	3.33
1,2,4-Trichlorobenzene	<3.3		3.3	2.6	ug/L			03/31/23 19:49	3.33
1,2-Dibromo-3-Chloropropane	<6.7		6.7	3.0	ug/L			03/31/23 19:49	3.33
Ethylene Dibromide	<3.3		3.3	1.4	ug/L			03/31/23 19:49	3.33
1,2-Dichlorobenzene	<3.3		3.3	1.6	ug/L			03/31/23 19:49	3.33
1,2-Dichloroethane	<3.3		3.3	0.70	ug/L			03/31/23 19:49	3.33
1,2-Dichloropropane	<3.3		3.3	1.6	ug/L			03/31/23 19:49	3.33
1,3-Dichlorobenzene	<3.3		3.3	1.5	ug/L			03/31/23 19:49	3.33
1,4-Dichlorobenzene	<3.3		3.3	1.4	ug/L			03/31/23 19:49	3.33
2-Butanone (MEK)	<33		33	3.9	ug/L			03/31/23 19:49	3.33
2-Hexanone	<33		33	3.7	ug/L			03/31/23 19:49	3.33
4-Methyl-2-pentanone (MIBK)	<33		33	3.3	ug/L			03/31/23 19:49	3.33
Acetone	<33	F1	33	18	ug/L			03/31/23 19:49	3.33
Benzene	<3.3		3.3	1.4	ug/L			03/31/23 19:49	3.33
Dichlorobromomethane	<3.3		3.3	0.57	ug/L			03/31/23 19:49	3.33
Bromoform	<3.3	F2	3.3	2.5	ug/L			03/31/23 19:49	3.33
Bromomethane	<3.3		3.3	1.4	ug/L			03/31/23 19:49	3.33
Carbon disulfide	<3.3		3.3	2.0	ug/L			03/31/23 19:49	3.33
Carbon tetrachloride	<3.3		3.3	0.87	ug/L			03/31/23 19:49	3.33
Chlorobenzene	<3.3		3.3	1.3	ug/L			03/31/23 19:49	3.33
Chloroethane	**140**		3.3	2.8	ug/L			03/31/23 19:49	3.33
Chloroform	<3.3		3.3	1.6	ug/L			03/31/23 19:49	3.33
Chloromethane	<3.3		3.3	2.1	ug/L			03/31/23 19:49	3.33
cis-1,2-Dichloroethene	<3.3		3.3	1.5	ug/L			03/31/23 19:49	3.33
cis-1,3-Dichloropropene	<3.3		3.3	2.0	ug/L			03/31/23 19:49	3.33
Cyclohexane	<3.3		3.3	1.6	ug/L			03/31/23 19:49	3.33
Chlorodibromomethane	<3.3		3.3	1.3	ug/L			03/31/23 19:49	3.33
Dichlorodifluoromethane	<3.3		3.3	1.2	ug/L			03/31/23 19:49	3.33
Ethylbenzene	<3.3		3.3	1.4	ug/L			03/31/23 19:49	3.33
Isopropylbenzene	<3.3		3.3	1.6	ug/L			03/31/23 19:49	3.33
Methyl acetate	<33		33	5.7	ug/L			03/31/23 19:49	3.33
Methyl tert-butyl ether	<3.3		3.3	1.6	ug/L			03/31/23 19:49	3.33
Methylcyclohexane	<3.3		3.3	1.1	ug/L			03/31/23 19:49	3.33
Methylene Chloride	<17		17	8.7	ug/L			03/31/23 19:49	3.33
Styrene	<3.3		3.3	1.5	ug/L			03/31/23 19:49	3.33
Tetrachloroethene	<3.3		3.3	1.5	ug/L			03/31/23 19:49	3.33
Toluene	<3.3		3.3	1.5	ug/L			03/31/23 19:49	3.33
trans-1,2-Dichloroethene	<3.3		3.3	1.7	ug/L			03/31/23 19:49	3.33
trans-1,3-Dichloropropene	<3.3		3.3	2.2	ug/L			03/31/23 19:49	3.33
Trichloroethene	<3.3		3.3	1.5	ug/L			03/31/23 19:49	3.33
Trichlorofluoromethane	<3.3		3.3	1.5	ug/L			03/31/23 19:49	3.33
Vinyl chloride	<3.3		3.3	1.5	ug/L			03/31/23 19:49	3.33
Xylenes, Total	<6.7		6.7	1.4	ug/L			03/31/23 19:49	3.33

Client Sample Results

Client: Pinnacle Engineering, Inc
Project/Site: Monarch Chemical

Job ID: 240-182494-1

Client Sample ID: MW-124D

Date Collected: 03/19/23 15:35
Date Received: 03/24/23 09:30

Lab Sample ID: 240-182494-10

Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	94		78 - 122		03/31/23 19:49	3.33
Dibromofluoromethane (Surr)	102		73 - 120		03/31/23 19:49	3.33
4-Bromofluorobenzene (Surr)	87		56 - 136		03/31/23 19:49	3.33
1,2-Dichloroethane-d4 (Surr)	102		62 - 137		03/31/23 19:49	3.33

Client Sample Results

Client: Pinnacle Engineering, Inc
Project/Site: Monarch Chemical

Job ID: 240-182494-1

Client Sample ID: TRIP BLANK

Lab Sample ID: 240-182494-11

Date Collected: 03/22/23 16:00
Matrix: Water
Date Received: 03/24/23 09:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<1.0		1.0	0.48	ug/L			03/31/23 20:12	1
1,1,2,2-Tetrachloroethane	<1.0		1.0	0.60	ug/L			03/31/23 20:12	1
1,1,2-Trichloro-1,2,2-trifluoroethane	<1.0		1.0	0.41	ug/L			03/31/23 20:12	1
1,1,2-Trichloroethane	<1.0		1.0	0.48	ug/L			03/31/23 20:12	1
1,1-Dichloroethane	<1.0		1.0	0.47	ug/L			03/31/23 20:12	1
1,1-Dichloroethene	<1.0		1.0	0.49	ug/L			03/31/23 20:12	1
1,2,4-Trichlorobenzene	<1.0		1.0	0.77	ug/L			03/31/23 20:12	1
1,2-Dibromo-3-Chloropropane	<2.0		2.0	0.91	ug/L			03/31/23 20:12	1
Ethylene Dibromide	<1.0		1.0	0.41	ug/L			03/31/23 20:12	1
1,2-Dichlorobenzene	<1.0		1.0	0.48	ug/L			03/31/23 20:12	1
1,2-Dichloroethane	<1.0		1.0	0.21	ug/L			03/31/23 20:12	1
1,2-Dichloropropane	<1.0		1.0	0.47	ug/L			03/31/23 20:12	1
1,3-Dichlorobenzene	<1.0		1.0	0.45	ug/L			03/31/23 20:12	1
1,4-Dichlorobenzene	<1.0		1.0	0.41	ug/L			03/31/23 20:12	1
2-Butanone (MEK)	<10		10	1.2	ug/L			03/31/23 20:12	1
2-Hexanone	<10		10	1.1	ug/L			03/31/23 20:12	1
4-Methyl-2-pentanone (MIBK)	<10		10	0.99	ug/L			03/31/23 20:12	1
Acetone	<10		10	5.4	ug/L			03/31/23 20:12	1
Benzene	<1.0		1.0	0.42	ug/L			03/31/23 20:12	1
Dichlorobromomethane	<1.0		1.0	0.17	ug/L			03/31/23 20:12	1
Bromoform	<1.0		1.0	0.76	ug/L			03/31/23 20:12	1
Bromomethane	<1.0		1.0	0.42	ug/L			03/31/23 20:12	1
Carbon disulfide	<1.0		1.0	0.59	ug/L			03/31/23 20:12	1
Carbon tetrachloride	<1.0		1.0	0.26	ug/L			03/31/23 20:12	1
Chlorobenzene	<1.0		1.0	0.38	ug/L			03/31/23 20:12	1
Chloroethane	<1.0		1.0	0.83	ug/L			03/31/23 20:12	1
Chloroform	<1.0		1.0	0.47	ug/L			03/31/23 20:12	1
Chloromethane	<1.0		1.0	0.63	ug/L			03/31/23 20:12	1
cis-1,2-Dichloroethene	<1.0		1.0	0.46	ug/L			03/31/23 20:12	1
cis-1,3-Dichloropropene	<1.0		1.0	0.61	ug/L			03/31/23 20:12	1
Cyclohexane	<1.0		1.0	0.48	ug/L			03/31/23 20:12	1
Chlorodibromomethane	<1.0		1.0	0.39	ug/L			03/31/23 20:12	1
Dichlorodifluoromethane	<1.0		1.0	0.35	ug/L			03/31/23 20:12	1
Ethylbenzene	<1.0		1.0	0.42	ug/L			03/31/23 20:12	1
Isopropylbenzene	<1.0		1.0	0.49	ug/L			03/31/23 20:12	1
Methyl acetate	<10		10	1.7	ug/L			03/31/23 20:12	1
Methyl tert-butyl ether	<1.0		1.0	0.47	ug/L			03/31/23 20:12	1
Methylcyclohexane	<1.0		1.0	0.33	ug/L			03/31/23 20:12	1
Methylene Chloride	<5.0		5.0	2.6	ug/L			03/31/23 20:12	1
Styrene	<1.0		1.0	0.45	ug/L			03/31/23 20:12	1
Tetrachloroethene	<1.0		1.0	0.44	ug/L			03/31/23 20:12	1
Toluene	<1.0		1.0	0.44	ug/L			03/31/23 20:12	1
trans-1,2-Dichloroethene	<1.0		1.0	0.51	ug/L			03/31/23 20:12	1
trans-1,3-Dichloropropene	<1.0		1.0	0.67	ug/L			03/31/23 20:12	1
Trichloroethene	<1.0		1.0	0.44	ug/L			03/31/23 20:12	1
Trichlorofluoromethane	<1.0		1.0	0.45	ug/L			03/31/23 20:12	1
Vinyl chloride	<1.0		1.0	0.45	ug/L			03/31/23 20:12	1
Xylenes, Total	<2.0		2.0	0.42	ug/L			03/31/23 20:12	1

Client Sample Results

Client: Pinnacle Engineering, Inc
Project/Site: Monarch Chemical

Job ID: 240-182494-1

Client Sample ID: TRIP BLANK

Lab Sample ID: 240-182494-11

Date Collected: 03/22/23 16:00
Date Received: 03/24/23 09:30

Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	93		78 - 122		03/31/23 20:12	1
Dibromofluoromethane (Surr)	105		73 - 120		03/31/23 20:12	1
4-Bromofluorobenzene (Surr)	86		56 - 136		03/31/23 20:12	1
1,2-Dichloroethane-d4 (Surr)	104		62 - 137		03/31/23 20:12	1

Client Sample Results

Client: Pinnacle Engineering, Inc
Project/Site: Monarch Chemical

Job ID: 240-182494-1

Client Sample ID: DUPE-1

Date Collected: 03/18/23 08:00
Date Received: 03/24/23 09:30

Lab Sample ID: 240-182494-12

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<5.0		5.0	2.4	ug/L			03/31/23 20:35	5
1,1,2,2-Tetrachloroethane	<5.0		5.0	3.0	ug/L			03/31/23 20:35	5
1,1,2-Trichloro-1,2,2-trifluoroethane	<5.0		5.0	2.1	ug/L			03/31/23 20:35	5
1,1,2-Trichloroethane	<5.0		5.0	2.4	ug/L			03/31/23 20:35	5
1,1-Dichloroethane	**110**		5.0	2.4	ug/L			03/31/23 20:35	5
1,1-Dichloroethene	<5.0		5.0	2.5	ug/L			03/31/23 20:35	5
1,2,4-Trichlorobenzene	<5.0		5.0	3.9	ug/L			03/31/23 20:35	5
1,2-Dibromo-3-Chloropropane	<10		10	4.6	ug/L			03/31/23 20:35	5
Ethylene Dibromide	<5.0		5.0	2.1	ug/L			03/31/23 20:35	5
1,2-Dichlorobenzene	<5.0		5.0	2.4	ug/L			03/31/23 20:35	5
1,2-Dichloroethane	<5.0		5.0	1.1	ug/L			03/31/23 20:35	5
1,2-Dichloropropane	<5.0		5.0	2.4	ug/L			03/31/23 20:35	5
1,3-Dichlorobenzene	<5.0		5.0	2.3	ug/L			03/31/23 20:35	5
1,4-Dichlorobenzene	<5.0		5.0	2.1	ug/L			03/31/23 20:35	5
2-Butanone (MEK)	<50		50	5.8	ug/L			03/31/23 20:35	5
2-Hexanone	<50		50	5.6	ug/L			03/31/23 20:35	5
4-Methyl-2-pentanone (MIBK)	<50		50	5.0	ug/L			03/31/23 20:35	5
Acetone	<50		50	27	ug/L			03/31/23 20:35	5
Benzene	<5.0		5.0	2.1	ug/L			03/31/23 20:35	5
Dichlorobromomethane	<5.0		5.0	0.85	ug/L			03/31/23 20:35	5
Bromoform	<5.0		5.0	3.8	ug/L			03/31/23 20:35	5
Bromomethane	<5.0		5.0	2.1	ug/L			03/31/23 20:35	5
Carbon disulfide	<5.0		5.0	3.0	ug/L			03/31/23 20:35	5
Carbon tetrachloride	<5.0		5.0	1.3	ug/L			03/31/23 20:35	5
Chlorobenzene	<5.0		5.0	1.9	ug/L			03/31/23 20:35	5
Chloroethane	**9.2**		5.0	4.2	ug/L			03/31/23 20:35	5
Chloroform	<5.0		5.0	2.4	ug/L			03/31/23 20:35	5
Chloromethane	<5.0		5.0	3.2	ug/L			03/31/23 20:35	5
cis-1,2-Dichloroethene	**120**		5.0	2.3	ug/L			03/31/23 20:35	5
cis-1,3-Dichloropropene	<5.0		5.0	3.1	ug/L			03/31/23 20:35	5
Cyclohexane	<5.0		5.0	2.4	ug/L			03/31/23 20:35	5
Chlorodibromomethane	<5.0		5.0	2.0	ug/L			03/31/23 20:35	5
Dichlorodifluoromethane	<5.0		5.0	1.8	ug/L			03/31/23 20:35	5
Ethylbenzene	<5.0		5.0	2.1	ug/L			03/31/23 20:35	5
Isopropylbenzene	<5.0		5.0	2.5	ug/L			03/31/23 20:35	5
Methyl acetate	<50		50	8.6	ug/L			03/31/23 20:35	5
Methyl tert-butyl ether	<5.0		5.0	2.4	ug/L			03/31/23 20:35	5
Methylcyclohexane	<5.0		5.0	1.7	ug/L			03/31/23 20:35	5
Methylene Chloride	<25		25	13	ug/L			03/31/23 20:35	5
Styrene	<5.0		5.0	2.3	ug/L			03/31/23 20:35	5
Tetrachloroethene	<5.0		5.0	2.2	ug/L			03/31/23 20:35	5
Toluene	<5.0		5.0	2.2	ug/L			03/31/23 20:35	5
trans-1,2-Dichloroethene	<5.0		5.0	2.6	ug/L			03/31/23 20:35	5
trans-1,3-Dichloropropene	<5.0		5.0	3.4	ug/L			03/31/23 20:35	5
Trichloroethene	**17**		5.0	2.2	ug/L			03/31/23 20:35	5
Trichlorofluoromethane	<5.0		5.0	2.3	ug/L			03/31/23 20:35	5
Vinyl chloride	**75**		5.0	2.3	ug/L			03/31/23 20:35	5
Xylenes, Total	<10		10	2.1	ug/L			03/31/23 20:35	5

Client Sample Results

Client: Pinnacle Engineering, Inc
Project/Site: Monarch Chemical

Job ID: 240-182494-1

Client Sample ID: DUPE-1

Date Collected: 03/18/23 08:00
Date Received: 03/24/23 09:30

Lab Sample ID: 240-182494-12

Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	84		78 - 122		03/31/23 20:35	5
Dibromofluoromethane (Surr)	107		73 - 120		03/31/23 20:35	5
4-Bromofluorobenzene (Surr)	88		56 - 136		03/31/23 20:35	5
1,2-Dichloroethane-d4 (Surr)	105		62 - 137		03/31/23 20:35	5

Surrogate Summary

Client: Pinnacle Engineering, Inc
Project/Site: Monarch Chemical

Job ID: 240-182494-1

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

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		TOL	DBFM	BFB	DCA
Lab Sample ID	Client Sample ID	(78-122)	(73-120)	(56-136)	(62-137)
240-182494-1	MW-114	97	106	90	106
240-182494-2	MW-115	91	102	86	97
240-182494-3	MW-115D	98	108	94	110
240-182494-4	MW-116	93	103	88	101
240-182494-5	MW-117	98	108	91	107
240-182494-6	MW-118	94	101	89	100
240-182494-7	MW-121	92	105	84	100
240-182494-8	MW-122	93	105	87	102
240-182494-9	MW-124S	93	102	86	102
240-182494-10	MW-124D	94	102	87	102
240-182494-10 MS	MW-124D	96	100	80	97
240-182494-10 MSD	MW-124D	96	103	97	101
240-182494-11	TRIP BLANK	93	105	86	104
240-182494-12	DUPE-1	84	107	88	105
LCS 240-567450/5	Lab Control Sample	100	97	93	95
LCS 240-567450/6	Lab Control Sample	89	102	95	100
LCS 240-567577/5	Lab Control Sample	97	104	95	102
MB 240-567450/9	Method Blank	114	105	73	104
MB 240-567577/9	Method Blank	97	103	88	104

Surrogate Legend

TOL = Toluene-d8 (Surr)
DBFM = Dibromofluoromethane (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DCA = 1,2-Dichloroethane-d4 (Surr)

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

Lab Sample ID: MB 240-567450/9
Matrix: Water
Analysis Batch: 567450

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<1.0		1.0	0.48	ug/L			03/31/23 12:53	1
1,1,2,2-Tetrachloroethane	<1.0		1.0	0.60	ug/L			03/31/23 12:53	1
1,1,2-Trichloro-1,2,2-trifluoroethane	<1.0		1.0	0.41	ug/L			03/31/23 12:53	1
1,1,2-Trichloroethane	<1.0		1.0	0.48	ug/L			03/31/23 12:53	1
1,1-Dichloroethane	<1.0		1.0	0.47	ug/L			03/31/23 12:53	1
1,1-Dichloroethene	<1.0		1.0	0.49	ug/L			03/31/23 12:53	1
1,2,4-Trichlorobenzene	<1.0		1.0	0.77	ug/L			03/31/23 12:53	1
1,2-Dibromo-3-Chloropropane	<2.0		2.0	0.91	ug/L			03/31/23 12:53	1
Ethylene Dibromide	<1.0		1.0	0.41	ug/L			03/31/23 12:53	1
1,2-Dichlorobenzene	<1.0		1.0	0.48	ug/L			03/31/23 12:53	1
1,2-Dichloroethane	<1.0		1.0	0.21	ug/L			03/31/23 12:53	1
1,2-Dichloropropane	<1.0		1.0	0.47	ug/L			03/31/23 12:53	1
1,3-Dichlorobenzene	<1.0		1.0	0.45	ug/L			03/31/23 12:53	1
1,4-Dichlorobenzene	<1.0		1.0	0.41	ug/L			03/31/23 12:53	1
2-Butanone (MEK)	<10		10	1.2	ug/L			03/31/23 12:53	1
2-Hexanone	<10		10	1.1	ug/L			03/31/23 12:53	1
4-Methyl-2-pentanone (MIBK)	<10		10	0.99	ug/L			03/31/23 12:53	1
Acetone	<10		10	5.4	ug/L			03/31/23 12:53	1
Benzene	<1.0		1.0	0.42	ug/L			03/31/23 12:53	1
Dichlorobromomethane	<1.0		1.0	0.17	ug/L			03/31/23 12:53	1
Bromoform	<1.0		1.0	0.76	ug/L			03/31/23 12:53	1
Bromomethane	<1.0		1.0	0.42	ug/L			03/31/23 12:53	1
Carbon disulfide	<1.0		1.0	0.59	ug/L			03/31/23 12:53	1
Carbon tetrachloride	<1.0		1.0	0.26	ug/L			03/31/23 12:53	1
Chlorobenzene	<1.0		1.0	0.38	ug/L			03/31/23 12:53	1
Chloroethane	<1.0		1.0	0.83	ug/L			03/31/23 12:53	1
Chloroform	<1.0		1.0	0.47	ug/L			03/31/23 12:53	1
Chloromethane	<1.0		1.0	0.63	ug/L			03/31/23 12:53	1
cis-1,2-Dichloroethene	<1.0		1.0	0.46	ug/L			03/31/23 12:53	1
cis-1,3-Dichloropropene	<1.0		1.0	0.61	ug/L			03/31/23 12:53	1
Cyclohexane	<1.0		1.0	0.48	ug/L			03/31/23 12:53	1
Chlorodibromomethane	<1.0		1.0	0.39	ug/L			03/31/23 12:53	1
Dichlorodifluoromethane	<1.0		1.0	0.35	ug/L			03/31/23 12:53	1
Ethylbenzene	<1.0		1.0	0.42	ug/L			03/31/23 12:53	1
Isopropylbenzene	<1.0		1.0	0.49	ug/L			03/31/23 12:53	1
Methyl acetate	<10		10	1.7	ug/L			03/31/23 12:53	1
Methyl tert-butyl ether	<1.0		1.0	0.47	ug/L			03/31/23 12:53	1
Methylcyclohexane	<1.0		1.0	0.33	ug/L			03/31/23 12:53	1
Methylene Chloride	<5.0		5.0	2.6	ug/L			03/31/23 12:53	1
Styrene	<1.0		1.0	0.45	ug/L			03/31/23 12:53	1
Tetrachloroethene	<1.0		1.0	0.44	ug/L			03/31/23 12:53	1
Toluene	<1.0		1.0	0.44	ug/L			03/31/23 12:53	1
trans-1,2-Dichloroethene	<1.0		1.0	0.51	ug/L			03/31/23 12:53	1
trans-1,3-Dichloropropene	<1.0		1.0	0.67	ug/L			03/31/23 12:53	1
Trichloroethene	<1.0		1.0	0.44	ug/L			03/31/23 12:53	1
Trichlorofluoromethane	<1.0		1.0	0.45	ug/L			03/31/23 12:53	1
Vinyl chloride	<1.0		1.0	0.45	ug/L			03/31/23 12:53	1
Xylenes, Total	<2.0		2.0	0.42	ug/L			03/31/23 12:53	1

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

Lab Sample ID: MB 240-567450/9
Matrix: Water
Analysis Batch: 567450

Client Sample ID: Method Blank
Prep Type: Total/NA

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	114		78 - 122		03/31/23 12:53	1
Dibromofluoromethane (Surr)	105		73 - 120		03/31/23 12:53	1
4-Bromofluorobenzene (Surr)	73		56 - 136		03/31/23 12:53	1
1,2-Dichloroethane-d4 (Surr)	104		62 - 137		03/31/23 12:53	1

Lab Sample ID: LCS 240-567450/5
Matrix: Water
Analysis Batch: 567450

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1-Trichloroethane	20.0	19.0		ug/L		95	64 - 131
1,1,2,2-Tetrachloroethane	20.0	18.8		ug/L		94	58 - 157
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	24.0		ug/L		120	51 - 146
1,1,2-Trichloroethane	20.0	21.0		ug/L		105	70 - 138
1,1-Dichloroethane	20.0	20.3		ug/L		102	72 - 127
1,1-Dichloroethene	20.0	21.7		ug/L		109	63 - 134
1,2,4-Trichlorobenzene	20.0	22.8		ug/L		114	44 - 147
1,2-Dibromo-3-Chloropropane	20.0	18.7		ug/L		94	53 - 135
Ethylene Dibromide	20.0	19.9		ug/L		99	71 - 134
1,2-Dichlorobenzene	20.0	20.2		ug/L		101	78 - 120
1,2-Dichloroethane	20.0	19.2		ug/L		96	66 - 128
1,2-Dichloropropane	20.0	19.8		ug/L		99	75 - 133
1,3-Dichlorobenzene	20.0	19.4		ug/L		97	80 - 120
1,4-Dichlorobenzene	20.0	18.8		ug/L		94	80 - 120
2-Butanone (MEK)	40.0	40.8		ug/L		102	54 - 156
2-Hexanone	40.0	41.3		ug/L		103	43 - 167
4-Methyl-2-pentanone (MIBK)	40.0	39.7		ug/L		99	46 - 158
Acetone	40.0	57.0		ug/L		142	50 - 149
Benzene	20.0	20.1		ug/L		101	77 - 123
Dichlorobromomethane	20.0	18.7		ug/L		93	69 - 126
Bromoform	20.0	18.8		ug/L		94	57 - 129
Bromomethane	20.0	13.9		ug/L		69	36 - 142
Carbon disulfide	20.0	22.6		ug/L		113	43 - 140
Carbon tetrachloride	20.0	18.5		ug/L		93	55 - 137
Chlorobenzene	20.0	19.8		ug/L		99	80 - 121
Chloroethane	20.0	15.6		ug/L		78	38 - 152
Chloroform	20.0	20.2		ug/L		101	74 - 122
Chloromethane	20.0	16.7		ug/L		84	47 - 143
cis-1,2-Dichloroethene	20.0	20.3		ug/L		101	77 - 123
cis-1,3-Dichloropropene	20.0	18.3		ug/L		92	64 - 130
Cyclohexane	20.0	22.4		ug/L		112	58 - 146
Chlorodibromomethane	20.0	20.2		ug/L		101	70 - 124
Dichlorodifluoromethane	20.0	16.2		ug/L		81	34 - 153
Ethylbenzene	20.0	19.4		ug/L		97	80 - 121
Isopropylbenzene	20.0	19.6		ug/L		98	74 - 128
Methyl acetate	40.0	41.2		ug/L		103	42 - 169
Methyl tert-butyl ether	20.0	18.6		ug/L		93	65 - 126
Methylcyclohexane	20.0	20.4		ug/L		102	62 - 136

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

Lab Sample ID: LCS 240-567450/5
Matrix: Water
Analysis Batch: 567450

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Methylene Chloride	20.0	21.0		ug/L		105	71 - 125
Styrene	20.0	18.4		ug/L		92	80 - 135
Tetrachloroethene	20.0	21.6		ug/L		108	76 - 123
Toluene	20.0	20.3		ug/L		102	80 - 123
trans-1,2-Dichloroethene	20.0	19.0		ug/L		95	75 - 124
trans-1,3-Dichloropropene	20.0	19.2		ug/L		96	57 - 129
Trichloroethene	20.0	19.1		ug/L		96	70 - 122
Trichlorofluoromethane	20.0	15.9		ug/L		80	30 - 170
Vinyl chloride	20.0	17.1		ug/L		85	60 - 144
Xylenes, Total	40.0	38.5		ug/L		96	80 - 121
m-Xylene & p-Xylene	20.0	19.5		ug/L		97	80 - 120
o-Xylene	20.0	19.0		ug/L		95	80 - 123

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Toluene-d8 (Surr)	*100*		*78 - 122*
Dibromofluoromethane (Surr)	*97*		*73 - 120*
4-Bromofluorobenzene (Surr)	*93*		*56 - 136*
1,2-Dichloroethane-d4 (Surr)	*95*		*62 - 137*

Lab Sample ID: LCS 240-567450/6
Matrix: Water
Analysis Batch: 567450

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Toluene-d8 (Surr)	*89*		*78 - 122*
Dibromofluoromethane (Surr)	*102*		*73 - 120*
4-Bromofluorobenzene (Surr)	*95*		*56 - 136*
1,2-Dichloroethane-d4 (Surr)	*100*		*62 - 137*

Lab Sample ID: 240-182494-10 MS
Matrix: Water
Analysis Batch: 567450

Client Sample ID: MW-124D
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1-Trichloroethane	<3.3		66.6	58.3		ug/L		88	60 - 130
1,1,2,2-Tetrachloroethane	<3.3	F2	66.6	62.1		ug/L		93	54 - 145
1,1,2-Trichloro-1,2,2-trifluoroetha ne	<3.3		66.6	74.0		ug/L		111	41 - 147
1,1,2-Trichloroethane	<3.3		66.6	64.7		ug/L		97	69 - 131
1,1-Dichloroethane	<3.3		66.6	68.3		ug/L		103	68 - 125
1,1-Dichloroethene	<3.3		66.6	65.6		ug/L		98	56 - 135
1,2,4-Trichlorobenzene	<3.3		66.6	65.7		ug/L		99	29 - 156
1,2-Dibromo-3-Chloropropane	<6.7		66.6	61.4		ug/L		92	41 - 129
Ethylene Dibromide	<3.3		66.6	61.4		ug/L		92	69 - 125
1,2-Dichlorobenzene	<3.3		66.6	65.8		ug/L		99	73 - 120
1,2-Dichloroethane	<3.3		66.6	63.6		ug/L		95	63 - 126
1,2-Dichloropropane	<3.3		66.6	65.1		ug/L		98	69 - 130
1,3-Dichlorobenzene	<3.3		66.6	61.4		ug/L		92	73 - 120

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

Lab Sample ID: 240-182494-10 MS
Matrix: Water
Analysis Batch: 567450

Client Sample ID: MW-124D
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1,4-Dichlorobenzene	<3.3		66.6	60.9		ug/L		91	74 - 120
2-Butanone (MEK)	<33		133	151		ug/L		113	40 - 151
2-Hexanone	<33		133	129		ug/L		97	35 - 156
4-Methyl-2-pentanone (MIBK)	<33		133	137		ug/L		103	31 - 153
Acetone	<33	F1	133	214	F1	ug/L		160	33 - 149
Benzene	<3.3		66.6	65.4		ug/L		98	64 - 128
Dichlorobromomethane	<3.3		66.6	60.4		ug/L		91	62 - 125
Bromoform	<3.3	F2	66.6	52.3		ug/L		78	47 - 125
Bromomethane	<3.3		66.6	39.2		ug/L		59	28 - 150
Carbon disulfide	<3.3		66.6	64.9		ug/L		97	38 - 140
Carbon tetrachloride	<3.3		66.6	57.3		ug/L		86	51 - 133
Chlorobenzene	<3.3		66.6	61.7		ug/L		93	74 - 121
Chloroethane	140		66.6	164		ug/L		44	10 - 199
Chloroform	<3.3		66.6	64.0		ug/L		96	70 - 122
Chloromethane	<3.3		66.6	52.5		ug/L		79	32 - 149
cis-1,2-Dichloroethene	<3.3		66.6	67.3		ug/L		101	66 - 128
cis-1,3-Dichloropropene	<3.3		66.6	57.1		ug/L		86	47 - 125
Cyclohexane	<3.3		66.6	69.3		ug/L		104	42 - 147
Chlorodibromomethane	<3.3		66.6	60.4		ug/L		91	65 - 120
Dichlorodifluoromethane	<3.3		66.6	49.4		ug/L		74	38 - 139
Ethylbenzene	<3.3		66.6	61.8		ug/L		93	67 - 127
Isopropylbenzene	<3.3		66.6	54.7		ug/L		82	64 - 129
Methyl acetate	<33		133	139		ug/L		104	37 - 155
Methyl tert-butyl ether	<3.3		66.6	62.6		ug/L		94	47 - 134
Methylcyclohexane	<3.3		66.6	64.6		ug/L		97	39 - 144
Methylene Chloride	<17		66.6	66.6		ug/L		100	62 - 129
Styrene	<3.3		66.6	53.6		ug/L		81	70 - 139
Tetrachloroethene	<3.3		66.6	65.9		ug/L		99	62 - 131
Toluene	<3.3		66.6	59.9		ug/L		90	58 - 135
trans-1,2-Dichloroethene	<3.3		66.6	62.3		ug/L		93	56 - 136
trans-1,3-Dichloropropene	<3.3		66.6	56.2		ug/L		84	47 - 120
Trichloroethene	<3.3		66.6	60.7		ug/L		91	61 - 124
Trichlorofluoromethane	<3.3		66.6	46.4		ug/L		70	24 - 177
Vinyl chloride	<3.3		66.6	53.9		ug/L		81	43 - 157
Xylenes, Total	<6.7		133	117		ug/L		88	71 - 123
m-Xylene & p-Xylene	<6.7		66.6	61.1		ug/L		92	71 - 123
o-Xylene	<3.3		66.6	55.9		ug/L		84	70 - 125

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Toluene-d8 (Surr)	*96*		*78 - 122*
Dibromofluoromethane (Surr)	*100*		*73 - 120*
4-Bromofluorobenzene (Surr)	*80*		*56 - 136*
1,2-Dichloroethane-d4 (Surr)	*97*		*62 - 137*

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

Lab Sample ID: 240-182494-10 MSD
Matrix: Water
Analysis Batch: 567450

Client Sample ID: MW-124D
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1,1-Trichloroethane	<3.3		66.6	61.9		ug/L		93	60 - 130	6	17
1,1,2,2-Tetrachloroethane	<3.3	F2	66.6	78.6	F2	ug/L		118	54 - 145	23	15
1,1,2-Trichloro-1,2,2-trifluoroethane	<3.3		66.6	71.7		ug/L		108	41 - 147	3	35
1,1,2-Trichloroethane	<3.3		66.6	67.7		ug/L		102	69 - 131	5	14
1,1-Dichloroethane	<3.3		66.6	70.7		ug/L		106	68 - 125	3	13
1,1-Dichloroethene	<3.3		66.6	66.3		ug/L		100	56 - 135	1	26
1,2,4-Trichlorobenzene	<3.3		66.6	74.0		ug/L		111	29 - 156	12	19
1,2-Dibromo-3-Chloropropane	<6.7		66.6	56.1		ug/L		84	41 - 129	9	22
Ethylene Dibromide	<3.3		66.6	65.5		ug/L		98	69 - 125	7	14
1,2-Dichlorobenzene	<3.3		66.6	68.2		ug/L		102	73 - 120	4	14
1,2-Dichloroethane	<3.3		66.6	67.6		ug/L		101	63 - 126	6	12
1,2-Dichloropropane	<3.3		66.6	71.9		ug/L		108	69 - 130	10	13
1,3-Dichlorobenzene	<3.3		66.6	63.8		ug/L		96	73 - 120	4	14
1,4-Dichlorobenzene	<3.3		66.6	63.5		ug/L		95	74 - 120	4	15
2-Butanone (MEK)	<33		133	153		ug/L		115	40 - 151	1	20
2-Hexanone	<33		133	143		ug/L		107	35 - 156	10	17
4-Methyl-2-pentanone (MIBK)	<33		133	153		ug/L		115	31 - 153	11	15
Acetone	<33	F1	133	173		ug/L		130	33 - 149	21	34
Benzene	<3.3		66.6	69.8		ug/L		105	64 - 128	7	14
Dichlorobromomethane	<3.3		66.6	65.8		ug/L		99	62 - 125	8	13
Bromoform	<3.3	F2	66.6	64.3	F2	ug/L		97	47 - 125	21	15
Bromomethane	<3.3		66.6	40.9		ug/L		61	28 - 150	4	26
Carbon disulfide	<3.3		66.6	65.9		ug/L		99	38 - 140	2	23
Carbon tetrachloride	<3.3		66.6	60.1		ug/L		90	51 - 133	5	24
Chlorobenzene	<3.3		66.6	64.4		ug/L		97	74 - 121	4	14
Chloroethane	140		66.6	157		ug/L		33	10 - 199	5	30
Chloroform	<3.3		66.6	69.1		ug/L		104	70 - 122	8	14
Chloromethane	<3.3		66.6	54.2		ug/L		81	32 - 149	3	27
cis-1,2-Dichloroethene	<3.3		66.6	69.1		ug/L		104	66 - 128	3	14
cis-1,3-Dichloropropene	<3.3		66.6	64.1		ug/L		96	47 - 125	12	13
Cyclohexane	<3.3		66.6	69.6		ug/L		105	42 - 147	1	35
Chlorodibromomethane	<3.3		66.6	64.4		ug/L		97	65 - 120	6	13
Dichlorodifluoromethane	<3.3		66.6	47.4		ug/L		71	38 - 139	4	35
Ethylbenzene	<3.3		66.6	61.5		ug/L		92	67 - 127	0	15
Isopropylbenzene	<3.3		66.6	60.5		ug/L		91	64 - 129	10	18
Methyl acetate	<33		133	145		ug/L		109	37 - 155	4	18
Methyl tert-butyl ether	<3.3		66.6	64.4		ug/L		97	47 - 134	3	16
Methylcyclohexane	<3.3		66.6	66.6		ug/L		100	39 - 144	3	35
Methylene Chloride	<17		66.6	67.2		ug/L		101	62 - 129	1	17
Styrene	<3.3		66.6	62.5		ug/L		94	70 - 139	15	18
Tetrachloroethene	<3.3		66.6	66.2		ug/L		99	62 - 131	1	20
Toluene	<3.3		66.6	62.6		ug/L		94	58 - 135	4	14
trans-1,2-Dichloroethene	<3.3		66.6	63.5		ug/L		95	56 - 136	2	15
trans-1,3-Dichloropropene	<3.3		66.6	61.3		ug/L		92	47 - 120	9	14
Trichloroethene	<3.3		66.6	65.7		ug/L		99	61 - 124	8	15
Trichlorofluoromethane	<3.3		66.6	47.7		ug/L		72	24 - 177	3	34
Vinyl chloride	<3.3		66.6	55.3		ug/L		83	43 - 157	3	24
Xylenes, Total	<6.7		133	126		ug/L		94	71 - 123	7	15

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

Lab Sample ID: 240-182494-10 MSD
Matrix: Water
Analysis Batch: 567450

Client Sample ID: MW-124D
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
m-Xylene & p-Xylene	<6.7		66.6	62.5		ug/L		94	71 - 123	2	16
o-Xylene	<3.3		66.6	63.3		ug/L		95	70 - 125	12	15

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Toluene-d8 (Surr)	*96*		*78 - 122*
Dibromofluoromethane (Surr)	*103*		*73 - 120*
4-Bromofluorobenzene (Surr)	*97*		*56 - 136*
1,2-Dichloroethane-d4 (Surr)	*101*		*62 - 137*

Lab Sample ID: MB 240-567577/9
Matrix: Water
Analysis Batch: 567577

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<1.0		1.0	0.48	ug/L			04/01/23 11:52	1
1,1,2,2-Tetrachloroethane	<1.0		1.0	0.60	ug/L			04/01/23 11:52	1
1,1,2-Trichloro-1,2,2-trifluoroethane	<1.0		1.0	0.41	ug/L			04/01/23 11:52	1
1,1,2-Trichloroethane	<1.0		1.0	0.48	ug/L			04/01/23 11:52	1
1,1-Dichloroethane	<1.0		1.0	0.47	ug/L			04/01/23 11:52	1
1,1-Dichloroethene	<1.0		1.0	0.49	ug/L			04/01/23 11:52	1
1,2,4-Trichlorobenzene	<1.0		1.0	0.77	ug/L			04/01/23 11:52	1
1,2-Dibromo-3-Chloropropane	<2.0		2.0	0.91	ug/L			04/01/23 11:52	1
Ethylene Dibromide	<1.0		1.0	0.41	ug/L			04/01/23 11:52	1
1,2-Dichlorobenzene	<1.0		1.0	0.48	ug/L			04/01/23 11:52	1
1,2-Dichloroethane	<1.0		1.0	0.21	ug/L			04/01/23 11:52	1
1,2-Dichloropropane	<1.0		1.0	0.47	ug/L			04/01/23 11:52	1
1,3-Dichlorobenzene	<1.0		1.0	0.45	ug/L			04/01/23 11:52	1
1,4-Dichlorobenzene	<1.0		1.0	0.41	ug/L			04/01/23 11:52	1
2-Butanone (MEK)	<10		10	1.2	ug/L			04/01/23 11:52	1
2-Hexanone	<10		10	1.1	ug/L			04/01/23 11:52	1
4-Methyl-2-pentanone (MIBK)	<10		10	0.99	ug/L			04/01/23 11:52	1
Acetone	<10		10	5.4	ug/L			04/01/23 11:52	1
Benzene	<1.0		1.0	0.42	ug/L			04/01/23 11:52	1
Dichlorobromomethane	<1.0		1.0	0.17	ug/L			04/01/23 11:52	1
Bromoform	<1.0		1.0	0.76	ug/L			04/01/23 11:52	1
Bromomethane	<1.0		1.0	0.42	ug/L			04/01/23 11:52	1
Carbon disulfide	<1.0		1.0	0.59	ug/L			04/01/23 11:52	1
Carbon tetrachloride	<1.0		1.0	0.26	ug/L			04/01/23 11:52	1
Chlorobenzene	<1.0		1.0	0.38	ug/L			04/01/23 11:52	1
Chloroethane	<1.0		1.0	0.83	ug/L			04/01/23 11:52	1
Chloroform	<1.0		1.0	0.47	ug/L			04/01/23 11:52	1
Chloromethane	<1.0		1.0	0.63	ug/L			04/01/23 11:52	1
cis-1,2-Dichloroethene	<1.0		1.0	0.46	ug/L			04/01/23 11:52	1
cis-1,3-Dichloropropene	<1.0		1.0	0.61	ug/L			04/01/23 11:52	1
Cyclohexane	<1.0		1.0	0.48	ug/L			04/01/23 11:52	1
Chlorodibromomethane	<1.0		1.0	0.39	ug/L			04/01/23 11:52	1
Dichlorodifluoromethane	<1.0		1.0	0.35	ug/L			04/01/23 11:52	1
Ethylbenzene	<1.0		1.0	0.42	ug/L			04/01/23 11:52	1

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

Lab Sample ID: MB 240-567577/9
Matrix: Water
Analysis Batch: 567577

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	<1.0		1.0	0.49	ug/L			04/01/23 11:52	1
Methyl acetate	<10		10	1.7	ug/L			04/01/23 11:52	1
Methyl tert-butyl ether	<1.0		1.0	0.47	ug/L			04/01/23 11:52	1
Methylcyclohexane	<1.0		1.0	0.33	ug/L			04/01/23 11:52	1
Methylene Chloride	<5.0		5.0	2.6	ug/L			04/01/23 11:52	1
Styrene	<1.0		1.0	0.45	ug/L			04/01/23 11:52	1
Tetrachloroethene	<1.0		1.0	0.44	ug/L			04/01/23 11:52	1
Toluene	<1.0		1.0	0.44	ug/L			04/01/23 11:52	1
trans-1,2-Dichloroethene	<1.0		1.0	0.51	ug/L			04/01/23 11:52	1
trans-1,3-Dichloropropene	<1.0		1.0	0.67	ug/L			04/01/23 11:52	1
Trichloroethene	<1.0		1.0	0.44	ug/L			04/01/23 11:52	1
Trichlorofluoromethane	<1.0		1.0	0.45	ug/L			04/01/23 11:52	1
Vinyl chloride	<1.0		1.0	0.45	ug/L			04/01/23 11:52	1
Xylenes, Total	<2.0		2.0	0.42	ug/L			04/01/23 11:52	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*97*		*78 - 122*		*04/01/23 11:52*	*1*
Dibromofluoromethane (Surr)	*103*		*73 - 120*		*04/01/23 11:52*	*1*
4-Bromofluorobenzene (Surr)	*88*		*56 - 136*		*04/01/23 11:52*	*1*
1,2-Dichloroethane-d4 (Surr)	*104*		*62 - 137*		*04/01/23 11:52*	*1*

Lab Sample ID: LCS 240-567577/5
Matrix: Water
Analysis Batch: 567577

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1-Trichloroethane	20.0	20.9		ug/L		104	64 - 131
1,1,2,2-Tetrachloroethane	20.0	22.0		ug/L		110	58 - 157
1,1,2-Trichloro-1,2,2-trifluoroetha ne	20.0	26.8		ug/L		134	51 - 146
1,1,2-Trichloroethane	20.0	21.9		ug/L		109	70 - 138
1,1-Dichloroethane	20.0	23.4		ug/L		117	72 - 127
1,1-Dichloroethene	20.0	24.2		ug/L		121	63 - 134
1,2,4-Trichlorobenzene	20.0	19.1		ug/L		96	44 - 147
1,2-Dibromo-3-Chloropropane	20.0	16.0		ug/L		80	53 - 135
Ethylene Dibromide	20.0	21.0		ug/L		105	71 - 134
1,2-Dichlorobenzene	20.0	22.9		ug/L		115	78 - 120
1,2-Dichloroethane	20.0	21.9		ug/L		109	66 - 128
1,2-Dichloropropane	20.0	22.9		ug/L		114	75 - 133
1,3-Dichlorobenzene	20.0	21.9		ug/L		110	80 - 120
1,4-Dichlorobenzene	20.0	21.4		ug/L		107	80 - 120
2-Butanone (MEK)	40.0	48.6		ug/L		121	54 - 156
2-Hexanone	40.0	42.8		ug/L		107	43 - 167
4-Methyl-2-pentanone (MIBK)	40.0	45.4		ug/L		114	46 - 158
Acetone	40.0	71.0	*+	ug/L		178	50 - 149
Benzene	20.0	23.2		ug/L		116	77 - 123
Dichlorobromomethane	20.0	21.5		ug/L		107	69 - 126
Bromoform	20.0	21.3		ug/L		106	57 - 129
Bromomethane	20.0	13.6		ug/L		68	36 - 142

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

Lab Sample ID: LCS 240-567577/5
Matrix: Water
Analysis Batch: 567577

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Carbon disulfide	20.0	24.9		ug/L		124	43 - 140
Carbon tetrachloride	20.0	20.4		ug/L		102	55 - 137
Chlorobenzene	20.0	21.4		ug/L		107	80 - 121
Chloroethane	20.0	13.7		ug/L		69	38 - 152
Chloroform	20.0	22.7		ug/L		114	74 - 122
Chloromethane	20.0	17.9		ug/L		90	47 - 143
cis-1,2-Dichloroethene	20.0	22.9		ug/L		115	77 - 123
cis-1,3-Dichloropropene	20.0	20.9		ug/L		105	64 - 130
Cyclohexane	20.0	24.3		ug/L		122	58 - 146
Chlorodibromomethane	20.0	21.0		ug/L		105	70 - 124
Dichlorodifluoromethane	20.0	16.3		ug/L		81	34 - 153
Ethylbenzene	20.0	20.8		ug/L		104	80 - 121
Isopropylbenzene	20.0	21.6		ug/L		108	74 - 128
Methyl acetate	40.0	47.8		ug/L		119	42 - 169
Methyl tert-butyl ether	20.0	21.4		ug/L		107	65 - 126
Methylcyclohexane	20.0	22.3		ug/L		112	62 - 136
Methylene Chloride	20.0	22.9		ug/L		115	71 - 125
Styrene	20.0	21.2		ug/L		106	80 - 135
Tetrachloroethene	20.0	22.0		ug/L		110	76 - 123
Toluene	20.0	21.0		ug/L		105	80 - 123
trans-1,2-Dichloroethene	20.0	21.7		ug/L		109	75 - 124
trans-1,3-Dichloropropene	20.0	20.1		ug/L		101	57 - 129
Trichloroethene	20.0	22.1		ug/L		111	70 - 122
Trichlorofluoromethane	20.0	16.3		ug/L		82	30 - 170
Vinyl chloride	20.0	17.7		ug/L		89	60 - 144
Xylenes, Total	40.0	43.1		ug/L		108	80 - 121
m-Xylene & p-Xylene	20.0	21.3		ug/L		107	80 - 120
o-Xylene	20.0	21.8		ug/L		109	80 - 123

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Toluene-d8 (Surr)	*97*		*78 - 122*
Dibromofluoromethane (Surr)	*104*		*73 - 120*
4-Bromofluorobenzene (Surr)	*95*		*56 - 136*
1,2-Dichloroethane-d4 (Surr)	*102*		*62 - 137*

QC Association Summary

Client: Pinnacle Engineering, Inc
Project/Site: Monarch Chemical

Job ID: 240-182494-1

GC/MS VOA

Analysis Batch: 567450

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-182494-2	MW-115	Total/NA	Water	8260D	
240-182494-3	MW-115D	Total/NA	Water	8260D	
240-182494-4	MW-116	Total/NA	Water	8260D	
240-182494-5	MW-117	Total/NA	Water	8260D	
240-182494-6	MW-118	Total/NA	Water	8260D	
240-182494-7	MW-121	Total/NA	Water	8260D	
240-182494-8	MW-122	Total/NA	Water	8260D	
240-182494-9	MW-124S	Total/NA	Water	8260D	
240-182494-10	MW-124D	Total/NA	Water	8260D	
240-182494-11	TRIP BLANK	Total/NA	Water	8260D	
240-182494-12	DUPE-1	Total/NA	Water	8260D	
MB 240-567450/9	Method Blank	Total/NA	Water	8260D	
LCS 240-567450/5	Lab Control Sample	Total/NA	Water	8260D	
LCS 240-567450/6	Lab Control Sample	Total/NA	Water	8260D	
240-182494-10 MS	MW-124D	Total/NA	Water	8260D	
240-182494-10 MSD	MW-124D	Total/NA	Water	8260D	

Analysis Batch: 567577

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-182494-1	MW-114	Total/NA	Water	8260D	
MB 240-567577/9	Method Blank	Total/NA	Water	8260D	
LCS 240-567577/5	Lab Control Sample	Total/NA	Water	8260D	

Lab Chronicle

Client: Pinnacle Engineering, Inc
Project/Site: Monarch Chemical

Job ID: 240-182494-1

Client Sample ID: MW-114 — Lab Sample ID: 240-182494-1

Date Collected: 03/18/23 16:25
Date Received: 03/24/23 09:30
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	567577	HMB	EET CAN	04/01/23 12:16

Client Sample ID: MW-115 — Lab Sample ID: 240-182494-2

Date Collected: 03/20/23 11:55
Date Received: 03/24/23 09:30
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	567450	TJL1	EET CAN	03/31/23 16:44

Client Sample ID: MW-115D — Lab Sample ID: 240-182494-3

Date Collected: 03/20/23 10:15
Date Received: 03/24/23 09:30
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	567450	TJL1	EET CAN	03/31/23 17:07

Client Sample ID: MW-116 — Lab Sample ID: 240-182494-4

Date Collected: 03/19/23 10:53
Date Received: 03/24/23 09:30
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	567450	TJL1	EET CAN	03/31/23 17:30

Client Sample ID: MW-117 — Lab Sample ID: 240-182494-5

Date Collected: 03/18/23 12:10
Date Received: 03/24/23 09:30
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	567450	TJL1	EET CAN	03/31/23 17:53

Client Sample ID: MW-118 — Lab Sample ID: 240-182494-6

Date Collected: 03/18/23 16:20
Date Received: 03/24/23 09:30
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		2	567450	TJL1	EET CAN	03/31/23 18:16

Client Sample ID: MW-121 — Lab Sample ID: 240-182494-7

Date Collected: 03/22/23 13:30
Date Received: 03/24/23 09:30
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	567450	TJL1	EET CAN	03/31/23 18:39

Lab Chronicle

Client: Pinnacle Engineering, Inc
Project/Site: Monarch Chemical

Job ID: 240-182494-1

Client Sample ID: MW-122
Date Collected: 03/22/23 14:55
Date Received: 03/24/23 09:30

Lab Sample ID: 240-182494-8
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	567450	TJL1	EET CAN	03/31/23 19:02

Client Sample ID: MW-124S
Date Collected: 03/19/23 14:40
Date Received: 03/24/23 09:30

Lab Sample ID: 240-182494-9
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	567450	TJL1	EET CAN	03/31/23 19:26

Client Sample ID: MW-124D
Date Collected: 03/19/23 15:35
Date Received: 03/24/23 09:30

Lab Sample ID: 240-182494-10
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		3.33	567450	TJL1	EET CAN	03/31/23 19:49

Client Sample ID: TRIP BLANK
Date Collected: 03/22/23 16:00
Date Received: 03/24/23 09:30

Lab Sample ID: 240-182494-11
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	567450	TJL1	EET CAN	03/31/23 20:12

Client Sample ID: DUPE-1
Date Collected: 03/18/23 08:00
Date Received: 03/24/23 09:30

Lab Sample ID: 240-182494-12
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		5	567450	TJL1	EET CAN	03/31/23 20:35

Laboratory References:
EET CAN = Eurofins Canton, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

Accreditation/Certification Summary

Client: Pinnacle Engineering, Inc
Project/Site: Monarch Chemical

Job ID: 240-182494-1

Laboratory: Eurofins Canton

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-27-23 *
Connecticut	State	PH-0590	06-29-23
Florida	NELAP	E87225	06-30-23
Georgia	State	4062	02-28-24
Illinois	NELAP	200004	07-31-23
Iowa	State	421	06-01-23
Kentucky (UST)	State	112225	02-27-23 *
Kentucky (WW)	State	KY98016	12-31-23
Michigan	State	9135	02-27-23 *
Minnesota	NELAP	039-999-348	12-31-23
Minnesota (Petrofund)	State	3506	08-01-23
New Jersey	NELAP	OH001	06-30-23
New York	NELAP	10975	04-01-24
Ohio	State	8303	02-27-24
Ohio VAP	State	ORELAP 4062	02-27-24
Oregon	NELAP	4062	02-28-24
Pennsylvania	NELAP	68-00340	08-31-23
Texas	NELAP	T104704517-22-17	08-31-23
Virginia	NELAP	460175	09-14-23
West Virginia DEP	State	210	12-31-23

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins ~~Canton~~ BUF
180 S. Van Buren Avenue
Barberton, OH 44203
Phone: 330-497-9396 Fax: 330-497-0772

ROW

3.2/3.1

Chain of Custody Record

eurofins | Environment Testing

Client Information	Sampler: BOB WOJCIAK	Lab PM: Johnson, Opal	Carrier Tracking No(s): Syracuse #225	COC No: 240-105600-37825.1
Client Contact: ~~Bob Wojciak~~ KEITH RAPP	Phone: 423 · 943 · 8968	E-Mail: Opal.Johnson@et.eurofinsus.com	State of Origin:	Page: Page 1 of 2
Company: ~~APECS Environmental Consultants~~ PINNACLE ENGR	PWSID:			Job #:
Address: ~~PO BOX 3881~~	Due Date Requested:			
City: Bristol	TAT Requested (days):			
State, Zip: ~~TN, 37625~~	Compliance Project: Δ Yes Δ No			
Phone: 763 · 277 · 8422	PO #: Purchase Order Requested			
Email: apecs@chartertn.net	WO #:			
Project Name: Monarch Chemical	Project #: 24030921			
Site:	SSOW#:			

Analysis Requested

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

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260D - MS Volatile	~~8060A - TOC~~	8260D - MS VOLATILE - TB	8260D - MS Volatile Analyte List	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A	S	A	A		
MW-114	3/18/23	16:25	G	Water	N	N	X					
MW-115	3/20/23	11:55	G	Water	N	N	X					
MW-115D	3/20/23	10:15	G	Water	N	N	X					
MW-116	3/19/23	10:53	G	Water	N	N	X					
MW-117	3/18/23	12:10	G	Water	N	N	X					
MW-118	3/18/23	16:20	G	Water	N	N	X					
MW-121	3/22/23	13:30	G	Water	N	N	X					
MW-122	3/22/23	14:55	G	Water	N	N	X					
MW-124S	3/19/23	14:40	G	Water	N	N	X					
MW-124D	3/19/23	15:35	G	Water	N	N	X					
TRIP BLANK	3/22/23	16:00	G	Water	N	N			X			

240-182494 Chain of Custody

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

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

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

Special Instructions/QC Requirements:

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

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
RG Wojciak	3/22/23 17:40	APECS	[signature]	3-22-23, 1740	Jyn
[signature]	3-22-23, 1900	[illegible]	[signature]	3/23/23 1000	TAS
[signature]	3-23-23 1800	[illegible]	[signature]	3-24-23 0930	EETNC

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: #1 2.4

Ver: 06/08/2021

Eurofins ~~Canton~~ BUF
180 S. Van Buren Avenue
Barberton, OH 44203
Phone: 330-497-9396 Fax: 330-497-0772

Chain of Custody Record

eurofins | Environment Testing

Syracuse #225

Client Information				
Client Contact: ~~Bob Wojciak~~ KEITH RAPP	Sampler: BOB WOJCIAK	Lab PM: Johnson, Opal	Carrier Tracking No(s):	COC No: 240-105600-37825.2
	Phone: 423 943 8968	E-Mail: Opal.Johnson@et.eurofinsus.com	State of Origin:	Page: Page 2 of 2
Company: ~~APECS Environmental Consultants~~ PINNACLE ENGR	PWSID:			Job #:
Address: ~~PO BOX~~ 3881	Due Date Requested:			
City: ~~Bristol~~	TAT Requested (days):			
State, Zip: ~~TN~~, 37625	Compliance Project: Δ Yes Δ No			
Phone: 763 277 8422	PO #: Purchase Order Requested			
Email: apecs@chartertn.net	WO #:			
Project Name: Monarch Chemical	Project #: 24030921			
Site:	SSOW#:			

Analysis Requested

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260D - MS Volatile	~~9060A - TOC~~	8260D - MS VOLATILE - TB	8260D - MS Volatile Analyte List	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A	S	A	A		
TRIP BLANK				Water								
FIELD BLANK				Water								
DUPLICATE DUPE-1	3/18/23	8:00	G	Water	N	N	X					

RL 3-22-23

Preservation Codes:

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

Other:

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

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

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

Special Instructions/QC Requirements:

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

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
R. Wojciak	3/22/23 17:40	APECS	R. English	3-22-23, 17:40	Pin
R. English	3-22-23, 1900	Pin	[illegible]	3/23/23 1000	TAB
			[illegible]	3-24-23 0930	EETNC

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

Eurofins - Canton Sample Receipt Form/Narrative **Login # :** 182494
Barberton Facility

Client APECS Site Name Monarch
Cooler Received on 3-24-23 Opened on 3-24-23 Cooler unpacked by:
FedEx: 1st Grd Exp UPS FAS Clipper Client Drop Off Eurofins Courier Other

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

Eurofins Cooler # EC Foam Box Client Cooler Box Other
Packing material used: Bubble Wrap Foam Plastic Bag None Other
COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt ☐ See Multiple Cooler Form
IR GUN # 16 (CF -0.1 °C) Observed Cooler Temp. 3.2 °C Corrected Cooler Temp. 3.1 °C
2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1 Yes No
-Were the seals on the outside of the cooler(s) signed & dated? Yes No NA
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes No
-Were tamper/custody seals intact and uncompromised? Yes No NA
3. Shippers' packing slip attached to the cooler(s)? Yes No
4. Did custody papers accompany the sample(s)? Yes No
5. Were the custody papers relinquished & signed in the appropriate place? Yes No
6. Was/were the person(s) who collected the samples clearly identified on the COC? Yes No
7. Did all bottles arrive in good condition (Unbroken)? Yes No
8. Could all bottle labels (ID/Date/Time) be reconciled with the COC? Yes No
9. For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp(Y/N)?
10. Were correct bottle(s) used for the test(s) indicated? Yes No
11. Sufficient quantity received to perform indicated analyses? Yes No
12. Are these work share samples and all listed on the COC? Yes No
If yes, Questions 13-17 have been checked at the originating laboratory.
13. Were all preserved sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# **HC293086**
14. Were VOAs on the COC? Yes No
15. Were air bubbles >6 mm in any VOA vials? ● ⬅ Larger than this. Yes No NA
16. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # Yes No
17. Was a LL Hg or Me Hg trip blank present? Yes No

Tests that are not checked for pH by Receiving:
VOAs
Oil and Grease
TOC

Contacted PM Date by via Verbal Voice Mail Other

Concerning

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES ☐ additional next page Samples processed by:

19. SAMPLE CONDITION
Sample(s) were received after the recommended holding time had expired.
Sample(s) were received in a broken container.
Sample(s) were received with bubble >6 mm in diameter. (Notify PM)

20. SAMPLE PRESERVATION
Sample(s) were further preserved in the laboratory.
Time preserved: Preservative(s) added/Lot number(s):

VOA Sample Preservation - Date/Time VOAs Frozen:

Attachment 11

March 2023 Sub-Slab & Indoor Air Quality Analytical Report

(SDG 200-67423)

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Mr. Keith B Rapp
Pinnacle Engineering, Inc
11541 95th Avenue North
Minneapolis, Minnesota 55369

Generated 4/10/2023 11:40:19 AM

JOB DESCRIPTION

Monarch Chemical
SDG NUMBER 200-67423

JOB NUMBER

200-67423-1

Eurofins Burlington
530 Community Drive
Suite 11
South Burlington VT 05403

See page two for job notes and contact information.

my EOL

Eurofins Burlington

Job Notes

The test results in this report relate only to sample(s) as received by the laboratory. These test results were derived under a quality system that adheres to the requirements of NELAC. Pursuant to NELAC, this report may not be produced in full without written approval from the laboratory

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins TestAmerica Project Manager.

Authorization

Peggy Gray-Erdmann

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4/10/2023 11:40:19 AM

Authorized for release by
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Qualifiers

Air - GC/MS VOA

Qualifier	Qualifier Description
D	Sample results are obtained from a dilution; the surrogate or matrix spike recoveries reported are calculated from diluted samples.
E	Result exceeded calibration range.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

Glossary

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

Job ID: 200-67423-1

Laboratory: Eurofins Burlington

Narrative

CASE NARRATIVE

Client: Pinnacle Engineering, Inc

Project: Monarch Chemical

Report Number: 200-67423-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT
The samples were received on 03/24/2023; the samples arrived in good condition.

VOLATILE ORGANIC COMPOUNDS
Samples SS-2 (200-67423-1), IA-2 (200-67423-2), SS-4 (200-67423-3), IA-4 (200-67423-4) and OUTDOOR (200-67423-5) were analyzed for Volatile Organic Compounds in accordance with EPA Method TO-15. The samples were analyzed on 04/05/2023 and 04/06/2023.

Samples SS-2 (200-67423-1)[15.5X], SS-2 (200-67423-1)[3X], IA-2 (200-67423-2)[1.14X], SS-4 (200-67423-3)[15.5X] and SS-4 (200-67423-3)[3X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: Pinnacle Engineering, Inc
Project/Site: Monarch Chemical

Job ID: 200-67423-1
SDG: 200-67423

Client Sample ID: SS-2 — Lab Sample ID: 200-67423-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	70		3.3	0.72	ug/m3	3		TO-15	Total/NA
1,1-Dichloroethane	1.2	J	2.4	0.30	ug/m3	3		TO-15	Total/NA
1,2,4-Trimethylbenzene	1.2	J	2.9	1.2	ug/m3	3		TO-15	Total/NA
Acetone	730	E	36	11	ug/m3	3		TO-15	Total/NA
Chloroform	12		2.9	0.60	ug/m3	3		TO-15	Total/NA
Dichlorodifluoromethane	2.1	J	7.4	1.6	ug/m3	3		TO-15	Total/NA
m,p-Xylene	2.2	J	6.5	1.2	ug/m3	3		TO-15	Total/NA
Methyl Butyl Ketone (2-Hexanone)	3.9	J	6.1	1.8	ug/m3	3		TO-15	Total/NA
Methyl Ethyl Ketone (2-Butanone)	16		4.4	4.3	ug/m3	3		TO-15	Total/NA
Methylene Chloride	2.5	J	5.2	1.9	ug/m3	3		TO-15	Total/NA
n-Heptane	1.2	J	2.5	0.68	ug/m3	3		TO-15	Total/NA
n-Hexane	1.2	J	5.3	1.2	ug/m3	3		TO-15	Total/NA
o-Xylene	0.86	J	2.6	0.68	ug/m3	3		TO-15	Total/NA
Styrene	0.84	J	2.6	0.75	ug/m3	3		TO-15	Total/NA
Tetrachloroethene	220		4.1	0.43	ug/m3	3		TO-15	Total/NA
Toluene	4.2		2.3	0.47	ug/m3	3		TO-15	Total/NA
Trichloroethene	1.9		0.60	0.40	ug/m3	3		TO-15	Total/NA
Trichlorofluoromethane	1.0	J	3.4	0.84	ug/m3	3		TO-15	Total/NA
1,1,1-Trichloroethane - DL	68	D	17	3.7	ug/m3	15.5		TO-15	Total/NA
1,2,4-Trimethylbenzene - DL	14	J D	15	6.1	ug/m3	15.5		TO-15	Total/NA
1,3,5-Trimethylbenzene - DL	7.6	J D	15	3.6	ug/m3	15.5		TO-15	Total/NA
Acetone - DL	710	D	180	59	ug/m3	15.5		TO-15	Total/NA
Chloroform - DL	11	J D	15	3.1	ug/m3	15.5		TO-15	Total/NA
Cyclohexane - DL	6.9	J D	11	3.1	ug/m3	15.5		TO-15	Total/NA
Ethylbenzene - DL	4.5	J D	13	3.5	ug/m3	15.5		TO-15	Total/NA
m,p-Xylene - DL	58	D	34	6.4	ug/m3	15.5		TO-15	Total/NA
Tetrachloroethene - DL	210	D	21	2.2	ug/m3	15.5		TO-15	Total/NA
Toluene - DL	4.0	J D	12	2.5	ug/m3	15.5		TO-15	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	13		0.60	0.13	ppb v/v	3		TO-15	Total/NA
1,1-Dichloroethane	0.29	J	0.60	0.075	ppb v/v	3		TO-15	Total/NA
1,2,4-Trimethylbenzene	0.24	J	0.60	0.24	ppb v/v	3		TO-15	Total/NA
Acetone	310	E	15	4.8	ppb v/v	3		TO-15	Total/NA
Chloroform	2.5		0.60	0.12	ppb v/v	3		TO-15	Total/NA
Dichlorodifluoromethane	0.43	J	1.5	0.33	ppb v/v	3		TO-15	Total/NA
m,p-Xylene	0.50	J	1.5	0.29	ppb v/v	3		TO-15	Total/NA
Methyl Butyl Ketone (2-Hexanone)	0.96	J	1.5	0.45	ppb v/v	3		TO-15	Total/NA
Methyl Ethyl Ketone (2-Butanone)	5.5		1.5	1.5	ppb v/v	3		TO-15	Total/NA
Methylene Chloride	0.71	J	1.5	0.54	ppb v/v	3		TO-15	Total/NA
n-Heptane	0.30	J	0.60	0.17	ppb v/v	3		TO-15	Total/NA
n-Hexane	0.35	J	1.5	0.33	ppb v/v	3		TO-15	Total/NA
o-Xylene	0.20	J	0.60	0.16	ppb v/v	3		TO-15	Total/NA
Styrene	0.20	J	0.60	0.18	ppb v/v	3		TO-15	Total/NA
Tetrachloroethene	32		0.60	0.063	ppb v/v	3		TO-15	Total/NA
Toluene	1.1		0.60	0.13	ppb v/v	3		TO-15	Total/NA
Trichloroethene	0.35		0.11	0.075	ppb v/v	3		TO-15	Total/NA
Trichlorofluoromethane	0.19	J	0.60	0.15	ppb v/v	3		TO-15	Total/NA
1,1,1-Trichloroethane - DL	12	D	3.1	0.68	ppb v/v	15.5		TO-15	Total/NA
1,2,4-Trimethylbenzene - DL	2.9	J D	3.1	1.2	ppb v/v	15.5		TO-15	Total/NA
1,3,5-Trimethylbenzene - DL	1.6	J D	3.1	0.73	ppb v/v	15.5		TO-15	Total/NA
Acetone - DL	300	D	78	25	ppb v/v	15.5		TO-15	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SS-2 (Continued) — Lab Sample ID: 200-67423-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloroform - DL	2.3	J D	3.1	0.64	ppb v/v	15.5		TO-15	Total/NA
Cyclohexane - DL	2.0	J D	3.1	0.90	ppb v/v	15.5		TO-15	Total/NA
Ethylbenzene - DL	1.0	J D	3.1	0.81	ppb v/v	15.5		TO-15	Total/NA
m,p-Xylene - DL	13	D	7.8	1.5	ppb v/v	15.5		TO-15	Total/NA
Tetrachloroethene - DL	31	D	3.1	0.33	ppb v/v	15.5		TO-15	Total/NA
Toluene - DL	1.1	J D	3.1	0.65	ppb v/v	15.5		TO-15	Total/NA

Client Sample ID: IA-2 — Lab Sample ID: 200-67423-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	0.29	J	1.2	0.27	ug/m3	1.14		TO-15	Total/NA
Acetone	10	J	14	4.3	ug/m3	1.14		TO-15	Total/NA
Benzene	0.42	J	0.73	0.16	ug/m3	1.14		TO-15	Total/NA
Bromodichloromethane	0.95	J	1.5	0.38	ug/m3	1.14		TO-15	Total/NA
Carbon tetrachloride	1.1		0.25	0.16	ug/m3	1.14		TO-15	Total/NA
Chlorodifluoromethane	1.2	J	2.0	0.48	ug/m3	1.14		TO-15	Total/NA
Chloroform	3.1		1.1	0.23	ug/m3	1.14		TO-15	Total/NA
Chloromethane	1.2		1.2	0.35	ug/m3	1.14		TO-15	Total/NA
Cyclohexane	0.23	J	0.78	0.23	ug/m3	1.14		TO-15	Total/NA
Dibromochloromethane	0.86	J	1.9	0.61	ug/m3	1.14		TO-15	Total/NA
Dichlorodifluoromethane	1.4	J	2.8	0.62	ug/m3	1.14		TO-15	Total/NA
Ethylbenzene	0.32	J	0.99	0.26	ug/m3	1.14		TO-15	Total/NA
Isopropyl alcohol	6.0	J	14	4.5	ug/m3	1.14		TO-15	Total/NA
m,p-Xylene	1.6	J	2.5	0.47	ug/m3	1.14		TO-15	Total/NA
Methylene Chloride	5.5		2.0	0.71	ug/m3	1.14		TO-15	Total/NA
n-Butane	5.1		1.4	0.54	ug/m3	1.14		TO-15	Total/NA
n-Heptane	0.48	J	0.93	0.26	ug/m3	1.14		TO-15	Total/NA
n-Hexane	3.8		2.0	0.44	ug/m3	1.14		TO-15	Total/NA
o-Xylene	0.34	J	0.99	0.26	ug/m3	1.14		TO-15	Total/NA
Styrene	0.35	J	0.97	0.29	ug/m3	1.14		TO-15	Total/NA
Tetrachloroethene	1.9		1.5	0.16	ug/m3	1.14		TO-15	Total/NA
Toluene	1.3		0.86	0.18	ug/m3	1.14		TO-15	Total/NA
Trichlorofluoromethane	1.6		1.3	0.32	ug/m3	1.14		TO-15	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	0.053	J	0.23	0.050	ppb v/v	1.14		TO-15	Total/NA
Acetone	4.2	J	5.7	1.8	ppb v/v	1.14		TO-15	Total/NA
Benzene	0.13	J	0.23	0.050	ppb v/v	1.14		TO-15	Total/NA
Bromodichloromethane	0.14	J	0.23	0.057	ppb v/v	1.14		TO-15	Total/NA
Carbon tetrachloride	0.17		0.040	0.025	ppb v/v	1.14		TO-15	Total/NA
Chlorodifluoromethane	0.34	J	0.57	0.14	ppb v/v	1.14		TO-15	Total/NA
Chloroform	0.63		0.23	0.047	ppb v/v	1.14		TO-15	Total/NA
Chloromethane	0.57		0.57	0.17	ppb v/v	1.14		TO-15	Total/NA
Cyclohexane	0.067	J	0.23	0.066	ppb v/v	1.14		TO-15	Total/NA
Dibromochloromethane	0.10	J	0.23	0.072	ppb v/v	1.14		TO-15	Total/NA
Dichlorodifluoromethane	0.29	J	0.57	0.13	ppb v/v	1.14		TO-15	Total/NA
Ethylbenzene	0.073	J	0.23	0.059	ppb v/v	1.14		TO-15	Total/NA
Isopropyl alcohol	2.4	J	5.7	1.8	ppb v/v	1.14		TO-15	Total/NA
m,p-Xylene	0.36	J	0.57	0.11	ppb v/v	1.14		TO-15	Total/NA
Methylene Chloride	1.6		0.57	0.21	ppb v/v	1.14		TO-15	Total/NA
n-Butane	2.2		0.57	0.23	ppb v/v	1.14		TO-15	Total/NA
n-Heptane	0.12	J	0.23	0.063	ppb v/v	1.14		TO-15	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: IA-2 (Continued) — Lab Sample ID: 200-67423-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
n-Hexane	1.1		0.57	0.13	ppb v/v	1.14		TO-15	Total/NA
o-Xylene	0.079	J	0.23	0.059	ppb v/v	1.14		TO-15	Total/NA
Styrene	0.082	J	0.23	0.067	ppb v/v	1.14		TO-15	Total/NA
Tetrachloroethene	0.29		0.23	0.024	ppb v/v	1.14		TO-15	Total/NA
Toluene	0.34		0.23	0.048	ppb v/v	1.14		TO-15	Total/NA
Trichlorofluoromethane	0.28		0.23	0.057	ppb v/v	1.14		TO-15	Total/NA

Client Sample ID: SS-4 — Lab Sample ID: 200-67423-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	6.1		3.3	0.72	ug/m3	3		TO-15	Total/NA
1,1-Dichloroethane	2.3	J	2.4	0.30	ug/m3	3		TO-15	Total/NA
Acetone	650	E	36	11	ug/m3	3		TO-15	Total/NA
Carbon tetrachloride	0.44	J	0.66	0.42	ug/m3	3		TO-15	Total/NA
Chloroform	46		2.9	0.60	ug/m3	3		TO-15	Total/NA
Dichlorodifluoromethane	2.1	J	7.4	1.6	ug/m3	3		TO-15	Total/NA
Ethylbenzene	0.72	J	2.6	0.68	ug/m3	3		TO-15	Total/NA
m,p-Xylene	3.2	J	6.5	1.2	ug/m3	3		TO-15	Total/NA
Methyl Butyl Ketone (2-Hexanone)	3.5	J	6.1	1.8	ug/m3	3		TO-15	Total/NA
Methyl Ethyl Ketone (2-Butanone)	18		4.4	4.3	ug/m3	3		TO-15	Total/NA
Methylene Chloride	2.1	J	5.2	1.9	ug/m3	3		TO-15	Total/NA
n-Butane	3.8		3.6	1.4	ug/m3	3		TO-15	Total/NA
n-Heptane	1.4	J	2.5	0.68	ug/m3	3		TO-15	Total/NA
n-Hexane	1.4	J	5.3	1.2	ug/m3	3		TO-15	Total/NA
o-Xylene	0.95	J	2.6	0.68	ug/m3	3		TO-15	Total/NA
Tetrachloroethene	57		4.1	0.43	ug/m3	3		TO-15	Total/NA
Toluene	4.1		2.3	0.47	ug/m3	3		TO-15	Total/NA
Trichloroethene	20		0.60	0.40	ug/m3	3		TO-15	Total/NA
Trichlorofluoromethane	1.1	J	3.4	0.84	ug/m3	3		TO-15	Total/NA
1,1,1-Trichloroethane - DL	5.2	J D	17	3.7	ug/m3	15.5		TO-15	Total/NA
1,1-Dichloroethane - DL	2.0	J D	13	1.6	ug/m3	15.5		TO-15	Total/NA
Acetone - DL	770	D	180	59	ug/m3	15.5		TO-15	Total/NA
Chloroform - DL	43	D	15	3.1	ug/m3	15.5		TO-15	Total/NA
cis-1,2-Dichloroethene - DL	5.3	D	3.1	1.3	ug/m3	15.5		TO-15	Total/NA
Tetrachloroethene - DL	53	D	21	2.2	ug/m3	15.5		TO-15	Total/NA
Toluene - DL	3.7	J D	12	2.5	ug/m3	15.5		TO-15	Total/NA
Trichloroethene - DL	19	D	3.1	2.1	ug/m3	15.5		TO-15	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	1.1		0.60	0.13	ppb v/v	3		TO-15	Total/NA
1,1-Dichloroethane	0.57	J	0.60	0.075	ppb v/v	3		TO-15	Total/NA
Acetone	270	E	15	4.8	ppb v/v	3		TO-15	Total/NA
Carbon tetrachloride	0.070	J	0.11	0.066	ppb v/v	3		TO-15	Total/NA
Chloroform	9.4		0.60	0.12	ppb v/v	3		TO-15	Total/NA
Dichlorodifluoromethane	0.43	J	1.5	0.33	ppb v/v	3		TO-15	Total/NA
Ethylbenzene	0.17	J	0.60	0.16	ppb v/v	3		TO-15	Total/NA
m,p-Xylene	0.74	J	1.5	0.29	ppb v/v	3		TO-15	Total/NA
Methyl Butyl Ketone (2-Hexanone)	0.85	J	1.5	0.45	ppb v/v	3		TO-15	Total/NA
Methyl Ethyl Ketone (2-Butanone)	6.0		1.5	1.5	ppb v/v	3		TO-15	Total/NA
Methylene Chloride	0.61	J	1.5	0.54	ppb v/v	3		TO-15	Total/NA
n-Butane	1.6		1.5	0.60	ppb v/v	3		TO-15	Total/NA
n-Heptane	0.34	J	0.60	0.17	ppb v/v	3		TO-15	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SS-4 (Continued) — Lab Sample ID: 200-67423-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
n-Hexane	0.40	J	1.5	0.33	ppb v/v	3		TO-15	Total/NA
o-Xylene	0.22	J	0.60	0.16	ppb v/v	3		TO-15	Total/NA
Tetrachloroethene	8.4		0.60	0.063	ppb v/v	3		TO-15	Total/NA
Toluene	1.1		0.60	0.13	ppb v/v	3		TO-15	Total/NA
Trichloroethene	3.8		0.11	0.075	ppb v/v	3		TO-15	Total/NA
Trichlorofluoromethane	0.19	J	0.60	0.15	ppb v/v	3		TO-15	Total/NA
1,1,1-Trichloroethane - DL	0.96	J D	3.1	0.68	ppb v/v	15.5		TO-15	Total/NA
1,1-Dichloroethane - DL	0.49	J D	3.1	0.39	ppb v/v	15.5		TO-15	Total/NA
Acetone - DL	320	D	78	25	ppb v/v	15.5		TO-15	Total/NA
Chloroform - DL	8.7	D	3.1	0.64	ppb v/v	15.5		TO-15	Total/NA
cis-1,2-Dichloroethene - DL	1.3	D	0.78	0.33	ppb v/v	15.5		TO-15	Total/NA
Tetrachloroethene - DL	7.8	D	3.1	0.33	ppb v/v	15.5		TO-15	Total/NA
Toluene - DL	0.99	J D	3.1	0.65	ppb v/v	15.5		TO-15	Total/NA
Trichloroethene - DL	3.5	D	0.58	0.39	ppb v/v	15.5		TO-15	Total/NA

Client Sample ID: IA-4 — Lab Sample ID: 200-67423-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,2-Trichlorotrifluoroethane	0.43	J	1.5	0.41	ug/m3	1		TO-15	Total/NA
1,2,4-Trimethylbenzene	0.50	J	0.98	0.39	ug/m3	1		TO-15	Total/NA
2,2,4-Trimethylpentane	0.25	J	0.93	0.18	ug/m3	1		TO-15	Total/NA
Acetone	10	J	12	3.8	ug/m3	1		TO-15	Total/NA
Benzene	0.39	J	0.64	0.14	ug/m3	1		TO-15	Total/NA
Bromodichloromethane	1.5		1.3	0.34	ug/m3	1		TO-15	Total/NA
Carbon tetrachloride	1.0		0.22	0.14	ug/m3	1		TO-15	Total/NA
Chlorodifluoromethane	1.2	J	1.8	0.42	ug/m3	1		TO-15	Total/NA
Chloroform	4.1		0.98	0.20	ug/m3	1		TO-15	Total/NA
Chloromethane	1.2		1.0	0.31	ug/m3	1		TO-15	Total/NA
Dibromochloromethane	1.3	J	1.7	0.54	ug/m3	1		TO-15	Total/NA
Dichlorodifluoromethane	2.2	J	2.5	0.54	ug/m3	1		TO-15	Total/NA
Ethylbenzene	0.28	J	0.87	0.23	ug/m3	1		TO-15	Total/NA
Isopropyl alcohol	11	J	12	3.9	ug/m3	1		TO-15	Total/NA
m,p-Xylene	0.95	J	2.2	0.41	ug/m3	1		TO-15	Total/NA
Methylene Chloride	4.7		1.7	0.63	ug/m3	1		TO-15	Total/NA
n-Butane	4.1		1.2	0.48	ug/m3	1		TO-15	Total/NA
n-Heptane	0.65	J	0.82	0.23	ug/m3	1		TO-15	Total/NA
n-Hexane	1.9		1.8	0.39	ug/m3	1		TO-15	Total/NA
o-Xylene	0.32	J	0.87	0.23	ug/m3	1		TO-15	Total/NA
Styrene	0.32	J	0.85	0.25	ug/m3	1		TO-15	Total/NA
Tetrachloroethene	0.91	J	1.4	0.14	ug/m3	1		TO-15	Total/NA
Toluene	1.0		0.75	0.16	ug/m3	1		TO-15	Total/NA
Trichlorofluoromethane	1.3		1.1	0.28	ug/m3	1		TO-15	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,2-Trichlorotrifluoroethane	0.056	J	0.20	0.053	ppb v/v	1		TO-15	Total/NA
1,2,4-Trimethylbenzene	0.10	J	0.20	0.080	ppb v/v	1		TO-15	Total/NA
2,2,4-Trimethylpentane	0.053	J	0.20	0.038	ppb v/v	1		TO-15	Total/NA
Acetone	4.4	J	5.0	1.6	ppb v/v	1		TO-15	Total/NA
Benzene	0.12	J	0.20	0.044	ppb v/v	1		TO-15	Total/NA
Bromodichloromethane	0.23		0.20	0.050	ppb v/v	1		TO-15	Total/NA
Carbon tetrachloride	0.16		0.035	0.022	ppb v/v	1		TO-15	Total/NA
Chlorodifluoromethane	0.34	J	0.50	0.12	ppb v/v	1		TO-15	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Pinnacle Engineering, Inc
Project/Site: Monarch Chemical

Job ID: 200-67423-1
SDG: 200-67423

Client Sample ID: IA-4 (Continued) — Lab Sample ID: 200-67423-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloroform	0.85		0.20	0.041	ppb v/v	1		TO-15	Total/NA
Chloromethane	0.59		0.50	0.15	ppb v/v	1		TO-15	Total/NA
Dibromochloromethane	0.16	J	0.20	0.063	ppb v/v	1		TO-15	Total/NA
Dichlorodifluoromethane	0.44	J	0.50	0.11	ppb v/v	1		TO-15	Total/NA
Ethylbenzene	0.064	J	0.20	0.052	ppb v/v	1		TO-15	Total/NA
Isopropyl alcohol	4.6	J	5.0	1.6	ppb v/v	1		TO-15	Total/NA
m,p-Xylene	0.22	J	0.50	0.095	ppb v/v	1		TO-15	Total/NA
Methylene Chloride	1.4		0.50	0.18	ppb v/v	1		TO-15	Total/NA
n-Butane	1.7		0.50	0.20	ppb v/v	1		TO-15	Total/NA
n-Heptane	0.16	J	0.20	0.055	ppb v/v	1		TO-15	Total/NA
n-Hexane	0.53		0.50	0.11	ppb v/v	1		TO-15	Total/NA
o-Xylene	0.073	J	0.20	0.052	ppb v/v	1		TO-15	Total/NA
Styrene	0.075	J	0.20	0.059	ppb v/v	1		TO-15	Total/NA
Tetrachloroethene	0.13	J	0.20	0.021	ppb v/v	1		TO-15	Total/NA
Toluene	0.27		0.20	0.042	ppb v/v	1		TO-15	Total/NA
Trichlorofluoromethane	0.24		0.20	0.050	ppb v/v	1		TO-15	Total/NA

Client Sample ID: OUTDOOR — Lab Sample ID: 200-67423-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	4.9	J	12	3.8	ug/m3	1		TO-15	Total/NA
Benzene	0.31	J	0.64	0.14	ug/m3	1		TO-15	Total/NA
Carbon tetrachloride	0.39		0.22	0.14	ug/m3	1		TO-15	Total/NA
Chlorodifluoromethane	1.0	J	1.8	0.42	ug/m3	1		TO-15	Total/NA
Chloromethane	1.2		1.0	0.31	ug/m3	1		TO-15	Total/NA
Dichlorodifluoromethane	1.8	J	2.5	0.54	ug/m3	1		TO-15	Total/NA
Methylene Chloride	1.2	J	1.7	0.63	ug/m3	1		TO-15	Total/NA
n-Butane	1.9		1.2	0.48	ug/m3	1		TO-15	Total/NA
n-Hexane	2.0		1.8	0.39	ug/m3	1		TO-15	Total/NA
Toluene	0.31	J	0.75	0.16	ug/m3	1		TO-15	Total/NA
Trichlorofluoromethane	1.1		1.1	0.28	ug/m3	1		TO-15	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	2.1	J	5.0	1.6	ppb v/v	1		TO-15	Total/NA
Benzene	0.097	J	0.20	0.044	ppb v/v	1		TO-15	Total/NA
Carbon tetrachloride	0.062		0.035	0.022	ppb v/v	1		TO-15	Total/NA
Chlorodifluoromethane	0.29	J	0.50	0.12	ppb v/v	1		TO-15	Total/NA
Chloromethane	0.56		0.50	0.15	ppb v/v	1		TO-15	Total/NA
Dichlorodifluoromethane	0.37	J	0.50	0.11	ppb v/v	1		TO-15	Total/NA
Methylene Chloride	0.36	J	0.50	0.18	ppb v/v	1		TO-15	Total/NA
n-Butane	0.80		0.50	0.20	ppb v/v	1		TO-15	Total/NA
n-Hexane	0.56		0.50	0.11	ppb v/v	1		TO-15	Total/NA
Toluene	0.081	J	0.20	0.042	ppb v/v	1		TO-15	Total/NA
Trichlorofluoromethane	0.19		0.20	0.050	ppb v/v	1		TO-15	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Pinnacle Engineering, Inc
Project/Site: Monarch Chemical

Job ID: 200-67423-1
SDG: 200-67423

Client Sample ID: SS-2

Lab Sample ID: 200-67423-1

Date Collected: 03/21/23 16:12
Matrix: Air
Date Received: 03/24/23 10:40
Sample Container: Summa Canister 6L

Method: EPA TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	**70**		3.3	0.72	ug/m3			04/06/23 02:10	3
1,1,2,2-Tetrachloroethane	4.1	U	4.1	0.89	ug/m3			04/06/23 02:10	3
1,1,2-Trichloroethane	3.3	U	3.3	1.2	ug/m3			04/06/23 02:10	3
1,1,2-Trichlorotrifluoroethane	4.6	U	4.6	1.2	ug/m3			04/06/23 02:10	3
1,1-Dichloroethane	**1.2**	**J**	2.4	0.30	ug/m3			04/06/23 02:10	3
1,1-Dichloroethene	0.60	U	0.60	0.31	ug/m3			04/06/23 02:10	3
1,2,4-Trichlorobenzene	11	U	11	7.3	ug/m3			04/06/23 02:10	3
1,2,4-Trimethylbenzene	**1.2**	**J**	2.9	1.2	ug/m3			04/06/23 02:10	3
1,2-Dibromoethane	4.6	U	4.6	0.97	ug/m3			04/06/23 02:10	3
1,2-Dichlorobenzene	3.6	U	3.6	1.2	ug/m3			04/06/23 02:10	3
1,2-Dichloroethane	2.4	U	2.4	1.1	ug/m3			04/06/23 02:10	3
1,2-Dichloropropane	2.8	U	2.8	1.3	ug/m3			04/06/23 02:10	3
1,2-Dichlorotetrafluoroethane	4.2	U	4.2	1.0	ug/m3			04/06/23 02:10	3
1,3,5-Trimethylbenzene	2.9	U	2.9	0.69	ug/m3			04/06/23 02:10	3
1,3-Butadiene	1.3	U	1.3	0.26	ug/m3			04/06/23 02:10	3
1,3-Dichlorobenzene	3.6	U	3.6	1.3	ug/m3			04/06/23 02:10	3
1,4-Dichlorobenzene	3.6	U	3.6	1.6	ug/m3			04/06/23 02:10	3
1,4-Dioxane	54	U	54	14	ug/m3			04/06/23 02:10	3
2,2,4-Trimethylpentane	2.8	U	2.8	0.53	ug/m3			04/06/23 02:10	3
2-Chlorotoluene	3.1	U	3.1	0.71	ug/m3			04/06/23 02:10	3
3-Chloropropene	4.7	U	4.7	1.1	ug/m3			04/06/23 02:10	3
4-Ethyltoluene	2.9	U	2.9	0.72	ug/m3			04/06/23 02:10	3
4-Isopropyltoluene	3.3	U	3.3	1.0	ug/m3			04/06/23 02:10	3
4-Methyl-2-pentanone (Methyl isobutyl ketone)	6.1	U	6.1	1.6	ug/m3			04/06/23 02:10	3
Acetone	**730**	**E**	36	11	ug/m3			04/06/23 02:10	3
Benzene	1.9	U	1.9	0.42	ug/m3			04/06/23 02:10	3
Benzyl chloride	3.1	U	3.1	1.4	ug/m3			04/06/23 02:10	3
Bromodichloromethane	4.0	U	4.0	1.0	ug/m3			04/06/23 02:10	3
Bromoethene(Vinyl Bromide)	2.6	U	2.6	0.66	ug/m3			04/06/23 02:10	3
Bromoform	6.2	U	6.2	3.7	ug/m3			04/06/23 02:10	3
Bromomethane	2.3	U	2.3	0.83	ug/m3			04/06/23 02:10	3
Carbon disulfide	4.7	U	4.7	1.2	ug/m3			04/06/23 02:10	3
Carbon tetrachloride	0.66	U	0.66	0.42	ug/m3			04/06/23 02:10	3
Chlorobenzene	2.8	U	2.8	0.61	ug/m3			04/06/23 02:10	3
Chlorodifluoromethane	5.3	U	5.3	1.3	ug/m3			04/06/23 02:10	3
Chloroethane	4.0	U	4.0	1.4	ug/m3			04/06/23 02:10	3
Chloroform	**12**		2.9	0.60	ug/m3			04/06/23 02:10	3
Chloromethane	3.1	U	3.1	0.93	ug/m3			04/06/23 02:10	3
cis-1,2-Dichloroethene	0.60	U	0.60	0.25	ug/m3			04/06/23 02:10	3
cis-1,3-Dichloropropene	2.7	U	2.7	0.61	ug/m3			04/06/23 02:10	3
Cumene	2.9	U	2.9	0.60	ug/m3			04/06/23 02:10	3
Cyclohexane	2.1	U	2.1	0.60	ug/m3			04/06/23 02:10	3
Dibromochloromethane	5.1	U	5.1	1.6	ug/m3			04/06/23 02:10	3
Dichlorodifluoromethane	**2.1**	**J**	7.4	1.6	ug/m3			04/06/23 02:10	3
Ethylbenzene	2.6	U	2.6	0.68	ug/m3			04/06/23 02:10	3
Hexachlorobutadiene	6.4	U	6.4	3.5	ug/m3			04/06/23 02:10	3
Isopropyl alcohol	37	U	37	12	ug/m3			04/06/23 02:10	3
m,p-Xylene	**2.2**	**J**	6.5	1.2	ug/m3			04/06/23 02:10	3

Client Sample ID: SS-2

Lab Sample ID: 200-67423-1

Date Collected: 03/21/23 16:12
Matrix: Air
Date Received: 03/24/23 10:40
Sample Container: Summa Canister 6L

Method: EPA TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl Butyl Ketone (2-Hexanone)	**3.9**	**J**	6.1	1.8	ug/m3			04/06/23 02:10	3
Methyl Ethyl Ketone (2-Butanone)	**16**		4.4	4.3	ug/m3			04/06/23 02:10	3
Methyl methacrylate	6.1	U	6.1	1.7	ug/m3			04/06/23 02:10	3
Methyl tert-butyl ether	2.2	U	2.2	0.39	ug/m3			04/06/23 02:10	3
Methylene Chloride	**2.5**	**J**	5.2	1.9	ug/m3			04/06/23 02:10	3
Naphthalene	7.9	U	7.9	4.7	ug/m3			04/06/23 02:10	3
n-Butane	3.6	U	3.6	1.4	ug/m3			04/06/23 02:10	3
n-Butylbenzene	3.3	U	3.3	1.8	ug/m3			04/06/23 02:10	3
n-Heptane	**1.2**	**J**	2.5	0.68	ug/m3			04/06/23 02:10	3
n-Hexane	**1.2**	**J**	5.3	1.2	ug/m3			04/06/23 02:10	3
n-Propylbenzene	2.9	U	2.9	0.69	ug/m3			04/06/23 02:10	3
o-Xylene	**0.86**	**J**	2.6	0.68	ug/m3			04/06/23 02:10	3
sec-Butylbenzene	3.3	U	3.3	0.74	ug/m3			04/06/23 02:10	3
Styrene	**0.84**	**J**	2.6	0.75	ug/m3			04/06/23 02:10	3
tert-Butyl alcohol	45	U	45	11	ug/m3			04/06/23 02:10	3
tert-Butylbenzene	3.3	U	3.3	0.77	ug/m3			04/06/23 02:10	3
Tetrachloroethene	**220**		4.1	0.43	ug/m3			04/06/23 02:10	3
Tetrahydrofuran	44	U	44	12	ug/m3			04/06/23 02:10	3
Toluene	**4.2**		2.3	0.47	ug/m3			04/06/23 02:10	3
trans-1,2-Dichloroethene	2.4	U	2.4	0.27	ug/m3			04/06/23 02:10	3
trans-1,3-Dichloropropene	2.7	U	2.7	0.74	ug/m3			04/06/23 02:10	3
Trichloroethene	**1.9**		0.60	0.40	ug/m3			04/06/23 02:10	3
Trichlorofluoromethane	**1.0**	**J**	3.4	0.84	ug/m3			04/06/23 02:10	3
Vinyl chloride	0.60	U	0.60	0.16	ug/m3			04/06/23 02:10	3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	**13**		0.60	0.13	ppb v/v			04/06/23 02:10	3
1,1,2,2-Tetrachloroethane	0.60	U	0.60	0.13	ppb v/v			04/06/23 02:10	3
1,1,2-Trichloroethane	0.60	U	0.60	0.22	ppb v/v			04/06/23 02:10	3
1,1,2-Trichlorotrifluoroethane	0.60	U	0.60	0.16	ppb v/v			04/06/23 02:10	3
1,1-Dichloroethane	**0.29**	**J**	0.60	0.075	ppb v/v			04/06/23 02:10	3
1,1-Dichloroethene	0.15	U	0.15	0.078	ppb v/v			04/06/23 02:10	3
1,2,4-Trichlorobenzene	1.5	U	1.5	0.99	ppb v/v			04/06/23 02:10	3
1,2,4-Trimethylbenzene	**0.24**	**J**	0.60	0.24	ppb v/v			04/06/23 02:10	3
1,2-Dibromoethane	0.60	U	0.60	0.13	ppb v/v			04/06/23 02:10	3
1,2-Dichlorobenzene	0.60	U	0.60	0.20	ppb v/v			04/06/23 02:10	3
1,2-Dichloroethane	0.60	U	0.60	0.28	ppb v/v			04/06/23 02:10	3
1,2-Dichloropropane	0.60	U	0.60	0.28	ppb v/v			04/06/23 02:10	3
1,2-Dichlorotetrafluoroethane	0.60	U	0.60	0.14	ppb v/v			04/06/23 02:10	3
1,3,5-Trimethylbenzene	0.60	U	0.60	0.14	ppb v/v			04/06/23 02:10	3
1,3-Butadiene	0.60	U	0.60	0.12	ppb v/v			04/06/23 02:10	3
1,3-Dichlorobenzene	0.60	U	0.60	0.22	ppb v/v			04/06/23 02:10	3
1,4-Dichlorobenzene	0.60	U	0.60	0.27	ppb v/v			04/06/23 02:10	3
1,4-Dioxane	15	U	15	3.9	ppb v/v			04/06/23 02:10	3
2,2,4-Trimethylpentane	0.60	U	0.60	0.11	ppb v/v			04/06/23 02:10	3
2-Chlorotoluene	0.60	U	0.60	0.14	ppb v/v			04/06/23 02:10	3
3-Chloropropene	1.5	U	1.5	0.36	ppb v/v			04/06/23 02:10	3
4-Ethyltoluene	0.60	U	0.60	0.15	ppb v/v			04/06/23 02:10	3
4-Isopropyltoluene	0.60	U	0.60	0.18	ppb v/v			04/06/23 02:10	3

Client Sample ID: SS-2

Lab Sample ID: 200-67423-1

Date Collected: 03/21/23 16:12
Matrix: Air
Date Received: 03/24/23 10:40
Sample Container: Summa Canister 6L

Method: EPA TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Methyl-2-pentanone (Methyl isobutyl ketone)	1.5	U	1.5	0.39	ppb v/v			04/06/23 02:10	3
Acetone	**310**	**E**	15	4.8	ppb v/v			04/06/23 02:10	3
Benzene	0.60	U	0.60	0.13	ppb v/v			04/06/23 02:10	3
Benzyl chloride	0.60	U	0.60	0.26	ppb v/v			04/06/23 02:10	3
Bromodichloromethane	0.60	U	0.60	0.15	ppb v/v			04/06/23 02:10	3
Bromoethene(Vinyl Bromide)	0.60	U	0.60	0.15	ppb v/v			04/06/23 02:10	3
Bromoform	0.60	U	0.60	0.36	ppb v/v			04/06/23 02:10	3
Bromomethane	0.60	U	0.60	0.21	ppb v/v			04/06/23 02:10	3
Carbon disulfide	1.5	U	1.5	0.39	ppb v/v			04/06/23 02:10	3
Carbon tetrachloride	0.11	U	0.11	0.066	ppb v/v			04/06/23 02:10	3
Chlorobenzene	0.60	U	0.60	0.13	ppb v/v			04/06/23 02:10	3
Chlorodifluoromethane	1.5	U	1.5	0.36	ppb v/v			04/06/23 02:10	3
Chloroethane	1.5	U	1.5	0.54	ppb v/v			04/06/23 02:10	3
Chloroform	**2.5**		0.60	0.12	ppb v/v			04/06/23 02:10	3
Chloromethane	1.5	U	1.5	0.45	ppb v/v			04/06/23 02:10	3
cis-1,2-Dichloroethene	0.15	U	0.15	0.063	ppb v/v			04/06/23 02:10	3
cis-1,3-Dichloropropene	0.60	U	0.60	0.14	ppb v/v			04/06/23 02:10	3
Cumene	0.60	U	0.60	0.12	ppb v/v			04/06/23 02:10	3
Cyclohexane	0.60	U	0.60	0.17	ppb v/v			04/06/23 02:10	3
Dibromochloromethane	0.60	U	0.60	0.19	ppb v/v			04/06/23 02:10	3
Dichlorodifluoromethane	**0.43**	**J**	1.5	0.33	ppb v/v			04/06/23 02:10	3
Ethylbenzene	0.60	U	0.60	0.16	ppb v/v			04/06/23 02:10	3
Hexachlorobutadiene	0.60	U	0.60	0.33	ppb v/v			04/06/23 02:10	3
Isopropyl alcohol	15	U	15	4.8	ppb v/v			04/06/23 02:10	3
m,p-Xylene	**0.50**	**J**	1.5	0.29	ppb v/v			04/06/23 02:10	3
Methyl Butyl Ketone (2-Hexanone)	**0.96**	**J**	1.5	0.45	ppb v/v			04/06/23 02:10	3
Methyl Ethyl Ketone (2-Butanone)	**5.5**		1.5	1.5	ppb v/v			04/06/23 02:10	3
Methyl methacrylate	1.5	U	1.5	0.42	ppb v/v			04/06/23 02:10	3
Methyl tert-butyl ether	0.60	U	0.60	0.11	ppb v/v			04/06/23 02:10	3
Methylene Chloride	**0.71**	**J**	1.5	0.54	ppb v/v			04/06/23 02:10	3
Naphthalene	1.5	U	1.5	0.90	ppb v/v			04/06/23 02:10	3
n-Butane	1.5	U	1.5	0.60	ppb v/v			04/06/23 02:10	3
n-Butylbenzene	0.60	U	0.60	0.33	ppb v/v			04/06/23 02:10	3
n-Heptane	**0.30**	**J**	0.60	0.17	ppb v/v			04/06/23 02:10	3
n-Hexane	**0.35**	**J**	1.5	0.33	ppb v/v			04/06/23 02:10	3
n-Propylbenzene	0.60	U	0.60	0.14	ppb v/v			04/06/23 02:10	3
o-Xylene	**0.20**	**J**	0.60	0.16	ppb v/v			04/06/23 02:10	3
sec-Butylbenzene	0.60	U	0.60	0.14	ppb v/v			04/06/23 02:10	3
Styrene	**0.20**	**J**	0.60	0.18	ppb v/v			04/06/23 02:10	3
tert-Butyl alcohol	15	U	15	3.6	ppb v/v			04/06/23 02:10	3
tert-Butylbenzene	0.60	U	0.60	0.14	ppb v/v			04/06/23 02:10	3
Tetrachloroethene	**32**		0.60	0.063	ppb v/v			04/06/23 02:10	3
Tetrahydrofuran	15	U	15	3.9	ppb v/v			04/06/23 02:10	3
Toluene	**1.1**		0.60	0.13	ppb v/v			04/06/23 02:10	3
trans-1,2-Dichloroethene	0.60	U	0.60	0.069	ppb v/v			04/06/23 02:10	3
trans-1,3-Dichloropropene	0.60	U	0.60	0.16	ppb v/v			04/06/23 02:10	3
Trichloroethene	**0.35**		0.11	0.075	ppb v/v			04/06/23 02:10	3
Trichlorofluoromethane	**0.19**	**J**	0.60	0.15	ppb v/v			04/06/23 02:10	3

Client Sample ID: SS-2

Lab Sample ID: 200-67423-1

Date Collected: 03/21/23 16:12
Matrix: Air
Date Received: 03/24/23 10:40
Sample Container: Summa Canister 6L

Method: EPA TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.23	U	0.23	0.063	ppb v/v			04/06/23 02:10	3

Method: EPA TO-15 - Volatile Organic Compounds in Ambient Air - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	**68**	**D**	17	3.7	ug/m3			04/06/23 16:05	15.5
1,1,2,2-Tetrachloroethane	21	U	21	4.6	ug/m3			04/06/23 16:05	15.5
1,1,2-Trichloroethane	17	U	17	6.3	ug/m3			04/06/23 16:05	15.5
1,1,2-Trichlorotrifluoroethane	24	U	24	6.3	ug/m3			04/06/23 16:05	15.5
1,1-Dichloroethane	13	U	13	1.6	ug/m3			04/06/23 16:05	15.5
1,1-Dichloroethene	3.1	U	3.1	1.6	ug/m3			04/06/23 16:05	15.5
1,2,4-Trichlorobenzene	58	U	58	38	ug/m3			04/06/23 16:05	15.5
1,2,4-Trimethylbenzene	**14**	**J D**	15	6.1	ug/m3			04/06/23 16:05	15.5
1,2-Dibromoethane	24	U	24	5.0	ug/m3			04/06/23 16:05	15.5
1,2-Dichlorobenzene	19	U	19	6.2	ug/m3			04/06/23 16:05	15.5
1,2-Dichloroethane	13	U	13	5.8	ug/m3			04/06/23 16:05	15.5
1,2-Dichloropropane	14	U	14	6.7	ug/m3			04/06/23 16:05	15.5
1,2-Dichlorotetrafluoroethane	22	U	22	5.2	ug/m3			04/06/23 16:05	15.5
1,3,5-Trimethylbenzene	**7.6**	**J D**	15	3.6	ug/m3			04/06/23 16:05	15.5
1,3-Butadiene	6.9	U	6.9	1.3	ug/m3			04/06/23 16:05	15.5
1,3-Dichlorobenzene	19	U	19	6.9	ug/m3			04/06/23 16:05	15.5
1,4-Dichlorobenzene	19	U	19	8.3	ug/m3			04/06/23 16:05	15.5
1,4-Dioxane	280	U	280	73	ug/m3			04/06/23 16:05	15.5
2,2,4-Trimethylpentane	14	U	14	2.8	ug/m3			04/06/23 16:05	15.5
2-Chlorotoluene	16	U	16	3.7	ug/m3			04/06/23 16:05	15.5
3-Chloropropene	24	U	24	5.8	ug/m3			04/06/23 16:05	15.5
4-Ethyltoluene	15	U	15	3.7	ug/m3			04/06/23 16:05	15.5
4-Isopropyltoluene	17	U	17	5.2	ug/m3			04/06/23 16:05	15.5
4-Methyl-2-pentanone (Methyl isobutyl ketone)	32	U	32	8.3	ug/m3			04/06/23 16:05	15.5
Acetone	**710**	**D**	180	59	ug/m3			04/06/23 16:05	15.5
Benzene	9.9	U	9.9	2.2	ug/m3			04/06/23 16:05	15.5
Benzyl chloride	16	U	16	7.1	ug/m3			04/06/23 16:05	15.5
Bromodichloromethane	21	U	21	5.2	ug/m3			04/06/23 16:05	15.5
Bromoethene(Vinyl Bromide)	14	U	14	3.4	ug/m3			04/06/23 16:05	15.5
Bromoform	32	U	32	19	ug/m3			04/06/23 16:05	15.5
Bromomethane	12	U	12	4.3	ug/m3			04/06/23 16:05	15.5
Carbon disulfide	24	U	24	6.3	ug/m3			04/06/23 16:05	15.5
Carbon tetrachloride	3.4	U	3.4	2.1	ug/m3			04/06/23 16:05	15.5
Chlorobenzene	14	U	14	3.1	ug/m3			04/06/23 16:05	15.5
Chlorodifluoromethane	27	U	27	6.6	ug/m3			04/06/23 16:05	15.5
Chloroethane	20	U	20	7.4	ug/m3			04/06/23 16:05	15.5
Chloroform	**11**	**J D**	15	3.1	ug/m3			04/06/23 16:05	15.5
Chloromethane	16	U	16	4.8	ug/m3			04/06/23 16:05	15.5
cis-1,2-Dichloroethene	3.1	U	3.1	1.3	ug/m3			04/06/23 16:05	15.5
cis-1,3-Dichloropropene	14	U	14	3.2	ug/m3			04/06/23 16:05	15.5
Cumene	15	U	15	3.1	ug/m3			04/06/23 16:05	15.5
Cyclohexane	**6.9**	**J D**	11	3.1	ug/m3			04/06/23 16:05	15.5
Dibromochloromethane	26	U	26	8.3	ug/m3			04/06/23 16:05	15.5
Dichlorodifluoromethane	38	U	38	8.4	ug/m3			04/06/23 16:05	15.5

Client Sample ID: SS-2

Lab Sample ID: 200-67423-1

Date Collected: 03/21/23 16:12
Matrix: Air
Date Received: 03/24/23 10:40
Sample Container: Summa Canister 6L

Method: EPA TO-15 - Volatile Organic Compounds in Ambient Air - DL (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	**4.5**	**J D**	13	3.5	ug/m3			04/06/23 16:05	15.5
Hexachlorobutadiene	33	U	33	18	ug/m3			04/06/23 16:05	15.5
Isopropyl alcohol	190	U	190	61	ug/m3			04/06/23 16:05	15.5
m,p-Xylene	**58**	**D**	34	6.4	ug/m3			04/06/23 16:05	15.5
Methyl Butyl Ketone (2-Hexanone)	32	U	32	9.5	ug/m3			04/06/23 16:05	15.5
Methyl Ethyl Ketone (2-Butanone)	23	U	23	22	ug/m3			04/06/23 16:05	15.5
Methyl methacrylate	32	U	32	8.9	ug/m3			04/06/23 16:05	15.5
Methyl tert-butyl ether	11	U	11	2.0	ug/m3			04/06/23 16:05	15.5
Methylene Chloride	27	U	27	9.7	ug/m3			04/06/23 16:05	15.5
Naphthalene	41	U	41	24	ug/m3			04/06/23 16:05	15.5
n-Butane	18	U	18	7.4	ug/m3			04/06/23 16:05	15.5
n-Butylbenzene	17	U	17	9.4	ug/m3			04/06/23 16:05	15.5
n-Heptane	13	U	13	3.5	ug/m3			04/06/23 16:05	15.5
n-Hexane	27	U	27	6.0	ug/m3			04/06/23 16:05	15.5
n-Propylbenzene	15	U	15	3.6	ug/m3			04/06/23 16:05	15.5
o-Xylene	13	U	13	3.5	ug/m3			04/06/23 16:05	15.5
sec-Butylbenzene	17	U	17	3.8	ug/m3			04/06/23 16:05	15.5
Styrene	13	U	13	3.9	ug/m3			04/06/23 16:05	15.5
tert-Butyl alcohol	230	U	230	56	ug/m3			04/06/23 16:05	15.5
tert-Butylbenzene	17	U	17	4.0	ug/m3			04/06/23 16:05	15.5
Tetrachloroethene	**210**	**D**	21	2.2	ug/m3			04/06/23 16:05	15.5
Tetrahydrofuran	230	U	230	59	ug/m3			04/06/23 16:05	15.5
Toluene	**4.0**	**J D**	12	2.5	ug/m3			04/06/23 16:05	15.5
trans-1,2-Dichloroethene	12	U	12	1.4	ug/m3			04/06/23 16:05	15.5
trans-1,3-Dichloropropene	14	U	14	3.8	ug/m3			04/06/23 16:05	15.5
Trichloroethene	3.1	U	3.1	2.1	ug/m3			04/06/23 16:05	15.5
Trichlorofluoromethane	17	U	17	4.4	ug/m3			04/06/23 16:05	15.5
Vinyl chloride	3.1	U	3.1	0.83	ug/m3			04/06/23 16:05	15.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	**12**	**D**	3.1	0.68	ppb v/v			04/06/23 16:05	15.5
1,1,2,2-Tetrachloroethane	3.1	U	3.1	0.67	ppb v/v			04/06/23 16:05	15.5
1,1,2-Trichloroethane	3.1	U	3.1	1.1	ppb v/v			04/06/23 16:05	15.5
1,1,2-Trichlorotrifluoroethane	3.1	U	3.1	0.82	ppb v/v			04/06/23 16:05	15.5
1,1-Dichloroethane	3.1	U	3.1	0.39	ppb v/v			04/06/23 16:05	15.5
1,1-Dichloroethene	0.78	U	0.78	0.40	ppb v/v			04/06/23 16:05	15.5
1,2,4-Trichlorobenzene	7.8	U	7.8	5.1	ppb v/v			04/06/23 16:05	15.5
1,2,4-Trimethylbenzene	**2.9**	**J D**	3.1	1.2	ppb v/v			04/06/23 16:05	15.5
1,2-Dibromoethane	3.1	U	3.1	0.65	ppb v/v			04/06/23 16:05	15.5
1,2-Dichlorobenzene	3.1	U	3.1	1.0	ppb v/v			04/06/23 16:05	15.5
1,2-Dichloroethane	3.1	U	3.1	1.4	ppb v/v			04/06/23 16:05	15.5
1,2-Dichloropropane	3.1	U	3.1	1.5	ppb v/v			04/06/23 16:05	15.5
1,2-Dichlorotetrafluoroethane	3.1	U	3.1	0.74	ppb v/v			04/06/23 16:05	15.5
1,3,5-Trimethylbenzene	**1.6**	**J D**	3.1	0.73	ppb v/v			04/06/23 16:05	15.5
1,3-Butadiene	3.1	U	3.1	0.60	ppb v/v			04/06/23 16:05	15.5
1,3-Dichlorobenzene	3.1	U	3.1	1.1	ppb v/v			04/06/23 16:05	15.5
1,4-Dichlorobenzene	3.1	U	3.1	1.4	ppb v/v			04/06/23 16:05	15.5
1,4-Dioxane	78	U	78	20	ppb v/v			04/06/23 16:05	15.5
2,2,4-Trimethylpentane	3.1	U	3.1	0.59	ppb v/v			04/06/23 16:05	15.5

Client Sample ID: SS-2

Lab Sample ID: 200-67423-1

Date Collected: 03/21/23 16:12
Matrix: Air
Date Received: 03/24/23 10:40
Sample Container: Summa Canister 6L

Method: EPA TO-15 - Volatile Organic Compounds in Ambient Air - DL (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Chlorotoluene	3.1	U	3.1	0.71	ppb v/v			04/06/23 16:05	15.5
3-Chloropropene	7.8	U	7.8	1.9	ppb v/v			04/06/23 16:05	15.5
4-Ethyltoluene	3.1	U	3.1	0.76	ppb v/v			04/06/23 16:05	15.5
4-Isopropyltoluene	3.1	U	3.1	0.95	ppb v/v			04/06/23 16:05	15.5
4-Methyl-2-pentanone (Methyl isobutyl ketone)	7.8	U	7.8	2.0	ppb v/v			04/06/23 16:05	15.5
Acetone	**300**	**D**	78	25	ppb v/v			04/06/23 16:05	15.5
Benzene	3.1	U	3.1	0.68	ppb v/v			04/06/23 16:05	15.5
Benzyl chloride	3.1	U	3.1	1.4	ppb v/v			04/06/23 16:05	15.5
Bromodichloromethane	3.1	U	3.1	0.78	ppb v/v			04/06/23 16:05	15.5
Bromoethene(Vinyl Bromide)	3.1	U	3.1	0.78	ppb v/v			04/06/23 16:05	15.5
Bromoform	3.1	U	3.1	1.9	ppb v/v			04/06/23 16:05	15.5
Bromomethane	3.1	U	3.1	1.1	ppb v/v			04/06/23 16:05	15.5
Carbon disulfide	7.8	U	7.8	2.0	ppb v/v			04/06/23 16:05	15.5
Carbon tetrachloride	0.54	U	0.54	0.34	ppb v/v			04/06/23 16:05	15.5
Chlorobenzene	3.1	U	3.1	0.68	ppb v/v			04/06/23 16:05	15.5
Chlorodifluoromethane	7.8	U	7.8	1.9	ppb v/v			04/06/23 16:05	15.5
Chloroethane	7.8	U	7.8	2.8	ppb v/v			04/06/23 16:05	15.5
Chloroform	**2.3**	**J D**	3.1	0.64	ppb v/v			04/06/23 16:05	15.5
Chloromethane	7.8	U	7.8	2.3	ppb v/v			04/06/23 16:05	15.5
cis-1,2-Dichloroethene	0.78	U	0.78	0.33	ppb v/v			04/06/23 16:05	15.5
cis-1,3-Dichloropropene	3.1	U	3.1	0.70	ppb v/v			04/06/23 16:05	15.5
Cumene	3.1	U	3.1	0.64	ppb v/v			04/06/23 16:05	15.5
Cyclohexane	**2.0**	**J D**	3.1	0.90	ppb v/v			04/06/23 16:05	15.5
Dibromochloromethane	3.1	U	3.1	0.98	ppb v/v			04/06/23 16:05	15.5
Dichlorodifluoromethane	7.8	U	7.8	1.7	ppb v/v			04/06/23 16:05	15.5
Ethylbenzene	**1.0**	**J D**	3.1	0.81	ppb v/v			04/06/23 16:05	15.5
Hexachlorobutadiene	3.1	U	3.1	1.7	ppb v/v			04/06/23 16:05	15.5
Isopropyl alcohol	78	U	78	25	ppb v/v			04/06/23 16:05	15.5
m,p-Xylene	**13**	**D**	7.8	1.5	ppb v/v			04/06/23 16:05	15.5
Methyl Butyl Ketone (2-Hexanone)	7.8	U	7.8	2.3	ppb v/v			04/06/23 16:05	15.5
Methyl Ethyl Ketone (2-Butanone)	7.8	U	7.8	7.6	ppb v/v			04/06/23 16:05	15.5
Methyl methacrylate	7.8	U	7.8	2.2	ppb v/v			04/06/23 16:05	15.5
Methyl tert-butyl ether	3.1	U	3.1	0.56	ppb v/v			04/06/23 16:05	15.5
Methylene Chloride	7.8	U	7.8	2.8	ppb v/v			04/06/23 16:05	15.5
Naphthalene	7.8	U	7.8	4.7	ppb v/v			04/06/23 16:05	15.5
n-Butane	7.8	U	7.8	3.1	ppb v/v			04/06/23 16:05	15.5
n-Butylbenzene	3.1	U	3.1	1.7	ppb v/v			04/06/23 16:05	15.5
n-Heptane	3.1	U	3.1	0.85	ppb v/v			04/06/23 16:05	15.5
n-Hexane	7.8	U	7.8	1.7	ppb v/v			04/06/23 16:05	15.5
n-Propylbenzene	3.1	U	3.1	0.73	ppb v/v			04/06/23 16:05	15.5
o-Xylene	3.1	U	3.1	0.81	ppb v/v			04/06/23 16:05	15.5
sec-Butylbenzene	3.1	U	3.1	0.70	ppb v/v			04/06/23 16:05	15.5
Styrene	3.1	U	3.1	0.91	ppb v/v			04/06/23 16:05	15.5
tert-Butyl alcohol	78	U	78	19	ppb v/v			04/06/23 16:05	15.5
tert-Butylbenzene	3.1	U	3.1	0.73	ppb v/v			04/06/23 16:05	15.5
Tetrachloroethene	**31**	**D**	3.1	0.33	ppb v/v			04/06/23 16:05	15.5
Tetrahydrofuran	78	U	78	20	ppb v/v			04/06/23 16:05	15.5
Toluene	**1.1**	**J D**	3.1	0.65	ppb v/v			04/06/23 16:05	15.5

Client Sample ID: SS-2

Lab Sample ID: 200-67423-1

Date Collected: 03/21/23 16:12
Matrix: Air
Date Received: 03/24/23 10:40
Sample Container: Summa Canister 6L

Method: EPA TO-15 - Volatile Organic Compounds in Ambient Air - DL (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	3.1	U	3.1	0.36	ppb v/v			04/06/23 16:05	15.5
trans-1,3-Dichloropropene	3.1	U	3.1	0.84	ppb v/v			04/06/23 16:05	15.5
Trichloroethene	0.58	U	0.58	0.39	ppb v/v			04/06/23 16:05	15.5
Trichlorofluoromethane	3.1	U	3.1	0.78	ppb v/v			04/06/23 16:05	15.5
Vinyl chloride	1.2	U	1.2	0.33	ppb v/v			04/06/23 16:05	15.5

Client Sample ID: IA-2

Lab Sample ID: 200-67423-2

Date Collected: 03/21/23 16:13
Matrix: Air
Date Received: 03/24/23 10:40
Sample Container: Summa Canister 6L

Method: EPA TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	**0.29**	**J**	1.2	0.27	ug/m3			04/06/23 17:02	1.14
1,1,2,2-Tetrachloroethane	1.6	U	1.6	0.34	ug/m3			04/06/23 17:02	1.14
1,1,2-Trichloroethane	1.2	U	1.2	0.46	ug/m3			04/06/23 17:02	1.14
1,1,2-Trichlorotrifluoroethane	1.7	U	1.7	0.46	ug/m3			04/06/23 17:02	1.14
1,1-Dichloroethane	0.92	U	0.92	0.12	ug/m3			04/06/23 17:02	1.14
1,1-Dichloroethene	0.23	U	0.23	0.12	ug/m3			04/06/23 17:02	1.14
1,2,4-Trichlorobenzene	4.2	U	4.2	2.8	ug/m3			04/06/23 17:02	1.14
1,2,4-Trimethylbenzene	1.1	U	1.1	0.45	ug/m3			04/06/23 17:02	1.14
1,2-Dibromoethane	1.8	U	1.8	0.37	ug/m3			04/06/23 17:02	1.14
1,2-Dichlorobenzene	1.4	U	1.4	0.45	ug/m3			04/06/23 17:02	1.14
1,2-Dichloroethane	0.92	U	0.92	0.43	ug/m3			04/06/23 17:02	1.14
1,2-Dichloropropane	1.1	U	1.1	0.50	ug/m3			04/06/23 17:02	1.14
1,2-Dichlorotetrafluoroethane	1.6	U	1.6	0.38	ug/m3			04/06/23 17:02	1.14
1,3,5-Trimethylbenzene	1.1	U	1.1	0.26	ug/m3			04/06/23 17:02	1.14
1,3-Butadiene	0.50	U	0.50	0.098	ug/m3			04/06/23 17:02	1.14
1,3-Dichlorobenzene	1.4	U	1.4	0.51	ug/m3			04/06/23 17:02	1.14
1,4-Dichlorobenzene	1.4	U	1.4	0.61	ug/m3			04/06/23 17:02	1.14
1,4-Dioxane	21	U	21	5.3	ug/m3			04/06/23 17:02	1.14
2,2,4-Trimethylpentane	1.1	U	1.1	0.20	ug/m3			04/06/23 17:02	1.14
2-Chlorotoluene	1.2	U	1.2	0.27	ug/m3			04/06/23 17:02	1.14
3-Chloropropene	1.8	U	1.8	0.43	ug/m3			04/06/23 17:02	1.14
4-Ethyltoluene	1.1	U	1.1	0.27	ug/m3			04/06/23 17:02	1.14
4-Isopropyltoluene	1.3	U	1.3	0.38	ug/m3			04/06/23 17:02	1.14
4-Methyl-2-pentanone (Methyl isobutyl ketone)	2.3	U	2.3	0.61	ug/m3			04/06/23 17:02	1.14
Acetone	**10**	**J**	14	4.3	ug/m3			04/06/23 17:02	1.14
Benzene	**0.42**	**J**	0.73	0.16	ug/m3			04/06/23 17:02	1.14
Benzyl chloride	1.2	U	1.2	0.52	ug/m3			04/06/23 17:02	1.14
Bromodichloromethane	**0.95**	**J**	1.5	0.38	ug/m3			04/06/23 17:02	1.14
Bromoethene(Vinyl Bromide)	1.0	U	1.0	0.25	ug/m3			04/06/23 17:02	1.14
Bromoform	2.4	U	2.4	1.4	ug/m3			04/06/23 17:02	1.14
Bromomethane	0.89	U	0.89	0.31	ug/m3			04/06/23 17:02	1.14
Carbon disulfide	1.8	U	1.8	0.46	ug/m3			04/06/23 17:02	1.14
Carbon tetrachloride	**1.1**		0.25	0.16	ug/m3			04/06/23 17:02	1.14
Chlorobenzene	1.0	U	1.0	0.23	ug/m3			04/06/23 17:02	1.14
Chlorodifluoromethane	**1.2**	**J**	2.0	0.48	ug/m3			04/06/23 17:02	1.14

Client Sample ID: IA-2

Lab Sample ID: 200-67423-2

Date Collected: 03/21/23 16:13
Matrix: Air
Date Received: 03/24/23 10:40
Sample Container: Summa Canister 6L

Method: EPA TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroethane	1.5	U	1.5	0.54	ug/m3			04/06/23 17:02	1.14
Chloroform	**3.1**		1.1	0.23	ug/m3			04/06/23 17:02	1.14
Chloromethane	**1.2**		1.2	0.35	ug/m3			04/06/23 17:02	1.14
cis-1,2-Dichloroethene	0.23	U	0.23	0.095	ug/m3			04/06/23 17:02	1.14
cis-1,3-Dichloropropene	1.0	U	1.0	0.23	ug/m3			04/06/23 17:02	1.14
Cumene	1.1	U	1.1	0.23	ug/m3			04/06/23 17:02	1.14
Cyclohexane	**0.23**	**J**	0.78	0.23	ug/m3			04/06/23 17:02	1.14
Dibromochloromethane	**0.86**	**J**	1.9	0.61	ug/m3			04/06/23 17:02	1.14
Dichlorodifluoromethane	**1.4**	**J**	2.8	0.62	ug/m3			04/06/23 17:02	1.14
Ethylbenzene	**0.32**	**J**	0.99	0.26	ug/m3			04/06/23 17:02	1.14
Hexachlorobutadiene	2.4	U	2.4	1.3	ug/m3			04/06/23 17:02	1.14
Isopropyl alcohol	**6.0**	**J**	14	4.5	ug/m3			04/06/23 17:02	1.14
m,p-Xylene	**1.6**	**J**	2.5	0.47	ug/m3			04/06/23 17:02	1.14
Methyl Butyl Ketone (2-Hexanone)	2.3	U	2.3	0.70	ug/m3			04/06/23 17:02	1.14
Methyl Ethyl Ketone (2-Butanone)	1.7	U	1.7	1.6	ug/m3			04/06/23 17:02	1.14
Methyl methacrylate	2.3	U	2.3	0.65	ug/m3			04/06/23 17:02	1.14
Methyl tert-butyl ether	0.82	U	0.82	0.15	ug/m3			04/06/23 17:02	1.14
Methylene Chloride	**5.5**		2.0	0.71	ug/m3			04/06/23 17:02	1.14
Naphthalene	3.0	U	3.0	1.8	ug/m3			04/06/23 17:02	1.14
n-Butane	**5.1**		1.4	0.54	ug/m3			04/06/23 17:02	1.14
n-Butylbenzene	1.3	U	1.3	0.69	ug/m3			04/06/23 17:02	1.14
n-Heptane	**0.48**	**J**	0.93	0.26	ug/m3			04/06/23 17:02	1.14
n-Hexane	**3.8**		2.0	0.44	ug/m3			04/06/23 17:02	1.14
n-Propylbenzene	1.1	U	1.1	0.26	ug/m3			04/06/23 17:02	1.14
o-Xylene	**0.34**	**J**	0.99	0.26	ug/m3			04/06/23 17:02	1.14
sec-Butylbenzene	1.3	U	1.3	0.28	ug/m3			04/06/23 17:02	1.14
Styrene	**0.35**	**J**	0.97	0.29	ug/m3			04/06/23 17:02	1.14
tert-Butyl alcohol	17	U	17	4.1	ug/m3			04/06/23 17:02	1.14
tert-Butylbenzene	1.3	U	1.3	0.29	ug/m3			04/06/23 17:02	1.14
Tetrachloroethene	**1.9**		1.5	0.16	ug/m3			04/06/23 17:02	1.14
Tetrahydrofuran	17	U	17	4.4	ug/m3			04/06/23 17:02	1.14
Toluene	**1.3**		0.86	0.18	ug/m3			04/06/23 17:02	1.14
trans-1,2-Dichloroethene	0.90	U	0.90	0.10	ug/m3			04/06/23 17:02	1.14
trans-1,3-Dichloropropene	1.0	U	1.0	0.28	ug/m3			04/06/23 17:02	1.14
Trichloroethene	0.23	U	0.23	0.15	ug/m3			04/06/23 17:02	1.14
Trichlorofluoromethane	**1.6**		1.3	0.32	ug/m3			04/06/23 17:02	1.14
Vinyl chloride	0.23	U	0.23	0.061	ug/m3			04/06/23 17:02	1.14

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	**0.053**	**J**	0.23	0.050	ppb v/v			04/06/23 17:02	1.14
1,1,2,2-Tetrachloroethane	0.23	U	0.23	0.049	ppb v/v			04/06/23 17:02	1.14
1,1,2-Trichloroethane	0.23	U	0.23	0.084	ppb v/v			04/06/23 17:02	1.14
1,1,2-Trichlorotrifluoroethane	0.23	U	0.23	0.060	ppb v/v			04/06/23 17:02	1.14
1,1-Dichloroethane	0.23	U	0.23	0.029	ppb v/v			04/06/23 17:02	1.14
1,1-Dichloroethene	0.057	U	0.057	0.030	ppb v/v			04/06/23 17:02	1.14
1,2,4-Trichlorobenzene	0.57	U	0.57	0.38	ppb v/v			04/06/23 17:02	1.14
1,2,4-Trimethylbenzene	0.23	U	0.23	0.091	ppb v/v			04/06/23 17:02	1.14
1,2-Dibromoethane	0.23	U	0.23	0.048	ppb v/v			04/06/23 17:02	1.14
1,2-Dichlorobenzene	0.23	U	0.23	0.075	ppb v/v			04/06/23 17:02	1.14

Client Sample ID: IA-2

Lab Sample ID: 200-67423-2

Date Collected: 03/21/23 16:13
Matrix: Air
Date Received: 03/24/23 10:40
Sample Container: Summa Canister 6L

Method: EPA TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	0.23	U	0.23	0.11	ppb v/v			04/06/23 17:02	1.14
1,2-Dichloropropane	0.23	U	0.23	0.11	ppb v/v			04/06/23 17:02	1.14
1,2-Dichlorotetrafluoroethane	0.23	U	0.23	0.055	ppb v/v			04/06/23 17:02	1.14
1,3,5-Trimethylbenzene	0.23	U	0.23	0.054	ppb v/v			04/06/23 17:02	1.14
1,3-Butadiene	0.23	U	0.23	0.044	ppb v/v			04/06/23 17:02	1.14
1,3-Dichlorobenzene	0.23	U	0.23	0.084	ppb v/v			04/06/23 17:02	1.14
1,4-Dichlorobenzene	0.23	U	0.23	0.10	ppb v/v			04/06/23 17:02	1.14
1,4-Dioxane	5.7	U	5.7	1.5	ppb v/v			04/06/23 17:02	1.14
2,2,4-Trimethylpentane	0.23	U	0.23	0.043	ppb v/v			04/06/23 17:02	1.14
2-Chlorotoluene	0.23	U	0.23	0.052	ppb v/v			04/06/23 17:02	1.14
3-Chloropropene	0.57	U	0.57	0.14	ppb v/v			04/06/23 17:02	1.14
4-Ethyltoluene	0.23	U	0.23	0.056	ppb v/v			04/06/23 17:02	1.14
4-Isopropyltoluene	0.23	U	0.23	0.070	ppb v/v			04/06/23 17:02	1.14
4-Methyl-2-pentanone (Methyl isobutyl ketone)	0.57	U	0.57	0.15	ppb v/v			04/06/23 17:02	1.14
Acetone	**4.2**	**J**	5.7	1.8	ppb v/v			04/06/23 17:02	1.14
Benzene	**0.13**	**J**	0.23	0.050	ppb v/v			04/06/23 17:02	1.14
Benzyl chloride	0.23	U	0.23	0.10	ppb v/v			04/06/23 17:02	1.14
Bromodichloromethane	**0.14**	**J**	0.23	0.057	ppb v/v			04/06/23 17:02	1.14
Bromoethene(Vinyl Bromide)	0.23	U	0.23	0.057	ppb v/v			04/06/23 17:02	1.14
Bromoform	0.23	U	0.23	0.14	ppb v/v			04/06/23 17:02	1.14
Bromomethane	0.23	U	0.23	0.081	ppb v/v			04/06/23 17:02	1.14
Carbon disulfide	0.57	U	0.57	0.15	ppb v/v			04/06/23 17:02	1.14
Carbon tetrachloride	**0.17**		0.040	0.025	ppb v/v			04/06/23 17:02	1.14
Chlorobenzene	0.23	U	0.23	0.050	ppb v/v			04/06/23 17:02	1.14
Chlorodifluoromethane	**0.34**	**J**	0.57	0.14	ppb v/v			04/06/23 17:02	1.14
Chloroethane	0.57	U	0.57	0.21	ppb v/v			04/06/23 17:02	1.14
Chloroform	**0.63**		0.23	0.047	ppb v/v			04/06/23 17:02	1.14
Chloromethane	**0.57**		0.57	0.17	ppb v/v			04/06/23 17:02	1.14
cis-1,2-Dichloroethene	0.057	U	0.057	0.024	ppb v/v			04/06/23 17:02	1.14
cis-1,3-Dichloropropene	0.23	U	0.23	0.051	ppb v/v			04/06/23 17:02	1.14
Cumene	0.23	U	0.23	0.047	ppb v/v			04/06/23 17:02	1.14
Cyclohexane	**0.067**	**J**	0.23	0.066	ppb v/v			04/06/23 17:02	1.14
Dibromochloromethane	**0.10**	**J**	0.23	0.072	ppb v/v			04/06/23 17:02	1.14
Dichlorodifluoromethane	**0.29**	**J**	0.57	0.13	ppb v/v			04/06/23 17:02	1.14
Ethylbenzene	**0.073**	**J**	0.23	0.059	ppb v/v			04/06/23 17:02	1.14
Hexachlorobutadiene	0.23	U	0.23	0.13	ppb v/v			04/06/23 17:02	1.14
Isopropyl alcohol	**2.4**	**J**	5.7	1.8	ppb v/v			04/06/23 17:02	1.14
m,p-Xylene	**0.36**	**J**	0.57	0.11	ppb v/v			04/06/23 17:02	1.14
Methyl Butyl Ketone (2-Hexanone)	0.57	U	0.57	0.17	ppb v/v			04/06/23 17:02	1.14
Methyl Ethyl Ketone (2-Butanone)	0.57	U	0.57	0.56	ppb v/v			04/06/23 17:02	1.14
Methyl methacrylate	0.57	U	0.57	0.16	ppb v/v			04/06/23 17:02	1.14
Methyl tert-butyl ether	0.23	U	0.23	0.041	ppb v/v			04/06/23 17:02	1.14
Methylene Chloride	**1.6**		0.57	0.21	ppb v/v			04/06/23 17:02	1.14
Naphthalene	0.57	U	0.57	0.34	ppb v/v			04/06/23 17:02	1.14
n-Butane	**2.2**		0.57	0.23	ppb v/v			04/06/23 17:02	1.14
n-Butylbenzene	0.23	U	0.23	0.13	ppb v/v			04/06/23 17:02	1.14
n-Heptane	**0.12**	**J**	0.23	0.063	ppb v/v			04/06/23 17:02	1.14
n-Hexane	**1.1**		0.57	0.13	ppb v/v			04/06/23 17:02	1.14

Client Sample ID: IA-2

Lab Sample ID: 200-67423-2

Date Collected: 03/21/23 16:13
Matrix: Air
Date Received: 03/24/23 10:40
Sample Container: Summa Canister 6L

Method: EPA TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
n-Propylbenzene	0.23	U	0.23	0.054	ppb v/v			04/06/23 17:02	1.14
o-Xylene	**0.079**	**J**	0.23	0.059	ppb v/v			04/06/23 17:02	1.14
sec-Butylbenzene	0.23	U	0.23	0.051	ppb v/v			04/06/23 17:02	1.14
Styrene	**0.082**	**J**	0.23	0.067	ppb v/v			04/06/23 17:02	1.14
tert-Butyl alcohol	5.7	U	5.7	1.4	ppb v/v			04/06/23 17:02	1.14
tert-Butylbenzene	0.23	U	0.23	0.054	ppb v/v			04/06/23 17:02	1.14
Tetrachloroethene	**0.29**		0.23	0.024	ppb v/v			04/06/23 17:02	1.14
Tetrahydrofuran	5.7	U	5.7	1.5	ppb v/v			04/06/23 17:02	1.14
Toluene	**0.34**		0.23	0.048	ppb v/v			04/06/23 17:02	1.14
trans-1,2-Dichloroethene	0.23	U	0.23	0.026	ppb v/v			04/06/23 17:02	1.14
trans-1,3-Dichloropropene	0.23	U	0.23	0.062	ppb v/v			04/06/23 17:02	1.14
Trichloroethene	0.042	U	0.042	0.029	ppb v/v			04/06/23 17:02	1.14
Trichlorofluoromethane	**0.28**		0.23	0.057	ppb v/v			04/06/23 17:02	1.14
Vinyl chloride	0.089	U	0.089	0.024	ppb v/v			04/06/23 17:02	1.14

Client Sample ID: SS-4

Lab Sample ID: 200-67423-3

Date Collected: 03/21/23 16:17
Matrix: Air
Date Received: 03/24/23 10:40
Sample Container: Summa Canister 6L

Method: EPA TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	**6.1**		3.3	0.72	ug/m3			04/06/23 17:54	3
1,1,2,2-Tetrachloroethane	4.1	U	4.1	0.89	ug/m3			04/06/23 17:54	3
1,1,2-Trichloroethane	3.3	U	3.3	1.2	ug/m3			04/06/23 17:54	3
1,1,2-Trichlorotrifluoroethane	4.6	U	4.6	1.2	ug/m3			04/06/23 17:54	3
1,1-Dichloroethane	**2.3**	**J**	2.4	0.30	ug/m3			04/06/23 17:54	3
1,1-Dichloroethene	0.60	U	0.60	0.31	ug/m3			04/06/23 17:54	3
1,2,4-Trichlorobenzene	11	U	11	7.3	ug/m3			04/06/23 17:54	3
1,2,4-Trimethylbenzene	2.9	U	2.9	1.2	ug/m3			04/06/23 17:54	3
1,2-Dibromoethane	4.6	U	4.6	0.97	ug/m3			04/06/23 17:54	3
1,2-Dichlorobenzene	3.6	U	3.6	1.2	ug/m3			04/06/23 17:54	3
1,2-Dichloroethane	2.4	U	2.4	1.1	ug/m3			04/06/23 17:54	3
1,2-Dichloropropane	2.8	U	2.8	1.3	ug/m3			04/06/23 17:54	3
1,2-Dichlorotetrafluoroethane	4.2	U	4.2	1.0	ug/m3			04/06/23 17:54	3
1,3,5-Trimethylbenzene	2.9	U	2.9	0.69	ug/m3			04/06/23 17:54	3
1,3-Butadiene	1.3	U	1.3	0.26	ug/m3			04/06/23 17:54	3
1,3-Dichlorobenzene	3.6	U	3.6	1.3	ug/m3			04/06/23 17:54	3
1,4-Dichlorobenzene	3.6	U	3.6	1.6	ug/m3			04/06/23 17:54	3
1,4-Dioxane	54	U	54	14	ug/m3			04/06/23 17:54	3
2,2,4-Trimethylpentane	2.8	U	2.8	0.53	ug/m3			04/06/23 17:54	3
2-Chlorotoluene	3.1	U	3.1	0.71	ug/m3			04/06/23 17:54	3
3-Chloropropene	4.7	U	4.7	1.1	ug/m3			04/06/23 17:54	3
4-Ethyltoluene	2.9	U	2.9	0.72	ug/m3			04/06/23 17:54	3
4-Isopropyltoluene	3.3	U	3.3	1.0	ug/m3			04/06/23 17:54	3
4-Methyl-2-pentanone (Methyl isobutyl ketone)	6.1	U	6.1	1.6	ug/m3			04/06/23 17:54	3
Acetone	**650**	**E**	36	11	ug/m3			04/06/23 17:54	3
Benzene	1.9	U	1.9	0.42	ug/m3			04/06/23 17:54	3

Client Sample Results

Client: Pinnacle Engineering, Inc
Project/Site: Monarch Chemical

Job ID: 200-67423-1
SDG: 200-67423

Client Sample ID: SS-4

Date Collected: 03/21/23 16:17
Date Received: 03/24/23 10:40
Sample Container: Summa Canister 6L

Lab Sample ID: 200-67423-3

Matrix: Air

Method: EPA TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzyl chloride	3.1	U	3.1	1.4	ug/m3			04/06/23 17:54	3
Bromodichloromethane	4.0	U	4.0	1.0	ug/m3			04/06/23 17:54	3
Bromoethene(Vinyl Bromide)	2.6	U	2.6	0.66	ug/m3			04/06/23 17:54	3
Bromoform	6.2	U	6.2	3.7	ug/m3			04/06/23 17:54	3
Bromomethane	2.3	U	2.3	0.83	ug/m3			04/06/23 17:54	3
Carbon disulfide	4.7	U	4.7	1.2	ug/m3			04/06/23 17:54	3
Carbon tetrachloride	**0.44**	**J**	0.66	0.42	ug/m3			04/06/23 17:54	3
Chlorobenzene	2.8	U	2.8	0.61	ug/m3			04/06/23 17:54	3
Chlorodifluoromethane	5.3	U	5.3	1.3	ug/m3			04/06/23 17:54	3
Chloroethane	4.0	U	4.0	1.4	ug/m3			04/06/23 17:54	3
Chloroform	**46**		2.9	0.60	ug/m3			04/06/23 17:54	3
Chloromethane	3.1	U	3.1	0.93	ug/m3			04/06/23 17:54	3
cis-1,2-Dichloroethene	0.60	U	0.60	0.25	ug/m3			04/06/23 17:54	3
cis-1,3-Dichloropropene	2.7	U	2.7	0.61	ug/m3			04/06/23 17:54	3
Cumene	2.9	U	2.9	0.60	ug/m3			04/06/23 17:54	3
Cyclohexane	2.1	U	2.1	0.60	ug/m3			04/06/23 17:54	3
Dibromochloromethane	5.1	U	5.1	1.6	ug/m3			04/06/23 17:54	3
Dichlorodifluoromethane	**2.1**	**J**	7.4	1.6	ug/m3			04/06/23 17:54	3
Ethylbenzene	**0.72**	**J**	2.6	0.68	ug/m3			04/06/23 17:54	3
Hexachlorobutadiene	6.4	U	6.4	3.5	ug/m3			04/06/23 17:54	3
Isopropyl alcohol	37	U	37	12	ug/m3			04/06/23 17:54	3
m,p-Xylene	**3.2**	**J**	6.5	1.2	ug/m3			04/06/23 17:54	3
Methyl Butyl Ketone (2-Hexanone)	**3.5**	**J**	6.1	1.8	ug/m3			04/06/23 17:54	3
Methyl Ethyl Ketone (2-Butanone)	**18**		4.4	4.3	ug/m3			04/06/23 17:54	3
Methyl methacrylate	6.1	U	6.1	1.7	ug/m3			04/06/23 17:54	3
Methyl tert-butyl ether	2.2	U	2.2	0.39	ug/m3			04/06/23 17:54	3
Methylene Chloride	**2.1**	**J**	5.2	1.9	ug/m3			04/06/23 17:54	3
Naphthalene	7.9	U	7.9	4.7	ug/m3			04/06/23 17:54	3
n-Butane	**3.8**		3.6	1.4	ug/m3			04/06/23 17:54	3
n-Butylbenzene	3.3	U	3.3	1.8	ug/m3			04/06/23 17:54	3
n-Heptane	**1.4**	**J**	2.5	0.68	ug/m3			04/06/23 17:54	3
n-Hexane	**1.4**	**J**	5.3	1.2	ug/m3			04/06/23 17:54	3
n-Propylbenzene	2.9	U	2.9	0.69	ug/m3			04/06/23 17:54	3
o-Xylene	**0.95**	**J**	2.6	0.68	ug/m3			04/06/23 17:54	3
sec-Butylbenzene	3.3	U	3.3	0.74	ug/m3			04/06/23 17:54	3
Styrene	2.6	U	2.6	0.75	ug/m3			04/06/23 17:54	3
tert-Butyl alcohol	45	U	45	11	ug/m3			04/06/23 17:54	3
tert-Butylbenzene	3.3	U	3.3	0.77	ug/m3			04/06/23 17:54	3
Tetrachloroethene	**57**		4.1	0.43	ug/m3			04/06/23 17:54	3
Tetrahydrofuran	44	U	44	12	ug/m3			04/06/23 17:54	3
Toluene	**4.1**		2.3	0.47	ug/m3			04/06/23 17:54	3
trans-1,2-Dichloroethene	2.4	U	2.4	0.27	ug/m3			04/06/23 17:54	3
trans-1,3-Dichloropropene	2.7	U	2.7	0.74	ug/m3			04/06/23 17:54	3
Trichloroethene	**20**		0.60	0.40	ug/m3			04/06/23 17:54	3
Trichlorofluoromethane	**1.1**	**J**	3.4	0.84	ug/m3			04/06/23 17:54	3
Vinyl chloride	0.60	U	0.60	0.16	ug/m3			04/06/23 17:54	3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	**1.1**		0.60	0.13	ppb v/v			04/06/23 17:54	3

Client Sample Results

Client: Pinnacle Engineering, Inc
Project/Site: Monarch Chemical

Job ID: 200-67423-1
SDG: 200-67423

Client Sample ID: SS-4

Lab Sample ID: 200-67423-3

Date Collected: 03/21/23 16:17
Matrix: Air
Date Received: 03/24/23 10:40
Sample Container: Summa Canister 6L

Method: EPA TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	0.60	U	0.60	0.13	ppb v/v			04/06/23 17:54	3
1,1,2-Trichloroethane	0.60	U	0.60	0.22	ppb v/v			04/06/23 17:54	3
1,1,2-Trichlorotrifluoroethane	0.60	U	0.60	0.16	ppb v/v			04/06/23 17:54	3
1,1-Dichloroethane	**0.57**	**J**	0.60	0.075	ppb v/v			04/06/23 17:54	3
1,1-Dichloroethene	0.15	U	0.15	0.078	ppb v/v			04/06/23 17:54	3
1,2,4-Trichlorobenzene	1.5	U	1.5	0.99	ppb v/v			04/06/23 17:54	3
1,2,4-Trimethylbenzene	0.60	U	0.60	0.24	ppb v/v			04/06/23 17:54	3
1,2-Dibromoethane	0.60	U	0.60	0.13	ppb v/v			04/06/23 17:54	3
1,2-Dichlorobenzene	0.60	U	0.60	0.20	ppb v/v			04/06/23 17:54	3
1,2-Dichloroethane	0.60	U	0.60	0.28	ppb v/v			04/06/23 17:54	3
1,2-Dichloropropane	0.60	U	0.60	0.28	ppb v/v			04/06/23 17:54	3
1,2-Dichlorotetrafluoroethane	0.60	U	0.60	0.14	ppb v/v			04/06/23 17:54	3
1,3,5-Trimethylbenzene	0.60	U	0.60	0.14	ppb v/v			04/06/23 17:54	3
1,3-Butadiene	0.60	U	0.60	0.12	ppb v/v			04/06/23 17:54	3
1,3-Dichlorobenzene	0.60	U	0.60	0.22	ppb v/v			04/06/23 17:54	3
1,4-Dichlorobenzene	0.60	U	0.60	0.27	ppb v/v			04/06/23 17:54	3
1,4-Dioxane	15	U	15	3.9	ppb v/v			04/06/23 17:54	3
2,2,4-Trimethylpentane	0.60	U	0.60	0.11	ppb v/v			04/06/23 17:54	3
2-Chlorotoluene	0.60	U	0.60	0.14	ppb v/v			04/06/23 17:54	3
3-Chloropropene	1.5	U	1.5	0.36	ppb v/v			04/06/23 17:54	3
4-Ethyltoluene	0.60	U	0.60	0.15	ppb v/v			04/06/23 17:54	3
4-Isopropyltoluene	0.60	U	0.60	0.18	ppb v/v			04/06/23 17:54	3
4-Methyl-2-pentanone (Methyl isobutyl ketone)	1.5	U	1.5	0.39	ppb v/v			04/06/23 17:54	3
Acetone	**270**	**E**	15	4.8	ppb v/v			04/06/23 17:54	3
Benzene	0.60	U	0.60	0.13	ppb v/v			04/06/23 17:54	3
Benzyl chloride	0.60	U	0.60	0.26	ppb v/v			04/06/23 17:54	3
Bromodichloromethane	0.60	U	0.60	0.15	ppb v/v			04/06/23 17:54	3
Bromoethene(Vinyl Bromide)	0.60	U	0.60	0.15	ppb v/v			04/06/23 17:54	3
Bromoform	0.60	U	0.60	0.36	ppb v/v			04/06/23 17:54	3
Bromomethane	0.60	U	0.60	0.21	ppb v/v			04/06/23 17:54	3
Carbon disulfide	1.5	U	1.5	0.39	ppb v/v			04/06/23 17:54	3
Carbon tetrachloride	**0.070**	**J**	0.11	0.066	ppb v/v			04/06/23 17:54	3
Chlorobenzene	0.60	U	0.60	0.13	ppb v/v			04/06/23 17:54	3
Chlorodifluoromethane	1.5	U	1.5	0.36	ppb v/v			04/06/23 17:54	3
Chloroethane	1.5	U	1.5	0.54	ppb v/v			04/06/23 17:54	3
Chloroform	**9.4**		0.60	0.12	ppb v/v			04/06/23 17:54	3
Chloromethane	1.5	U	1.5	0.45	ppb v/v			04/06/23 17:54	3
cis-1,2-Dichloroethene	0.15	U	0.15	0.063	ppb v/v			04/06/23 17:54	3
cis-1,3-Dichloropropene	0.60	U	0.60	0.14	ppb v/v			04/06/23 17:54	3
Cumene	0.60	U	0.60	0.12	ppb v/v			04/06/23 17:54	3
Cyclohexane	0.60	U	0.60	0.17	ppb v/v			04/06/23 17:54	3
Dibromochloromethane	0.60	U	0.60	0.19	ppb v/v			04/06/23 17:54	3
Dichlorodifluoromethane	**0.43**	**J**	1.5	0.33	ppb v/v			04/06/23 17:54	3
Ethylbenzene	**0.17**	**J**	0.60	0.16	ppb v/v			04/06/23 17:54	3
Hexachlorobutadiene	0.60	U	0.60	0.33	ppb v/v			04/06/23 17:54	3
Isopropyl alcohol	15	U	15	4.8	ppb v/v			04/06/23 17:54	3
m,p-Xylene	**0.74**	**J**	1.5	0.29	ppb v/v			04/06/23 17:54	3
Methyl Butyl Ketone (2-Hexanone)	**0.85**	**J**	1.5	0.45	ppb v/v			04/06/23 17:54	3

Client Sample ID: SS-4

Lab Sample ID: 200-67423-3

Date Collected: 03/21/23 16:17
Matrix: Air
Date Received: 03/24/23 10:40
Sample Container: Summa Canister 6L

Method: EPA TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl Ethyl Ketone (2-Butanone)	**6.0**		1.5	1.5	ppb v/v			04/06/23 17:54	3
Methyl methacrylate	1.5	U	1.5	0.42	ppb v/v			04/06/23 17:54	3
Methyl tert-butyl ether	0.60	U	0.60	0.11	ppb v/v			04/06/23 17:54	3
Methylene Chloride	**0.61**	**J**	1.5	0.54	ppb v/v			04/06/23 17:54	3
Naphthalene	1.5	U	1.5	0.90	ppb v/v			04/06/23 17:54	3
n-Butane	**1.6**		1.5	0.60	ppb v/v			04/06/23 17:54	3
n-Butylbenzene	0.60	U	0.60	0.33	ppb v/v			04/06/23 17:54	3
n-Heptane	**0.34**	**J**	0.60	0.17	ppb v/v			04/06/23 17:54	3
n-Hexane	**0.40**	**J**	1.5	0.33	ppb v/v			04/06/23 17:54	3
n-Propylbenzene	0.60	U	0.60	0.14	ppb v/v			04/06/23 17:54	3
o-Xylene	**0.22**	**J**	0.60	0.16	ppb v/v			04/06/23 17:54	3
sec-Butylbenzene	0.60	U	0.60	0.14	ppb v/v			04/06/23 17:54	3
Styrene	0.60	U	0.60	0.18	ppb v/v			04/06/23 17:54	3
tert-Butyl alcohol	15	U	15	3.6	ppb v/v			04/06/23 17:54	3
tert-Butylbenzene	0.60	U	0.60	0.14	ppb v/v			04/06/23 17:54	3
Tetrachloroethene	**8.4**		0.60	0.063	ppb v/v			04/06/23 17:54	3
Tetrahydrofuran	15	U	15	3.9	ppb v/v			04/06/23 17:54	3
Toluene	**1.1**		0.60	0.13	ppb v/v			04/06/23 17:54	3
trans-1,2-Dichloroethene	0.60	U	0.60	0.069	ppb v/v			04/06/23 17:54	3
trans-1,3-Dichloropropene	0.60	U	0.60	0.16	ppb v/v			04/06/23 17:54	3
Trichloroethene	**3.8**		0.11	0.075	ppb v/v			04/06/23 17:54	3
Trichlorofluoromethane	**0.19**	**J**	0.60	0.15	ppb v/v			04/06/23 17:54	3
Vinyl chloride	0.23	U	0.23	0.063	ppb v/v			04/06/23 17:54	3

Method: EPA TO-15 - Volatile Organic Compounds in Ambient Air - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	**5.2**	**J D**	17	3.7	ug/m3			04/06/23 18:46	15.5
1,1,2,2-Tetrachloroethane	21	U	21	4.6	ug/m3			04/06/23 18:46	15.5
1,1,2-Trichloroethane	17	U	17	6.3	ug/m3			04/06/23 18:46	15.5
1,1,2-Trichlorotrifluoroethane	24	U	24	6.3	ug/m3			04/06/23 18:46	15.5
1,1-Dichloroethane	**2.0**	**J D**	13	1.6	ug/m3			04/06/23 18:46	15.5
1,1-Dichloroethene	3.1	U	3.1	1.6	ug/m3			04/06/23 18:46	15.5
1,2,4-Trichlorobenzene	58	U	58	38	ug/m3			04/06/23 18:46	15.5
1,2,4-Trimethylbenzene	15	U	15	6.1	ug/m3			04/06/23 18:46	15.5
1,2-Dibromoethane	24	U	24	5.0	ug/m3			04/06/23 18:46	15.5
1,2-Dichlorobenzene	19	U	19	6.2	ug/m3			04/06/23 18:46	15.5
1,2-Dichloroethane	13	U	13	5.8	ug/m3			04/06/23 18:46	15.5
1,2-Dichloropropane	14	U	14	6.7	ug/m3			04/06/23 18:46	15.5
1,2-Dichlorotetrafluoroethane	22	U	22	5.2	ug/m3			04/06/23 18:46	15.5
1,3,5-Trimethylbenzene	15	U	15	3.6	ug/m3			04/06/23 18:46	15.5
1,3-Butadiene	6.9	U	6.9	1.3	ug/m3			04/06/23 18:46	15.5
1,3-Dichlorobenzene	19	U	19	6.9	ug/m3			04/06/23 18:46	15.5
1,4-Dichlorobenzene	19	U	19	8.3	ug/m3			04/06/23 18:46	15.5
1,4-Dioxane	280	U	280	73	ug/m3			04/06/23 18:46	15.5
2,2,4-Trimethylpentane	14	U	14	2.8	ug/m3			04/06/23 18:46	15.5
2-Chlorotoluene	16	U	16	3.7	ug/m3			04/06/23 18:46	15.5
3-Chloropropene	24	U	24	5.8	ug/m3			04/06/23 18:46	15.5
4-Ethyltoluene	15	U	15	3.7	ug/m3			04/06/23 18:46	15.5
4-Isopropyltoluene	17	U	17	5.2	ug/m3			04/06/23 18:46	15.5

Client Sample ID: SS-4

Lab Sample ID: 200-67423-3

Date Collected: 03/21/23 16:17
Matrix: Air
Date Received: 03/24/23 10:40
Sample Container: Summa Canister 6L

Method: EPA TO-15 - Volatile Organic Compounds in Ambient Air - DL (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Methyl-2-pentanone (Methyl isobutyl ketone)	32	U	32	8.3	ug/m3			04/06/23 18:46	15.5
Acetone	**770**	**D**	180	59	ug/m3			04/06/23 18:46	15.5
Benzene	9.9	U	9.9	2.2	ug/m3			04/06/23 18:46	15.5
Benzyl chloride	16	U	16	7.1	ug/m3			04/06/23 18:46	15.5
Bromodichloromethane	21	U	21	5.2	ug/m3			04/06/23 18:46	15.5
Bromoethene(Vinyl Bromide)	14	U	14	3.4	ug/m3			04/06/23 18:46	15.5
Bromoform	32	U	32	19	ug/m3			04/06/23 18:46	15.5
Bromomethane	12	U	12	4.3	ug/m3			04/06/23 18:46	15.5
Carbon disulfide	24	U	24	6.3	ug/m3			04/06/23 18:46	15.5
Carbon tetrachloride	3.4	U	3.4	2.1	ug/m3			04/06/23 18:46	15.5
Chlorobenzene	14	U	14	3.1	ug/m3			04/06/23 18:46	15.5
Chlorodifluoromethane	27	U	27	6.6	ug/m3			04/06/23 18:46	15.5
Chloroethane	20	U	20	7.4	ug/m3			04/06/23 18:46	15.5
Chloroform	**43**	**D**	15	3.1	ug/m3			04/06/23 18:46	15.5
Chloromethane	16	U	16	4.8	ug/m3			04/06/23 18:46	15.5
cis-1,2-Dichloroethene	**5.3**	**D**	3.1	1.3	ug/m3			04/06/23 18:46	15.5
cis-1,3-Dichloropropene	14	U	14	3.2	ug/m3			04/06/23 18:46	15.5
Cumene	15	U	15	3.1	ug/m3			04/06/23 18:46	15.5
Cyclohexane	11	U	11	3.1	ug/m3			04/06/23 18:46	15.5
Dibromochloromethane	26	U	26	8.3	ug/m3			04/06/23 18:46	15.5
Dichlorodifluoromethane	38	U	38	8.4	ug/m3			04/06/23 18:46	15.5
Ethylbenzene	13	U	13	3.5	ug/m3			04/06/23 18:46	15.5
Hexachlorobutadiene	33	U	33	18	ug/m3			04/06/23 18:46	15.5
Isopropyl alcohol	190	U	190	61	ug/m3			04/06/23 18:46	15.5
m,p-Xylene	34	U	34	6.4	ug/m3			04/06/23 18:46	15.5
Methyl Butyl Ketone (2-Hexanone)	32	U	32	9.5	ug/m3			04/06/23 18:46	15.5
Methyl Ethyl Ketone (2-Butanone)	23	U	23	22	ug/m3			04/06/23 18:46	15.5
Methyl methacrylate	32	U	32	8.9	ug/m3			04/06/23 18:46	15.5
Methyl tert-butyl ether	11	U	11	2.0	ug/m3			04/06/23 18:46	15.5
Methylene Chloride	27	U	27	9.7	ug/m3			04/06/23 18:46	15.5
Naphthalene	41	U	41	24	ug/m3			04/06/23 18:46	15.5
n-Butane	18	U	18	7.4	ug/m3			04/06/23 18:46	15.5
n-Butylbenzene	17	U	17	9.4	ug/m3			04/06/23 18:46	15.5
n-Heptane	13	U	13	3.5	ug/m3			04/06/23 18:46	15.5
n-Hexane	27	U	27	6.0	ug/m3			04/06/23 18:46	15.5
n-Propylbenzene	15	U	15	3.6	ug/m3			04/06/23 18:46	15.5
o-Xylene	13	U	13	3.5	ug/m3			04/06/23 18:46	15.5
sec-Butylbenzene	17	U	17	3.8	ug/m3			04/06/23 18:46	15.5
Styrene	13	U	13	3.9	ug/m3			04/06/23 18:46	15.5
tert-Butyl alcohol	230	U	230	56	ug/m3			04/06/23 18:46	15.5
tert-Butylbenzene	17	U	17	4.0	ug/m3			04/06/23 18:46	15.5
Tetrachloroethene	**53**	**D**	21	2.2	ug/m3			04/06/23 18:46	15.5
Tetrahydrofuran	230	U	230	59	ug/m3			04/06/23 18:46	15.5
Toluene	**3.7**	**J D**	12	2.5	ug/m3			04/06/23 18:46	15.5
trans-1,2-Dichloroethene	12	U	12	1.4	ug/m3			04/06/23 18:46	15.5
trans-1,3-Dichloropropene	14	U	14	3.8	ug/m3			04/06/23 18:46	15.5
Trichloroethene	**19**	**D**	3.1	2.1	ug/m3			04/06/23 18:46	15.5
Trichlorofluoromethane	17	U	17	4.4	ug/m3			04/06/23 18:46	15.5

Client Sample ID: SS-4

Lab Sample ID: 200-67423-3

Date Collected: 03/21/23 16:17
Matrix: Air
Date Received: 03/24/23 10:40
Sample Container: Summa Canister 6L

Method: EPA TO-15 - Volatile Organic Compounds in Ambient Air - DL (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	3.1	U	3.1	0.83	ug/m3			04/06/23 18:46	15.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	**0.96**	**J D**	3.1	0.68	ppb v/v			04/06/23 18:46	15.5
1,1,2,2-Tetrachloroethane	3.1	U	3.1	0.67	ppb v/v			04/06/23 18:46	15.5
1,1,2-Trichloroethane	3.1	U	3.1	1.1	ppb v/v			04/06/23 18:46	15.5
1,1,2-Trichlorotrifluoroethane	3.1	U	3.1	0.82	ppb v/v			04/06/23 18:46	15.5
1,1-Dichloroethane	**0.49**	**J D**	3.1	0.39	ppb v/v			04/06/23 18:46	15.5
1,1-Dichloroethene	0.78	U	0.78	0.40	ppb v/v			04/06/23 18:46	15.5
1,2,4-Trichlorobenzene	7.8	U	7.8	5.1	ppb v/v			04/06/23 18:46	15.5
1,2,4-Trimethylbenzene	3.1	U	3.1	1.2	ppb v/v			04/06/23 18:46	15.5
1,2-Dibromoethane	3.1	U	3.1	0.65	ppb v/v			04/06/23 18:46	15.5
1,2-Dichlorobenzene	3.1	U	3.1	1.0	ppb v/v			04/06/23 18:46	15.5
1,2-Dichloroethane	3.1	U	3.1	1.4	ppb v/v			04/06/23 18:46	15.5
1,2-Dichloropropane	3.1	U	3.1	1.5	ppb v/v			04/06/23 18:46	15.5
1,2-Dichlorotetrafluoroethane	3.1	U	3.1	0.74	ppb v/v			04/06/23 18:46	15.5
1,3,5-Trimethylbenzene	3.1	U	3.1	0.73	ppb v/v			04/06/23 18:46	15.5
1,3-Butadiene	3.1	U	3.1	0.60	ppb v/v			04/06/23 18:46	15.5
1,3-Dichlorobenzene	3.1	U	3.1	1.1	ppb v/v			04/06/23 18:46	15.5
1,4-Dichlorobenzene	3.1	U	3.1	1.4	ppb v/v			04/06/23 18:46	15.5
1,4-Dioxane	78	U	78	20	ppb v/v			04/06/23 18:46	15.5
2,2,4-Trimethylpentane	3.1	U	3.1	0.59	ppb v/v			04/06/23 18:46	15.5
2-Chlorotoluene	3.1	U	3.1	0.71	ppb v/v			04/06/23 18:46	15.5
3-Chloropropene	7.8	U	7.8	1.9	ppb v/v			04/06/23 18:46	15.5
4-Ethyltoluene	3.1	U	3.1	0.76	ppb v/v			04/06/23 18:46	15.5
4-Isopropyltoluene	3.1	U	3.1	0.95	ppb v/v			04/06/23 18:46	15.5
4-Methyl-2-pentanone (Methyl isobutyl ketone)	7.8	U	7.8	2.0	ppb v/v			04/06/23 18:46	15.5
Acetone	**320**	**D**	78	25	ppb v/v			04/06/23 18:46	15.5
Benzene	3.1	U	3.1	0.68	ppb v/v			04/06/23 18:46	15.5
Benzyl chloride	3.1	U	3.1	1.4	ppb v/v			04/06/23 18:46	15.5
Bromodichloromethane	3.1	U	3.1	0.78	ppb v/v			04/06/23 18:46	15.5
Bromoethene(Vinyl Bromide)	3.1	U	3.1	0.78	ppb v/v			04/06/23 18:46	15.5
Bromoform	3.1	U	3.1	1.9	ppb v/v			04/06/23 18:46	15.5
Bromomethane	3.1	U	3.1	1.1	ppb v/v			04/06/23 18:46	15.5
Carbon disulfide	7.8	U	7.8	2.0	ppb v/v			04/06/23 18:46	15.5
Carbon tetrachloride	0.54	U	0.54	0.34	ppb v/v			04/06/23 18:46	15.5
Chlorobenzene	3.1	U	3.1	0.68	ppb v/v			04/06/23 18:46	15.5
Chlorodifluoromethane	7.8	U	7.8	1.9	ppb v/v			04/06/23 18:46	15.5
Chloroethane	7.8	U	7.8	2.8	ppb v/v			04/06/23 18:46	15.5
Chloroform	**8.7**	**D**	3.1	0.64	ppb v/v			04/06/23 18:46	15.5
Chloromethane	7.8	U	7.8	2.3	ppb v/v			04/06/23 18:46	15.5
cis-1,2-Dichloroethene	**1.3**	**D**	0.78	0.33	ppb v/v			04/06/23 18:46	15.5
cis-1,3-Dichloropropene	3.1	U	3.1	0.70	ppb v/v			04/06/23 18:46	15.5
Cumene	3.1	U	3.1	0.64	ppb v/v			04/06/23 18:46	15.5
Cyclohexane	3.1	U	3.1	0.90	ppb v/v			04/06/23 18:46	15.5
Dibromochloromethane	3.1	U	3.1	0.98	ppb v/v			04/06/23 18:46	15.5
Dichlorodifluoromethane	7.8	U	7.8	1.7	ppb v/v			04/06/23 18:46	15.5
Ethylbenzene	3.1	U	3.1	0.81	ppb v/v			04/06/23 18:46	15.5

Client Sample ID: SS-4

Lab Sample ID: 200-67423-3

Date Collected: 03/21/23 16:17
Matrix: Air
Date Received: 03/24/23 10:40
Sample Container: Summa Canister 6L

Method: EPA TO-15 - Volatile Organic Compounds in Ambient Air - DL (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorobutadiene	3.1	U	3.1	1.7	ppb v/v			04/06/23 18:46	15.5
Isopropyl alcohol	78	U	78	25	ppb v/v			04/06/23 18:46	15.5
m,p-Xylene	7.8	U	7.8	1.5	ppb v/v			04/06/23 18:46	15.5
Methyl Butyl Ketone (2-Hexanone)	7.8	U	7.8	2.3	ppb v/v			04/06/23 18:46	15.5
Methyl Ethyl Ketone (2-Butanone)	7.8	U	7.8	7.6	ppb v/v			04/06/23 18:46	15.5
Methyl methacrylate	7.8	U	7.8	2.2	ppb v/v			04/06/23 18:46	15.5
Methyl tert-butyl ether	3.1	U	3.1	0.56	ppb v/v			04/06/23 18:46	15.5
Methylene Chloride	7.8	U	7.8	2.8	ppb v/v			04/06/23 18:46	15.5
Naphthalene	7.8	U	7.8	4.7	ppb v/v			04/06/23 18:46	15.5
n-Butane	7.8	U	7.8	3.1	ppb v/v			04/06/23 18:46	15.5
n-Butylbenzene	3.1	U	3.1	1.7	ppb v/v			04/06/23 18:46	15.5
n-Heptane	3.1	U	3.1	0.85	ppb v/v			04/06/23 18:46	15.5
n-Hexane	7.8	U	7.8	1.7	ppb v/v			04/06/23 18:46	15.5
n-Propylbenzene	3.1	U	3.1	0.73	ppb v/v			04/06/23 18:46	15.5
o-Xylene	3.1	U	3.1	0.81	ppb v/v			04/06/23 18:46	15.5
sec-Butylbenzene	3.1	U	3.1	0.70	ppb v/v			04/06/23 18:46	15.5
Styrene	3.1	U	3.1	0.91	ppb v/v			04/06/23 18:46	15.5
tert-Butyl alcohol	78	U	78	19	ppb v/v			04/06/23 18:46	15.5
tert-Butylbenzene	3.1	U	3.1	0.73	ppb v/v			04/06/23 18:46	15.5
Tetrachloroethene	**7.8**	**D**	3.1	0.33	ppb v/v			04/06/23 18:46	15.5
Tetrahydrofuran	78	U	78	20	ppb v/v			04/06/23 18:46	15.5
Toluene	**0.99**	**J D**	3.1	0.65	ppb v/v			04/06/23 18:46	15.5
trans-1,2-Dichloroethene	3.1	U	3.1	0.36	ppb v/v			04/06/23 18:46	15.5
trans-1,3-Dichloropropene	3.1	U	3.1	0.84	ppb v/v			04/06/23 18:46	15.5
Trichloroethene	**3.5**	**D**	0.58	0.39	ppb v/v			04/06/23 18:46	15.5
Trichlorofluoromethane	3.1	U	3.1	0.78	ppb v/v			04/06/23 18:46	15.5
Vinyl chloride	1.2	U	1.2	0.33	ppb v/v			04/06/23 18:46	15.5

Client Sample ID: IA-4

Lab Sample ID: 200-67423-4

Date Collected: 03/21/23 16:18
Matrix: Air
Date Received: 03/24/23 10:40
Sample Container: Summa Canister 6L

Method: EPA TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.1	U	1.1	0.24	ug/m3			04/05/23 22:07	1
1,1,2,2-Tetrachloroethane	1.4	U	1.4	0.30	ug/m3			04/05/23 22:07	1
1,1,2-Trichloroethane	1.1	U	1.1	0.40	ug/m3			04/05/23 22:07	1
1,1,2-Trichlorotrifluoroethane	**0.43**	**J**	1.5	0.41	ug/m3			04/05/23 22:07	1
1,1-Dichloroethane	0.81	U	0.81	0.10	ug/m3			04/05/23 22:07	1
1,1-Dichloroethene	0.20	U	0.20	0.10	ug/m3			04/05/23 22:07	1
1,2,4-Trichlorobenzene	3.7	U	3.7	2.4	ug/m3			04/05/23 22:07	1
1,2,4-Trimethylbenzene	**0.50**	**J**	0.98	0.39	ug/m3			04/05/23 22:07	1
1,2-Dibromoethane	1.5	U	1.5	0.32	ug/m3			04/05/23 22:07	1
1,2-Dichlorobenzene	1.2	U	1.2	0.40	ug/m3			04/05/23 22:07	1
1,2-Dichloroethane	0.81	U	0.81	0.38	ug/m3			04/05/23 22:07	1
1,2-Dichloropropane	0.92	U	0.92	0.43	ug/m3			04/05/23 22:07	1
1,2-Dichlorotetrafluoroethane	1.4	U	1.4	0.34	ug/m3			04/05/23 22:07	1
1,3,5-Trimethylbenzene	0.98	U	0.98	0.23	ug/m3			04/05/23 22:07	1

Client Sample ID: IA-4

Lab Sample ID: 200-67423-4

Date Collected: 03/21/23 16:18
Date Received: 03/24/23 10:40
Sample Container: Summa Canister 6L

Matrix: Air

Method: EPA TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3-Butadiene	0.44	U	0.44	0.086	ug/m3			04/05/23 22:07	1
1,3-Dichlorobenzene	1.2	U	1.2	0.44	ug/m3			04/05/23 22:07	1
1,4-Dichlorobenzene	1.2	U	1.2	0.54	ug/m3			04/05/23 22:07	1
1,4-Dioxane	18	U	18	4.7	ug/m3			04/05/23 22:07	1
2,2,4-Trimethylpentane	**0.25**	**J**	0.93	0.18	ug/m3			04/05/23 22:07	1
2-Chlorotoluene	1.0	U	1.0	0.24	ug/m3			04/05/23 22:07	1
3-Chloropropene	1.6	U	1.6	0.38	ug/m3			04/05/23 22:07	1
4-Ethyltoluene	0.98	U	0.98	0.24	ug/m3			04/05/23 22:07	1
4-Isopropyltoluene	1.1	U	1.1	0.33	ug/m3			04/05/23 22:07	1
4-Methyl-2-pentanone (Methyl isobutyl ketone)	2.0	U	2.0	0.53	ug/m3			04/05/23 22:07	1
Acetone	**10**	**J**	12	3.8	ug/m3			04/05/23 22:07	1
Benzene	**0.39**	**J**	0.64	0.14	ug/m3			04/05/23 22:07	1
Benzyl chloride	1.0	U	1.0	0.46	ug/m3			04/05/23 22:07	1
Bromodichloromethane	**1.5**		1.3	0.34	ug/m3			04/05/23 22:07	1
Bromoethene(Vinyl Bromide)	0.87	U	0.87	0.22	ug/m3			04/05/23 22:07	1
Bromoform	2.1	U	2.1	1.2	ug/m3			04/05/23 22:07	1
Bromomethane	0.78	U	0.78	0.28	ug/m3			04/05/23 22:07	1
Carbon disulfide	1.6	U	1.6	0.40	ug/m3			04/05/23 22:07	1
Carbon tetrachloride	**1.0**		0.22	0.14	ug/m3			04/05/23 22:07	1
Chlorobenzene	0.92	U	0.92	0.20	ug/m3			04/05/23 22:07	1
Chlorodifluoromethane	**1.2**	**J**	1.8	0.42	ug/m3			04/05/23 22:07	1
Chloroethane	1.3	U	1.3	0.47	ug/m3			04/05/23 22:07	1
Chloroform	**4.1**		0.98	0.20	ug/m3			04/05/23 22:07	1
Chloromethane	**1.2**		1.0	0.31	ug/m3			04/05/23 22:07	1
cis-1,2-Dichloroethene	0.20	U	0.20	0.083	ug/m3			04/05/23 22:07	1
cis-1,3-Dichloropropene	0.91	U	0.91	0.20	ug/m3			04/05/23 22:07	1
Cumene	0.98	U	0.98	0.20	ug/m3			04/05/23 22:07	1
Cyclohexane	0.69	U	0.69	0.20	ug/m3			04/05/23 22:07	1
Dibromochloromethane	**1.3**	**J**	1.7	0.54	ug/m3			04/05/23 22:07	1
Dichlorodifluoromethane	**2.2**	**J**	2.5	0.54	ug/m3			04/05/23 22:07	1
Ethylbenzene	**0.28**	**J**	0.87	0.23	ug/m3			04/05/23 22:07	1
Hexachlorobutadiene	2.1	U	2.1	1.2	ug/m3			04/05/23 22:07	1
Isopropyl alcohol	**11**	**J**	12	3.9	ug/m3			04/05/23 22:07	1
m,p-Xylene	**0.95**	**J**	2.2	0.41	ug/m3			04/05/23 22:07	1
Methyl Butyl Ketone (2-Hexanone)	2.0	U	2.0	0.61	ug/m3			04/05/23 22:07	1
Methyl Ethyl Ketone (2-Butanone)	1.5	U	1.5	1.4	ug/m3			04/05/23 22:07	1
Methyl methacrylate	2.0	U	2.0	0.57	ug/m3			04/05/23 22:07	1
Methyl tert-butyl ether	0.72	U	0.72	0.13	ug/m3			04/05/23 22:07	1
Methylene Chloride	**4.7**		1.7	0.63	ug/m3			04/05/23 22:07	1
Naphthalene	2.6	U	2.6	1.6	ug/m3			04/05/23 22:07	1
n-Butane	**4.1**		1.2	0.48	ug/m3			04/05/23 22:07	1
n-Butylbenzene	1.1	U	1.1	0.60	ug/m3			04/05/23 22:07	1
n-Heptane	**0.65**	**J**	0.82	0.23	ug/m3			04/05/23 22:07	1
n-Hexane	**1.9**		1.8	0.39	ug/m3			04/05/23 22:07	1
n-Propylbenzene	0.98	U	0.98	0.23	ug/m3			04/05/23 22:07	1
o-Xylene	**0.32**	**J**	0.87	0.23	ug/m3			04/05/23 22:07	1
sec-Butylbenzene	1.1	U	1.1	0.25	ug/m3			04/05/23 22:07	1
Styrene	**0.32**	**J**	0.85	0.25	ug/m3			04/05/23 22:07	1

Client Sample ID: IA-4

Lab Sample ID: 200-67423-4

Date Collected: 03/21/23 16:18
Date Received: 03/24/23 10:40
Sample Container: Summa Canister 6L

Matrix: Air

Method: EPA TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
tert-Butyl alcohol	15	U	15	3.6	ug/m3			04/05/23 22:07	1
tert-Butylbenzene	1.1	U	1.1	0.26	ug/m3			04/05/23 22:07	1
Tetrachloroethene	**0.91**	**J**	1.4	0.14	ug/m3			04/05/23 22:07	1
Tetrahydrofuran	15	U	15	3.8	ug/m3			04/05/23 22:07	1
Toluene	**1.0**		0.75	0.16	ug/m3			04/05/23 22:07	1
trans-1,2-Dichloroethene	0.79	U	0.79	0.091	ug/m3			04/05/23 22:07	1
trans-1,3-Dichloropropene	0.91	U	0.91	0.25	ug/m3			04/05/23 22:07	1
Trichloroethene	0.20	U	0.20	0.13	ug/m3			04/05/23 22:07	1
Trichlorofluoromethane	**1.3**		1.1	0.28	ug/m3			04/05/23 22:07	1
Vinyl chloride	0.20	U	0.20	0.054	ug/m3			04/05/23 22:07	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.20	U	0.20	0.044	ppb v/v			04/05/23 22:07	1
1,1,2,2-Tetrachloroethane	0.20	U	0.20	0.043	ppb v/v			04/05/23 22:07	1
1,1,2-Trichloroethane	0.20	U	0.20	0.074	ppb v/v			04/05/23 22:07	1
1,1,2-Trichlorotrifluoroethane	**0.056**	**J**	0.20	0.053	ppb v/v			04/05/23 22:07	1
1,1-Dichloroethane	0.20	U	0.20	0.025	ppb v/v			04/05/23 22:07	1
1,1-Dichloroethene	0.050	U	0.050	0.026	ppb v/v			04/05/23 22:07	1
1,2,4-Trichlorobenzene	0.50	U	0.50	0.33	ppb v/v			04/05/23 22:07	1
1,2,4-Trimethylbenzene	**0.10**	**J**	0.20	0.080	ppb v/v			04/05/23 22:07	1
1,2-Dibromoethane	0.20	U	0.20	0.042	ppb v/v			04/05/23 22:07	1
1,2-Dichlorobenzene	0.20	U	0.20	0.066	ppb v/v			04/05/23 22:07	1
1,2-Dichloroethane	0.20	U	0.20	0.093	ppb v/v			04/05/23 22:07	1
1,2-Dichloropropane	0.20	U	0.20	0.094	ppb v/v			04/05/23 22:07	1
1,2-Dichlorotetrafluoroethane	0.20	U	0.20	0.048	ppb v/v			04/05/23 22:07	1
1,3,5-Trimethylbenzene	0.20	U	0.20	0.047	ppb v/v			04/05/23 22:07	1
1,3-Butadiene	0.20	U	0.20	0.039	ppb v/v			04/05/23 22:07	1
1,3-Dichlorobenzene	0.20	U	0.20	0.074	ppb v/v			04/05/23 22:07	1
1,4-Dichlorobenzene	0.20	U	0.20	0.089	ppb v/v			04/05/23 22:07	1
1,4-Dioxane	5.0	U	5.0	1.3	ppb v/v			04/05/23 22:07	1
2,2,4-Trimethylpentane	**0.053**	**J**	0.20	0.038	ppb v/v			04/05/23 22:07	1
2-Chlorotoluene	0.20	U	0.20	0.046	ppb v/v			04/05/23 22:07	1
3-Chloropropene	0.50	U	0.50	0.12	ppb v/v			04/05/23 22:07	1
4-Ethyltoluene	0.20	U	0.20	0.049	ppb v/v			04/05/23 22:07	1
4-Isopropyltoluene	0.20	U	0.20	0.061	ppb v/v			04/05/23 22:07	1
4-Methyl-2-pentanone (Methyl isobutyl ketone)	0.50	U	0.50	0.13	ppb v/v			04/05/23 22:07	1
Acetone	**4.4**	**J**	5.0	1.6	ppb v/v			04/05/23 22:07	1
Benzene	**0.12**	**J**	0.20	0.044	ppb v/v			04/05/23 22:07	1
Benzyl chloride	0.20	U	0.20	0.088	ppb v/v			04/05/23 22:07	1
Bromodichloromethane	**0.23**		0.20	0.050	ppb v/v			04/05/23 22:07	1
Bromoethene(Vinyl Bromide)	0.20	U	0.20	0.050	ppb v/v			04/05/23 22:07	1
Bromoform	0.20	U	0.20	0.12	ppb v/v			04/05/23 22:07	1
Bromomethane	0.20	U	0.20	0.071	ppb v/v			04/05/23 22:07	1
Carbon disulfide	0.50	U	0.50	0.13	ppb v/v			04/05/23 22:07	1
Carbon tetrachloride	**0.16**		0.035	0.022	ppb v/v			04/05/23 22:07	1
Chlorobenzene	0.20	U	0.20	0.044	ppb v/v			04/05/23 22:07	1
Chlorodifluoromethane	**0.34**	**J**	0.50	0.12	ppb v/v			04/05/23 22:07	1
Chloroethane	0.50	U	0.50	0.18	ppb v/v			04/05/23 22:07	1

Client Sample ID: IA-4

Lab Sample ID: 200-67423-4

Date Collected: 03/21/23 16:18
Matrix: Air
Date Received: 03/24/23 10:40
Sample Container: Summa Canister 6L

Method: EPA TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroform	**0.85**		0.20	0.041	ppb v/v			04/05/23 22:07	1
Chloromethane	**0.59**		0.50	0.15	ppb v/v			04/05/23 22:07	1
cis-1,2-Dichloroethene	0.050	U	0.050	0.021	ppb v/v			04/05/23 22:07	1
cis-1,3-Dichloropropene	0.20	U	0.20	0.045	ppb v/v			04/05/23 22:07	1
Cumene	0.20	U	0.20	0.041	ppb v/v			04/05/23 22:07	1
Cyclohexane	0.20	U	0.20	0.058	ppb v/v			04/05/23 22:07	1
Dibromochloromethane	**0.16**	**J**	0.20	0.063	ppb v/v			04/05/23 22:07	1
Dichlorodifluoromethane	**0.44**	**J**	0.50	0.11	ppb v/v			04/05/23 22:07	1
Ethylbenzene	**0.064**	**J**	0.20	0.052	ppb v/v			04/05/23 22:07	1
Hexachlorobutadiene	0.20	U	0.20	0.11	ppb v/v			04/05/23 22:07	1
Isopropyl alcohol	**4.6**	**J**	5.0	1.6	ppb v/v			04/05/23 22:07	1
m,p-Xylene	**0.22**	**J**	0.50	0.095	ppb v/v			04/05/23 22:07	1
Methyl Butyl Ketone (2-Hexanone)	0.50	U	0.50	0.15	ppb v/v			04/05/23 22:07	1
Methyl Ethyl Ketone (2-Butanone)	0.50	U	0.50	0.49	ppb v/v			04/05/23 22:07	1
Methyl methacrylate	0.50	U	0.50	0.14	ppb v/v			04/05/23 22:07	1
Methyl tert-butyl ether	0.20	U	0.20	0.036	ppb v/v			04/05/23 22:07	1
Methylene Chloride	**1.4**		0.50	0.18	ppb v/v			04/05/23 22:07	1
Naphthalene	0.50	U	0.50	0.30	ppb v/v			04/05/23 22:07	1
n-Butane	**1.7**		0.50	0.20	ppb v/v			04/05/23 22:07	1
n-Butylbenzene	0.20	U	0.20	0.11	ppb v/v			04/05/23 22:07	1
n-Heptane	**0.16**	**J**	0.20	0.055	ppb v/v			04/05/23 22:07	1
n-Hexane	**0.53**		0.50	0.11	ppb v/v			04/05/23 22:07	1
n-Propylbenzene	0.20	U	0.20	0.047	ppb v/v			04/05/23 22:07	1
o-Xylene	**0.073**	**J**	0.20	0.052	ppb v/v			04/05/23 22:07	1
sec-Butylbenzene	0.20	U	0.20	0.045	ppb v/v			04/05/23 22:07	1
Styrene	**0.075**	**J**	0.20	0.059	ppb v/v			04/05/23 22:07	1
tert-Butyl alcohol	5.0	U	5.0	1.2	ppb v/v			04/05/23 22:07	1
tert-Butylbenzene	0.20	U	0.20	0.047	ppb v/v			04/05/23 22:07	1
Tetrachloroethene	**0.13**	**J**	0.20	0.021	ppb v/v			04/05/23 22:07	1
Tetrahydrofuran	5.0	U	5.0	1.3	ppb v/v			04/05/23 22:07	1
Toluene	**0.27**		0.20	0.042	ppb v/v			04/05/23 22:07	1
trans-1,2-Dichloroethene	0.20	U	0.20	0.023	ppb v/v			04/05/23 22:07	1
trans-1,3-Dichloropropene	0.20	U	0.20	0.054	ppb v/v			04/05/23 22:07	1
Trichloroethene	0.037	U	0.037	0.025	ppb v/v			04/05/23 22:07	1
Trichlorofluoromethane	**0.24**		0.20	0.050	ppb v/v			04/05/23 22:07	1
Vinyl chloride	0.078	U	0.078	0.021	ppb v/v			04/05/23 22:07	1

Client Sample ID: OUTDOOR

Lab Sample ID: 200-67423-5

Date Collected: 03/21/23 16:24
Matrix: Air
Date Received: 03/24/23 10:40
Sample Container: Summa Canister 6L

Method: EPA TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.1	U	1.1	0.24	ug/m3			04/05/23 22:59	1
1,1,2,2-Tetrachloroethane	1.4	U	1.4	0.30	ug/m3			04/05/23 22:59	1
1,1,2-Trichloroethane	1.1	U	1.1	0.40	ug/m3			04/05/23 22:59	1
1,1,2-Trichlorotrifluoroethane	1.5	U	1.5	0.41	ug/m3			04/05/23 22:59	1
1,1-Dichloroethane	0.81	U	0.81	0.10	ug/m3			04/05/23 22:59	1

Client Sample ID: OUTDOOR

Lab Sample ID: 200-67423-5

Date Collected: 03/21/23 16:24
Date Received: 03/24/23 10:40
Sample Container: Summa Canister 6L

Matrix: Air

Method: EPA TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	0.20	U	0.20	0.10	ug/m3			04/05/23 22:59	1
1,2,4-Trichlorobenzene	3.7	U	3.7	2.4	ug/m3			04/05/23 22:59	1
1,2,4-Trimethylbenzene	0.98	U	0.98	0.39	ug/m3			04/05/23 22:59	1
1,2-Dibromoethane	1.5	U	1.5	0.32	ug/m3			04/05/23 22:59	1
1,2-Dichlorobenzene	1.2	U	1.2	0.40	ug/m3			04/05/23 22:59	1
1,2-Dichloroethane	0.81	U	0.81	0.38	ug/m3			04/05/23 22:59	1
1,2-Dichloropropane	0.92	U	0.92	0.43	ug/m3			04/05/23 22:59	1
1,2-Dichlorotetrafluoroethane	1.4	U	1.4	0.34	ug/m3			04/05/23 22:59	1
1,3,5-Trimethylbenzene	0.98	U	0.98	0.23	ug/m3			04/05/23 22:59	1
1,3-Butadiene	0.44	U	0.44	0.086	ug/m3			04/05/23 22:59	1
1,3-Dichlorobenzene	1.2	U	1.2	0.44	ug/m3			04/05/23 22:59	1
1,4-Dichlorobenzene	1.2	U	1.2	0.54	ug/m3			04/05/23 22:59	1
1,4-Dioxane	18	U	18	4.7	ug/m3			04/05/23 22:59	1
2,2,4-Trimethylpentane	0.93	U	0.93	0.18	ug/m3			04/05/23 22:59	1
2-Chlorotoluene	1.0	U	1.0	0.24	ug/m3			04/05/23 22:59	1
3-Chloropropene	1.6	U	1.6	0.38	ug/m3			04/05/23 22:59	1
4-Ethyltoluene	0.98	U	0.98	0.24	ug/m3			04/05/23 22:59	1
4-Isopropyltoluene	1.1	U	1.1	0.33	ug/m3			04/05/23 22:59	1
4-Methyl-2-pentanone (Methyl isobutyl ketone)	2.0	U	2.0	0.53	ug/m3			04/05/23 22:59	1
Acetone	**4.9**	**J**	12	3.8	ug/m3			04/05/23 22:59	1
Benzene	**0.31**	**J**	0.64	0.14	ug/m3			04/05/23 22:59	1
Benzyl chloride	1.0	U	1.0	0.46	ug/m3			04/05/23 22:59	1
Bromodichloromethane	1.3	U	1.3	0.34	ug/m3			04/05/23 22:59	1
Bromoethene(Vinyl Bromide)	0.87	U	0.87	0.22	ug/m3			04/05/23 22:59	1
Bromoform	2.1	U	2.1	1.2	ug/m3			04/05/23 22:59	1
Bromomethane	0.78	U	0.78	0.28	ug/m3			04/05/23 22:59	1
Carbon disulfide	1.6	U	1.6	0.40	ug/m3			04/05/23 22:59	1
Carbon tetrachloride	**0.39**		0.22	0.14	ug/m3			04/05/23 22:59	1
Chlorobenzene	0.92	U	0.92	0.20	ug/m3			04/05/23 22:59	1
Chlorodifluoromethane	**1.0**	**J**	1.8	0.42	ug/m3			04/05/23 22:59	1
Chloroethane	1.3	U	1.3	0.47	ug/m3			04/05/23 22:59	1
Chloroform	0.98	U	0.98	0.20	ug/m3			04/05/23 22:59	1
Chloromethane	**1.2**		1.0	0.31	ug/m3			04/05/23 22:59	1
cis-1,2-Dichloroethene	0.20	U	0.20	0.083	ug/m3			04/05/23 22:59	1
cis-1,3-Dichloropropene	0.91	U	0.91	0.20	ug/m3			04/05/23 22:59	1
Cumene	0.98	U	0.98	0.20	ug/m3			04/05/23 22:59	1
Cyclohexane	0.69	U	0.69	0.20	ug/m3			04/05/23 22:59	1
Dibromochloromethane	1.7	U	1.7	0.54	ug/m3			04/05/23 22:59	1
Dichlorodifluoromethane	**1.8**	**J**	2.5	0.54	ug/m3			04/05/23 22:59	1
Ethylbenzene	0.87	U	0.87	0.23	ug/m3			04/05/23 22:59	1
Hexachlorobutadiene	2.1	U	2.1	1.2	ug/m3			04/05/23 22:59	1
Isopropyl alcohol	12	U	12	3.9	ug/m3			04/05/23 22:59	1
m,p-Xylene	2.2	U	2.2	0.41	ug/m3			04/05/23 22:59	1
Methyl Butyl Ketone (2-Hexanone)	2.0	U	2.0	0.61	ug/m3			04/05/23 22:59	1
Methyl Ethyl Ketone (2-Butanone)	1.5	U	1.5	1.4	ug/m3			04/05/23 22:59	1
Methyl methacrylate	2.0	U	2.0	0.57	ug/m3			04/05/23 22:59	1
Methyl tert-butyl ether	0.72	U	0.72	0.13	ug/m3			04/05/23 22:59	1
Methylene Chloride	**1.2**	**J**	1.7	0.63	ug/m3			04/05/23 22:59	1

Client Sample ID: OUTDOOR

Lab Sample ID: 200-67423-5

Date Collected: 03/21/23 16:24
Date Received: 03/24/23 10:40
Sample Container: Summa Canister 6L

Matrix: Air

Method: EPA TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	2.6	U	2.6	1.6	ug/m3			04/05/23 22:59	1
n-Butane	**1.9**		1.2	0.48	ug/m3			04/05/23 22:59	1
n-Butylbenzene	1.1	U	1.1	0.60	ug/m3			04/05/23 22:59	1
n-Heptane	0.82	U	0.82	0.23	ug/m3			04/05/23 22:59	1
n-Hexane	**2.0**		1.8	0.39	ug/m3			04/05/23 22:59	1
n-Propylbenzene	0.98	U	0.98	0.23	ug/m3			04/05/23 22:59	1
o-Xylene	0.87	U	0.87	0.23	ug/m3			04/05/23 22:59	1
sec-Butylbenzene	1.1	U	1.1	0.25	ug/m3			04/05/23 22:59	1
Styrene	0.85	U	0.85	0.25	ug/m3			04/05/23 22:59	1
tert-Butyl alcohol	15	U	15	3.6	ug/m3			04/05/23 22:59	1
tert-Butylbenzene	1.1	U	1.1	0.26	ug/m3			04/05/23 22:59	1
Tetrachloroethene	1.4	U	1.4	0.14	ug/m3			04/05/23 22:59	1
Tetrahydrofuran	15	U	15	3.8	ug/m3			04/05/23 22:59	1
Toluene	**0.31**	**J**	0.75	0.16	ug/m3			04/05/23 22:59	1
trans-1,2-Dichloroethene	0.79	U	0.79	0.091	ug/m3			04/05/23 22:59	1
trans-1,3-Dichloropropene	0.91	U	0.91	0.25	ug/m3			04/05/23 22:59	1
Trichloroethene	0.20	U	0.20	0.13	ug/m3			04/05/23 22:59	1
Trichlorofluoromethane	**1.1**		1.1	0.28	ug/m3			04/05/23 22:59	1
Vinyl chloride	0.20	U	0.20	0.054	ug/m3			04/05/23 22:59	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.20	U	0.20	0.044	ppb v/v			04/05/23 22:59	1
1,1,2,2-Tetrachloroethane	0.20	U	0.20	0.043	ppb v/v			04/05/23 22:59	1
1,1,2-Trichloroethane	0.20	U	0.20	0.074	ppb v/v			04/05/23 22:59	1
1,1,2-Trichlorotrifluoroethane	0.20	U	0.20	0.053	ppb v/v			04/05/23 22:59	1
1,1-Dichloroethane	0.20	U	0.20	0.025	ppb v/v			04/05/23 22:59	1
1,1-Dichloroethene	0.050	U	0.050	0.026	ppb v/v			04/05/23 22:59	1
1,2,4-Trichlorobenzene	0.50	U	0.50	0.33	ppb v/v			04/05/23 22:59	1
1,2,4-Trimethylbenzene	0.20	U	0.20	0.080	ppb v/v			04/05/23 22:59	1
1,2-Dibromoethane	0.20	U	0.20	0.042	ppb v/v			04/05/23 22:59	1
1,2-Dichlorobenzene	0.20	U	0.20	0.066	ppb v/v			04/05/23 22:59	1
1,2-Dichloroethane	0.20	U	0.20	0.093	ppb v/v			04/05/23 22:59	1
1,2-Dichloropropane	0.20	U	0.20	0.094	ppb v/v			04/05/23 22:59	1
1,2-Dichlorotetrafluoroethane	0.20	U	0.20	0.048	ppb v/v			04/05/23 22:59	1
1,3,5-Trimethylbenzene	0.20	U	0.20	0.047	ppb v/v			04/05/23 22:59	1
1,3-Butadiene	0.20	U	0.20	0.039	ppb v/v			04/05/23 22:59	1
1,3-Dichlorobenzene	0.20	U	0.20	0.074	ppb v/v			04/05/23 22:59	1
1,4-Dichlorobenzene	0.20	U	0.20	0.089	ppb v/v			04/05/23 22:59	1
1,4-Dioxane	5.0	U	5.0	1.3	ppb v/v			04/05/23 22:59	1
2,2,4-Trimethylpentane	0.20	U	0.20	0.038	ppb v/v			04/05/23 22:59	1
2-Chlorotoluene	0.20	U	0.20	0.046	ppb v/v			04/05/23 22:59	1
3-Chloropropene	0.50	U	0.50	0.12	ppb v/v			04/05/23 22:59	1
4-Ethyltoluene	0.20	U	0.20	0.049	ppb v/v			04/05/23 22:59	1
4-Isopropyltoluene	0.20	U	0.20	0.061	ppb v/v			04/05/23 22:59	1
4-Methyl-2-pentanone (Methyl isobutyl ketone)	0.50	U	0.50	0.13	ppb v/v			04/05/23 22:59	1
Acetone	**2.1**	**J**	5.0	1.6	ppb v/v			04/05/23 22:59	1
Benzene	**0.097**	**J**	0.20	0.044	ppb v/v			04/05/23 22:59	1
Benzyl chloride	0.20	U	0.20	0.088	ppb v/v			04/05/23 22:59	1

Client Sample ID: OUTDOOR

Lab Sample ID: 200-67423-5

Date Collected: 03/21/23 16:24
Matrix: Air
Date Received: 03/24/23 10:40
Sample Container: Summa Canister 6L

Method: EPA TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromodichloromethane	0.20	U	0.20	0.050	ppb v/v			04/05/23 22:59	1
Bromoethene(Vinyl Bromide)	0.20	U	0.20	0.050	ppb v/v			04/05/23 22:59	1
Bromoform	0.20	U	0.20	0.12	ppb v/v			04/05/23 22:59	1
Bromomethane	0.20	U	0.20	0.071	ppb v/v			04/05/23 22:59	1
Carbon disulfide	0.50	U	0.50	0.13	ppb v/v			04/05/23 22:59	1
Carbon tetrachloride	**0.062**		0.035	0.022	ppb v/v			04/05/23 22:59	1
Chlorobenzene	0.20	U	0.20	0.044	ppb v/v			04/05/23 22:59	1
Chlorodifluoromethane	**0.29**	**J**	0.50	0.12	ppb v/v			04/05/23 22:59	1
Chloroethane	0.50	U	0.50	0.18	ppb v/v			04/05/23 22:59	1
Chloroform	0.20	U	0.20	0.041	ppb v/v			04/05/23 22:59	1
Chloromethane	**0.56**		0.50	0.15	ppb v/v			04/05/23 22:59	1
cis-1,2-Dichloroethene	0.050	U	0.050	0.021	ppb v/v			04/05/23 22:59	1
cis-1,3-Dichloropropene	0.20	U	0.20	0.045	ppb v/v			04/05/23 22:59	1
Cumene	0.20	U	0.20	0.041	ppb v/v			04/05/23 22:59	1
Cyclohexane	0.20	U	0.20	0.058	ppb v/v			04/05/23 22:59	1
Dibromochloromethane	0.20	U	0.20	0.063	ppb v/v			04/05/23 22:59	1
Dichlorodifluoromethane	**0.37**	**J**	0.50	0.11	ppb v/v			04/05/23 22:59	1
Ethylbenzene	0.20	U	0.20	0.052	ppb v/v			04/05/23 22:59	1
Hexachlorobutadiene	0.20	U	0.20	0.11	ppb v/v			04/05/23 22:59	1
Isopropyl alcohol	5.0	U	5.0	1.6	ppb v/v			04/05/23 22:59	1
m,p-Xylene	0.50	U	0.50	0.095	ppb v/v			04/05/23 22:59	1
Methyl Butyl Ketone (2-Hexanone)	0.50	U	0.50	0.15	ppb v/v			04/05/23 22:59	1
Methyl Ethyl Ketone (2-Butanone)	0.50	U	0.50	0.49	ppb v/v			04/05/23 22:59	1
Methyl methacrylate	0.50	U	0.50	0.14	ppb v/v			04/05/23 22:59	1
Methyl tert-butyl ether	0.20	U	0.20	0.036	ppb v/v			04/05/23 22:59	1
Methylene Chloride	**0.36**	**J**	0.50	0.18	ppb v/v			04/05/23 22:59	1
Naphthalene	0.50	U	0.50	0.30	ppb v/v			04/05/23 22:59	1
n-Butane	**0.80**		0.50	0.20	ppb v/v			04/05/23 22:59	1
n-Butylbenzene	0.20	U	0.20	0.11	ppb v/v			04/05/23 22:59	1
n-Heptane	0.20	U	0.20	0.055	ppb v/v			04/05/23 22:59	1
n-Hexane	**0.56**		0.50	0.11	ppb v/v			04/05/23 22:59	1
n-Propylbenzene	0.20	U	0.20	0.047	ppb v/v			04/05/23 22:59	1
o-Xylene	0.20	U	0.20	0.052	ppb v/v			04/05/23 22:59	1
sec-Butylbenzene	0.20	U	0.20	0.045	ppb v/v			04/05/23 22:59	1
Styrene	0.20	U	0.20	0.059	ppb v/v			04/05/23 22:59	1
tert-Butyl alcohol	5.0	U	5.0	1.2	ppb v/v			04/05/23 22:59	1
tert-Butylbenzene	0.20	U	0.20	0.047	ppb v/v			04/05/23 22:59	1
Tetrachloroethene	0.20	U	0.20	0.021	ppb v/v			04/05/23 22:59	1
Tetrahydrofuran	5.0	U	5.0	1.3	ppb v/v			04/05/23 22:59	1
Toluene	**0.081**	**J**	0.20	0.042	ppb v/v			04/05/23 22:59	1
trans-1,2-Dichloroethene	0.20	U	0.20	0.023	ppb v/v			04/05/23 22:59	1
trans-1,3-Dichloropropene	0.20	U	0.20	0.054	ppb v/v			04/05/23 22:59	1
Trichloroethene	0.037	U	0.037	0.025	ppb v/v			04/05/23 22:59	1
Trichlorofluoromethane	**0.19**		0.20	0.050	ppb v/v			04/05/23 22:59	1
Vinyl chloride	0.078	U	0.078	0.021	ppb v/v			04/05/23 22:59	1

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Lab Sample ID: MB 200-190008/4
Matrix: Air
Analysis Batch: 190008

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.1	U	1.1	0.24	ug/m3			04/05/23 11:09	1
1,1,2,2-Tetrachloroethane	1.4	U	1.4	0.30	ug/m3			04/05/23 11:09	1
1,1,2-Trichloroethane	1.1	U	1.1	0.40	ug/m3			04/05/23 11:09	1
1,1,2-Trichlorotrifluoroethane	1.5	U	1.5	0.41	ug/m3			04/05/23 11:09	1
1,1-Dichloroethane	0.81	U	0.81	0.10	ug/m3			04/05/23 11:09	1
1,1-Dichloroethene	0.20	U	0.20	0.10	ug/m3			04/05/23 11:09	1
1,2,4-Trichlorobenzene	3.7	U	3.7	2.4	ug/m3			04/05/23 11:09	1
1,2,4-Trimethylbenzene	0.98	U	0.98	0.39	ug/m3			04/05/23 11:09	1
1,2-Dibromoethane	1.5	U	1.5	0.32	ug/m3			04/05/23 11:09	1
1,2-Dichlorobenzene	1.2	U	1.2	0.40	ug/m3			04/05/23 11:09	1
1,2-Dichloroethane	0.81	U	0.81	0.38	ug/m3			04/05/23 11:09	1
1,2-Dichloropropane	0.92	U	0.92	0.43	ug/m3			04/05/23 11:09	1
1,2-Dichlorotetrafluoroethane	1.4	U	1.4	0.34	ug/m3			04/05/23 11:09	1
1,3,5-Trimethylbenzene	0.98	U	0.98	0.23	ug/m3			04/05/23 11:09	1
1,3-Butadiene	0.44	U	0.44	0.086	ug/m3			04/05/23 11:09	1
1,3-Dichlorobenzene	1.2	U	1.2	0.44	ug/m3			04/05/23 11:09	1
1,4-Dichlorobenzene	1.2	U	1.2	0.54	ug/m3			04/05/23 11:09	1
1,4-Dioxane	18	U	18	4.7	ug/m3			04/05/23 11:09	1
2,2,4-Trimethylpentane	0.93	U	0.93	0.18	ug/m3			04/05/23 11:09	1
2-Chlorotoluene	1.0	U	1.0	0.24	ug/m3			04/05/23 11:09	1
3-Chloropropene	1.6	U	1.6	0.38	ug/m3			04/05/23 11:09	1
4-Ethyltoluene	0.98	U	0.98	0.24	ug/m3			04/05/23 11:09	1
4-Isopropyltoluene	1.1	U	1.1	0.33	ug/m3			04/05/23 11:09	1
4-Methyl-2-pentanone (Methyl isobutyl ketone)	2.0	U	2.0	0.53	ug/m3			04/05/23 11:09	1
Acetone	12	U	12	3.8	ug/m3			04/05/23 11:09	1
Benzene	0.64	U	0.64	0.14	ug/m3			04/05/23 11:09	1
Benzyl chloride	1.0	U	1.0	0.46	ug/m3			04/05/23 11:09	1
Bromodichloromethane	1.3	U	1.3	0.34	ug/m3			04/05/23 11:09	1
Bromoethene(Vinyl Bromide)	0.87	U	0.87	0.22	ug/m3			04/05/23 11:09	1
Bromoform	2.1	U	2.1	1.2	ug/m3			04/05/23 11:09	1
Bromomethane	0.78	U	0.78	0.28	ug/m3			04/05/23 11:09	1
Carbon disulfide	1.6	U	1.6	0.40	ug/m3			04/05/23 11:09	1
Carbon tetrachloride	0.22	U	0.22	0.14	ug/m3			04/05/23 11:09	1
Chlorobenzene	0.92	U	0.92	0.20	ug/m3			04/05/23 11:09	1
Chlorodifluoromethane	1.8	U	1.8	0.42	ug/m3			04/05/23 11:09	1
Chloroethane	1.3	U	1.3	0.47	ug/m3			04/05/23 11:09	1
Chloroform	0.98	U	0.98	0.20	ug/m3			04/05/23 11:09	1
Chloromethane	1.0	U	1.0	0.31	ug/m3			04/05/23 11:09	1
cis-1,2-Dichloroethene	0.20	U	0.20	0.083	ug/m3			04/05/23 11:09	1
cis-1,3-Dichloropropene	0.91	U	0.91	0.20	ug/m3			04/05/23 11:09	1
Cumene	0.98	U	0.98	0.20	ug/m3			04/05/23 11:09	1
Cyclohexane	0.69	U	0.69	0.20	ug/m3			04/05/23 11:09	1
Dibromochloromethane	1.7	U	1.7	0.54	ug/m3			04/05/23 11:09	1
Dichlorodifluoromethane	2.5	U	2.5	0.54	ug/m3			04/05/23 11:09	1
Ethylbenzene	0.87	U	0.87	0.23	ug/m3			04/05/23 11:09	1
Hexachlorobutadiene	2.1	U	2.1	1.2	ug/m3			04/05/23 11:09	1
Isopropyl alcohol	12	U	12	3.9	ug/m3			04/05/23 11:09	1
m,p-Xylene	2.2	U	2.2	0.41	ug/m3			04/05/23 11:09	1

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: MB 200-190008/4
Matrix: Air
Analysis Batch: 190008

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl Butyl Ketone (2-Hexanone)	2.0	U	2.0	0.61	ug/m3			04/05/23 11:09	1
Methyl Ethyl Ketone (2-Butanone)	1.5	U	1.5	1.4	ug/m3			04/05/23 11:09	1
Methyl methacrylate	2.0	U	2.0	0.57	ug/m3			04/05/23 11:09	1
Methyl tert-butyl ether	0.72	U	0.72	0.13	ug/m3			04/05/23 11:09	1
Methylene Chloride	1.7	U	1.7	0.63	ug/m3			04/05/23 11:09	1
Naphthalene	2.6	U	2.6	1.6	ug/m3			04/05/23 11:09	1
n-Butane	1.2	U	1.2	0.48	ug/m3			04/05/23 11:09	1
n-Butylbenzene	1.1	U	1.1	0.60	ug/m3			04/05/23 11:09	1
n-Heptane	0.82	U	0.82	0.23	ug/m3			04/05/23 11:09	1
n-Hexane	1.8	U	1.8	0.39	ug/m3			04/05/23 11:09	1
n-Propylbenzene	0.98	U	0.98	0.23	ug/m3			04/05/23 11:09	1
o-Xylene	0.87	U	0.87	0.23	ug/m3			04/05/23 11:09	1
sec-Butylbenzene	1.1	U	1.1	0.25	ug/m3			04/05/23 11:09	1
Styrene	0.85	U	0.85	0.25	ug/m3			04/05/23 11:09	1
tert-Butyl alcohol	15	U	15	3.6	ug/m3			04/05/23 11:09	1
tert-Butylbenzene	1.1	U	1.1	0.26	ug/m3			04/05/23 11:09	1
Tetrachloroethene	1.4	U	1.4	0.14	ug/m3			04/05/23 11:09	1
Tetrahydrofuran	15	U	15	3.8	ug/m3			04/05/23 11:09	1
Toluene	0.75	U	0.75	0.16	ug/m3			04/05/23 11:09	1
trans-1,2-Dichloroethene	0.79	U	0.79	0.091	ug/m3			04/05/23 11:09	1
trans-1,3-Dichloropropene	0.91	U	0.91	0.25	ug/m3			04/05/23 11:09	1
Trichloroethene	0.20	U	0.20	0.13	ug/m3			04/05/23 11:09	1
Trichlorofluoromethane	1.1	U	1.1	0.28	ug/m3			04/05/23 11:09	1
Vinyl chloride	0.20	U	0.20	0.054	ug/m3			04/05/23 11:09	1

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.20	U	0.20	0.044	ppb v/v			04/05/23 11:09	1
1,1,2,2-Tetrachloroethane	0.20	U	0.20	0.043	ppb v/v			04/05/23 11:09	1
1,1,2-Trichloroethane	0.20	U	0.20	0.074	ppb v/v			04/05/23 11:09	1
1,1,2-Trichlorotrifluoroethane	0.20	U	0.20	0.053	ppb v/v			04/05/23 11:09	1
1,1-Dichloroethane	0.20	U	0.20	0.025	ppb v/v			04/05/23 11:09	1
1,1-Dichloroethene	0.050	U	0.050	0.026	ppb v/v			04/05/23 11:09	1
1,2,4-Trichlorobenzene	0.50	U	0.50	0.33	ppb v/v			04/05/23 11:09	1
1,2,4-Trimethylbenzene	0.20	U	0.20	0.080	ppb v/v			04/05/23 11:09	1
1,2-Dibromoethane	0.20	U	0.20	0.042	ppb v/v			04/05/23 11:09	1
1,2-Dichlorobenzene	0.20	U	0.20	0.066	ppb v/v			04/05/23 11:09	1
1,2-Dichloroethane	0.20	U	0.20	0.093	ppb v/v			04/05/23 11:09	1
1,2-Dichloropropane	0.20	U	0.20	0.094	ppb v/v			04/05/23 11:09	1
1,2-Dichlorotetrafluoroethane	0.20	U	0.20	0.048	ppb v/v			04/05/23 11:09	1
1,3,5-Trimethylbenzene	0.20	U	0.20	0.047	ppb v/v			04/05/23 11:09	1
1,3-Butadiene	0.20	U	0.20	0.039	ppb v/v			04/05/23 11:09	1
1,3-Dichlorobenzene	0.20	U	0.20	0.074	ppb v/v			04/05/23 11:09	1
1,4-Dichlorobenzene	0.20	U	0.20	0.089	ppb v/v			04/05/23 11:09	1
1,4-Dioxane	5.0	U	5.0	1.3	ppb v/v			04/05/23 11:09	1
2,2,4-Trimethylpentane	0.20	U	0.20	0.038	ppb v/v			04/05/23 11:09	1
2-Chlorotoluene	0.20	U	0.20	0.046	ppb v/v			04/05/23 11:09	1
3-Chloropropene	0.50	U	0.50	0.12	ppb v/v			04/05/23 11:09	1
4-Ethyltoluene	0.20	U	0.20	0.049	ppb v/v			04/05/23 11:09	1
4-Isopropyltoluene	0.20	U	0.20	0.061	ppb v/v			04/05/23 11:09	1

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: MB 200-190008/4
Matrix: Air
Analysis Batch: 190008

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Methyl-2-pentanone (Methyl isobutyl ketone)	0.50	U	0.50	0.13	ppb v/v			04/05/23 11:09	1
Acetone	5.0	U	5.0	1.6	ppb v/v			04/05/23 11:09	1
Benzene	0.20	U	0.20	0.044	ppb v/v			04/05/23 11:09	1
Benzyl chloride	0.20	U	0.20	0.088	ppb v/v			04/05/23 11:09	1
Bromodichloromethane	0.20	U	0.20	0.050	ppb v/v			04/05/23 11:09	1
Bromoethene(Vinyl Bromide)	0.20	U	0.20	0.050	ppb v/v			04/05/23 11:09	1
Bromoform	0.20	U	0.20	0.12	ppb v/v			04/05/23 11:09	1
Bromomethane	0.20	U	0.20	0.071	ppb v/v			04/05/23 11:09	1
Carbon disulfide	0.50	U	0.50	0.13	ppb v/v			04/05/23 11:09	1
Carbon tetrachloride	0.035	U	0.035	0.022	ppb v/v			04/05/23 11:09	1
Chlorobenzene	0.20	U	0.20	0.044	ppb v/v			04/05/23 11:09	1
Chlorodifluoromethane	0.50	U	0.50	0.12	ppb v/v			04/05/23 11:09	1
Chloroethane	0.50	U	0.50	0.18	ppb v/v			04/05/23 11:09	1
Chloroform	0.20	U	0.20	0.041	ppb v/v			04/05/23 11:09	1
Chloromethane	0.50	U	0.50	0.15	ppb v/v			04/05/23 11:09	1
cis-1,2-Dichloroethene	0.050	U	0.050	0.021	ppb v/v			04/05/23 11:09	1
cis-1,3-Dichloropropene	0.20	U	0.20	0.045	ppb v/v			04/05/23 11:09	1
Cumene	0.20	U	0.20	0.041	ppb v/v			04/05/23 11:09	1
Cyclohexane	0.20	U	0.20	0.058	ppb v/v			04/05/23 11:09	1
Dibromochloromethane	0.20	U	0.20	0.063	ppb v/v			04/05/23 11:09	1
Dichlorodifluoromethane	0.50	U	0.50	0.11	ppb v/v			04/05/23 11:09	1
Ethylbenzene	0.20	U	0.20	0.052	ppb v/v			04/05/23 11:09	1
Hexachlorobutadiene	0.20	U	0.20	0.11	ppb v/v			04/05/23 11:09	1
Isopropyl alcohol	5.0	U	5.0	1.6	ppb v/v			04/05/23 11:09	1
m,p-Xylene	0.50	U	0.50	0.095	ppb v/v			04/05/23 11:09	1
Methyl Butyl Ketone (2-Hexanone)	0.50	U	0.50	0.15	ppb v/v			04/05/23 11:09	1
Methyl Ethyl Ketone (2-Butanone)	0.50	U	0.50	0.49	ppb v/v			04/05/23 11:09	1
Methyl methacrylate	0.50	U	0.50	0.14	ppb v/v			04/05/23 11:09	1
Methyl tert-butyl ether	0.20	U	0.20	0.036	ppb v/v			04/05/23 11:09	1
Methylene Chloride	0.50	U	0.50	0.18	ppb v/v			04/05/23 11:09	1
Naphthalene	0.50	U	0.50	0.30	ppb v/v			04/05/23 11:09	1
n-Butane	0.50	U	0.50	0.20	ppb v/v			04/05/23 11:09	1
n-Butylbenzene	0.20	U	0.20	0.11	ppb v/v			04/05/23 11:09	1
n-Heptane	0.20	U	0.20	0.055	ppb v/v			04/05/23 11:09	1
n-Hexane	0.50	U	0.50	0.11	ppb v/v			04/05/23 11:09	1
n-Propylbenzene	0.20	U	0.20	0.047	ppb v/v			04/05/23 11:09	1
o-Xylene	0.20	U	0.20	0.052	ppb v/v			04/05/23 11:09	1
sec-Butylbenzene	0.20	U	0.20	0.045	ppb v/v			04/05/23 11:09	1
Styrene	0.20	U	0.20	0.059	ppb v/v			04/05/23 11:09	1
tert-Butyl alcohol	5.0	U	5.0	1.2	ppb v/v			04/05/23 11:09	1
tert-Butylbenzene	0.20	U	0.20	0.047	ppb v/v			04/05/23 11:09	1
Tetrachloroethene	0.20	U	0.20	0.021	ppb v/v			04/05/23 11:09	1
Tetrahydrofuran	5.0	U	5.0	1.3	ppb v/v			04/05/23 11:09	1
Toluene	0.20	U	0.20	0.042	ppb v/v			04/05/23 11:09	1
trans-1,2-Dichloroethene	0.20	U	0.20	0.023	ppb v/v			04/05/23 11:09	1
trans-1,3-Dichloropropene	0.20	U	0.20	0.054	ppb v/v			04/05/23 11:09	1
Trichloroethene	0.037	U	0.037	0.025	ppb v/v			04/05/23 11:09	1
Trichlorofluoromethane	0.20	U	0.20	0.050	ppb v/v			04/05/23 11:09	1

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: MB 200-190008/4
Matrix: Air
Analysis Batch: 190008

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.078	U	0.078	0.021	ppb v/v			04/05/23 11:09	1

Lab Sample ID: LCS 200-190008/3
Matrix: Air
Analysis Batch: 190008

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1-Trichloroethane	54.6	54.4		ug/m3		100	72 - 127
1,1,2,2-Tetrachloroethane	68.6	68.2		ug/m3		99	74 - 126
1,1,2-Trichloroethane	54.6	53.7		ug/m3		98	75 - 126
1,1,2-Trichlorotrifluoroethane	76.6	76.5		ug/m3		100	70 - 121
1,1-Dichloroethane	40.5	39.7		ug/m3		98	66 - 130
1,1-Dichloroethene	39.6	37.9		ug/m3		96	68 - 120
1,2,4-Trichlorobenzene	74.2	72.3		ug/m3		97	50 - 150
1,2,4-Trimethylbenzene	49.2	48.3		ug/m3		98	71 - 129
1,2-Dibromoethane	76.8	75.6		ug/m3		98	78 - 122
1,2-Dichlorobenzene	60.1	59.1		ug/m3		98	68 - 129
1,2-Dichloroethane	40.5	41.8		ug/m3		103	68 - 135
1,2-Dichloropropane	46.2	46.7		ug/m3		101	69 - 128
1,2-Dichlorotetrafluoroethane	69.9	76.2		ug/m3		109	71 - 141
1,3,5-Trimethylbenzene	49.2	48.7		ug/m3		99	72 - 126
1,3-Butadiene	22.1	22.6		ug/m3		102	58 - 139
1,3-Dichlorobenzene	60.1	58.7		ug/m3		98	69 - 131
1,4-Dichlorobenzene	60.1	58.7		ug/m3		98	67 - 132
1,4-Dioxane	36.0	34.4		ug/m3		95	66 - 129
2,2,4-Trimethylpentane	46.7	46.8		ug/m3		100	68 - 131
2-Chlorotoluene	51.8	51.2		ug/m3		99	74 - 126
3-Chloropropene	31.3	31.2		ug/m3		100	50 - 150
4-Ethyltoluene	49.2	48.7		ug/m3		99	75 - 129
4-Isopropyltoluene	54.9	55.2		ug/m3		101	68 - 130
4-Methyl-2-pentanone (Methyl isobutyl ketone)	41.0	41.6		ug/m3		101	58 - 144
Acetone	23.7	26.7		ug/m3		112	54 - 154
Benzene	31.9	27.7		ug/m3		87	73 - 119
Benzyl chloride	51.8	50.5		ug/m3		98	60 - 136
Bromodichloromethane	67.0	69.1		ug/m3		103	75 - 127
Bromoethene(Vinyl Bromide)	43.7	43.2		ug/m3		99	75 - 125
Bromoform	103	109		ug/m3		105	53 - 149
Bromomethane	38.8	38.9		ug/m3		100	72 - 124
Carbon disulfide	31.1	32.0		ug/m3		103	71 - 138
Carbon tetrachloride	62.9	64.0		ug/m3		102	71 - 133
Chlorobenzene	46.0	44.1		ug/m3		96	76 - 119
Chlorodifluoromethane	35.4	41.4		ug/m3		117	60 - 147
Chloroethane	26.4	28.2		ug/m3		107	68 - 130
Chloroform	48.8	48.4		ug/m3		99	73 - 124
Chloromethane	20.6	23.9		ug/m3		116	56 - 141
cis-1,2-Dichloroethene	39.6	38.8		ug/m3		98	72 - 121
cis-1,3-Dichloropropene	45.4	45.3		ug/m3		100	74 - 125
Cumene	49.1	48.1		ug/m3		98	73 - 123

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: LCS 200-190008/3
Matrix: Air
Analysis Batch: 190008

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Cyclohexane	34.4	33.7		ug/m3		98	76 - 124
Dibromochloromethane	85.2	86.6		ug/m3		102	73 - 125
Dichlorodifluoromethane	49.4	55.8		ug/m3		113	61 - 142
Ethylbenzene	43.4	42.2		ug/m3		97	74 - 122
Hexachlorobutadiene	107	104		ug/m3		97	58 - 130
Isopropyl alcohol	24.6	26.5		ug/m3		108	53 - 142
m,p-Xylene	86.8	83.6		ug/m3		96	76 - 121
Methyl Butyl Ketone (2-Hexanone)	41.0	39.1		ug/m3		95	57 - 143
Methyl Ethyl Ketone (2-Butanone)	29.5	29.6		ug/m3		100	72 - 124
Methyl methacrylate	40.9	41.3		ug/m3		101	73 - 129
Methyl tert-butyl ether	36.0	35.7		ug/m3		99	70 - 127
Methylene Chloride	34.7	36.0		ug/m3		104	59 - 137
Naphthalene	52.4	52.5		ug/m3		100	50 - 150
n-Butane	23.8	25.8		ug/m3		109	53 - 151
n-Butylbenzene	54.9	56.3		ug/m3		103	65 - 137
n-Heptane	41.0	40.5		ug/m3		99	60 - 142
n-Hexane	35.2	33.9		ug/m3		96	63 - 138
n-Propylbenzene	49.1	49.2		ug/m3		100	73 - 127
o-Xylene	43.4	41.8		ug/m3		96	73 - 123
sec-Butylbenzene	54.9	55.8		ug/m3		102	70 - 128
Styrene	42.6	41.1		ug/m3		97	74 - 125
tert-Butyl alcohol	30.3	31.6		ug/m3		104	66 - 132
tert-Butylbenzene	54.9	54.2		ug/m3		99	71 - 125
Tetrachloroethene	67.8	62.0		ug/m3		91	70 - 125
Tetrahydrofuran	29.5	31.2		ug/m3		106	60 - 149
Toluene	37.7	35.5		ug/m3		94	75 - 122
trans-1,2-Dichloroethene	39.6	38.7		ug/m3		98	69 - 137
trans-1,3-Dichloropropene	45.4	46.2		ug/m3		102	74 - 128
Trichloroethene	53.7	52.7		ug/m3		98	73 - 122
Trichlorofluoromethane	56.2	56.3		ug/m3		100	70 - 129
Vinyl chloride	25.6	26.5		ug/m3		104	61 - 135

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1-Trichloroethane	10	9.97		ppb v/v		100	72 - 127
1,1,2,2-Tetrachloroethane	10	9.93		ppb v/v		99	74 - 126
1,1,2-Trichloroethane	10	9.83		ppb v/v		98	75 - 126
1,1,2-Trichlorotrifluoroethane	10	9.98		ppb v/v		100	70 - 121
1,1-Dichloroethane	10	9.80		ppb v/v		98	66 - 130
1,1-Dichloroethene	10	9.55		ppb v/v		96	68 - 120
1,2,4-Trichlorobenzene	10	9.74		ppb v/v		97	50 - 150
1,2,4-Trimethylbenzene	10	9.83		ppb v/v		98	71 - 129
1,2-Dibromoethane	10	9.84		ppb v/v		98	78 - 122
1,2-Dichlorobenzene	10	9.83		ppb v/v		98	68 - 129
1,2-Dichloroethane	10	10.3		ppb v/v		103	68 - 135
1,2-Dichloropropane	10	10.1		ppb v/v		101	69 - 128
1,2-Dichlorotetrafluoroethane	10	10.9		ppb v/v		109	71 - 141
1,3,5-Trimethylbenzene	10	9.92		ppb v/v		99	72 - 126

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: LCS 200-190008/3
Matrix: Air
Analysis Batch: 190008

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,3-Butadiene	10	10.2		ppb v/v		102	58 - 139
1,3-Dichlorobenzene	10	9.76		ppb v/v		98	69 - 131
1,4-Dichlorobenzene	10	9.77		ppb v/v		98	67 - 132
1,4-Dioxane	10	9.55		ppb v/v		95	66 - 129
2,2,4-Trimethylpentane	10	10.0		ppb v/v		100	68 - 131
2-Chlorotoluene	10	9.89		ppb v/v		99	74 - 126
3-Chloropropene	10	9.97		ppb v/v		100	50 - 150
4-Ethyltoluene	10	9.90		ppb v/v		99	75 - 129
4-Isopropyltoluene	10	10.1		ppb v/v		101	68 - 130
4-Methyl-2-pentanone (Methyl isobutyl ketone)	10	10.1		ppb v/v		101	58 - 144
Acetone	10	11.2		ppb v/v		112	54 - 154
Benzene	10	8.68		ppb v/v		87	73 - 119
Benzyl chloride	10	9.76		ppb v/v		98	60 - 136
Bromodichloromethane	10	10.3		ppb v/v		103	75 - 127
Bromoethene(Vinyl Bromide)	10	9.87		ppb v/v		99	75 - 125
Bromoform	10	10.5		ppb v/v		105	53 - 149
Bromomethane	10	10.0		ppb v/v		100	72 - 124
Carbon disulfide	10	10.3		ppb v/v		103	71 - 138
Carbon tetrachloride	10	10.2		ppb v/v		102	71 - 133
Chlorobenzene	10	9.59		ppb v/v		96	76 - 119
Chlorodifluoromethane	10	11.7		ppb v/v		117	60 - 147
Chloroethane	10	10.7		ppb v/v		107	68 - 130
Chloroform	10	9.92		ppb v/v		99	73 - 124
Chloromethane	10	11.6		ppb v/v		116	56 - 141
cis-1,2-Dichloroethene	10	9.79		ppb v/v		98	72 - 121
cis-1,3-Dichloropropene	10	9.98		ppb v/v		100	74 - 125
Cumene	10	9.78		ppb v/v		98	73 - 123
Cyclohexane	10	9.80		ppb v/v		98	76 - 124
Dibromochloromethane	10	10.2		ppb v/v		102	73 - 125
Dichlorodifluoromethane	10	11.3		ppb v/v		113	61 - 142
Ethylbenzene	10	9.72		ppb v/v		97	74 - 122
Hexachlorobutadiene	10	9.71		ppb v/v		97	58 - 130
Isopropyl alcohol	10	10.8		ppb v/v		108	53 - 142
m,p-Xylene	20	19.2		ppb v/v		96	76 - 121
Methyl Butyl Ketone (2-Hexanone)	10	9.55		ppb v/v		95	57 - 143
Methyl Ethyl Ketone (2-Butanone)	10	10.0		ppb v/v		100	72 - 124
Methyl methacrylate	10	10.1		ppb v/v		101	73 - 129
Methyl tert-butyl ether	10	9.90		ppb v/v		99	70 - 127
Methylene Chloride	10	10.4		ppb v/v		104	59 - 137
Naphthalene	10	10.0		ppb v/v		100	50 - 150
n-Butane	10	10.9		ppb v/v		109	53 - 151
n-Butylbenzene	10	10.3		ppb v/v		103	65 - 137
n-Heptane	10	9.87		ppb v/v		99	60 - 142
n-Hexane	10	9.61		ppb v/v		96	63 - 138
n-Propylbenzene	10	10.0		ppb v/v		100	73 - 127
o-Xylene	10	9.64		ppb v/v		96	73 - 123

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: LCS 200-190008/3
Matrix: Air
Analysis Batch: 190008

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
sec-Butylbenzene	10	10.2		ppb v/v		102	70 - 128
Styrene	10	9.66		ppb v/v		97	74 - 125
tert-Butyl alcohol	10	10.4		ppb v/v		104	66 - 132
tert-Butylbenzene	10	9.87		ppb v/v		99	71 - 125
Tetrachloroethene	10	9.14		ppb v/v		91	70 - 125
Tetrahydrofuran	10	10.6		ppb v/v		106	60 - 149
Toluene	10	9.42		ppb v/v		94	75 - 122
trans-1,2-Dichloroethene	10	9.76		ppb v/v		98	69 - 137
trans-1,3-Dichloropropene	10	10.2		ppb v/v		102	74 - 128
Trichloroethene	10	9.81		ppb v/v		98	73 - 122
Trichlorofluoromethane	10	10.0		ppb v/v		100	70 - 129
Vinyl chloride	10	10.4		ppb v/v		104	61 - 135

Lab Sample ID: MB 200-190011/4
Matrix: Air
Analysis Batch: 190011

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.1	U	1.1	0.24	ug/m3			04/05/23 10:33	1
1,1,2,2-Tetrachloroethane	1.4	U	1.4	0.30	ug/m3			04/05/23 10:33	1
1,1,2-Trichloroethane	1.1	U	1.1	0.40	ug/m3			04/05/23 10:33	1
1,1,2-Trichlorotrifluoroethane	1.5	U	1.5	0.41	ug/m3			04/05/23 10:33	1
1,1-Dichloroethane	0.81	U	0.81	0.10	ug/m3			04/05/23 10:33	1
1,1-Dichloroethene	0.20	U	0.20	0.10	ug/m3			04/05/23 10:33	1
1,2,4-Trichlorobenzene	3.7	U	3.7	2.4	ug/m3			04/05/23 10:33	1
1,2,4-Trimethylbenzene	0.98	U	0.98	0.39	ug/m3			04/05/23 10:33	1
1,2-Dibromoethane	1.5	U	1.5	0.32	ug/m3			04/05/23 10:33	1
1,2-Dichlorobenzene	1.2	U	1.2	0.40	ug/m3			04/05/23 10:33	1
1,2-Dichloroethane	0.81	U	0.81	0.38	ug/m3			04/05/23 10:33	1
1,2-Dichloropropane	0.92	U	0.92	0.43	ug/m3			04/05/23 10:33	1
1,2-Dichlorotetrafluoroethane	1.4	U	1.4	0.34	ug/m3			04/05/23 10:33	1
1,3,5-Trimethylbenzene	0.98	U	0.98	0.23	ug/m3			04/05/23 10:33	1
1,3-Butadiene	0.44	U	0.44	0.086	ug/m3			04/05/23 10:33	1
1,3-Dichlorobenzene	1.2	U	1.2	0.44	ug/m3			04/05/23 10:33	1
1,4-Dichlorobenzene	1.2	U	1.2	0.54	ug/m3			04/05/23 10:33	1
1,4-Dioxane	18	U	18	4.7	ug/m3			04/05/23 10:33	1
2,2,4-Trimethylpentane	0.93	U	0.93	0.18	ug/m3			04/05/23 10:33	1
2-Chlorotoluene	1.0	U	1.0	0.24	ug/m3			04/05/23 10:33	1
3-Chloropropene	1.6	U	1.6	0.38	ug/m3			04/05/23 10:33	1
4-Ethyltoluene	0.98	U	0.98	0.24	ug/m3			04/05/23 10:33	1
4-Isopropyltoluene	1.1	U	1.1	0.33	ug/m3			04/05/23 10:33	1
4-Methyl-2-pentanone (Methyl isobutyl ketone)	2.0	U	2.0	0.53	ug/m3			04/05/23 10:33	1
Acetone	12	U	12	3.8	ug/m3			04/05/23 10:33	1
Benzene	0.64	U	0.64	0.14	ug/m3			04/05/23 10:33	1
Benzyl chloride	1.0	U	1.0	0.46	ug/m3			04/05/23 10:33	1
Bromodichloromethane	1.3	U	1.3	0.34	ug/m3			04/05/23 10:33	1
Bromoethene(Vinyl Bromide)	0.87	U	0.87	0.22	ug/m3			04/05/23 10:33	1
Bromoform	2.1	U	2.1	1.2	ug/m3			04/05/23 10:33	1

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: MB 200-190011/4
Matrix: Air
Analysis Batch: 190011

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromomethane	0.78	U	0.78	0.28	ug/m3			04/05/23 10:33	1
Carbon disulfide	1.6	U	1.6	0.40	ug/m3			04/05/23 10:33	1
Carbon tetrachloride	0.22	U	0.22	0.14	ug/m3			04/05/23 10:33	1
Chlorobenzene	0.92	U	0.92	0.20	ug/m3			04/05/23 10:33	1
Chlorodifluoromethane	1.8	U	1.8	0.42	ug/m3			04/05/23 10:33	1
Chloroethane	1.3	U	1.3	0.47	ug/m3			04/05/23 10:33	1
Chloroform	0.98	U	0.98	0.20	ug/m3			04/05/23 10:33	1
Chloromethane	1.0	U	1.0	0.31	ug/m3			04/05/23 10:33	1
cis-1,2-Dichloroethene	0.20	U	0.20	0.083	ug/m3			04/05/23 10:33	1
cis-1,3-Dichloropropene	0.91	U	0.91	0.20	ug/m3			04/05/23 10:33	1
Cumene	0.98	U	0.98	0.20	ug/m3			04/05/23 10:33	1
Cyclohexane	0.69	U	0.69	0.20	ug/m3			04/05/23 10:33	1
Dibromochloromethane	1.7	U	1.7	0.54	ug/m3			04/05/23 10:33	1
Dichlorodifluoromethane	2.5	U	2.5	0.54	ug/m3			04/05/23 10:33	1
Ethylbenzene	0.87	U	0.87	0.23	ug/m3			04/05/23 10:33	1
Hexachlorobutadiene	2.1	U	2.1	1.2	ug/m3			04/05/23 10:33	1
Isopropyl alcohol	12	U	12	3.9	ug/m3			04/05/23 10:33	1
m,p-Xylene	2.2	U	2.2	0.41	ug/m3			04/05/23 10:33	1
Methyl Butyl Ketone (2-Hexanone)	2.0	U	2.0	0.61	ug/m3			04/05/23 10:33	1
Methyl Ethyl Ketone (2-Butanone)	1.5	U	1.5	1.4	ug/m3			04/05/23 10:33	1
Methyl methacrylate	2.0	U	2.0	0.57	ug/m3			04/05/23 10:33	1
Methyl tert-butyl ether	0.72	U	0.72	0.13	ug/m3			04/05/23 10:33	1
Methylene Chloride	1.7	U	1.7	0.63	ug/m3			04/05/23 10:33	1
Naphthalene	2.6	U	2.6	1.6	ug/m3			04/05/23 10:33	1
n-Butane	1.2	U	1.2	0.48	ug/m3			04/05/23 10:33	1
n-Butylbenzene	1.1	U	1.1	0.60	ug/m3			04/05/23 10:33	1
n-Heptane	0.82	U	0.82	0.23	ug/m3			04/05/23 10:33	1
n-Hexane	1.8	U	1.8	0.39	ug/m3			04/05/23 10:33	1
n-Propylbenzene	0.98	U	0.98	0.23	ug/m3			04/05/23 10:33	1
o-Xylene	0.87	U	0.87	0.23	ug/m3			04/05/23 10:33	1
sec-Butylbenzene	1.1	U	1.1	0.25	ug/m3			04/05/23 10:33	1
Styrene	0.85	U	0.85	0.25	ug/m3			04/05/23 10:33	1
tert-Butyl alcohol	15	U	15	3.6	ug/m3			04/05/23 10:33	1
tert-Butylbenzene	1.1	U	1.1	0.26	ug/m3			04/05/23 10:33	1
Tetrachloroethene	1.4	U	1.4	0.14	ug/m3			04/05/23 10:33	1
Tetrahydrofuran	15	U	15	3.8	ug/m3			04/05/23 10:33	1
Toluene	0.75	U	0.75	0.16	ug/m3			04/05/23 10:33	1
trans-1,2-Dichloroethene	0.79	U	0.79	0.091	ug/m3			04/05/23 10:33	1
trans-1,3-Dichloropropene	0.91	U	0.91	0.25	ug/m3			04/05/23 10:33	1
Trichloroethene	0.20	U	0.20	0.13	ug/m3			04/05/23 10:33	1
Trichlorofluoromethane	1.1	U	1.1	0.28	ug/m3			04/05/23 10:33	1
Vinyl chloride	0.20	U	0.20	0.054	ug/m3			04/05/23 10:33	1

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.20	U	0.20	0.044	ppb v/v			04/05/23 10:33	1
1,1,2,2-Tetrachloroethane	0.20	U	0.20	0.043	ppb v/v			04/05/23 10:33	1
1,1,2-Trichloroethane	0.20	U	0.20	0.074	ppb v/v			04/05/23 10:33	1
1,1,2-Trichlorotrifluoroethane	0.20	U	0.20	0.053	ppb v/v			04/05/23 10:33	1
1,1-Dichloroethane	0.20	U	0.20	0.025	ppb v/v			04/05/23 10:33	1

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: MB 200-190011/4
Matrix: Air
Analysis Batch: 190011

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	0.050	U	0.050	0.026	ppb v/v			04/05/23 10:33	1
1,2,4-Trichlorobenzene	0.50	U	0.50	0.33	ppb v/v			04/05/23 10:33	1
1,2,4-Trimethylbenzene	0.20	U	0.20	0.080	ppb v/v			04/05/23 10:33	1
1,2-Dibromoethane	0.20	U	0.20	0.042	ppb v/v			04/05/23 10:33	1
1,2-Dichlorobenzene	0.20	U	0.20	0.066	ppb v/v			04/05/23 10:33	1
1,2-Dichloroethane	0.20	U	0.20	0.093	ppb v/v			04/05/23 10:33	1
1,2-Dichloropropane	0.20	U	0.20	0.094	ppb v/v			04/05/23 10:33	1
1,2-Dichlorotetrafluoroethane	0.20	U	0.20	0.048	ppb v/v			04/05/23 10:33	1
1,3,5-Trimethylbenzene	0.20	U	0.20	0.047	ppb v/v			04/05/23 10:33	1
1,3-Butadiene	0.20	U	0.20	0.039	ppb v/v			04/05/23 10:33	1
1,3-Dichlorobenzene	0.20	U	0.20	0.074	ppb v/v			04/05/23 10:33	1
1,4-Dichlorobenzene	0.20	U	0.20	0.089	ppb v/v			04/05/23 10:33	1
1,4-Dioxane	5.0	U	5.0	1.3	ppb v/v			04/05/23 10:33	1
2,2,4-Trimethylpentane	0.20	U	0.20	0.038	ppb v/v			04/05/23 10:33	1
2-Chlorotoluene	0.20	U	0.20	0.046	ppb v/v			04/05/23 10:33	1
3-Chloropropene	0.50	U	0.50	0.12	ppb v/v			04/05/23 10:33	1
4-Ethyltoluene	0.20	U	0.20	0.049	ppb v/v			04/05/23 10:33	1
4-Isopropyltoluene	0.20	U	0.20	0.061	ppb v/v			04/05/23 10:33	1
4-Methyl-2-pentanone (Methyl isobutyl ketone)	0.50	U	0.50	0.13	ppb v/v			04/05/23 10:33	1
Acetone	5.0	U	5.0	1.6	ppb v/v			04/05/23 10:33	1
Benzene	0.20	U	0.20	0.044	ppb v/v			04/05/23 10:33	1
Benzyl chloride	0.20	U	0.20	0.088	ppb v/v			04/05/23 10:33	1
Bromodichloromethane	0.20	U	0.20	0.050	ppb v/v			04/05/23 10:33	1
Bromoethene(Vinyl Bromide)	0.20	U	0.20	0.050	ppb v/v			04/05/23 10:33	1
Bromoform	0.20	U	0.20	0.12	ppb v/v			04/05/23 10:33	1
Bromomethane	0.20	U	0.20	0.071	ppb v/v			04/05/23 10:33	1
Carbon disulfide	0.50	U	0.50	0.13	ppb v/v			04/05/23 10:33	1
Carbon tetrachloride	0.035	U	0.035	0.022	ppb v/v			04/05/23 10:33	1
Chlorobenzene	0.20	U	0.20	0.044	ppb v/v			04/05/23 10:33	1
Chlorodifluoromethane	0.50	U	0.50	0.12	ppb v/v			04/05/23 10:33	1
Chloroethane	0.50	U	0.50	0.18	ppb v/v			04/05/23 10:33	1
Chloroform	0.20	U	0.20	0.041	ppb v/v			04/05/23 10:33	1
Chloromethane	0.50	U	0.50	0.15	ppb v/v			04/05/23 10:33	1
cis-1,2-Dichloroethene	0.050	U	0.050	0.021	ppb v/v			04/05/23 10:33	1
cis-1,3-Dichloropropene	0.20	U	0.20	0.045	ppb v/v			04/05/23 10:33	1
Cumene	0.20	U	0.20	0.041	ppb v/v			04/05/23 10:33	1
Cyclohexane	0.20	U	0.20	0.058	ppb v/v			04/05/23 10:33	1
Dibromochloromethane	0.20	U	0.20	0.063	ppb v/v			04/05/23 10:33	1
Dichlorodifluoromethane	0.50	U	0.50	0.11	ppb v/v			04/05/23 10:33	1
Ethylbenzene	0.20	U	0.20	0.052	ppb v/v			04/05/23 10:33	1
Hexachlorobutadiene	0.20	U	0.20	0.11	ppb v/v			04/05/23 10:33	1
Isopropyl alcohol	5.0	U	5.0	1.6	ppb v/v			04/05/23 10:33	1
m,p-Xylene	0.50	U	0.50	0.095	ppb v/v			04/05/23 10:33	1
Methyl Butyl Ketone (2-Hexanone)	0.50	U	0.50	0.15	ppb v/v			04/05/23 10:33	1
Methyl Ethyl Ketone (2-Butanone)	0.50	U	0.50	0.49	ppb v/v			04/05/23 10:33	1
Methyl methacrylate	0.50	U	0.50	0.14	ppb v/v			04/05/23 10:33	1
Methyl tert-butyl ether	0.20	U	0.20	0.036	ppb v/v			04/05/23 10:33	1
Methylene Chloride	0.50	U	0.50	0.18	ppb v/v			04/05/23 10:33	1

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: MB 200-190011/4
Matrix: Air
Analysis Batch: 190011

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	0.50	U	0.50	0.30	ppb v/v			04/05/23 10:33	1
n-Butane	0.50	U	0.50	0.20	ppb v/v			04/05/23 10:33	1
n-Butylbenzene	0.20	U	0.20	0.11	ppb v/v			04/05/23 10:33	1
n-Heptane	0.20	U	0.20	0.055	ppb v/v			04/05/23 10:33	1
n-Hexane	0.50	U	0.50	0.11	ppb v/v			04/05/23 10:33	1
n-Propylbenzene	0.20	U	0.20	0.047	ppb v/v			04/05/23 10:33	1
o-Xylene	0.20	U	0.20	0.052	ppb v/v			04/05/23 10:33	1
sec-Butylbenzene	0.20	U	0.20	0.045	ppb v/v			04/05/23 10:33	1
Styrene	0.20	U	0.20	0.059	ppb v/v			04/05/23 10:33	1
tert-Butyl alcohol	5.0	U	5.0	1.2	ppb v/v			04/05/23 10:33	1
tert-Butylbenzene	0.20	U	0.20	0.047	ppb v/v			04/05/23 10:33	1
Tetrachloroethene	0.20	U	0.20	0.021	ppb v/v			04/05/23 10:33	1
Tetrahydrofuran	5.0	U	5.0	1.3	ppb v/v			04/05/23 10:33	1
Toluene	0.20	U	0.20	0.042	ppb v/v			04/05/23 10:33	1
trans-1,2-Dichloroethene	0.20	U	0.20	0.023	ppb v/v			04/05/23 10:33	1
trans-1,3-Dichloropropene	0.20	U	0.20	0.054	ppb v/v			04/05/23 10:33	1
Trichloroethene	0.037	U	0.037	0.025	ppb v/v			04/05/23 10:33	1
Trichlorofluoromethane	0.20	U	0.20	0.050	ppb v/v			04/05/23 10:33	1
Vinyl chloride	0.078	U	0.078	0.021	ppb v/v			04/05/23 10:33	1

Lab Sample ID: LCS 200-190011/3
Matrix: Air
Analysis Batch: 190011

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1-Trichloroethane	54.6	47.0		ug/m3		86	72 - 127
1,1,2,2-Tetrachloroethane	68.6	63.4		ug/m3		92	74 - 126
1,1,2-Trichloroethane	54.6	49.9		ug/m3		92	75 - 126
1,1,2-Trichlorotrifluoroethane	76.6	78.5		ug/m3		102	70 - 121
1,1-Dichloroethane	40.5	37.3		ug/m3		92	66 - 130
1,1-Dichloroethene	39.6	39.1		ug/m3		99	68 - 120
1,2,4-Trichlorobenzene	74.2	72.6		ug/m3		98	50 - 150
1,2,4-Trimethylbenzene	49.2	48.7		ug/m3		99	71 - 129
1,2-Dibromoethane	76.8	73.2		ug/m3		95	78 - 122
1,2-Dichlorobenzene	60.1	58.9		ug/m3		98	68 - 129
1,2-Dichloroethane	40.5	33.8		ug/m3		84	68 - 135
1,2-Dichloropropane	46.2	46.0		ug/m3		100	69 - 128
1,2-Dichlorotetrafluoroethane	69.9	74.1		ug/m3		106	71 - 141
1,3,5-Trimethylbenzene	49.2	47.8		ug/m3		97	72 - 126
1,3-Butadiene	22.1	21.1		ug/m3		95	58 - 139
1,3-Dichlorobenzene	60.1	59.5		ug/m3		99	69 - 131
1,4-Dichlorobenzene	60.1	60.0		ug/m3		100	67 - 132
1,4-Dioxane	36.0	38.6		ug/m3		107	66 - 129
2,2,4-Trimethylpentane	46.7	36.7		ug/m3		79	68 - 131
2-Chlorotoluene	51.8	48.4		ug/m3		93	74 - 126
3-Chloropropene	31.3	29.7		ug/m3		95	50 - 150
4-Ethyltoluene	49.2	48.1		ug/m3		98	75 - 129
4-Isopropyltoluene	54.9	54.9		ug/m3		100	68 - 130

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: LCS 200-190011/3
Matrix: Air
Analysis Batch: 190011

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
4-Methyl-2-pentanone (Methyl isobutyl ketone)	41.0	42.0		ug/m3		103	58 - 144
Acetone	23.7	25.3		ug/m3		106	54 - 154
Benzene	31.9	26.2		ug/m3		82	73 - 119
Benzyl chloride	51.8	52.2		ug/m3		101	60 - 136
Bromodichloromethane	67.0	68.4		ug/m3		102	75 - 127
Bromoethene(Vinyl Bromide)	43.7	45.6		ug/m3		104	75 - 125
Bromoform	103	103		ug/m3		100	53 - 149
Bromomethane	38.8	40.6		ug/m3		105	72 - 124
Carbon disulfide	31.1	31.8		ug/m3		102	71 - 138
Carbon tetrachloride	62.9	55.2		ug/m3		88	71 - 133
Chlorobenzene	46.0	42.0		ug/m3		91	76 - 119
Chlorodifluoromethane	35.4	38.7		ug/m3		109	60 - 147
Chloroethane	26.4	28.1		ug/m3		106	68 - 130
Chloroform	48.8	40.7		ug/m3		83	73 - 124
Chloromethane	20.6	22.3		ug/m3		108	56 - 141
cis-1,2-Dichloroethene	39.6	33.4		ug/m3		84	72 - 121
cis-1,3-Dichloropropene	45.4	47.5		ug/m3		105	74 - 125
Cumene	49.1	47.4		ug/m3		96	73 - 123
Cyclohexane	34.4	29.1		ug/m3		85	76 - 124
Dibromochloromethane	85.2	81.1		ug/m3		95	73 - 125
Dichlorodifluoromethane	49.4	54.8		ug/m3		111	61 - 142
Ethylbenzene	43.4	40.3		ug/m3		93	74 - 122
Hexachlorobutadiene	107	105		ug/m3		98	58 - 130
Isopropyl alcohol	24.6	26.3		ug/m3		107	53 - 142
m,p-Xylene	86.8	82.2		ug/m3		95	76 - 121
Methyl Butyl Ketone (2-Hexanone)	41.0	37.8		ug/m3		92	57 - 143
Methyl Ethyl Ketone (2-Butanone)	29.5	24.6		ug/m3		84	72 - 124
Methyl methacrylate	40.9	43.4		ug/m3		106	73 - 129
Methyl tert-butyl ether	36.0	37.3		ug/m3		103	70 - 127
Methylene Chloride	34.7	35.2		ug/m3		101	59 - 137
Naphthalene	52.4	51.0		ug/m3		97	50 - 150
n-Butane	23.8	24.0		ug/m3		101	53 - 151
n-Butylbenzene	54.9	55.7		ug/m3		102	65 - 137
n-Heptane	41.0	31.0		ug/m3		76	60 - 142
n-Hexane	35.2	32.4		ug/m3		92	63 - 138
n-Propylbenzene	49.1	47.4		ug/m3		96	73 - 127
o-Xylene	43.4	41.2		ug/m3		95	73 - 123
sec-Butylbenzene	54.9	54.2		ug/m3		99	70 - 128
Styrene	42.6	42.6		ug/m3		100	74 - 125
tert-Butyl alcohol	30.3	32.0		ug/m3		106	66 - 132
tert-Butylbenzene	54.9	53.5		ug/m3		98	71 - 125
Tetrachloroethene	67.8	61.4		ug/m3		90	70 - 125
Tetrahydrofuran	29.5	21.4		ug/m3		73	60 - 149
Toluene	37.7	34.6		ug/m3		92	75 - 122
trans-1,2-Dichloroethene	39.6	39.6		ug/m3		100	69 - 137
trans-1,3-Dichloropropene	45.4	48.7		ug/m3		107	74 - 128

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: LCS 200-190011/3
Matrix: Air
Analysis Batch: 190011

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Trichloroethene	53.7	54.4		ug/m3		101	73 - 122
Trichlorofluoromethane	56.2	58.6		ug/m3		104	70 - 129
Vinyl chloride	25.6	24.5		ug/m3		96	61 - 135

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1-Trichloroethane	10	8.61		ppb v/v		86	72 - 127
1,1,2,2-Tetrachloroethane	10	9.24		ppb v/v		92	74 - 126
1,1,2-Trichloroethane	10	9.15		ppb v/v		92	75 - 126
1,1,2-Trichlorotrifluoroethane	10	10.2		ppb v/v		102	70 - 121
1,1-Dichloroethane	10	9.21		ppb v/v		92	66 - 130
1,1-Dichloroethene	10	9.85		ppb v/v		99	68 - 120
1,2,4-Trichlorobenzene	10	9.78		ppb v/v		98	50 - 150
1,2,4-Trimethylbenzene	10	9.91		ppb v/v		99	71 - 129
1,2-Dibromoethane	10	9.53		ppb v/v		95	78 - 122
1,2-Dichlorobenzene	10	9.79		ppb v/v		98	68 - 129
1,2-Dichloroethane	10	8.35		ppb v/v		84	68 - 135
1,2-Dichloropropane	10	9.96		ppb v/v		100	69 - 128
1,2-Dichlorotetrafluoroethane	10	10.6		ppb v/v		106	71 - 141
1,3,5-Trimethylbenzene	10	9.72		ppb v/v		97	72 - 126
1,3-Butadiene	10	9.54		ppb v/v		95	58 - 139
1,3-Dichlorobenzene	10	9.90		ppb v/v		99	69 - 131
1,4-Dichlorobenzene	10	9.98		ppb v/v		100	67 - 132
1,4-Dioxane	10	10.7		ppb v/v		107	66 - 129
2,2,4-Trimethylpentane	10	7.85		ppb v/v		79	68 - 131
2-Chlorotoluene	10	9.34		ppb v/v		93	74 - 126
3-Chloropropene	10	9.49		ppb v/v		95	50 - 150
4-Ethyltoluene	10	9.79		ppb v/v		98	75 - 129
4-Isopropyltoluene	10	9.99		ppb v/v		100	68 - 130
4-Methyl-2-pentanone (Methyl isobutyl ketone)	10	10.3		ppb v/v		103	58 - 144
Acetone	10	10.6		ppb v/v		106	54 - 154
Benzene	10	8.20		ppb v/v		82	73 - 119
Benzyl chloride	10	10.1		ppb v/v		101	60 - 136
Bromodichloromethane	10	10.2		ppb v/v		102	75 - 127
Bromoethene(Vinyl Bromide)	10	10.4		ppb v/v		104	75 - 125
Bromoform	10	9.95		ppb v/v		100	53 - 149
Bromomethane	10	10.5		ppb v/v		105	72 - 124
Carbon disulfide	10	10.2		ppb v/v		102	71 - 138
Carbon tetrachloride	10	8.78		ppb v/v		88	71 - 133
Chlorobenzene	10	9.12		ppb v/v		91	76 - 119
Chlorodifluoromethane	10	10.9		ppb v/v		109	60 - 147
Chloroethane	10	10.6		ppb v/v		106	68 - 130
Chloroform	10	8.33		ppb v/v		83	73 - 124
Chloromethane	10	10.8		ppb v/v		108	56 - 141
cis-1,2-Dichloroethene	10	8.42		ppb v/v		84	72 - 121
cis-1,3-Dichloropropene	10	10.5		ppb v/v		105	74 - 125
Cumene	10	9.64		ppb v/v		96	73 - 123
Cyclohexane	10	8.45		ppb v/v		85	76 - 124
Dibromochloromethane	10	9.52		ppb v/v		95	73 - 125

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: LCS 200-190011/3
Matrix: Air
Analysis Batch: 190011

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Dichlorodifluoromethane	10	11.1		ppb v/v		111	61 - 142
Ethylbenzene	10	9.28		ppb v/v		93	74 - 122
Hexachlorobutadiene	10	9.83		ppb v/v		98	58 - 130
Isopropyl alcohol	10	10.7		ppb v/v		107	53 - 142
m,p-Xylene	20	18.9		ppb v/v		95	76 - 121
Methyl Butyl Ketone (2-Hexanone)	10	9.23		ppb v/v		92	57 - 143
Methyl Ethyl Ketone (2-Butanone)	10	8.36		ppb v/v		84	72 - 124
Methyl methacrylate	10	10.6		ppb v/v		106	73 - 129
Methyl tert-butyl ether	10	10.3		ppb v/v		103	70 - 127
Methylene Chloride	10	10.1		ppb v/v		101	59 - 137
Naphthalene	10	9.73		ppb v/v		97	50 - 150
n-Butane	10	10.1		ppb v/v		101	53 - 151
n-Butylbenzene	10	10.2		ppb v/v		102	65 - 137
n-Heptane	10	7.56		ppb v/v		76	60 - 142
n-Hexane	10	9.20		ppb v/v		92	63 - 138
n-Propylbenzene	10	9.64		ppb v/v		96	73 - 127
o-Xylene	10	9.49		ppb v/v		95	73 - 123
sec-Butylbenzene	10	9.87		ppb v/v		99	70 - 128
Styrene	10	9.99		ppb v/v		100	74 - 125
tert-Butyl alcohol	10	10.6		ppb v/v		106	66 - 132
tert-Butylbenzene	10	9.75		ppb v/v		98	71 - 125
Tetrachloroethene	10	9.05		ppb v/v		90	70 - 125
Tetrahydrofuran	10	7.27		ppb v/v		73	60 - 149
Toluene	10	9.17		ppb v/v		92	75 - 122
trans-1,2-Dichloroethene	10	10.0		ppb v/v		100	69 - 137
trans-1,3-Dichloropropene	10	10.7		ppb v/v		107	74 - 128
Trichloroethene	10	10.1		ppb v/v		101	73 - 122
Trichlorofluoromethane	10	10.4		ppb v/v		104	70 - 129
Vinyl chloride	10	9.58		ppb v/v		96	61 - 135

Lab Sample ID: MB 200-190057/4
Matrix: Air
Analysis Batch: 190057

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.1	U	1.1	0.24	ug/m3			04/06/23 10:00	1
1,1,2,2-Tetrachloroethane	1.4	U	1.4	0.30	ug/m3			04/06/23 10:00	1
1,1,2-Trichloroethane	1.1	U	1.1	0.40	ug/m3			04/06/23 10:00	1
1,1,2-Trichlorotrifluoroethane	1.5	U	1.5	0.41	ug/m3			04/06/23 10:00	1
1,1-Dichloroethane	0.81	U	0.81	0.10	ug/m3			04/06/23 10:00	1
1,1-Dichloroethene	0.20	U	0.20	0.10	ug/m3			04/06/23 10:00	1
1,2,4-Trichlorobenzene	3.7	U	3.7	2.4	ug/m3			04/06/23 10:00	1
1,2,4-Trimethylbenzene	0.98	U	0.98	0.39	ug/m3			04/06/23 10:00	1
1,2-Dibromoethane	1.5	U	1.5	0.32	ug/m3			04/06/23 10:00	1
1,2-Dichlorobenzene	1.2	U	1.2	0.40	ug/m3			04/06/23 10:00	1
1,2-Dichloroethane	0.81	U	0.81	0.38	ug/m3			04/06/23 10:00	1
1,2-Dichloropropane	0.92	U	0.92	0.43	ug/m3			04/06/23 10:00	1

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: MB 200-190057/4
Matrix: Air
Analysis Batch: 190057

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorotetrafluoroethane	1.4	U	1.4	0.34	ug/m3			04/06/23 10:00	1
1,3,5-Trimethylbenzene	0.98	U	0.98	0.23	ug/m3			04/06/23 10:00	1
1,3-Butadiene	0.44	U	0.44	0.086	ug/m3			04/06/23 10:00	1
1,3-Dichlorobenzene	1.2	U	1.2	0.44	ug/m3			04/06/23 10:00	1
1,4-Dichlorobenzene	1.2	U	1.2	0.54	ug/m3			04/06/23 10:00	1
1,4-Dioxane	18	U	18	4.7	ug/m3			04/06/23 10:00	1
2,2,4-Trimethylpentane	0.93	U	0.93	0.18	ug/m3			04/06/23 10:00	1
2-Chlorotoluene	1.0	U	1.0	0.24	ug/m3			04/06/23 10:00	1
3-Chloropropene	1.6	U	1.6	0.38	ug/m3			04/06/23 10:00	1
4-Ethyltoluene	0.98	U	0.98	0.24	ug/m3			04/06/23 10:00	1
4-Isopropyltoluene	1.1	U	1.1	0.33	ug/m3			04/06/23 10:00	1
4-Methyl-2-pentanone (Methyl isobutyl ketone)	2.0	U	2.0	0.53	ug/m3			04/06/23 10:00	1
Acetone	12	U	12	3.8	ug/m3			04/06/23 10:00	1
Benzene	0.64	U	0.64	0.14	ug/m3			04/06/23 10:00	1
Benzyl chloride	1.0	U	1.0	0.46	ug/m3			04/06/23 10:00	1
Bromodichloromethane	1.3	U	1.3	0.34	ug/m3			04/06/23 10:00	1
Bromoethene(Vinyl Bromide)	0.87	U	0.87	0.22	ug/m3			04/06/23 10:00	1
Bromoform	2.1	U	2.1	1.2	ug/m3			04/06/23 10:00	1
Bromomethane	0.78	U	0.78	0.28	ug/m3			04/06/23 10:00	1
Carbon disulfide	1.6	U	1.6	0.40	ug/m3			04/06/23 10:00	1
Carbon tetrachloride	0.22	U	0.22	0.14	ug/m3			04/06/23 10:00	1
Chlorobenzene	0.92	U	0.92	0.20	ug/m3			04/06/23 10:00	1
Chlorodifluoromethane	1.8	U	1.8	0.42	ug/m3			04/06/23 10:00	1
Chloroethane	1.3	U	1.3	0.47	ug/m3			04/06/23 10:00	1
Chloroform	0.98	U	0.98	0.20	ug/m3			04/06/23 10:00	1
Chloromethane	1.0	U	1.0	0.31	ug/m3			04/06/23 10:00	1
cis-1,2-Dichloroethene	0.20	U	0.20	0.083	ug/m3			04/06/23 10:00	1
cis-1,3-Dichloropropene	0.91	U	0.91	0.20	ug/m3			04/06/23 10:00	1
Cumene	0.98	U	0.98	0.20	ug/m3			04/06/23 10:00	1
Cyclohexane	0.69	U	0.69	0.20	ug/m3			04/06/23 10:00	1
Dibromochloromethane	1.7	U	1.7	0.54	ug/m3			04/06/23 10:00	1
Dichlorodifluoromethane	2.5	U	2.5	0.54	ug/m3			04/06/23 10:00	1
Ethylbenzene	0.87	U	0.87	0.23	ug/m3			04/06/23 10:00	1
Hexachlorobutadiene	2.1	U	2.1	1.2	ug/m3			04/06/23 10:00	1
Isopropyl alcohol	12	U	12	3.9	ug/m3			04/06/23 10:00	1
m,p-Xylene	2.2	U	2.2	0.41	ug/m3			04/06/23 10:00	1
Methyl Butyl Ketone (2-Hexanone)	2.0	U	2.0	0.61	ug/m3			04/06/23 10:00	1
Methyl Ethyl Ketone (2-Butanone)	1.5	U	1.5	1.4	ug/m3			04/06/23 10:00	1
Methyl methacrylate	2.0	U	2.0	0.57	ug/m3			04/06/23 10:00	1
Methyl tert-butyl ether	0.72	U	0.72	0.13	ug/m3			04/06/23 10:00	1
Methylene Chloride	1.7	U	1.7	0.63	ug/m3			04/06/23 10:00	1
Naphthalene	2.6	U	2.6	1.6	ug/m3			04/06/23 10:00	1
n-Butane	1.2	U	1.2	0.48	ug/m3			04/06/23 10:00	1
n-Butylbenzene	1.1	U	1.1	0.60	ug/m3			04/06/23 10:00	1
n-Heptane	0.82	U	0.82	0.23	ug/m3			04/06/23 10:00	1
n-Hexane	1.8	U	1.8	0.39	ug/m3			04/06/23 10:00	1
n-Propylbenzene	0.98	U	0.98	0.23	ug/m3			04/06/23 10:00	1
o-Xylene	0.87	U	0.87	0.23	ug/m3			04/06/23 10:00	1

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: MB 200-190057/4
Matrix: Air
Analysis Batch: 190057

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	1.1	U	1.1	0.25	ug/m3			04/06/23 10:00	1
Styrene	0.85	U	0.85	0.25	ug/m3			04/06/23 10:00	1
tert-Butyl alcohol	15	U	15	3.6	ug/m3			04/06/23 10:00	1
tert-Butylbenzene	1.1	U	1.1	0.26	ug/m3			04/06/23 10:00	1
Tetrachloroethene	1.4	U	1.4	0.14	ug/m3			04/06/23 10:00	1
Tetrahydrofuran	15	U	15	3.8	ug/m3			04/06/23 10:00	1
Toluene	0.75	U	0.75	0.16	ug/m3			04/06/23 10:00	1
trans-1,2-Dichloroethene	0.79	U	0.79	0.091	ug/m3			04/06/23 10:00	1
trans-1,3-Dichloropropene	0.91	U	0.91	0.25	ug/m3			04/06/23 10:00	1
Trichloroethene	0.20	U	0.20	0.13	ug/m3			04/06/23 10:00	1
Trichlorofluoromethane	1.1	U	1.1	0.28	ug/m3			04/06/23 10:00	1
Vinyl chloride	0.20	U	0.20	0.054	ug/m3			04/06/23 10:00	1

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.20	U	0.20	0.044	ppb v/v			04/06/23 10:00	1
1,1,2,2-Tetrachloroethane	0.20	U	0.20	0.043	ppb v/v			04/06/23 10:00	1
1,1,2-Trichloroethane	0.20	U	0.20	0.074	ppb v/v			04/06/23 10:00	1
1,1,2-Trichlorotrifluoroethane	0.20	U	0.20	0.053	ppb v/v			04/06/23 10:00	1
1,1-Dichloroethane	0.20	U	0.20	0.025	ppb v/v			04/06/23 10:00	1
1,1-Dichloroethene	0.050	U	0.050	0.026	ppb v/v			04/06/23 10:00	1
1,2,4-Trichlorobenzene	0.50	U	0.50	0.33	ppb v/v			04/06/23 10:00	1
1,2,4-Trimethylbenzene	0.20	U	0.20	0.080	ppb v/v			04/06/23 10:00	1
1,2-Dibromoethane	0.20	U	0.20	0.042	ppb v/v			04/06/23 10:00	1
1,2-Dichlorobenzene	0.20	U	0.20	0.066	ppb v/v			04/06/23 10:00	1
1,2-Dichloroethane	0.20	U	0.20	0.093	ppb v/v			04/06/23 10:00	1
1,2-Dichloropropane	0.20	U	0.20	0.094	ppb v/v			04/06/23 10:00	1
1,2-Dichlorotetrafluoroethane	0.20	U	0.20	0.048	ppb v/v			04/06/23 10:00	1
1,3,5-Trimethylbenzene	0.20	U	0.20	0.047	ppb v/v			04/06/23 10:00	1
1,3-Butadiene	0.20	U	0.20	0.039	ppb v/v			04/06/23 10:00	1
1,3-Dichlorobenzene	0.20	U	0.20	0.074	ppb v/v			04/06/23 10:00	1
1,4-Dichlorobenzene	0.20	U	0.20	0.089	ppb v/v			04/06/23 10:00	1
1,4-Dioxane	5.0	U	5.0	1.3	ppb v/v			04/06/23 10:00	1
2,2,4-Trimethylpentane	0.20	U	0.20	0.038	ppb v/v			04/06/23 10:00	1
2-Chlorotoluene	0.20	U	0.20	0.046	ppb v/v			04/06/23 10:00	1
3-Chloropropene	0.50	U	0.50	0.12	ppb v/v			04/06/23 10:00	1
4-Ethyltoluene	0.20	U	0.20	0.049	ppb v/v			04/06/23 10:00	1
4-Isopropyltoluene	0.20	U	0.20	0.061	ppb v/v			04/06/23 10:00	1
4-Methyl-2-pentanone (Methyl isobutyl ketone)	0.50	U	0.50	0.13	ppb v/v			04/06/23 10:00	1
Acetone	5.0	U	5.0	1.6	ppb v/v			04/06/23 10:00	1
Benzene	0.20	U	0.20	0.044	ppb v/v			04/06/23 10:00	1
Benzyl chloride	0.20	U	0.20	0.088	ppb v/v			04/06/23 10:00	1
Bromodichloromethane	0.20	U	0.20	0.050	ppb v/v			04/06/23 10:00	1
Bromoethene(Vinyl Bromide)	0.20	U	0.20	0.050	ppb v/v			04/06/23 10:00	1
Bromoform	0.20	U	0.20	0.12	ppb v/v			04/06/23 10:00	1
Bromomethane	0.20	U	0.20	0.071	ppb v/v			04/06/23 10:00	1
Carbon disulfide	0.50	U	0.50	0.13	ppb v/v			04/06/23 10:00	1
Carbon tetrachloride	0.035	U	0.035	0.022	ppb v/v			04/06/23 10:00	1
Chlorobenzene	0.20	U	0.20	0.044	ppb v/v			04/06/23 10:00	1

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: MB 200-190057/4
Matrix: Air
Analysis Batch: 190057

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorodifluoromethane	0.50	U	0.50	0.12	ppb v/v			04/06/23 10:00	1
Chloroethane	0.50	U	0.50	0.18	ppb v/v			04/06/23 10:00	1
Chloroform	0.20	U	0.20	0.041	ppb v/v			04/06/23 10:00	1
Chloromethane	0.50	U	0.50	0.15	ppb v/v			04/06/23 10:00	1
cis-1,2-Dichloroethene	0.050	U	0.050	0.021	ppb v/v			04/06/23 10:00	1
cis-1,3-Dichloropropene	0.20	U	0.20	0.045	ppb v/v			04/06/23 10:00	1
Cumene	0.20	U	0.20	0.041	ppb v/v			04/06/23 10:00	1
Cyclohexane	0.20	U	0.20	0.058	ppb v/v			04/06/23 10:00	1
Dibromochloromethane	0.20	U	0.20	0.063	ppb v/v			04/06/23 10:00	1
Dichlorodifluoromethane	0.50	U	0.50	0.11	ppb v/v			04/06/23 10:00	1
Ethylbenzene	0.20	U	0.20	0.052	ppb v/v			04/06/23 10:00	1
Hexachlorobutadiene	0.20	U	0.20	0.11	ppb v/v			04/06/23 10:00	1
Isopropyl alcohol	5.0	U	5.0	1.6	ppb v/v			04/06/23 10:00	1
m,p-Xylene	0.50	U	0.50	0.095	ppb v/v			04/06/23 10:00	1
Methyl Butyl Ketone (2-Hexanone)	0.50	U	0.50	0.15	ppb v/v			04/06/23 10:00	1
Methyl Ethyl Ketone (2-Butanone)	0.50	U	0.50	0.49	ppb v/v			04/06/23 10:00	1
Methyl methacrylate	0.50	U	0.50	0.14	ppb v/v			04/06/23 10:00	1
Methyl tert-butyl ether	0.20	U	0.20	0.036	ppb v/v			04/06/23 10:00	1
Methylene Chloride	0.50	U	0.50	0.18	ppb v/v			04/06/23 10:00	1
Naphthalene	0.50	U	0.50	0.30	ppb v/v			04/06/23 10:00	1
n-Butane	0.50	U	0.50	0.20	ppb v/v			04/06/23 10:00	1
n-Butylbenzene	0.20	U	0.20	0.11	ppb v/v			04/06/23 10:00	1
n-Heptane	0.20	U	0.20	0.055	ppb v/v			04/06/23 10:00	1
n-Hexane	0.50	U	0.50	0.11	ppb v/v			04/06/23 10:00	1
n-Propylbenzene	0.20	U	0.20	0.047	ppb v/v			04/06/23 10:00	1
o-Xylene	0.20	U	0.20	0.052	ppb v/v			04/06/23 10:00	1
sec-Butylbenzene	0.20	U	0.20	0.045	ppb v/v			04/06/23 10:00	1
Styrene	0.20	U	0.20	0.059	ppb v/v			04/06/23 10:00	1
tert-Butyl alcohol	5.0	U	5.0	1.2	ppb v/v			04/06/23 10:00	1
tert-Butylbenzene	0.20	U	0.20	0.047	ppb v/v			04/06/23 10:00	1
Tetrachloroethene	0.20	U	0.20	0.021	ppb v/v			04/06/23 10:00	1
Tetrahydrofuran	5.0	U	5.0	1.3	ppb v/v			04/06/23 10:00	1
Toluene	0.20	U	0.20	0.042	ppb v/v			04/06/23 10:00	1
trans-1,2-Dichloroethene	0.20	U	0.20	0.023	ppb v/v			04/06/23 10:00	1
trans-1,3-Dichloropropene	0.20	U	0.20	0.054	ppb v/v			04/06/23 10:00	1
Trichloroethene	0.037	U	0.037	0.025	ppb v/v			04/06/23 10:00	1
Trichlorofluoromethane	0.20	U	0.20	0.050	ppb v/v			04/06/23 10:00	1
Vinyl chloride	0.078	U	0.078	0.021	ppb v/v			04/06/23 10:00	1

Lab Sample ID: LCS 200-190057/3
Matrix: Air
Analysis Batch: 190057

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1-Trichloroethane	54.6	49.9		ug/m3		91	72 - 127
1,1,2,2-Tetrachloroethane	68.6	66.2		ug/m3		96	74 - 126
1,1,2-Trichloroethane	54.6	51.0		ug/m3		94	75 - 126
1,1,2-Trichlorotrifluoroethane	76.6	74.8		ug/m3		98	70 - 121
1,1-Dichloroethane	40.5	33.0		ug/m3		82	66 - 130

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: LCS 200-190057/3
Matrix: Air
Analysis Batch: 190057

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1-Dichloroethene	39.6	37.2		ug/m3		94	68 - 120
1,2,4-Trichlorobenzene	74.2	74.9		ug/m3		101	50 - 150
1,2,4-Trimethylbenzene	49.2	50.6		ug/m3		103	71 - 129
1,2-Dibromoethane	76.8	77.0		ug/m3		100	78 - 122
1,2-Dichlorobenzene	60.1	61.0		ug/m3		101	68 - 129
1,2-Dichloroethane	40.5	36.4		ug/m3		90	68 - 135
1,2-Dichloropropane	46.2	40.7		ug/m3		88	69 - 128
1,2-Dichlorotetrafluoroethane	69.9	74.3		ug/m3		106	71 - 141
1,3,5-Trimethylbenzene	49.2	50.0		ug/m3		102	72 - 126
1,3-Butadiene	22.1	21.0		ug/m3		95	58 - 139
1,3-Dichlorobenzene	60.1	61.8		ug/m3		103	69 - 131
1,4-Dichlorobenzene	60.1	61.9		ug/m3		103	67 - 132
1,4-Dioxane	36.0	35.5		ug/m3		99	66 - 129
2,2,4-Trimethylpentane	46.7	40.6		ug/m3		87	68 - 131
2-Chlorotoluene	51.8	50.7		ug/m3		98	74 - 126
3-Chloropropene	31.3	29.5		ug/m3		94	50 - 150
4-Ethyltoluene	49.2	50.0		ug/m3		102	75 - 129
4-Isopropyltoluene	54.9	57.0		ug/m3		104	68 - 130
4-Methyl-2-pentanone (Methyl isobutyl ketone)	41.0	37.2		ug/m3		91	58 - 144
Acetone	23.7	23.4		ug/m3		98	54 - 154
Benzene	31.9	28.3		ug/m3		89	73 - 119
Benzyl chloride	51.8	54.1		ug/m3		105	60 - 136
Bromodichloromethane	67.0	61.7		ug/m3		92	75 - 127
Bromoethene(Vinyl Bromide)	43.7	46.2		ug/m3		106	75 - 125
Bromoform	103	106		ug/m3		103	53 - 149
Bromomethane	38.8	40.7		ug/m3		105	72 - 124
Carbon disulfide	31.1	30.5		ug/m3		98	71 - 138
Carbon tetrachloride	62.9	57.8		ug/m3		92	71 - 133
Chlorobenzene	46.0	43.8		ug/m3		95	76 - 119
Chlorodifluoromethane	35.4	38.5		ug/m3		109	60 - 147
Chloroethane	26.4	28.0		ug/m3		106	68 - 130
Chloroform	48.8	43.1		ug/m3		88	73 - 124
Chloromethane	20.6	22.2		ug/m3		107	56 - 141
cis-1,2-Dichloroethene	39.6	35.6		ug/m3		90	72 - 121
cis-1,3-Dichloropropene	45.4	43.4		ug/m3		96	74 - 125
Cumene	49.1	49.3		ug/m3		100	73 - 123
Cyclohexane	34.4	30.9		ug/m3		90	76 - 124
Dibromochloromethane	85.2	82.6		ug/m3		97	73 - 125
Dichlorodifluoromethane	49.4	55.2		ug/m3		112	61 - 142
Ethylbenzene	43.4	41.8		ug/m3		96	74 - 122
Hexachlorobutadiene	107	108		ug/m3		102	58 - 130
Isopropyl alcohol	24.6	25.6		ug/m3		104	53 - 142
m,p-Xylene	86.8	85.4		ug/m3		98	76 - 121
Methyl Butyl Ketone (2-Hexanone)	41.0	38.3		ug/m3		93	57 - 143
Methyl Ethyl Ketone (2-Butanone)	29.5	26.8		ug/m3		91	72 - 124
Methyl methacrylate	40.9	38.9		ug/m3		95	73 - 129

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: LCS 200-190057/3
Matrix: Air
Analysis Batch: 190057

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Methyl tert-butyl ether	36.0	32.3		ug/m3		90	70 - 127
Methylene Chloride	34.7	26.7		ug/m3		77	59 - 137
Naphthalene	52.4	53.6		ug/m3		102	50 - 150
n-Butane	23.8	24.1		ug/m3		101	53 - 151
n-Butylbenzene	54.9	58.3		ug/m3		106	65 - 137
n-Heptane	41.0	34.7		ug/m3		85	60 - 142
n-Hexane	35.2	29.3		ug/m3		83	63 - 138
n-Propylbenzene	49.1	49.8		ug/m3		101	73 - 127
o-Xylene	43.4	42.6		ug/m3		98	73 - 123
sec-Butylbenzene	54.9	56.4		ug/m3		103	70 - 128
Styrene	42.6	44.2		ug/m3		104	74 - 125
tert-Butyl alcohol	30.3	25.9		ug/m3		85	66 - 132
tert-Butylbenzene	54.9	55.5		ug/m3		101	71 - 125
Tetrachloroethene	67.8	63.7		ug/m3		94	70 - 125
Tetrahydrofuran	29.5	24.8		ug/m3		84	60 - 149
Toluene	37.7	33.6		ug/m3		89	75 - 122
trans-1,2-Dichloroethene	39.6	33.8		ug/m3		85	69 - 137
trans-1,3-Dichloropropene	45.4	45.7		ug/m3		101	74 - 128
Trichloroethene	53.7	50.0		ug/m3		93	73 - 122
Trichlorofluoromethane	56.2	59.5		ug/m3		106	70 - 129
Vinyl chloride	25.6	24.4		ug/m3		96	61 - 135

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1-Trichloroethane	10	9.14		ppb v/v		91	72 - 127
1,1,2,2-Tetrachloroethane	10	9.65		ppb v/v		96	74 - 126
1,1,2-Trichloroethane	10	9.35		ppb v/v		94	75 - 126
1,1,2-Trichlorotrifluoroethane	10	9.76		ppb v/v		98	70 - 121
1,1-Dichloroethane	10	8.15		ppb v/v		82	66 - 130
1,1-Dichloroethene	10	9.39		ppb v/v		94	68 - 120
1,2,4-Trichlorobenzene	10	10.1		ppb v/v		101	50 - 150
1,2,4-Trimethylbenzene	10	10.3		ppb v/v		103	71 - 129
1,2-Dibromoethane	10	10.0		ppb v/v		100	78 - 122
1,2-Dichlorobenzene	10	10.1		ppb v/v		101	68 - 129
1,2-Dichloroethane	10	8.99		ppb v/v		90	68 - 135
1,2-Dichloropropane	10	8.80		ppb v/v		88	69 - 128
1,2-Dichlorotetrafluoroethane	10	10.6		ppb v/v		106	71 - 141
1,3,5-Trimethylbenzene	10	10.2		ppb v/v		102	72 - 126
1,3-Butadiene	10	9.50		ppb v/v		95	58 - 139
1,3-Dichlorobenzene	10	10.3		ppb v/v		103	69 - 131
1,4-Dichlorobenzene	10	10.3		ppb v/v		103	67 - 132
1,4-Dioxane	10	9.86		ppb v/v		99	66 - 129
2,2,4-Trimethylpentane	10	8.69		ppb v/v		87	68 - 131
2-Chlorotoluene	10	9.80		ppb v/v		98	74 - 126
3-Chloropropene	10	9.41		ppb v/v		94	50 - 150
4-Ethyltoluene	10	10.2		ppb v/v		102	75 - 129
4-Isopropyltoluene	10	10.4		ppb v/v		104	68 - 130
4-Methyl-2-pentanone (Methyl isobutyl ketone)	10	9.07		ppb v/v		91	58 - 144
Acetone	10	9.84		ppb v/v		98	54 - 154

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: LCS 200-190057/3
Matrix: Air
Analysis Batch: 190057

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	10	8.85		ppb v/v		89	73 - 119
Benzyl chloride	10	10.5		ppb v/v		105	60 - 136
Bromodichloromethane	10	9.21		ppb v/v		92	75 - 127
Bromoethene(Vinyl Bromide)	10	10.6		ppb v/v		106	75 - 125
Bromoform	10	10.3		ppb v/v		103	53 - 149
Bromomethane	10	10.5		ppb v/v		105	72 - 124
Carbon disulfide	10	9.79		ppb v/v		98	71 - 138
Carbon tetrachloride	10	9.18		ppb v/v		92	71 - 133
Chlorobenzene	10	9.51		ppb v/v		95	76 - 119
Chlorodifluoromethane	10	10.9		ppb v/v		109	60 - 147
Chloroethane	10	10.6		ppb v/v		106	68 - 130
Chloroform	10	8.84		ppb v/v		88	73 - 124
Chloromethane	10	10.7		ppb v/v		107	56 - 141
cis-1,2-Dichloroethene	10	8.97		ppb v/v		90	72 - 121
cis-1,3-Dichloropropene	10	9.56		ppb v/v		96	74 - 125
Cumene	10	10.0		ppb v/v		100	73 - 123
Cyclohexane	10	8.98		ppb v/v		90	76 - 124
Dibromochloromethane	10	9.70		ppb v/v		97	73 - 125
Dichlorodifluoromethane	10	11.2		ppb v/v		112	61 - 142
Ethylbenzene	10	9.63		ppb v/v		96	74 - 122
Hexachlorobutadiene	10	10.2		ppb v/v		102	58 - 130
Isopropyl alcohol	10	10.4		ppb v/v		104	53 - 142
m,p-Xylene	20	19.7		ppb v/v		98	76 - 121
Methyl Butyl Ketone (2-Hexanone)	10	9.34		ppb v/v		93	57 - 143
Methyl Ethyl Ketone (2-Butanone)	10	9.09		ppb v/v		91	72 - 124
Methyl methacrylate	10	9.49		ppb v/v		95	73 - 129
Methyl tert-butyl ether	10	8.97		ppb v/v		90	70 - 127
Methylene Chloride	10	7.68		ppb v/v		77	59 - 137
Naphthalene	10	10.2		ppb v/v		102	50 - 150
n-Butane	10	10.1		ppb v/v		101	53 - 151
n-Butylbenzene	10	10.6		ppb v/v		106	65 - 137
n-Heptane	10	8.48		ppb v/v		85	60 - 142
n-Hexane	10	8.32		ppb v/v		83	63 - 138
n-Propylbenzene	10	10.1		ppb v/v		101	73 - 127
o-Xylene	10	9.81		ppb v/v		98	73 - 123
sec-Butylbenzene	10	10.3		ppb v/v		103	70 - 128
Styrene	10	10.4		ppb v/v		104	74 - 125
tert-Butyl alcohol	10	8.54		ppb v/v		85	66 - 132
tert-Butylbenzene	10	10.1		ppb v/v		101	71 - 125
Tetrachloroethene	10	9.40		ppb v/v		94	70 - 125
Tetrahydrofuran	10	8.40		ppb v/v		84	60 - 149
Toluene	10	8.91		ppb v/v		89	75 - 122
trans-1,2-Dichloroethene	10	8.51		ppb v/v		85	69 - 137
trans-1,3-Dichloropropene	10	10.1		ppb v/v		101	74 - 128
Trichloroethene	10	9.30		ppb v/v		93	73 - 122
Trichlorofluoromethane	10	10.6		ppb v/v		106	70 - 129
Vinyl chloride	10	9.55		ppb v/v		96	61 - 135

QC Association Summary

Client: Pinnacle Engineering, Inc
Project/Site: Monarch Chemical

Job ID: 200-67423-1
SDG: 200-67423

Air - GC/MS VOA

Analysis Batch: 190008

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
200-67423-4	IA-4	Total/NA	Air	TO-15	
200-67423-5	OUTDOOR	Total/NA	Air	TO-15	
MB 200-190008/4	Method Blank	Total/NA	Air	TO-15	
LCS 200-190008/3	Lab Control Sample	Total/NA	Air	TO-15	

Analysis Batch: 190011

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
200-67423-1	SS-2	Total/NA	Air	TO-15	
MB 200-190011/4	Method Blank	Total/NA	Air	TO-15	
LCS 200-190011/3	Lab Control Sample	Total/NA	Air	TO-15	

Analysis Batch: 190057

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
200-67423-1 - DL	SS-2	Total/NA	Air	TO-15	
200-67423-2	IA-2	Total/NA	Air	TO-15	
200-67423-3	SS-4	Total/NA	Air	TO-15	
200-67423-3 - DL	SS-4	Total/NA	Air	TO-15	
MB 200-190057/4	Method Blank	Total/NA	Air	TO-15	
LCS 200-190057/3	Lab Control Sample	Total/NA	Air	TO-15	

Lab Chronicle

Client: Pinnacle Engineering, Inc
Project/Site: Monarch Chemical

Job ID: 200-67423-1
SDG: 200-67423

Client Sample ID: SS-2
Lab Sample ID: 200-67423-1

Date Collected: 03/21/23 16:12
Date Received: 03/24/23 10:40
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	TO-15		3	190011	A1B	EET BUR	04/06/23 02:10
Total/NA	Analysis	TO-15	DL	15.5	190057	K1P	EET BUR	04/06/23 16:05

Client Sample ID: IA-2
Lab Sample ID: 200-67423-2

Date Collected: 03/21/23 16:13
Date Received: 03/24/23 10:40
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	TO-15		1.14	190057	K1P	EET BUR	04/06/23 17:02

Client Sample ID: SS-4
Lab Sample ID: 200-67423-3

Date Collected: 03/21/23 16:17
Date Received: 03/24/23 10:40
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	TO-15		3	190057	K1P	EET BUR	04/06/23 17:54
Total/NA	Analysis	TO-15	DL	15.5	190057	K1P	EET BUR	04/06/23 18:46

Client Sample ID: IA-4
Lab Sample ID: 200-67423-4

Date Collected: 03/21/23 16:18
Date Received: 03/24/23 10:40
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	TO-15		1	190008	K1P	EET BUR	04/05/23 22:07

Client Sample ID: OUTDOOR
Lab Sample ID: 200-67423-5

Date Collected: 03/21/23 16:24
Date Received: 03/24/23 10:40
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	TO-15		1	190008	K1P	EET BUR	04/05/23 22:59

Laboratory References:

EET BUR = Eurofins Burlington, 530 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

Accreditation/Certification Summary

Client: Pinnacle Engineering, Inc
Project/Site: Monarch Chemical

Job ID: 200-67423-1
SDG: 200-67423

Laboratory: Eurofins Burlington

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10391	04-01-24

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
TO-15		Air	4-Ethyltoluene
TO-15		Air	4-Isopropyltoluene
TO-15		Air	Chlorodifluoromethane
TO-15		Air	Methyl Butyl Ketone (2-Hexanone)
TO-15		Air	n-Butane
TO-15		Air	n-Butylbenzene
TO-15		Air	n-Propylbenzene
TO-15		Air	sec-Butylbenzene
TO-15		Air	tert-Butylbenzene
TO-15		Air	Tetrahydrofuran

Method Summary

Client: Pinnacle Engineering, Inc
Project/Site: Monarch Chemical

Job ID: 200-67423-1
SDG: 200-67423

Method	Method Description	Protocol	Laboratory
TO-15	Volatile Organic Compounds in Ambient Air	EPA	EET BUR

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

EET BUR = Eurofins Burlington, 530 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

Sample Summary

Client: Pinnacle Engineering, Inc
Project/Site: Monarch Chemical

Job ID: 200-67423-1
SDG: 200-67423

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
200-67423-1	SS-2	Air	03/21/23 16:12	03/24/23 10:40	Air Canister (6-Liter) #34001125
200-67423-2	IA-2	Air	03/21/23 16:13	03/24/23 10:40	Air Canister (6-Liter) #34000177
200-67423-3	SS-4	Air	03/21/23 16:17	03/24/23 10:40	Air Canister (6-Liter) #11058
200-67423-4	IA-4	Air	03/21/23 16:18	03/24/23 10:40	Air Canister (6-Liter) #12173
200-67423-5	OUTDOOR	Air	03/21/23 16:24	03/24/23 10:40	Air Canister (6-Liter) #10553

Post-Sampling Air Canister Pressure Check Record

Login # (w/ Location Code)	Date	Time (Military)	Lab BP ("Hg)	Lab Temp (°C)	Pressure Gauge ID	Analyst
200-67423	03/24/23	11:27	23	29.5	G20	ZK

Sampling Information and Return Equipment Check	Yes	N o	Comments
(1) Is a Field Test Data Sheet (FTDS) or similar sampling documentation present?	Yes		
(2) Is the flow controller ID used for each canister recorded?	Yes		
(3) MA MCP & NJ DKQP: Check return flow rate for flow controllers		N o	
(4) Is visible sign of damage to canister and/or flow controller (FC) present?		N o	
If damage observed, list equipment IDs and describe condition:			

Post-Sampling Return Pressure Check

Lab ID	Canister ID	Pressure[1] ("Hg)	Anomaly[2] (Y/N)	FC ID[3]	FC Check[4] Reference	FC Return (Y/N)	Can Cert Batch ID	Comments
200-67423-A-1	34001125	-11.0	Y	7596	NA	N	NA	
200-67423-A-2	34000177	-21.2	Y	11292	NA	N	NA	
200-67423-A-3	11058	-11.2	Y	11931	NA	N	NA	
200-67423-A-4	12173	-11.7	Y	11513	NA	N	NA	
200-67423-A-5	10553	-11.7	Y	09952	NA	N	NA	

[1] Criteria: Return Pressure should be between -1 and -10 ("Hg) with the exception of grab samples or those using 100 or 200mL/minute flow controllers. These samples must be returned at no lower than -10"Hg, but have no specific criteria otherwise.

[2] If return pressure is not within criteria, initiate Non-Conformance Memo.

[3] Record the ID of the FC used for sampling if information is provided, otherwise leave blank.

[4] Record the Flow Controller Set Flow Rate Logbook ID and Page number in which the original FC Check was recorded

Eurofins Burlington
530 Community Drive Suite 11
South Burlington, VT 05403
Phone (802) 660-1990 Phone (802) 660-1919

Chain of Custody Record

Syracuse eurofins Environment Testing

Client Information	Sampler: BOB WOJCIAK	Lab PM: Gray-Erdmann, Peggy J	Carrier Tracking No(s): #225	COC No: 200-31970-13657 1
Client Contact: ~~Bob Wojciak~~ KEITH RAPP	Phone: 423 · 943 · 8968	E-Mail: Peggy Gray-Erdmann@et.eurofinsus.com	State of Origin: NY	Page: Page 1 of 1
Company: ~~APECS Environmental Consultants~~ PINNACLE ENGR	PWSID:			Job #:
Address: ~~427 New Bethel Rd.~~	Due Date Requested:			
City: ~~Piney Flats~~	TAT Requested (days):			
State, Zip: ~~TN, 37686~~	Compliance Project: Δ Yes Δ No			
Phone: 763 · 277 · 8422	PO #: Purchase Order not required			
Email: ~~apecs@chartertn.net~~	WO #:			
Project Name: Monarch Chemical	Project #: 20011215			
Site:	SSOW#:			

Analysis Requested

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

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	TO15 - (MOD) Routine TO15 (all74)	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N		
SS-2	3/21/23	8:12 / 16:12	G	Air	N	N	X		STATE REQUIRED LOWEST PRACTICABLE DETECTION LIMIT
IA-SS 2	3/21/23	8:13 / 16:13	G	Air	N	N	X		
SS-4	3/21/23	8:17 / 16:17	G	Air	N	N	X		
IA-SS-4	3/21/23	8:18 / 16:18	G	Air	N	N	X		
OUTDOOR	3/21/23	8:24 / 16:24	G	Air	N	N	X		

Rev 3-22-23

200-67423 Chain of Custody

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

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

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

Special Instructions/QC Requirements: MUST BE LOW DETECTION LIMIT

Empty Kit Relinquished by	Date	Time	Method of Shipment: BY SAMPLER

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
R.C Wojciak	3/22/23 16:00	APECS	R English	3-22-23 1600	Syr
R English	3-22-23, 1800	Syr	[illegible]	3/23/23 10:40	[illegible]

Custody Seals Intact: Δ Yes Δ No	Custody Seal No: 1914799	Cooler Temperature(s) °C and Other Remarks

Ver: 01/16/2019

ORIGIN ID:SYRA (315) 431-0171
SYR SERVICE CENTER
EUROFINS TESTAMERICA
118 BOSS RD

SYRACUSE, NY 13211
UNITED STATES US

SHIP DATE: 22MAR23
ACTWGT: 45.00 LB MAN
CAD: 0883373/CAFE3621

BILL RECIPIENT

TO SAMPLE RECEIVING
TESTAMERICA BURLINGTON
530 COMMUNITY DRIVE SUITE 11

SOUTH BURLINGTON VT 05403
(802) 660-1990
REF: PINNACLE MONARCH 1BOX

FedEx Express

TRK# 0201 6300 4270 2019

THU - 23 MAR 10:30A
PRIORITY OVERNIGHT

NX BTVA

05403
VT-US BTV

Login Sample Receipt Checklist

Client: Pinnacle Engineering, Inc

Job Number: 200-67423-1
SDG Number: 200-67423

Login Number: 67423
List Number: 1
Creator: Khudaier, Zahraa

List Source: Eurofins Burlington

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	1914799
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	Thermal preservation not required.
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	Thermal preservation not required.
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	N/A	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Knoxville
Job No.: 140-30807-1
SDG No.:
Client Sample ID: 8195
Lab Sample ID: 140-30807-1
Matrix: Air
Lab File ID: C07L30807.D
Analysis Method: TO 15 LL
Date Collected: 03/06/2023 10:50
Sample wt/vol: 500(mL)
Date Analyzed: 03/07/2023 16:31
Soil Aliquot Vol:
Dilution Factor: 1
Soil Extract Vol.:
GC Column: RTX-5 ID: 0.32(mm)
Purge Volume:
Heated Purge: (Y/N) pH:
% Moisture: % Solids:
Level: (low/med) Low
Analysis Batch No.: 70899
Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	ND		0.080	
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.080	
79-00-5	1,1,2-Trichloroethane	ND		0.080	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND		0.080	
75-34-3	1,1-Dichloroethane	ND		0.080	
75-35-4	1,1-Dichloroethene	ND		0.040	
87-61-6	1,2,3-Trichlorobenzene	ND		0.40	
96-18-4	1,2,3-Trichloropropane	ND		0.20	
526-73-8	1,2,3-Trimethylbenzene	ND		0.080	
95-93-2	1,2,4,5-Tetramethylbenzene	ND		0.080	
120-82-1	1,2,4-Trichlorobenzene	ND		0.080	
95-63-6	1,2,4-Trimethylbenzene	ND		0.080	
96-12-8	1,2-Dibromo-3-Chloropropane	ND		0.16	
106-93-4	1,2-Dibromoethane	ND		0.080	
95-50-1	1,2-Dichlorobenzene	ND		0.080	
107-06-2	1,2-Dichloroethane	ND		0.080	
78-87-5	1,2-Dichloropropane	ND		0.080	
76-14-2	1,2-Dichlorotetrafluoroethane	ND		0.080	
108-67-8	1,3,5-Trimethylbenzene	ND		0.16	
106-99-0	1,3-Butadine	ND		0.16	
541-73-1	1,3-Dichlorobenzene	ND		0.080	
106-46-7	1,4-Dichlorobenzene	ND		0.080	
123-91-1	1,4-Dioxane	ND		0.20	
71-36-3	1-Butanol	ND		0.80	
90-12-0	1-Methylnaphthalene	ND		1.0	
540-84-1	2,2,4-Trimethylpentane	ND		0.20	
565-59-3	2,3-Dimethylpentane	ND		0.080	
78-93-3	2-Butanone	ND		0.32	
95-49-8	2-Chlorotoluene	ND		0.16	
591-78-6	2-Hexanone	ND		0.20	
78-78-4	2-Methylbutane	ND		0.20	
91-57-6	2-Methylnaphthalene	ND		1.0	
107-83-5	2-Methylpentane	ND		0.080	
107-05-1	3-Chloroprene	ND		0.080	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Knoxville
Job No.: 140-30807-1
SDG No.:
Client Sample ID: 8195
Lab Sample ID: 140-30807-1
Matrix: Air
Lab File ID: C07L30807.D
Analysis Method: TO 15 LL
Date Collected: 03/06/2023 10:50
Sample wt/vol: 500(mL)
Date Analyzed: 03/07/2023 16:31
Soil Aliquot Vol:
Dilution Factor: 1
Soil Extract Vol.:
GC Column: RTX-5 ID: 0.32(mm)
Purge Volume:
Heated Purge: (Y/N) pH:
% Moisture: % Solids:
Level: (low/med) Low
Analysis Batch No.: 70899
Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
622-96-8	4-Ethyltoluene	ND		0.16	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		0.20	
67-64-1	Acetone	ND		2.0	
75-05-8	Acetonitrile	ND		0.40	
107-02-8	Acrolein	ND		0.40	
107-13-1	Acrylonitrile	ND		0.80	
98-83-9	Alpha Methyl Styrene	ND		0.16	
71-43-2	Benzene	ND		0.080	
100-44-7	Benzyl chloride	ND		0.16	
75-27-4	Bromodichloromethane	ND		0.080	
75-25-2	Bromoform	ND		0.080	
74-83-9	Bromomethane	ND		0.080	
106-97-8	Butane	ND		0.16	
75-15-0	Carbon disulfide	ND		0.20	
56-23-5	Carbon tetrachloride	ND		0.032	
108-90-7	Chlorobenzene	ND		0.080	
75-45-6	Chlorodifluoromethane	ND		0.080	
75-00-3	Chloroethane	ND		0.080	
67-66-3	Chloroform	ND		0.080	
74-87-3	Chloromethane	ND		0.20	
156-59-2	cis-1,2-Dichloroethene	ND		0.040	
10061-01-5	cis-1,3-Dichloropropene	ND		0.080	
98-82-8	Cumene	ND		0.16	
110-82-7	Cyclohexane	ND		0.20	
124-48-1	Dibromochloromethane	ND		0.080	
74-95-3	Dibromomethane	ND		0.16	
75-71-8	Dichlorodifluoromethane	ND		0.080	
64-17-5	Ethanol	ND		2.0	
141-78-6	Ethyl acetate	ND		0.80	
60-29-7	Ethyl ether	ND		0.80	
100-41-4	Ethylbenzene	ND		0.080	
87-68-3	Hexachlorobutadiene	ND		0.080	
110-54-3	Hexane	ND		0.20	
496-11-7	Indane	ND		0.080	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Knoxville
Job No.: 140-30807-1
SDG No.:
Client Sample ID: 8195
Lab Sample ID: 140-30807-1
Matrix: Air
Lab File ID: C07L30807.D
Analysis Method: TO 15 LL
Date Collected: 03/06/2023 10:50
Sample wt/vol: 500(mL)
Date Analyzed: 03/07/2023 16:31
Soil Aliquot Vol:
Dilution Factor: 1
Soil Extract Vol.:
GC Column: RTX-5 ID: 0.32(mm)
Purge Volume:
Heated Purge: (Y/N) pH:
% Moisture: % Solids:
Level: (low/med) Low
Analysis Batch No.: 70899
Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
95-13-6	Indene	ND		0.16	
67-63-0	Isopropyl alcohol	ND		0.80	
80-62-6	Methyl methacrylate	ND		0.20	
1634-04-4	Methyl tert-butyl ether	ND		0.16	
108-87-2	Methylcyclohexane	ND		0.080	
75-09-2	Methylene Chloride	ND		0.40	
179601-23-1	m-Xylene & p-Xylene	ND		0.080	
91-20-3	Naphthalene	ND		0.20	
104-51-8	n-Butylbenzene	ND		0.16	
124-18-5	n-Decane	ND		0.40	
112-40-3	n-Dodecane	ND		0.40	
142-82-5	n-Heptane	ND		0.20	
111-84-2	n-Nonane	ND		0.20	
111-65-9	n-Octane	ND		0.16	
103-65-1	N-Propylbenzene	ND		0.16	
95-47-6	o-Xylene	ND		0.080	
99-87-6	p-Cymene	ND		0.080	
109-66-0	Pentane	ND		0.40	
115-07-1	Propene	ND		1.0	
135-98-8	sec-Butylbenzene	ND		0.16	
100-42-5	Styrene	ND		0.080	
75-65-0	tert-Butanol	ND		0.32	
98-06-6	tert-Butylbenzene	ND		0.20	
127-18-4	Tetrachloroethene	ND		0.040	
109-99-9	Tetrahydrofuran	ND		0.40	
110-02-1	Thiophene	ND		0.080	
108-88-3	Toluene	ND		0.12	
156-60-5	trans-1,2-Dichloroethene	ND		0.080	
10061-02-6	trans-1,3-Dichloropropene	ND		0.080	
79-01-6	Trichloroethene	ND		0.036	
75-69-4	Trichlorofluoromethane	ND		0.080	
1120-21-4	Undecane	ND		0.40	
108-05-4	Vinyl acetate	ND		0.40	
593-60-2	Vinyl bromide	ND		0.080	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Knoxville
Job No.: 140-30807-1
SDG No.:
Client Sample ID: 8195
Lab Sample ID: 140-30807-1
Matrix: Air
Lab File ID: C07L30807.D
Analysis Method: TO 15 LL
Date Collected: 03/06/2023 10:50
Sample wt/vol: 500(mL)
Date Analyzed: 03/07/2023 16:31
Soil Aliquot Vol:
Dilution Factor: 1
Soil Extract Vol.:
GC Column: RTX-5 ID: 0.32(mm)
Purge Volume:
Heated Purge: (Y/N) pH:
% Moisture: % Solids:
Level: (low/med) Low
Analysis Batch No.: 70899
Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
75-01-4	Vinyl chloride	ND		0.040	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins Knoxville Job No.: 140-30807-1

SDG No.:

Client Sample ID: 8195 Lab Sample ID: 140-30807-1

Matrix: Air Lab File ID: C07L30807.D

Analysis Method: TO 15 LL Date Collected: 03/06/2023 10:50

Sample wt/vol: 500(mL) Date Analyzed: 03/07/2023 16:31

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

Purge Volume: Heated Purge: (Y/N) ___ pH:

% Moisture: ___ % Solids: ___ Level: (low/med) Low

Analysis Batch No.: 70899 Units: ppb v/v

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
488-23-3	1,2,3,4-Tetramethylbenzene TIC		ND		
527-53-7	1,2,3,5-Tetramethylbenzene TIC		ND		
934-80-5	1,2-Dimethyl-4-Ethylbenzene TIC		ND		
872-55-9	2-Ethylthiophene TIC		ND		
554-14-3	2-Methylthiophene TIC		ND		
616-44-4	3-Methylthiophene TIC		ND		
95-15-8	Benzo(b)thiophene TIC		ND		

Eurofins Knoxville
Target Compound Quantitation Report

Data File: \\chromfs\Knoxville\ChromData\MR\20230306-27233.b\C07L30807.D
Lims ID: 140-30807-A-1
Client ID: 8195
Sample Type: Client
Inject. Date: 07-Mar-2023 16:31:30 ALS Bottle#: 3 Worklist Smp#: 5
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0027233-005
Misc. Info.: 8195
Operator ID: Instrument ID: MR

Method: \\chromfs\Knoxville\ChromData\MR\20230306-27233.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 08-Mar-2023 11:30:26 Calib Date: 09-Jan-2023 23:18:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Knoxville\ChromData\MR\20230109-26581.b\ICRA09LVL7.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX1607

First Level Reviewer: khachitpongpanits Date: 08-Mar-2023 11:31:23

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.732	8.727	0.005	92	75126	3.76	
* 2 1,4-Difluorobenzene	114	10.965	10.965	0.000	97	410552	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.904	15.921	-0.017	92	319730	3.92	
$ 4 4-Bromofluorobenzene (Surr)	95	17.592	17.598	-0.006	82	179543	2.62	
31 Methylene Chloride	84	6.117	6.117	0.000	94	4364	0.1799	

QC Flag Legend
Processing Flags

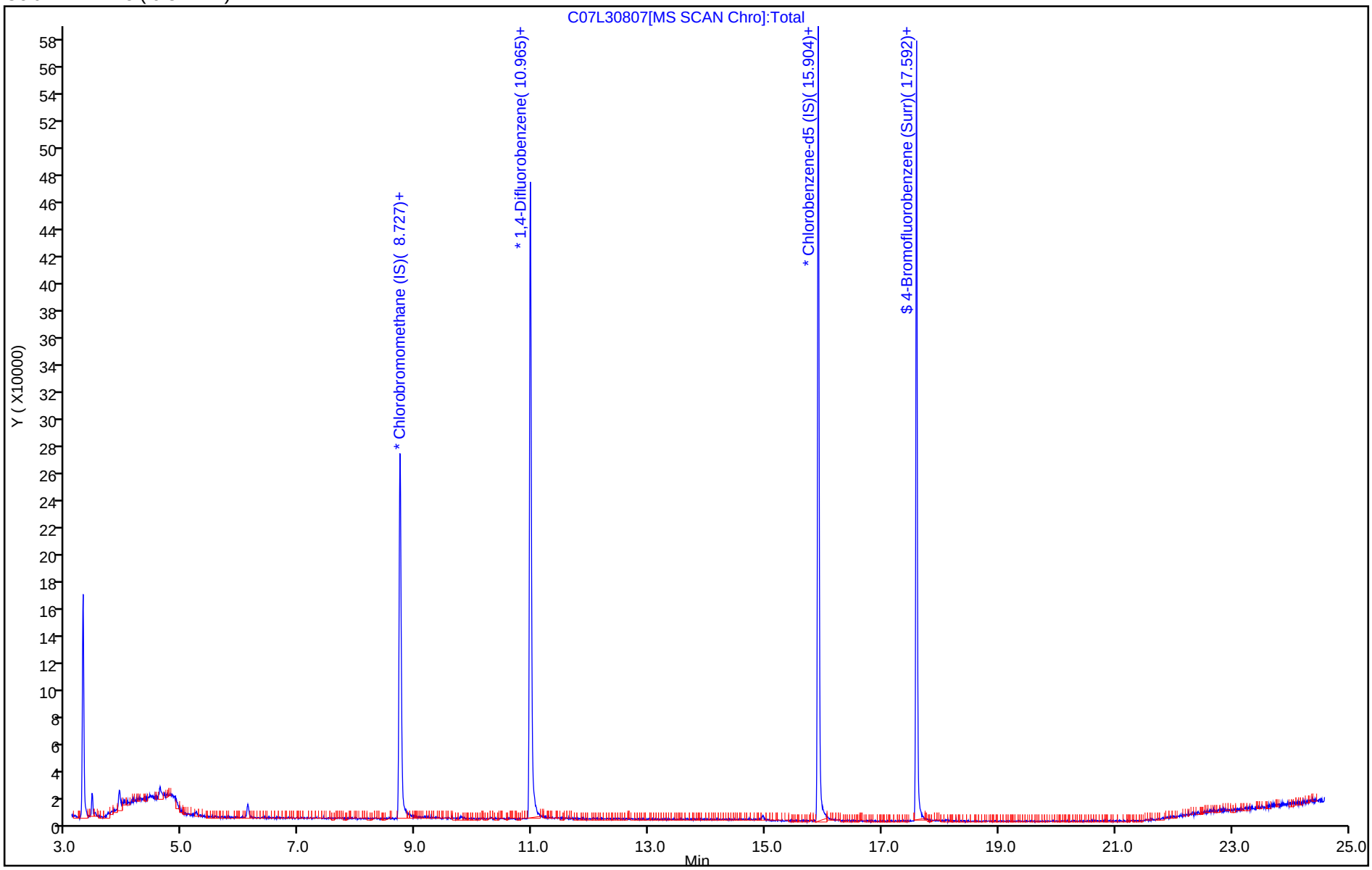
Reagents:
40MXISSUR_00003 Amount Added: 40.00 Units: mL Run Reagent

Report Date: 08-Mar-2023 11:31:23 Chrom Revision: 2.3 15-Feb-2023 20:44:50

Eurofins Knoxville

Data File:	\\chromfs\Knoxville\ChromData\MR\20230306-27233.b\C07L30807.D				
Injection Date:	07-Mar-2023 16:31:30	Instrument ID:	MR	Operator ID:	
Lims ID:	140-30807-A-1	Lab Sample ID:	140-30807-1	Worklist Smp#:	5
Client ID:	8195				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Summa Canister Dilution Worksheet

Client: Pinnacle Engineering, Inc
Project/Site: Monarch Chemical

Job No.: 200-67423-1
SDG No.: 200-67423

Lab Sample ID	Canister Volume (L)	Preadjusted Pressure ("Hg)	Preadjusted Pressure (atm)	Preadjusted Volume (L)	Adjusted Pressure (psig)	Adjusted Pressure (atm)	Adjusted Volume (L)	Initial Volume (mL)	Dilution Factor	Final Dilution Factor	Pressure Gauge ID	Date	Analyst Initals
200-67423-1	6	-11.0	0.63	3.79	-2.45577	0.83	5.00		1.32	1.32	G31	03/25/23 8:45	CRC
200-67423-2	6	-21.2	0.29	1.75	-2.45577	0.83	5.00		2.86	2.86	G31	04/05/23 12:59	TPB
200-67423-3	6	-11.2	0.63	3.75	-2.554	0.83	4.96		1.32	1.32	G31	03/25/23 8:50	CRC
200-67423-4	6	-11.6	0.61	3.67	-2.35754	0.84	5.04		1.37	1.37	G31	04/05/23 13:16	TPB
200-67423-5	6	-11.6	0.61	3.67	-2.35754	0.84	5.04		1.37	1.37	G31	04/05/23 13:16	TPB

Formulae:

Preadjusted Volume (L) = ((Preadjusted Pressure ("Hg) + 29.92 "Hg) * Vol L) / 29.92 "Hg
Adjusted Volume (L) = ((Adjusted Pressure (psig) + 14.7 psig)* Vol L) / 14.7 psig
Dilution Factor = Adjusted Volume (L) / Preadjusted Volume (L)

Where:

29.92 "Hg = Standard atmospheric pressure in inches of Mercury (“Hg)
14.7 psig = Standard atmospheric pressure in pounds per square inch gauge (psig)

Attachment 12

Data Usability Summary Report

A P E C S E N V I R O N M E N T A L C O N S U L T A N T S

August 10, 2023

Mr. Keith Rapp, P. G.
Pinnacle Engineering, Incorporated
11541 95th Avenue North
Maple Grove, Minnesota 55369

Subject: Data Usability Summary Report
H. B. Fuller Sampling Event
61 Gates Avenue
Geneva, New York 14456

TRANSMITTED VIA ELECTRONIC MAIL

Dear Mr. Rapp,

This transmittal is intended as written documentation regarding the usability of the data generated from the laboratory analyses of samples obtained at the former H. B. Fuller facility, aka Monarch Chemical, located at 61 Gates Avenue, Geneva New York 14456.

The analyses of five (5) air samples obtained on March 21, 2023 at the above referenced location were analyzed utilizing EPA Method TO-15 by Eurofins Environment Testing under job number 200-67423-1. A copy of the laboratory report is attached including all Quality Control summary sheets. The samples were received by the laboratory on March 24, 2023 and the samples were noted to having arrived in good condition. All holding times and sample preservation, for the analytical method used, were met. Please note that after the sampling was completed, the chain of custody filled out, and the samples shipped and received by the laboratory, the names of two (2) of the samples were changed. On the chain of custody these samples were noted as IA-SS 2 and IA-SS-4, at the request of the Project Manager, Mr. Keith Rapp, P. G. of Pinnacle Engineering, Incorporated, the names of these samples were simplified to IA-2 and IA-4 (IA – Indoor Air). This request was made for consistency with the sample naming protocol from past sampling events at the referenced location. The sample name changes had no effect on the data quality.

Of the five (5) samples, SS-2, IA-2, SS-4, IA-4, and Outdoor, three (3) samples required dilution(s) for completion of the TO-15 analyses. SS-2 (SS – Sub Slab) was diluted at 3 and 15.5 times as was sample SS-4. Sample IA-2 was diluted at 1.4 times. There was no dilution to samples IA-4 nor Outdoor. As expected, where diluted, the method detection limit was raised. None of the higher detection limits warrants any limits to the usefulness of the results.

Numerous instances of volatile compound detections were noted in all sample results where the concentration of the analyte was greater than or equal to the Method Detection Limit (MDL) but less than the Reporting Limit (RL). In these instances, the results are flagged with a "J" qualifier and the published concentrations are considered to be an approximation. Even as approximations, in these cases, there should be no limit to the usefulness of the data.

Where sample results are obtained from a diluted sample, the result is flagged with a "D" qualifier. The use of this qualifier should not impair the usability of any of these flagged results.

For two samples, SS-2 and SS-4, a single analyte, Acetone, was flagged with an "E" qualifier for their respective 3x dilution analytical runs. The "E" qualifier indicates the calibration range for this analyte for these two samples exceeded the calibration range. In a review of the Quality Control results for the analytical runs for these two samples, no documentation was obvious that would result in the justification of the "E" qualifiers. Both of these samples were rerun at a 15.5 time dilution and no "E" qualifier was noted implying that the calibration range for Acetone was acceptable for the more diluted sample.

Sample SS-2 was given Laboratory Identification 200-67423-1 and is associated with analysis batch 190011. The 15.5 time dilution of SS-2 is associated with the analysis batch 190057. A review of the Quality Control results indicated that Acetone was undetected in the Method Blanks associated with these two analyses batches. A review of the Laboratory Control Samples for these two analyses batches indicated that Acetone was recovered within range for both batches (190011 for the 3x dilution, 190057 for the 15.5x dilution). There did not appear to be anything in the method blanks and especially the laboratory control sample reviews which would appear to require the "E" qualifier noted for Acetone for the SS-2 3x dilution results (as well as SS-4 3x dilution).

While one could merely accept that the 3x dilution was out of an accepted recovery range for Acetone and that the 15.5x dilution result should be used, which in the case of SS-2 were quite similar. The SS-2 3x Acetone result was 730 ug/m^3 while the 15.5x result was 710 ug/ m^3, further review of the SS-2 3x and 15.5x results showed differences that indicate that the results are suspect, in at least in regards to the following:

While the Acetone results for the 3x and 15.5x dilutions were similar (as were the results for Chloroform 12 ug/ m^3 3x, 11 ug/ m^3 15.5x; 1,1,1-Trichloroethane 70 ug/ m^3 3x, 68 ug/ m^3 15.5x; Tetrachloroethene 220 ug/ m^3 3x, 210 ug/ m^3 15.5x; and, Toluene 4.2 ug/ m^3 3x, 4.0 ug/ m^3 15.5x) the results for 1,2,4-Trimethylbenzene and m,p-Xylenes were markedly different between the two dilution runs. For the 3x run the 1,2,4-Trimethylbenzene result was 1.2 ug/ m^3 while the 15.5x run had a 1,2,4-Trimethylbenzene result of 14 ug/ m^3. The results for the m,p-Xylenes show an even greater difference. The m,p-Xylene result for the SS-2 3x run is 2.2 ug/ m^3. The m,p-Xylene result for the SS-2 15.5x run is 58 ug/ m^3, a greater than 25 times difference. A Relative Percent Difference (RPD) calculation for these two results shows an RPD in excess of 185%. There did not appear to be these types of differences between the SS-4 3x dilution results and the SS-4 15.5x dilution results, as would normally be expected.

Numerous phone calls, voice mails, and an email to the analytical project manager (as well as to the laboratory itself) regarding these results went unanswered over a period of ten (10) days. In lieu of any comment or explanation from the laboratory on why the "E" flags were generated and the apparent discrepancies between the 3x and 15.5x dilution runs for sample

SS-2, the results for SS-2 should only be used for relative comparative purposes and then should be viewed with caution.

Regarding the other samples, these results along with the Quality Control analyses of the three analyses batches (190008, 190011, and 190057) were reviewed. There were no questions regarding the analyses of samples IA-2, IA-4, or the Outdoor sample, other than previously mentioned. For the LCS runs, all percent recoveries for the spiked analytes were recovered within the allowable ranges. For the Method Blank runs all analytes that were analyzed for were undetected (U flag), therefore, the results for samples IA-2, IA-4, and the Outdoor sample should be usable with no qualifications. The results for sample SS-4 can be used with no qualifications other than the 3x Acetone result in which case the 15.5x result should be used. Regarding the SS-2 results, these results should be used, as previously stated, only for relative comparative purposes should be viewed with caution.

All analyses were performed by Eurofins under New York State NELAP certification 10391 (expiration April 1, 2024).

Should you have any questions regarding this Data Usability Summary Report, please do not hesitate to contact me at your convenience. Thank you for the opportunity to provide for your environmental needs.

Robert A. Wojciak

Robert A. Wojciak, P. G.
Geologist

PO BOX 3881 • BRISTOL/TENNESSEE • 37625
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eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Mr. Keith B Rapp
Pinnacle Engineering, Inc
11541 95th Avenue North
Minneapolis, Minnesota 55369

Generated 4/10/2023 11:40:19 AM

JOB DESCRIPTION

Monarch Chemical
SDG NUMBER 200-67423

JOB NUMBER

200-67423-1

Eurofins Burlington
530 Community Drive
Suite 11
South Burlington VT 05403

See page two for job notes and contact information.

my EOL

Eurofins Burlington

Job Notes

The test results in this report relate only to sample(s) as received by the laboratory. These test results were derived under a quality system that adheres to the requirements of NELAC. Pursuant to NELAC, this report may not be produced in full without written approval from the laboratory

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins TestAmerica Project Manager.

Authorization

Peggy Gray-Erdmann

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4/10/2023 11:40:19 AM

Authorized for release by
Peggy Gray-Erdmann, Client Relations Manager
Peggy.Gray-Erdmann@et.eurofinsus.com
(716)504-9829

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Qualifiers

Air - GC/MS VOA

Qualifier	Qualifier Description
D	Sample results are obtained from a dilution; the surrogate or matrix spike recoveries reported are calculated from diluted samples.
E	Result exceeded calibration range.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

Glossary

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

Job ID: 200-67423-1

Laboratory: Eurofins Burlington

Narrative

CASE NARRATIVE

Client: Pinnacle Engineering, Inc

Project: Monarch Chemical

Report Number: 200-67423-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT
The samples were received on 03/24/2023; the samples arrived in good condition.

VOLATILE ORGANIC COMPOUNDS
Samples SS-2 (200-67423-1), IA-2 (200-67423-2), SS-4 (200-67423-3), IA-4 (200-67423-4) and OUTDOOR (200-67423-5) were analyzed for Volatile Organic Compounds in accordance with EPA Method TO-15. The samples were analyzed on 04/05/2023 and 04/06/2023.

Samples SS-2 (200-67423-1)[15.5X], SS-2 (200-67423-1)[3X], IA-2 (200-67423-2)[1.14X], SS-4 (200-67423-3)[15.5X] and SS-4 (200-67423-3)[3X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: Pinnacle Engineering, Inc
Project/Site: Monarch Chemical

Job ID: 200-67423-1
SDG: 200-67423

Client Sample ID: SS-2 — Lab Sample ID: 200-67423-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	70		3.3	0.72	ug/m3	3		TO-15	Total/NA
1,1-Dichloroethane	1.2	J	2.4	0.30	ug/m3	3		TO-15	Total/NA
1,2,4-Trimethylbenzene	1.2	J	2.9	1.2	ug/m3	3		TO-15	Total/NA
Acetone	730	E	36	11	ug/m3	3		TO-15	Total/NA
Chloroform	12		2.9	0.60	ug/m3	3		TO-15	Total/NA
Dichlorodifluoromethane	2.1	J	7.4	1.6	ug/m3	3		TO-15	Total/NA
m,p-Xylene	2.2	J	6.5	1.2	ug/m3	3		TO-15	Total/NA
Methyl Butyl Ketone (2-Hexanone)	3.9	J	6.1	1.8	ug/m3	3		TO-15	Total/NA
Methyl Ethyl Ketone (2-Butanone)	16		4.4	4.3	ug/m3	3		TO-15	Total/NA
Methylene Chloride	2.5	J	5.2	1.9	ug/m3	3		TO-15	Total/NA
n-Heptane	1.2	J	2.5	0.68	ug/m3	3		TO-15	Total/NA
n-Hexane	1.2	J	5.3	1.2	ug/m3	3		TO-15	Total/NA
o-Xylene	0.86	J	2.6	0.68	ug/m3	3		TO-15	Total/NA
Styrene	0.84	J	2.6	0.75	ug/m3	3		TO-15	Total/NA
Tetrachloroethene	220		4.1	0.43	ug/m3	3		TO-15	Total/NA
Toluene	4.2		2.3	0.47	ug/m3	3		TO-15	Total/NA
Trichloroethene	1.9		0.60	0.40	ug/m3	3		TO-15	Total/NA
Trichlorofluoromethane	1.0	J	3.4	0.84	ug/m3	3		TO-15	Total/NA
1,1,1-Trichloroethane - DL	68	D	17	3.7	ug/m3	15.5		TO-15	Total/NA
1,2,4-Trimethylbenzene - DL	14	J D	15	6.1	ug/m3	15.5		TO-15	Total/NA
1,3,5-Trimethylbenzene - DL	7.6	J D	15	3.6	ug/m3	15.5		TO-15	Total/NA
Acetone - DL	710	D	180	59	ug/m3	15.5		TO-15	Total/NA
Chloroform - DL	11	J D	15	3.1	ug/m3	15.5		TO-15	Total/NA
Cyclohexane - DL	6.9	J D	11	3.1	ug/m3	15.5		TO-15	Total/NA
Ethylbenzene - DL	4.5	J D	13	3.5	ug/m3	15.5		TO-15	Total/NA
m,p-Xylene - DL	58	D	34	6.4	ug/m3	15.5		TO-15	Total/NA
Tetrachloroethene - DL	210	D	21	2.2	ug/m3	15.5		TO-15	Total/NA
Toluene - DL	4.0	J D	12	2.5	ug/m3	15.5		TO-15	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	13		0.60	0.13	ppb v/v	3		TO-15	Total/NA
1,1-Dichloroethane	0.29	J	0.60	0.075	ppb v/v	3		TO-15	Total/NA
1,2,4-Trimethylbenzene	0.24	J	0.60	0.24	ppb v/v	3		TO-15	Total/NA
Acetone	310	E	15	4.8	ppb v/v	3		TO-15	Total/NA
Chloroform	2.5		0.60	0.12	ppb v/v	3		TO-15	Total/NA
Dichlorodifluoromethane	0.43	J	1.5	0.33	ppb v/v	3		TO-15	Total/NA
m,p-Xylene	0.50	J	1.5	0.29	ppb v/v	3		TO-15	Total/NA
Methyl Butyl Ketone (2-Hexanone)	0.96	J	1.5	0.45	ppb v/v	3		TO-15	Total/NA
Methyl Ethyl Ketone (2-Butanone)	5.5		1.5	1.5	ppb v/v	3		TO-15	Total/NA
Methylene Chloride	0.71	J	1.5	0.54	ppb v/v	3		TO-15	Total/NA
n-Heptane	0.30	J	0.60	0.17	ppb v/v	3		TO-15	Total/NA
n-Hexane	0.35	J	1.5	0.33	ppb v/v	3		TO-15	Total/NA
o-Xylene	0.20	J	0.60	0.16	ppb v/v	3		TO-15	Total/NA
Styrene	0.20	J	0.60	0.18	ppb v/v	3		TO-15	Total/NA
Tetrachloroethene	32		0.60	0.063	ppb v/v	3		TO-15	Total/NA
Toluene	1.1		0.60	0.13	ppb v/v	3		TO-15	Total/NA
Trichloroethene	0.35		0.11	0.075	ppb v/v	3		TO-15	Total/NA
Trichlorofluoromethane	0.19	J	0.60	0.15	ppb v/v	3		TO-15	Total/NA
1,1,1-Trichloroethane - DL	12	D	3.1	0.68	ppb v/v	15.5		TO-15	Total/NA
1,2,4-Trimethylbenzene - DL	2.9	J D	3.1	1.2	ppb v/v	15.5		TO-15	Total/NA
1,3,5-Trimethylbenzene - DL	1.6	J D	3.1	0.73	ppb v/v	15.5		TO-15	Total/NA
Acetone - DL	300	D	78	25	ppb v/v	15.5		TO-15	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SS-2 (Continued) — Lab Sample ID: 200-67423-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloroform - DL	2.3	J D	3.1	0.64	ppb v/v	15.5		TO-15	Total/NA
Cyclohexane - DL	2.0	J D	3.1	0.90	ppb v/v	15.5		TO-15	Total/NA
Ethylbenzene - DL	1.0	J D	3.1	0.81	ppb v/v	15.5		TO-15	Total/NA
m,p-Xylene - DL	13	D	7.8	1.5	ppb v/v	15.5		TO-15	Total/NA
Tetrachloroethene - DL	31	D	3.1	0.33	ppb v/v	15.5		TO-15	Total/NA
Toluene - DL	1.1	J D	3.1	0.65	ppb v/v	15.5		TO-15	Total/NA

Client Sample ID: IA-2 — Lab Sample ID: 200-67423-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	0.29	J	1.2	0.27	ug/m3	1.14		TO-15	Total/NA
Acetone	10	J	14	4.3	ug/m3	1.14		TO-15	Total/NA
Benzene	0.42	J	0.73	0.16	ug/m3	1.14		TO-15	Total/NA
Bromodichloromethane	0.95	J	1.5	0.38	ug/m3	1.14		TO-15	Total/NA
Carbon tetrachloride	1.1		0.25	0.16	ug/m3	1.14		TO-15	Total/NA
Chlorodifluoromethane	1.2	J	2.0	0.48	ug/m3	1.14		TO-15	Total/NA
Chloroform	3.1		1.1	0.23	ug/m3	1.14		TO-15	Total/NA
Chloromethane	1.2		1.2	0.35	ug/m3	1.14		TO-15	Total/NA
Cyclohexane	0.23	J	0.78	0.23	ug/m3	1.14		TO-15	Total/NA
Dibromochloromethane	0.86	J	1.9	0.61	ug/m3	1.14		TO-15	Total/NA
Dichlorodifluoromethane	1.4	J	2.8	0.62	ug/m3	1.14		TO-15	Total/NA
Ethylbenzene	0.32	J	0.99	0.26	ug/m3	1.14		TO-15	Total/NA
Isopropyl alcohol	6.0	J	14	4.5	ug/m3	1.14		TO-15	Total/NA
m,p-Xylene	1.6	J	2.5	0.47	ug/m3	1.14		TO-15	Total/NA
Methylene Chloride	5.5		2.0	0.71	ug/m3	1.14		TO-15	Total/NA
n-Butane	5.1		1.4	0.54	ug/m3	1.14		TO-15	Total/NA
n-Heptane	0.48	J	0.93	0.26	ug/m3	1.14		TO-15	Total/NA
n-Hexane	3.8		2.0	0.44	ug/m3	1.14		TO-15	Total/NA
o-Xylene	0.34	J	0.99	0.26	ug/m3	1.14		TO-15	Total/NA
Styrene	0.35	J	0.97	0.29	ug/m3	1.14		TO-15	Total/NA
Tetrachloroethene	1.9		1.5	0.16	ug/m3	1.14		TO-15	Total/NA
Toluene	1.3		0.86	0.18	ug/m3	1.14		TO-15	Total/NA
Trichlorofluoromethane	1.6		1.3	0.32	ug/m3	1.14		TO-15	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	0.053	J	0.23	0.050	ppb v/v	1.14		TO-15	Total/NA
Acetone	4.2	J	5.7	1.8	ppb v/v	1.14		TO-15	Total/NA
Benzene	0.13	J	0.23	0.050	ppb v/v	1.14		TO-15	Total/NA
Bromodichloromethane	0.14	J	0.23	0.057	ppb v/v	1.14		TO-15	Total/NA
Carbon tetrachloride	0.17		0.040	0.025	ppb v/v	1.14		TO-15	Total/NA
Chlorodifluoromethane	0.34	J	0.57	0.14	ppb v/v	1.14		TO-15	Total/NA
Chloroform	0.63		0.23	0.047	ppb v/v	1.14		TO-15	Total/NA
Chloromethane	0.57		0.57	0.17	ppb v/v	1.14		TO-15	Total/NA
Cyclohexane	0.067	J	0.23	0.066	ppb v/v	1.14		TO-15	Total/NA
Dibromochloromethane	0.10	J	0.23	0.072	ppb v/v	1.14		TO-15	Total/NA
Dichlorodifluoromethane	0.29	J	0.57	0.13	ppb v/v	1.14		TO-15	Total/NA
Ethylbenzene	0.073	J	0.23	0.059	ppb v/v	1.14		TO-15	Total/NA
Isopropyl alcohol	2.4	J	5.7	1.8	ppb v/v	1.14		TO-15	Total/NA
m,p-Xylene	0.36	J	0.57	0.11	ppb v/v	1.14		TO-15	Total/NA
Methylene Chloride	1.6		0.57	0.21	ppb v/v	1.14		TO-15	Total/NA
n-Butane	2.2		0.57	0.23	ppb v/v	1.14		TO-15	Total/NA
n-Heptane	0.12	J	0.23	0.063	ppb v/v	1.14		TO-15	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: IA-2 (Continued) — Lab Sample ID: 200-67423-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
n-Hexane	1.1		0.57	0.13	ppb v/v	1.14		TO-15	Total/NA
o-Xylene	0.079	J	0.23	0.059	ppb v/v	1.14		TO-15	Total/NA
Styrene	0.082	J	0.23	0.067	ppb v/v	1.14		TO-15	Total/NA
Tetrachloroethene	0.29		0.23	0.024	ppb v/v	1.14		TO-15	Total/NA
Toluene	0.34		0.23	0.048	ppb v/v	1.14		TO-15	Total/NA
Trichlorofluoromethane	0.28		0.23	0.057	ppb v/v	1.14		TO-15	Total/NA

Client Sample ID: SS-4 — Lab Sample ID: 200-67423-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	6.1		3.3	0.72	ug/m3	3		TO-15	Total/NA
1,1-Dichloroethane	2.3	J	2.4	0.30	ug/m3	3		TO-15	Total/NA
Acetone	650	E	36	11	ug/m3	3		TO-15	Total/NA
Carbon tetrachloride	0.44	J	0.66	0.42	ug/m3	3		TO-15	Total/NA
Chloroform	46		2.9	0.60	ug/m3	3		TO-15	Total/NA
Dichlorodifluoromethane	2.1	J	7.4	1.6	ug/m3	3		TO-15	Total/NA
Ethylbenzene	0.72	J	2.6	0.68	ug/m3	3		TO-15	Total/NA
m,p-Xylene	3.2	J	6.5	1.2	ug/m3	3		TO-15	Total/NA
Methyl Butyl Ketone (2-Hexanone)	3.5	J	6.1	1.8	ug/m3	3		TO-15	Total/NA
Methyl Ethyl Ketone (2-Butanone)	18		4.4	4.3	ug/m3	3		TO-15	Total/NA
Methylene Chloride	2.1	J	5.2	1.9	ug/m3	3		TO-15	Total/NA
n-Butane	3.8		3.6	1.4	ug/m3	3		TO-15	Total/NA
n-Heptane	1.4	J	2.5	0.68	ug/m3	3		TO-15	Total/NA
n-Hexane	1.4	J	5.3	1.2	ug/m3	3		TO-15	Total/NA
o-Xylene	0.95	J	2.6	0.68	ug/m3	3		TO-15	Total/NA
Tetrachloroethene	57		4.1	0.43	ug/m3	3		TO-15	Total/NA
Toluene	4.1		2.3	0.47	ug/m3	3		TO-15	Total/NA
Trichloroethene	20		0.60	0.40	ug/m3	3		TO-15	Total/NA
Trichlorofluoromethane	1.1	J	3.4	0.84	ug/m3	3		TO-15	Total/NA
1,1,1-Trichloroethane - DL	5.2	J D	17	3.7	ug/m3	15.5		TO-15	Total/NA
1,1-Dichloroethane - DL	2.0	J D	13	1.6	ug/m3	15.5		TO-15	Total/NA
Acetone - DL	770	D	180	59	ug/m3	15.5		TO-15	Total/NA
Chloroform - DL	43	D	15	3.1	ug/m3	15.5		TO-15	Total/NA
cis-1,2-Dichloroethene - DL	5.3	D	3.1	1.3	ug/m3	15.5		TO-15	Total/NA
Tetrachloroethene - DL	53	D	21	2.2	ug/m3	15.5		TO-15	Total/NA
Toluene - DL	3.7	J D	12	2.5	ug/m3	15.5		TO-15	Total/NA
Trichloroethene - DL	19	D	3.1	2.1	ug/m3	15.5		TO-15	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	1.1		0.60	0.13	ppb v/v	3		TO-15	Total/NA
1,1-Dichloroethane	0.57	J	0.60	0.075	ppb v/v	3		TO-15	Total/NA
Acetone	270	E	15	4.8	ppb v/v	3		TO-15	Total/NA
Carbon tetrachloride	0.070	J	0.11	0.066	ppb v/v	3		TO-15	Total/NA
Chloroform	9.4		0.60	0.12	ppb v/v	3		TO-15	Total/NA
Dichlorodifluoromethane	0.43	J	1.5	0.33	ppb v/v	3		TO-15	Total/NA
Ethylbenzene	0.17	J	0.60	0.16	ppb v/v	3		TO-15	Total/NA
m,p-Xylene	0.74	J	1.5	0.29	ppb v/v	3		TO-15	Total/NA
Methyl Butyl Ketone (2-Hexanone)	0.85	J	1.5	0.45	ppb v/v	3		TO-15	Total/NA
Methyl Ethyl Ketone (2-Butanone)	6.0		1.5	1.5	ppb v/v	3		TO-15	Total/NA
Methylene Chloride	0.61	J	1.5	0.54	ppb v/v	3		TO-15	Total/NA
n-Butane	1.6		1.5	0.60	ppb v/v	3		TO-15	Total/NA
n-Heptane	0.34	J	0.60	0.17	ppb v/v	3		TO-15	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SS-4 (Continued) — Lab Sample ID: 200-67423-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
n-Hexane	0.40	J	1.5	0.33	ppb v/v	3		TO-15	Total/NA
o-Xylene	0.22	J	0.60	0.16	ppb v/v	3		TO-15	Total/NA
Tetrachloroethene	8.4		0.60	0.063	ppb v/v	3		TO-15	Total/NA
Toluene	1.1		0.60	0.13	ppb v/v	3		TO-15	Total/NA
Trichloroethene	3.8		0.11	0.075	ppb v/v	3		TO-15	Total/NA
Trichlorofluoromethane	0.19	J	0.60	0.15	ppb v/v	3		TO-15	Total/NA
1,1,1-Trichloroethane - DL	0.96	J D	3.1	0.68	ppb v/v	15.5		TO-15	Total/NA
1,1-Dichloroethane - DL	0.49	J D	3.1	0.39	ppb v/v	15.5		TO-15	Total/NA
Acetone - DL	320	D	78	25	ppb v/v	15.5		TO-15	Total/NA
Chloroform - DL	8.7	D	3.1	0.64	ppb v/v	15.5		TO-15	Total/NA
cis-1,2-Dichloroethene - DL	1.3	D	0.78	0.33	ppb v/v	15.5		TO-15	Total/NA
Tetrachloroethene - DL	7.8	D	3.1	0.33	ppb v/v	15.5		TO-15	Total/NA
Toluene - DL	0.99	J D	3.1	0.65	ppb v/v	15.5		TO-15	Total/NA
Trichloroethene - DL	3.5	D	0.58	0.39	ppb v/v	15.5		TO-15	Total/NA

Client Sample ID: IA-4 — Lab Sample ID: 200-67423-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,2-Trichlorotrifluoroethane	0.43	J	1.5	0.41	ug/m3	1		TO-15	Total/NA
1,2,4-Trimethylbenzene	0.50	J	0.98	0.39	ug/m3	1		TO-15	Total/NA
2,2,4-Trimethylpentane	0.25	J	0.93	0.18	ug/m3	1		TO-15	Total/NA
Acetone	10	J	12	3.8	ug/m3	1		TO-15	Total/NA
Benzene	0.39	J	0.64	0.14	ug/m3	1		TO-15	Total/NA
Bromodichloromethane	1.5		1.3	0.34	ug/m3	1		TO-15	Total/NA
Carbon tetrachloride	1.0		0.22	0.14	ug/m3	1		TO-15	Total/NA
Chlorodifluoromethane	1.2	J	1.8	0.42	ug/m3	1		TO-15	Total/NA
Chloroform	4.1		0.98	0.20	ug/m3	1		TO-15	Total/NA
Chloromethane	1.2		1.0	0.31	ug/m3	1		TO-15	Total/NA
Dibromochloromethane	1.3	J	1.7	0.54	ug/m3	1		TO-15	Total/NA
Dichlorodifluoromethane	2.2	J	2.5	0.54	ug/m3	1		TO-15	Total/NA
Ethylbenzene	0.28	J	0.87	0.23	ug/m3	1		TO-15	Total/NA
Isopropyl alcohol	11	J	12	3.9	ug/m3	1		TO-15	Total/NA
m,p-Xylene	0.95	J	2.2	0.41	ug/m3	1		TO-15	Total/NA
Methylene Chloride	4.7		1.7	0.63	ug/m3	1		TO-15	Total/NA
n-Butane	4.1		1.2	0.48	ug/m3	1		TO-15	Total/NA
n-Heptane	0.65	J	0.82	0.23	ug/m3	1		TO-15	Total/NA
n-Hexane	1.9		1.8	0.39	ug/m3	1		TO-15	Total/NA
o-Xylene	0.32	J	0.87	0.23	ug/m3	1		TO-15	Total/NA
Styrene	0.32	J	0.85	0.25	ug/m3	1		TO-15	Total/NA
Tetrachloroethene	0.91	J	1.4	0.14	ug/m3	1		TO-15	Total/NA
Toluene	1.0		0.75	0.16	ug/m3	1		TO-15	Total/NA
Trichlorofluoromethane	1.3		1.1	0.28	ug/m3	1		TO-15	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,2-Trichlorotrifluoroethane	0.056	J	0.20	0.053	ppb v/v	1		TO-15	Total/NA
1,2,4-Trimethylbenzene	0.10	J	0.20	0.080	ppb v/v	1		TO-15	Total/NA
2,2,4-Trimethylpentane	0.053	J	0.20	0.038	ppb v/v	1		TO-15	Total/NA
Acetone	4.4	J	5.0	1.6	ppb v/v	1		TO-15	Total/NA
Benzene	0.12	J	0.20	0.044	ppb v/v	1		TO-15	Total/NA
Bromodichloromethane	0.23		0.20	0.050	ppb v/v	1		TO-15	Total/NA
Carbon tetrachloride	0.16		0.035	0.022	ppb v/v	1		TO-15	Total/NA
Chlorodifluoromethane	0.34	J	0.50	0.12	ppb v/v	1		TO-15	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Pinnacle Engineering, Inc
Project/Site: Monarch Chemical

Job ID: 200-67423-1
SDG: 200-67423

Client Sample ID: IA-4 (Continued) — Lab Sample ID: 200-67423-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloroform	0.85		0.20	0.041	ppb v/v	1		TO-15	Total/NA
Chloromethane	0.59		0.50	0.15	ppb v/v	1		TO-15	Total/NA
Dibromochloromethane	0.16	J	0.20	0.063	ppb v/v	1		TO-15	Total/NA
Dichlorodifluoromethane	0.44	J	0.50	0.11	ppb v/v	1		TO-15	Total/NA
Ethylbenzene	0.064	J	0.20	0.052	ppb v/v	1		TO-15	Total/NA
Isopropyl alcohol	4.6	J	5.0	1.6	ppb v/v	1		TO-15	Total/NA
m,p-Xylene	0.22	J	0.50	0.095	ppb v/v	1		TO-15	Total/NA
Methylene Chloride	1.4		0.50	0.18	ppb v/v	1		TO-15	Total/NA
n-Butane	1.7		0.50	0.20	ppb v/v	1		TO-15	Total/NA
n-Heptane	0.16	J	0.20	0.055	ppb v/v	1		TO-15	Total/NA
n-Hexane	0.53		0.50	0.11	ppb v/v	1		TO-15	Total/NA
o-Xylene	0.073	J	0.20	0.052	ppb v/v	1		TO-15	Total/NA
Styrene	0.075	J	0.20	0.059	ppb v/v	1		TO-15	Total/NA
Tetrachloroethene	0.13	J	0.20	0.021	ppb v/v	1		TO-15	Total/NA
Toluene	0.27		0.20	0.042	ppb v/v	1		TO-15	Total/NA
Trichlorofluoromethane	0.24		0.20	0.050	ppb v/v	1		TO-15	Total/NA

Client Sample ID: OUTDOOR — Lab Sample ID: 200-67423-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	4.9	J	12	3.8	ug/m3	1		TO-15	Total/NA
Benzene	0.31	J	0.64	0.14	ug/m3	1		TO-15	Total/NA
Carbon tetrachloride	0.39		0.22	0.14	ug/m3	1		TO-15	Total/NA
Chlorodifluoromethane	1.0	J	1.8	0.42	ug/m3	1		TO-15	Total/NA
Chloromethane	1.2		1.0	0.31	ug/m3	1		TO-15	Total/NA
Dichlorodifluoromethane	1.8	J	2.5	0.54	ug/m3	1		TO-15	Total/NA
Methylene Chloride	1.2	J	1.7	0.63	ug/m3	1		TO-15	Total/NA
n-Butane	1.9		1.2	0.48	ug/m3	1		TO-15	Total/NA
n-Hexane	2.0		1.8	0.39	ug/m3	1		TO-15	Total/NA
Toluene	0.31	J	0.75	0.16	ug/m3	1		TO-15	Total/NA
Trichlorofluoromethane	1.1		1.1	0.28	ug/m3	1		TO-15	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	2.1	J	5.0	1.6	ppb v/v	1		TO-15	Total/NA
Benzene	0.097	J	0.20	0.044	ppb v/v	1		TO-15	Total/NA
Carbon tetrachloride	0.062		0.035	0.022	ppb v/v	1		TO-15	Total/NA
Chlorodifluoromethane	0.29	J	0.50	0.12	ppb v/v	1		TO-15	Total/NA
Chloromethane	0.56		0.50	0.15	ppb v/v	1		TO-15	Total/NA
Dichlorodifluoromethane	0.37	J	0.50	0.11	ppb v/v	1		TO-15	Total/NA
Methylene Chloride	0.36	J	0.50	0.18	ppb v/v	1		TO-15	Total/NA
n-Butane	0.80		0.50	0.20	ppb v/v	1		TO-15	Total/NA
n-Hexane	0.56		0.50	0.11	ppb v/v	1		TO-15	Total/NA
Toluene	0.081	J	0.20	0.042	ppb v/v	1		TO-15	Total/NA
Trichlorofluoromethane	0.19		0.20	0.050	ppb v/v	1		TO-15	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Pinnacle Engineering, Inc
Project/Site: Monarch Chemical

Job ID: 200-67423-1
SDG: 200-67423

Client Sample ID: SS-2

Lab Sample ID: 200-67423-1

Date Collected: 03/21/23 16:12
Matrix: Air
Date Received: 03/24/23 10:40
Sample Container: Summa Canister 6L

Method: EPA TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	**70**		3.3	0.72	ug/m3			04/06/23 02:10	3
1,1,2,2-Tetrachloroethane	4.1	U	4.1	0.89	ug/m3			04/06/23 02:10	3
1,1,2-Trichloroethane	3.3	U	3.3	1.2	ug/m3			04/06/23 02:10	3
1,1,2-Trichlorotrifluoroethane	4.6	U	4.6	1.2	ug/m3			04/06/23 02:10	3
1,1-Dichloroethane	**1.2**	**J**	2.4	0.30	ug/m3			04/06/23 02:10	3
1,1-Dichloroethene	0.60	U	0.60	0.31	ug/m3			04/06/23 02:10	3
1,2,4-Trichlorobenzene	11	U	11	7.3	ug/m3			04/06/23 02:10	3
1,2,4-Trimethylbenzene	**1.2**	**J**	2.9	1.2	ug/m3			04/06/23 02:10	3
1,2-Dibromoethane	4.6	U	4.6	0.97	ug/m3			04/06/23 02:10	3
1,2-Dichlorobenzene	3.6	U	3.6	1.2	ug/m3			04/06/23 02:10	3
1,2-Dichloroethane	2.4	U	2.4	1.1	ug/m3			04/06/23 02:10	3
1,2-Dichloropropane	2.8	U	2.8	1.3	ug/m3			04/06/23 02:10	3
1,2-Dichlorotetrafluoroethane	4.2	U	4.2	1.0	ug/m3			04/06/23 02:10	3
1,3,5-Trimethylbenzene	2.9	U	2.9	0.69	ug/m3			04/06/23 02:10	3
1,3-Butadiene	1.3	U	1.3	0.26	ug/m3			04/06/23 02:10	3
1,3-Dichlorobenzene	3.6	U	3.6	1.3	ug/m3			04/06/23 02:10	3
1,4-Dichlorobenzene	3.6	U	3.6	1.6	ug/m3			04/06/23 02:10	3
1,4-Dioxane	54	U	54	14	ug/m3			04/06/23 02:10	3
2,2,4-Trimethylpentane	2.8	U	2.8	0.53	ug/m3			04/06/23 02:10	3
2-Chlorotoluene	3.1	U	3.1	0.71	ug/m3			04/06/23 02:10	3
3-Chloropropene	4.7	U	4.7	1.1	ug/m3			04/06/23 02:10	3
4-Ethyltoluene	2.9	U	2.9	0.72	ug/m3			04/06/23 02:10	3
4-Isopropyltoluene	3.3	U	3.3	1.0	ug/m3			04/06/23 02:10	3
4-Methyl-2-pentanone (Methyl isobutyl ketone)	6.1	U	6.1	1.6	ug/m3			04/06/23 02:10	3
Acetone	**730**	**E**	36	11	ug/m3			04/06/23 02:10	3
Benzene	1.9	U	1.9	0.42	ug/m3			04/06/23 02:10	3
Benzyl chloride	3.1	U	3.1	1.4	ug/m3			04/06/23 02:10	3
Bromodichloromethane	4.0	U	4.0	1.0	ug/m3			04/06/23 02:10	3
Bromoethene(Vinyl Bromide)	2.6	U	2.6	0.66	ug/m3			04/06/23 02:10	3
Bromoform	6.2	U	6.2	3.7	ug/m3			04/06/23 02:10	3
Bromomethane	2.3	U	2.3	0.83	ug/m3			04/06/23 02:10	3
Carbon disulfide	4.7	U	4.7	1.2	ug/m3			04/06/23 02:10	3
Carbon tetrachloride	0.66	U	0.66	0.42	ug/m3			04/06/23 02:10	3
Chlorobenzene	2.8	U	2.8	0.61	ug/m3			04/06/23 02:10	3
Chlorodifluoromethane	5.3	U	5.3	1.3	ug/m3			04/06/23 02:10	3
Chloroethane	4.0	U	4.0	1.4	ug/m3			04/06/23 02:10	3
Chloroform	**12**		2.9	0.60	ug/m3			04/06/23 02:10	3
Chloromethane	3.1	U	3.1	0.93	ug/m3			04/06/23 02:10	3
cis-1,2-Dichloroethene	0.60	U	0.60	0.25	ug/m3			04/06/23 02:10	3
cis-1,3-Dichloropropene	2.7	U	2.7	0.61	ug/m3			04/06/23 02:10	3
Cumene	2.9	U	2.9	0.60	ug/m3			04/06/23 02:10	3
Cyclohexane	2.1	U	2.1	0.60	ug/m3			04/06/23 02:10	3
Dibromochloromethane	5.1	U	5.1	1.6	ug/m3			04/06/23 02:10	3
Dichlorodifluoromethane	**2.1**	**J**	7.4	1.6	ug/m3			04/06/23 02:10	3
Ethylbenzene	2.6	U	2.6	0.68	ug/m3			04/06/23 02:10	3
Hexachlorobutadiene	6.4	U	6.4	3.5	ug/m3			04/06/23 02:10	3
Isopropyl alcohol	37	U	37	12	ug/m3			04/06/23 02:10	3
m,p-Xylene	**2.2**	**J**	6.5	1.2	ug/m3			04/06/23 02:10	3

Client Sample ID: SS-2

Lab Sample ID: 200-67423-1

Date Collected: 03/21/23 16:12
Matrix: Air
Date Received: 03/24/23 10:40
Sample Container: Summa Canister 6L

Method: EPA TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl Butyl Ketone (2-Hexanone)	**3.9**	**J**	6.1	1.8	ug/m3			04/06/23 02:10	3
Methyl Ethyl Ketone (2-Butanone)	**16**		4.4	4.3	ug/m3			04/06/23 02:10	3
Methyl methacrylate	6.1	U	6.1	1.7	ug/m3			04/06/23 02:10	3
Methyl tert-butyl ether	2.2	U	2.2	0.39	ug/m3			04/06/23 02:10	3
Methylene Chloride	**2.5**	**J**	5.2	1.9	ug/m3			04/06/23 02:10	3
Naphthalene	7.9	U	7.9	4.7	ug/m3			04/06/23 02:10	3
n-Butane	3.6	U	3.6	1.4	ug/m3			04/06/23 02:10	3
n-Butylbenzene	3.3	U	3.3	1.8	ug/m3			04/06/23 02:10	3
n-Heptane	**1.2**	**J**	2.5	0.68	ug/m3			04/06/23 02:10	3
n-Hexane	**1.2**	**J**	5.3	1.2	ug/m3			04/06/23 02:10	3
n-Propylbenzene	2.9	U	2.9	0.69	ug/m3			04/06/23 02:10	3
o-Xylene	**0.86**	**J**	2.6	0.68	ug/m3			04/06/23 02:10	3
sec-Butylbenzene	3.3	U	3.3	0.74	ug/m3			04/06/23 02:10	3
Styrene	**0.84**	**J**	2.6	0.75	ug/m3			04/06/23 02:10	3
tert-Butyl alcohol	45	U	45	11	ug/m3			04/06/23 02:10	3
tert-Butylbenzene	3.3	U	3.3	0.77	ug/m3			04/06/23 02:10	3
Tetrachloroethene	**220**		4.1	0.43	ug/m3			04/06/23 02:10	3
Tetrahydrofuran	44	U	44	12	ug/m3			04/06/23 02:10	3
Toluene	**4.2**		2.3	0.47	ug/m3			04/06/23 02:10	3
trans-1,2-Dichloroethene	2.4	U	2.4	0.27	ug/m3			04/06/23 02:10	3
trans-1,3-Dichloropropene	2.7	U	2.7	0.74	ug/m3			04/06/23 02:10	3
Trichloroethene	**1.9**		0.60	0.40	ug/m3			04/06/23 02:10	3
Trichlorofluoromethane	**1.0**	**J**	3.4	0.84	ug/m3			04/06/23 02:10	3
Vinyl chloride	0.60	U	0.60	0.16	ug/m3			04/06/23 02:10	3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	**13**		0.60	0.13	ppb v/v			04/06/23 02:10	3
1,1,2,2-Tetrachloroethane	0.60	U	0.60	0.13	ppb v/v			04/06/23 02:10	3
1,1,2-Trichloroethane	0.60	U	0.60	0.22	ppb v/v			04/06/23 02:10	3
1,1,2-Trichlorotrifluoroethane	0.60	U	0.60	0.16	ppb v/v			04/06/23 02:10	3
1,1-Dichloroethane	**0.29**	**J**	0.60	0.075	ppb v/v			04/06/23 02:10	3
1,1-Dichloroethene	0.15	U	0.15	0.078	ppb v/v			04/06/23 02:10	3
1,2,4-Trichlorobenzene	1.5	U	1.5	0.99	ppb v/v			04/06/23 02:10	3
1,2,4-Trimethylbenzene	**0.24**	**J**	0.60	0.24	ppb v/v			04/06/23 02:10	3
1,2-Dibromoethane	0.60	U	0.60	0.13	ppb v/v			04/06/23 02:10	3
1,2-Dichlorobenzene	0.60	U	0.60	0.20	ppb v/v			04/06/23 02:10	3
1,2-Dichloroethane	0.60	U	0.60	0.28	ppb v/v			04/06/23 02:10	3
1,2-Dichloropropane	0.60	U	0.60	0.28	ppb v/v			04/06/23 02:10	3
1,2-Dichlorotetrafluoroethane	0.60	U	0.60	0.14	ppb v/v			04/06/23 02:10	3
1,3,5-Trimethylbenzene	0.60	U	0.60	0.14	ppb v/v			04/06/23 02:10	3
1,3-Butadiene	0.60	U	0.60	0.12	ppb v/v			04/06/23 02:10	3
1,3-Dichlorobenzene	0.60	U	0.60	0.22	ppb v/v			04/06/23 02:10	3
1,4-Dichlorobenzene	0.60	U	0.60	0.27	ppb v/v			04/06/23 02:10	3
1,4-Dioxane	15	U	15	3.9	ppb v/v			04/06/23 02:10	3
2,2,4-Trimethylpentane	0.60	U	0.60	0.11	ppb v/v			04/06/23 02:10	3
2-Chlorotoluene	0.60	U	0.60	0.14	ppb v/v			04/06/23 02:10	3
3-Chloropropene	1.5	U	1.5	0.36	ppb v/v			04/06/23 02:10	3
4-Ethyltoluene	0.60	U	0.60	0.15	ppb v/v			04/06/23 02:10	3
4-Isopropyltoluene	0.60	U	0.60	0.18	ppb v/v			04/06/23 02:10	3

Client Sample ID: SS-2

Lab Sample ID: 200-67423-1

Date Collected: 03/21/23 16:12
Matrix: Air
Date Received: 03/24/23 10:40
Sample Container: Summa Canister 6L

Method: EPA TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Methyl-2-pentanone (Methyl isobutyl ketone)	1.5	U	1.5	0.39	ppb v/v			04/06/23 02:10	3
Acetone	**310**	**E**	15	4.8	ppb v/v			04/06/23 02:10	3
Benzene	0.60	U	0.60	0.13	ppb v/v			04/06/23 02:10	3
Benzyl chloride	0.60	U	0.60	0.26	ppb v/v			04/06/23 02:10	3
Bromodichloromethane	0.60	U	0.60	0.15	ppb v/v			04/06/23 02:10	3
Bromoethene(Vinyl Bromide)	0.60	U	0.60	0.15	ppb v/v			04/06/23 02:10	3
Bromoform	0.60	U	0.60	0.36	ppb v/v			04/06/23 02:10	3
Bromomethane	0.60	U	0.60	0.21	ppb v/v			04/06/23 02:10	3
Carbon disulfide	1.5	U	1.5	0.39	ppb v/v			04/06/23 02:10	3
Carbon tetrachloride	0.11	U	0.11	0.066	ppb v/v			04/06/23 02:10	3
Chlorobenzene	0.60	U	0.60	0.13	ppb v/v			04/06/23 02:10	3
Chlorodifluoromethane	1.5	U	1.5	0.36	ppb v/v			04/06/23 02:10	3
Chloroethane	1.5	U	1.5	0.54	ppb v/v			04/06/23 02:10	3
Chloroform	**2.5**		0.60	0.12	ppb v/v			04/06/23 02:10	3
Chloromethane	1.5	U	1.5	0.45	ppb v/v			04/06/23 02:10	3
cis-1,2-Dichloroethene	0.15	U	0.15	0.063	ppb v/v			04/06/23 02:10	3
cis-1,3-Dichloropropene	0.60	U	0.60	0.14	ppb v/v			04/06/23 02:10	3
Cumene	0.60	U	0.60	0.12	ppb v/v			04/06/23 02:10	3
Cyclohexane	0.60	U	0.60	0.17	ppb v/v			04/06/23 02:10	3
Dibromochloromethane	0.60	U	0.60	0.19	ppb v/v			04/06/23 02:10	3
Dichlorodifluoromethane	**0.43**	**J**	1.5	0.33	ppb v/v			04/06/23 02:10	3
Ethylbenzene	0.60	U	0.60	0.16	ppb v/v			04/06/23 02:10	3
Hexachlorobutadiene	0.60	U	0.60	0.33	ppb v/v			04/06/23 02:10	3
Isopropyl alcohol	15	U	15	4.8	ppb v/v			04/06/23 02:10	3
m,p-Xylene	**0.50**	**J**	1.5	0.29	ppb v/v			04/06/23 02:10	3
Methyl Butyl Ketone (2-Hexanone)	**0.96**	**J**	1.5	0.45	ppb v/v			04/06/23 02:10	3
Methyl Ethyl Ketone (2-Butanone)	**5.5**		1.5	1.5	ppb v/v			04/06/23 02:10	3
Methyl methacrylate	1.5	U	1.5	0.42	ppb v/v			04/06/23 02:10	3
Methyl tert-butyl ether	0.60	U	0.60	0.11	ppb v/v			04/06/23 02:10	3
Methylene Chloride	**0.71**	**J**	1.5	0.54	ppb v/v			04/06/23 02:10	3
Naphthalene	1.5	U	1.5	0.90	ppb v/v			04/06/23 02:10	3
n-Butane	1.5	U	1.5	0.60	ppb v/v			04/06/23 02:10	3
n-Butylbenzene	0.60	U	0.60	0.33	ppb v/v			04/06/23 02:10	3
n-Heptane	**0.30**	**J**	0.60	0.17	ppb v/v			04/06/23 02:10	3
n-Hexane	**0.35**	**J**	1.5	0.33	ppb v/v			04/06/23 02:10	3
n-Propylbenzene	0.60	U	0.60	0.14	ppb v/v			04/06/23 02:10	3
o-Xylene	**0.20**	**J**	0.60	0.16	ppb v/v			04/06/23 02:10	3
sec-Butylbenzene	0.60	U	0.60	0.14	ppb v/v			04/06/23 02:10	3
Styrene	**0.20**	**J**	0.60	0.18	ppb v/v			04/06/23 02:10	3
tert-Butyl alcohol	15	U	15	3.6	ppb v/v			04/06/23 02:10	3
tert-Butylbenzene	0.60	U	0.60	0.14	ppb v/v			04/06/23 02:10	3
Tetrachloroethene	**32**		0.60	0.063	ppb v/v			04/06/23 02:10	3
Tetrahydrofuran	15	U	15	3.9	ppb v/v			04/06/23 02:10	3
Toluene	**1.1**		0.60	0.13	ppb v/v			04/06/23 02:10	3
trans-1,2-Dichloroethene	0.60	U	0.60	0.069	ppb v/v			04/06/23 02:10	3
trans-1,3-Dichloropropene	0.60	U	0.60	0.16	ppb v/v			04/06/23 02:10	3
Trichloroethene	**0.35**		0.11	0.075	ppb v/v			04/06/23 02:10	3
Trichlorofluoromethane	**0.19**	**J**	0.60	0.15	ppb v/v			04/06/23 02:10	3

Client Sample ID: SS-2

Lab Sample ID: 200-67423-1

Date Collected: 03/21/23 16:12
Matrix: Air
Date Received: 03/24/23 10:40
Sample Container: Summa Canister 6L

Method: EPA TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.23	U	0.23	0.063	ppb v/v			04/06/23 02:10	3

Method: EPA TO-15 - Volatile Organic Compounds in Ambient Air - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	**68**	**D**	17	3.7	ug/m3			04/06/23 16:05	15.5
1,1,2,2-Tetrachloroethane	21	U	21	4.6	ug/m3			04/06/23 16:05	15.5
1,1,2-Trichloroethane	17	U	17	6.3	ug/m3			04/06/23 16:05	15.5
1,1,2-Trichlorotrifluoroethane	24	U	24	6.3	ug/m3			04/06/23 16:05	15.5
1,1-Dichloroethane	13	U	13	1.6	ug/m3			04/06/23 16:05	15.5
1,1-Dichloroethene	3.1	U	3.1	1.6	ug/m3			04/06/23 16:05	15.5
1,2,4-Trichlorobenzene	58	U	58	38	ug/m3			04/06/23 16:05	15.5
1,2,4-Trimethylbenzene	**14**	**J D**	15	6.1	ug/m3			04/06/23 16:05	15.5
1,2-Dibromoethane	24	U	24	5.0	ug/m3			04/06/23 16:05	15.5
1,2-Dichlorobenzene	19	U	19	6.2	ug/m3			04/06/23 16:05	15.5
1,2-Dichloroethane	13	U	13	5.8	ug/m3			04/06/23 16:05	15.5
1,2-Dichloropropane	14	U	14	6.7	ug/m3			04/06/23 16:05	15.5
1,2-Dichlorotetrafluoroethane	22	U	22	5.2	ug/m3			04/06/23 16:05	15.5
1,3,5-Trimethylbenzene	**7.6**	**J D**	15	3.6	ug/m3			04/06/23 16:05	15.5
1,3-Butadiene	6.9	U	6.9	1.3	ug/m3			04/06/23 16:05	15.5
1,3-Dichlorobenzene	19	U	19	6.9	ug/m3			04/06/23 16:05	15.5
1,4-Dichlorobenzene	19	U	19	8.3	ug/m3			04/06/23 16:05	15.5
1,4-Dioxane	280	U	280	73	ug/m3			04/06/23 16:05	15.5
2,2,4-Trimethylpentane	14	U	14	2.8	ug/m3			04/06/23 16:05	15.5
2-Chlorotoluene	16	U	16	3.7	ug/m3			04/06/23 16:05	15.5
3-Chloropropene	24	U	24	5.8	ug/m3			04/06/23 16:05	15.5
4-Ethyltoluene	15	U	15	3.7	ug/m3			04/06/23 16:05	15.5
4-Isopropyltoluene	17	U	17	5.2	ug/m3			04/06/23 16:05	15.5
4-Methyl-2-pentanone (Methyl isobutyl ketone)	32	U	32	8.3	ug/m3			04/06/23 16:05	15.5
Acetone	**710**	**D**	180	59	ug/m3			04/06/23 16:05	15.5
Benzene	9.9	U	9.9	2.2	ug/m3			04/06/23 16:05	15.5
Benzyl chloride	16	U	16	7.1	ug/m3			04/06/23 16:05	15.5
Bromodichloromethane	21	U	21	5.2	ug/m3			04/06/23 16:05	15.5
Bromoethene(Vinyl Bromide)	14	U	14	3.4	ug/m3			04/06/23 16:05	15.5
Bromoform	32	U	32	19	ug/m3			04/06/23 16:05	15.5
Bromomethane	12	U	12	4.3	ug/m3			04/06/23 16:05	15.5
Carbon disulfide	24	U	24	6.3	ug/m3			04/06/23 16:05	15.5
Carbon tetrachloride	3.4	U	3.4	2.1	ug/m3			04/06/23 16:05	15.5
Chlorobenzene	14	U	14	3.1	ug/m3			04/06/23 16:05	15.5
Chlorodifluoromethane	27	U	27	6.6	ug/m3			04/06/23 16:05	15.5
Chloroethane	20	U	20	7.4	ug/m3			04/06/23 16:05	15.5
Chloroform	**11**	**J D**	15	3.1	ug/m3			04/06/23 16:05	15.5
Chloromethane	16	U	16	4.8	ug/m3			04/06/23 16:05	15.5
cis-1,2-Dichloroethene	3.1	U	3.1	1.3	ug/m3			04/06/23 16:05	15.5
cis-1,3-Dichloropropene	14	U	14	3.2	ug/m3			04/06/23 16:05	15.5
Cumene	15	U	15	3.1	ug/m3			04/06/23 16:05	15.5
Cyclohexane	**6.9**	**J D**	11	3.1	ug/m3			04/06/23 16:05	15.5
Dibromochloromethane	26	U	26	8.3	ug/m3			04/06/23 16:05	15.5
Dichlorodifluoromethane	38	U	38	8.4	ug/m3			04/06/23 16:05	15.5

Client Sample ID: SS-2

Lab Sample ID: 200-67423-1

Date Collected: 03/21/23 16:12
Matrix: Air
Date Received: 03/24/23 10:40
Sample Container: Summa Canister 6L

Method: EPA TO-15 - Volatile Organic Compounds in Ambient Air - DL (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	**4.5**	**J D**	13	3.5	ug/m3			04/06/23 16:05	15.5
Hexachlorobutadiene	33	U	33	18	ug/m3			04/06/23 16:05	15.5
Isopropyl alcohol	190	U	190	61	ug/m3			04/06/23 16:05	15.5
m,p-Xylene	**58**	**D**	34	6.4	ug/m3			04/06/23 16:05	15.5
Methyl Butyl Ketone (2-Hexanone)	32	U	32	9.5	ug/m3			04/06/23 16:05	15.5
Methyl Ethyl Ketone (2-Butanone)	23	U	23	22	ug/m3			04/06/23 16:05	15.5
Methyl methacrylate	32	U	32	8.9	ug/m3			04/06/23 16:05	15.5
Methyl tert-butyl ether	11	U	11	2.0	ug/m3			04/06/23 16:05	15.5
Methylene Chloride	27	U	27	9.7	ug/m3			04/06/23 16:05	15.5
Naphthalene	41	U	41	24	ug/m3			04/06/23 16:05	15.5
n-Butane	18	U	18	7.4	ug/m3			04/06/23 16:05	15.5
n-Butylbenzene	17	U	17	9.4	ug/m3			04/06/23 16:05	15.5
n-Heptane	13	U	13	3.5	ug/m3			04/06/23 16:05	15.5
n-Hexane	27	U	27	6.0	ug/m3			04/06/23 16:05	15.5
n-Propylbenzene	15	U	15	3.6	ug/m3			04/06/23 16:05	15.5
o-Xylene	13	U	13	3.5	ug/m3			04/06/23 16:05	15.5
sec-Butylbenzene	17	U	17	3.8	ug/m3			04/06/23 16:05	15.5
Styrene	13	U	13	3.9	ug/m3			04/06/23 16:05	15.5
tert-Butyl alcohol	230	U	230	56	ug/m3			04/06/23 16:05	15.5
tert-Butylbenzene	17	U	17	4.0	ug/m3			04/06/23 16:05	15.5
Tetrachloroethene	**210**	**D**	21	2.2	ug/m3			04/06/23 16:05	15.5
Tetrahydrofuran	230	U	230	59	ug/m3			04/06/23 16:05	15.5
Toluene	**4.0**	**J D**	12	2.5	ug/m3			04/06/23 16:05	15.5
trans-1,2-Dichloroethene	12	U	12	1.4	ug/m3			04/06/23 16:05	15.5
trans-1,3-Dichloropropene	14	U	14	3.8	ug/m3			04/06/23 16:05	15.5
Trichloroethene	3.1	U	3.1	2.1	ug/m3			04/06/23 16:05	15.5
Trichlorofluoromethane	17	U	17	4.4	ug/m3			04/06/23 16:05	15.5
Vinyl chloride	3.1	U	3.1	0.83	ug/m3			04/06/23 16:05	15.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	**12**	**D**	3.1	0.68	ppb v/v			04/06/23 16:05	15.5
1,1,2,2-Tetrachloroethane	3.1	U	3.1	0.67	ppb v/v			04/06/23 16:05	15.5
1,1,2-Trichloroethane	3.1	U	3.1	1.1	ppb v/v			04/06/23 16:05	15.5
1,1,2-Trichlorotrifluoroethane	3.1	U	3.1	0.82	ppb v/v			04/06/23 16:05	15.5
1,1-Dichloroethane	3.1	U	3.1	0.39	ppb v/v			04/06/23 16:05	15.5
1,1-Dichloroethene	0.78	U	0.78	0.40	ppb v/v			04/06/23 16:05	15.5
1,2,4-Trichlorobenzene	7.8	U	7.8	5.1	ppb v/v			04/06/23 16:05	15.5
1,2,4-Trimethylbenzene	**2.9**	**J D**	3.1	1.2	ppb v/v			04/06/23 16:05	15.5
1,2-Dibromoethane	3.1	U	3.1	0.65	ppb v/v			04/06/23 16:05	15.5
1,2-Dichlorobenzene	3.1	U	3.1	1.0	ppb v/v			04/06/23 16:05	15.5
1,2-Dichloroethane	3.1	U	3.1	1.4	ppb v/v			04/06/23 16:05	15.5
1,2-Dichloropropane	3.1	U	3.1	1.5	ppb v/v			04/06/23 16:05	15.5
1,2-Dichlorotetrafluoroethane	3.1	U	3.1	0.74	ppb v/v			04/06/23 16:05	15.5
1,3,5-Trimethylbenzene	**1.6**	**J D**	3.1	0.73	ppb v/v			04/06/23 16:05	15.5
1,3-Butadiene	3.1	U	3.1	0.60	ppb v/v			04/06/23 16:05	15.5
1,3-Dichlorobenzene	3.1	U	3.1	1.1	ppb v/v			04/06/23 16:05	15.5
1,4-Dichlorobenzene	3.1	U	3.1	1.4	ppb v/v			04/06/23 16:05	15.5
1,4-Dioxane	78	U	78	20	ppb v/v			04/06/23 16:05	15.5
2,2,4-Trimethylpentane	3.1	U	3.1	0.59	ppb v/v			04/06/23 16:05	15.5

Client Sample ID: SS-2

Lab Sample ID: 200-67423-1

Date Collected: 03/21/23 16:12
Matrix: Air
Date Received: 03/24/23 10:40
Sample Container: Summa Canister 6L

Method: EPA TO-15 - Volatile Organic Compounds in Ambient Air - DL (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Chlorotoluene	3.1	U	3.1	0.71	ppb v/v			04/06/23 16:05	15.5
3-Chloropropene	7.8	U	7.8	1.9	ppb v/v			04/06/23 16:05	15.5
4-Ethyltoluene	3.1	U	3.1	0.76	ppb v/v			04/06/23 16:05	15.5
4-Isopropyltoluene	3.1	U	3.1	0.95	ppb v/v			04/06/23 16:05	15.5
4-Methyl-2-pentanone (Methyl isobutyl ketone)	7.8	U	7.8	2.0	ppb v/v			04/06/23 16:05	15.5
Acetone	**300**	**D**	78	25	ppb v/v			04/06/23 16:05	15.5
Benzene	3.1	U	3.1	0.68	ppb v/v			04/06/23 16:05	15.5
Benzyl chloride	3.1	U	3.1	1.4	ppb v/v			04/06/23 16:05	15.5
Bromodichloromethane	3.1	U	3.1	0.78	ppb v/v			04/06/23 16:05	15.5
Bromoethene(Vinyl Bromide)	3.1	U	3.1	0.78	ppb v/v			04/06/23 16:05	15.5
Bromoform	3.1	U	3.1	1.9	ppb v/v			04/06/23 16:05	15.5
Bromomethane	3.1	U	3.1	1.1	ppb v/v			04/06/23 16:05	15.5
Carbon disulfide	7.8	U	7.8	2.0	ppb v/v			04/06/23 16:05	15.5
Carbon tetrachloride	0.54	U	0.54	0.34	ppb v/v			04/06/23 16:05	15.5
Chlorobenzene	3.1	U	3.1	0.68	ppb v/v			04/06/23 16:05	15.5
Chlorodifluoromethane	7.8	U	7.8	1.9	ppb v/v			04/06/23 16:05	15.5
Chloroethane	7.8	U	7.8	2.8	ppb v/v			04/06/23 16:05	15.5
Chloroform	**2.3**	**J D**	3.1	0.64	ppb v/v			04/06/23 16:05	15.5
Chloromethane	7.8	U	7.8	2.3	ppb v/v			04/06/23 16:05	15.5
cis-1,2-Dichloroethene	0.78	U	0.78	0.33	ppb v/v			04/06/23 16:05	15.5
cis-1,3-Dichloropropene	3.1	U	3.1	0.70	ppb v/v			04/06/23 16:05	15.5
Cumene	3.1	U	3.1	0.64	ppb v/v			04/06/23 16:05	15.5
Cyclohexane	**2.0**	**J D**	3.1	0.90	ppb v/v			04/06/23 16:05	15.5
Dibromochloromethane	3.1	U	3.1	0.98	ppb v/v			04/06/23 16:05	15.5
Dichlorodifluoromethane	7.8	U	7.8	1.7	ppb v/v			04/06/23 16:05	15.5
Ethylbenzene	**1.0**	**J D**	3.1	0.81	ppb v/v			04/06/23 16:05	15.5
Hexachlorobutadiene	3.1	U	3.1	1.7	ppb v/v			04/06/23 16:05	15.5
Isopropyl alcohol	78	U	78	25	ppb v/v			04/06/23 16:05	15.5
m,p-Xylene	**13**	**D**	7.8	1.5	ppb v/v			04/06/23 16:05	15.5
Methyl Butyl Ketone (2-Hexanone)	7.8	U	7.8	2.3	ppb v/v			04/06/23 16:05	15.5
Methyl Ethyl Ketone (2-Butanone)	7.8	U	7.8	7.6	ppb v/v			04/06/23 16:05	15.5
Methyl methacrylate	7.8	U	7.8	2.2	ppb v/v			04/06/23 16:05	15.5
Methyl tert-butyl ether	3.1	U	3.1	0.56	ppb v/v			04/06/23 16:05	15.5
Methylene Chloride	7.8	U	7.8	2.8	ppb v/v			04/06/23 16:05	15.5
Naphthalene	7.8	U	7.8	4.7	ppb v/v			04/06/23 16:05	15.5
n-Butane	7.8	U	7.8	3.1	ppb v/v			04/06/23 16:05	15.5
n-Butylbenzene	3.1	U	3.1	1.7	ppb v/v			04/06/23 16:05	15.5
n-Heptane	3.1	U	3.1	0.85	ppb v/v			04/06/23 16:05	15.5
n-Hexane	7.8	U	7.8	1.7	ppb v/v			04/06/23 16:05	15.5
n-Propylbenzene	3.1	U	3.1	0.73	ppb v/v			04/06/23 16:05	15.5
o-Xylene	3.1	U	3.1	0.81	ppb v/v			04/06/23 16:05	15.5
sec-Butylbenzene	3.1	U	3.1	0.70	ppb v/v			04/06/23 16:05	15.5
Styrene	3.1	U	3.1	0.91	ppb v/v			04/06/23 16:05	15.5
tert-Butyl alcohol	78	U	78	19	ppb v/v			04/06/23 16:05	15.5
tert-Butylbenzene	3.1	U	3.1	0.73	ppb v/v			04/06/23 16:05	15.5
Tetrachloroethene	**31**	**D**	3.1	0.33	ppb v/v			04/06/23 16:05	15.5
Tetrahydrofuran	78	U	78	20	ppb v/v			04/06/23 16:05	15.5
Toluene	**1.1**	**J D**	3.1	0.65	ppb v/v			04/06/23 16:05	15.5

Client Sample ID: SS-2

Lab Sample ID: 200-67423-1

Date Collected: 03/21/23 16:12
Matrix: Air
Date Received: 03/24/23 10:40
Sample Container: Summa Canister 6L

Method: EPA TO-15 - Volatile Organic Compounds in Ambient Air - DL (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	3.1	U	3.1	0.36	ppb v/v			04/06/23 16:05	15.5
trans-1,3-Dichloropropene	3.1	U	3.1	0.84	ppb v/v			04/06/23 16:05	15.5
Trichloroethene	0.58	U	0.58	0.39	ppb v/v			04/06/23 16:05	15.5
Trichlorofluoromethane	3.1	U	3.1	0.78	ppb v/v			04/06/23 16:05	15.5
Vinyl chloride	1.2	U	1.2	0.33	ppb v/v			04/06/23 16:05	15.5

Client Sample ID: IA-2

Lab Sample ID: 200-67423-2

Date Collected: 03/21/23 16:13
Matrix: Air
Date Received: 03/24/23 10:40
Sample Container: Summa Canister 6L

Method: EPA TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	**0.29**	**J**	1.2	0.27	ug/m3			04/06/23 17:02	1.14
1,1,2,2-Tetrachloroethane	1.6	U	1.6	0.34	ug/m3			04/06/23 17:02	1.14
1,1,2-Trichloroethane	1.2	U	1.2	0.46	ug/m3			04/06/23 17:02	1.14
1,1,2-Trichlorotrifluoroethane	1.7	U	1.7	0.46	ug/m3			04/06/23 17:02	1.14
1,1-Dichloroethane	0.92	U	0.92	0.12	ug/m3			04/06/23 17:02	1.14
1,1-Dichloroethene	0.23	U	0.23	0.12	ug/m3			04/06/23 17:02	1.14
1,2,4-Trichlorobenzene	4.2	U	4.2	2.8	ug/m3			04/06/23 17:02	1.14
1,2,4-Trimethylbenzene	1.1	U	1.1	0.45	ug/m3			04/06/23 17:02	1.14
1,2-Dibromoethane	1.8	U	1.8	0.37	ug/m3			04/06/23 17:02	1.14
1,2-Dichlorobenzene	1.4	U	1.4	0.45	ug/m3			04/06/23 17:02	1.14
1,2-Dichloroethane	0.92	U	0.92	0.43	ug/m3			04/06/23 17:02	1.14
1,2-Dichloropropane	1.1	U	1.1	0.50	ug/m3			04/06/23 17:02	1.14
1,2-Dichlorotetrafluoroethane	1.6	U	1.6	0.38	ug/m3			04/06/23 17:02	1.14
1,3,5-Trimethylbenzene	1.1	U	1.1	0.26	ug/m3			04/06/23 17:02	1.14
1,3-Butadiene	0.50	U	0.50	0.098	ug/m3			04/06/23 17:02	1.14
1,3-Dichlorobenzene	1.4	U	1.4	0.51	ug/m3			04/06/23 17:02	1.14
1,4-Dichlorobenzene	1.4	U	1.4	0.61	ug/m3			04/06/23 17:02	1.14
1,4-Dioxane	21	U	21	5.3	ug/m3			04/06/23 17:02	1.14
2,2,4-Trimethylpentane	1.1	U	1.1	0.20	ug/m3			04/06/23 17:02	1.14
2-Chlorotoluene	1.2	U	1.2	0.27	ug/m3			04/06/23 17:02	1.14
3-Chloropropene	1.8	U	1.8	0.43	ug/m3			04/06/23 17:02	1.14
4-Ethyltoluene	1.1	U	1.1	0.27	ug/m3			04/06/23 17:02	1.14
4-Isopropyltoluene	1.3	U	1.3	0.38	ug/m3			04/06/23 17:02	1.14
4-Methyl-2-pentanone (Methyl isobutyl ketone)	2.3	U	2.3	0.61	ug/m3			04/06/23 17:02	1.14
Acetone	**10**	**J**	14	4.3	ug/m3			04/06/23 17:02	1.14
Benzene	**0.42**	**J**	0.73	0.16	ug/m3			04/06/23 17:02	1.14
Benzyl chloride	1.2	U	1.2	0.52	ug/m3			04/06/23 17:02	1.14
Bromodichloromethane	**0.95**	**J**	1.5	0.38	ug/m3			04/06/23 17:02	1.14
Bromoethene(Vinyl Bromide)	1.0	U	1.0	0.25	ug/m3			04/06/23 17:02	1.14
Bromoform	2.4	U	2.4	1.4	ug/m3			04/06/23 17:02	1.14
Bromomethane	0.89	U	0.89	0.31	ug/m3			04/06/23 17:02	1.14
Carbon disulfide	1.8	U	1.8	0.46	ug/m3			04/06/23 17:02	1.14
Carbon tetrachloride	**1.1**		0.25	0.16	ug/m3			04/06/23 17:02	1.14
Chlorobenzene	1.0	U	1.0	0.23	ug/m3			04/06/23 17:02	1.14
Chlorodifluoromethane	**1.2**	**J**	2.0	0.48	ug/m3			04/06/23 17:02	1.14

Client Sample ID: IA-2

Lab Sample ID: 200-67423-2

Date Collected: 03/21/23 16:13
Matrix: Air
Date Received: 03/24/23 10:40
Sample Container: Summa Canister 6L

Method: EPA TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroethane	1.5	U	1.5	0.54	ug/m3			04/06/23 17:02	1.14
Chloroform	**3.1**		1.1	0.23	ug/m3			04/06/23 17:02	1.14
Chloromethane	**1.2**		1.2	0.35	ug/m3			04/06/23 17:02	1.14
cis-1,2-Dichloroethene	0.23	U	0.23	0.095	ug/m3			04/06/23 17:02	1.14
cis-1,3-Dichloropropene	1.0	U	1.0	0.23	ug/m3			04/06/23 17:02	1.14
Cumene	1.1	U	1.1	0.23	ug/m3			04/06/23 17:02	1.14
Cyclohexane	**0.23**	**J**	0.78	0.23	ug/m3			04/06/23 17:02	1.14
Dibromochloromethane	**0.86**	**J**	1.9	0.61	ug/m3			04/06/23 17:02	1.14
Dichlorodifluoromethane	**1.4**	**J**	2.8	0.62	ug/m3			04/06/23 17:02	1.14
Ethylbenzene	**0.32**	**J**	0.99	0.26	ug/m3			04/06/23 17:02	1.14
Hexachlorobutadiene	2.4	U	2.4	1.3	ug/m3			04/06/23 17:02	1.14
Isopropyl alcohol	**6.0**	**J**	14	4.5	ug/m3			04/06/23 17:02	1.14
m,p-Xylene	**1.6**	**J**	2.5	0.47	ug/m3			04/06/23 17:02	1.14
Methyl Butyl Ketone (2-Hexanone)	2.3	U	2.3	0.70	ug/m3			04/06/23 17:02	1.14
Methyl Ethyl Ketone (2-Butanone)	1.7	U	1.7	1.6	ug/m3			04/06/23 17:02	1.14
Methyl methacrylate	2.3	U	2.3	0.65	ug/m3			04/06/23 17:02	1.14
Methyl tert-butyl ether	0.82	U	0.82	0.15	ug/m3			04/06/23 17:02	1.14
Methylene Chloride	**5.5**		2.0	0.71	ug/m3			04/06/23 17:02	1.14
Naphthalene	3.0	U	3.0	1.8	ug/m3			04/06/23 17:02	1.14
n-Butane	**5.1**		1.4	0.54	ug/m3			04/06/23 17:02	1.14
n-Butylbenzene	1.3	U	1.3	0.69	ug/m3			04/06/23 17:02	1.14
n-Heptane	**0.48**	**J**	0.93	0.26	ug/m3			04/06/23 17:02	1.14
n-Hexane	**3.8**		2.0	0.44	ug/m3			04/06/23 17:02	1.14
n-Propylbenzene	1.1	U	1.1	0.26	ug/m3			04/06/23 17:02	1.14
o-Xylene	**0.34**	**J**	0.99	0.26	ug/m3			04/06/23 17:02	1.14
sec-Butylbenzene	1.3	U	1.3	0.28	ug/m3			04/06/23 17:02	1.14
Styrene	**0.35**	**J**	0.97	0.29	ug/m3			04/06/23 17:02	1.14
tert-Butyl alcohol	17	U	17	4.1	ug/m3			04/06/23 17:02	1.14
tert-Butylbenzene	1.3	U	1.3	0.29	ug/m3			04/06/23 17:02	1.14
Tetrachloroethene	**1.9**		1.5	0.16	ug/m3			04/06/23 17:02	1.14
Tetrahydrofuran	17	U	17	4.4	ug/m3			04/06/23 17:02	1.14
Toluene	**1.3**		0.86	0.18	ug/m3			04/06/23 17:02	1.14
trans-1,2-Dichloroethene	0.90	U	0.90	0.10	ug/m3			04/06/23 17:02	1.14
trans-1,3-Dichloropropene	1.0	U	1.0	0.28	ug/m3			04/06/23 17:02	1.14
Trichloroethene	0.23	U	0.23	0.15	ug/m3			04/06/23 17:02	1.14
Trichlorofluoromethane	**1.6**		1.3	0.32	ug/m3			04/06/23 17:02	1.14
Vinyl chloride	0.23	U	0.23	0.061	ug/m3			04/06/23 17:02	1.14

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	**0.053**	**J**	0.23	0.050	ppb v/v			04/06/23 17:02	1.14
1,1,2,2-Tetrachloroethane	0.23	U	0.23	0.049	ppb v/v			04/06/23 17:02	1.14
1,1,2-Trichloroethane	0.23	U	0.23	0.084	ppb v/v			04/06/23 17:02	1.14
1,1,2-Trichlorotrifluoroethane	0.23	U	0.23	0.060	ppb v/v			04/06/23 17:02	1.14
1,1-Dichloroethane	0.23	U	0.23	0.029	ppb v/v			04/06/23 17:02	1.14
1,1-Dichloroethene	0.057	U	0.057	0.030	ppb v/v			04/06/23 17:02	1.14
1,2,4-Trichlorobenzene	0.57	U	0.57	0.38	ppb v/v			04/06/23 17:02	1.14
1,2,4-Trimethylbenzene	0.23	U	0.23	0.091	ppb v/v			04/06/23 17:02	1.14
1,2-Dibromoethane	0.23	U	0.23	0.048	ppb v/v			04/06/23 17:02	1.14
1,2-Dichlorobenzene	0.23	U	0.23	0.075	ppb v/v			04/06/23 17:02	1.14

Client Sample ID: IA-2

Lab Sample ID: 200-67423-2

Date Collected: 03/21/23 16:13
Matrix: Air
Date Received: 03/24/23 10:40
Sample Container: Summa Canister 6L

Method: EPA TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	0.23	U	0.23	0.11	ppb v/v			04/06/23 17:02	1.14
1,2-Dichloropropane	0.23	U	0.23	0.11	ppb v/v			04/06/23 17:02	1.14
1,2-Dichlorotetrafluoroethane	0.23	U	0.23	0.055	ppb v/v			04/06/23 17:02	1.14
1,3,5-Trimethylbenzene	0.23	U	0.23	0.054	ppb v/v			04/06/23 17:02	1.14
1,3-Butadiene	0.23	U	0.23	0.044	ppb v/v			04/06/23 17:02	1.14
1,3-Dichlorobenzene	0.23	U	0.23	0.084	ppb v/v			04/06/23 17:02	1.14
1,4-Dichlorobenzene	0.23	U	0.23	0.10	ppb v/v			04/06/23 17:02	1.14
1,4-Dioxane	5.7	U	5.7	1.5	ppb v/v			04/06/23 17:02	1.14
2,2,4-Trimethylpentane	0.23	U	0.23	0.043	ppb v/v			04/06/23 17:02	1.14
2-Chlorotoluene	0.23	U	0.23	0.052	ppb v/v			04/06/23 17:02	1.14
3-Chloropropene	0.57	U	0.57	0.14	ppb v/v			04/06/23 17:02	1.14
4-Ethyltoluene	0.23	U	0.23	0.056	ppb v/v			04/06/23 17:02	1.14
4-Isopropyltoluene	0.23	U	0.23	0.070	ppb v/v			04/06/23 17:02	1.14
4-Methyl-2-pentanone (Methyl isobutyl ketone)	0.57	U	0.57	0.15	ppb v/v			04/06/23 17:02	1.14
Acetone	**4.2**	**J**	5.7	1.8	ppb v/v			04/06/23 17:02	1.14
Benzene	**0.13**	**J**	0.23	0.050	ppb v/v			04/06/23 17:02	1.14
Benzyl chloride	0.23	U	0.23	0.10	ppb v/v			04/06/23 17:02	1.14
Bromodichloromethane	**0.14**	**J**	0.23	0.057	ppb v/v			04/06/23 17:02	1.14
Bromoethene(Vinyl Bromide)	0.23	U	0.23	0.057	ppb v/v			04/06/23 17:02	1.14
Bromoform	0.23	U	0.23	0.14	ppb v/v			04/06/23 17:02	1.14
Bromomethane	0.23	U	0.23	0.081	ppb v/v			04/06/23 17:02	1.14
Carbon disulfide	0.57	U	0.57	0.15	ppb v/v			04/06/23 17:02	1.14
Carbon tetrachloride	**0.17**		0.040	0.025	ppb v/v			04/06/23 17:02	1.14
Chlorobenzene	0.23	U	0.23	0.050	ppb v/v			04/06/23 17:02	1.14
Chlorodifluoromethane	**0.34**	**J**	0.57	0.14	ppb v/v			04/06/23 17:02	1.14
Chloroethane	0.57	U	0.57	0.21	ppb v/v			04/06/23 17:02	1.14
Chloroform	**0.63**		0.23	0.047	ppb v/v			04/06/23 17:02	1.14
Chloromethane	**0.57**		0.57	0.17	ppb v/v			04/06/23 17:02	1.14
cis-1,2-Dichloroethene	0.057	U	0.057	0.024	ppb v/v			04/06/23 17:02	1.14
cis-1,3-Dichloropropene	0.23	U	0.23	0.051	ppb v/v			04/06/23 17:02	1.14
Cumene	0.23	U	0.23	0.047	ppb v/v			04/06/23 17:02	1.14
Cyclohexane	**0.067**	**J**	0.23	0.066	ppb v/v			04/06/23 17:02	1.14
Dibromochloromethane	**0.10**	**J**	0.23	0.072	ppb v/v			04/06/23 17:02	1.14
Dichlorodifluoromethane	**0.29**	**J**	0.57	0.13	ppb v/v			04/06/23 17:02	1.14
Ethylbenzene	**0.073**	**J**	0.23	0.059	ppb v/v			04/06/23 17:02	1.14
Hexachlorobutadiene	0.23	U	0.23	0.13	ppb v/v			04/06/23 17:02	1.14
Isopropyl alcohol	**2.4**	**J**	5.7	1.8	ppb v/v			04/06/23 17:02	1.14
m,p-Xylene	**0.36**	**J**	0.57	0.11	ppb v/v			04/06/23 17:02	1.14
Methyl Butyl Ketone (2-Hexanone)	0.57	U	0.57	0.17	ppb v/v			04/06/23 17:02	1.14
Methyl Ethyl Ketone (2-Butanone)	0.57	U	0.57	0.56	ppb v/v			04/06/23 17:02	1.14
Methyl methacrylate	0.57	U	0.57	0.16	ppb v/v			04/06/23 17:02	1.14
Methyl tert-butyl ether	0.23	U	0.23	0.041	ppb v/v			04/06/23 17:02	1.14
Methylene Chloride	**1.6**		0.57	0.21	ppb v/v			04/06/23 17:02	1.14
Naphthalene	0.57	U	0.57	0.34	ppb v/v			04/06/23 17:02	1.14
n-Butane	**2.2**		0.57	0.23	ppb v/v			04/06/23 17:02	1.14
n-Butylbenzene	0.23	U	0.23	0.13	ppb v/v			04/06/23 17:02	1.14
n-Heptane	**0.12**	**J**	0.23	0.063	ppb v/v			04/06/23 17:02	1.14
n-Hexane	**1.1**		0.57	0.13	ppb v/v			04/06/23 17:02	1.14

Client Sample ID: IA-2

Lab Sample ID: 200-67423-2

Date Collected: 03/21/23 16:13
Matrix: Air
Date Received: 03/24/23 10:40
Sample Container: Summa Canister 6L

Method: EPA TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
n-Propylbenzene	0.23	U	0.23	0.054	ppb v/v			04/06/23 17:02	1.14
o-Xylene	**0.079**	**J**	0.23	0.059	ppb v/v			04/06/23 17:02	1.14
sec-Butylbenzene	0.23	U	0.23	0.051	ppb v/v			04/06/23 17:02	1.14
Styrene	**0.082**	**J**	0.23	0.067	ppb v/v			04/06/23 17:02	1.14
tert-Butyl alcohol	5.7	U	5.7	1.4	ppb v/v			04/06/23 17:02	1.14
tert-Butylbenzene	0.23	U	0.23	0.054	ppb v/v			04/06/23 17:02	1.14
Tetrachloroethene	**0.29**		0.23	0.024	ppb v/v			04/06/23 17:02	1.14
Tetrahydrofuran	5.7	U	5.7	1.5	ppb v/v			04/06/23 17:02	1.14
Toluene	**0.34**		0.23	0.048	ppb v/v			04/06/23 17:02	1.14
trans-1,2-Dichloroethene	0.23	U	0.23	0.026	ppb v/v			04/06/23 17:02	1.14
trans-1,3-Dichloropropene	0.23	U	0.23	0.062	ppb v/v			04/06/23 17:02	1.14
Trichloroethene	0.042	U	0.042	0.029	ppb v/v			04/06/23 17:02	1.14
Trichlorofluoromethane	**0.28**		0.23	0.057	ppb v/v			04/06/23 17:02	1.14
Vinyl chloride	0.089	U	0.089	0.024	ppb v/v			04/06/23 17:02	1.14

Client Sample ID: SS-4

Lab Sample ID: 200-67423-3

Date Collected: 03/21/23 16:17
Matrix: Air
Date Received: 03/24/23 10:40
Sample Container: Summa Canister 6L

Method: EPA TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	**6.1**		3.3	0.72	ug/m3			04/06/23 17:54	3
1,1,2,2-Tetrachloroethane	4.1	U	4.1	0.89	ug/m3			04/06/23 17:54	3
1,1,2-Trichloroethane	3.3	U	3.3	1.2	ug/m3			04/06/23 17:54	3
1,1,2-Trichlorotrifluoroethane	4.6	U	4.6	1.2	ug/m3			04/06/23 17:54	3
1,1-Dichloroethane	**2.3**	**J**	2.4	0.30	ug/m3			04/06/23 17:54	3
1,1-Dichloroethene	0.60	U	0.60	0.31	ug/m3			04/06/23 17:54	3
1,2,4-Trichlorobenzene	11	U	11	7.3	ug/m3			04/06/23 17:54	3
1,2,4-Trimethylbenzene	2.9	U	2.9	1.2	ug/m3			04/06/23 17:54	3
1,2-Dibromoethane	4.6	U	4.6	0.97	ug/m3			04/06/23 17:54	3
1,2-Dichlorobenzene	3.6	U	3.6	1.2	ug/m3			04/06/23 17:54	3
1,2-Dichloroethane	2.4	U	2.4	1.1	ug/m3			04/06/23 17:54	3
1,2-Dichloropropane	2.8	U	2.8	1.3	ug/m3			04/06/23 17:54	3
1,2-Dichlorotetrafluoroethane	4.2	U	4.2	1.0	ug/m3			04/06/23 17:54	3
1,3,5-Trimethylbenzene	2.9	U	2.9	0.69	ug/m3			04/06/23 17:54	3
1,3-Butadiene	1.3	U	1.3	0.26	ug/m3			04/06/23 17:54	3
1,3-Dichlorobenzene	3.6	U	3.6	1.3	ug/m3			04/06/23 17:54	3
1,4-Dichlorobenzene	3.6	U	3.6	1.6	ug/m3			04/06/23 17:54	3
1,4-Dioxane	54	U	54	14	ug/m3			04/06/23 17:54	3
2,2,4-Trimethylpentane	2.8	U	2.8	0.53	ug/m3			04/06/23 17:54	3
2-Chlorotoluene	3.1	U	3.1	0.71	ug/m3			04/06/23 17:54	3
3-Chloropropene	4.7	U	4.7	1.1	ug/m3			04/06/23 17:54	3
4-Ethyltoluene	2.9	U	2.9	0.72	ug/m3			04/06/23 17:54	3
4-Isopropyltoluene	3.3	U	3.3	1.0	ug/m3			04/06/23 17:54	3
4-Methyl-2-pentanone (Methyl isobutyl ketone)	6.1	U	6.1	1.6	ug/m3			04/06/23 17:54	3
Acetone	**650**	**E**	36	11	ug/m3			04/06/23 17:54	3
Benzene	1.9	U	1.9	0.42	ug/m3			04/06/23 17:54	3

Client Sample Results

Client: Pinnacle Engineering, Inc
Project/Site: Monarch Chemical

Job ID: 200-67423-1
SDG: 200-67423

Client Sample ID: SS-4

Date Collected: 03/21/23 16:17
Date Received: 03/24/23 10:40
Sample Container: Summa Canister 6L

Lab Sample ID: 200-67423-3

Matrix: Air

Method: EPA TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzyl chloride	3.1	U	3.1	1.4	ug/m3			04/06/23 17:54	3
Bromodichloromethane	4.0	U	4.0	1.0	ug/m3			04/06/23 17:54	3
Bromoethene(Vinyl Bromide)	2.6	U	2.6	0.66	ug/m3			04/06/23 17:54	3
Bromoform	6.2	U	6.2	3.7	ug/m3			04/06/23 17:54	3
Bromomethane	2.3	U	2.3	0.83	ug/m3			04/06/23 17:54	3
Carbon disulfide	4.7	U	4.7	1.2	ug/m3			04/06/23 17:54	3
Carbon tetrachloride	**0.44**	**J**	0.66	0.42	ug/m3			04/06/23 17:54	3
Chlorobenzene	2.8	U	2.8	0.61	ug/m3			04/06/23 17:54	3
Chlorodifluoromethane	5.3	U	5.3	1.3	ug/m3			04/06/23 17:54	3
Chloroethane	4.0	U	4.0	1.4	ug/m3			04/06/23 17:54	3
Chloroform	**46**		2.9	0.60	ug/m3			04/06/23 17:54	3
Chloromethane	3.1	U	3.1	0.93	ug/m3			04/06/23 17:54	3
cis-1,2-Dichloroethene	0.60	U	0.60	0.25	ug/m3			04/06/23 17:54	3
cis-1,3-Dichloropropene	2.7	U	2.7	0.61	ug/m3			04/06/23 17:54	3
Cumene	2.9	U	2.9	0.60	ug/m3			04/06/23 17:54	3
Cyclohexane	2.1	U	2.1	0.60	ug/m3			04/06/23 17:54	3
Dibromochloromethane	5.1	U	5.1	1.6	ug/m3			04/06/23 17:54	3
Dichlorodifluoromethane	**2.1**	**J**	7.4	1.6	ug/m3			04/06/23 17:54	3
Ethylbenzene	**0.72**	**J**	2.6	0.68	ug/m3			04/06/23 17:54	3
Hexachlorobutadiene	6.4	U	6.4	3.5	ug/m3			04/06/23 17:54	3
Isopropyl alcohol	37	U	37	12	ug/m3			04/06/23 17:54	3
m,p-Xylene	**3.2**	**J**	6.5	1.2	ug/m3			04/06/23 17:54	3
Methyl Butyl Ketone (2-Hexanone)	**3.5**	**J**	6.1	1.8	ug/m3			04/06/23 17:54	3
Methyl Ethyl Ketone (2-Butanone)	**18**		4.4	4.3	ug/m3			04/06/23 17:54	3
Methyl methacrylate	6.1	U	6.1	1.7	ug/m3			04/06/23 17:54	3
Methyl tert-butyl ether	2.2	U	2.2	0.39	ug/m3			04/06/23 17:54	3
Methylene Chloride	**2.1**	**J**	5.2	1.9	ug/m3			04/06/23 17:54	3
Naphthalene	7.9	U	7.9	4.7	ug/m3			04/06/23 17:54	3
n-Butane	**3.8**		3.6	1.4	ug/m3			04/06/23 17:54	3
n-Butylbenzene	3.3	U	3.3	1.8	ug/m3			04/06/23 17:54	3
n-Heptane	**1.4**	**J**	2.5	0.68	ug/m3			04/06/23 17:54	3
n-Hexane	**1.4**	**J**	5.3	1.2	ug/m3			04/06/23 17:54	3
n-Propylbenzene	2.9	U	2.9	0.69	ug/m3			04/06/23 17:54	3
o-Xylene	**0.95**	**J**	2.6	0.68	ug/m3			04/06/23 17:54	3
sec-Butylbenzene	3.3	U	3.3	0.74	ug/m3			04/06/23 17:54	3
Styrene	2.6	U	2.6	0.75	ug/m3			04/06/23 17:54	3
tert-Butyl alcohol	45	U	45	11	ug/m3			04/06/23 17:54	3
tert-Butylbenzene	3.3	U	3.3	0.77	ug/m3			04/06/23 17:54	3
Tetrachloroethene	**57**		4.1	0.43	ug/m3			04/06/23 17:54	3
Tetrahydrofuran	44	U	44	12	ug/m3			04/06/23 17:54	3
Toluene	**4.1**		2.3	0.47	ug/m3			04/06/23 17:54	3
trans-1,2-Dichloroethene	2.4	U	2.4	0.27	ug/m3			04/06/23 17:54	3
trans-1,3-Dichloropropene	2.7	U	2.7	0.74	ug/m3			04/06/23 17:54	3
Trichloroethene	**20**		0.60	0.40	ug/m3			04/06/23 17:54	3
Trichlorofluoromethane	**1.1**	**J**	3.4	0.84	ug/m3			04/06/23 17:54	3
Vinyl chloride	0.60	U	0.60	0.16	ug/m3			04/06/23 17:54	3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	**1.1**		0.60	0.13	ppb v/v			04/06/23 17:54	3

Client Sample Results

Client: Pinnacle Engineering, Inc
Project/Site: Monarch Chemical

Job ID: 200-67423-1
SDG: 200-67423

Client Sample ID: SS-4

Lab Sample ID: 200-67423-3

Date Collected: 03/21/23 16:17
Matrix: Air
Date Received: 03/24/23 10:40
Sample Container: Summa Canister 6L

Method: EPA TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	0.60	U	0.60	0.13	ppb v/v			04/06/23 17:54	3
1,1,2-Trichloroethane	0.60	U	0.60	0.22	ppb v/v			04/06/23 17:54	3
1,1,2-Trichlorotrifluoroethane	0.60	U	0.60	0.16	ppb v/v			04/06/23 17:54	3
1,1-Dichloroethane	**0.57**	**J**	0.60	0.075	ppb v/v			04/06/23 17:54	3
1,1-Dichloroethene	0.15	U	0.15	0.078	ppb v/v			04/06/23 17:54	3
1,2,4-Trichlorobenzene	1.5	U	1.5	0.99	ppb v/v			04/06/23 17:54	3
1,2,4-Trimethylbenzene	0.60	U	0.60	0.24	ppb v/v			04/06/23 17:54	3
1,2-Dibromoethane	0.60	U	0.60	0.13	ppb v/v			04/06/23 17:54	3
1,2-Dichlorobenzene	0.60	U	0.60	0.20	ppb v/v			04/06/23 17:54	3
1,2-Dichloroethane	0.60	U	0.60	0.28	ppb v/v			04/06/23 17:54	3
1,2-Dichloropropane	0.60	U	0.60	0.28	ppb v/v			04/06/23 17:54	3
1,2-Dichlorotetrafluoroethane	0.60	U	0.60	0.14	ppb v/v			04/06/23 17:54	3
1,3,5-Trimethylbenzene	0.60	U	0.60	0.14	ppb v/v			04/06/23 17:54	3
1,3-Butadiene	0.60	U	0.60	0.12	ppb v/v			04/06/23 17:54	3
1,3-Dichlorobenzene	0.60	U	0.60	0.22	ppb v/v			04/06/23 17:54	3
1,4-Dichlorobenzene	0.60	U	0.60	0.27	ppb v/v			04/06/23 17:54	3
1,4-Dioxane	15	U	15	3.9	ppb v/v			04/06/23 17:54	3
2,2,4-Trimethylpentane	0.60	U	0.60	0.11	ppb v/v			04/06/23 17:54	3
2-Chlorotoluene	0.60	U	0.60	0.14	ppb v/v			04/06/23 17:54	3
3-Chloropropene	1.5	U	1.5	0.36	ppb v/v			04/06/23 17:54	3
4-Ethyltoluene	0.60	U	0.60	0.15	ppb v/v			04/06/23 17:54	3
4-Isopropyltoluene	0.60	U	0.60	0.18	ppb v/v			04/06/23 17:54	3
4-Methyl-2-pentanone (Methyl isobutyl ketone)	1.5	U	1.5	0.39	ppb v/v			04/06/23 17:54	3
Acetone	**270**	**E**	15	4.8	ppb v/v			04/06/23 17:54	3
Benzene	0.60	U	0.60	0.13	ppb v/v			04/06/23 17:54	3
Benzyl chloride	0.60	U	0.60	0.26	ppb v/v			04/06/23 17:54	3
Bromodichloromethane	0.60	U	0.60	0.15	ppb v/v			04/06/23 17:54	3
Bromoethene(Vinyl Bromide)	0.60	U	0.60	0.15	ppb v/v			04/06/23 17:54	3
Bromoform	0.60	U	0.60	0.36	ppb v/v			04/06/23 17:54	3
Bromomethane	0.60	U	0.60	0.21	ppb v/v			04/06/23 17:54	3
Carbon disulfide	1.5	U	1.5	0.39	ppb v/v			04/06/23 17:54	3
Carbon tetrachloride	**0.070**	**J**	0.11	0.066	ppb v/v			04/06/23 17:54	3
Chlorobenzene	0.60	U	0.60	0.13	ppb v/v			04/06/23 17:54	3
Chlorodifluoromethane	1.5	U	1.5	0.36	ppb v/v			04/06/23 17:54	3
Chloroethane	1.5	U	1.5	0.54	ppb v/v			04/06/23 17:54	3
Chloroform	**9.4**		0.60	0.12	ppb v/v			04/06/23 17:54	3
Chloromethane	1.5	U	1.5	0.45	ppb v/v			04/06/23 17:54	3
cis-1,2-Dichloroethene	0.15	U	0.15	0.063	ppb v/v			04/06/23 17:54	3
cis-1,3-Dichloropropene	0.60	U	0.60	0.14	ppb v/v			04/06/23 17:54	3
Cumene	0.60	U	0.60	0.12	ppb v/v			04/06/23 17:54	3
Cyclohexane	0.60	U	0.60	0.17	ppb v/v			04/06/23 17:54	3
Dibromochloromethane	0.60	U	0.60	0.19	ppb v/v			04/06/23 17:54	3
Dichlorodifluoromethane	**0.43**	**J**	1.5	0.33	ppb v/v			04/06/23 17:54	3
Ethylbenzene	**0.17**	**J**	0.60	0.16	ppb v/v			04/06/23 17:54	3
Hexachlorobutadiene	0.60	U	0.60	0.33	ppb v/v			04/06/23 17:54	3
Isopropyl alcohol	15	U	15	4.8	ppb v/v			04/06/23 17:54	3
m,p-Xylene	**0.74**	**J**	1.5	0.29	ppb v/v			04/06/23 17:54	3
Methyl Butyl Ketone (2-Hexanone)	**0.85**	**J**	1.5	0.45	ppb v/v			04/06/23 17:54	3

Client Sample ID: SS-4

Lab Sample ID: 200-67423-3

Date Collected: 03/21/23 16:17
Matrix: Air
Date Received: 03/24/23 10:40
Sample Container: Summa Canister 6L

Method: EPA TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl Ethyl Ketone (2-Butanone)	**6.0**		1.5	1.5	ppb v/v			04/06/23 17:54	3
Methyl methacrylate	1.5	U	1.5	0.42	ppb v/v			04/06/23 17:54	3
Methyl tert-butyl ether	0.60	U	0.60	0.11	ppb v/v			04/06/23 17:54	3
Methylene Chloride	**0.61**	**J**	1.5	0.54	ppb v/v			04/06/23 17:54	3
Naphthalene	1.5	U	1.5	0.90	ppb v/v			04/06/23 17:54	3
n-Butane	**1.6**		1.5	0.60	ppb v/v			04/06/23 17:54	3
n-Butylbenzene	0.60	U	0.60	0.33	ppb v/v			04/06/23 17:54	3
n-Heptane	**0.34**	**J**	0.60	0.17	ppb v/v			04/06/23 17:54	3
n-Hexane	**0.40**	**J**	1.5	0.33	ppb v/v			04/06/23 17:54	3
n-Propylbenzene	0.60	U	0.60	0.14	ppb v/v			04/06/23 17:54	3
o-Xylene	**0.22**	**J**	0.60	0.16	ppb v/v			04/06/23 17:54	3
sec-Butylbenzene	0.60	U	0.60	0.14	ppb v/v			04/06/23 17:54	3
Styrene	0.60	U	0.60	0.18	ppb v/v			04/06/23 17:54	3
tert-Butyl alcohol	15	U	15	3.6	ppb v/v			04/06/23 17:54	3
tert-Butylbenzene	0.60	U	0.60	0.14	ppb v/v			04/06/23 17:54	3
Tetrachloroethene	**8.4**		0.60	0.063	ppb v/v			04/06/23 17:54	3
Tetrahydrofuran	15	U	15	3.9	ppb v/v			04/06/23 17:54	3
Toluene	**1.1**		0.60	0.13	ppb v/v			04/06/23 17:54	3
trans-1,2-Dichloroethene	0.60	U	0.60	0.069	ppb v/v			04/06/23 17:54	3
trans-1,3-Dichloropropene	0.60	U	0.60	0.16	ppb v/v			04/06/23 17:54	3
Trichloroethene	**3.8**		0.11	0.075	ppb v/v			04/06/23 17:54	3
Trichlorofluoromethane	**0.19**	**J**	0.60	0.15	ppb v/v			04/06/23 17:54	3
Vinyl chloride	0.23	U	0.23	0.063	ppb v/v			04/06/23 17:54	3

Method: EPA TO-15 - Volatile Organic Compounds in Ambient Air - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	**5.2**	**J D**	17	3.7	ug/m3			04/06/23 18:46	15.5
1,1,2,2-Tetrachloroethane	21	U	21	4.6	ug/m3			04/06/23 18:46	15.5
1,1,2-Trichloroethane	17	U	17	6.3	ug/m3			04/06/23 18:46	15.5
1,1,2-Trichlorotrifluoroethane	24	U	24	6.3	ug/m3			04/06/23 18:46	15.5
1,1-Dichloroethane	**2.0**	**J D**	13	1.6	ug/m3			04/06/23 18:46	15.5
1,1-Dichloroethene	3.1	U	3.1	1.6	ug/m3			04/06/23 18:46	15.5
1,2,4-Trichlorobenzene	58	U	58	38	ug/m3			04/06/23 18:46	15.5
1,2,4-Trimethylbenzene	15	U	15	6.1	ug/m3			04/06/23 18:46	15.5
1,2-Dibromoethane	24	U	24	5.0	ug/m3			04/06/23 18:46	15.5
1,2-Dichlorobenzene	19	U	19	6.2	ug/m3			04/06/23 18:46	15.5
1,2-Dichloroethane	13	U	13	5.8	ug/m3			04/06/23 18:46	15.5
1,2-Dichloropropane	14	U	14	6.7	ug/m3			04/06/23 18:46	15.5
1,2-Dichlorotetrafluoroethane	22	U	22	5.2	ug/m3			04/06/23 18:46	15.5
1,3,5-Trimethylbenzene	15	U	15	3.6	ug/m3			04/06/23 18:46	15.5
1,3-Butadiene	6.9	U	6.9	1.3	ug/m3			04/06/23 18:46	15.5
1,3-Dichlorobenzene	19	U	19	6.9	ug/m3			04/06/23 18:46	15.5
1,4-Dichlorobenzene	19	U	19	8.3	ug/m3			04/06/23 18:46	15.5
1,4-Dioxane	280	U	280	73	ug/m3			04/06/23 18:46	15.5
2,2,4-Trimethylpentane	14	U	14	2.8	ug/m3			04/06/23 18:46	15.5
2-Chlorotoluene	16	U	16	3.7	ug/m3			04/06/23 18:46	15.5
3-Chloropropene	24	U	24	5.8	ug/m3			04/06/23 18:46	15.5
4-Ethyltoluene	15	U	15	3.7	ug/m3			04/06/23 18:46	15.5
4-Isopropyltoluene	17	U	17	5.2	ug/m3			04/06/23 18:46	15.5

Client Sample ID: SS-4

Lab Sample ID: 200-67423-3

Date Collected: 03/21/23 16:17
Matrix: Air
Date Received: 03/24/23 10:40
Sample Container: Summa Canister 6L

Method: EPA TO-15 - Volatile Organic Compounds in Ambient Air - DL (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Methyl-2-pentanone (Methyl isobutyl ketone)	32	U	32	8.3	ug/m3			04/06/23 18:46	15.5
Acetone	**770**	**D**	180	59	ug/m3			04/06/23 18:46	15.5
Benzene	9.9	U	9.9	2.2	ug/m3			04/06/23 18:46	15.5
Benzyl chloride	16	U	16	7.1	ug/m3			04/06/23 18:46	15.5
Bromodichloromethane	21	U	21	5.2	ug/m3			04/06/23 18:46	15.5
Bromoethene(Vinyl Bromide)	14	U	14	3.4	ug/m3			04/06/23 18:46	15.5
Bromoform	32	U	32	19	ug/m3			04/06/23 18:46	15.5
Bromomethane	12	U	12	4.3	ug/m3			04/06/23 18:46	15.5
Carbon disulfide	24	U	24	6.3	ug/m3			04/06/23 18:46	15.5
Carbon tetrachloride	3.4	U	3.4	2.1	ug/m3			04/06/23 18:46	15.5
Chlorobenzene	14	U	14	3.1	ug/m3			04/06/23 18:46	15.5
Chlorodifluoromethane	27	U	27	6.6	ug/m3			04/06/23 18:46	15.5
Chloroethane	20	U	20	7.4	ug/m3			04/06/23 18:46	15.5
Chloroform	**43**	**D**	15	3.1	ug/m3			04/06/23 18:46	15.5
Chloromethane	16	U	16	4.8	ug/m3			04/06/23 18:46	15.5
cis-1,2-Dichloroethene	**5.3**	**D**	3.1	1.3	ug/m3			04/06/23 18:46	15.5
cis-1,3-Dichloropropene	14	U	14	3.2	ug/m3			04/06/23 18:46	15.5
Cumene	15	U	15	3.1	ug/m3			04/06/23 18:46	15.5
Cyclohexane	11	U	11	3.1	ug/m3			04/06/23 18:46	15.5
Dibromochloromethane	26	U	26	8.3	ug/m3			04/06/23 18:46	15.5
Dichlorodifluoromethane	38	U	38	8.4	ug/m3			04/06/23 18:46	15.5
Ethylbenzene	13	U	13	3.5	ug/m3			04/06/23 18:46	15.5
Hexachlorobutadiene	33	U	33	18	ug/m3			04/06/23 18:46	15.5
Isopropyl alcohol	190	U	190	61	ug/m3			04/06/23 18:46	15.5
m,p-Xylene	34	U	34	6.4	ug/m3			04/06/23 18:46	15.5
Methyl Butyl Ketone (2-Hexanone)	32	U	32	9.5	ug/m3			04/06/23 18:46	15.5
Methyl Ethyl Ketone (2-Butanone)	23	U	23	22	ug/m3			04/06/23 18:46	15.5
Methyl methacrylate	32	U	32	8.9	ug/m3			04/06/23 18:46	15.5
Methyl tert-butyl ether	11	U	11	2.0	ug/m3			04/06/23 18:46	15.5
Methylene Chloride	27	U	27	9.7	ug/m3			04/06/23 18:46	15.5
Naphthalene	41	U	41	24	ug/m3			04/06/23 18:46	15.5
n-Butane	18	U	18	7.4	ug/m3			04/06/23 18:46	15.5
n-Butylbenzene	17	U	17	9.4	ug/m3			04/06/23 18:46	15.5
n-Heptane	13	U	13	3.5	ug/m3			04/06/23 18:46	15.5
n-Hexane	27	U	27	6.0	ug/m3			04/06/23 18:46	15.5
n-Propylbenzene	15	U	15	3.6	ug/m3			04/06/23 18:46	15.5
o-Xylene	13	U	13	3.5	ug/m3			04/06/23 18:46	15.5
sec-Butylbenzene	17	U	17	3.8	ug/m3			04/06/23 18:46	15.5
Styrene	13	U	13	3.9	ug/m3			04/06/23 18:46	15.5
tert-Butyl alcohol	230	U	230	56	ug/m3			04/06/23 18:46	15.5
tert-Butylbenzene	17	U	17	4.0	ug/m3			04/06/23 18:46	15.5
Tetrachloroethene	**53**	**D**	21	2.2	ug/m3			04/06/23 18:46	15.5
Tetrahydrofuran	230	U	230	59	ug/m3			04/06/23 18:46	15.5
Toluene	**3.7**	**J D**	12	2.5	ug/m3			04/06/23 18:46	15.5
trans-1,2-Dichloroethene	12	U	12	1.4	ug/m3			04/06/23 18:46	15.5
trans-1,3-Dichloropropene	14	U	14	3.8	ug/m3			04/06/23 18:46	15.5
Trichloroethene	**19**	**D**	3.1	2.1	ug/m3			04/06/23 18:46	15.5
Trichlorofluoromethane	17	U	17	4.4	ug/m3			04/06/23 18:46	15.5

Client Sample ID: SS-4

Lab Sample ID: 200-67423-3

Date Collected: 03/21/23 16:17
Matrix: Air
Date Received: 03/24/23 10:40
Sample Container: Summa Canister 6L

Method: EPA TO-15 - Volatile Organic Compounds in Ambient Air - DL (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	3.1	U	3.1	0.83	ug/m3			04/06/23 18:46	15.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	**0.96**	**J D**	3.1	0.68	ppb v/v			04/06/23 18:46	15.5
1,1,2,2-Tetrachloroethane	3.1	U	3.1	0.67	ppb v/v			04/06/23 18:46	15.5
1,1,2-Trichloroethane	3.1	U	3.1	1.1	ppb v/v			04/06/23 18:46	15.5
1,1,2-Trichlorotrifluoroethane	3.1	U	3.1	0.82	ppb v/v			04/06/23 18:46	15.5
1,1-Dichloroethane	**0.49**	**J D**	3.1	0.39	ppb v/v			04/06/23 18:46	15.5
1,1-Dichloroethene	0.78	U	0.78	0.40	ppb v/v			04/06/23 18:46	15.5
1,2,4-Trichlorobenzene	7.8	U	7.8	5.1	ppb v/v			04/06/23 18:46	15.5
1,2,4-Trimethylbenzene	3.1	U	3.1	1.2	ppb v/v			04/06/23 18:46	15.5
1,2-Dibromoethane	3.1	U	3.1	0.65	ppb v/v			04/06/23 18:46	15.5
1,2-Dichlorobenzene	3.1	U	3.1	1.0	ppb v/v			04/06/23 18:46	15.5
1,2-Dichloroethane	3.1	U	3.1	1.4	ppb v/v			04/06/23 18:46	15.5
1,2-Dichloropropane	3.1	U	3.1	1.5	ppb v/v			04/06/23 18:46	15.5
1,2-Dichlorotetrafluoroethane	3.1	U	3.1	0.74	ppb v/v			04/06/23 18:46	15.5
1,3,5-Trimethylbenzene	3.1	U	3.1	0.73	ppb v/v			04/06/23 18:46	15.5
1,3-Butadiene	3.1	U	3.1	0.60	ppb v/v			04/06/23 18:46	15.5
1,3-Dichlorobenzene	3.1	U	3.1	1.1	ppb v/v			04/06/23 18:46	15.5
1,4-Dichlorobenzene	3.1	U	3.1	1.4	ppb v/v			04/06/23 18:46	15.5
1,4-Dioxane	78	U	78	20	ppb v/v			04/06/23 18:46	15.5
2,2,4-Trimethylpentane	3.1	U	3.1	0.59	ppb v/v			04/06/23 18:46	15.5
2-Chlorotoluene	3.1	U	3.1	0.71	ppb v/v			04/06/23 18:46	15.5
3-Chloropropene	7.8	U	7.8	1.9	ppb v/v			04/06/23 18:46	15.5
4-Ethyltoluene	3.1	U	3.1	0.76	ppb v/v			04/06/23 18:46	15.5
4-Isopropyltoluene	3.1	U	3.1	0.95	ppb v/v			04/06/23 18:46	15.5
4-Methyl-2-pentanone (Methyl isobutyl ketone)	7.8	U	7.8	2.0	ppb v/v			04/06/23 18:46	15.5
Acetone	**320**	**D**	78	25	ppb v/v			04/06/23 18:46	15.5
Benzene	3.1	U	3.1	0.68	ppb v/v			04/06/23 18:46	15.5
Benzyl chloride	3.1	U	3.1	1.4	ppb v/v			04/06/23 18:46	15.5
Bromodichloromethane	3.1	U	3.1	0.78	ppb v/v			04/06/23 18:46	15.5
Bromoethene(Vinyl Bromide)	3.1	U	3.1	0.78	ppb v/v			04/06/23 18:46	15.5
Bromoform	3.1	U	3.1	1.9	ppb v/v			04/06/23 18:46	15.5
Bromomethane	3.1	U	3.1	1.1	ppb v/v			04/06/23 18:46	15.5
Carbon disulfide	7.8	U	7.8	2.0	ppb v/v			04/06/23 18:46	15.5
Carbon tetrachloride	0.54	U	0.54	0.34	ppb v/v			04/06/23 18:46	15.5
Chlorobenzene	3.1	U	3.1	0.68	ppb v/v			04/06/23 18:46	15.5
Chlorodifluoromethane	7.8	U	7.8	1.9	ppb v/v			04/06/23 18:46	15.5
Chloroethane	7.8	U	7.8	2.8	ppb v/v			04/06/23 18:46	15.5
Chloroform	**8.7**	**D**	3.1	0.64	ppb v/v			04/06/23 18:46	15.5
Chloromethane	7.8	U	7.8	2.3	ppb v/v			04/06/23 18:46	15.5
cis-1,2-Dichloroethene	**1.3**	**D**	0.78	0.33	ppb v/v			04/06/23 18:46	15.5
cis-1,3-Dichloropropene	3.1	U	3.1	0.70	ppb v/v			04/06/23 18:46	15.5
Cumene	3.1	U	3.1	0.64	ppb v/v			04/06/23 18:46	15.5
Cyclohexane	3.1	U	3.1	0.90	ppb v/v			04/06/23 18:46	15.5
Dibromochloromethane	3.1	U	3.1	0.98	ppb v/v			04/06/23 18:46	15.5
Dichlorodifluoromethane	7.8	U	7.8	1.7	ppb v/v			04/06/23 18:46	15.5
Ethylbenzene	3.1	U	3.1	0.81	ppb v/v			04/06/23 18:46	15.5

Client Sample ID: SS-4

Lab Sample ID: 200-67423-3

Date Collected: 03/21/23 16:17
Matrix: Air
Date Received: 03/24/23 10:40
Sample Container: Summa Canister 6L

Method: EPA TO-15 - Volatile Organic Compounds in Ambient Air - DL (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorobutadiene	3.1	U	3.1	1.7	ppb v/v			04/06/23 18:46	15.5
Isopropyl alcohol	78	U	78	25	ppb v/v			04/06/23 18:46	15.5
m,p-Xylene	7.8	U	7.8	1.5	ppb v/v			04/06/23 18:46	15.5
Methyl Butyl Ketone (2-Hexanone)	7.8	U	7.8	2.3	ppb v/v			04/06/23 18:46	15.5
Methyl Ethyl Ketone (2-Butanone)	7.8	U	7.8	7.6	ppb v/v			04/06/23 18:46	15.5
Methyl methacrylate	7.8	U	7.8	2.2	ppb v/v			04/06/23 18:46	15.5
Methyl tert-butyl ether	3.1	U	3.1	0.56	ppb v/v			04/06/23 18:46	15.5
Methylene Chloride	7.8	U	7.8	2.8	ppb v/v			04/06/23 18:46	15.5
Naphthalene	7.8	U	7.8	4.7	ppb v/v			04/06/23 18:46	15.5
n-Butane	7.8	U	7.8	3.1	ppb v/v			04/06/23 18:46	15.5
n-Butylbenzene	3.1	U	3.1	1.7	ppb v/v			04/06/23 18:46	15.5
n-Heptane	3.1	U	3.1	0.85	ppb v/v			04/06/23 18:46	15.5
n-Hexane	7.8	U	7.8	1.7	ppb v/v			04/06/23 18:46	15.5
n-Propylbenzene	3.1	U	3.1	0.73	ppb v/v			04/06/23 18:46	15.5
o-Xylene	3.1	U	3.1	0.81	ppb v/v			04/06/23 18:46	15.5
sec-Butylbenzene	3.1	U	3.1	0.70	ppb v/v			04/06/23 18:46	15.5
Styrene	3.1	U	3.1	0.91	ppb v/v			04/06/23 18:46	15.5
tert-Butyl alcohol	78	U	78	19	ppb v/v			04/06/23 18:46	15.5
tert-Butylbenzene	3.1	U	3.1	0.73	ppb v/v			04/06/23 18:46	15.5
Tetrachloroethene	**7.8**	**D**	3.1	0.33	ppb v/v			04/06/23 18:46	15.5
Tetrahydrofuran	78	U	78	20	ppb v/v			04/06/23 18:46	15.5
Toluene	**0.99**	**J D**	3.1	0.65	ppb v/v			04/06/23 18:46	15.5
trans-1,2-Dichloroethene	3.1	U	3.1	0.36	ppb v/v			04/06/23 18:46	15.5
trans-1,3-Dichloropropene	3.1	U	3.1	0.84	ppb v/v			04/06/23 18:46	15.5
Trichloroethene	**3.5**	**D**	0.58	0.39	ppb v/v			04/06/23 18:46	15.5
Trichlorofluoromethane	3.1	U	3.1	0.78	ppb v/v			04/06/23 18:46	15.5
Vinyl chloride	1.2	U	1.2	0.33	ppb v/v			04/06/23 18:46	15.5

Client Sample ID: IA-4

Lab Sample ID: 200-67423-4

Date Collected: 03/21/23 16:18
Matrix: Air
Date Received: 03/24/23 10:40
Sample Container: Summa Canister 6L

Method: EPA TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.1	U	1.1	0.24	ug/m3			04/05/23 22:07	1
1,1,2,2-Tetrachloroethane	1.4	U	1.4	0.30	ug/m3			04/05/23 22:07	1
1,1,2-Trichloroethane	1.1	U	1.1	0.40	ug/m3			04/05/23 22:07	1
1,1,2-Trichlorotrifluoroethane	**0.43**	**J**	1.5	0.41	ug/m3			04/05/23 22:07	1
1,1-Dichloroethane	0.81	U	0.81	0.10	ug/m3			04/05/23 22:07	1
1,1-Dichloroethene	0.20	U	0.20	0.10	ug/m3			04/05/23 22:07	1
1,2,4-Trichlorobenzene	3.7	U	3.7	2.4	ug/m3			04/05/23 22:07	1
1,2,4-Trimethylbenzene	**0.50**	**J**	0.98	0.39	ug/m3			04/05/23 22:07	1
1,2-Dibromoethane	1.5	U	1.5	0.32	ug/m3			04/05/23 22:07	1
1,2-Dichlorobenzene	1.2	U	1.2	0.40	ug/m3			04/05/23 22:07	1
1,2-Dichloroethane	0.81	U	0.81	0.38	ug/m3			04/05/23 22:07	1
1,2-Dichloropropane	0.92	U	0.92	0.43	ug/m3			04/05/23 22:07	1
1,2-Dichlorotetrafluoroethane	1.4	U	1.4	0.34	ug/m3			04/05/23 22:07	1
1,3,5-Trimethylbenzene	0.98	U	0.98	0.23	ug/m3			04/05/23 22:07	1

Client Sample ID: IA-4

Lab Sample ID: 200-67423-4

Date Collected: 03/21/23 16:18
Date Received: 03/24/23 10:40
Sample Container: Summa Canister 6L

Matrix: Air

Method: EPA TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3-Butadiene	0.44	U	0.44	0.086	ug/m3			04/05/23 22:07	1
1,3-Dichlorobenzene	1.2	U	1.2	0.44	ug/m3			04/05/23 22:07	1
1,4-Dichlorobenzene	1.2	U	1.2	0.54	ug/m3			04/05/23 22:07	1
1,4-Dioxane	18	U	18	4.7	ug/m3			04/05/23 22:07	1
2,2,4-Trimethylpentane	**0.25**	**J**	0.93	0.18	ug/m3			04/05/23 22:07	1
2-Chlorotoluene	1.0	U	1.0	0.24	ug/m3			04/05/23 22:07	1
3-Chloropropene	1.6	U	1.6	0.38	ug/m3			04/05/23 22:07	1
4-Ethyltoluene	0.98	U	0.98	0.24	ug/m3			04/05/23 22:07	1
4-Isopropyltoluene	1.1	U	1.1	0.33	ug/m3			04/05/23 22:07	1
4-Methyl-2-pentanone (Methyl isobutyl ketone)	2.0	U	2.0	0.53	ug/m3			04/05/23 22:07	1
Acetone	**10**	**J**	12	3.8	ug/m3			04/05/23 22:07	1
Benzene	**0.39**	**J**	0.64	0.14	ug/m3			04/05/23 22:07	1
Benzyl chloride	1.0	U	1.0	0.46	ug/m3			04/05/23 22:07	1
Bromodichloromethane	**1.5**		1.3	0.34	ug/m3			04/05/23 22:07	1
Bromoethene(Vinyl Bromide)	0.87	U	0.87	0.22	ug/m3			04/05/23 22:07	1
Bromoform	2.1	U	2.1	1.2	ug/m3			04/05/23 22:07	1
Bromomethane	0.78	U	0.78	0.28	ug/m3			04/05/23 22:07	1
Carbon disulfide	1.6	U	1.6	0.40	ug/m3			04/05/23 22:07	1
Carbon tetrachloride	**1.0**		0.22	0.14	ug/m3			04/05/23 22:07	1
Chlorobenzene	0.92	U	0.92	0.20	ug/m3			04/05/23 22:07	1
Chlorodifluoromethane	**1.2**	**J**	1.8	0.42	ug/m3			04/05/23 22:07	1
Chloroethane	1.3	U	1.3	0.47	ug/m3			04/05/23 22:07	1
Chloroform	**4.1**		0.98	0.20	ug/m3			04/05/23 22:07	1
Chloromethane	**1.2**		1.0	0.31	ug/m3			04/05/23 22:07	1
cis-1,2-Dichloroethene	0.20	U	0.20	0.083	ug/m3			04/05/23 22:07	1
cis-1,3-Dichloropropene	0.91	U	0.91	0.20	ug/m3			04/05/23 22:07	1
Cumene	0.98	U	0.98	0.20	ug/m3			04/05/23 22:07	1
Cyclohexane	0.69	U	0.69	0.20	ug/m3			04/05/23 22:07	1
Dibromochloromethane	**1.3**	**J**	1.7	0.54	ug/m3			04/05/23 22:07	1
Dichlorodifluoromethane	**2.2**	**J**	2.5	0.54	ug/m3			04/05/23 22:07	1
Ethylbenzene	**0.28**	**J**	0.87	0.23	ug/m3			04/05/23 22:07	1
Hexachlorobutadiene	2.1	U	2.1	1.2	ug/m3			04/05/23 22:07	1
Isopropyl alcohol	**11**	**J**	12	3.9	ug/m3			04/05/23 22:07	1
m,p-Xylene	**0.95**	**J**	2.2	0.41	ug/m3			04/05/23 22:07	1
Methyl Butyl Ketone (2-Hexanone)	2.0	U	2.0	0.61	ug/m3			04/05/23 22:07	1
Methyl Ethyl Ketone (2-Butanone)	1.5	U	1.5	1.4	ug/m3			04/05/23 22:07	1
Methyl methacrylate	2.0	U	2.0	0.57	ug/m3			04/05/23 22:07	1
Methyl tert-butyl ether	0.72	U	0.72	0.13	ug/m3			04/05/23 22:07	1
Methylene Chloride	**4.7**		1.7	0.63	ug/m3			04/05/23 22:07	1
Naphthalene	2.6	U	2.6	1.6	ug/m3			04/05/23 22:07	1
n-Butane	**4.1**		1.2	0.48	ug/m3			04/05/23 22:07	1
n-Butylbenzene	1.1	U	1.1	0.60	ug/m3			04/05/23 22:07	1
n-Heptane	**0.65**	**J**	0.82	0.23	ug/m3			04/05/23 22:07	1
n-Hexane	**1.9**		1.8	0.39	ug/m3			04/05/23 22:07	1
n-Propylbenzene	0.98	U	0.98	0.23	ug/m3			04/05/23 22:07	1
o-Xylene	**0.32**	**J**	0.87	0.23	ug/m3			04/05/23 22:07	1
sec-Butylbenzene	1.1	U	1.1	0.25	ug/m3			04/05/23 22:07	1
Styrene	**0.32**	**J**	0.85	0.25	ug/m3			04/05/23 22:07	1

Client Sample ID: IA-4

Lab Sample ID: 200-67423-4

Date Collected: 03/21/23 16:18
Date Received: 03/24/23 10:40
Sample Container: Summa Canister 6L

Matrix: Air

Method: EPA TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
tert-Butyl alcohol	15	U	15	3.6	ug/m3			04/05/23 22:07	1
tert-Butylbenzene	1.1	U	1.1	0.26	ug/m3			04/05/23 22:07	1
Tetrachloroethene	**0.91**	**J**	1.4	0.14	ug/m3			04/05/23 22:07	1
Tetrahydrofuran	15	U	15	3.8	ug/m3			04/05/23 22:07	1
Toluene	**1.0**		0.75	0.16	ug/m3			04/05/23 22:07	1
trans-1,2-Dichloroethene	0.79	U	0.79	0.091	ug/m3			04/05/23 22:07	1
trans-1,3-Dichloropropene	0.91	U	0.91	0.25	ug/m3			04/05/23 22:07	1
Trichloroethene	0.20	U	0.20	0.13	ug/m3			04/05/23 22:07	1
Trichlorofluoromethane	**1.3**		1.1	0.28	ug/m3			04/05/23 22:07	1
Vinyl chloride	0.20	U	0.20	0.054	ug/m3			04/05/23 22:07	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.20	U	0.20	0.044	ppb v/v			04/05/23 22:07	1
1,1,2,2-Tetrachloroethane	0.20	U	0.20	0.043	ppb v/v			04/05/23 22:07	1
1,1,2-Trichloroethane	0.20	U	0.20	0.074	ppb v/v			04/05/23 22:07	1
1,1,2-Trichlorotrifluoroethane	**0.056**	**J**	0.20	0.053	ppb v/v			04/05/23 22:07	1
1,1-Dichloroethane	0.20	U	0.20	0.025	ppb v/v			04/05/23 22:07	1
1,1-Dichloroethene	0.050	U	0.050	0.026	ppb v/v			04/05/23 22:07	1
1,2,4-Trichlorobenzene	0.50	U	0.50	0.33	ppb v/v			04/05/23 22:07	1
1,2,4-Trimethylbenzene	**0.10**	**J**	0.20	0.080	ppb v/v			04/05/23 22:07	1
1,2-Dibromoethane	0.20	U	0.20	0.042	ppb v/v			04/05/23 22:07	1
1,2-Dichlorobenzene	0.20	U	0.20	0.066	ppb v/v			04/05/23 22:07	1
1,2-Dichloroethane	0.20	U	0.20	0.093	ppb v/v			04/05/23 22:07	1
1,2-Dichloropropane	0.20	U	0.20	0.094	ppb v/v			04/05/23 22:07	1
1,2-Dichlorotetrafluoroethane	0.20	U	0.20	0.048	ppb v/v			04/05/23 22:07	1
1,3,5-Trimethylbenzene	0.20	U	0.20	0.047	ppb v/v			04/05/23 22:07	1
1,3-Butadiene	0.20	U	0.20	0.039	ppb v/v			04/05/23 22:07	1
1,3-Dichlorobenzene	0.20	U	0.20	0.074	ppb v/v			04/05/23 22:07	1
1,4-Dichlorobenzene	0.20	U	0.20	0.089	ppb v/v			04/05/23 22:07	1
1,4-Dioxane	5.0	U	5.0	1.3	ppb v/v			04/05/23 22:07	1
2,2,4-Trimethylpentane	**0.053**	**J**	0.20	0.038	ppb v/v			04/05/23 22:07	1
2-Chlorotoluene	0.20	U	0.20	0.046	ppb v/v			04/05/23 22:07	1
3-Chloropropene	0.50	U	0.50	0.12	ppb v/v			04/05/23 22:07	1
4-Ethyltoluene	0.20	U	0.20	0.049	ppb v/v			04/05/23 22:07	1
4-Isopropyltoluene	0.20	U	0.20	0.061	ppb v/v			04/05/23 22:07	1
4-Methyl-2-pentanone (Methyl isobutyl ketone)	0.50	U	0.50	0.13	ppb v/v			04/05/23 22:07	1
Acetone	**4.4**	**J**	5.0	1.6	ppb v/v			04/05/23 22:07	1
Benzene	**0.12**	**J**	0.20	0.044	ppb v/v			04/05/23 22:07	1
Benzyl chloride	0.20	U	0.20	0.088	ppb v/v			04/05/23 22:07	1
Bromodichloromethane	**0.23**		0.20	0.050	ppb v/v			04/05/23 22:07	1
Bromoethene(Vinyl Bromide)	0.20	U	0.20	0.050	ppb v/v			04/05/23 22:07	1
Bromoform	0.20	U	0.20	0.12	ppb v/v			04/05/23 22:07	1
Bromomethane	0.20	U	0.20	0.071	ppb v/v			04/05/23 22:07	1
Carbon disulfide	0.50	U	0.50	0.13	ppb v/v			04/05/23 22:07	1
Carbon tetrachloride	**0.16**		0.035	0.022	ppb v/v			04/05/23 22:07	1
Chlorobenzene	0.20	U	0.20	0.044	ppb v/v			04/05/23 22:07	1
Chlorodifluoromethane	**0.34**	**J**	0.50	0.12	ppb v/v			04/05/23 22:07	1
Chloroethane	0.50	U	0.50	0.18	ppb v/v			04/05/23 22:07	1

Client Sample ID: IA-4

Lab Sample ID: 200-67423-4

Date Collected: 03/21/23 16:18
Matrix: Air
Date Received: 03/24/23 10:40
Sample Container: Summa Canister 6L

Method: EPA TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroform	**0.85**		0.20	0.041	ppb v/v			04/05/23 22:07	1
Chloromethane	**0.59**		0.50	0.15	ppb v/v			04/05/23 22:07	1
cis-1,2-Dichloroethene	0.050	U	0.050	0.021	ppb v/v			04/05/23 22:07	1
cis-1,3-Dichloropropene	0.20	U	0.20	0.045	ppb v/v			04/05/23 22:07	1
Cumene	0.20	U	0.20	0.041	ppb v/v			04/05/23 22:07	1
Cyclohexane	0.20	U	0.20	0.058	ppb v/v			04/05/23 22:07	1
Dibromochloromethane	**0.16**	**J**	0.20	0.063	ppb v/v			04/05/23 22:07	1
Dichlorodifluoromethane	**0.44**	**J**	0.50	0.11	ppb v/v			04/05/23 22:07	1
Ethylbenzene	**0.064**	**J**	0.20	0.052	ppb v/v			04/05/23 22:07	1
Hexachlorobutadiene	0.20	U	0.20	0.11	ppb v/v			04/05/23 22:07	1
Isopropyl alcohol	**4.6**	**J**	5.0	1.6	ppb v/v			04/05/23 22:07	1
m,p-Xylene	**0.22**	**J**	0.50	0.095	ppb v/v			04/05/23 22:07	1
Methyl Butyl Ketone (2-Hexanone)	0.50	U	0.50	0.15	ppb v/v			04/05/23 22:07	1
Methyl Ethyl Ketone (2-Butanone)	0.50	U	0.50	0.49	ppb v/v			04/05/23 22:07	1
Methyl methacrylate	0.50	U	0.50	0.14	ppb v/v			04/05/23 22:07	1
Methyl tert-butyl ether	0.20	U	0.20	0.036	ppb v/v			04/05/23 22:07	1
Methylene Chloride	**1.4**		0.50	0.18	ppb v/v			04/05/23 22:07	1
Naphthalene	0.50	U	0.50	0.30	ppb v/v			04/05/23 22:07	1
n-Butane	**1.7**		0.50	0.20	ppb v/v			04/05/23 22:07	1
n-Butylbenzene	0.20	U	0.20	0.11	ppb v/v			04/05/23 22:07	1
n-Heptane	**0.16**	**J**	0.20	0.055	ppb v/v			04/05/23 22:07	1
n-Hexane	**0.53**		0.50	0.11	ppb v/v			04/05/23 22:07	1
n-Propylbenzene	0.20	U	0.20	0.047	ppb v/v			04/05/23 22:07	1
o-Xylene	**0.073**	**J**	0.20	0.052	ppb v/v			04/05/23 22:07	1
sec-Butylbenzene	0.20	U	0.20	0.045	ppb v/v			04/05/23 22:07	1
Styrene	**0.075**	**J**	0.20	0.059	ppb v/v			04/05/23 22:07	1
tert-Butyl alcohol	5.0	U	5.0	1.2	ppb v/v			04/05/23 22:07	1
tert-Butylbenzene	0.20	U	0.20	0.047	ppb v/v			04/05/23 22:07	1
Tetrachloroethene	**0.13**	**J**	0.20	0.021	ppb v/v			04/05/23 22:07	1
Tetrahydrofuran	5.0	U	5.0	1.3	ppb v/v			04/05/23 22:07	1
Toluene	**0.27**		0.20	0.042	ppb v/v			04/05/23 22:07	1
trans-1,2-Dichloroethene	0.20	U	0.20	0.023	ppb v/v			04/05/23 22:07	1
trans-1,3-Dichloropropene	0.20	U	0.20	0.054	ppb v/v			04/05/23 22:07	1
Trichloroethene	0.037	U	0.037	0.025	ppb v/v			04/05/23 22:07	1
Trichlorofluoromethane	**0.24**		0.20	0.050	ppb v/v			04/05/23 22:07	1
Vinyl chloride	0.078	U	0.078	0.021	ppb v/v			04/05/23 22:07	1

Client Sample ID: OUTDOOR

Lab Sample ID: 200-67423-5

Date Collected: 03/21/23 16:24
Matrix: Air
Date Received: 03/24/23 10:40
Sample Container: Summa Canister 6L

Method: EPA TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.1	U	1.1	0.24	ug/m3			04/05/23 22:59	1
1,1,2,2-Tetrachloroethane	1.4	U	1.4	0.30	ug/m3			04/05/23 22:59	1
1,1,2-Trichloroethane	1.1	U	1.1	0.40	ug/m3			04/05/23 22:59	1
1,1,2-Trichlorotrifluoroethane	1.5	U	1.5	0.41	ug/m3			04/05/23 22:59	1
1,1-Dichloroethane	0.81	U	0.81	0.10	ug/m3			04/05/23 22:59	1

Client Sample ID: OUTDOOR

Lab Sample ID: 200-67423-5

Date Collected: 03/21/23 16:24
Date Received: 03/24/23 10:40
Sample Container: Summa Canister 6L

Matrix: Air

Method: EPA TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	0.20	U	0.20	0.10	ug/m3			04/05/23 22:59	1
1,2,4-Trichlorobenzene	3.7	U	3.7	2.4	ug/m3			04/05/23 22:59	1
1,2,4-Trimethylbenzene	0.98	U	0.98	0.39	ug/m3			04/05/23 22:59	1
1,2-Dibromoethane	1.5	U	1.5	0.32	ug/m3			04/05/23 22:59	1
1,2-Dichlorobenzene	1.2	U	1.2	0.40	ug/m3			04/05/23 22:59	1
1,2-Dichloroethane	0.81	U	0.81	0.38	ug/m3			04/05/23 22:59	1
1,2-Dichloropropane	0.92	U	0.92	0.43	ug/m3			04/05/23 22:59	1
1,2-Dichlorotetrafluoroethane	1.4	U	1.4	0.34	ug/m3			04/05/23 22:59	1
1,3,5-Trimethylbenzene	0.98	U	0.98	0.23	ug/m3			04/05/23 22:59	1
1,3-Butadiene	0.44	U	0.44	0.086	ug/m3			04/05/23 22:59	1
1,3-Dichlorobenzene	1.2	U	1.2	0.44	ug/m3			04/05/23 22:59	1
1,4-Dichlorobenzene	1.2	U	1.2	0.54	ug/m3			04/05/23 22:59	1
1,4-Dioxane	18	U	18	4.7	ug/m3			04/05/23 22:59	1
2,2,4-Trimethylpentane	0.93	U	0.93	0.18	ug/m3			04/05/23 22:59	1
2-Chlorotoluene	1.0	U	1.0	0.24	ug/m3			04/05/23 22:59	1
3-Chloropropene	1.6	U	1.6	0.38	ug/m3			04/05/23 22:59	1
4-Ethyltoluene	0.98	U	0.98	0.24	ug/m3			04/05/23 22:59	1
4-Isopropyltoluene	1.1	U	1.1	0.33	ug/m3			04/05/23 22:59	1
4-Methyl-2-pentanone (Methyl isobutyl ketone)	2.0	U	2.0	0.53	ug/m3			04/05/23 22:59	1
Acetone	**4.9**	**J**	12	3.8	ug/m3			04/05/23 22:59	1
Benzene	**0.31**	**J**	0.64	0.14	ug/m3			04/05/23 22:59	1
Benzyl chloride	1.0	U	1.0	0.46	ug/m3			04/05/23 22:59	1
Bromodichloromethane	1.3	U	1.3	0.34	ug/m3			04/05/23 22:59	1
Bromoethene(Vinyl Bromide)	0.87	U	0.87	0.22	ug/m3			04/05/23 22:59	1
Bromoform	2.1	U	2.1	1.2	ug/m3			04/05/23 22:59	1
Bromomethane	0.78	U	0.78	0.28	ug/m3			04/05/23 22:59	1
Carbon disulfide	1.6	U	1.6	0.40	ug/m3			04/05/23 22:59	1
Carbon tetrachloride	**0.39**		0.22	0.14	ug/m3			04/05/23 22:59	1
Chlorobenzene	0.92	U	0.92	0.20	ug/m3			04/05/23 22:59	1
Chlorodifluoromethane	**1.0**	**J**	1.8	0.42	ug/m3			04/05/23 22:59	1
Chloroethane	1.3	U	1.3	0.47	ug/m3			04/05/23 22:59	1
Chloroform	0.98	U	0.98	0.20	ug/m3			04/05/23 22:59	1
Chloromethane	**1.2**		1.0	0.31	ug/m3			04/05/23 22:59	1
cis-1,2-Dichloroethene	0.20	U	0.20	0.083	ug/m3			04/05/23 22:59	1
cis-1,3-Dichloropropene	0.91	U	0.91	0.20	ug/m3			04/05/23 22:59	1
Cumene	0.98	U	0.98	0.20	ug/m3			04/05/23 22:59	1
Cyclohexane	0.69	U	0.69	0.20	ug/m3			04/05/23 22:59	1
Dibromochloromethane	1.7	U	1.7	0.54	ug/m3			04/05/23 22:59	1
Dichlorodifluoromethane	**1.8**	**J**	2.5	0.54	ug/m3			04/05/23 22:59	1
Ethylbenzene	0.87	U	0.87	0.23	ug/m3			04/05/23 22:59	1
Hexachlorobutadiene	2.1	U	2.1	1.2	ug/m3			04/05/23 22:59	1
Isopropyl alcohol	12	U	12	3.9	ug/m3			04/05/23 22:59	1
m,p-Xylene	2.2	U	2.2	0.41	ug/m3			04/05/23 22:59	1
Methyl Butyl Ketone (2-Hexanone)	2.0	U	2.0	0.61	ug/m3			04/05/23 22:59	1
Methyl Ethyl Ketone (2-Butanone)	1.5	U	1.5	1.4	ug/m3			04/05/23 22:59	1
Methyl methacrylate	2.0	U	2.0	0.57	ug/m3			04/05/23 22:59	1
Methyl tert-butyl ether	0.72	U	0.72	0.13	ug/m3			04/05/23 22:59	1
Methylene Chloride	**1.2**	**J**	1.7	0.63	ug/m3			04/05/23 22:59	1

Client Sample ID: OUTDOOR

Lab Sample ID: 200-67423-5

Date Collected: 03/21/23 16:24
Date Received: 03/24/23 10:40
Sample Container: Summa Canister 6L

Matrix: Air

Method: EPA TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	2.6	U	2.6	1.6	ug/m3			04/05/23 22:59	1
n-Butane	**1.9**		1.2	0.48	ug/m3			04/05/23 22:59	1
n-Butylbenzene	1.1	U	1.1	0.60	ug/m3			04/05/23 22:59	1
n-Heptane	0.82	U	0.82	0.23	ug/m3			04/05/23 22:59	1
n-Hexane	**2.0**		1.8	0.39	ug/m3			04/05/23 22:59	1
n-Propylbenzene	0.98	U	0.98	0.23	ug/m3			04/05/23 22:59	1
o-Xylene	0.87	U	0.87	0.23	ug/m3			04/05/23 22:59	1
sec-Butylbenzene	1.1	U	1.1	0.25	ug/m3			04/05/23 22:59	1
Styrene	0.85	U	0.85	0.25	ug/m3			04/05/23 22:59	1
tert-Butyl alcohol	15	U	15	3.6	ug/m3			04/05/23 22:59	1
tert-Butylbenzene	1.1	U	1.1	0.26	ug/m3			04/05/23 22:59	1
Tetrachloroethene	1.4	U	1.4	0.14	ug/m3			04/05/23 22:59	1
Tetrahydrofuran	15	U	15	3.8	ug/m3			04/05/23 22:59	1
Toluene	**0.31**	**J**	0.75	0.16	ug/m3			04/05/23 22:59	1
trans-1,2-Dichloroethene	0.79	U	0.79	0.091	ug/m3			04/05/23 22:59	1
trans-1,3-Dichloropropene	0.91	U	0.91	0.25	ug/m3			04/05/23 22:59	1
Trichloroethene	0.20	U	0.20	0.13	ug/m3			04/05/23 22:59	1
Trichlorofluoromethane	**1.1**		1.1	0.28	ug/m3			04/05/23 22:59	1
Vinyl chloride	0.20	U	0.20	0.054	ug/m3			04/05/23 22:59	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.20	U	0.20	0.044	ppb v/v			04/05/23 22:59	1
1,1,2,2-Tetrachloroethane	0.20	U	0.20	0.043	ppb v/v			04/05/23 22:59	1
1,1,2-Trichloroethane	0.20	U	0.20	0.074	ppb v/v			04/05/23 22:59	1
1,1,2-Trichlorotrifluoroethane	0.20	U	0.20	0.053	ppb v/v			04/05/23 22:59	1
1,1-Dichloroethane	0.20	U	0.20	0.025	ppb v/v			04/05/23 22:59	1
1,1-Dichloroethene	0.050	U	0.050	0.026	ppb v/v			04/05/23 22:59	1
1,2,4-Trichlorobenzene	0.50	U	0.50	0.33	ppb v/v			04/05/23 22:59	1
1,2,4-Trimethylbenzene	0.20	U	0.20	0.080	ppb v/v			04/05/23 22:59	1
1,2-Dibromoethane	0.20	U	0.20	0.042	ppb v/v			04/05/23 22:59	1
1,2-Dichlorobenzene	0.20	U	0.20	0.066	ppb v/v			04/05/23 22:59	1
1,2-Dichloroethane	0.20	U	0.20	0.093	ppb v/v			04/05/23 22:59	1
1,2-Dichloropropane	0.20	U	0.20	0.094	ppb v/v			04/05/23 22:59	1
1,2-Dichlorotetrafluoroethane	0.20	U	0.20	0.048	ppb v/v			04/05/23 22:59	1
1,3,5-Trimethylbenzene	0.20	U	0.20	0.047	ppb v/v			04/05/23 22:59	1
1,3-Butadiene	0.20	U	0.20	0.039	ppb v/v			04/05/23 22:59	1
1,3-Dichlorobenzene	0.20	U	0.20	0.074	ppb v/v			04/05/23 22:59	1
1,4-Dichlorobenzene	0.20	U	0.20	0.089	ppb v/v			04/05/23 22:59	1
1,4-Dioxane	5.0	U	5.0	1.3	ppb v/v			04/05/23 22:59	1
2,2,4-Trimethylpentane	0.20	U	0.20	0.038	ppb v/v			04/05/23 22:59	1
2-Chlorotoluene	0.20	U	0.20	0.046	ppb v/v			04/05/23 22:59	1
3-Chloropropene	0.50	U	0.50	0.12	ppb v/v			04/05/23 22:59	1
4-Ethyltoluene	0.20	U	0.20	0.049	ppb v/v			04/05/23 22:59	1
4-Isopropyltoluene	0.20	U	0.20	0.061	ppb v/v			04/05/23 22:59	1
4-Methyl-2-pentanone (Methyl isobutyl ketone)	0.50	U	0.50	0.13	ppb v/v			04/05/23 22:59	1
Acetone	**2.1**	**J**	5.0	1.6	ppb v/v			04/05/23 22:59	1
Benzene	**0.097**	**J**	0.20	0.044	ppb v/v			04/05/23 22:59	1
Benzyl chloride	0.20	U	0.20	0.088	ppb v/v			04/05/23 22:59	1

Client Sample ID: OUTDOOR

Lab Sample ID: 200-67423-5

Date Collected: 03/21/23 16:24
Matrix: Air
Date Received: 03/24/23 10:40
Sample Container: Summa Canister 6L

Method: EPA TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromodichloromethane	0.20	U	0.20	0.050	ppb v/v			04/05/23 22:59	1
Bromoethene(Vinyl Bromide)	0.20	U	0.20	0.050	ppb v/v			04/05/23 22:59	1
Bromoform	0.20	U	0.20	0.12	ppb v/v			04/05/23 22:59	1
Bromomethane	0.20	U	0.20	0.071	ppb v/v			04/05/23 22:59	1
Carbon disulfide	0.50	U	0.50	0.13	ppb v/v			04/05/23 22:59	1
Carbon tetrachloride	**0.062**		0.035	0.022	ppb v/v			04/05/23 22:59	1
Chlorobenzene	0.20	U	0.20	0.044	ppb v/v			04/05/23 22:59	1
Chlorodifluoromethane	**0.29**	**J**	0.50	0.12	ppb v/v			04/05/23 22:59	1
Chloroethane	0.50	U	0.50	0.18	ppb v/v			04/05/23 22:59	1
Chloroform	0.20	U	0.20	0.041	ppb v/v			04/05/23 22:59	1
Chloromethane	**0.56**		0.50	0.15	ppb v/v			04/05/23 22:59	1
cis-1,2-Dichloroethene	0.050	U	0.050	0.021	ppb v/v			04/05/23 22:59	1
cis-1,3-Dichloropropene	0.20	U	0.20	0.045	ppb v/v			04/05/23 22:59	1
Cumene	0.20	U	0.20	0.041	ppb v/v			04/05/23 22:59	1
Cyclohexane	0.20	U	0.20	0.058	ppb v/v			04/05/23 22:59	1
Dibromochloromethane	0.20	U	0.20	0.063	ppb v/v			04/05/23 22:59	1
Dichlorodifluoromethane	**0.37**	**J**	0.50	0.11	ppb v/v			04/05/23 22:59	1
Ethylbenzene	0.20	U	0.20	0.052	ppb v/v			04/05/23 22:59	1
Hexachlorobutadiene	0.20	U	0.20	0.11	ppb v/v			04/05/23 22:59	1
Isopropyl alcohol	5.0	U	5.0	1.6	ppb v/v			04/05/23 22:59	1
m,p-Xylene	0.50	U	0.50	0.095	ppb v/v			04/05/23 22:59	1
Methyl Butyl Ketone (2-Hexanone)	0.50	U	0.50	0.15	ppb v/v			04/05/23 22:59	1
Methyl Ethyl Ketone (2-Butanone)	0.50	U	0.50	0.49	ppb v/v			04/05/23 22:59	1
Methyl methacrylate	0.50	U	0.50	0.14	ppb v/v			04/05/23 22:59	1
Methyl tert-butyl ether	0.20	U	0.20	0.036	ppb v/v			04/05/23 22:59	1
Methylene Chloride	**0.36**	**J**	0.50	0.18	ppb v/v			04/05/23 22:59	1
Naphthalene	0.50	U	0.50	0.30	ppb v/v			04/05/23 22:59	1
n-Butane	**0.80**		0.50	0.20	ppb v/v			04/05/23 22:59	1
n-Butylbenzene	0.20	U	0.20	0.11	ppb v/v			04/05/23 22:59	1
n-Heptane	0.20	U	0.20	0.055	ppb v/v			04/05/23 22:59	1
n-Hexane	**0.56**		0.50	0.11	ppb v/v			04/05/23 22:59	1
n-Propylbenzene	0.20	U	0.20	0.047	ppb v/v			04/05/23 22:59	1
o-Xylene	0.20	U	0.20	0.052	ppb v/v			04/05/23 22:59	1
sec-Butylbenzene	0.20	U	0.20	0.045	ppb v/v			04/05/23 22:59	1
Styrene	0.20	U	0.20	0.059	ppb v/v			04/05/23 22:59	1
tert-Butyl alcohol	5.0	U	5.0	1.2	ppb v/v			04/05/23 22:59	1
tert-Butylbenzene	0.20	U	0.20	0.047	ppb v/v			04/05/23 22:59	1
Tetrachloroethene	0.20	U	0.20	0.021	ppb v/v			04/05/23 22:59	1
Tetrahydrofuran	5.0	U	5.0	1.3	ppb v/v			04/05/23 22:59	1
Toluene	**0.081**	**J**	0.20	0.042	ppb v/v			04/05/23 22:59	1
trans-1,2-Dichloroethene	0.20	U	0.20	0.023	ppb v/v			04/05/23 22:59	1
trans-1,3-Dichloropropene	0.20	U	0.20	0.054	ppb v/v			04/05/23 22:59	1
Trichloroethene	0.037	U	0.037	0.025	ppb v/v			04/05/23 22:59	1
Trichlorofluoromethane	**0.19**		0.20	0.050	ppb v/v			04/05/23 22:59	1
Vinyl chloride	0.078	U	0.078	0.021	ppb v/v			04/05/23 22:59	1

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Lab Sample ID: MB 200-190008/4
Matrix: Air
Analysis Batch: 190008

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.1	U	1.1	0.24	ug/m3			04/05/23 11:09	1
1,1,2,2-Tetrachloroethane	1.4	U	1.4	0.30	ug/m3			04/05/23 11:09	1
1,1,2-Trichloroethane	1.1	U	1.1	0.40	ug/m3			04/05/23 11:09	1
1,1,2-Trichlorotrifluoroethane	1.5	U	1.5	0.41	ug/m3			04/05/23 11:09	1
1,1-Dichloroethane	0.81	U	0.81	0.10	ug/m3			04/05/23 11:09	1
1,1-Dichloroethene	0.20	U	0.20	0.10	ug/m3			04/05/23 11:09	1
1,2,4-Trichlorobenzene	3.7	U	3.7	2.4	ug/m3			04/05/23 11:09	1
1,2,4-Trimethylbenzene	0.98	U	0.98	0.39	ug/m3			04/05/23 11:09	1
1,2-Dibromoethane	1.5	U	1.5	0.32	ug/m3			04/05/23 11:09	1
1,2-Dichlorobenzene	1.2	U	1.2	0.40	ug/m3			04/05/23 11:09	1
1,2-Dichloroethane	0.81	U	0.81	0.38	ug/m3			04/05/23 11:09	1
1,2-Dichloropropane	0.92	U	0.92	0.43	ug/m3			04/05/23 11:09	1
1,2-Dichlorotetrafluoroethane	1.4	U	1.4	0.34	ug/m3			04/05/23 11:09	1
1,3,5-Trimethylbenzene	0.98	U	0.98	0.23	ug/m3			04/05/23 11:09	1
1,3-Butadiene	0.44	U	0.44	0.086	ug/m3			04/05/23 11:09	1
1,3-Dichlorobenzene	1.2	U	1.2	0.44	ug/m3			04/05/23 11:09	1
1,4-Dichlorobenzene	1.2	U	1.2	0.54	ug/m3			04/05/23 11:09	1
1,4-Dioxane	18	U	18	4.7	ug/m3			04/05/23 11:09	1
2,2,4-Trimethylpentane	0.93	U	0.93	0.18	ug/m3			04/05/23 11:09	1
2-Chlorotoluene	1.0	U	1.0	0.24	ug/m3			04/05/23 11:09	1
3-Chloropropene	1.6	U	1.6	0.38	ug/m3			04/05/23 11:09	1
4-Ethyltoluene	0.98	U	0.98	0.24	ug/m3			04/05/23 11:09	1
4-Isopropyltoluene	1.1	U	1.1	0.33	ug/m3			04/05/23 11:09	1
4-Methyl-2-pentanone (Methyl isobutyl ketone)	2.0	U	2.0	0.53	ug/m3			04/05/23 11:09	1
Acetone	12	U	12	3.8	ug/m3			04/05/23 11:09	1
Benzene	0.64	U	0.64	0.14	ug/m3			04/05/23 11:09	1
Benzyl chloride	1.0	U	1.0	0.46	ug/m3			04/05/23 11:09	1
Bromodichloromethane	1.3	U	1.3	0.34	ug/m3			04/05/23 11:09	1
Bromoethene(Vinyl Bromide)	0.87	U	0.87	0.22	ug/m3			04/05/23 11:09	1
Bromoform	2.1	U	2.1	1.2	ug/m3			04/05/23 11:09	1
Bromomethane	0.78	U	0.78	0.28	ug/m3			04/05/23 11:09	1
Carbon disulfide	1.6	U	1.6	0.40	ug/m3			04/05/23 11:09	1
Carbon tetrachloride	0.22	U	0.22	0.14	ug/m3			04/05/23 11:09	1
Chlorobenzene	0.92	U	0.92	0.20	ug/m3			04/05/23 11:09	1
Chlorodifluoromethane	1.8	U	1.8	0.42	ug/m3			04/05/23 11:09	1
Chloroethane	1.3	U	1.3	0.47	ug/m3			04/05/23 11:09	1
Chloroform	0.98	U	0.98	0.20	ug/m3			04/05/23 11:09	1
Chloromethane	1.0	U	1.0	0.31	ug/m3			04/05/23 11:09	1
cis-1,2-Dichloroethene	0.20	U	0.20	0.083	ug/m3			04/05/23 11:09	1
cis-1,3-Dichloropropene	0.91	U	0.91	0.20	ug/m3			04/05/23 11:09	1
Cumene	0.98	U	0.98	0.20	ug/m3			04/05/23 11:09	1
Cyclohexane	0.69	U	0.69	0.20	ug/m3			04/05/23 11:09	1
Dibromochloromethane	1.7	U	1.7	0.54	ug/m3			04/05/23 11:09	1
Dichlorodifluoromethane	2.5	U	2.5	0.54	ug/m3			04/05/23 11:09	1
Ethylbenzene	0.87	U	0.87	0.23	ug/m3			04/05/23 11:09	1
Hexachlorobutadiene	2.1	U	2.1	1.2	ug/m3			04/05/23 11:09	1
Isopropyl alcohol	12	U	12	3.9	ug/m3			04/05/23 11:09	1
m,p-Xylene	2.2	U	2.2	0.41	ug/m3			04/05/23 11:09	1

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: MB 200-190008/4
Matrix: Air
Analysis Batch: 190008

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl Butyl Ketone (2-Hexanone)	2.0	U	2.0	0.61	ug/m3			04/05/23 11:09	1
Methyl Ethyl Ketone (2-Butanone)	1.5	U	1.5	1.4	ug/m3			04/05/23 11:09	1
Methyl methacrylate	2.0	U	2.0	0.57	ug/m3			04/05/23 11:09	1
Methyl tert-butyl ether	0.72	U	0.72	0.13	ug/m3			04/05/23 11:09	1
Methylene Chloride	1.7	U	1.7	0.63	ug/m3			04/05/23 11:09	1
Naphthalene	2.6	U	2.6	1.6	ug/m3			04/05/23 11:09	1
n-Butane	1.2	U	1.2	0.48	ug/m3			04/05/23 11:09	1
n-Butylbenzene	1.1	U	1.1	0.60	ug/m3			04/05/23 11:09	1
n-Heptane	0.82	U	0.82	0.23	ug/m3			04/05/23 11:09	1
n-Hexane	1.8	U	1.8	0.39	ug/m3			04/05/23 11:09	1
n-Propylbenzene	0.98	U	0.98	0.23	ug/m3			04/05/23 11:09	1
o-Xylene	0.87	U	0.87	0.23	ug/m3			04/05/23 11:09	1
sec-Butylbenzene	1.1	U	1.1	0.25	ug/m3			04/05/23 11:09	1
Styrene	0.85	U	0.85	0.25	ug/m3			04/05/23 11:09	1
tert-Butyl alcohol	15	U	15	3.6	ug/m3			04/05/23 11:09	1
tert-Butylbenzene	1.1	U	1.1	0.26	ug/m3			04/05/23 11:09	1
Tetrachloroethene	1.4	U	1.4	0.14	ug/m3			04/05/23 11:09	1
Tetrahydrofuran	15	U	15	3.8	ug/m3			04/05/23 11:09	1
Toluene	0.75	U	0.75	0.16	ug/m3			04/05/23 11:09	1
trans-1,2-Dichloroethene	0.79	U	0.79	0.091	ug/m3			04/05/23 11:09	1
trans-1,3-Dichloropropene	0.91	U	0.91	0.25	ug/m3			04/05/23 11:09	1
Trichloroethene	0.20	U	0.20	0.13	ug/m3			04/05/23 11:09	1
Trichlorofluoromethane	1.1	U	1.1	0.28	ug/m3			04/05/23 11:09	1
Vinyl chloride	0.20	U	0.20	0.054	ug/m3			04/05/23 11:09	1

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.20	U	0.20	0.044	ppb v/v			04/05/23 11:09	1
1,1,2,2-Tetrachloroethane	0.20	U	0.20	0.043	ppb v/v			04/05/23 11:09	1
1,1,2-Trichloroethane	0.20	U	0.20	0.074	ppb v/v			04/05/23 11:09	1
1,1,2-Trichlorotrifluoroethane	0.20	U	0.20	0.053	ppb v/v			04/05/23 11:09	1
1,1-Dichloroethane	0.20	U	0.20	0.025	ppb v/v			04/05/23 11:09	1
1,1-Dichloroethene	0.050	U	0.050	0.026	ppb v/v			04/05/23 11:09	1
1,2,4-Trichlorobenzene	0.50	U	0.50	0.33	ppb v/v			04/05/23 11:09	1
1,2,4-Trimethylbenzene	0.20	U	0.20	0.080	ppb v/v			04/05/23 11:09	1
1,2-Dibromoethane	0.20	U	0.20	0.042	ppb v/v			04/05/23 11:09	1
1,2-Dichlorobenzene	0.20	U	0.20	0.066	ppb v/v			04/05/23 11:09	1
1,2-Dichloroethane	0.20	U	0.20	0.093	ppb v/v			04/05/23 11:09	1
1,2-Dichloropropane	0.20	U	0.20	0.094	ppb v/v			04/05/23 11:09	1
1,2-Dichlorotetrafluoroethane	0.20	U	0.20	0.048	ppb v/v			04/05/23 11:09	1
1,3,5-Trimethylbenzene	0.20	U	0.20	0.047	ppb v/v			04/05/23 11:09	1
1,3-Butadiene	0.20	U	0.20	0.039	ppb v/v			04/05/23 11:09	1
1,3-Dichlorobenzene	0.20	U	0.20	0.074	ppb v/v			04/05/23 11:09	1
1,4-Dichlorobenzene	0.20	U	0.20	0.089	ppb v/v			04/05/23 11:09	1
1,4-Dioxane	5.0	U	5.0	1.3	ppb v/v			04/05/23 11:09	1
2,2,4-Trimethylpentane	0.20	U	0.20	0.038	ppb v/v			04/05/23 11:09	1
2-Chlorotoluene	0.20	U	0.20	0.046	ppb v/v			04/05/23 11:09	1
3-Chloropropene	0.50	U	0.50	0.12	ppb v/v			04/05/23 11:09	1
4-Ethyltoluene	0.20	U	0.20	0.049	ppb v/v			04/05/23 11:09	1
4-Isopropyltoluene	0.20	U	0.20	0.061	ppb v/v			04/05/23 11:09	1

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: MB 200-190008/4
Matrix: Air
Analysis Batch: 190008

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Methyl-2-pentanone (Methyl isobutyl ketone)	0.50	U	0.50	0.13	ppb v/v			04/05/23 11:09	1
Acetone	5.0	U	5.0	1.6	ppb v/v			04/05/23 11:09	1
Benzene	0.20	U	0.20	0.044	ppb v/v			04/05/23 11:09	1
Benzyl chloride	0.20	U	0.20	0.088	ppb v/v			04/05/23 11:09	1
Bromodichloromethane	0.20	U	0.20	0.050	ppb v/v			04/05/23 11:09	1
Bromoethene(Vinyl Bromide)	0.20	U	0.20	0.050	ppb v/v			04/05/23 11:09	1
Bromoform	0.20	U	0.20	0.12	ppb v/v			04/05/23 11:09	1
Bromomethane	0.20	U	0.20	0.071	ppb v/v			04/05/23 11:09	1
Carbon disulfide	0.50	U	0.50	0.13	ppb v/v			04/05/23 11:09	1
Carbon tetrachloride	0.035	U	0.035	0.022	ppb v/v			04/05/23 11:09	1
Chlorobenzene	0.20	U	0.20	0.044	ppb v/v			04/05/23 11:09	1
Chlorodifluoromethane	0.50	U	0.50	0.12	ppb v/v			04/05/23 11:09	1
Chloroethane	0.50	U	0.50	0.18	ppb v/v			04/05/23 11:09	1
Chloroform	0.20	U	0.20	0.041	ppb v/v			04/05/23 11:09	1
Chloromethane	0.50	U	0.50	0.15	ppb v/v			04/05/23 11:09	1
cis-1,2-Dichloroethene	0.050	U	0.050	0.021	ppb v/v			04/05/23 11:09	1
cis-1,3-Dichloropropene	0.20	U	0.20	0.045	ppb v/v			04/05/23 11:09	1
Cumene	0.20	U	0.20	0.041	ppb v/v			04/05/23 11:09	1
Cyclohexane	0.20	U	0.20	0.058	ppb v/v			04/05/23 11:09	1
Dibromochloromethane	0.20	U	0.20	0.063	ppb v/v			04/05/23 11:09	1
Dichlorodifluoromethane	0.50	U	0.50	0.11	ppb v/v			04/05/23 11:09	1
Ethylbenzene	0.20	U	0.20	0.052	ppb v/v			04/05/23 11:09	1
Hexachlorobutadiene	0.20	U	0.20	0.11	ppb v/v			04/05/23 11:09	1
Isopropyl alcohol	5.0	U	5.0	1.6	ppb v/v			04/05/23 11:09	1
m,p-Xylene	0.50	U	0.50	0.095	ppb v/v			04/05/23 11:09	1
Methyl Butyl Ketone (2-Hexanone)	0.50	U	0.50	0.15	ppb v/v			04/05/23 11:09	1
Methyl Ethyl Ketone (2-Butanone)	0.50	U	0.50	0.49	ppb v/v			04/05/23 11:09	1
Methyl methacrylate	0.50	U	0.50	0.14	ppb v/v			04/05/23 11:09	1
Methyl tert-butyl ether	0.20	U	0.20	0.036	ppb v/v			04/05/23 11:09	1
Methylene Chloride	0.50	U	0.50	0.18	ppb v/v			04/05/23 11:09	1
Naphthalene	0.50	U	0.50	0.30	ppb v/v			04/05/23 11:09	1
n-Butane	0.50	U	0.50	0.20	ppb v/v			04/05/23 11:09	1
n-Butylbenzene	0.20	U	0.20	0.11	ppb v/v			04/05/23 11:09	1
n-Heptane	0.20	U	0.20	0.055	ppb v/v			04/05/23 11:09	1
n-Hexane	0.50	U	0.50	0.11	ppb v/v			04/05/23 11:09	1
n-Propylbenzene	0.20	U	0.20	0.047	ppb v/v			04/05/23 11:09	1
o-Xylene	0.20	U	0.20	0.052	ppb v/v			04/05/23 11:09	1
sec-Butylbenzene	0.20	U	0.20	0.045	ppb v/v			04/05/23 11:09	1
Styrene	0.20	U	0.20	0.059	ppb v/v			04/05/23 11:09	1
tert-Butyl alcohol	5.0	U	5.0	1.2	ppb v/v			04/05/23 11:09	1
tert-Butylbenzene	0.20	U	0.20	0.047	ppb v/v			04/05/23 11:09	1
Tetrachloroethene	0.20	U	0.20	0.021	ppb v/v			04/05/23 11:09	1
Tetrahydrofuran	5.0	U	5.0	1.3	ppb v/v			04/05/23 11:09	1
Toluene	0.20	U	0.20	0.042	ppb v/v			04/05/23 11:09	1
trans-1,2-Dichloroethene	0.20	U	0.20	0.023	ppb v/v			04/05/23 11:09	1
trans-1,3-Dichloropropene	0.20	U	0.20	0.054	ppb v/v			04/05/23 11:09	1
Trichloroethene	0.037	U	0.037	0.025	ppb v/v			04/05/23 11:09	1
Trichlorofluoromethane	0.20	U	0.20	0.050	ppb v/v			04/05/23 11:09	1

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: MB 200-190008/4
Matrix: Air
Analysis Batch: 190008

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.078	U	0.078	0.021	ppb v/v			04/05/23 11:09	1

Lab Sample ID: LCS 200-190008/3
Matrix: Air
Analysis Batch: 190008

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1-Trichloroethane	54.6	54.4		ug/m3		100	72 - 127
1,1,2,2-Tetrachloroethane	68.6	68.2		ug/m3		99	74 - 126
1,1,2-Trichloroethane	54.6	53.7		ug/m3		98	75 - 126
1,1,2-Trichlorotrifluoroethane	76.6	76.5		ug/m3		100	70 - 121
1,1-Dichloroethane	40.5	39.7		ug/m3		98	66 - 130
1,1-Dichloroethene	39.6	37.9		ug/m3		96	68 - 120
1,2,4-Trichlorobenzene	74.2	72.3		ug/m3		97	50 - 150
1,2,4-Trimethylbenzene	49.2	48.3		ug/m3		98	71 - 129
1,2-Dibromoethane	76.8	75.6		ug/m3		98	78 - 122
1,2-Dichlorobenzene	60.1	59.1		ug/m3		98	68 - 129
1,2-Dichloroethane	40.5	41.8		ug/m3		103	68 - 135
1,2-Dichloropropane	46.2	46.7		ug/m3		101	69 - 128
1,2-Dichlorotetrafluoroethane	69.9	76.2		ug/m3		109	71 - 141
1,3,5-Trimethylbenzene	49.2	48.7		ug/m3		99	72 - 126
1,3-Butadiene	22.1	22.6		ug/m3		102	58 - 139
1,3-Dichlorobenzene	60.1	58.7		ug/m3		98	69 - 131
1,4-Dichlorobenzene	60.1	58.7		ug/m3		98	67 - 132
1,4-Dioxane	36.0	34.4		ug/m3		95	66 - 129
2,2,4-Trimethylpentane	46.7	46.8		ug/m3		100	68 - 131
2-Chlorotoluene	51.8	51.2		ug/m3		99	74 - 126
3-Chloropropene	31.3	31.2		ug/m3		100	50 - 150
4-Ethyltoluene	49.2	48.7		ug/m3		99	75 - 129
4-Isopropyltoluene	54.9	55.2		ug/m3		101	68 - 130
4-Methyl-2-pentanone (Methyl isobutyl ketone)	41.0	41.6		ug/m3		101	58 - 144
Acetone	23.7	26.7		ug/m3		112	54 - 154
Benzene	31.9	27.7		ug/m3		87	73 - 119
Benzyl chloride	51.8	50.5		ug/m3		98	60 - 136
Bromodichloromethane	67.0	69.1		ug/m3		103	75 - 127
Bromoethene(Vinyl Bromide)	43.7	43.2		ug/m3		99	75 - 125
Bromoform	103	109		ug/m3		105	53 - 149
Bromomethane	38.8	38.9		ug/m3		100	72 - 124
Carbon disulfide	31.1	32.0		ug/m3		103	71 - 138
Carbon tetrachloride	62.9	64.0		ug/m3		102	71 - 133
Chlorobenzene	46.0	44.1		ug/m3		96	76 - 119
Chlorodifluoromethane	35.4	41.4		ug/m3		117	60 - 147
Chloroethane	26.4	28.2		ug/m3		107	68 - 130
Chloroform	48.8	48.4		ug/m3		99	73 - 124
Chloromethane	20.6	23.9		ug/m3		116	56 - 141
cis-1,2-Dichloroethene	39.6	38.8		ug/m3		98	72 - 121
cis-1,3-Dichloropropene	45.4	45.3		ug/m3		100	74 - 125
Cumene	49.1	48.1		ug/m3		98	73 - 123

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: LCS 200-190008/3
Matrix: Air
Analysis Batch: 190008

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Cyclohexane	34.4	33.7		ug/m3		98	76 - 124
Dibromochloromethane	85.2	86.6		ug/m3		102	73 - 125
Dichlorodifluoromethane	49.4	55.8		ug/m3		113	61 - 142
Ethylbenzene	43.4	42.2		ug/m3		97	74 - 122
Hexachlorobutadiene	107	104		ug/m3		97	58 - 130
Isopropyl alcohol	24.6	26.5		ug/m3		108	53 - 142
m,p-Xylene	86.8	83.6		ug/m3		96	76 - 121
Methyl Butyl Ketone (2-Hexanone)	41.0	39.1		ug/m3		95	57 - 143
Methyl Ethyl Ketone (2-Butanone)	29.5	29.6		ug/m3		100	72 - 124
Methyl methacrylate	40.9	41.3		ug/m3		101	73 - 129
Methyl tert-butyl ether	36.0	35.7		ug/m3		99	70 - 127
Methylene Chloride	34.7	36.0		ug/m3		104	59 - 137
Naphthalene	52.4	52.5		ug/m3		100	50 - 150
n-Butane	23.8	25.8		ug/m3		109	53 - 151
n-Butylbenzene	54.9	56.3		ug/m3		103	65 - 137
n-Heptane	41.0	40.5		ug/m3		99	60 - 142
n-Hexane	35.2	33.9		ug/m3		96	63 - 138
n-Propylbenzene	49.1	49.2		ug/m3		100	73 - 127
o-Xylene	43.4	41.8		ug/m3		96	73 - 123
sec-Butylbenzene	54.9	55.8		ug/m3		102	70 - 128
Styrene	42.6	41.1		ug/m3		97	74 - 125
tert-Butyl alcohol	30.3	31.6		ug/m3		104	66 - 132
tert-Butylbenzene	54.9	54.2		ug/m3		99	71 - 125
Tetrachloroethene	67.8	62.0		ug/m3		91	70 - 125
Tetrahydrofuran	29.5	31.2		ug/m3		106	60 - 149
Toluene	37.7	35.5		ug/m3		94	75 - 122
trans-1,2-Dichloroethene	39.6	38.7		ug/m3		98	69 - 137
trans-1,3-Dichloropropene	45.4	46.2		ug/m3		102	74 - 128
Trichloroethene	53.7	52.7		ug/m3		98	73 - 122
Trichlorofluoromethane	56.2	56.3		ug/m3		100	70 - 129
Vinyl chloride	25.6	26.5		ug/m3		104	61 - 135

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1-Trichloroethane	10	9.97		ppb v/v		100	72 - 127
1,1,2,2-Tetrachloroethane	10	9.93		ppb v/v		99	74 - 126
1,1,2-Trichloroethane	10	9.83		ppb v/v		98	75 - 126
1,1,2-Trichlorotrifluoroethane	10	9.98		ppb v/v		100	70 - 121
1,1-Dichloroethane	10	9.80		ppb v/v		98	66 - 130
1,1-Dichloroethene	10	9.55		ppb v/v		96	68 - 120
1,2,4-Trichlorobenzene	10	9.74		ppb v/v		97	50 - 150
1,2,4-Trimethylbenzene	10	9.83		ppb v/v		98	71 - 129
1,2-Dibromoethane	10	9.84		ppb v/v		98	78 - 122
1,2-Dichlorobenzene	10	9.83		ppb v/v		98	68 - 129
1,2-Dichloroethane	10	10.3		ppb v/v		103	68 - 135
1,2-Dichloropropane	10	10.1		ppb v/v		101	69 - 128
1,2-Dichlorotetrafluoroethane	10	10.9		ppb v/v		109	71 - 141
1,3,5-Trimethylbenzene	10	9.92		ppb v/v		99	72 - 126

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: LCS 200-190008/3
Matrix: Air
Analysis Batch: 190008

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,3-Butadiene	10	10.2		ppb v/v		102	58 - 139
1,3-Dichlorobenzene	10	9.76		ppb v/v		98	69 - 131
1,4-Dichlorobenzene	10	9.77		ppb v/v		98	67 - 132
1,4-Dioxane	10	9.55		ppb v/v		95	66 - 129
2,2,4-Trimethylpentane	10	10.0		ppb v/v		100	68 - 131
2-Chlorotoluene	10	9.89		ppb v/v		99	74 - 126
3-Chloropropene	10	9.97		ppb v/v		100	50 - 150
4-Ethyltoluene	10	9.90		ppb v/v		99	75 - 129
4-Isopropyltoluene	10	10.1		ppb v/v		101	68 - 130
4-Methyl-2-pentanone (Methyl isobutyl ketone)	10	10.1		ppb v/v		101	58 - 144
Acetone	10	11.2		ppb v/v		112	54 - 154
Benzene	10	8.68		ppb v/v		87	73 - 119
Benzyl chloride	10	9.76		ppb v/v		98	60 - 136
Bromodichloromethane	10	10.3		ppb v/v		103	75 - 127
Bromoethene(Vinyl Bromide)	10	9.87		ppb v/v		99	75 - 125
Bromoform	10	10.5		ppb v/v		105	53 - 149
Bromomethane	10	10.0		ppb v/v		100	72 - 124
Carbon disulfide	10	10.3		ppb v/v		103	71 - 138
Carbon tetrachloride	10	10.2		ppb v/v		102	71 - 133
Chlorobenzene	10	9.59		ppb v/v		96	76 - 119
Chlorodifluoromethane	10	11.7		ppb v/v		117	60 - 147
Chloroethane	10	10.7		ppb v/v		107	68 - 130
Chloroform	10	9.92		ppb v/v		99	73 - 124
Chloromethane	10	11.6		ppb v/v		116	56 - 141
cis-1,2-Dichloroethene	10	9.79		ppb v/v		98	72 - 121
cis-1,3-Dichloropropene	10	9.98		ppb v/v		100	74 - 125
Cumene	10	9.78		ppb v/v		98	73 - 123
Cyclohexane	10	9.80		ppb v/v		98	76 - 124
Dibromochloromethane	10	10.2		ppb v/v		102	73 - 125
Dichlorodifluoromethane	10	11.3		ppb v/v		113	61 - 142
Ethylbenzene	10	9.72		ppb v/v		97	74 - 122
Hexachlorobutadiene	10	9.71		ppb v/v		97	58 - 130
Isopropyl alcohol	10	10.8		ppb v/v		108	53 - 142
m,p-Xylene	20	19.2		ppb v/v		96	76 - 121
Methyl Butyl Ketone (2-Hexanone)	10	9.55		ppb v/v		95	57 - 143
Methyl Ethyl Ketone (2-Butanone)	10	10.0		ppb v/v		100	72 - 124
Methyl methacrylate	10	10.1		ppb v/v		101	73 - 129
Methyl tert-butyl ether	10	9.90		ppb v/v		99	70 - 127
Methylene Chloride	10	10.4		ppb v/v		104	59 - 137
Naphthalene	10	10.0		ppb v/v		100	50 - 150
n-Butane	10	10.9		ppb v/v		109	53 - 151
n-Butylbenzene	10	10.3		ppb v/v		103	65 - 137
n-Heptane	10	9.87		ppb v/v		99	60 - 142
n-Hexane	10	9.61		ppb v/v		96	63 - 138
n-Propylbenzene	10	10.0		ppb v/v		100	73 - 127
o-Xylene	10	9.64		ppb v/v		96	73 - 123

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: LCS 200-190008/3
Matrix: Air
Analysis Batch: 190008

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
sec-Butylbenzene	10	10.2		ppb v/v		102	70 - 128
Styrene	10	9.66		ppb v/v		97	74 - 125
tert-Butyl alcohol	10	10.4		ppb v/v		104	66 - 132
tert-Butylbenzene	10	9.87		ppb v/v		99	71 - 125
Tetrachloroethene	10	9.14		ppb v/v		91	70 - 125
Tetrahydrofuran	10	10.6		ppb v/v		106	60 - 149
Toluene	10	9.42		ppb v/v		94	75 - 122
trans-1,2-Dichloroethene	10	9.76		ppb v/v		98	69 - 137
trans-1,3-Dichloropropene	10	10.2		ppb v/v		102	74 - 128
Trichloroethene	10	9.81		ppb v/v		98	73 - 122
Trichlorofluoromethane	10	10.0		ppb v/v		100	70 - 129
Vinyl chloride	10	10.4		ppb v/v		104	61 - 135

Lab Sample ID: MB 200-190011/4
Matrix: Air
Analysis Batch: 190011

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.1	U	1.1	0.24	ug/m3			04/05/23 10:33	1
1,1,2,2-Tetrachloroethane	1.4	U	1.4	0.30	ug/m3			04/05/23 10:33	1
1,1,2-Trichloroethane	1.1	U	1.1	0.40	ug/m3			04/05/23 10:33	1
1,1,2-Trichlorotrifluoroethane	1.5	U	1.5	0.41	ug/m3			04/05/23 10:33	1
1,1-Dichloroethane	0.81	U	0.81	0.10	ug/m3			04/05/23 10:33	1
1,1-Dichloroethene	0.20	U	0.20	0.10	ug/m3			04/05/23 10:33	1
1,2,4-Trichlorobenzene	3.7	U	3.7	2.4	ug/m3			04/05/23 10:33	1
1,2,4-Trimethylbenzene	0.98	U	0.98	0.39	ug/m3			04/05/23 10:33	1
1,2-Dibromoethane	1.5	U	1.5	0.32	ug/m3			04/05/23 10:33	1
1,2-Dichlorobenzene	1.2	U	1.2	0.40	ug/m3			04/05/23 10:33	1
1,2-Dichloroethane	0.81	U	0.81	0.38	ug/m3			04/05/23 10:33	1
1,2-Dichloropropane	0.92	U	0.92	0.43	ug/m3			04/05/23 10:33	1
1,2-Dichlorotetrafluoroethane	1.4	U	1.4	0.34	ug/m3			04/05/23 10:33	1
1,3,5-Trimethylbenzene	0.98	U	0.98	0.23	ug/m3			04/05/23 10:33	1
1,3-Butadiene	0.44	U	0.44	0.086	ug/m3			04/05/23 10:33	1
1,3-Dichlorobenzene	1.2	U	1.2	0.44	ug/m3			04/05/23 10:33	1
1,4-Dichlorobenzene	1.2	U	1.2	0.54	ug/m3			04/05/23 10:33	1
1,4-Dioxane	18	U	18	4.7	ug/m3			04/05/23 10:33	1
2,2,4-Trimethylpentane	0.93	U	0.93	0.18	ug/m3			04/05/23 10:33	1
2-Chlorotoluene	1.0	U	1.0	0.24	ug/m3			04/05/23 10:33	1
3-Chloropropene	1.6	U	1.6	0.38	ug/m3			04/05/23 10:33	1
4-Ethyltoluene	0.98	U	0.98	0.24	ug/m3			04/05/23 10:33	1
4-Isopropyltoluene	1.1	U	1.1	0.33	ug/m3			04/05/23 10:33	1
4-Methyl-2-pentanone (Methyl isobutyl ketone)	2.0	U	2.0	0.53	ug/m3			04/05/23 10:33	1
Acetone	12	U	12	3.8	ug/m3			04/05/23 10:33	1
Benzene	0.64	U	0.64	0.14	ug/m3			04/05/23 10:33	1
Benzyl chloride	1.0	U	1.0	0.46	ug/m3			04/05/23 10:33	1
Bromodichloromethane	1.3	U	1.3	0.34	ug/m3			04/05/23 10:33	1
Bromoethene(Vinyl Bromide)	0.87	U	0.87	0.22	ug/m3			04/05/23 10:33	1
Bromoform	2.1	U	2.1	1.2	ug/m3			04/05/23 10:33	1

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: MB 200-190011/4
Matrix: Air
Analysis Batch: 190011

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromomethane	0.78	U	0.78	0.28	ug/m3			04/05/23 10:33	1
Carbon disulfide	1.6	U	1.6	0.40	ug/m3			04/05/23 10:33	1
Carbon tetrachloride	0.22	U	0.22	0.14	ug/m3			04/05/23 10:33	1
Chlorobenzene	0.92	U	0.92	0.20	ug/m3			04/05/23 10:33	1
Chlorodifluoromethane	1.8	U	1.8	0.42	ug/m3			04/05/23 10:33	1
Chloroethane	1.3	U	1.3	0.47	ug/m3			04/05/23 10:33	1
Chloroform	0.98	U	0.98	0.20	ug/m3			04/05/23 10:33	1
Chloromethane	1.0	U	1.0	0.31	ug/m3			04/05/23 10:33	1
cis-1,2-Dichloroethene	0.20	U	0.20	0.083	ug/m3			04/05/23 10:33	1
cis-1,3-Dichloropropene	0.91	U	0.91	0.20	ug/m3			04/05/23 10:33	1
Cumene	0.98	U	0.98	0.20	ug/m3			04/05/23 10:33	1
Cyclohexane	0.69	U	0.69	0.20	ug/m3			04/05/23 10:33	1
Dibromochloromethane	1.7	U	1.7	0.54	ug/m3			04/05/23 10:33	1
Dichlorodifluoromethane	2.5	U	2.5	0.54	ug/m3			04/05/23 10:33	1
Ethylbenzene	0.87	U	0.87	0.23	ug/m3			04/05/23 10:33	1
Hexachlorobutadiene	2.1	U	2.1	1.2	ug/m3			04/05/23 10:33	1
Isopropyl alcohol	12	U	12	3.9	ug/m3			04/05/23 10:33	1
m,p-Xylene	2.2	U	2.2	0.41	ug/m3			04/05/23 10:33	1
Methyl Butyl Ketone (2-Hexanone)	2.0	U	2.0	0.61	ug/m3			04/05/23 10:33	1
Methyl Ethyl Ketone (2-Butanone)	1.5	U	1.5	1.4	ug/m3			04/05/23 10:33	1
Methyl methacrylate	2.0	U	2.0	0.57	ug/m3			04/05/23 10:33	1
Methyl tert-butyl ether	0.72	U	0.72	0.13	ug/m3			04/05/23 10:33	1
Methylene Chloride	1.7	U	1.7	0.63	ug/m3			04/05/23 10:33	1
Naphthalene	2.6	U	2.6	1.6	ug/m3			04/05/23 10:33	1
n-Butane	1.2	U	1.2	0.48	ug/m3			04/05/23 10:33	1
n-Butylbenzene	1.1	U	1.1	0.60	ug/m3			04/05/23 10:33	1
n-Heptane	0.82	U	0.82	0.23	ug/m3			04/05/23 10:33	1
n-Hexane	1.8	U	1.8	0.39	ug/m3			04/05/23 10:33	1
n-Propylbenzene	0.98	U	0.98	0.23	ug/m3			04/05/23 10:33	1
o-Xylene	0.87	U	0.87	0.23	ug/m3			04/05/23 10:33	1
sec-Butylbenzene	1.1	U	1.1	0.25	ug/m3			04/05/23 10:33	1
Styrene	0.85	U	0.85	0.25	ug/m3			04/05/23 10:33	1
tert-Butyl alcohol	15	U	15	3.6	ug/m3			04/05/23 10:33	1
tert-Butylbenzene	1.1	U	1.1	0.26	ug/m3			04/05/23 10:33	1
Tetrachloroethene	1.4	U	1.4	0.14	ug/m3			04/05/23 10:33	1
Tetrahydrofuran	15	U	15	3.8	ug/m3			04/05/23 10:33	1
Toluene	0.75	U	0.75	0.16	ug/m3			04/05/23 10:33	1
trans-1,2-Dichloroethene	0.79	U	0.79	0.091	ug/m3			04/05/23 10:33	1
trans-1,3-Dichloropropene	0.91	U	0.91	0.25	ug/m3			04/05/23 10:33	1
Trichloroethene	0.20	U	0.20	0.13	ug/m3			04/05/23 10:33	1
Trichlorofluoromethane	1.1	U	1.1	0.28	ug/m3			04/05/23 10:33	1
Vinyl chloride	0.20	U	0.20	0.054	ug/m3			04/05/23 10:33	1

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.20	U	0.20	0.044	ppb v/v			04/05/23 10:33	1
1,1,2,2-Tetrachloroethane	0.20	U	0.20	0.043	ppb v/v			04/05/23 10:33	1
1,1,2-Trichloroethane	0.20	U	0.20	0.074	ppb v/v			04/05/23 10:33	1
1,1,2-Trichlorotrifluoroethane	0.20	U	0.20	0.053	ppb v/v			04/05/23 10:33	1
1,1-Dichloroethane	0.20	U	0.20	0.025	ppb v/v			04/05/23 10:33	1

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: MB 200-190011/4
Matrix: Air
Analysis Batch: 190011

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	0.050	U	0.050	0.026	ppb v/v			04/05/23 10:33	1
1,2,4-Trichlorobenzene	0.50	U	0.50	0.33	ppb v/v			04/05/23 10:33	1
1,2,4-Trimethylbenzene	0.20	U	0.20	0.080	ppb v/v			04/05/23 10:33	1
1,2-Dibromoethane	0.20	U	0.20	0.042	ppb v/v			04/05/23 10:33	1
1,2-Dichlorobenzene	0.20	U	0.20	0.066	ppb v/v			04/05/23 10:33	1
1,2-Dichloroethane	0.20	U	0.20	0.093	ppb v/v			04/05/23 10:33	1
1,2-Dichloropropane	0.20	U	0.20	0.094	ppb v/v			04/05/23 10:33	1
1,2-Dichlorotetrafluoroethane	0.20	U	0.20	0.048	ppb v/v			04/05/23 10:33	1
1,3,5-Trimethylbenzene	0.20	U	0.20	0.047	ppb v/v			04/05/23 10:33	1
1,3-Butadiene	0.20	U	0.20	0.039	ppb v/v			04/05/23 10:33	1
1,3-Dichlorobenzene	0.20	U	0.20	0.074	ppb v/v			04/05/23 10:33	1
1,4-Dichlorobenzene	0.20	U	0.20	0.089	ppb v/v			04/05/23 10:33	1
1,4-Dioxane	5.0	U	5.0	1.3	ppb v/v			04/05/23 10:33	1
2,2,4-Trimethylpentane	0.20	U	0.20	0.038	ppb v/v			04/05/23 10:33	1
2-Chlorotoluene	0.20	U	0.20	0.046	ppb v/v			04/05/23 10:33	1
3-Chloropropene	0.50	U	0.50	0.12	ppb v/v			04/05/23 10:33	1
4-Ethyltoluene	0.20	U	0.20	0.049	ppb v/v			04/05/23 10:33	1
4-Isopropyltoluene	0.20	U	0.20	0.061	ppb v/v			04/05/23 10:33	1
4-Methyl-2-pentanone (Methyl isobutyl ketone)	0.50	U	0.50	0.13	ppb v/v			04/05/23 10:33	1
Acetone	5.0	U	5.0	1.6	ppb v/v			04/05/23 10:33	1
Benzene	0.20	U	0.20	0.044	ppb v/v			04/05/23 10:33	1
Benzyl chloride	0.20	U	0.20	0.088	ppb v/v			04/05/23 10:33	1
Bromodichloromethane	0.20	U	0.20	0.050	ppb v/v			04/05/23 10:33	1
Bromoethene(Vinyl Bromide)	0.20	U	0.20	0.050	ppb v/v			04/05/23 10:33	1
Bromoform	0.20	U	0.20	0.12	ppb v/v			04/05/23 10:33	1
Bromomethane	0.20	U	0.20	0.071	ppb v/v			04/05/23 10:33	1
Carbon disulfide	0.50	U	0.50	0.13	ppb v/v			04/05/23 10:33	1
Carbon tetrachloride	0.035	U	0.035	0.022	ppb v/v			04/05/23 10:33	1
Chlorobenzene	0.20	U	0.20	0.044	ppb v/v			04/05/23 10:33	1
Chlorodifluoromethane	0.50	U	0.50	0.12	ppb v/v			04/05/23 10:33	1
Chloroethane	0.50	U	0.50	0.18	ppb v/v			04/05/23 10:33	1
Chloroform	0.20	U	0.20	0.041	ppb v/v			04/05/23 10:33	1
Chloromethane	0.50	U	0.50	0.15	ppb v/v			04/05/23 10:33	1
cis-1,2-Dichloroethene	0.050	U	0.050	0.021	ppb v/v			04/05/23 10:33	1
cis-1,3-Dichloropropene	0.20	U	0.20	0.045	ppb v/v			04/05/23 10:33	1
Cumene	0.20	U	0.20	0.041	ppb v/v			04/05/23 10:33	1
Cyclohexane	0.20	U	0.20	0.058	ppb v/v			04/05/23 10:33	1
Dibromochloromethane	0.20	U	0.20	0.063	ppb v/v			04/05/23 10:33	1
Dichlorodifluoromethane	0.50	U	0.50	0.11	ppb v/v			04/05/23 10:33	1
Ethylbenzene	0.20	U	0.20	0.052	ppb v/v			04/05/23 10:33	1
Hexachlorobutadiene	0.20	U	0.20	0.11	ppb v/v			04/05/23 10:33	1
Isopropyl alcohol	5.0	U	5.0	1.6	ppb v/v			04/05/23 10:33	1
m,p-Xylene	0.50	U	0.50	0.095	ppb v/v			04/05/23 10:33	1
Methyl Butyl Ketone (2-Hexanone)	0.50	U	0.50	0.15	ppb v/v			04/05/23 10:33	1
Methyl Ethyl Ketone (2-Butanone)	0.50	U	0.50	0.49	ppb v/v			04/05/23 10:33	1
Methyl methacrylate	0.50	U	0.50	0.14	ppb v/v			04/05/23 10:33	1
Methyl tert-butyl ether	0.20	U	0.20	0.036	ppb v/v			04/05/23 10:33	1
Methylene Chloride	0.50	U	0.50	0.18	ppb v/v			04/05/23 10:33	1

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: MB 200-190011/4
Matrix: Air
Analysis Batch: 190011

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	0.50	U	0.50	0.30	ppb v/v			04/05/23 10:33	1
n-Butane	0.50	U	0.50	0.20	ppb v/v			04/05/23 10:33	1
n-Butylbenzene	0.20	U	0.20	0.11	ppb v/v			04/05/23 10:33	1
n-Heptane	0.20	U	0.20	0.055	ppb v/v			04/05/23 10:33	1
n-Hexane	0.50	U	0.50	0.11	ppb v/v			04/05/23 10:33	1
n-Propylbenzene	0.20	U	0.20	0.047	ppb v/v			04/05/23 10:33	1
o-Xylene	0.20	U	0.20	0.052	ppb v/v			04/05/23 10:33	1
sec-Butylbenzene	0.20	U	0.20	0.045	ppb v/v			04/05/23 10:33	1
Styrene	0.20	U	0.20	0.059	ppb v/v			04/05/23 10:33	1
tert-Butyl alcohol	5.0	U	5.0	1.2	ppb v/v			04/05/23 10:33	1
tert-Butylbenzene	0.20	U	0.20	0.047	ppb v/v			04/05/23 10:33	1
Tetrachloroethene	0.20	U	0.20	0.021	ppb v/v			04/05/23 10:33	1
Tetrahydrofuran	5.0	U	5.0	1.3	ppb v/v			04/05/23 10:33	1
Toluene	0.20	U	0.20	0.042	ppb v/v			04/05/23 10:33	1
trans-1,2-Dichloroethene	0.20	U	0.20	0.023	ppb v/v			04/05/23 10:33	1
trans-1,3-Dichloropropene	0.20	U	0.20	0.054	ppb v/v			04/05/23 10:33	1
Trichloroethene	0.037	U	0.037	0.025	ppb v/v			04/05/23 10:33	1
Trichlorofluoromethane	0.20	U	0.20	0.050	ppb v/v			04/05/23 10:33	1
Vinyl chloride	0.078	U	0.078	0.021	ppb v/v			04/05/23 10:33	1

Lab Sample ID: LCS 200-190011/3
Matrix: Air
Analysis Batch: 190011

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1-Trichloroethane	54.6	47.0		ug/m3		86	72 - 127
1,1,2,2-Tetrachloroethane	68.6	63.4		ug/m3		92	74 - 126
1,1,2-Trichloroethane	54.6	49.9		ug/m3		92	75 - 126
1,1,2-Trichlorotrifluoroethane	76.6	78.5		ug/m3		102	70 - 121
1,1-Dichloroethane	40.5	37.3		ug/m3		92	66 - 130
1,1-Dichloroethene	39.6	39.1		ug/m3		99	68 - 120
1,2,4-Trichlorobenzene	74.2	72.6		ug/m3		98	50 - 150
1,2,4-Trimethylbenzene	49.2	48.7		ug/m3		99	71 - 129
1,2-Dibromoethane	76.8	73.2		ug/m3		95	78 - 122
1,2-Dichlorobenzene	60.1	58.9		ug/m3		98	68 - 129
1,2-Dichloroethane	40.5	33.8		ug/m3		84	68 - 135
1,2-Dichloropropane	46.2	46.0		ug/m3		100	69 - 128
1,2-Dichlorotetrafluoroethane	69.9	74.1		ug/m3		106	71 - 141
1,3,5-Trimethylbenzene	49.2	47.8		ug/m3		97	72 - 126
1,3-Butadiene	22.1	21.1		ug/m3		95	58 - 139
1,3-Dichlorobenzene	60.1	59.5		ug/m3		99	69 - 131
1,4-Dichlorobenzene	60.1	60.0		ug/m3		100	67 - 132
1,4-Dioxane	36.0	38.6		ug/m3		107	66 - 129
2,2,4-Trimethylpentane	46.7	36.7		ug/m3		79	68 - 131
2-Chlorotoluene	51.8	48.4		ug/m3		93	74 - 126
3-Chloropropene	31.3	29.7		ug/m3		95	50 - 150
4-Ethyltoluene	49.2	48.1		ug/m3		98	75 - 129
4-Isopropyltoluene	54.9	54.9		ug/m3		100	68 - 130

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: LCS 200-190011/3
Matrix: Air
Analysis Batch: 190011

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
4-Methyl-2-pentanone (Methyl isobutyl ketone)	41.0	42.0		ug/m3		103	58 - 144
Acetone	23.7	25.3		ug/m3		106	54 - 154
Benzene	31.9	26.2		ug/m3		82	73 - 119
Benzyl chloride	51.8	52.2		ug/m3		101	60 - 136
Bromodichloromethane	67.0	68.4		ug/m3		102	75 - 127
Bromoethene(Vinyl Bromide)	43.7	45.6		ug/m3		104	75 - 125
Bromoform	103	103		ug/m3		100	53 - 149
Bromomethane	38.8	40.6		ug/m3		105	72 - 124
Carbon disulfide	31.1	31.8		ug/m3		102	71 - 138
Carbon tetrachloride	62.9	55.2		ug/m3		88	71 - 133
Chlorobenzene	46.0	42.0		ug/m3		91	76 - 119
Chlorodifluoromethane	35.4	38.7		ug/m3		109	60 - 147
Chloroethane	26.4	28.1		ug/m3		106	68 - 130
Chloroform	48.8	40.7		ug/m3		83	73 - 124
Chloromethane	20.6	22.3		ug/m3		108	56 - 141
cis-1,2-Dichloroethene	39.6	33.4		ug/m3		84	72 - 121
cis-1,3-Dichloropropene	45.4	47.5		ug/m3		105	74 - 125
Cumene	49.1	47.4		ug/m3		96	73 - 123
Cyclohexane	34.4	29.1		ug/m3		85	76 - 124
Dibromochloromethane	85.2	81.1		ug/m3		95	73 - 125
Dichlorodifluoromethane	49.4	54.8		ug/m3		111	61 - 142
Ethylbenzene	43.4	40.3		ug/m3		93	74 - 122
Hexachlorobutadiene	107	105		ug/m3		98	58 - 130
Isopropyl alcohol	24.6	26.3		ug/m3		107	53 - 142
m,p-Xylene	86.8	82.2		ug/m3		95	76 - 121
Methyl Butyl Ketone (2-Hexanone)	41.0	37.8		ug/m3		92	57 - 143
Methyl Ethyl Ketone (2-Butanone)	29.5	24.6		ug/m3		84	72 - 124
Methyl methacrylate	40.9	43.4		ug/m3		106	73 - 129
Methyl tert-butyl ether	36.0	37.3		ug/m3		103	70 - 127
Methylene Chloride	34.7	35.2		ug/m3		101	59 - 137
Naphthalene	52.4	51.0		ug/m3		97	50 - 150
n-Butane	23.8	24.0		ug/m3		101	53 - 151
n-Butylbenzene	54.9	55.7		ug/m3		102	65 - 137
n-Heptane	41.0	31.0		ug/m3		76	60 - 142
n-Hexane	35.2	32.4		ug/m3		92	63 - 138
n-Propylbenzene	49.1	47.4		ug/m3		96	73 - 127
o-Xylene	43.4	41.2		ug/m3		95	73 - 123
sec-Butylbenzene	54.9	54.2		ug/m3		99	70 - 128
Styrene	42.6	42.6		ug/m3		100	74 - 125
tert-Butyl alcohol	30.3	32.0		ug/m3		106	66 - 132
tert-Butylbenzene	54.9	53.5		ug/m3		98	71 - 125
Tetrachloroethene	67.8	61.4		ug/m3		90	70 - 125
Tetrahydrofuran	29.5	21.4		ug/m3		73	60 - 149
Toluene	37.7	34.6		ug/m3		92	75 - 122
trans-1,2-Dichloroethene	39.6	39.6		ug/m3		100	69 - 137
trans-1,3-Dichloropropene	45.4	48.7		ug/m3		107	74 - 128

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: LCS 200-190011/3
Matrix: Air
Analysis Batch: 190011

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Trichloroethene	53.7	54.4		ug/m3		101	73 - 122
Trichlorofluoromethane	56.2	58.6		ug/m3		104	70 - 129
Vinyl chloride	25.6	24.5		ug/m3		96	61 - 135

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1-Trichloroethane	10	8.61		ppb v/v		86	72 - 127
1,1,2,2-Tetrachloroethane	10	9.24		ppb v/v		92	74 - 126
1,1,2-Trichloroethane	10	9.15		ppb v/v		92	75 - 126
1,1,2-Trichlorotrifluoroethane	10	10.2		ppb v/v		102	70 - 121
1,1-Dichloroethane	10	9.21		ppb v/v		92	66 - 130
1,1-Dichloroethene	10	9.85		ppb v/v		99	68 - 120
1,2,4-Trichlorobenzene	10	9.78		ppb v/v		98	50 - 150
1,2,4-Trimethylbenzene	10	9.91		ppb v/v		99	71 - 129
1,2-Dibromoethane	10	9.53		ppb v/v		95	78 - 122
1,2-Dichlorobenzene	10	9.79		ppb v/v		98	68 - 129
1,2-Dichloroethane	10	8.35		ppb v/v		84	68 - 135
1,2-Dichloropropane	10	9.96		ppb v/v		100	69 - 128
1,2-Dichlorotetrafluoroethane	10	10.6		ppb v/v		106	71 - 141
1,3,5-Trimethylbenzene	10	9.72		ppb v/v		97	72 - 126
1,3-Butadiene	10	9.54		ppb v/v		95	58 - 139
1,3-Dichlorobenzene	10	9.90		ppb v/v		99	69 - 131
1,4-Dichlorobenzene	10	9.98		ppb v/v		100	67 - 132
1,4-Dioxane	10	10.7		ppb v/v		107	66 - 129
2,2,4-Trimethylpentane	10	7.85		ppb v/v		79	68 - 131
2-Chlorotoluene	10	9.34		ppb v/v		93	74 - 126
3-Chloropropene	10	9.49		ppb v/v		95	50 - 150
4-Ethyltoluene	10	9.79		ppb v/v		98	75 - 129
4-Isopropyltoluene	10	9.99		ppb v/v		100	68 - 130
4-Methyl-2-pentanone (Methyl isobutyl ketone)	10	10.3		ppb v/v		103	58 - 144
Acetone	10	10.6		ppb v/v		106	54 - 154
Benzene	10	8.20		ppb v/v		82	73 - 119
Benzyl chloride	10	10.1		ppb v/v		101	60 - 136
Bromodichloromethane	10	10.2		ppb v/v		102	75 - 127
Bromoethene(Vinyl Bromide)	10	10.4		ppb v/v		104	75 - 125
Bromoform	10	9.95		ppb v/v		100	53 - 149
Bromomethane	10	10.5		ppb v/v		105	72 - 124
Carbon disulfide	10	10.2		ppb v/v		102	71 - 138
Carbon tetrachloride	10	8.78		ppb v/v		88	71 - 133
Chlorobenzene	10	9.12		ppb v/v		91	76 - 119
Chlorodifluoromethane	10	10.9		ppb v/v		109	60 - 147
Chloroethane	10	10.6		ppb v/v		106	68 - 130
Chloroform	10	8.33		ppb v/v		83	73 - 124
Chloromethane	10	10.8		ppb v/v		108	56 - 141
cis-1,2-Dichloroethene	10	8.42		ppb v/v		84	72 - 121
cis-1,3-Dichloropropene	10	10.5		ppb v/v		105	74 - 125
Cumene	10	9.64		ppb v/v		96	73 - 123
Cyclohexane	10	8.45		ppb v/v		85	76 - 124
Dibromochloromethane	10	9.52		ppb v/v		95	73 - 125

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: LCS 200-190011/3
Matrix: Air
Analysis Batch: 190011

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Dichlorodifluoromethane	10	11.1		ppb v/v		111	61 - 142
Ethylbenzene	10	9.28		ppb v/v		93	74 - 122
Hexachlorobutadiene	10	9.83		ppb v/v		98	58 - 130
Isopropyl alcohol	10	10.7		ppb v/v		107	53 - 142
m,p-Xylene	20	18.9		ppb v/v		95	76 - 121
Methyl Butyl Ketone (2-Hexanone)	10	9.23		ppb v/v		92	57 - 143
Methyl Ethyl Ketone (2-Butanone)	10	8.36		ppb v/v		84	72 - 124
Methyl methacrylate	10	10.6		ppb v/v		106	73 - 129
Methyl tert-butyl ether	10	10.3		ppb v/v		103	70 - 127
Methylene Chloride	10	10.1		ppb v/v		101	59 - 137
Naphthalene	10	9.73		ppb v/v		97	50 - 150
n-Butane	10	10.1		ppb v/v		101	53 - 151
n-Butylbenzene	10	10.2		ppb v/v		102	65 - 137
n-Heptane	10	7.56		ppb v/v		76	60 - 142
n-Hexane	10	9.20		ppb v/v		92	63 - 138
n-Propylbenzene	10	9.64		ppb v/v		96	73 - 127
o-Xylene	10	9.49		ppb v/v		95	73 - 123
sec-Butylbenzene	10	9.87		ppb v/v		99	70 - 128
Styrene	10	9.99		ppb v/v		100	74 - 125
tert-Butyl alcohol	10	10.6		ppb v/v		106	66 - 132
tert-Butylbenzene	10	9.75		ppb v/v		98	71 - 125
Tetrachloroethene	10	9.05		ppb v/v		90	70 - 125
Tetrahydrofuran	10	7.27		ppb v/v		73	60 - 149
Toluene	10	9.17		ppb v/v		92	75 - 122
trans-1,2-Dichloroethene	10	10.0		ppb v/v		100	69 - 137
trans-1,3-Dichloropropene	10	10.7		ppb v/v		107	74 - 128
Trichloroethene	10	10.1		ppb v/v		101	73 - 122
Trichlorofluoromethane	10	10.4		ppb v/v		104	70 - 129
Vinyl chloride	10	9.58		ppb v/v		96	61 - 135

Lab Sample ID: MB 200-190057/4
Matrix: Air
Analysis Batch: 190057

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.1	U	1.1	0.24	ug/m3			04/06/23 10:00	1
1,1,2,2-Tetrachloroethane	1.4	U	1.4	0.30	ug/m3			04/06/23 10:00	1
1,1,2-Trichloroethane	1.1	U	1.1	0.40	ug/m3			04/06/23 10:00	1
1,1,2-Trichlorotrifluoroethane	1.5	U	1.5	0.41	ug/m3			04/06/23 10:00	1
1,1-Dichloroethane	0.81	U	0.81	0.10	ug/m3			04/06/23 10:00	1
1,1-Dichloroethene	0.20	U	0.20	0.10	ug/m3			04/06/23 10:00	1
1,2,4-Trichlorobenzene	3.7	U	3.7	2.4	ug/m3			04/06/23 10:00	1
1,2,4-Trimethylbenzene	0.98	U	0.98	0.39	ug/m3			04/06/23 10:00	1
1,2-Dibromoethane	1.5	U	1.5	0.32	ug/m3			04/06/23 10:00	1
1,2-Dichlorobenzene	1.2	U	1.2	0.40	ug/m3			04/06/23 10:00	1
1,2-Dichloroethane	0.81	U	0.81	0.38	ug/m3			04/06/23 10:00	1
1,2-Dichloropropane	0.92	U	0.92	0.43	ug/m3			04/06/23 10:00	1

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: MB 200-190057/4
Matrix: Air
Analysis Batch: 190057

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorotetrafluoroethane	1.4	U	1.4	0.34	ug/m3			04/06/23 10:00	1
1,3,5-Trimethylbenzene	0.98	U	0.98	0.23	ug/m3			04/06/23 10:00	1
1,3-Butadiene	0.44	U	0.44	0.086	ug/m3			04/06/23 10:00	1
1,3-Dichlorobenzene	1.2	U	1.2	0.44	ug/m3			04/06/23 10:00	1
1,4-Dichlorobenzene	1.2	U	1.2	0.54	ug/m3			04/06/23 10:00	1
1,4-Dioxane	18	U	18	4.7	ug/m3			04/06/23 10:00	1
2,2,4-Trimethylpentane	0.93	U	0.93	0.18	ug/m3			04/06/23 10:00	1
2-Chlorotoluene	1.0	U	1.0	0.24	ug/m3			04/06/23 10:00	1
3-Chloropropene	1.6	U	1.6	0.38	ug/m3			04/06/23 10:00	1
4-Ethyltoluene	0.98	U	0.98	0.24	ug/m3			04/06/23 10:00	1
4-Isopropyltoluene	1.1	U	1.1	0.33	ug/m3			04/06/23 10:00	1
4-Methyl-2-pentanone (Methyl isobutyl ketone)	2.0	U	2.0	0.53	ug/m3			04/06/23 10:00	1
Acetone	12	U	12	3.8	ug/m3			04/06/23 10:00	1
Benzene	0.64	U	0.64	0.14	ug/m3			04/06/23 10:00	1
Benzyl chloride	1.0	U	1.0	0.46	ug/m3			04/06/23 10:00	1
Bromodichloromethane	1.3	U	1.3	0.34	ug/m3			04/06/23 10:00	1
Bromoethene(Vinyl Bromide)	0.87	U	0.87	0.22	ug/m3			04/06/23 10:00	1
Bromoform	2.1	U	2.1	1.2	ug/m3			04/06/23 10:00	1
Bromomethane	0.78	U	0.78	0.28	ug/m3			04/06/23 10:00	1
Carbon disulfide	1.6	U	1.6	0.40	ug/m3			04/06/23 10:00	1
Carbon tetrachloride	0.22	U	0.22	0.14	ug/m3			04/06/23 10:00	1
Chlorobenzene	0.92	U	0.92	0.20	ug/m3			04/06/23 10:00	1
Chlorodifluoromethane	1.8	U	1.8	0.42	ug/m3			04/06/23 10:00	1
Chloroethane	1.3	U	1.3	0.47	ug/m3			04/06/23 10:00	1
Chloroform	0.98	U	0.98	0.20	ug/m3			04/06/23 10:00	1
Chloromethane	1.0	U	1.0	0.31	ug/m3			04/06/23 10:00	1
cis-1,2-Dichloroethene	0.20	U	0.20	0.083	ug/m3			04/06/23 10:00	1
cis-1,3-Dichloropropene	0.91	U	0.91	0.20	ug/m3			04/06/23 10:00	1
Cumene	0.98	U	0.98	0.20	ug/m3			04/06/23 10:00	1
Cyclohexane	0.69	U	0.69	0.20	ug/m3			04/06/23 10:00	1
Dibromochloromethane	1.7	U	1.7	0.54	ug/m3			04/06/23 10:00	1
Dichlorodifluoromethane	2.5	U	2.5	0.54	ug/m3			04/06/23 10:00	1
Ethylbenzene	0.87	U	0.87	0.23	ug/m3			04/06/23 10:00	1
Hexachlorobutadiene	2.1	U	2.1	1.2	ug/m3			04/06/23 10:00	1
Isopropyl alcohol	12	U	12	3.9	ug/m3			04/06/23 10:00	1
m,p-Xylene	2.2	U	2.2	0.41	ug/m3			04/06/23 10:00	1
Methyl Butyl Ketone (2-Hexanone)	2.0	U	2.0	0.61	ug/m3			04/06/23 10:00	1
Methyl Ethyl Ketone (2-Butanone)	1.5	U	1.5	1.4	ug/m3			04/06/23 10:00	1
Methyl methacrylate	2.0	U	2.0	0.57	ug/m3			04/06/23 10:00	1
Methyl tert-butyl ether	0.72	U	0.72	0.13	ug/m3			04/06/23 10:00	1
Methylene Chloride	1.7	U	1.7	0.63	ug/m3			04/06/23 10:00	1
Naphthalene	2.6	U	2.6	1.6	ug/m3			04/06/23 10:00	1
n-Butane	1.2	U	1.2	0.48	ug/m3			04/06/23 10:00	1
n-Butylbenzene	1.1	U	1.1	0.60	ug/m3			04/06/23 10:00	1
n-Heptane	0.82	U	0.82	0.23	ug/m3			04/06/23 10:00	1
n-Hexane	1.8	U	1.8	0.39	ug/m3			04/06/23 10:00	1
n-Propylbenzene	0.98	U	0.98	0.23	ug/m3			04/06/23 10:00	1
o-Xylene	0.87	U	0.87	0.23	ug/m3			04/06/23 10:00	1

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: MB 200-190057/4
Matrix: Air
Analysis Batch: 190057

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	1.1	U	1.1	0.25	ug/m3			04/06/23 10:00	1
Styrene	0.85	U	0.85	0.25	ug/m3			04/06/23 10:00	1
tert-Butyl alcohol	15	U	15	3.6	ug/m3			04/06/23 10:00	1
tert-Butylbenzene	1.1	U	1.1	0.26	ug/m3			04/06/23 10:00	1
Tetrachloroethene	1.4	U	1.4	0.14	ug/m3			04/06/23 10:00	1
Tetrahydrofuran	15	U	15	3.8	ug/m3			04/06/23 10:00	1
Toluene	0.75	U	0.75	0.16	ug/m3			04/06/23 10:00	1
trans-1,2-Dichloroethene	0.79	U	0.79	0.091	ug/m3			04/06/23 10:00	1
trans-1,3-Dichloropropene	0.91	U	0.91	0.25	ug/m3			04/06/23 10:00	1
Trichloroethene	0.20	U	0.20	0.13	ug/m3			04/06/23 10:00	1
Trichlorofluoromethane	1.1	U	1.1	0.28	ug/m3			04/06/23 10:00	1
Vinyl chloride	0.20	U	0.20	0.054	ug/m3			04/06/23 10:00	1

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.20	U	0.20	0.044	ppb v/v			04/06/23 10:00	1
1,1,2,2-Tetrachloroethane	0.20	U	0.20	0.043	ppb v/v			04/06/23 10:00	1
1,1,2-Trichloroethane	0.20	U	0.20	0.074	ppb v/v			04/06/23 10:00	1
1,1,2-Trichlorotrifluoroethane	0.20	U	0.20	0.053	ppb v/v			04/06/23 10:00	1
1,1-Dichloroethane	0.20	U	0.20	0.025	ppb v/v			04/06/23 10:00	1
1,1-Dichloroethene	0.050	U	0.050	0.026	ppb v/v			04/06/23 10:00	1
1,2,4-Trichlorobenzene	0.50	U	0.50	0.33	ppb v/v			04/06/23 10:00	1
1,2,4-Trimethylbenzene	0.20	U	0.20	0.080	ppb v/v			04/06/23 10:00	1
1,2-Dibromoethane	0.20	U	0.20	0.042	ppb v/v			04/06/23 10:00	1
1,2-Dichlorobenzene	0.20	U	0.20	0.066	ppb v/v			04/06/23 10:00	1
1,2-Dichloroethane	0.20	U	0.20	0.093	ppb v/v			04/06/23 10:00	1
1,2-Dichloropropane	0.20	U	0.20	0.094	ppb v/v			04/06/23 10:00	1
1,2-Dichlorotetrafluoroethane	0.20	U	0.20	0.048	ppb v/v			04/06/23 10:00	1
1,3,5-Trimethylbenzene	0.20	U	0.20	0.047	ppb v/v			04/06/23 10:00	1
1,3-Butadiene	0.20	U	0.20	0.039	ppb v/v			04/06/23 10:00	1
1,3-Dichlorobenzene	0.20	U	0.20	0.074	ppb v/v			04/06/23 10:00	1
1,4-Dichlorobenzene	0.20	U	0.20	0.089	ppb v/v			04/06/23 10:00	1
1,4-Dioxane	5.0	U	5.0	1.3	ppb v/v			04/06/23 10:00	1
2,2,4-Trimethylpentane	0.20	U	0.20	0.038	ppb v/v			04/06/23 10:00	1
2-Chlorotoluene	0.20	U	0.20	0.046	ppb v/v			04/06/23 10:00	1
3-Chloropropene	0.50	U	0.50	0.12	ppb v/v			04/06/23 10:00	1
4-Ethyltoluene	0.20	U	0.20	0.049	ppb v/v			04/06/23 10:00	1
4-Isopropyltoluene	0.20	U	0.20	0.061	ppb v/v			04/06/23 10:00	1
4-Methyl-2-pentanone (Methyl isobutyl ketone)	0.50	U	0.50	0.13	ppb v/v			04/06/23 10:00	1
Acetone	5.0	U	5.0	1.6	ppb v/v			04/06/23 10:00	1
Benzene	0.20	U	0.20	0.044	ppb v/v			04/06/23 10:00	1
Benzyl chloride	0.20	U	0.20	0.088	ppb v/v			04/06/23 10:00	1
Bromodichloromethane	0.20	U	0.20	0.050	ppb v/v			04/06/23 10:00	1
Bromoethene(Vinyl Bromide)	0.20	U	0.20	0.050	ppb v/v			04/06/23 10:00	1
Bromoform	0.20	U	0.20	0.12	ppb v/v			04/06/23 10:00	1
Bromomethane	0.20	U	0.20	0.071	ppb v/v			04/06/23 10:00	1
Carbon disulfide	0.50	U	0.50	0.13	ppb v/v			04/06/23 10:00	1
Carbon tetrachloride	0.035	U	0.035	0.022	ppb v/v			04/06/23 10:00	1
Chlorobenzene	0.20	U	0.20	0.044	ppb v/v			04/06/23 10:00	1

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: MB 200-190057/4
Matrix: Air
Analysis Batch: 190057

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorodifluoromethane	0.50	U	0.50	0.12	ppb v/v			04/06/23 10:00	1
Chloroethane	0.50	U	0.50	0.18	ppb v/v			04/06/23 10:00	1
Chloroform	0.20	U	0.20	0.041	ppb v/v			04/06/23 10:00	1
Chloromethane	0.50	U	0.50	0.15	ppb v/v			04/06/23 10:00	1
cis-1,2-Dichloroethene	0.050	U	0.050	0.021	ppb v/v			04/06/23 10:00	1
cis-1,3-Dichloropropene	0.20	U	0.20	0.045	ppb v/v			04/06/23 10:00	1
Cumene	0.20	U	0.20	0.041	ppb v/v			04/06/23 10:00	1
Cyclohexane	0.20	U	0.20	0.058	ppb v/v			04/06/23 10:00	1
Dibromochloromethane	0.20	U	0.20	0.063	ppb v/v			04/06/23 10:00	1
Dichlorodifluoromethane	0.50	U	0.50	0.11	ppb v/v			04/06/23 10:00	1
Ethylbenzene	0.20	U	0.20	0.052	ppb v/v			04/06/23 10:00	1
Hexachlorobutadiene	0.20	U	0.20	0.11	ppb v/v			04/06/23 10:00	1
Isopropyl alcohol	5.0	U	5.0	1.6	ppb v/v			04/06/23 10:00	1
m,p-Xylene	0.50	U	0.50	0.095	ppb v/v			04/06/23 10:00	1
Methyl Butyl Ketone (2-Hexanone)	0.50	U	0.50	0.15	ppb v/v			04/06/23 10:00	1
Methyl Ethyl Ketone (2-Butanone)	0.50	U	0.50	0.49	ppb v/v			04/06/23 10:00	1
Methyl methacrylate	0.50	U	0.50	0.14	ppb v/v			04/06/23 10:00	1
Methyl tert-butyl ether	0.20	U	0.20	0.036	ppb v/v			04/06/23 10:00	1
Methylene Chloride	0.50	U	0.50	0.18	ppb v/v			04/06/23 10:00	1
Naphthalene	0.50	U	0.50	0.30	ppb v/v			04/06/23 10:00	1
n-Butane	0.50	U	0.50	0.20	ppb v/v			04/06/23 10:00	1
n-Butylbenzene	0.20	U	0.20	0.11	ppb v/v			04/06/23 10:00	1
n-Heptane	0.20	U	0.20	0.055	ppb v/v			04/06/23 10:00	1
n-Hexane	0.50	U	0.50	0.11	ppb v/v			04/06/23 10:00	1
n-Propylbenzene	0.20	U	0.20	0.047	ppb v/v			04/06/23 10:00	1
o-Xylene	0.20	U	0.20	0.052	ppb v/v			04/06/23 10:00	1
sec-Butylbenzene	0.20	U	0.20	0.045	ppb v/v			04/06/23 10:00	1
Styrene	0.20	U	0.20	0.059	ppb v/v			04/06/23 10:00	1
tert-Butyl alcohol	5.0	U	5.0	1.2	ppb v/v			04/06/23 10:00	1
tert-Butylbenzene	0.20	U	0.20	0.047	ppb v/v			04/06/23 10:00	1
Tetrachloroethene	0.20	U	0.20	0.021	ppb v/v			04/06/23 10:00	1
Tetrahydrofuran	5.0	U	5.0	1.3	ppb v/v			04/06/23 10:00	1
Toluene	0.20	U	0.20	0.042	ppb v/v			04/06/23 10:00	1
trans-1,2-Dichloroethene	0.20	U	0.20	0.023	ppb v/v			04/06/23 10:00	1
trans-1,3-Dichloropropene	0.20	U	0.20	0.054	ppb v/v			04/06/23 10:00	1
Trichloroethene	0.037	U	0.037	0.025	ppb v/v			04/06/23 10:00	1
Trichlorofluoromethane	0.20	U	0.20	0.050	ppb v/v			04/06/23 10:00	1
Vinyl chloride	0.078	U	0.078	0.021	ppb v/v			04/06/23 10:00	1

Lab Sample ID: LCS 200-190057/3
Matrix: Air
Analysis Batch: 190057

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1-Trichloroethane	54.6	49.9		ug/m3		91	72 - 127
1,1,2,2-Tetrachloroethane	68.6	66.2		ug/m3		96	74 - 126
1,1,2-Trichloroethane	54.6	51.0		ug/m3		94	75 - 126
1,1,2-Trichlorotrifluoroethane	76.6	74.8		ug/m3		98	70 - 121
1,1-Dichloroethane	40.5	33.0		ug/m3		82	66 - 130

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: LCS 200-190057/3
Matrix: Air
Analysis Batch: 190057

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1-Dichloroethene	39.6	37.2		ug/m3		94	68 - 120
1,2,4-Trichlorobenzene	74.2	74.9		ug/m3		101	50 - 150
1,2,4-Trimethylbenzene	49.2	50.6		ug/m3		103	71 - 129
1,2-Dibromoethane	76.8	77.0		ug/m3		100	78 - 122
1,2-Dichlorobenzene	60.1	61.0		ug/m3		101	68 - 129
1,2-Dichloroethane	40.5	36.4		ug/m3		90	68 - 135
1,2-Dichloropropane	46.2	40.7		ug/m3		88	69 - 128
1,2-Dichlorotetrafluoroethane	69.9	74.3		ug/m3		106	71 - 141
1,3,5-Trimethylbenzene	49.2	50.0		ug/m3		102	72 - 126
1,3-Butadiene	22.1	21.0		ug/m3		95	58 - 139
1,3-Dichlorobenzene	60.1	61.8		ug/m3		103	69 - 131
1,4-Dichlorobenzene	60.1	61.9		ug/m3		103	67 - 132
1,4-Dioxane	36.0	35.5		ug/m3		99	66 - 129
2,2,4-Trimethylpentane	46.7	40.6		ug/m3		87	68 - 131
2-Chlorotoluene	51.8	50.7		ug/m3		98	74 - 126
3-Chloropropene	31.3	29.5		ug/m3		94	50 - 150
4-Ethyltoluene	49.2	50.0		ug/m3		102	75 - 129
4-Isopropyltoluene	54.9	57.0		ug/m3		104	68 - 130
4-Methyl-2-pentanone (Methyl isobutyl ketone)	41.0	37.2		ug/m3		91	58 - 144
Acetone	23.7	23.4		ug/m3		98	54 - 154
Benzene	31.9	28.3		ug/m3		89	73 - 119
Benzyl chloride	51.8	54.1		ug/m3		105	60 - 136
Bromodichloromethane	67.0	61.7		ug/m3		92	75 - 127
Bromoethene(Vinyl Bromide)	43.7	46.2		ug/m3		106	75 - 125
Bromoform	103	106		ug/m3		103	53 - 149
Bromomethane	38.8	40.7		ug/m3		105	72 - 124
Carbon disulfide	31.1	30.5		ug/m3		98	71 - 138
Carbon tetrachloride	62.9	57.8		ug/m3		92	71 - 133
Chlorobenzene	46.0	43.8		ug/m3		95	76 - 119
Chlorodifluoromethane	35.4	38.5		ug/m3		109	60 - 147
Chloroethane	26.4	28.0		ug/m3		106	68 - 130
Chloroform	48.8	43.1		ug/m3		88	73 - 124
Chloromethane	20.6	22.2		ug/m3		107	56 - 141
cis-1,2-Dichloroethene	39.6	35.6		ug/m3		90	72 - 121
cis-1,3-Dichloropropene	45.4	43.4		ug/m3		96	74 - 125
Cumene	49.1	49.3		ug/m3		100	73 - 123
Cyclohexane	34.4	30.9		ug/m3		90	76 - 124
Dibromochloromethane	85.2	82.6		ug/m3		97	73 - 125
Dichlorodifluoromethane	49.4	55.2		ug/m3		112	61 - 142
Ethylbenzene	43.4	41.8		ug/m3		96	74 - 122
Hexachlorobutadiene	107	108		ug/m3		102	58 - 130
Isopropyl alcohol	24.6	25.6		ug/m3		104	53 - 142
m,p-Xylene	86.8	85.4		ug/m3		98	76 - 121
Methyl Butyl Ketone (2-Hexanone)	41.0	38.3		ug/m3		93	57 - 143
Methyl Ethyl Ketone (2-Butanone)	29.5	26.8		ug/m3		91	72 - 124
Methyl methacrylate	40.9	38.9		ug/m3		95	73 - 129

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: LCS 200-190057/3
Matrix: Air
Analysis Batch: 190057

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Methyl tert-butyl ether	36.0	32.3		ug/m3		90	70 - 127
Methylene Chloride	34.7	26.7		ug/m3		77	59 - 137
Naphthalene	52.4	53.6		ug/m3		102	50 - 150
n-Butane	23.8	24.1		ug/m3		101	53 - 151
n-Butylbenzene	54.9	58.3		ug/m3		106	65 - 137
n-Heptane	41.0	34.7		ug/m3		85	60 - 142
n-Hexane	35.2	29.3		ug/m3		83	63 - 138
n-Propylbenzene	49.1	49.8		ug/m3		101	73 - 127
o-Xylene	43.4	42.6		ug/m3		98	73 - 123
sec-Butylbenzene	54.9	56.4		ug/m3		103	70 - 128
Styrene	42.6	44.2		ug/m3		104	74 - 125
tert-Butyl alcohol	30.3	25.9		ug/m3		85	66 - 132
tert-Butylbenzene	54.9	55.5		ug/m3		101	71 - 125
Tetrachloroethene	67.8	63.7		ug/m3		94	70 - 125
Tetrahydrofuran	29.5	24.8		ug/m3		84	60 - 149
Toluene	37.7	33.6		ug/m3		89	75 - 122
trans-1,2-Dichloroethene	39.6	33.8		ug/m3		85	69 - 137
trans-1,3-Dichloropropene	45.4	45.7		ug/m3		101	74 - 128
Trichloroethene	53.7	50.0		ug/m3		93	73 - 122
Trichlorofluoromethane	56.2	59.5		ug/m3		106	70 - 129
Vinyl chloride	25.6	24.4		ug/m3		96	61 - 135

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1-Trichloroethane	10	9.14		ppb v/v		91	72 - 127
1,1,2,2-Tetrachloroethane	10	9.65		ppb v/v		96	74 - 126
1,1,2-Trichloroethane	10	9.35		ppb v/v		94	75 - 126
1,1,2-Trichlorotrifluoroethane	10	9.76		ppb v/v		98	70 - 121
1,1-Dichloroethane	10	8.15		ppb v/v		82	66 - 130
1,1-Dichloroethene	10	9.39		ppb v/v		94	68 - 120
1,2,4-Trichlorobenzene	10	10.1		ppb v/v		101	50 - 150
1,2,4-Trimethylbenzene	10	10.3		ppb v/v		103	71 - 129
1,2-Dibromoethane	10	10.0		ppb v/v		100	78 - 122
1,2-Dichlorobenzene	10	10.1		ppb v/v		101	68 - 129
1,2-Dichloroethane	10	8.99		ppb v/v		90	68 - 135
1,2-Dichloropropane	10	8.80		ppb v/v		88	69 - 128
1,2-Dichlorotetrafluoroethane	10	10.6		ppb v/v		106	71 - 141
1,3,5-Trimethylbenzene	10	10.2		ppb v/v		102	72 - 126
1,3-Butadiene	10	9.50		ppb v/v		95	58 - 139
1,3-Dichlorobenzene	10	10.3		ppb v/v		103	69 - 131
1,4-Dichlorobenzene	10	10.3		ppb v/v		103	67 - 132
1,4-Dioxane	10	9.86		ppb v/v		99	66 - 129
2,2,4-Trimethylpentane	10	8.69		ppb v/v		87	68 - 131
2-Chlorotoluene	10	9.80		ppb v/v		98	74 - 126
3-Chloropropene	10	9.41		ppb v/v		94	50 - 150
4-Ethyltoluene	10	10.2		ppb v/v		102	75 - 129
4-Isopropyltoluene	10	10.4		ppb v/v		104	68 - 130
4-Methyl-2-pentanone (Methyl isobutyl ketone)	10	9.07		ppb v/v		91	58 - 144
Acetone	10	9.84		ppb v/v		98	54 - 154

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: LCS 200-190057/3
Matrix: Air
Analysis Batch: 190057

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	10	8.85		ppb v/v		89	73 - 119
Benzyl chloride	10	10.5		ppb v/v		105	60 - 136
Bromodichloromethane	10	9.21		ppb v/v		92	75 - 127
Bromoethene(Vinyl Bromide)	10	10.6		ppb v/v		106	75 - 125
Bromoform	10	10.3		ppb v/v		103	53 - 149
Bromomethane	10	10.5		ppb v/v		105	72 - 124
Carbon disulfide	10	9.79		ppb v/v		98	71 - 138
Carbon tetrachloride	10	9.18		ppb v/v		92	71 - 133
Chlorobenzene	10	9.51		ppb v/v		95	76 - 119
Chlorodifluoromethane	10	10.9		ppb v/v		109	60 - 147
Chloroethane	10	10.6		ppb v/v		106	68 - 130
Chloroform	10	8.84		ppb v/v		88	73 - 124
Chloromethane	10	10.7		ppb v/v		107	56 - 141
cis-1,2-Dichloroethene	10	8.97		ppb v/v		90	72 - 121
cis-1,3-Dichloropropene	10	9.56		ppb v/v		96	74 - 125
Cumene	10	10.0		ppb v/v		100	73 - 123
Cyclohexane	10	8.98		ppb v/v		90	76 - 124
Dibromochloromethane	10	9.70		ppb v/v		97	73 - 125
Dichlorodifluoromethane	10	11.2		ppb v/v		112	61 - 142
Ethylbenzene	10	9.63		ppb v/v		96	74 - 122
Hexachlorobutadiene	10	10.2		ppb v/v		102	58 - 130
Isopropyl alcohol	10	10.4		ppb v/v		104	53 - 142
m,p-Xylene	20	19.7		ppb v/v		98	76 - 121
Methyl Butyl Ketone (2-Hexanone)	10	9.34		ppb v/v		93	57 - 143
Methyl Ethyl Ketone (2-Butanone)	10	9.09		ppb v/v		91	72 - 124
Methyl methacrylate	10	9.49		ppb v/v		95	73 - 129
Methyl tert-butyl ether	10	8.97		ppb v/v		90	70 - 127
Methylene Chloride	10	7.68		ppb v/v		77	59 - 137
Naphthalene	10	10.2		ppb v/v		102	50 - 150
n-Butane	10	10.1		ppb v/v		101	53 - 151
n-Butylbenzene	10	10.6		ppb v/v		106	65 - 137
n-Heptane	10	8.48		ppb v/v		85	60 - 142
n-Hexane	10	8.32		ppb v/v		83	63 - 138
n-Propylbenzene	10	10.1		ppb v/v		101	73 - 127
o-Xylene	10	9.81		ppb v/v		98	73 - 123
sec-Butylbenzene	10	10.3		ppb v/v		103	70 - 128
Styrene	10	10.4		ppb v/v		104	74 - 125
tert-Butyl alcohol	10	8.54		ppb v/v		85	66 - 132
tert-Butylbenzene	10	10.1		ppb v/v		101	71 - 125
Tetrachloroethene	10	9.40		ppb v/v		94	70 - 125
Tetrahydrofuran	10	8.40		ppb v/v		84	60 - 149
Toluene	10	8.91		ppb v/v		89	75 - 122
trans-1,2-Dichloroethene	10	8.51		ppb v/v		85	69 - 137
trans-1,3-Dichloropropene	10	10.1		ppb v/v		101	74 - 128
Trichloroethene	10	9.30		ppb v/v		93	73 - 122
Trichlorofluoromethane	10	10.6		ppb v/v		106	70 - 129
Vinyl chloride	10	9.55		ppb v/v		96	61 - 135

QC Association Summary

Client: Pinnacle Engineering, Inc
Project/Site: Monarch Chemical

Job ID: 200-67423-1
SDG: 200-67423

Air - GC/MS VOA

Analysis Batch: 190008

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
200-67423-4	IA-4	Total/NA	Air	TO-15	
200-67423-5	OUTDOOR	Total/NA	Air	TO-15	
MB 200-190008/4	Method Blank	Total/NA	Air	TO-15	
LCS 200-190008/3	Lab Control Sample	Total/NA	Air	TO-15	

Analysis Batch: 190011

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
200-67423-1	SS-2	Total/NA	Air	TO-15	
MB 200-190011/4	Method Blank	Total/NA	Air	TO-15	
LCS 200-190011/3	Lab Control Sample	Total/NA	Air	TO-15	

Analysis Batch: 190057

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
200-67423-1 - DL	SS-2	Total/NA	Air	TO-15	
200-67423-2	IA-2	Total/NA	Air	TO-15	
200-67423-3	SS-4	Total/NA	Air	TO-15	
200-67423-3 - DL	SS-4	Total/NA	Air	TO-15	
MB 200-190057/4	Method Blank	Total/NA	Air	TO-15	
LCS 200-190057/3	Lab Control Sample	Total/NA	Air	TO-15	

Lab Chronicle

Client: Pinnacle Engineering, Inc
Project/Site: Monarch Chemical

Job ID: 200-67423-1
SDG: 200-67423

Client Sample ID: SS-2
Lab Sample ID: 200-67423-1

Date Collected: 03/21/23 16:12
Date Received: 03/24/23 10:40
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	TO-15		3	190011	A1B	EET BUR	04/06/23 02:10
Total/NA	Analysis	TO-15	DL	15.5	190057	K1P	EET BUR	04/06/23 16:05

Client Sample ID: IA-2
Lab Sample ID: 200-67423-2

Date Collected: 03/21/23 16:13
Date Received: 03/24/23 10:40
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	TO-15		1.14	190057	K1P	EET BUR	04/06/23 17:02

Client Sample ID: SS-4
Lab Sample ID: 200-67423-3

Date Collected: 03/21/23 16:17
Date Received: 03/24/23 10:40
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	TO-15		3	190057	K1P	EET BUR	04/06/23 17:54
Total/NA	Analysis	TO-15	DL	15.5	190057	K1P	EET BUR	04/06/23 18:46

Client Sample ID: IA-4
Lab Sample ID: 200-67423-4

Date Collected: 03/21/23 16:18
Date Received: 03/24/23 10:40
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	TO-15		1	190008	K1P	EET BUR	04/05/23 22:07

Client Sample ID: OUTDOOR
Lab Sample ID: 200-67423-5

Date Collected: 03/21/23 16:24
Date Received: 03/24/23 10:40
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	TO-15		1	190008	K1P	EET BUR	04/05/23 22:59

Laboratory References:

EET BUR = Eurofins Burlington, 530 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

Accreditation/Certification Summary

Client: Pinnacle Engineering, Inc
Project/Site: Monarch Chemical

Job ID: 200-67423-1
SDG: 200-67423

Laboratory: Eurofins Burlington

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10391	04-01-24

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
TO-15		Air	4-Ethyltoluene
TO-15		Air	4-Isopropyltoluene
TO-15		Air	Chlorodifluoromethane
TO-15		Air	Methyl Butyl Ketone (2-Hexanone)
TO-15		Air	n-Butane
TO-15		Air	n-Butylbenzene
TO-15		Air	n-Propylbenzene
TO-15		Air	sec-Butylbenzene
TO-15		Air	tert-Butylbenzene
TO-15		Air	Tetrahydrofuran

Method Summary

Client: Pinnacle Engineering, Inc
Project/Site: Monarch Chemical

Job ID: 200-67423-1
SDG: 200-67423

Method	Method Description	Protocol	Laboratory
TO-15	Volatile Organic Compounds in Ambient Air	EPA	EET BUR

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

EET BUR = Eurofins Burlington, 530 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

Sample Summary

Client: Pinnacle Engineering, Inc
Project/Site: Monarch Chemical

Job ID: 200-67423-1
SDG: 200-67423

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
200-67423-1	SS-2	Air	03/21/23 16:12	03/24/23 10:40	Air Canister (6-Liter) #34001125
200-67423-2	IA-2	Air	03/21/23 16:13	03/24/23 10:40	Air Canister (6-Liter) #34000177
200-67423-3	SS-4	Air	03/21/23 16:17	03/24/23 10:40	Air Canister (6-Liter) #11058
200-67423-4	IA-4	Air	03/21/23 16:18	03/24/23 10:40	Air Canister (6-Liter) #12173
200-67423-5	OUTDOOR	Air	03/21/23 16:24	03/24/23 10:40	Air Canister (6-Liter) #10553

Post-Sampling Air Canister Pressure Check Record

Login # (w/ Location Code)	Date	Time (Military)	Lab BP ("Hg)	Lab Temp (°C)	Pressure Gauge ID	Analyst
200-67423	03/24/23	11:27	23	29.5	G20	ZK

Sampling Information and Return Equipment Check	Yes	N o	Comments
(1) Is a Field Test Data Sheet (FTDS) or similar sampling documentation present?	Yes		
(2) Is the flow controller ID used for each canister recorded?	Yes		
(3) MA MCP & NJ DKQP: Check return flow rate for flow controllers		N o	
(4) Is visible sign of damage to canister and/or flow controller (FC) present?		N o	
If damage observed, list equipment IDs and describe condition:			

Post-Sampling Return Pressure Check

Lab ID	Canister ID	Pressure[1] ("Hg)	Anomaly[2] (Y/N)	FC ID[3]	FC Check[4] Reference	FC Return (Y/N)	Can Cert Batch ID	Comments
200-67423-A-1	34001125	-11.0	Y	7596	NA	N	NA	
200-67423-A-2	34000177	-21.2	Y	11292	NA	N	NA	
200-67423-A-3	11058	-11.2	Y	11931	NA	N	NA	
200-67423-A-4	12173	-11.7	Y	11513	NA	N	NA	
200-67423-A-5	10553	-11.7	Y	09952	NA	N	NA	

[1] Criteria: Return Pressure should be between -1 and -10 ("Hg) with the exception of grab samples or those using 100 or 200mL/minute flow controllers. These samples must be returned at no lower than -10"Hg, but have no specific criteria otherwise.

[2] If return pressure is not within criteria, initiate Non-Conformance Memo.

[3] Record the ID of the FC used for sampling if information is provided, otherwise leave blank.

[4] Record the Flow Controller Set Flow Rate Logbook ID and Page number in which the original FC Check was recorded

Eurofins Burlington
530 Community Drive Suite 11
South Burlington, VT 05403
Phone (802) 660-1990 Phone (802) 660-1919

Chain of Custody Record

Syracuse eurofins Environment Testing

Client Information	Sampler: BOB WOJCIAK	Lab PM: Gray-Erdmann, Peggy J	Carrier Tracking No(s): #225	COC No: 200-31970-13657 1
Client Contact: ~~Bob Wojciak~~ KEITH RAPP	Phone: 423 · 943 · 8968	E-Mail: Peggy Gray-Erdmann@et.eurofinsus.com	State of Origin: NY	Page: Page 1 of 1
Company: ~~APECS Environmental Consultants~~ PINNACLE ENGR	PWSID:			Job #:
Address: ~~427 New Bethel Rd.~~	Due Date Requested:			
City: ~~Piney Flats~~	TAT Requested (days):			
State, Zip: ~~TN, 37686~~	Compliance Project: Δ Yes Δ No			
Phone: 763 · 277 · 8422	PO #: Purchase Order not required			
Email: ~~apecs@chartertn.net~~	WO #:			
Project Name: Monarch Chemical	Project #: 20011215			
Site:	SSOW#:			

Analysis Requested

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

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	TO15 - (MOD) Routine TO15 (all74)	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N		
SS-2	3/21/23	8:12 / 16:12	G	Air	N	N	X		STATE REQUIRED LOWEST PRACTICABLE DETECTION LIMIT
IA-SS 2	3/21/23	8:13 / 16:13	G	Air	N	N	X		
SS-4	3/21/23	8:17 / 16:17	G	Air	N	N	X		
IA-SS-4	3/21/23	8:18 / 16:18	G	Air	N	N	X		
OUTDOOR	3/21/23	8:24 / 16:24	G	Air	N	N	X		

Rev 3-22-23

200-67423 Chain of Custody

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

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

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

Special Instructions/QC Requirements: MUST BE LOW DETECTION LIMIT

Empty Kit Relinquished by	Date	Time	Method of Shipment: BY SAMPLER

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
R.C Wojciak	3/22/23 16:00	APECS	R English	3-22-23 1600	Syr
R English	3-22-23, 1800	Syr	[illegible]	3/23/23 10:40	[illegible]

Custody Seals Intact: Δ Yes Δ No	Custody Seal No: 1914799	Cooler Temperature(s) °C and Other Remarks

Ver: 01/16/2019

ORIGIN ID:SYRA (315) 431-0171
SYR SERVICE CENTER
EUROFINS TESTAMERICA
118 BOSS RD

SYRACUSE, NY 13211
UNITED STATES US

SHIP DATE: 22MAR23
ACTWGT: 45.00 LB MAN
CAD: 0883373/CAFE3621

BILL RECIPIENT

TO SAMPLE RECEIVING
TESTAMERICA BURLINGTON
530 COMMUNITY DRIVE SUITE 11

SOUTH BURLINGTON VT 05403
(802) 660-1990
REF: PINNACLE MONARCH 1BOX

FedEx Express

TRK# 0201 6300 4270 2019

THU - 23 MAR 10:30A
PRIORITY OVERNIGHT

NX BTVA

05403
VT-US BTV

Login Sample Receipt Checklist

Client: Pinnacle Engineering, Inc

Job Number: 200-67423-1
SDG Number: 200-67423

Login Number: 67423
List Number: 1
Creator: Khudaier, Zahraa

List Source: Eurofins Burlington

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	1914799
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	Thermal preservation not required.
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	Thermal preservation not required.
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	N/A	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Knoxville
Job No.: 140-30807-1
SDG No.:
Client Sample ID: 8195
Lab Sample ID: 140-30807-1
Matrix: Air
Lab File ID: C07L30807.D
Analysis Method: TO 15 LL
Date Collected: 03/06/2023 10:50
Sample wt/vol: 500(mL)
Date Analyzed: 03/07/2023 16:31
Soil Aliquot Vol:
Dilution Factor: 1
Soil Extract Vol.:
GC Column: RTX-5 ID: 0.32(mm)
Purge Volume:
Heated Purge: (Y/N) pH:
% Moisture: % Solids:
Level: (low/med) Low
Analysis Batch No.: 70899
Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	ND		0.080	
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.080	
79-00-5	1,1,2-Trichloroethane	ND		0.080	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND		0.080	
75-34-3	1,1-Dichloroethane	ND		0.080	
75-35-4	1,1-Dichloroethene	ND		0.040	
87-61-6	1,2,3-Trichlorobenzene	ND		0.40	
96-18-4	1,2,3-Trichloropropane	ND		0.20	
526-73-8	1,2,3-Trimethylbenzene	ND		0.080	
95-93-2	1,2,4,5-Tetramethylbenzene	ND		0.080	
120-82-1	1,2,4-Trichlorobenzene	ND		0.080	
95-63-6	1,2,4-Trimethylbenzene	ND		0.080	
96-12-8	1,2-Dibromo-3-Chloropropane	ND		0.16	
106-93-4	1,2-Dibromoethane	ND		0.080	
95-50-1	1,2-Dichlorobenzene	ND		0.080	
107-06-2	1,2-Dichloroethane	ND		0.080	
78-87-5	1,2-Dichloropropane	ND		0.080	
76-14-2	1,2-Dichlorotetrafluoroethane	ND		0.080	
108-67-8	1,3,5-Trimethylbenzene	ND		0.16	
106-99-0	1,3-Butadine	ND		0.16	
541-73-1	1,3-Dichlorobenzene	ND		0.080	
106-46-7	1,4-Dichlorobenzene	ND		0.080	
123-91-1	1,4-Dioxane	ND		0.20	
71-36-3	1-Butanol	ND		0.80	
90-12-0	1-Methylnaphthalene	ND		1.0	
540-84-1	2,2,4-Trimethylpentane	ND		0.20	
565-59-3	2,3-Dimethylpentane	ND		0.080	
78-93-3	2-Butanone	ND		0.32	
95-49-8	2-Chlorotoluene	ND		0.16	
591-78-6	2-Hexanone	ND		0.20	
78-78-4	2-Methylbutane	ND		0.20	
91-57-6	2-Methylnaphthalene	ND		1.0	
107-83-5	2-Methylpentane	ND		0.080	
107-05-1	3-Chloroprene	ND		0.080	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Knoxville
Job No.: 140-30807-1
SDG No.:
Client Sample ID: 8195
Lab Sample ID: 140-30807-1
Matrix: Air
Lab File ID: C07L30807.D
Analysis Method: TO 15 LL
Date Collected: 03/06/2023 10:50
Sample wt/vol: 500(mL)
Date Analyzed: 03/07/2023 16:31
Soil Aliquot Vol:
Dilution Factor: 1
Soil Extract Vol.:
GC Column: RTX-5 ID: 0.32(mm)
Purge Volume:
Heated Purge: (Y/N) pH:
% Moisture: % Solids:
Level: (low/med) Low
Analysis Batch No.: 70899
Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
622-96-8	4-Ethyltoluene	ND		0.16	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		0.20	
67-64-1	Acetone	ND		2.0	
75-05-8	Acetonitrile	ND		0.40	
107-02-8	Acrolein	ND		0.40	
107-13-1	Acrylonitrile	ND		0.80	
98-83-9	Alpha Methyl Styrene	ND		0.16	
71-43-2	Benzene	ND		0.080	
100-44-7	Benzyl chloride	ND		0.16	
75-27-4	Bromodichloromethane	ND		0.080	
75-25-2	Bromoform	ND		0.080	
74-83-9	Bromomethane	ND		0.080	
106-97-8	Butane	ND		0.16	
75-15-0	Carbon disulfide	ND		0.20	
56-23-5	Carbon tetrachloride	ND		0.032	
108-90-7	Chlorobenzene	ND		0.080	
75-45-6	Chlorodifluoromethane	ND		0.080	
75-00-3	Chloroethane	ND		0.080	
67-66-3	Chloroform	ND		0.080	
74-87-3	Chloromethane	ND		0.20	
156-59-2	cis-1,2-Dichloroethene	ND		0.040	
10061-01-5	cis-1,3-Dichloropropene	ND		0.080	
98-82-8	Cumene	ND		0.16	
110-82-7	Cyclohexane	ND		0.20	
124-48-1	Dibromochloromethane	ND		0.080	
74-95-3	Dibromomethane	ND		0.16	
75-71-8	Dichlorodifluoromethane	ND		0.080	
64-17-5	Ethanol	ND		2.0	
141-78-6	Ethyl acetate	ND		0.80	
60-29-7	Ethyl ether	ND		0.80	
100-41-4	Ethylbenzene	ND		0.080	
87-68-3	Hexachlorobutadiene	ND		0.080	
110-54-3	Hexane	ND		0.20	
496-11-7	Indane	ND		0.080	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Knoxville
Job No.: 140-30807-1
SDG No.:
Client Sample ID: 8195
Lab Sample ID: 140-30807-1
Matrix: Air
Lab File ID: C07L30807.D
Analysis Method: TO 15 LL
Date Collected: 03/06/2023 10:50
Sample wt/vol: 500(mL)
Date Analyzed: 03/07/2023 16:31
Soil Aliquot Vol:
Dilution Factor: 1
Soil Extract Vol.:
GC Column: RTX-5 ID: 0.32(mm)
Purge Volume:
Heated Purge: (Y/N) pH:
% Moisture: % Solids:
Level: (low/med) Low
Analysis Batch No.: 70899
Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
95-13-6	Indene	ND		0.16	
67-63-0	Isopropyl alcohol	ND		0.80	
80-62-6	Methyl methacrylate	ND		0.20	
1634-04-4	Methyl tert-butyl ether	ND		0.16	
108-87-2	Methylcyclohexane	ND		0.080	
75-09-2	Methylene Chloride	ND		0.40	
179601-23-1	m-Xylene & p-Xylene	ND		0.080	
91-20-3	Naphthalene	ND		0.20	
104-51-8	n-Butylbenzene	ND		0.16	
124-18-5	n-Decane	ND		0.40	
112-40-3	n-Dodecane	ND		0.40	
142-82-5	n-Heptane	ND		0.20	
111-84-2	n-Nonane	ND		0.20	
111-65-9	n-Octane	ND		0.16	
103-65-1	N-Propylbenzene	ND		0.16	
95-47-6	o-Xylene	ND		0.080	
99-87-6	p-Cymene	ND		0.080	
109-66-0	Pentane	ND		0.40	
115-07-1	Propene	ND		1.0	
135-98-8	sec-Butylbenzene	ND		0.16	
100-42-5	Styrene	ND		0.080	
75-65-0	tert-Butanol	ND		0.32	
98-06-6	tert-Butylbenzene	ND		0.20	
127-18-4	Tetrachloroethene	ND		0.040	
109-99-9	Tetrahydrofuran	ND		0.40	
110-02-1	Thiophene	ND		0.080	
108-88-3	Toluene	ND		0.12	
156-60-5	trans-1,2-Dichloroethene	ND		0.080	
10061-02-6	trans-1,3-Dichloropropene	ND		0.080	
79-01-6	Trichloroethene	ND		0.036	
75-69-4	Trichlorofluoromethane	ND		0.080	
1120-21-4	Undecane	ND		0.40	
108-05-4	Vinyl acetate	ND		0.40	
593-60-2	Vinyl bromide	ND		0.080	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Knoxville
Job No.: 140-30807-1
SDG No.:
Client Sample ID: 8195
Lab Sample ID: 140-30807-1
Matrix: Air
Lab File ID: C07L30807.D
Analysis Method: TO 15 LL
Date Collected: 03/06/2023 10:50
Sample wt/vol: 500(mL)
Date Analyzed: 03/07/2023 16:31
Soil Aliquot Vol:
Dilution Factor: 1
Soil Extract Vol.:
GC Column: RTX-5 ID: 0.32(mm)
Purge Volume:
Heated Purge: (Y/N) pH:
% Moisture: % Solids:
Level: (low/med) Low
Analysis Batch No.: 70899
Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
75-01-4	Vinyl chloride	ND		0.040	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: Eurofins Knoxville Job No.: 140-30807-1

SDG No.:

Client Sample ID: 8195 Lab Sample ID: 140-30807-1

Matrix: Air Lab File ID: C07L30807.D

Analysis Method: TO 15 LL Date Collected: 03/06/2023 10:50

Sample wt/vol: 500(mL) Date Analyzed: 03/07/2023 16:31

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

Purge Volume: Heated Purge: (Y/N) ___ pH:

% Moisture: ___ % Solids: ___ Level: (low/med) Low

Analysis Batch No.: 70899 Units: ppb v/v

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
488-23-3	1,2,3,4-Tetramethylbenzene TIC		ND		
527-53-7	1,2,3,5-Tetramethylbenzene TIC		ND		
934-80-5	1,2-Dimethyl-4-Ethylbenzene TIC		ND		
872-55-9	2-Ethylthiophene TIC		ND		
554-14-3	2-Methylthiophene TIC		ND		
616-44-4	3-Methylthiophene TIC		ND		
95-15-8	Benzo(b)thiophene TIC		ND		

Eurofins Knoxville
Target Compound Quantitation Report

Data File: \\chromfs\Knoxville\ChromData\MR\20230306-27233.b\C07L30807.D
Lims ID: 140-30807-A-1
Client ID: 8195
Sample Type: Client
Inject. Date: 07-Mar-2023 16:31:30 ALS Bottle#: 3 Worklist Smp#: 5
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0027233-005
Misc. Info.: 8195
Operator ID: Instrument ID: MR

Method: \\chromfs\Knoxville\ChromData\MR\20230306-27233.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 08-Mar-2023 11:30:26 Calib Date: 09-Jan-2023 23:18:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Knoxville\ChromData\MR\20230109-26581.b\ICRA09LVL7.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: CTX1607

First Level Reviewer: khachitpongpanits Date: 08-Mar-2023 11:31:23

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.732	8.727	0.005	92	75126	3.76	
* 2 1,4-Difluorobenzene	114	10.965	10.965	0.000	97	410552	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.904	15.921	-0.017	92	319730	3.92	
$ 4 4-Bromofluorobenzene (Surr)	95	17.592	17.598	-0.006	82	179543	2.62	
31 Methylene Chloride	84	6.117	6.117	0.000	94	4364	0.1799	

QC Flag Legend
Processing Flags

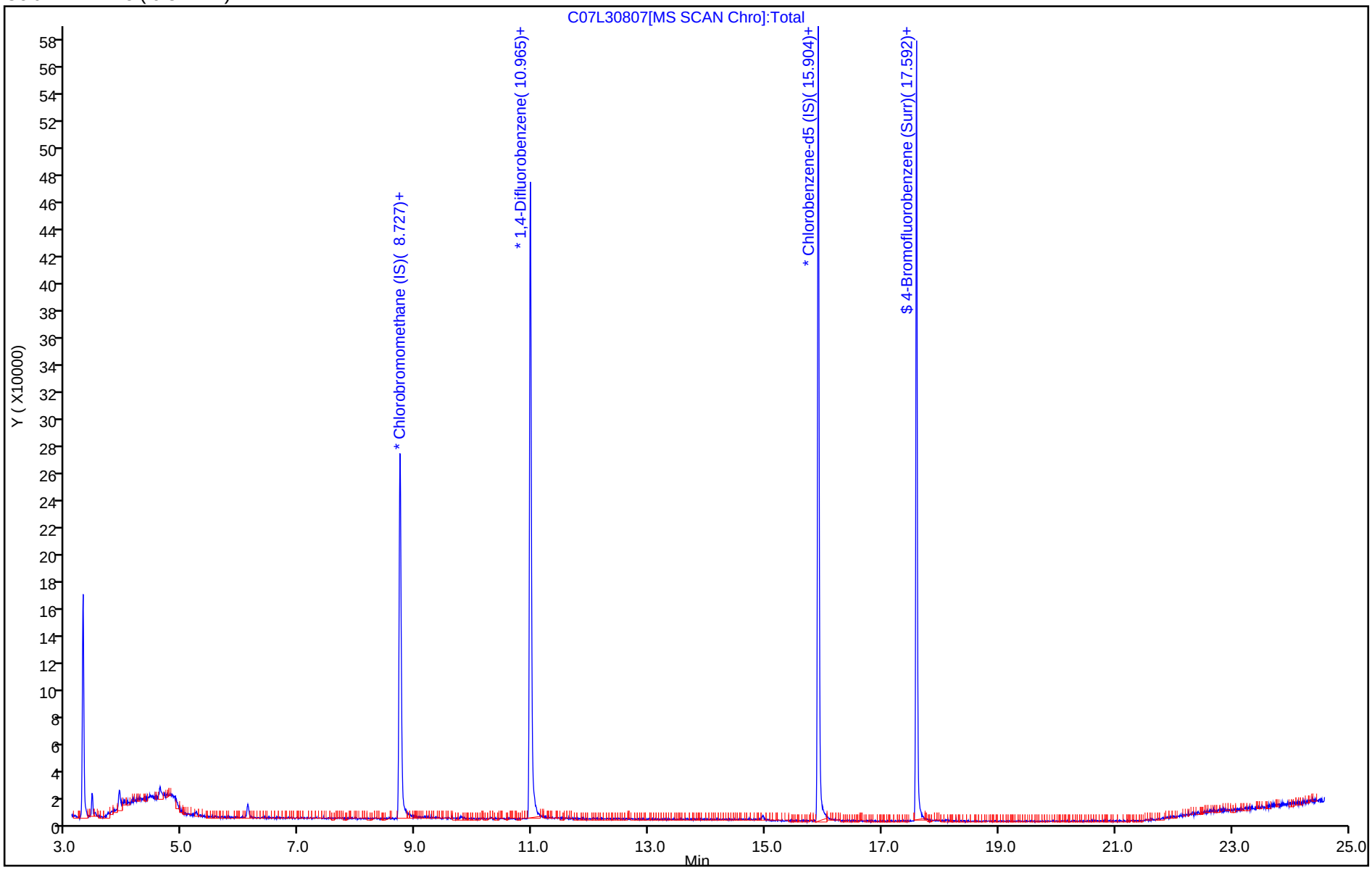
Reagents:
40MXISSUR_00003 Amount Added: 40.00 Units: mL Run Reagent

Report Date: 08-Mar-2023 11:31:23 Chrom Revision: 2.3 15-Feb-2023 20:44:50

Eurofins Knoxville

Data File:	\\chromfs\Knoxville\ChromData\MR\20230306-27233.b\C07L30807.D				
Injection Date:	07-Mar-2023 16:31:30	Instrument ID:	MR	Operator ID:	
Lims ID:	140-30807-A-1	Lab Sample ID:	140-30807-1	Worklist Smp#:	5
Client ID:	8195				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



Summa Canister Dilution Worksheet

Client: Pinnacle Engineering, Inc
Project/Site: Monarch Chemical

Job No.: 200-67423-1
SDG No.: 200-67423

Lab Sample ID	Canister Volume (L)	Preadjusted Pressure ("Hg)	Preadjusted Pressure (atm)	Preadjusted Volume (L)	Adjusted Pressure (psig)	Adjusted Pressure (atm)	Adjusted Volume (L)	Initial Volume (mL)	Dilution Factor	Final Dilution Factor	Pressure Gauge ID	Date	Analyst Initals
200-67423-1	6	-11.0	0.63	3.79	-2.45577	0.83	5.00		1.32	1.32	G31	03/25/23 8:45	CRC
200-67423-2	6	-21.2	0.29	1.75	-2.45577	0.83	5.00		2.86	2.86	G31	04/05/23 12:59	TPB
200-67423-3	6	-11.2	0.63	3.75	-2.554	0.83	4.96		1.32	1.32	G31	03/25/23 8:50	CRC
200-67423-4	6	-11.6	0.61	3.67	-2.35754	0.84	5.04		1.37	1.37	G31	04/05/23 13:16	TPB
200-67423-5	6	-11.6	0.61	3.67	-2.35754	0.84	5.04		1.37	1.37	G31	04/05/23 13:16	TPB

Formulae:

Preadjusted Volume (L) = ((Preadjusted Pressure ("Hg) + 29.92 "Hg) * Vol L) / 29.92 "Hg
Adjusted Volume (L) = ((Adjusted Pressure (psig) + 14.7 psig)* Vol L) / 14.7 psig
Dilution Factor = Adjusted Volume (L) / Preadjusted Volume (L)

Where:

29.92 "Hg = Standard atmospheric pressure in inches of Mercury (“Hg)
14.7 psig = Standard atmospheric pressure in pounds per square inch gauge (psig)