

EARTH ENVIRONMENT

Engineering and Geology P.C.



July 31, 2025

New York State Department of Environmental Conservation
Division of Environmental Remediation
Bureau of Program Management, 12th Floor
625 Broadway
Albany, New York 12233-7012

Attention: Nakya Stewart, Project Manager

Subject: **Response to Comments – 2024 Periodic Review Report**
Mohonk Road Industrial Plant (MRIP) Site; Site Number 356023
Earth, Environment, Engineering, and Geology P.C.
Project # US-EI-7772210116

Dear Ms. Stewart:

Earth Environment Engineering and Geology, P.C. (EEEG) is submitting this Response to Comments (RTC) for the 2024 Periodic Review Report (PRR) comments received by the NYSDEC on April 14, 2025 and NYSDOH on February 5, 2025. Information discussed with the NYSDEC on May 21, 2025 regarding the PRR content and with the NYSDEC and NYSDOH on June 18, 2025 regarding the SSDS evaluation, has been incorporated into this RTC and PRR as applicable. The revised Final 2024 PRR is attached to this RTC letter.

TABLE OF CONTENTS

1. Figures:
 - a. Add graph showing VOCs removed each year and cost per pound of VOCs removed each year.

EEEG Response: Submittal updated as requested and GWETS Total VOCs in Extracted Groundwater figure added as Figure 2.0 illustrating Total VOCs extracted from groundwater

between June 2022 and May 2024. Per discussions with the NYSDEC on May 21, 2025, costs per pound of VOCs removed each year will not be presented for June 2022 through May 2024 reporting period, as it was not collected per year for this period. However, going forward, PRR costs will be presented by year.

- b. Add trend graphs for COCs in most contaminated wells.

EEEG Response: Submittal updated as requested and VOC concentration trend graphs added as Figures 2.4, 2.5, and 2.6 for ERT-4, MW-4, and MW-5B, respectively, illustrating VOC concentration trend plots for the primary detected VOC parameters (1,1,1-TCA, 1,1-DCA, 1,1-DCE and TCE) between November 2015 and May 2023.

2. Attachments

- a. Attachment A2: Laboratory Groundwater Results – LTM 2023. Remove laboratory data from PRR. Lab data should not be included in any reports submitted to DER. Instead, the lab data should be submitted as an EDD.

EEEG Response: Submittal updated as requested and Attachment A2 removed. The 2023 groundwater sampling laboratory results have been provided to NYSDEC in electronic document delivery format and loaded into EQulS.

3. **Table 2.1 Site Management Requirements:** Please include annual pressure differential testing in this table for future PRR submittals.

EEEG Response: Annual pressure differential testing was not completed during June 2022 through May 2024 reporting period as it was not previously part of the Site Management Requirements. However, going forward, annual pressure differential testing will be included as part of the Site Management Requirements and included within Table 2.1 under SSDS requirements for future PRR submittals.

EXECUTIVE SUMMARY

1. **Paragraph 3:** Please revise to include routine inspection of the Sub-Slab Depressurization System(s) (SSDS) as part of the current Site Management Requirements. I also request that inspection forms be included as an appendix to the PRR.

EEEG Response: Executive Summary paragraph 3 text revised to include SSDS site management information: “Current Site Management (SM) requirements for monitoring the performance and effectiveness of the remedial measures completed at the Site consist of operating the groundwater extraction and treatment system to maintain hydraulic control in the source area, routine inspection, sampling, and reporting, as well as the monthly operational inspection of the SSDS located within the onsite commercial building. The SM requirements are presented in Table 2.1.” Monthly SSDS inspection forms are included within Attachment A2: Field Forms.

SECTION 1.0 INTRODUCTION

1. **Section 1.1: Site History and Description** states that 70 POET systems were installed by NYSDEC between 1994 and 1998, and approximately 5 additional systems were installed by USEPA between 2000 and 2004. Section 1.3.2 Remedial Progress indicates that all POET systems were installed by USEPA. Please revise for accuracy and consistency.

EEEG Response: Section text has been revised as applicable to clarify the number of POET systems installed. Text information regarding POET systems installation in Sections 1.1 and 1.3.2 has been updated as “Approximately 70 POET systems were installed by the NYSDEC between 1994 to 1998 and an additional 5 POET systems were installed by the USEPA between 2000 and 2004 (USEPA, 2019).”

SECTION 2.1 – INSTITUTIONAL CONTROLS/ENGINEERING CONTROLS

2. **Section 2.1: Institutional Controls/Engineering Controls** states “The ongoing SSDS monitoring consists of a visual inspection of the exterior blowers/fans and piping to confirm they are intact and operating. Blowers/fans deemed non-functioning are replaced.” I request that going forward, monitoring of the SSDS include annual pressure differential testing to demonstrate that the system is effective at creating negative pressure across the extent of the building footprint. Please revise the PRR and Site Management Plan (SMP) accordingly.

EEEG Response: As reported in the PRR, routine SSDS inspections were completed in accordance with the Site Management requirements during the PRR reporting period of June 2022 through May 2024 to ensure that the SSDS fans were operational. Section 5 - Recommendations have been updated to recommend that “Future SSDS monitoring will

include annual pressure differential testing to demonstrate that the system is effective at creating a negative pressure across the extent of the building footprint.” Upon the findings of the SSDS annual negative pressure differential testing and evaluation, additional activities, if required, will be implemented and added to the required Site Management Plan (SMP) requirements and reported within the next PRR as appropriate.

3. **Section 2.1.2 GWETS: Paragraph 3:** In regard to the statement “An estimated 10.22 pounds of total VOCs were removed”, add graphs showing VOCs removed each year and cost per pound of VOCs removed each year.

EEEG Response: Refer to EEEG Response for comment #1 above.

SECTION 2.2 – OPERATION AND MAINTENANCE PLAN

1. **Section 2.2.1 GWETS:** Were there any issues with the P&T system? The discussion about exceedances of SPDES equivalent criteria in the conclusions seems more appropriate in this section.

EEEG Response: The GWETS was in operation during the PRR reporting period, with exception of the system downtimes discussed in Section 2.1.2 including the intentional system shutdown between September 2022 and November 2022 for RSO Pilot Test preparations and modifications.

Section text has been revised to include a discussion regarding GWETS operational issues during the PRR reporting period as well as transferring the SPDES exceedance text discussion to Section 2.2.1 from Section 4.2.

2. **Section 2.2.2 SSDS:** Evaluate whether the SSDS is operating effectively.

EEEG Response: As reported in the PRR, routine SSDS inspections were completed in accordance with the Site Management requirements during the PRR reporting period of June 2022 through May 2024 to ensure that the SSDS fans were operational. The ongoing SSDS monitoring consists of a visual inspection of the exterior blowers/fans and piping to

confirm they are intact and operating. Blowers/fans deemed non-functioning are replaced. Monthly inspections of the SSDS confirmed and recorded vacuum pressure.

Section 5 Recommendations have been updated to recommend additional annual pressure differential testing and further evaluation of the SSDS performance and operation to be completed and reported in future PRR reporting periods. Upon the findings of the additional SSDS testing and evaluation, additional activities, if required, will be implemented and added to the required Site Management Plan (SMP) requirements and reported within the next PRR as appropriate.

SECTION 4.0 – CONCLUSIONS AND RECOMMENDATIONS

3. **Section 4.1 Institutional/Engineering Controls:** states that “the current IC/ECs are adequate to achieve the objectives for protection of human health and the environment based on current site use” and describes the effectiveness of the groundwater extraction and treatment system, but a similar statement regarding the effectiveness of the SSDS is not included. It is my understanding that the effectiveness of the SSDS cannot currently be demonstrated using the existing network of vacuum monitoring points, many of which are inaccessible due to current building operations. I request that this information be included in this section.

EEEG Response: The SSDS continues to operate as designed as verified by indoor air sampling results collected in 2009 for the SSDS commissioning which revealed acceptable indoor air concentrations within the commercial building. However, as discussed with NYSDEC and NYSDOH on June 18, 2025, at the request of the Agency, Section 5 Recommendations have been updated to include the recommendation of annual pressure differential testing completion and further evaluation of the SSDS performance and operation. The additional testing and evaluation will be completed as part of the SSDS monitoring. Upon the findings of the additional SSDS testing and evaluation, additional activities, if required, will be implemented and added to the required Site Management Plan (SMP) requirements and reported within the next PRR.,

4. **Section 4.4 SSDS Monitoring** notes that SSDS fans 1 and 7 were inoperable during inspections in January and May 2024. I understand that these fans have since been replaced

following this reporting period, however further SSDS evaluation is needed to demonstrate effectiveness of the system. As requested in my comments provided on the SMP dated April 11, 2024, I request that a Corrective Measures Work Plan (CMWP) be submitted to evaluate and optimize effectiveness of the SSDS at mitigating potential exposures. The CMWP should include evaluation of the existing network of vacuum monitoring points, installation of new monitoring points in areas of the building that will remain accessible while also providing adequate spatial coverage, pressure-differential testing, and potential system upgrades that may be needed.

EEEG Response: As discussed with NYSDEC and NYSDOH on June 18, 2025, additional required activities will be implemented as part of the SSDS monitoring and will include an evaluation of the existing network of vacuum monitoring points, and installation of new monitoring points, as needed, in areas of the building that will remain accessible while also providing adequate spatial coverage, annual pressure-differential testing. These additional activities are included within Section 5 Recommendations. Upon the findings of the additional SSDS testing and evaluation, additional activities, if required, will be implemented and added to the required Site Management Plan (SMP) requirements and reported within the next PRR.

5. **Section 4.6 Recommendations** includes the following bullet: “Continued routine SSDS maintenance.” As noted in my previous comments, non-routine maintenance of the SSDS is needed and I request that submittal of a CMWP be included in this section.

EEEG Response: As discussed with NYSDEC and NYSDOH on June 18, 2025, additional required activities will be implemented as part of the SSDS monitoring and Section 5 Recommendations have been updated to include the recommendation of annual pressure differential testing completion and further evaluation of the SSDS performance and operation. Upon the findings of the additional SSDS testing and evaluation, additional activities, if required, will be implemented and added to the required Site Management Plan (SMP) requirements and reported within the next PRR.

July 2025

Sincerely,

Earth Environment Engineering and Geology, P.C.

A handwritten signature in blue ink, appearing to read "Nicole Bonsteel".

Nicole Bonsteel, P.E.

Project Manager

Enclosures (1)

**2024 PERIODIC REVIEW REPORT
JUNE 2022 – MAY 2024
MOHONK ROAD INDUSTRIAL PLANT SITE
NYSDEC SITE NO. 356023**

WORK ASSIGNMENT NO. D009809-25

Prepared for:

**New York State Department of Environmental Conservation
Albany, New York**

Prepared by:

**Earth and Environment Engineering and Geology, P.C.
Portland, Maine**

EEEG: US-EI-7772210116

JULY 2025

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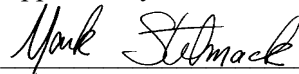
JULY 2025

Submitted by:



Nicole Bonsteel, P.E.
Project Manager

Approved by:



Mark Stelmack, P.E.
Environmental Engineer

TABLE OF CONTENTS

LIST OF FIGURES	II
LIST OF TABLES.....	III
GLOSSARY OF ACRONYMS AND ABBREVIATIONS	IV
EXECUTIVE SUMMARY	
1.0 SITE OVERVIEW.....	1-1
1.1 SITE HISTORY AND DESCRIPTION.....	1-1
1.2 PHYSICAL SETTING	1-5
1.3 CLEANUP GOALS AND REMEDIAL PROGRESS	1-8
1.3.1 Cleanup Goals.....	1-8
1.3.2 Remedial Progress	1-8
2.0 EVALUATION OF REMEDY PERFORMANCE, EFFECTIVENESS, AND PROTECTIVENESS	2-1
2.1 INSTITUTIONAL CONTROLS/ENGINEERING CONTROLS.....	2-1
2.1.1 Site Controls and Evaluation	2-2
2.1.2 Groundwater Extraction and Treatment System.....	2-2
2.1.3 SSDS.....	2-3
2.2 OPERATION AND MAINTENANCE PLAN	2-3
2.2.1 Groundwater Extraction and Treatment System.....	2-3
2.2.2 SSDS.....	2-4
2.3 LONG-TERM MONITORING	2-5
2.4 HYDRAULIC MONITORING	2-8
3.0 COST CONTROL SUMMARY.....	3-1
4.0 CONCLUSIONS	4-1
4.1 INSTITUTIONAL CONTROLS/ENGINEERING CONTROLS.....	4-1
4.2 OPERATION AND MAINTENANCE PLAN	4-1
4.3 LONG-TERM MONITORING	4-2
4.4 SSDS MONITORING	4-3
4.5 RSO PILOT TEST.....	4-4
5.0 RECOMMENDATIONS.....	5-1
6.0 REFERENCES	6-1

FIGURES

TABLES

ATTACHMENTS

Attachment A1: NYSDEC Engineering Controls – Standby Consultant/Contractor Certification Form

Attachment A2: Field Forms

A2-1 OM&M Monthly Field Forms – January – May 2024

A2-2 May 2023 Groundwater Field Sampling Forms

Attachment A3: Category A Review Report- LTM 2023

Attachment A4: SPDES Permit Equivalent – February 9, 2021

LIST OF FIGURES

Figure

- 1.1 Site Location Map
- 1.2 Site Monitoring Well Network
- 1.3 Site Layout
- 2.0 GWETS Total VOCs in Extracted Groundwater
- 2.1 Groundwater Elevation Contours – May 2023
- 2.2 Total VOCs Isoconcentrations in Groundwater - May 2023
- 2.3 1,4-Dioxane Isoconcentrations in Groundwater - May 2023
- 2.4 ERT-4 VOC Concentration Trends
- 2.5 MW-4 VOC Concentration Trends
- 2.6 MW-5B VOC Concentration Trends

LIST OF TABLES

Table

- 2.1 Site Management Requirements
- 2.2 Long-Term Monitoring and System Performance Sampling Matrix
- 2.3 Estimated Groundwater Extraction and Treatment System Downtime
- 2.4 Treatment Plant Monthly Throughput
- 2.5 Total VOCs in Extracted Groundwater (lbs)
- 2.6 System Performance Sampling Results
- 2.7 Long-Term Monitoring Groundwater Elevation Measurements and Field Parameters
- 2.8 Groundwater Monitoring Results Above New York State Standards – May 2023

GLOSSARY OF ACRONYMS AND ABBREVIATIONS

1,1-DCA	1,1-dichloroethane
1,1-DCE	1,1-dichloroethene
1,1,1-TCA	1,1,1-trichloroethane
1,2-DCE	1,1-dichloroethene
bgs	below ground surface
cis-1,2-DCE	cis-1,2-dichloroethene
COC	contaminant of concern
DIR	Daily Investigation Report
EC	engineering control(s)
EEEG	Earth and Environment Engineering and Geology, P.C.
GAC	granular activated carbon
gpm	gallon(s) per minute
GWETS	groundwater extraction and treatment system
HFWD	High Falls Water District
IC	institutional control(s)
lbs	pounds
LTM	long-term monitoring
MCLs	maximum contaminants levels
µg/L	microgram(s) per liter
µg/m ³	microgram(s) per cubic meter
MNA	monitored natural attenuation

GLOSSARY OF ACRONYMS AND ABBREVIATIONS (CONTINUED)

MPR	Monthly Progress Report
MRIP	Mohonk Road Industrial Plant
NPL	National Priorities List
NTCRA	Non-Time-Critical Removal Action
NYS	New York State
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
O&M	operation and maintenance
OM&M	operation, maintenance, and monitoring
PCE	tetrachloroethene
PRR	periodic review report
POET	point-of-entry treatment
PWS	public water supply
RAO	Remedial Action Objective
RI	remedial investigation
ROD	Record of Decision
RSO	remedial systems optimization
Site	Mohonk Road Industrial Plant site
SM	Site Management
SMP	Site Management Plan
SSDS	sub-surface depressurization system(s)
SVE	soil vapor extraction

GLOSSARY OF ACRONYMS AND ABBREVIATIONS (CONTINUED)

TCE	trichloroethene
USEPA	United States Environmental Protection Agency
VOC	volatile organic compound

EXECUTIVE SUMMARY

The Mohonk Road Industrial Plant (MRIP) site (New York State Department of Environmental Conservation [NYSDEC] Site No. 356203, herein referred to as the Site, consists of approximately 14.5 acres and is in the Hamlet of High Falls within the Towns of Marbletown and Rosendale, Ulster County, New York. The Site has been remediated in accordance with the Record of Decision (ROD). The ROD divided the plume into two categories based on volatile organic compound (VOC) concentrations: the “near field” plume and the “far field” plume. The “near field” plume is defined as the area where total groundwater VOC concentrations are greater than 1,000 parts per billion (micrograms per liter [$\mu\text{g/L}$]); the “far field” plume is defined at the area where total groundwater VOC concentrations are between 10 $\mu\text{g/L}$ and 1,000 $\mu\text{g/L}$. Annual monitoring includes sampling of the background, on-site, mid-plume, and perimeter wells in accordance with the 2019 Field Activities Plan (MACTEC, 2019) which is based on the 2013 long-term monitoring (LTM) plan (AECOM, 2013). The Site includes an active groundwater extraction and treatment system (GWETS) and a sub-surface depressurization system (SSDS) within the site building.

Site contaminants of concern are VOCs including tetrachloroethene (PCE), trichloroethene (TCE), 1,1,1-trichloroethane (1,1,1-TCA), 1,2-dichloroethene (1,2-DCE), and vinyl chloride. Remedial goals outlined in the ROD are instituted to eliminate inhalation and ingestion of, and dermal contact with, contaminated groundwater associated with the Site that does not meet federal or state drinking water standards.

Current Site Management (SM) requirements for monitoring the performance and effectiveness of the remedial measures completed at the Site consist of operating the groundwater extraction and treatment system to maintain hydraulic control in the source area, routine inspection, sampling, and reporting, as well as the monthly operational inspection of the SSDS located within the on-site commercial building. The SM requirements are presented in Table 2.1.

The High Falls Water District (HFWD) acquired seven acres of the northern undeveloped portion of the MRIP site property in 2005 for the construction of the HFWD treatment facility. The treatment facility is used as the HFWD’s public water supply (PWS) treatment plant and provides an alternative drinking water source for the properties located within the HFWD.

Three distinct water-bearing zones have been identified at the Site including an overburden (till) flow zone, a bedrock interface flow zone (at the shallow soil/bedrock interface), and a bedrock flow zone (the bedrock aquifer).

By focusing on hydraulic containment of the source area and by eliminating extraction of water from the deeper bedrock extraction well intervals, it is anticipated that the effectiveness of the GWETS will increase, operating costs will decrease, and the quality of groundwater will gradually improve with time through continued treatment; data obtained from ongoing monitoring activities will be used to continually evaluate migration pathways and potential receptors.

This Periodic Review Report (PRR) summarizes SM activities completed at the Site from June 2022 through May 2024. Based on activities completed from 2022 to 2024, the site use and activities are in compliance with the institutional controls/engineering controls (IC/ECs) remaining in-place. The NYSDEC Engineering Controls – Standby Consultant/Contractor Certification Form is included in Attachment A1.

At the request of the NYSDEC, a Remedial System Optimization (RSO) Pilot Test was conducted at the Site during this PRR reporting period from November 2022 through February 2024 to evaluate the potential optimization of the site extraction wells for the continued optimization and monitoring of system efficiency and hydraulic control of the source in the vicinity of the Site. The findings of the RSO Pilot Test have been reported to the NYSDEC under separate cover.

1.0 SITE OVERVIEW

1.1 SITE HISTORY AND DESCRIPTION

The original Mohonk Road Industrial Plant (MRIP) property, consisting of approximately 14.5 acres, had previously been used for industrial and commercial activities since the early 1960s. Hazardous waste disposal practices, especially those involving solvents, from one or more of the previous industrial operators in the MRIP building resulted in the area groundwater being contaminated with various volatile organic compounds (VOCs). Many of these wastes were disposed of in the on-site septic system. The various operators included manufacturers of plastic and metal store display fixtures, metal finishing, wet spray painting, card punch machines, and computer frames operations. Drums, paint sludge, and other wastes were also buried in several locations on the property.

The MRIP property is currently zoned for commercial/light industrial use. The Town of Marbletown has indicated that no zoning changes are planned for the MRIP property. The most reasonably anticipated future use for the MRIP property remains commercial and light industrial. The Site was added to the National Priorities List (NPL) by the United States Environmental Protection Agency (USEPA) on January 19, 1999.

In 1994, the New York State Department of Environmental Conservation (NYSDEC) began investigating the Site. Subsequently, NYSDEC installed point-of-entry treatment (POET) systems using granular activated carbon (GAC) filters at existing residences and businesses whose potable water supply exceeded the New York State (NYS) maximum contaminants levels (MCLs) of 5 micrograms per liter ($\mu\text{g/L}$) for individual VOCs.

In 1996, NYSDEC performed a remedial investigation (RI) at the Site which included collection of soil gas and subsurface soil samples, installation of groundwater monitoring wells, and collection of groundwater samples and water and sludge samples from the on-site septic tank located north of the MRIP building.

Based on the findings of the RI, cis-1,2-dichloroethene (cis-1,2-DCE), 1,1,1-trichloroethane (1,1,1-TCA), 1,1-dichloroethene (1,1-DCE), 1,1-dichloroethane (1,1-DCA), trichloroethene (TCE),

tetrachloroethane (PCE), ethylbenzene, and xylenes were identified as contaminants of concern (COCs) in site soils. The septic tank sludge contained elevated concentrations of 1,1,1-TCA and 1,1-DCE.

Analytical data for groundwater indicated that the dissolved-phase VOC-plume extends approximately one mile north-northeast from the MRIP property. 1,1,1-TCA was reported at a concentration of 82,000 µg/L in one monitoring well, MW-4. Further groundwater sampling in downgradient private wells resulted in reported 1,1,1-TCA concentrations ranging from non-detect to 880 µg/L and total VOC concentrations ranging from 1.6 to 1,077 µg/L. In addition, the groundwater in the bedrock aquifer beneath the MRIP property exhibited VOC concentrations above the USEPA removal action levels, federal and NYS MCLs, and New York State Department of Health (NYSDOH) Class GA Drinking Water Standards.

Results of the baseline risk assessment conducted during the RI indicated that the groundwater at the Site poses an unacceptable risk to human health. This assessment conservatively assumed that the POET systems, which were in operation at the time, would no longer be used. The assessment concluded that actual or threatened releases of hazardous substances from the Site, if not addressed by remedial actions or other active measures, present a current or potential threat to human health and the environment.

In response to a 1998 NYSDEC request, the USEPA conducted a non-time-critical removal action (NTCRA) involving the construction of a GWETS system designed to minimize the further migration of the most highly contaminated portion of the groundwater plume. In May 2000, the NTCRA GWET plant became operational.

In December 1999, as part of the ongoing NTCRA to construct a GWET facility, USEPA excavated and disposed of contaminated soil, paint waste, and debris from an area identified as Paint Waste Pit #1. All visible waste was removed from the pit; the soil on the sidewalls and floor were screened with field instrumentation and sampled for laboratory analysis. Sampling results showed that the USEPA soil action levels for the Site, identified in the 2000 Record of Decision (ROD), were not exceeded in any of the post-excavation samples. A total of 532 tons of soil and debris were excavated and disposed of off-site as nonhazardous waste. During October to December 2000, an additional approximately 2,036 tons of contaminated soil, paint waste and debris were excavated on the MRIP

property. This soil, as well as the previously stockpiled soil on the MRIP property, were disposed of off-site at permitted facilities. All excavated areas were backfilled with clean soil.

The ROD was signed in March 2000 (USEPA, 2000). The description of the selected remedy in the ROD as it pertains to contaminant reduction included:

- Extraction of contaminated groundwater in the near field and far field plume to restore the aquifer to its most beneficial use (as a potable water supply), treatment with an air stripper, and discharge of the treated water to the nearby Rondout Creek and Coxing Kill Creek. The “near field plume” refers to that portion of the groundwater plume with total VOC concentrations greater than 1,000 µg/L; the “far field plume” refers to the component of the groundwater plume with 10 µg/L to 1,000 µg/L total VOCs. The GWETS was designed and installed by the USEPA circa 2011.
- Construction of an alternative public water supply (PWS) to provide potable water to the residences and businesses in the Towns of Marbletown and Rosendale with impacted or threatened private supply wells. The primary water supply for the constructed PWS will be the Catskill Aqueduct, as managed by the New York City Department of Environmental Protection (NYCDEP). The individual POET granular activated carbon filtration systems will be operated until the new PWS is operational.
- Implementation of a groundwater monitoring program to evaluate the effectiveness of the remedy.
- Institutional controls (ICs) may be employed to prevent future use of the bedrock aquifer in the impacted or threatened area.
- Excavation of VOC-contaminated soils with concentrations above the cleanup criteria to prevent or minimize cross-media impacts from COCs in soil to groundwater.
- Off-site disposal of the contaminated soil at appropriately permitted facilities.

Approximately 70 POET systems were installed by the NYSDEC between 1994 to 1998 and an additional 5 POET systems were installed by the USEPA between 2000 and 2004 (USEPA, 2019)

within residential and commercial wells down-gradient of the MRIP property that were determined to have VOC concentrations above NYS MCLs (5 µg/L for individual VOCs).

Between February 2005 and January 2006, the USEPA initiated off-site investigations to determine whether subsurface contamination originating from the MRIP property poses a risk to residents via soil vapor intrusion. Sampling determined that the concentrations of VOCs at off-site sample locations were below the USEPA health-based screening level of less than 5 micrograms per cubic meter (µg /m³) of TCE in sub-slab vapor. Therefore, no further evaluation and/or actions were deemed necessary to evaluate the soil vapor intrusion pathway at off-site residential locations (USEPA, 2008).

However, sub-slab soil vapor samples collected in February 2005 from the on-site MRIP building located at 186 Mohonk Road revealed a TCE concentration of 28 microgram(s) per cubic meter (µg/m³) exceeding the USEPA preset TCE sub-slab soil vapor concentration of 5.0 µg/m³. The result was a determination that further investigation was required. (Lockhead Martin Technological Services, August 2005).

Additional indoor air and sub-slab vapor investigations conducted at the on-site commercial building during 2006 revealed indoor air and sub-slab vapor VOC detections of TCE, 1,1,1-TCA, and other VOCs including PCE, carbon tetrachloride and vinyl chloride.

Between January and February 2007, a Sub-Slab Depressurization System (SSDS) was installed by the USEPA within the MRIP commercial building location at 186 Mohonk Road. The SSDS included six sub-slab locations (SS-1 through SS-6) consisting of a blower vertically mounted to the outside of the building with a sample port located outside the building. The SSDS was expanded in June 2009 to include one additional sub-slab location (SS-7) (blower and sample port).

In September 2008, USEPA issued a ROD Amendment in which the far field treatment system component of the groundwater remedy was replaced by monitored natural attenuation (MNA) (USEPA, 2008). Based on activities completed, the description of the selected remedy in the 2008 ROD was amended to:

- MNA within the far field plume to restore the aquifer to its most beneficial use (as a potable water supply) and continued GWET (air stripper and GAC adsorption) of contaminated groundwater in the near-field plume on the MRIP property. The treated water discharges to the Coxing Kill. As stated above, the near-field plume refers to that portion of the groundwater plume containing total VOC concentrations greater than 1,000 µg/L. The far-field plume was updated to refer to that portion of the groundwater plume containing concentrations of five to 1,000 µg/L total VOCs.
- Implementation of a groundwater monitoring program to evaluate groundwater conditions and the effectiveness of the components of the groundwater remedy.
- Institutional controls in the form of existing governmental controls to prevent future use of the aquifer as a drinking water source in the impacted or threatened area. The institutional controls would no longer be necessary following the restoration of the groundwater to beneficial use.
- Continued operation and maintenance of the Site's soil vapor extraction system would be continued, as required (anticipated to be shut down within three years of the date of ROD).

1.2 PHYSICAL SETTING

The Site, located at 186 Mohonk Road, is in the Hamlet of High Falls within the Town of Marbletown, Ulster County, New York (see Figure 1.1), and is identified as Section 70.3 Block 3, Lots 37.100 and 37.200 on the Ulster County Tax Map. The Site is an approximately 14.5-acre area and is bounded by commercial properties and/or undeveloped land to the north, residential properties and/or undeveloped land to the south and west, and by Mohonk Road and residential properties to the east (see Figures 1.2 and 1.3).

About 7 acres of the northern undeveloped portion of the Site was conveyed by the Kithkin Corporation, on August 15, 2005, to the HFWD. This northern portion of the site property is now the location of the HFWD Treatment Facility. The site monitoring wells locations and boundaries of the HFWD are included on Figure 1.2.

The Site has historically been used for industrial and commercial activities since the early 1960s. These activities included metal finishing, wet spray painting, and the manufacturing of store display fixtures, card punch machines, and computer frames. Wastes from these operations were typically discharged into the on-property septic system. The on-site commercial building is currently occupied by several commercial and light industrial businesses and is also utilized as artisan studios, workshops, and storage areas including woodworking, painters, sculptors, candle makers, and a bread distributor.

The MRIP and surrounding areas are located in the Shawangunk Mountains and are underlain by the Silurian Shawangunk Formation. Previous investigations at the Site have identified several hydrostratigraphic zones. These zones consist of an overburden flow zone, a bedrock interface zone, and a bedrock flow zone, as detailed below.

Overburden Flow Zone

The overburden flow zone is characterized by groundwater flow in thin deposits of unconsolidated glacial lodgment, ablation, and weathered till, sand lenses, and fill. Some thicker (up to 50 feet) deposits of unconsolidated materials exist in an area just north of the Site. The till is approximately 9 to nearly 30 feet thick on the MRIP. The flux of groundwater through this flow zone is dependent upon precipitation events and seasonal fluctuations in groundwater recharge. At certain times of the year, this overburden unit may be seasonally perched or fully saturated. The water table is typically found in this zone and responds quickly to precipitation events. Groundwater levels historically have fluctuated greatly (i.e., approximately 6-foot [ft] variations between sampling events in MW-4).

The principal direction of horizontal overburden groundwater flow is predominantly to the north. Based on visual inspection of soils, estimates of hydraulic conductivity developed during the RI indicated permeability of the overburden flow unit in the range of 1×10^{-6} to 0.1 ft/day. Average linear groundwater velocity was calculated to be approximately 1×10^{-4} ft/day (LMS, 1998a). Groundwater in this overburden flow zone also exhibits a downward component of flow into the bedrock interface and bedrock flow zones. Thus, waste disposed in this zone is anticipated to migrate downward through more conductive sand lenses or fractures within the glacial till unit.

Bedrock Interface Flow Zone

The transition from unconsolidated material to the underlying bedrock includes a bedrock interface zone consisting of sand, gravel, and weathered rock fragments. This zone appears to be in direct hydraulic connection with the underlying bedrock flow zone in certain areas of the Site, and it appears to be confined or partially confined by the overlying glacial till unit. This zone is anticipated to be more conductive than the overlying overburden. The vertical groundwater flow gradients for this zone are strongly downward, ranging from 0.14 to 0.46 ft/day indicating that the Site is located in a recharge zone of the deeper bedrock flow zone. Average linear groundwater velocity within this zone was estimated to be approximately 1.33×10^{-3} ft/day (LMS, 1998a).

Bedrock Flow Zone

The bedrock flow zone represents the principal source of drinking water for the High Falls area. The flow zone is encountered in highly competent orthoquartzites of the Upper Member of the Shawangunk Formation, and also in gray shale deposits (specifically north of the Site in the former septic system area). This unit has little to no remaining primary porosity but is cut by various fractures. Fracture orientation varies from near vertical to near horizontal. These fractures are the primary storage for groundwater and the anticipated pathways for contaminant transport.

The Site is located near a topographic high and serves as a recharge area for the fractured bedrock aquifer. Vertical gradients are primarily downward within the bedrock flow zone, and recharge to the bedrock aquifer predominantly occurs from the bedrock interface flow zone where permeable glacial overburden overlies the fractured bedrock interface zone. Estimates of hydraulic conductivity developed during the RI indicate permeability of the bedrock flow zone in the range of 0.24 to 0.46 ft/day. Based on the regional groundwater gradient and estimated porosity, the average linear groundwater velocity in bedrock was calculated to be approximately 0.26 ft/day (LMS, 1998a). The primary horizontal direction of bedrock groundwater flow emanating from the Site is to the north toward Rondout Creek, with minor components of lateral flow to the northeast and northwest.

1.3 CLEANUP GOALS AND REMEDIAL PROGRESS

1.3.1 Cleanup Goals

The ROD, signed in 2000 (USEPA, 2000) established the site cleanup goals as follows:

- Restoration of the near field and far field aquifer to its most beneficial use (as a potable water supply) through the operation of the selected GWETS remedy.
- The construction of an alternative public water supply system; use of individual granular activated carbon filtration POET systems until the new public water supply system is operational.
- Implementation of a groundwater monitoring program to evaluate the effectiveness of the remedy (see Figure 1.2 for site monitoring wells).
- ICs to prevent future use of the bedrock aquifer in the impacted or threatened area.
- Excavation and off-site disposal of VOC-contaminated soils with concentrations above the cleanup criteria.

In September 2008, the ROD Amendment (USEPA, 2008) established additional cleanup criteria as follows:

- Restoration of the far field aquifer to its most beneficial use (as a potable water supply) through the amended groundwater remedy of monitored natural attenuation.

1.3.2 Remedial Progress

In accordance with the site investigations and ROD(s), the following remedies were implemented to address the contamination originating from the MRIP Site.

- Installation of POET systems on residential wells. Approximately 70 POET systems were installed by the NYSDEC between 1994 to 1998 and an additional 5 POET systems were installed by the USEPA between 2000 and 2004 (USEPA, 2019).

- Installation of a near field GWETS, designed to minimize the further migration of the most highly contaminated portion of the groundwater plume, constructed west of the site building (Figure 1.3) became operational in May 2000 (USEPA, 2011). The GWETS included groundwater extraction from three bedrock wells (MW-5R, MW-7R, and ERT-1), treatment with an air stripper and carbon polishing of the effluent, vapor phase carbon treatment of the air releases, and discharge of the treated effluent to the Coking Kill (USEPA, 2019).
- Excavation and disposal of contaminated soils in 1999 and 2000 as part of a USEPA NTCRA, and from October 2000 to March 2001 as a post ROD remedial action. In total approximately 2,568 tons of contaminated soil, paint waste, and debris were removed from the property and disposed in permitted facilities. Removal areas included the soil below the gravel parking area west of the MRIP building (AOC-A), paint waste debris layer north of the MRIP (AOC-B), paint waste and debris pit #2 (AOC-C), and soil contaminated from the MRIP septic tank area (AOC-D) (USEPA, 2008) referenced on Figure 1.3 - Site Layout.
- Creation of the HFWD as an alternative water source for contaminated private wells within the towns of Marbletown and Rosendale, and construction of the HFWD Treatment Plant from September 2005 to May 2007 (USEPA, 2019).
- Connection of all residents located within the HFWD to the new potable water system and removal of all POET systems was completed by December 2007 (USEPA, 2019).
- Installation of a soil vapor extraction (SVE) system in the vicinity of the former septic tank and leach field (operational from December 2006 until June 2012, with multiple modifications). The system was terminated due to poor recovery during seasonally high water and poor connectivity; the originally installed 18 overburden SVE wells were abandoned, and five SVE wells installed into the bedrock in 2008 were left in place (Figure 1.3) (USEPA, 2019).
- Installation of a vapor intrusion mitigation system consisting of a total of seven individual SSDS installed at the MRIP building in February 2007 (SS-1 through SS-6) and June 2009 (SS-7) (USEPA, 2009).
- Implementation of ICs (Environmental Easement established in 2005 in the HFWD property deed [Ulster County, 2005] and amended in 2011 [Ulster County, 2011]).

- Operation, maintenance, and monitoring of the GWETS and SVE system (USEPA, 2019) (SVE system discontinued in 2012).

Post-ROD(s) investigation activities included a Data Gap Investigation and Pilot Study to further understand the contaminant distribution at the Site and associated conceptual site model, to address identified data gaps, and to provide additional data to evaluate the existing remedial measures. In 2015, a Data Gap Investigation was completed including bedrock borehole geophysics, packer groundwater sampling from extraction wells, direct push Membrane Interface Probe soil sampling, and test pitting, and site survey completion. Data Gap Investigation (MACTEC, 2016) findings include:

- Direct push sampling results indicated contamination remains bound in the soil (1,1,1-TCA and TCE) at concentrations greater than the Protection of Groundwater (PoG) SCO (0.68 and 0.47 mg/kg, respectively) within the former SVE area, primarily in the vicinity of the former septic tank. Detections of 1,1,1-TCA ranged from 0.082-11 mg/kg, above the PoG SCO of 0.68 mg/kg, and detections of TCE ranged from 0.085-1.9 mg/kg, compared to the PoG SCO of 0.47 mg/kg.
- Groundwater sampling of the shallow bedrock SVE wells (installed to approximately 55 ft below ground surface [bgs]) reveal that contaminants also appear to be bound up in the overburden/bedrock interface and shallow bedrock with maximum detected concentrations of 31,000 µg/L for 1,1,1-TCA (SVE-20).
- Bedrock packer testing results in the groundwater extraction wells indicated that contaminant concentrations in bedrock fractures decreased with depth, with the highest concentrations of 1,1,1-TCA (94 to 170 µg/L) detected at depths of 80 to 100 feet bgs.
- Downward vertical hydraulic gradients, coupled with denser-than-water COCs and extended pumping from bedrock extraction wells MW-5R, MW-7R, and ERT-1 appear to have resulted in the vertical migration of COCs through the overburden aquifer into the bedrock aquifer.
- The presence of 1,1,1-TCA in wells upgradient of the former septic system is likely attributed to historical pumping of the MRIP production wells (MRPW-1 and MRPW-2, see

Figure 1.3 – Site Layout), the pumping of residential wells in the area, and the possible existence of fractures that extend from the area of the disposal/septic tank to these wells.

The pilot studies conducted in 2019 and reported in the Pilot Study Report (MACTEC, 2020) concluded:

- Although VOC concentrations in soil vapor in the existing SVE wells are elevated, reinstating the SVE system is not recommended due to poor air flow; however, periodic purging of groundwater that collects in the wells may be beneficial for contaminant mass removal.
- Modifying the extraction wells (e.g., raising pump intake elevation and replacing pumps with variable rate pumps) to pump from higher fractures may improve contaminant mass removal.
- Detection of 1,4-dioxane in groundwater (6.4 µg/L) will continue to be monitored as there is no corresponding limit established within the MRIP SPDES Permit Equivalent.

Between November 2022 and February 2024, an RSO Pilot Test Study was completed to further evaluate the performance of GWETS modifications to extract groundwater from locations coinciding with bedrock fracture zones containing the highest concentrations of 1,1,1-TCA (94 to 170 µg/L) detected at depths of 80 to 100 feet bgs. The findings of the RSO Pilot Test (EEEG, May 2025) were reported to the NYSDEC under separate cover.

Monitoring of the migration, plume stability, and natural attenuation of the plume is accomplished with the LTM program and is further discussed in Section 2.0 of this report. Table 2.2 presents the sampling matrix currently utilized during the LTM and system performance monitoring.

2.0 EVALUATION OF REMEDY PERFORMANCE, EFFECTIVENESS, AND PROTECTIVENESS

The Third Five-Year Review Report (USEPA, 2024) for the Site includes an Institutional Controls/Engineering Controls (ICs/ECs) Plan, Operation and Maintenance (O&M) Plan, LTM Plan, and associated reporting (EEEG, 2023).

2.1 INSTITUTIONAL CONTROLS/ENGINEERING CONTROLS

ICs/ECs provide added protection measures for potentially exposed receptors over and above natural attenuation mechanisms and source area remedial measures. ICs for the Site include restrictions to soil excavation, groundwater use, and well installations, and an operations and monitoring plan. ECs consist of the GWETS, an alternate water supply (MACTEC, 2018a) and surrounding perimeter fence, and SSDS for the on-site commercial building.

Groundwater is captured by the GWETS to confine the plume extent and migration, and to recover contaminant mass. A perimeter fence prohibits unauthorized access to the HFWD's PWS treatment plant, and the plant building access locks restrict unauthorized access to the GWETS building. The perimeter fence and building access locks are inspected monthly to ensure access remains restricted. Monitoring wells (on- and off-site) are used for collecting groundwater samples and elevation measurements as part of the LTM program.

Operation, maintenance, and monitoring (OM&M) of the GWETS plant and the SSDS system are performed by the NYSDEC through their remedial contractor, Aztech (through December 2023) and through their environmental consultant EEeg (between January 2024 and May 2024). The ongoing GWETS operations consist of extraction of the contaminated groundwater, treatment through an air stripper, and discharge of the treated groundwater to the Coxing Kill. As part of monitoring program, the influent and effluent concentrations of the GWETS, as well as extraction wells ERT-1, MW-5R and MW-7R, are routinely sampled. The ongoing SSDS monitoring consists of a visual inspection of the exterior blowers/fans and piping to confirm they are intact and operating. Blowers/fans deemed non-functioning are replaced.

2.1.1 Site Controls and Evaluation

Requirements for site controls are presented in Table 2.1. Effectiveness of the groundwater remedial measures is directly related to maintenance and monitoring of treatment processes related to the GWETS. Progress of groundwater remediation is tracked through the performance of the GWETS, through the LTM program (Table 2.2), through the interpretation of plume extent, and through the evaluation of concentration trends over time (MACTEC, 2019). Effectiveness of the SSDS is related to the maintenance and monitoring of the system operation as designed. Observations regarding each of these components are discussed in the following subsections.

2.1.2 Groundwater Extraction and Treatment System

Operating parameters¹ for the GWETS include monitoring system downtime, flow volume treated in gallons per reporting period (approximately monthly), and total volatile organic compounds (VOCs) extracted from groundwater. These quantities are presented in Tables 2.3, 2.4, and 2.5, respectively.

During the two-year reporting period, approximately 21.2 million gallons of extracted groundwater were processed with an average flow rate of approximately 20.2 gallons per minute (gpm). While in operation, the flow rate through the GWETS system has ranged from 7.8 gpm to 32.4 gpm. Approximate system downtime for the GWETS fluctuated during 2022, 2023 and 2024, at 107 days, 15 days and 4 days, respectively (Table 2.3). During the three-month period from September 2022 through November 2022, the GWETS was shut down and was inoperable due to preparations and modifications required for the RSO Pilot Test; therefore, no analytical data was collected during this system shutdown time.

An estimated 10.22 pounds of total VOCs were extracted in groundwater (Table 2.5). The mass removal estimate is based on the system influent system performance samples collected and analyzed monthly for VOCs (Table 2.6). Refer to Figure 2.0 for yearly pounds of VOCs removed during the reporting period (June 2022 – May 2024).

¹ GWETS quantities over the previous two years were tabulated using information collected by Aztech (June 2022 through December 2023) and by EEGG (January 2024 through May 2024).

2.1.3 SSDS

The Site includes a SSDS within the on-site commercial building that was installed in January and February 2007 and upgraded in June 2009 by the USEPA to depressurize the building's concrete slab and mitigate the potential for contaminated vapors to enter the building. The SSDS is designed to run continuously and consists of seven sub-slab vent points (SS-1 to SS-7) installed beneath the concrete slab with each point connected by 3-inch PVC to RadonAway DynaVac HS Series blowers (identified as Fan #1 through Fan #7) vertically mounted to the outside of the building (USEPA, 2009).

2.2 OPERATION AND MAINTENANCE PLAN

Remedial measures in place require routine inspection, sampling, and maintenance to provide effective remediation and reduction of exposure to site-related contaminants. OM&M Monthly Field Forms (January – May 2024) are included in Attachment A2-1. The following subsections describe requirements and compliance with the O&M Plan with respect to the GWETS.

2.2.1 Groundwater Extraction and Treatment System

The GWETS is a groundwater recovery system with water treatment via air stripping. Groundwater is recovered through three extraction well (EW) pumps, located in wells MW-5R, MW-7R, and ERT-1. GWETS performance monitoring is completed through the monthly collection of influent extraction well samples from MW-5R, MW-7R, and ERT-1, Pre-Air Stripper Combined Influent sampling, and Air Stripper Effluent grab sampling for analytical analysis of VOCs, TDS, TSS, Iron, pH, and 1-4-Dioxane (Table 2.6). Groundwater samples were submitted to ConTest: East Longmeadow, MA Laboratory (through December 2023) and Alpha Analytical: Westborough, MA Laboratory (January 2024 through May 2024) for analysis. Treated remediation wastewater is discharged to the Coxing Kill and Tributaries through the SPDES Permit Equivalent for the MRIP Site.

The GWETS remained in operation during the PRR reporting period, with the exception of the downtime periods discussed in Section 2.1.2. Results of effluent compliance samples collected monthly between June 2022 and May 2024 were within the NYS Class GA standards and/or SPDES

permit equivalent limits, with the exception of monthly effluent sampling collected in May 2023 and January 2024.

The effluent sample collected on May 16, 2023 exceeded the SPDES permit equivalent daily maximum limit for 1,1,1-TCA (10 µg/L) at a concentration of 29 µg/L and NYS Class GA standards for 1,1-DCE (5 µg/L) at and 7.35 µg/L. The laboratory reported near identical results for the May 16, 2023 Pre Air Stripper Combined Influent (28.4 µg/L / 7.24 µg/L) and Air Stripper Effluent (29.0 µg/L / 7.35 µg/L) sample results for 1,1,1-TCA and 1,1-DCE, respectively. The analytical data package and COCs were reviewed to confirm the reported results; the possibility of potential human and/or laboratory error or incorrect sample submittals cannot be verified. The air stripper was functioning normally; therefore, the plausible explanation for the similarity in results is that incorrect samples were submitted for analysis and it is likely that the sample results are not representative of treated groundwater effluent. This explanation is supported by subsequent sample results of the effluent collected after May 2023 that show reduced VOC concentrations well below the SPDES permit equivalent limits.

The effluent sample collected on January 10, 2024 slightly exceeded the NYS Class GA Standard for 1,1,1-TCA (5 µg/L) at a concentration of 5.1 µg/L but was well below the acceptable SPDES permit equivalent daily maximum limit for 1,1,1-TCA (10 µg/L). Results of subsequent monthly effluent samples collected after January 2024 show VOC concentrations below the NYS Class GA Standards.

2.2.2 SSDS

Routine SSDS inspections were completed in accordance with the Site Management requirements during the PRR reporting period of June 2022 through May 2024 to ensure that the SSDS fans were operational. The ongoing SSDS monitoring consists of a visual inspection of the exterior blowers/fans and piping to confirm they are intact and operating. Blowers/fans deemed non-functioning are replaced. Monthly SSDS inspections confirmed and recorded vacuum pressure. Additionally, each fan exhaust was confirmed to extend at least 12 inches above the highest eave, and no new windows or other openings were observed within 10 feet of the exhausts.

2.3 LONG-TERM MONITORING

The LTM program has been designed to monitor the effects of the GWETS on contaminant levels in groundwater in the vicinity of the Site, to monitor long-term trends in concentrations of contaminants in groundwater, and to evaluate the effectiveness of the remedial actions (MACTEC, 2020). This is accomplished through groundwater sampling and analysis and through the collection of water level measurements from select wells to generate bedrock and overburden potentiometric surface maps. Since 2019, groundwater sampling events for the Site have been performed on a 15-month basis.

The ROD divided the plume into two categories based on volatile organic compound (VOC) concentrations: the “near field” plume and the “far field” plume. Annual monitoring includes sampling of the background, on-site, mid-plume, and perimeter wells in accordance with the 2019 Field Activities Plan (MACTEC, 2019) which was based on the 2013 LTM monitoring plan (AECOM, 2013). The following wells were sampled during the May 2023 LTM event:

- Fourteen conventional monitoring wells: ERT-4, MW-1B, MW-4, MW-5B, MW-6B, MW-8B, MW-9B, MW-10B, MW-11B, MW-11C, MW-12B, MW-14B, MW-15B, and MW-16
 - Monitoring well MW-13B was intended to be gauged and sampled; however, the well could not be accessed due to damage.
- Three extraction wells: ERT-1 MW-5R, and MW-7R
- Eight FLUTe™ well intervals: MW-17 (Ports 1-3), MW-21 (Ports 1, 2, 4, 5, and 6)
 - The FLUTe™ wells not sampled included: MW-18 (Ports 1-3) [Damaged], MW-19 (Ports 1-3) [Not Found], MW-20 (Ports 1-3) [Not in MW Network], and MW-21 (Port 3) [Damaged]

On May 15, 2023, water levels were measured in fourteen monitoring wells, two FLUTe™ wells and three extraction wells (Table 2.7). Figure 1.2 depicts the well locations and Figure 2.1 depicts the groundwater contour elevations when the bedrock extraction wells are pumping, demonstrating that groundwater flow is toward the north-northeast.

The May 2023 LTM monitoring wells, sampled and analyzed for VOCs by USEPA Method 8260 and 1,4-dioxane by USEPA Method 8270E-SIM, are summarized on Table 2.2. Groundwater sampling forms are included in Attachment A2-2. Groundwater samples were submitted to ConTest: East Longmeadow, MA Laboratory for analysis. No samples were analyzed for MNA parameters during the May 2023 LTM event. At the request of the USEPA, MNA parameters will be analyzed during the next LTM event scheduled for August 2024. All samples were collected by EEEG personnel between May 16 through May 18, 2023, via either low-flow or grab sampling procedures, and were submitted to Pace Analytical. May 2023 LTM groundwater sample results were used to delineate the VOC and 1,4-Dioxane plumes depicted in Figures 2.2 and 2.3, respectively.

Table 2.8 summarizes May 2023 LTM results reported at concentrations exceeding NYS Class GA water quality standards. The principal compounds detected were TCE, 1,1,1-trichloroethane (TCA), 1,1-dichloroethane (DCA), 1,1-DCE, and cis-1,2-DCE. The highest concentrations of 1,1,1-TCA in groundwater were observed at ERT-4 (1,000 µg/L), MW-5B (490 µg/L) and MW-4 (400 µg/L).

These results have been compared to groundwater sampling results presented in the 2022 Long-Term Monitoring Event Report (MACTEC, 2023). The 2023 groundwater sampling laboratory results were provided to NYSDEC in electronic document delivery format and loaded into EQUIS. The Category A Review Report for the 2023 results is provided in Attachment A3.

VOCs

Consistent with 2022 LTM (MACTEC, 2023), VOC concentrations in wells within the near field plume in 2023 continue to show a decreasing trend. The wells that tend to show the highest total VOC concentrations, MW-4, MW-5B and ERT-4 (refer to Figures 2.4 – 2.6), have decreased from 1089 µg/L to 750 µg/L, 777 µg/L to 593 µg/L and 1882 µg/L to 1290 µg/L, respectively with 1,1,1-TCA comprising of 400 µg/L and 490 µg/L of the exceedances in MW-4 and MW-5B, respectively. ERT-4 was the only well observed in 2023 to have a total VOCs concentration over 1,000 µg/L at 1290 µg/L with 1,1,1-TCA accounting for 1,000 µg/L of that exceedance. Total VOC concentrations in extraction wells ERT-1 and MW-5R also decreased by nearly half, from 93 µg/L to 54 µg/L and from 97 µg/L to 40 µg/L, respectively. Refer to Figures 2.4 through 2.6 which include Site

groundwater quality analytical data for VOCs collected under the Site groundwater monitoring plan² from November 2015 through May 2024 for source area monitoring wells ERT-4, MW-4 and MW-5B, respectively.

In far field wells, concentrations are consistent between the 2022 and 2023 sampling event; however, concentrations for total VOCs in MW-15B were observed to decrease by nearly half, and in MW-16 and MW-12B to decrease by more than half (Table 2.8).

The following is a summary of the results for 1,1,1-TCA, 1,1-DCA, TCE, and 1,1-DCE (target VOCs) for wells sampled in 2023:

- MW-1B, MW-8B, and MW-10B – concentrations have remained non-detect for target VOCs, consistent with previous data results.
- MW-6B and MW-14B – VOC concentrations have remained below NYS GA groundwater standards.
- MW-11B, MW-12B, and MW-16 – VOC concentrations have decreased to below NYS GA groundwater standards.
- MW-7R and MW-9B - concentrations of VOCs appear stable compared to previous results.
- ERT-1, ERT-4, MW-4, MW-5B, and MW-15B – concentrations of VOCs have shown a decline compared to 2022 results.
- MW-5R – concentrations of 1,1,1-TCA, 1,1-DCA, and 1,1-DCE have declined compared to 2022 results.
- FLUTe™ MW-17 (intake ports 1 - 3; 47 ft, 102 ft, and 124 ft bgs, respectively) was unable to be sampled in 2022 due to freezing temperatures and had the following results in 2023:
 - MW-17-1 had concentrations exceeding NYS GA groundwater standards of 1,1,1-TCA, and 1,1-DCE of 6 µg/L and 11 µg/L, respectively in 2023.

² Collected groundwater analytical data related to the RSO Pilot Test during this PRR reporting period is not included within the attached trends plots and is presented under previously submitted site reporting.

- MW-17-2 had concentrations exceeding NYS GA groundwater standards of 1,1,1-TCA, 1,1,1-DCA, and 1,1-DCE of 6 µg/L, 7 µg/L and 12 µg/L, respectively in 2023.
- MW-17-3 had concentrations of 1,1,1-DCA and 1,1-DCE of, 8 µg/L, and 12 µg/L, respectively in 2023.
- FLUTe™ MW-21 (intake ports 1 - 6; 42.75 ft, 67 ft, 75.5 ft, 121.5 ft, 142.5 ft, and 160.5 ft bgs, respectively) was unable to be sampled in 2022 due to freezing temperatures and had the following results in 2023:
 - MW-21-intake ports 1, 2, 4, 5 and 6 results ranged from non-detect to detectable concentrations below the applicable NYS GA groundwater standards.

The following is a summary of the results for 1,4-Dioxane for wells sampled in 2023:

- 1-4 Dioxane was detected in all monitoring wells sampled (with exception of MW-1B and MW-10B which were non-detect), at concentrations ranging from 0.29 µg/L (MW-16) to 10 µg/L (MW-9B).

2.4 HYDRAULIC MONITORING

A round of synoptic water level measurements was conducted on May 15, 2023. All LTM event wells were gauged with the exception of MW-13B which was located but could not be accessed due to the metallic well point being corroded shut.

As demonstrated in the calculated May 2023 water elevation contours (Table 2.7 and Figure 2.1), the GWETS maintained hydraulic control during the reporting period and system downtime (Table 2.3) does not appear to have had an adverse impact on hydraulic control.

While the system was operational during the reporting period, the following extraction well downtime was experienced:

- ERT-1 experienced a significant downtime between February 14, 2023 through March 1, 2023 due to an electrical short, as well as February 19, 2024 through the end of the reporting

period, May 31, 2024 due to a VFD and motor failure caused by an electrical surge and delays associated with getting replacement parts on backorder.

- MW-5R experienced significant downtime between March 13, 2024 and May 29, 2024 due to a VFD and motor failure caused by an electrical surge and delays associated with getting replacement parts on backorder.

The primary objective of the existing GWETS is for hydraulic containment, for which it is effective. However, given the low concentrations in the extracted groundwater, and the poor connectivity between the source area and the extraction wells, this system alone would need to operate indefinitely to achieve clean-up objectives. In an effort to accelerate the rate of remediation, modifications of the GWETS were implemented during the RSO Pilot Test (completed between November 2022 and February 2024) to evaluate the potential to increase VOC mass removal through the optimization of the site extraction wells. The findings of the RSO Pilot Test (EEEG, May 2025) were reported to the NYSDEC under separate cover.

3.0 COST CONTROL SUMMARY

A cost summary for June 2022 through May 2024 is provided below by task. As shown, most of the SM costs were incurred for operation and maintenance of the treatment systems.

Task 1 (Scoping)		
	Labor	\$ 13,953
Task 2 (Monitoring and Reporting)		
	Labor	\$ 166,010
	Lodging, Travel, and MI&E	\$ 2,204
	ODC	\$ 3,703
		\$ 171,918
Task 3 (Remedial System Optimization)		
	Labor	\$ 127,019
	Lodging, Travel, and MI&E	\$ 3,145
	ODC ¹	\$ 21,465
		\$ 151,629
Task 3.01 (GWETS Operations and Maintenance) ²		
	Labor	\$ 233,613
	Lodging, Travel, and MI&E	\$ 5,686
	ODC ³	\$ 108,707
		\$ 348,006
Task4 (Sustainable & Resilient Remediation) ⁴		
	Labor	\$ 21,190
	Lodging, Travel, and MI&E	\$ 872
	ODC	\$ -
		\$ 22,062
Total:		\$ 707,566
Notes: No Laboratory Services are included under Task 03.01 as Laboratory Services June 2023 through December 2023 were NYSDEC Direct Expenses, and no current costs under EEEG Standby Analytical Laboratory January 2024 through May 2024. 1. Task 3 ODC costs include Central Hudson Utility costs (~\$12,000) and costs associated with RSO Pilot Test field sampling events (i.e., rental equipment, consumables, etc.) 2. Presented Costs incurred for GWETS Operations and Maintenance compiled from NYSDEC Remedial Contractor (Aztech) June 2022 through December 2023 and NYSDEC Environmental Consultant (EEEG) January 2024 through May 2024. 3. Aztech Task 03.01 ODC costs include Equipment (~\$37,000), Subcontractors (~\$3,000), and Receipted Costs (~\$66,000), EEEG Task 03.01 ODC costs (~\$6,000) include Receipted Costs. 4. Task is associated with the current Work Assignment No. D009809-25.1.		

Since the NYSDEC assumed responsibility for the Site, optimization measures to reduce the overall operating expenses have been and will continue to be implemented to provide further cost savings at the Site.

4.0 CONCLUSIONS

Based on information gathered during the 2016 RSO investigation, the RSO Pilot Test was designed for optimization of the GWETS to target bedrock fracture zones for recovery and removal of VOCs of concern from groundwater. The RSO Pilot Test (EEEG, May 2025) was conducted at the Site during this PRR reporting period between November 2002 through February 2024 to evaluate the potential optimization of the site extraction wells for the continued optimization and monitoring of system efficiency and hydraulic control of the contaminant source in the vicinity of the Site. The effectiveness of the GWETS optimization measures, with respect to achieving the Remedial Action Objective (RAO), was reported to the NYSDEC under separate cover. The GWETS is continuing to treat groundwater within the Site's source area to reduce contaminant mass.

4.1 INSTITUTIONAL CONTROLS/ENGINEERING CONTROLS

The current ICs/ECs are adequate to achieve the objectives for protection of human health and the environment based on current site use. ICs for the Site, including a restriction on soil excavation, groundwater use and well installations, and a monitoring plan remain in-place and adhered to.

ECs include the GWETS and an alternate water supply with surrounding perimeter fence, and the SSDS within the on-site commercial building. The GWETS remains effective at treating impacted groundwater and at preventing further migration of impacted groundwater as evidenced by the monthly effluent sampling data that shows compliance with surface water discharge criteria, and by LTM data collected from on- and off-site monitoring wells. The SPDES Permit Equivalent, which includes the site surface water discharge criteria, is included in Attachment A4. A perimeter fence prohibits unauthorized access to the HFWD's PWS treatment plant and the plant building access locks restrict unauthorized access to the GWETS building.

4.2 OPERATION AND MAINTENANCE PLAN

The remedial measures in place require routine inspection, sampling, and maintenance to provide effective remediation and reduction of exposure to site-related contaminants. O&M procedures and requirements are presented in the SMP (MACTEC, 2023). NYS Class GA standards and SPDES

Permit Equivalent guidance values are used for comparison to the quality of the treated groundwater being discharged. These numerical limits are applicable at the point of treated groundwater effluent discharge at the end of the force main which leads to the Coxing Kill (see Attachment A4).

Compliance with procedures and requirements in the SMP was maintained during the PRR reporting period, and site-related VOCs in effluent water samples did not exceed the NYS Class GA standards and/or SPDES permit equivalent discharge limits during the reporting period with exception of the May 2023 and January 2024 effluent system performance sampling results, as discussed within Section 2.2.1. MPRs prepared during the reporting period summarizing GWETS O&M activities will continue to be generated and submitted to the NYSDEC.

An estimated 10.22 pounds of total VOCs were extracted in groundwater (Table 2.5). The mass removal estimate is based on the system influent samples collected and analyzed monthly for VOCs (Table 2.6).

4.3 LONG-TERM MONITORING

Monitoring the migration and/or degradation of the plume is accomplished through the LTM of the groundwater. Sufficient historic data has been collected on an annual basis to assess the overall concentration trends in groundwater. LTM sampling currently occurs every 15 months to incorporate seasonality in the data. The LTM network of monitoring wells has been installed to monitor upgradient, on-site, and downgradient groundwater conditions at the Site through monitoring the overburden shallow source area, bedrock source area, and downgradient bedrock groundwater.

As part of the current groundwater long-term monitoring (Table 2.1), upgradient, on-site, and downgradient wells are sampled to evaluate the effectiveness of the GWETS remedial system. Groundwater at the Site flows from the overburden to the bedrock and then primarily to the north in bedrock, with minor components to the northeast and northwest. Table 2.7 summarizes the well identification numbers, location and depths of the wells, and calculated groundwater elevations and sampling field parameters from the 2023 LTM, and Figures 1.2 and 2.1 illustrate the site monitoring well locations and the May 2023 groundwater elevation contours. (Note: not all wells referenced in Tables 2.1 and 2.7 / Figures 1.2 and 2.1 are included as part of the long-term monitoring program).

The monitoring well network included in the LTM includes three sentinel wells that monitor downgradient plume migration. Sentinel wells are uncontaminated wells or have contaminant concentrations below applicable guidance values, and are located directly downgradient of the plume and upgradient of sensitive receptors. The monitoring well network for the Site includes the following sentinel wells: MW-8B, MW-10B, and MW-14B. These wells are located within the area serviced by the HFWD. Low detectable concentrations of VOC contaminants have historically been detected below applicable groundwater standards in these wells. If detected concentrations in these wells increase above applicable groundwater standards, the operation of the GWETS will be evaluated.

Changes in groundwater concentrations and plume movement will continue to be monitored during the 15-month LTM events.

4.4 SSDS MONITORING

OM&M of the on-site commercial building SSDS system is performed by the NYSDEC through their remedial contractor Aztech (through December 2023) and through their environmental consultant EEEG (between January 2024 and May 2024). The ongoing SSDS monitoring consists of a monthly visual inspection of the exterior blowers/fans and piping to confirm they are intact and operating. If any of the individual SSDS blowers/fans are found to be non-functioning, they can be replaced without removing other system components. SSDS blowers/fans determined to be inoperable during monthly site inspections are identified for further evaluation and replacement as required.

During the PRR reporting period SSDS Fans 1 and 7 components were identified as non-functional between January and May 2024 by EEEG. The NYSDEC and NYSDOH were notified of the non-functioning Fans 1 and 7 and through EEEG field Daily Investigation Reports (DIRs).

The on-site commercial building SSDS operation is not impacted by the non-functioning of SSDS Fans 1 and 7 components (located in the southwest corner of the on-site commercial building), and the remaining SSDS Fans components (2, 3, 4, 5, and 6) are documented as functioning during the monthly SSDS site inspections.

Through subsequent discussion with the NYSDEC and NYSDOH, additional evaluation and troubleshooting of the SSDS Fan electrical power source was determined to be necessary. Additional activities for the replacement of the SSDS Fans and/or required power source upgrade are ongoing and will be documented as completed within field DIRs and within the subsequent PRR.

4.5 RSO PILOT TEST

The RSO Pilot Test, which commenced at the Site on November 29, 2022, was implemented for fifteen months with the objective of optimizing the extraction of groundwater from the elevated VOC concentration water-bearing fracture(s) and increasing VOC mass removal from groundwater at the Site. Specifically, the RSO Pilot Test was designed for optimization by targeting select bedrock fracture zones for increased VOC mass removal from groundwater while restricting the deeper, less impacted, groundwater aquifer from extraction through the installation of packers at the extraction wells.

The RSO Pilot Test included the modification of GWETS extraction wells, monthly GWETS performance sampling, monthly groundwater purging of source area SVE points to evaluate their potential use for contaminant VOC mass removal, quarterly groundwater quality sampling at GWETS extraction monitoring wells and Pilot Test Monitoring Wells, and continuous water level readings.

During the RSO Pilot test, completed between November 2022 and February 2024, EEEG collected quarterly groundwater samples for VOC and 1,4-Dioxane analyses from the six monitoring wells (MW-4, MW-5B, ERT-4, MW-11B, MW-12B, and MW-15B) that contain water level data loggers, and the three extraction wells (ERT-1, MW-5R, and MW-7R). Groundwater samples were submitted to ConTest: East Longmeadow, MA Laboratory (through December 2023) and Alpha Analytical: Westborough, MA Laboratory (January 2024 through May 2024) for analysis. Monitoring wells were sampled using low-flow sampling procedures. Field measurements for pH, temperature, specific conductivity, oxidation reduction potential, turbidity, and dissolved oxygen were collected from a flow-through cell within each monitoring well during pre-sample purging.

The findings of the RSO Pilot Test (EEEG, May 2025) including an evaluation of the RSO extraction well performance, groundwater quality monitoring, and impacts of the RSO Pilot Test on the groundwater plume size and contaminant concentrations were reported under separate cover.

5.0 RECOMMENDATIONS

To continue optimizing system efficiency and remedial progress, and to provide further cost savings at the Site, the following are recommended:

- Continued implementation, review, and evaluation of the existing ICs/ECs, O&M Plan, and groundwater monitoring program, as applicable.
 - Complete next 15-month LTM program sampling event.
- Future tracking of PRR costs by year incurred.
- Continued routine GWETS maintenance
 - Monthly OM&M site visits conducted by EEEG
 - Emergency OM&M site visits conducted as needed by EEEG
 - Annual inspection of building heaters
 - General housekeeping activities to improve work processes and eliminate general clutter
 - Troubleshoot extraction well components as needed to maintain normal system operation.
- Continued routine SSDS maintenance.
- SSDS Performance Evaluation Completion:
 - Identification of existing sub-slab vapor points and compilation of field design of proposed additional sub-slab vapor point locations.
 - Installation of additional sub-slab vapor point locations and collection of comprehensive building sub-slab vacuum measurements.
 - Completion of annual pressure differential testing, including existing and newly installed sub-slab vapor points, to demonstrate system effectiveness at creating negative pressure across the extent of the building footprint.
- Continued SSDS evaluation and modification, if necessary, based on annual pressure differential testing conclusions.

6.0 REFERENCES

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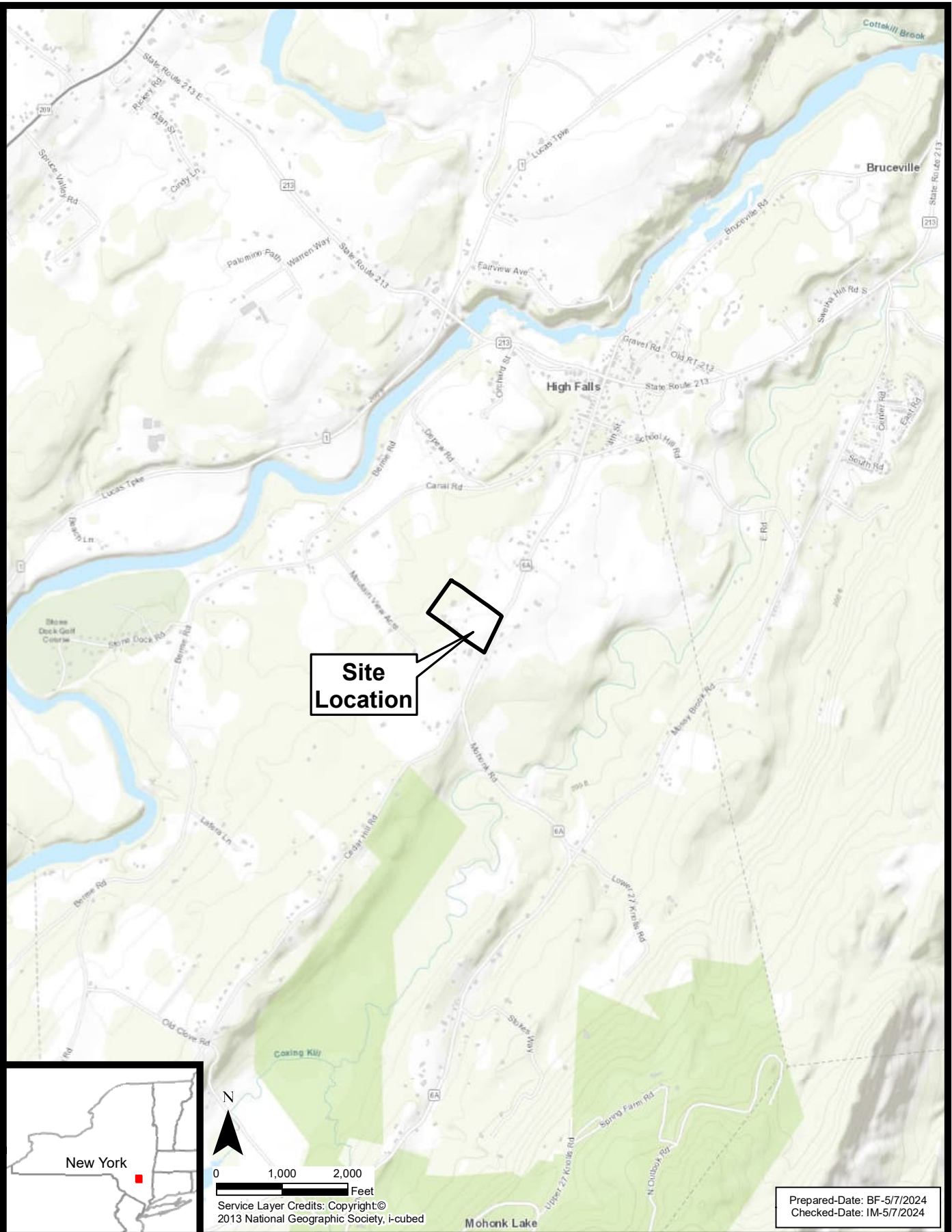
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FIGURES

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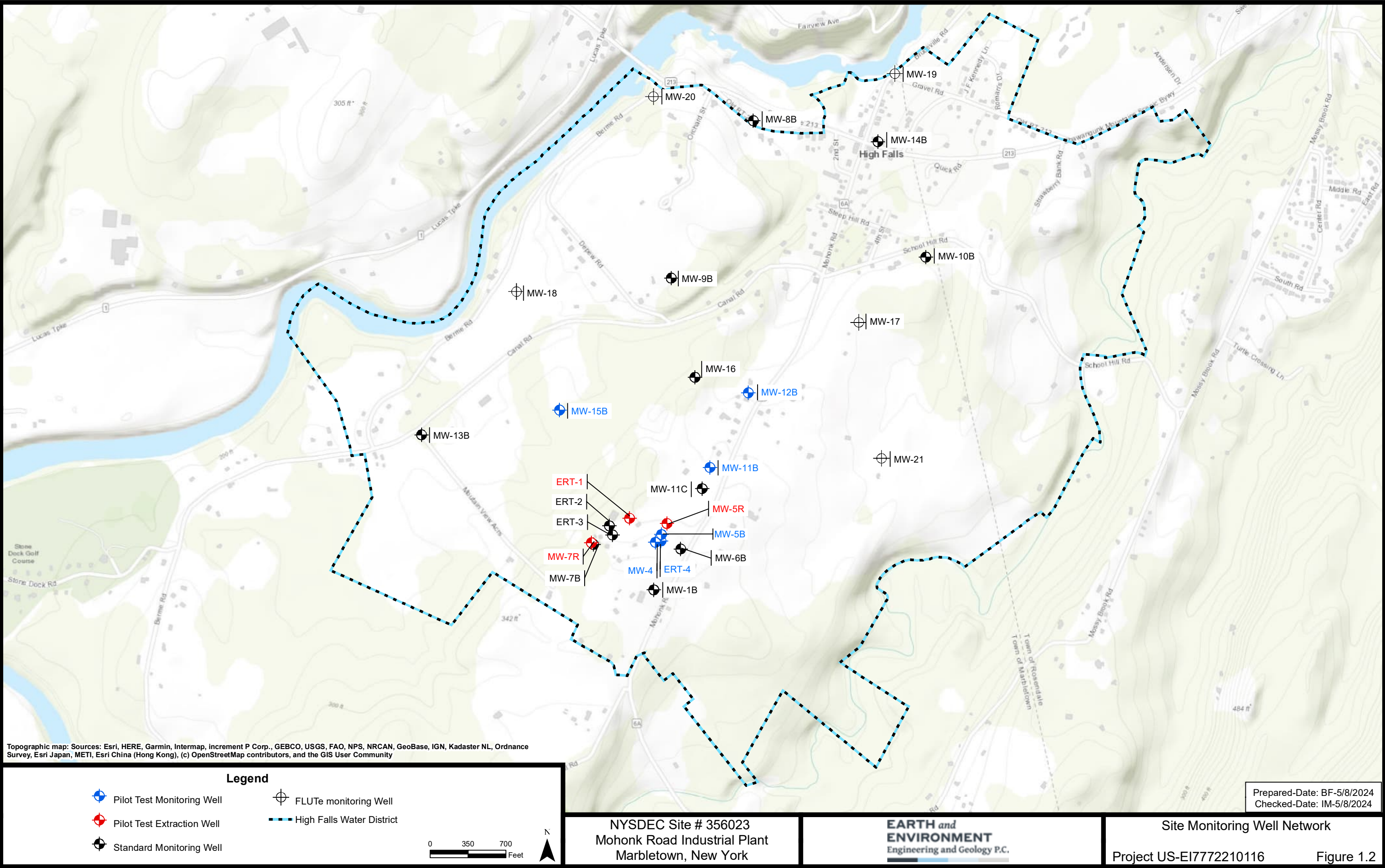


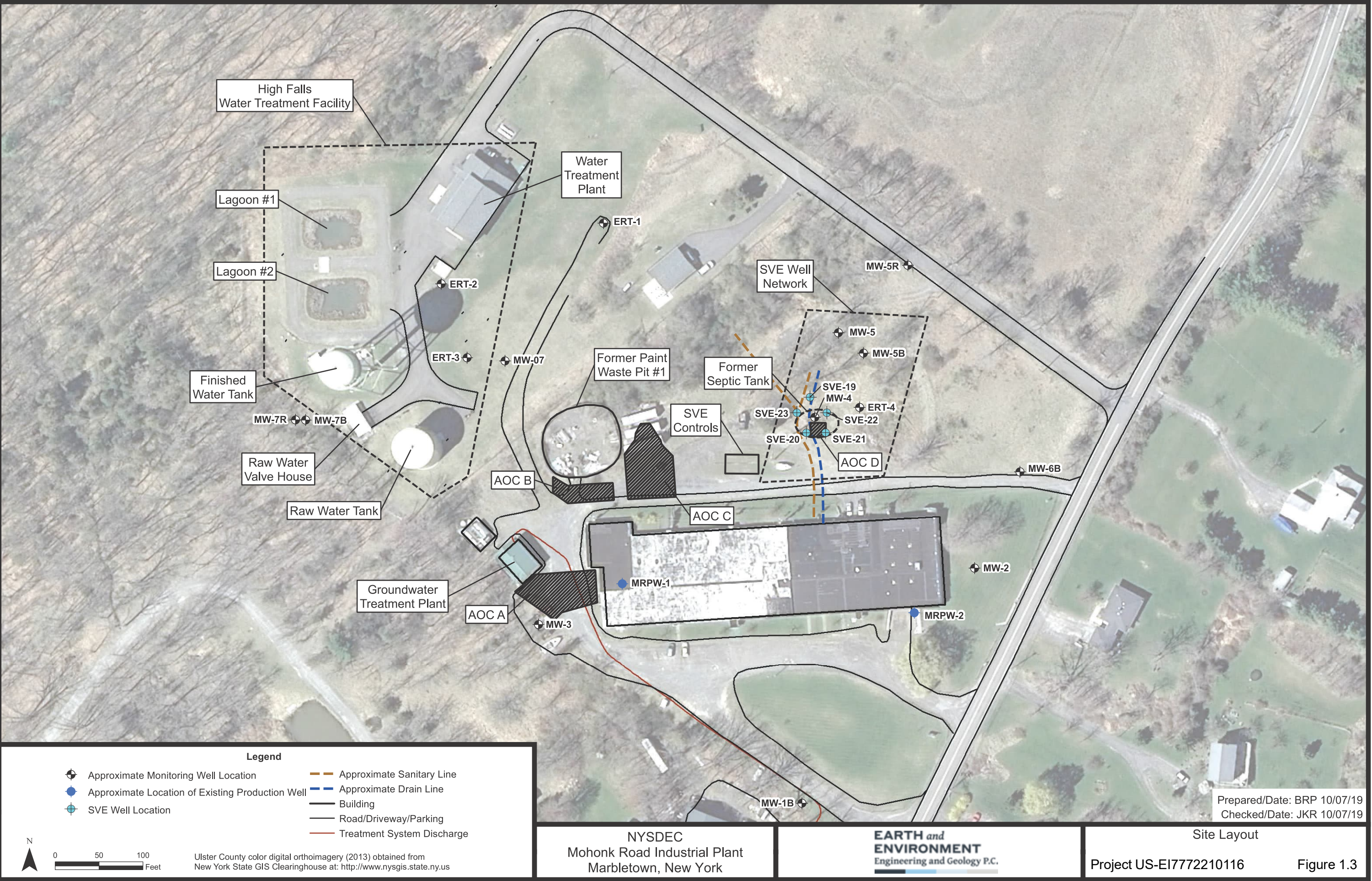
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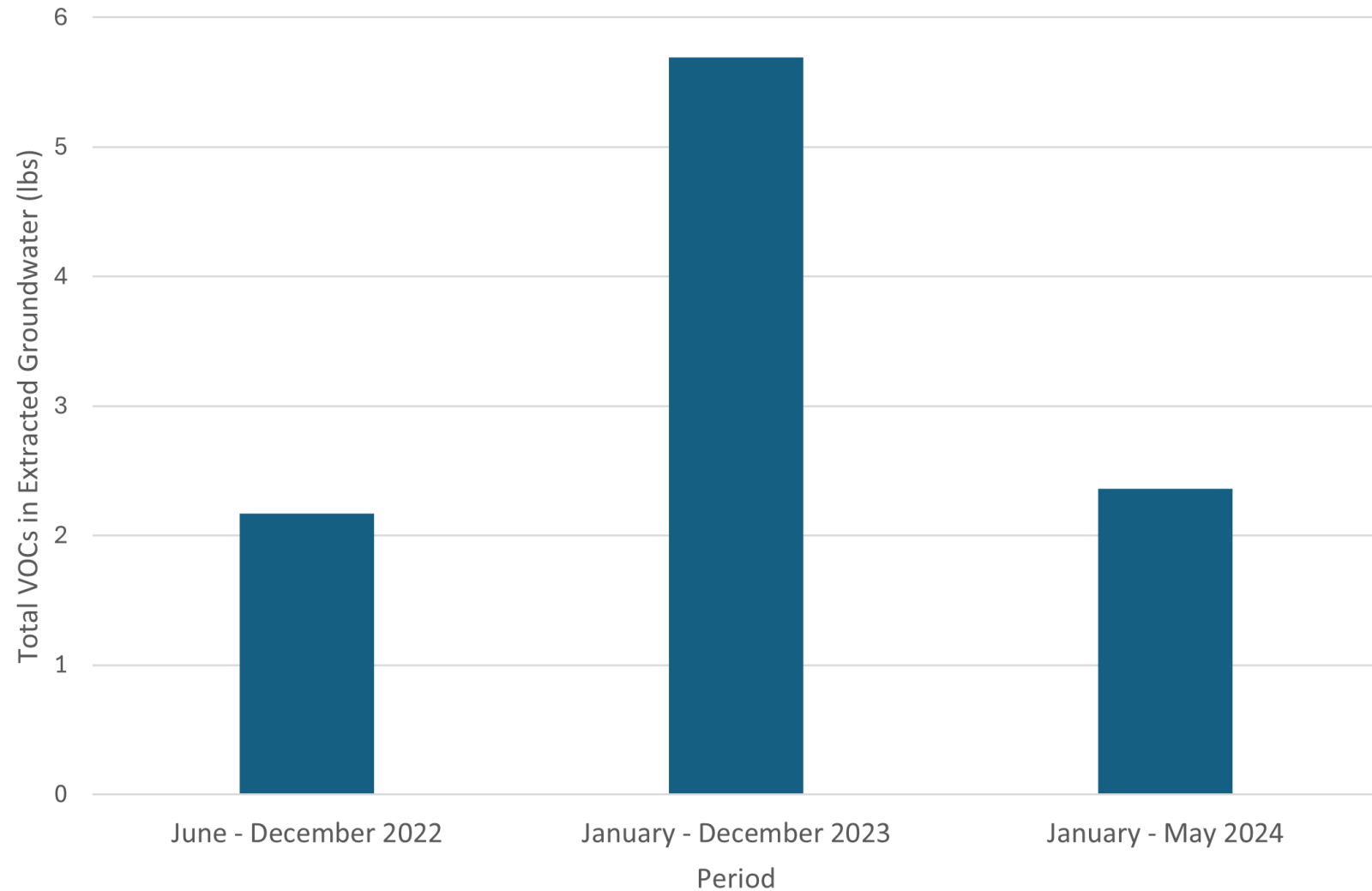
Site Location Map

Project US-EI7772210116 Figure 1.1





GWETS Total VOCs in Extracted Groundwater (lbs)



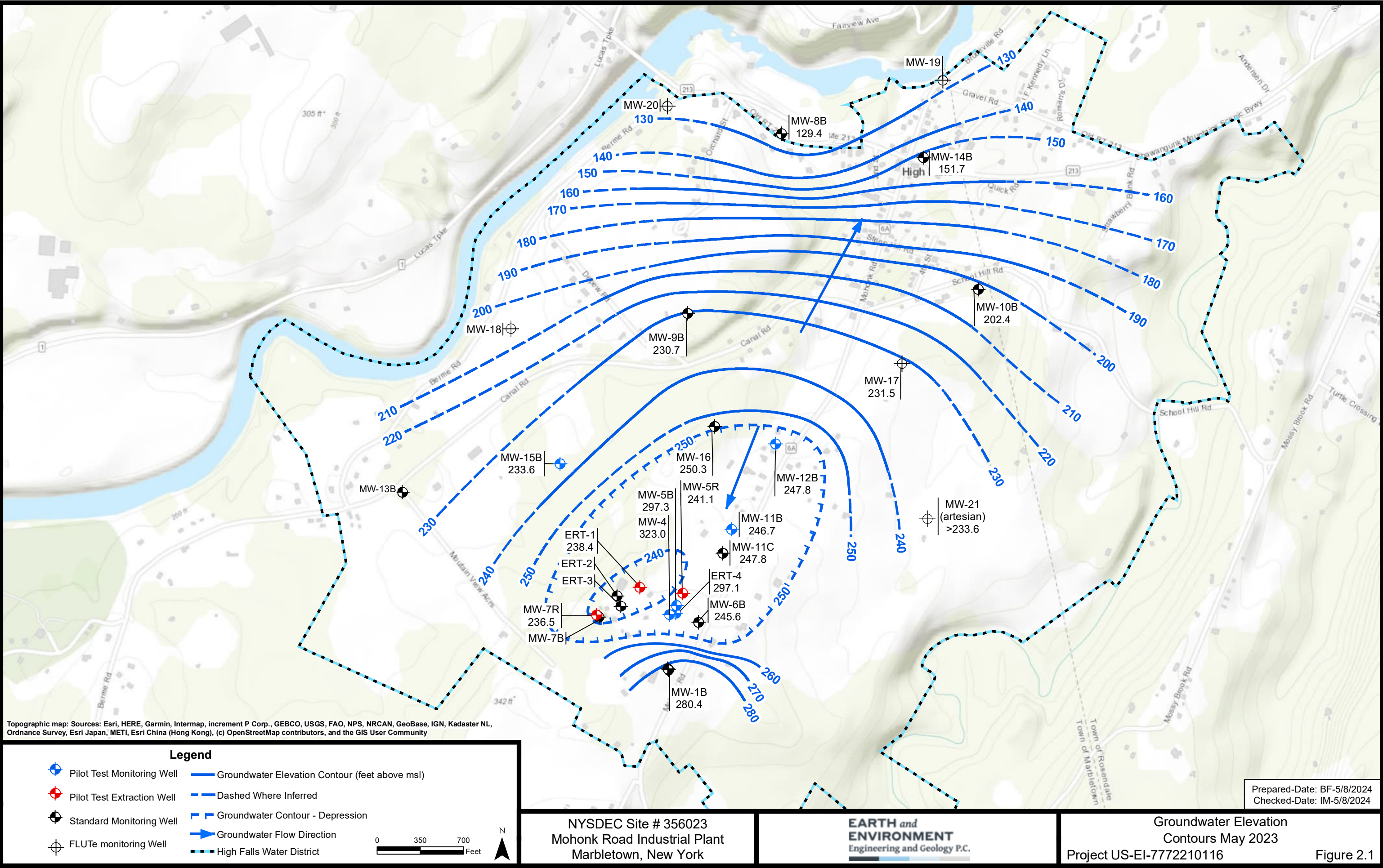
Performance Sampling Data Used for All Data Points.

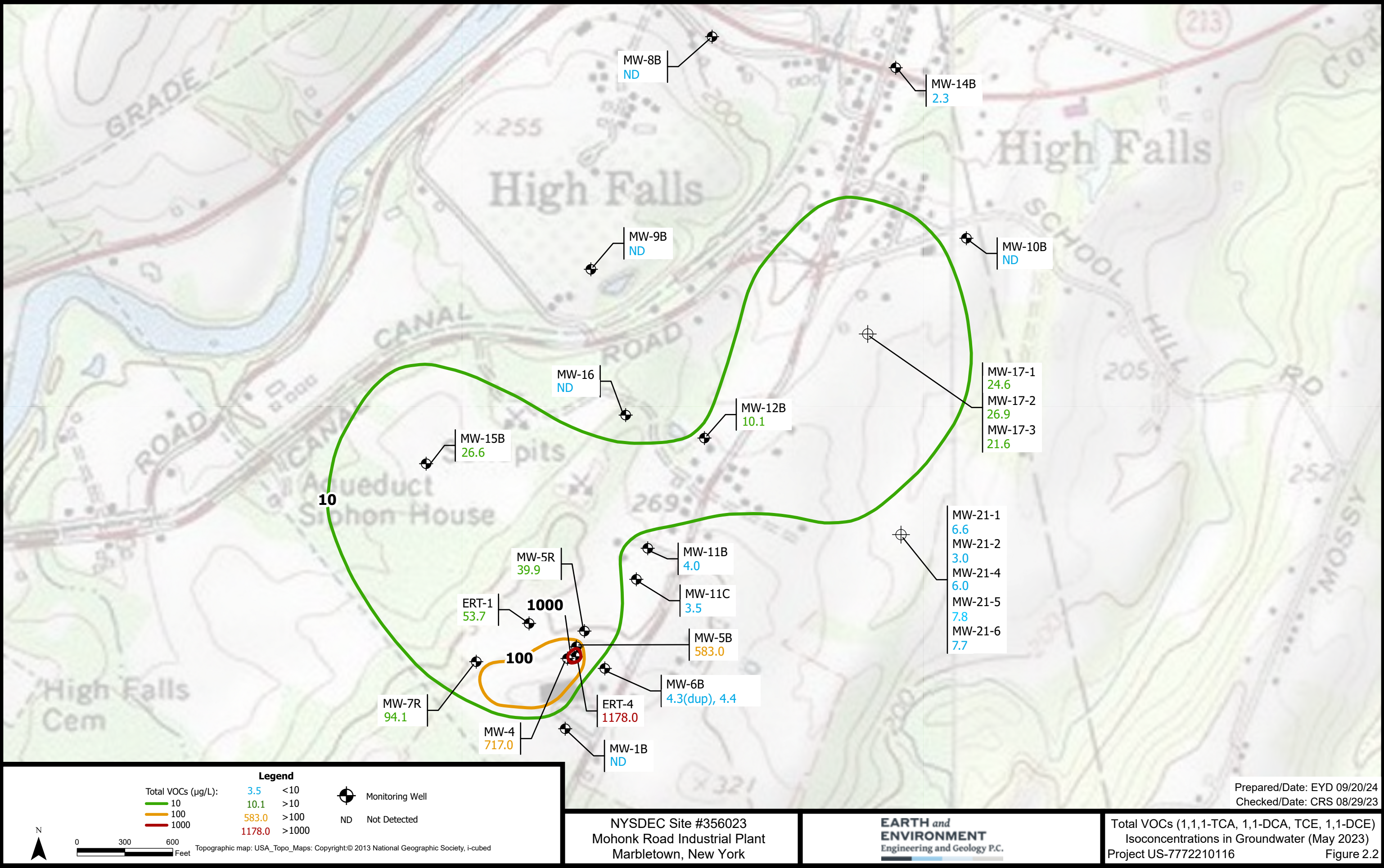
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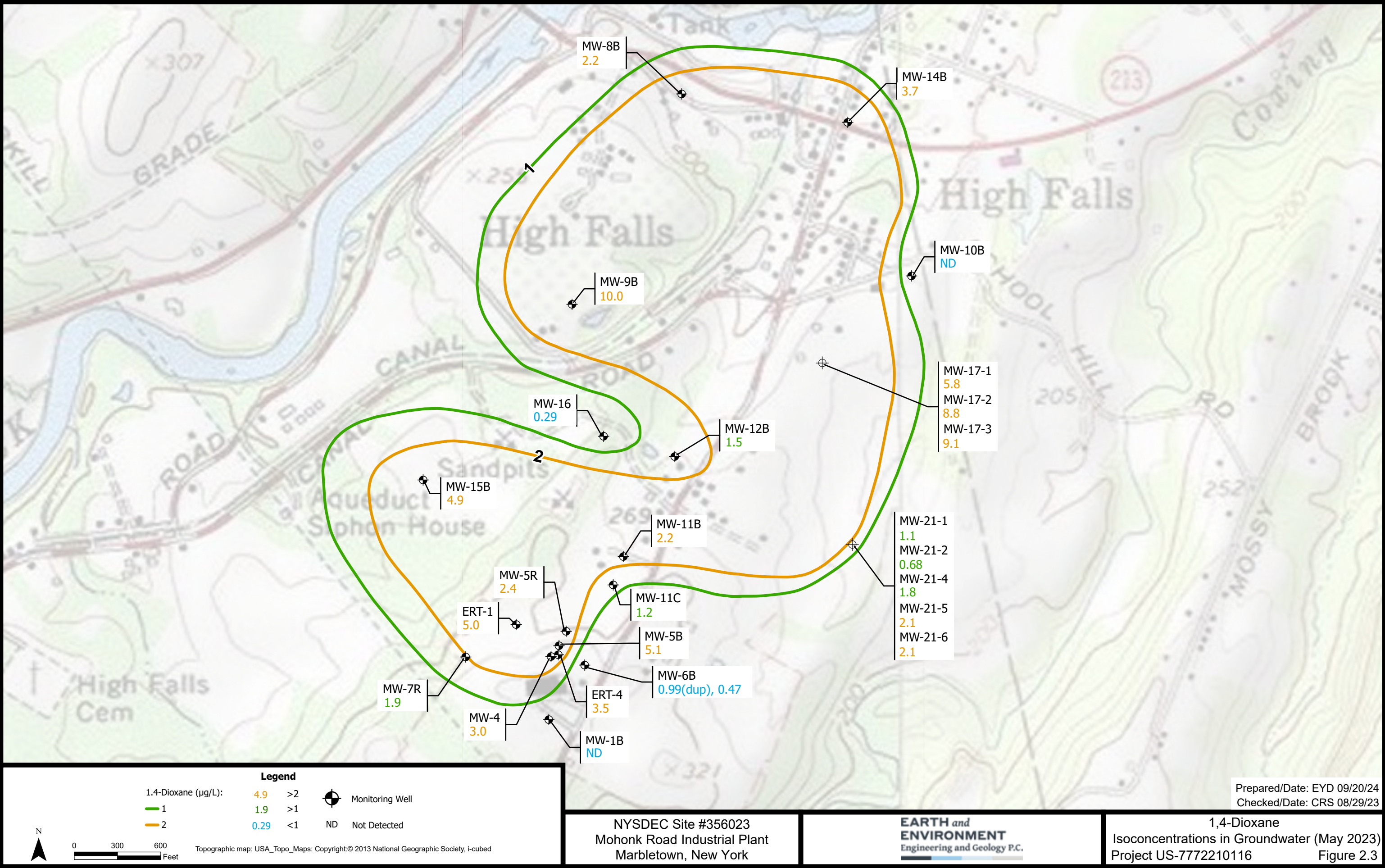
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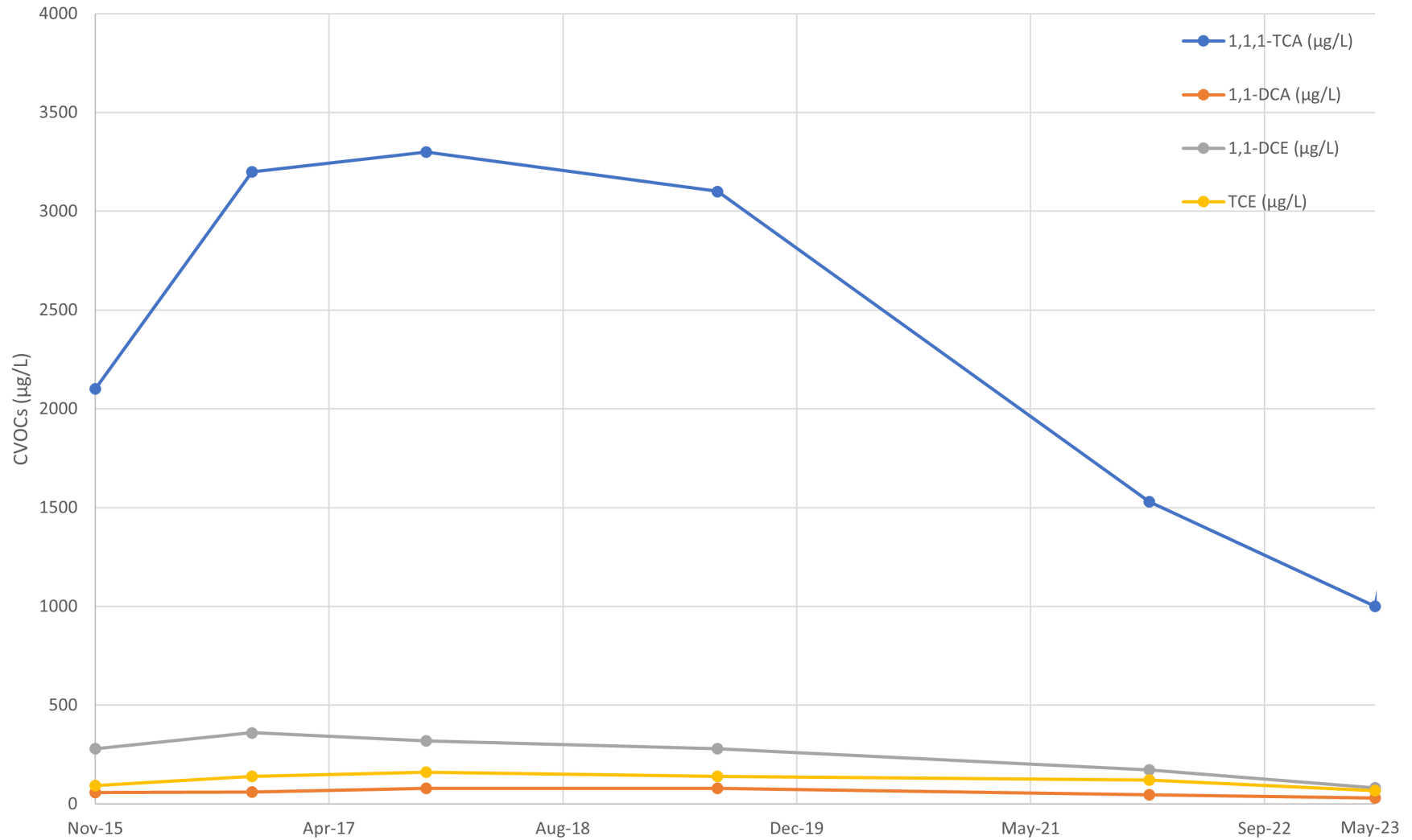
Total VOCs in Extracted Groundwater
GWETS
Project US-EI-7772210116
Figure 2.0







ERT-4



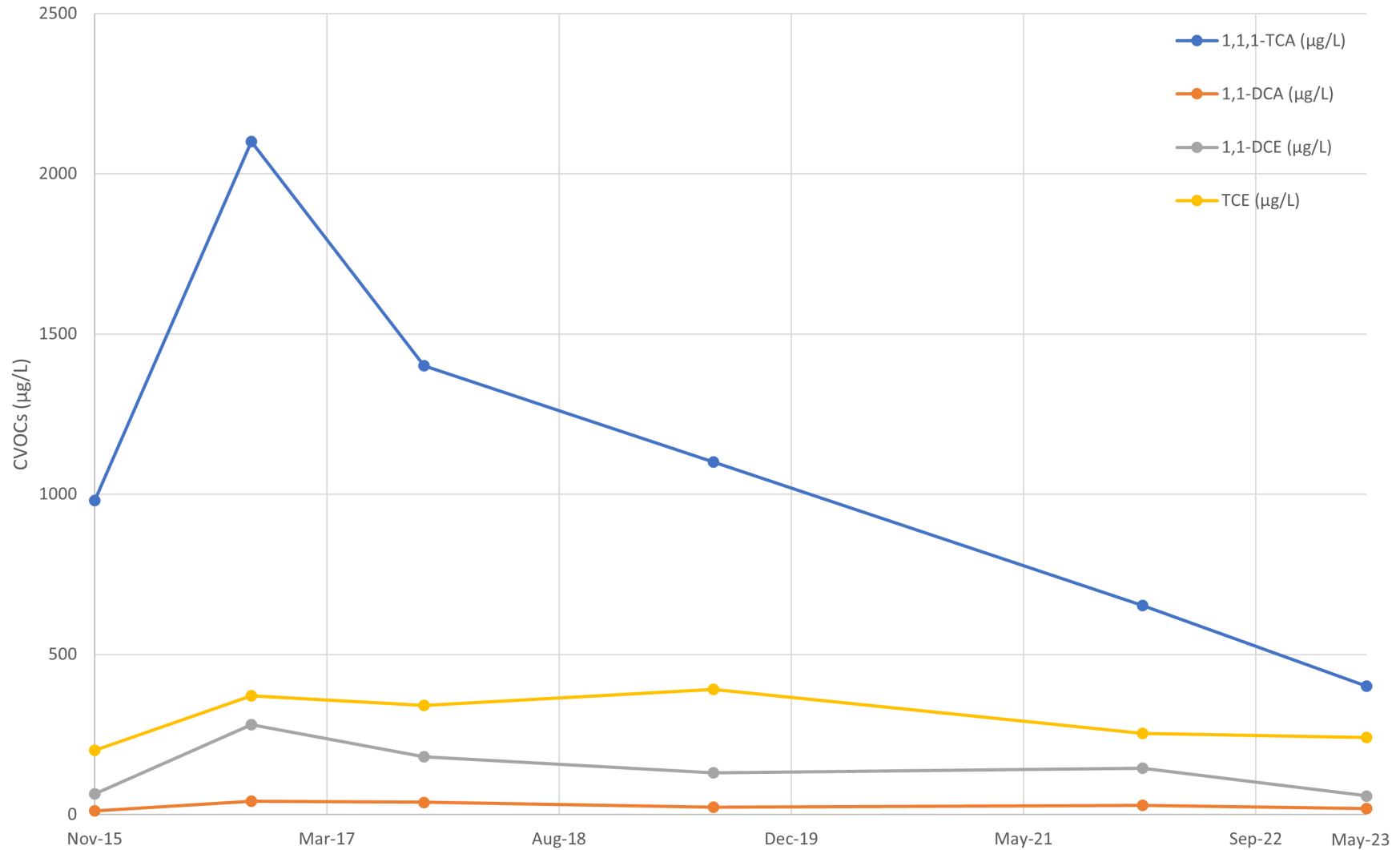
Note:
 Sampling Events: November 2015, October 2016, October 2017, July 2019, January 2022, May 2023
 Results that were not detected above the reporting limit are presented as zero.

NYSDEC Site # 356023
 Mohonk Road Industrial Plant
 Marbletown, New York

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VOC Concentration Trends
 ERT-4
 Project US-EI-7772210116 Figure 2.4

MW-4



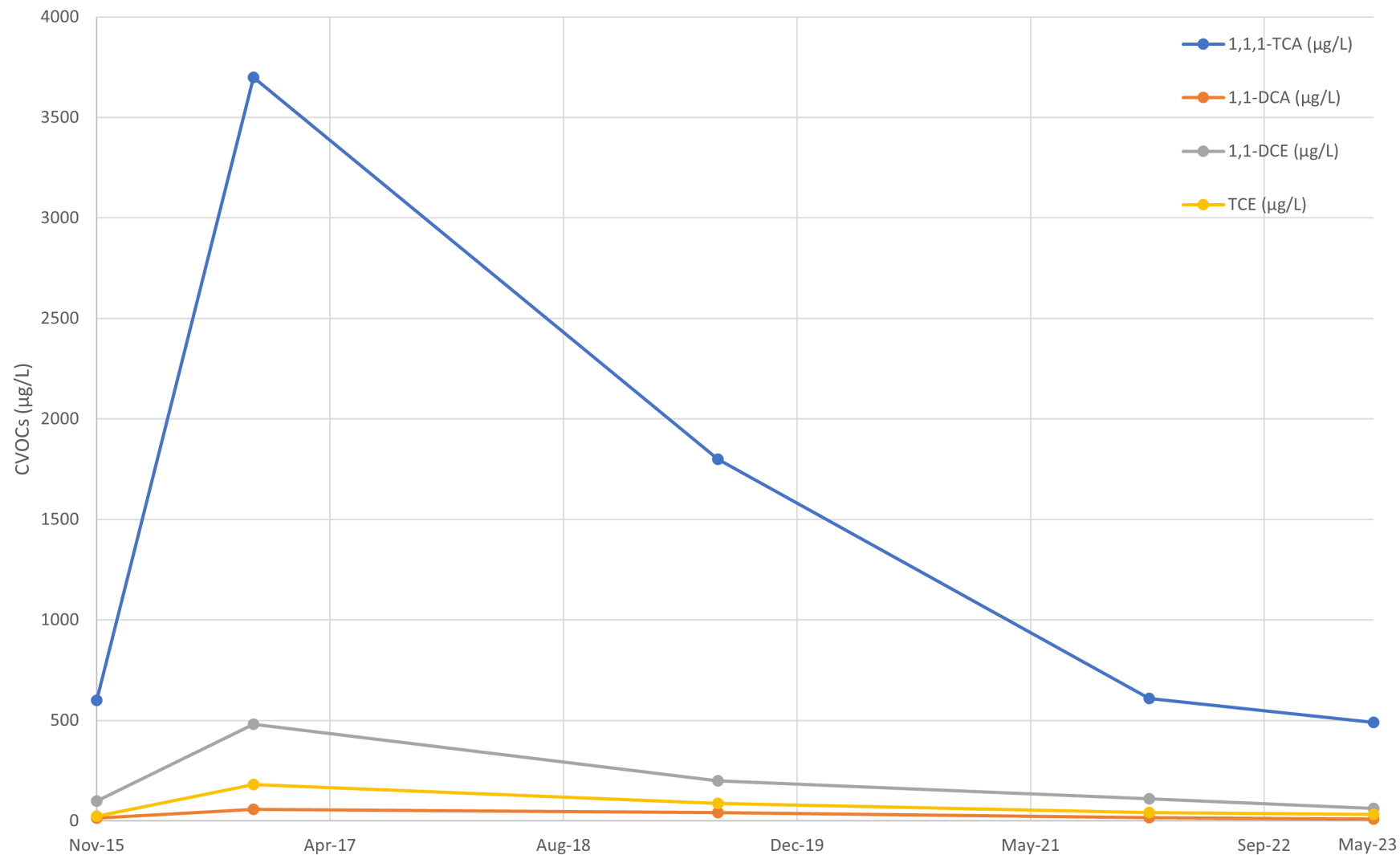
Note:
 Sampling Events: November 2015, October 2016, October 2017, July 2019, January 2022, May 2023
 Results that were not detected above the reporting limit are presented as zero.

NYSDEC Site # 356023
 Mohonk Road Industrial Plant
 Marbletown, New York

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VOC Concentration Trends
 MW-4
 Project US-EI-7772210116 Figure 2.5

MW-5B



Note:
Sampling Events: November 2015, October 2016, July 2019, January 2022, May 2023
Results that were not detected above the reporting limit are presented as zero.

NYSDEC Site # 356023
Mohonk Road Industrial Plant
Marbletown, New York

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VOC Concentration Trends
MW-5B
Project US-EI-7772210116 Figure 2.6

TABLES

Table 2.1: Site Management Requirements

Component	Action	Required Frequency	Comments/Recommendations
Groundwater Extraction and Treatment System			
GWETS Operation Checklist	Inspection	Each O&M visit	Check groundwater treatment system operation: flow rates, meter readings, system components, Redux volume.
Extraction Wells	Inspection	Each O&M visit	Check extraction wells, housing, control panels.
Control Panel, Heaters	Inspection	Each O&M visit	Check function of control panel indicating lights.
Safety Equipment, Treatment Plant Lighting	Inspection	Monthly	Inspect safety equipment (ladders, eyewash, fire extinguishers, etc.). Inspect plant lighting for proper operation.
Site Security	Inspection	Monthly	Check treatment building door locks, fencing, and perimeter fence for defects.
Air Stripper	Inspection/ Maintenance	Annually	Perform cleaning of air stripper unit trays and sump, if necessary.
Treatment Plant Heaters	Inspection/ Maintenance	Annually	Annual inspection and cleaning of heaters; to be performed by a licensed subcontractor.
Groundwater Monitoring System	Inspection	15-Month	Visually inspect well pads/locks at site wells; repair as necessary to maintain integrity and security.
Sub-Slab Depressurization System			
SSDS	Inspection	Each O&M visit	Exterior operation check of SSDS fans.
System Performance Monitoring			
Influent Header	Plant influent water sampling	Monthly	Grab samples collected from each active extraction wells to monitor and evaluate GWETS performance.
Treatment Plant Discharge	Plant effluent water sampling	Monthly	Grab influent and effluent samples collected to monitor and evaluate GWETS performance.
Environmental Monitoring			
Groundwater Elevation Monitoring	Groundwater elevation measurements	15-Month	Collect groundwater elevation measurements for active extraction wells and select monitoring wells to monitor hydraulic control of the plume near the site.
Environmental Groundwater Sampling	Groundwater sampling of monitoring wells	15-Month sampling interval	Grab/low flow samples collected from monitoring wells, active bedrock and overburden extraction wells.

Notes:

GWETS = Groundwater extraction and treatment system
 O&M = Operation and maintenance
 SSDS = Sub-Slab Depressurization System

Table 2.2: Long-Term Monitoring and System Performance Sampling Matrix

Well ID/ Sampling Location	Water Level Measurements	VOCs	1, 4 Dioxane	System Performance Parameters ³	Sample Description
Monitoring Wells (15-Month LTM)¹					
MW-1B	X	X	X		Low Flow Sampling
MW-4	X	X	X		Low Flow Sampling
MW-5B	X	X	X		Low Flow Sampling
MW-6B	X	X	X		Low Flow Sampling
MW-8B	X	X	X		Low Flow Sampling
MW-9B	X	X	X		Low Flow Sampling
MW-10B	X	X	X		Low Flow Sampling
MW-11B	X	X	X		Low Flow Sampling
MW-11C	X	X	X		Low Flow Sampling
MW-12B	X	X	X		Low Flow Sampling
MW-14B	X	X	X		Low Flow Sampling
MW-15B	X	X	X		Low Flow Sampling
MW-16	X	X	X		Low Flow Sampling
Active Extraction Wells (15-Month LTM)¹					
ERT-1	X	X	X		Grab
ERT-4 ²	X	X	X		Low Flow Sampling
MW-5R	X	X	X		Grab
MW-7R	X	X	X		Grab
Flute Wells (15-Month LTM)¹					
MW-17 - Ports 1, 2, 3	X	X	X		Nitrogen Purge
MW-21 - Ports 1, 2, 4, 5, 6	X	X	X		Nitrogen Purge
GWETS Performance (Monthly)					
MW-5R	NA	X	X	X	Grab
MW-7R	NA	X	X	X	Grab
ERT-1	NA	X	X	X	Grab
Pre Air Stripper Combined Influent	NA	X	X	X	Grab
Air Stripper Effluent	NA	X	X	X	Grab

Notes:

- ¹ = 15-Month LTM occurred May 2023.
- ² = ERT-4 Not currently active extraction well.
- ³ = TDS, TSS, Iron, and pH
- GWETS = Groundwater extraction and treatment system
- LTM = Long-term monitoring
- NA = Not applicable
- TDS = Total Dissolved Solids
- TSS = Totals Suspended Solids
- VOCs = Volatile Organic Compounds
- MW-13B Last sampled in 2017. Monitoring well is sealed shut.
- MW-18 Last sampled in June 2019.
- MW-19 Last sampled in 2017. Well not located in field.

Table 2.3: Estimated Groundwater Extraction and Treatment System Downtime

Year	Month	Estimated Downtime (days)	Reasoning
2022	June	0	
	July	1	Down due to XFRVFD for 1 day
	August	8	Down from 22nd on due to sysetm work
	September	29	Down due to system work
	October	31	System not operating, work for pilot test
	November	28	System not operating pilot test began Nov. 28th
	December	10	System down due to power fail on 13th, 16th and DSCVFD on 24th and wetfloor on 30th
Total for 2022 Year		107	
2023	January	6	System down due to Wetfloor contined from DEC. 2022 system down on XFRVFD on 13th
	February	0	
	March	2	System down due to procontrol issue on 29th and discharge pump priming issue 14th
	April	0	
	May	0	System down for 6 hours due to power fail (remote reset)
	June	0.75	System down for 18 hours total due to remote alarms over three different days.
	July	0.50	System down for a total of 11 hours due to VFD power failure.
	August	0.58	System down for 14 hours due to weather related power outage.
	September	3	System down for 3 days , 2 hours due to weather related storm outage.
	October	1.5	System down for 1 day, 16 hours due to wet floor alarm and utility power falure.
	November	0	
	December	0.5	System down for 12 hours due to remote reboot of wells and power outage due to storm.
Total for 2023 Year		15	
2024	January	0.5	System down for 12 hours due to Transfer Tank VFD.
	February	0	ERT-1 down on February 18th Through PRR Reporting Period
	March	0	ERT-1 down, MW-5R down on March 14th Through PRR Reporting Period
	April	3	System down for 3 days due to power surge, ERT-1 and MW-5R down
	May	0	ERT-1 and MW-5R down
Total for 2024 Year		4	
Total for Timeframe		126	

Notes:

Reported timeframe June 2022 through May 2024

Table 2.4: Treatment Plant Monthly Throughput

Calendar Year	Month												Total for Calendar Year (Gallons)	Cumulative Total Throughput (Gallons)
	January	February	March	April	May	June	July	August	September	October	November	December		
2022						814,893	1,055,077	594,336	2,847	-	20,954	791,359	3,279,466	3,279,466
2023	819,503	856,744	1,110,861	1,245,846	1,281,645	1,054,030	1,171,435	1,218,335	1,056,628	1,269,606	1,268,984	1,265,580	13,619,197	16,898,663
2024	1,290,160	1,048,260	892,915	486,899	575,898								4,294,132	21,192,795

Notes:

Monthly amounts reported in gallons.

Reported timeframe June 2022 through May 2024

Table 2.5: Total VOCs in Extracted Groundwater (lbs)

Month	2022	2023	2024
January	-	0.61	0.32
February	-	1.06	0.32
March	-	0.48	0.63
April	-	0.58	0.47
May	-	0.41	0.62
June	0.65	0.39	-
July	0.64	0.23	-
August	0*	0.40	-
September	0*	0.25	-
October	0*	0.45	-
November	0*	0.54	-
December	0.88	0.29	-
Total for Calendar Year (lbs)	2.17	5.69	2.36
Cumulative Total VOCs (lbs)	2.17	7.86	10.22

Notes:

Reported timeframe June 2022 through May 2024

Data provided from Aztech June 2022 - December 2023, EEG Jan 2024 - May 2024

Total VOCs in Extracted Groundwater equals GWETS influent total VOCs concentrations per month multiplied by the monthly system treated gallons.

lbs = Pounds

* = No Sample Data

VOCs = Volatile organic compounds

Table 2.6: System Performance Sampling Results

Sample Location	Sample Date	Parameter	L1.1- Trichloroethane	L1.2- Trichloroethane	L1.1-Dichloroethane	L1.2- Dichloroethane	1,2-Dichloroethane	1,2-Dichloroethane Total	1,4-Dioxane	Acetone	Benzene	Carbon Tetra-chloride	Chloroform	Methylene Chloride	Toluene	Trichloroethylene	Iron	pH	Total Dissolved Solids	Total Suspended Solids
		Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	SD	mg/L	mg/L
MW-SR	6/9/2022	NYS Class G-A	5	5	5	0.6					1	5	7	5	5	5	ND			
MW-SR	7/14/2022	SR	14.4	ND	1.56	13.4	ND	NA	3.0	NA	ND	ND	ND	ND	ND	5.4	ND	7.1	110	ND
MW-SR	Aug. 2022	System shut down - no samples collected.																		
MW-SR	Sept. 2022	System shut down - no samples collected.																		
MW-SR	Oct. 2022	System shut down - no samples collected.																		
MW-SR	Nov. 2022	System was activated for pilot run on 11/15/2022, but samples were not collected until 1/1/2023.																		
MW-SR	12/1/2022	SR	116	ND	864	32.4	NA	NA	4.7	NA	ND	ND	ND	ND	ND	456	ND	6.8	130	ND
MW-SR	1/21/2023	SR	78.2	ND	4.5	5.5	NA	NA	3.6	NA	ND	ND	ND	ND	ND	445	ND	6.9	260	ND
MW-SR	1/19/2023	SR	64.7	ND	4.75	14.9	NA	NA	4.1	NA	ND	ND	ND	ND	ND	463	ND	6.9	320	ND
MW-SR	3/22/2023	SR	167	ND	2.64	27.2	NA	NA	2.5	NA	ND	ND	ND	ND	ND	2.85	ND	7.6	530	ND
MW-SR	3/26/2023	SR	48.6	ND	2.64	10.8	NA	NA	3.2	NA	ND	ND	ND	ND	ND	1.25	ND	6.9	330	ND
MW-SR	4/18/2023	SR	49.6	ND	2.65	18.6	NA	NA	2.4	NA	ND	ND	ND	ND	ND	3.53	ND	6.6	330	ND
MW-SR	5/16/2023	SR	119.1	ND	1.11.1	1.19.1	NA	NA	2.4	NA	ND	ND	ND	ND	ND	0.99.1	ND	7.9	430	ND
MW-SR	6/20/2023	SR	146	ND	3.39	7.65	NA	NA	4.1	NA	ND	ND	ND	ND	ND	3.61	ND	7.0	490	ND
MW-SR	7/24/2023	SR	17.2	ND	1.89.1	4.6	NA	NA	1.8	NA	ND	ND	ND	ND	ND	2.92	ND	6.9	370	ND
MW-SR	8/29/2023	SR	24.9	ND	2.19	2.39	NA	NA	2.3	NA	ND	ND	ND	ND	ND	2.85	ND	6.9	390	ND
MW-SR	10/16/2023	SR	18.5	ND	1.96.1	2.67	NA	NA	1.7	NA	ND	ND	ND	ND	ND	2.67	ND	6.9	400	ND
MW-SR	10/17/2023	SR	11.5	ND	2.33	16.2	NA	NA	2.2	NA	ND	ND	ND	ND	ND	3.71	ND	7.2	390	ND
MW-SR	11/9/2023	SR	22.1	ND	1.93	7.22	NA	NA	2.2	NA	ND	ND	ND	ND	ND	3.22	ND	7.0	210	ND
MW-SR	1/16/2024	SR	15.4	ND	1.4	5.89	NA	NA	1.9	NA	ND	ND	ND	ND	ND	2.6	ND	7.0	360	2.5
MW-SR	1/10/2024	SR	22	ND	1.9	7.4	NA	NA	2.1	ND	ND	ND	ND	ND	ND	3.1	16.9	7.4	410	ND
MW-SR	2/26/2024	SR	27	ND	2.2	6.2	NA	NA	2.3	ND	ND	ND	ND	ND	ND	3	ND	7.1	410	ND
MW-SR	3/21/2024	Wellbore down - no samples collected.																		
MW-SR	4/10/2024	Wellbore down - no samples collected.																		
MW-SR	5/2/2024	Wellbore down - no samples collected.																		

Table 2.6: System Performance Sampling Results

Sample Location	Sample Date	Parameter	L1,1	L1,2	L1,1-Dichloroethane	L1	L1,2-Dichloroethane	L2-Dichloroethane	L,4-Dioxane	Acetone	Benzene	Carbon Tetrachloride	Chloroform	Methylene Chloride	Toluene	Trichloroethylene	Iron	pH	Total Dissolved Solids	Total Suspended Solids
			Trichloroethane	Trichloroethane	Dichloroethane	Dichloroethane	Total	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	SD	mg/L
MW-7R	6/9/2022	NYS Class G-A	5	5	5	0.6	ND	NA	2.6	NA	ND	5	5	5	5	5	ND	7.1	370	ND
MW-7R	7/14/2022	TR	7.0	ND	39.0	9.37	ND	NA	1.7	NA	ND	ND	ND	ND	ND	1.05	ND	6.9	750	ND
MW-7R	Aug. 2022	System shut down - no samples collected.																		
MW-7R	Sept. 2022	System shut down - no samples collected.																		
MW-7R	Oct. 2022	System shut down - no samples collected.																		
MW-7R	Nov. 2022	System was activated for pilot run on 11/15/2022, but samples were not collected until 12/1/2022.																		
MW-7R	12/1/2022	TR	184	ND	54.6	13.5	NA	NA	4.4	NA	ND	ND	0.740 J	ND	ND	150 J	ND	6.8	280	1.6
MW-7R	1/21/2023	TR	74.2	ND	35.8	5.44	NA	NA	4.4	NA	ND	ND	0.170 J	ND	ND	1.45 J	ND	6.5	280	2.2
MW-7R	1/19/2023	TR	67.6	ND	33.6	6.88	NA	NA	3.7	NA	ND	ND	ND	ND	ND	1.36 J	ND	7.1	320	ND
MW-7R	3/22/2023	TR	77.8	ND	33.6	16.7	NA	NA	3.4	NA	ND	ND	0.280 J	ND	ND	1.77 J	ND	6.8	280	ND
MW-7R	3/26/2023	TR	66.2	ND	32.6	6.54	NA	NA	3.5	NA	ND	ND	0.180 J	ND	ND	1.45 J	ND	6.9	270	ND
MW-7R	4/18/2023	TR	81.9	ND	48.1	19.5	NA	NA	2.8	NA	ND	ND	0.170 J	ND	ND	1.21 J	ND	6.5	330	ND
MW-7R	5/16/2023	TR	57.5	ND	33.6	7.91	NA	NA	1.8	NA	ND	ND	0.160 J	ND	ND	0.850 J	ND	7.2	370	ND
MW-7R	6/20/2023	TR	51.2	ND	32.8	6.85	NA	NA	1.2	NA	ND	ND	ND	ND	ND	0.890 J	ND	7.0	310	ND
MW-7R	7/24/2023	TR	38.3	ND	23.8	6.11	NA	NA	1.7	NA	ND	ND	0.060 J	ND	ND	0.880 J	ND	6.5	310	ND
MW-7R	8/29/2023	TR	56.7	ND	28.4	7.91	NA	NA	1.8	NA	ND	ND	0.210 J	ND	ND	0.720 J	ND	6.5	310	ND
MW-7R	9/18/2023	TR	48.1	ND	33.6	6.67	NA	NA	1.9	NA	ND	ND	ND	ND	ND	ND	ND	7.1	350	ND
MW-7R	10/1/2023	TR	41.4	ND	36.8	16.3	NA	NA	2.0	NA	ND	ND	0.290 J	ND	ND	0.890 J	ND	7.3	350	ND
MW-7R	11/9/2023	TR	67.3	ND	29.8	7.69	NA	NA	2.0	NA	ND	ND	0.230 J	ND	ND	0.790 J	ND	7.1	370	ND
MW-7R	1/18/2024	TR	48.8	ND	22.8	6.88	NA	NA	2.1	NA	ND	ND	0.150 J	ND	ND	0.690 J	ND	6.5	320	ND
MW-7R	1/10/2024	TR	60	ND	35	10	NA	NA	2.8	ND	ND	ND	ND	ND	ND	1.5	ND	7.28	370	ND
MW-7R	2/26/2024	TR	71	ND	36	19	NA	NA	2.8	ND	ND	ND	ND	ND	ND	1.8	ND	7.21	460	ND
MW-7R	3/21/2024	TR	52	ND	21	9	NA	NA	3.7	ND	ND	ND	ND	ND	ND	2.7	ND	7.35	550	ND
MW-7R	4/10/2024	TR	79	ND	29	14	NA	NA	5.8	ND	ND	ND	ND	ND	ND	3.7	ND	7.64	410	ND
MW-7R	5/29/2024	TR	86	ND	24	13	NA	NA	5.5	ND	ND	ND	ND	ND	ND	3.4	ND	7.89	460	ND

Table 2.6: System Performance Sampling Results

Sample Location	Sample Date	Parameter	1,1,1-Trichloroethane	1,1,2-Trichloroethane	1,1-Dichloroethane	1,1,2-Dichloroethane	1,2-Dichloroethane	1,2-Dichloroethane Total	1,4-Dioxane	Acetone	Benzene	Carbon Tetrachloride	Chloroform	Methylene Chloride	Toluene	Trichloroethylene	Iron	pH	Total Dissolved Solids	Total Suspended Solids
		Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	SD	mg/L	mg/L
ERT-1	6/9/2022	NYS Class GA	5	1	5	0.6	-	-	-	-	1	5	2	5	-	5	389	-	-	-
ERT-1	7/14/2022	ERT-1	44.2	ND	1.00	17.1	ND	NA	6.8	NA	ND	ND	ND	ND	ND	4	ND	7.1	400	ND
ERT-1	8/6/2022	ERT-1	43.4	ND	8.22	14.4	ND	NA	5.8	NA	ND	ND	ND	ND	ND	5.46	0.052	6.9	400	ND
ERT-1	8/6/2022	System shut down - no samples collected.																		
ERT-1	8/6/2022	System shut down - no samples collected.																		
ERT-1	8/6/2022	System shut down - no samples collected.																		
ERT-1	8/6/2022	System was activated for data run on 11/15/2022, but samples were not collected until 12/1/2022.																		
ERT-1	12/1/2022	ERT-1	73.0	ND	13.4	23.3	NA	NA	8.3	NA	ND	ND	0.950 J	ND	ND	8.04	ND	6.8	280	2.8
ERT-1	12/1/2022	ERT-1	27.4	ND	5.58	5.16	NA	NA	7.7	NA	ND	ND	0.270 J	ND	ND	5.89	ND	6.8	330	1.4
ERT-1	1/15/2023	ERT-1	60.9	ND	8.79	16.6	NA	NA	8.2	NA	ND	ND	0.230 J	ND	ND	5.95	ND	6.9	370	ND
ERT-1	3/22/2023	Wellhead down - no samples collected.																		
ERT-1	3/22/2023	ERT-1	62.6	ND	7.90	18.6	NA	NA	9.0	NA	ND	ND	0.230 J	ND	ND	5.45	ND	6.8	350	2.0
ERT-1	4/18/2023	ERT-1	45.4	ND	5.95	14.2	NA	NA	5.5	NA	ND	ND	0.170 J	ND	ND	4.47	ND	6.5	290	ND
ERT-1	5/16/2023	ERT-1	38.2	ND	5.67	11.4	NA	NA	5.0	NA	ND	ND	0.190 J	ND	ND	3.81	ND	7.0	410	ND
ERT-1	6/20/2023	ERT-1	28.2	ND	5.48	7.39	NA	NA	4.6	NA	ND	ND	0.160 J	ND	ND	3.06	ND	6.9	370	ND
ERT-1	7/24/2023	ERT-1	12.3	ND	7.28	9.37	NA	NA	5.1	NA	ND	ND	0.270 J	ND	ND	4.07	ND	6.9	330	ND
ERT-1	8/29/2023	ERT-1	28.2	ND	5.67	10.6	NA	NA	4.4	NA	ND	ND	0.220 J	ND	ND	3.37	ND	6.9	310	ND
ERT-1	10/10/2023	ERT-1	28.4	ND	6.72	11.4	NA	NA	5.0	NA	ND	ND	ND	ND	ND	3.46	ND	6.9	360	ND
ERT-1	10/1/2023	ERT-1	40.2	ND	6.4	15.7	NA	NA	5.6	NA	ND	ND	0.280 J	ND	ND	4.27	ND	7.2	370	ND
ERT-1	11/9/2023	ERT-1	31.1	ND	5.84	12.6	NA	NA	5.1	NA	ND	ND	0.230 J	ND	ND	4.12	ND	7.1	210	ND
ERT-1	12/8/2023	ERT-1	26	ND	5.89	9.67	NA	NA	5.1	NA	ND	ND	0.180	ND	ND	3.55	ND	6.9	330	ND
ERT-1	1/10/2024	ERT-1	46	ND	7.5	16	NA	NA	6.2	ND	ND	ND	ND	ND	ND	5.2	ND	7.2	370	ND
ERT-1	2/26/2024	ERT-1	59	ND	5.6	18	NA	NA	5.25	ND	ND	ND	ND	ND	ND	5.1	ND	7.07	410	ND
ERT-1	3/21/2024	Wellhead down - no samples collected.																		
ERT-1	4/10/2024	Wellhead down - no samples collected.																		
ERT-1	5/29/2024	ERT-1	26	ND	4.8	10	NA	NA	5.78	ND	ND	ND	ND	ND	ND	3.2	ND	7.12	380	ND

Table 2.6: System Performance Sampling Results

Sample Location	Sample Date	Parameter	1,1,1-Trichloroethane	1,1,2-Trichloroethane	1,1-Dichloroethane	1,1,2-Dichloroethylene	1,2-Dichloroethane	1,2-Dichloroethane Total	1,4-Dioxane	Acetone	Benzene	Carbon Tetrachloride	Chloroform	Methylene Chloride	Toluene	Trichloroethylene	Iron	pH	Total Dissolved Solids	Total Suspended Solids
		Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	SD	mg/L	mg/L
Pw Air Stripper Combined Influent	6/9/2022	NYS Class GA	5	5	5	0.6	5	5	5	5	5	5	5	5	5	5	300	-	460	ND
Pw Air Stripper Combined Influent	7/14/2022	Combined Influent	46.3	ND	15.9	13.8	ND	NA	3.7	NA	ND	ND	ND	ND	ND	4.03	ND	7.1	370	ND
Pw Air Stripper Combined Influent	Aug. 2022	System shut down - no samples collected.																		
Pw Air Stripper Combined Influent	Sept. 2022	System shut down - no samples collected.																		
Pw Air Stripper Combined Influent	Oct. 2022	System shut down - no samples collected.																		
Pw Air Stripper Combined Influent	Nov. 2022	System was activated for pilot run on 11/19/2022, but samples were not collected until 12/1/2022.																		
Pw Air Stripper Combined Influent	12/1/2022	Combined Influent	87.4	ND	23.5	85.4	NA	NA	6.2	NA	ND	ND	0.570 J	ND	ND	5.40	ND	6.8	280	1.2
Pw Air Stripper Combined Influent	12/21/2022	Combined Influent	85.4	ND	4.3	85.4	NA	NA	4.1	NA	ND	ND	ND	ND	ND	4.28	0.054	6.8	250	0.0
Pw Air Stripper Combined Influent	1/19/2023	Combined Influent	64.2	ND	5.00	15.6	NA	NA	4.0	NA	ND	ND	ND	ND	ND	4.01	ND	7.0	320	ND
Pw Air Stripper Combined Influent	2/22/2023	Combined Influent	113	0.234 J	5.00	47.5	NA	NA	6.0	NA	ND	ND	0.240 J	ND	ND	2.20	ND	7.0	250	ND
Pw Air Stripper Combined Influent	3/26/2023	Combined Influent	38.5	ND	2.47	38.5	NA	NA	3.0	NA	ND	ND	ND	ND	ND	2.50	ND	6.8	360	ND
Pw Air Stripper Combined Influent	4/18/2023	Combined Influent	41.3	ND	2.65	19.5	NA	NA	3.0	NA	ND	ND	ND	ND	ND	3.48	ND	6.8	360	ND
Pw Air Stripper Combined Influent	5/16/2023	Combined Influent	28.4	ND	2.65	7.84	NA	NA	2.4	NA	ND	ND	ND	ND	ND	2.53	ND	7.1	440	ND
Pw Air Stripper Combined Influent	6/20/2023	Combined Influent	31.2	ND	4.03	6.97	NA	NA	3.5	NA	ND	ND	ND	ND	ND	3.36	0.31	7.0	410	2.6
Pw Air Stripper Combined Influent	7/24/2023	Combined Influent	15.8	ND	1.67	4.15	NA	NA	1.8	NA	ND	ND	ND	ND	ND	2.60	0.070	7.0	450	2.0
Pw Air Stripper Combined Influent	8/29/2023	Combined Influent	22.0	ND	2.30	8.19	NA	NA	2.2	NA	ND	ND	ND	ND	ND	3.13	0.17	7.0	270	ND
Pw Air Stripper Combined Influent	9/18/2023	Combined Influent	18.5	ND	2.65	6.72	NA	NA	1.7	NA	ND	ND	ND	ND	ND	2.71	ND	6.8	390	ND
Pw Air Stripper Combined Influent	10/1/2023	Combined Influent	28.0	ND	2.57	8.29	NA	NA	1.20	NA	ND	ND	ND	ND	ND	0.0021	ND	7.3	370	0.0
Pw Air Stripper Combined Influent	11/1/2023	Combined Influent	33.2	ND	3.41	5.86	NA	NA	3.4	NA	ND	ND	0.170 J	ND	ND	2.52	ND	7.2	130	ND
Pw Air Stripper Combined Influent	1/28/2024	Combined Influent	17.7	ND	2.31	5.80	NA	NA	4.3	NA	ND	ND	ND	ND	ND	2.77	ND	6.8	310	ND
Pw Air Stripper Combined Influent	1/10/2024	Combined Influent	19	ND	1.8	6.4	NA	NA	2.1	ND	ND	ND	ND	ND	ND	2.5	10.2	7.17	400	ND
Pw Air Stripper Combined Influent	2/26/2024	Combined Influent	45	ND	2.2	7.2	NA	NA	2.2	ND	ND	ND	ND	ND	ND	2.2	ND	7.26	400	ND
Pw Air Stripper Combined Influent	3/21/2024	IR	52	ND	21	9	NA	NA	3.7	ND	ND	ND	ND	ND	ND	2.7	ND	7.35	320	ND
Pw Air Stripper Combined Influent	4/10/2024	IR	79	ND	20	14	NA	NA	5.8	ND	ND	ND	ND	ND	ND	3.7	ND	7.64	410	ND
Pw Air Stripper Combined Influent	5/29/2024	Combined Influent	82	ND	22	12	NA	NA	6.50	ND	ND	ND	ND	ND	ND	3.2	0.384	7.36	390	0.0

Table 2.6: System Performance Sampling Results

Sample Location	Sample Date	Parameter	1,1,1-Trichloroethane	1,1,2-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethylene	1,2-Dichloroethane	1,2-Dichloroethane Total	1,4-Dioxane	Acetone	Benzene	Carbon Tetrachloride	Chloroform	Methylene Chloride	Toluene	Trichloroethylene	Iron	pH	Total Dissolved Solids	Total Suspended Solids	
		Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	SI	mg/L	mg/L	
		NYS Class GA	5	5	5	5	0.6	5	5	5	5	5	5	5	5	5	300	0.2	470	ND	
Air Stripper Effluent	6/9/2022	Effluent	0.75 J	ND	0.66 J	ND	ND	NA	3.6	NA	ND	ND	ND	ND	ND	ND	ND	0.093	0	370	ND
Air Stripper Effluent	7/14/2022	Effluent	0.54 J	ND	0.56 J	ND	ND	NA	3.6	NA	ND	ND	ND	ND	ND	ND	ND	0.093	0	370	ND
Air Stripper Effluent	Aug. 2022	System shut down - no samples collected.																			
Air Stripper Effluent	Sept. 2022	System shut down - no samples collected.																			
Air Stripper Effluent	Oct. 2022	System shut down - no samples collected.																			
Air Stripper Effluent	Nov. 2022	System was activated for data run on 11/15/2022, but samples were not collected until 12/1/2022.																			
Air Stripper Effluent	12/1/2022	Effluent	0.430 J	ND	0.820 J	ND	NA	NA	5.9	NA	ND	ND	3.77	ND	ND	ND	ND	7.8	380	5.4	
Air Stripper Effluent	12/11/2022	Effluent	1.93 J	ND	0.800 J	ND	NA	NA	6.0	NA	ND	ND	ND	ND	ND	0.260 J	0.38	8.0	230	10	
Air Stripper Effluent	1/19/2023	Effluent	0.800 J	ND	0.860 J	ND	NA	NA	5.1	NA	ND	ND	ND	ND	ND	ND	ND	8.1	340	ND	
Air Stripper Effluent	2/22/2023	Effluent	1.62 J	ND	1.12 J	ND	NA	NA	4.5	NA	ND	ND	ND	ND	ND	ND	ND	7.9	250	2.4	
Air Stripper Effluent	3/26/2023	Effluent	0.920 J	ND	0.890 J	ND	NA	NA	4.1	NA	ND	ND	ND	ND	ND	ND	ND	7.9	330	1.4	
Air Stripper Effluent	4/18/2023	Effluent	2.57	ND	0.940 J	0.210 J	NA	NA	4.8	NA	ND	ND	ND	ND	ND	0.300 J	ND	7.7	360	2.2	
Air Stripper Effluent	5/16/2023	Effluent	2.08	ND	2.25	2.08	NA	NA	3.6	NA	ND	ND	ND	ND	ND	2.12	ND	7.1	440	ND	
Air Stripper Effluent	6/20/2023	Effluent	2.10	ND	2.40	0.560 J	NA	NA	3.3	NA	ND	ND	ND	ND	ND	0.240 J	ND	8.1	290	1.8	
Air Stripper Effluent	7/24/2023	Effluent	1.81 J	ND	1.70 J	0.270 J	NA	NA	3.0	NA	ND	ND	ND	ND	ND	0.300 J	ND	8.1	310	1.6	
Air Stripper Effluent	8/29/2023	Effluent	1.29 J	ND	1.80 J	0.300 J	NA	NA	3.1	NA	ND	ND	ND	ND	ND	0.130 J	ND	8.0	290	ND	
Air Stripper Effluent	9/18/2023	Effluent	1.58 J	ND	1.51 J	ND	NA	NA	3.2	NA	ND	ND	ND	ND	ND	ND	ND	8.1	360	ND	
Air Stripper Effluent	10/1/2023	Effluent	1.86	ND	1.57	0.3	NA	NA	3.3	NA	ND	ND	ND	ND	ND	ND	ND	8.2	360	ND	
Air Stripper Effluent	11/9/2023	Effluent	1.46 J	ND	1.36 J	0.230 J	NA	NA	3.4	NA	ND	ND	ND	ND	ND	0.240 J	ND	8.1	230	ND	
Air Stripper Effluent	1/28/2024	Effluent	1.24	ND	1.14 J	0.170 J	NA	NA	3.4	NA	ND	ND	ND	ND	ND	0.200 J	ND	8	320	ND	
Air Stripper Effluent	1/10/2024	Effluent	5.1	ND	2.7	0.8 J	NA	NA	4.03	ND	ND	ND	ND	ND	ND	0.62 J	ND	8.01	390	ND	
Air Stripper Effluent	2/26/2024	Effluent	4.5	ND	2.4	0.67 J	NA	NA	2.72	ND	ND	ND	ND	ND	ND	0.52 J	ND	7.61	410	ND	
Air Stripper Effluent	3/21/2024	Effluent	1.1	ND	1.7	ND	NA	NA	3.67	ND	ND	ND	ND	ND	ND	ND	ND	7.87	360	ND	
Air Stripper Effluent	4/10/24	Effluent	1.7 J	ND	1.2 J	ND	NA	NA	7.31	ND	ND	ND	ND	ND	ND	ND	0.025 J	8.26	480	ND	
Air Stripper Effluent	5/9/2024	Effluent	7.2	ND	5.1	0.59 J	NA	NA	6.36	ND	ND	ND	ND	ND	ND	0.46 J	ND	7.48	370	ND	

Notes:

Reported in/around June 2022 through May 2024

NYS Class GA = New York State Class GA Groundwater Standards

"-": The principal organic contaminant standard for groundwater of 5 ug/L applies to this substance.

"-": No Criteria

L = Liquid

PD = Field Duplicate

FS = Field Sample

J = Estimated Value

Δ = Estimated Value, Bias/Low

mg/L = Micrograms per liter

ND = Exceeds standard or guidance value

Table 2.7: Long-Term Monitoring Groundwater Elevation Measurements and Field Parameters

Groundwater Elevation Measurements							Field Parameters						
Well ID / Sampling Location	X Coordinate	Y Coordinate	Screened Zone (ft bTOC)	Measure Point Elevation* (ft AMSL)	Depth to Water (ft bTOC) 5/15/2023	Groundwater Elevation (ft AMSL) 5/15/2023	May 2023 LTM Sampling Date	pH SI Units	ORP mV	Conductivity mS/cm ³	Temp °C	DO mg/L	Turbidity NTU
ERT-1	571897.25	4629866	28-195	303.94	60.47	243.47	5/17/2023	7.02	229	0.546	14.52	6.9	0
ERT-4	571979.5	4629806.5	UNK-50	326.67	29.44	297.23	5/18/2023	7.52	202	0.737	14.67	8.18	180
MW-1B	571967.38	4629665	22-100	333.53	53.13	280.4	5/16/2023	6.82	166	0.717	15.08	2.6	28.6
MW-4	571971.06	4629799	11-21.5	329.21	6.04	323.17	5/18/2023	6.91	187	0.949	13.98	0	146
MW-5B	571981.81	4629825.5	19-36.2	325.3	27.88	297.42	5/16/2023	6.79	173	0.494	13.95	4.55	7.2
MW-5R	572003.06	4629852	13-125	313.63	72.49	241.14	5/17/2023	6.94	229	0.591	13.69	6.4	0
MW-6B	572042.38	4629780.5	39-100	323.95	78.31	245.64	5/18/2023	7.34	156	0.657	13.36	5.26	0
MW-7R	571790.75	4629797	28-180	314.3	77.69	236.61	5/17/2023	6.99	239	0.507	16.45	9.55	0
MW-8B	572249.41	4630989.19	48-100	159.68	30.31	129.37	5/16/2023	8.01	-204	0.44	15.63	1.22	34
MW-9B	572016.88	4630545	95-145	248.21	17.47	230.74	5/17/2023	7.78	-123	0.292	11.59	0.45	72.3
MW-10B	572734.6	4630604	24-100	225.64	23.22	202.42	5/16/2023	6.55	105	0.191	11.77	0.12	7.2
MW-11B	572126.19	4630011	49-181	281.72	34.81	246.91	5/18/2023	7.64	-77	0.495	13.18	0.81	77.2
MW-11C	572125	4630007	47-220	284.58	36.82	247.76	5/18/2023	7.11	111	0.701	13.16	0.2	11.9
MW-12B	572234.19	4630222.41	17-200	258.2	10.28	247.92	5/18/2023	7.02	152	0.413	12.71	1.34	9.5
MW-13B	571312.94	4630103	78-200	221.93	NM	NM	NS	NM	NM	NM	NM	NM	NM
MW-14B	572600.32	4630930.34	24-155	156.67	4.99	151.68	5/16/2023	7.09	-67	0.413	12.98	0.75	18.7
MW-15B	571701.56	4630172.5	38-150	244.89	11.20	233.69	5/17/2023	7.18	169	0.436	10.7	4.79	4.8
MW-16	572083.65	4630265.75	73-93	274.11	23.85	250.26	5/17/2023	6.43	191	0.128	11.64	3.54	195
MW-17-1	572545.72	4630421.63	47-57	241.92	5	236.92	5/16/2023	7.13	65	0.434	12.49	1.73	0
MW-17-2			102.5-110	241.92	10.45	231.47	5/16/2023	7.04	82	0.433	12.45	1.13	8
MW-17-3			124-129	241.92	10.45	231.47	5/16/2023	6.95	9	0.45	12.34	0.43	7.2
MW-21-1	572596	4630042	42.75-48	233.59	0	233.59	5/17/2023	6.88	179	0.392	12.33	4.75	0
MW-21-2			67-69.5	233.59	0	233.59	5/17/2023	6.85	183	0.345	12.2	5.03	0
MW-21-4			121.5-124	233.59	0	233.59	5/17/2023	6.87	184	0.356	12.57	6.42	0
MW-21-5			142.5-145	233.59	0	233.59	5/17/2023	6.8	185	0.369	12.08	7.65	0
MW-21-6			160.5-163	233.59	0	233.59	5/17/2023	6.9	185	0.37	11.9	4.18	0

Notes:

LTM: Long-Term Monitoring

bTOC: Below top of casing

* Top of Well Casing (TOC)

AMSL: Above mean sea level

NM: Not Measured

NS: Not Sampled

Field parameters collected at MW groundwater stabilization prior to groundwater sampling.

MW-13B - No Access to well. 1" metal cap seized to metal casing.

MW-17 and MW-21 Flute MWs sampled from ports -# as noted.

MW-21 Flute MW is Artesian.

Prepared by: IEM

Checked by: NB

Date: 9/25/2024

Table 2.8 - Groundwater Monitoring Results Above New York State Standards - May 2023

Parameter			1,4-Dioxane	1,1,1-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethene	2-Butanone	Acetone	Chloroform	cis-1,2-Dichloroethene	Methylene chloride	Toluene	Trichloroethene
NYS Class GA Standard			NS	5	5	5	50	50	7	5	5	5	5
Location	Sample Date	Sample ID	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
ERT-1	5/17/2023	356023-ERT1	5	35	5.2	10	20 U	50 U	2 U	0.24 J	5 U	1 U	3.5
ERT-4	5/18/2023	356023-ERT4	3.5	1000	29	82	60 J	45 J	40 U	6.8 J	100 U	20 U	67
MW-1B	5/16/2023	356023-MW1B	0.2 U	1 U	1 U	1 U	20 U	2.4 J	2 U	1 U	5 U	1 U	1 U
MW-4	5/18/2023	356023-MW4	3	400	19	58	10 J	11 J	10 U	12	25 U	5 U	240
MW-5B	5/16/2023	356023-MW5B	5.1	490	9.8 J	61	200 U	500 U	20 U	10 U	50 U	10 U	32
MW-5R	5/17/2023	356023-MW5R	2.4	28	2.1	7.3	20 U	50 U	2 U	1 U	5 U	1 U	2.5
MW-6B	5/18/2023	356023-DUP-02	0.99 J	4.3	0.16 J	0.94 J	20 U	2.5 J	2 U	1 U	5 U	1 U	1 U
MW-6B	5/18/2023	356023-MW6B	0.47 J	4.4	1 U	0.97 J	20 U	2.2 J	2 U	1 U	5 U	1 U	1 U
MW-7R	5/17/2023	356023-MW7R	1.9	55	32	7.1	20 U	50 U	0.16 J	0.97 J	5 U	1 U	0.87 J
MW-8B	5/16/2023	356023-MW8B	2.2	1 U	1 U	1 U	20 U	50 U	2 U	1 U	5 U	0.23 J	1 U
MW-9B	5/17/2023	356023-MW9B	10	0.22 J	0.74 J	1 U	20 U	50 U	2 U	1 U	5 U	1 U	1 U
MW-10B	5/16/2023	356023-DUP-01	0.2 U	1 U	1 U	1 U	20 U	50 U	2 U	1 U	5 U	1 U	1 U
MW-10B	5/16/2023	356023-MW10B	0.2 U	1 U	1 U	1 U	20 U	50 U	2 U	1 U	5 U	1 U	1 U
MW-11B	5/18/2023	356023-MW11B	2.2	0.58 J	1.5	2.5	20 U	50 U	2 U	1 U	5 U	1 U	0.52 J
MW-11C	5/18/2023	356023-MW11C	1.2	1.4	0.64 J	2.1	20 U	50 U	2 U	1 U	5 U	1 U	0.61 J
MW-12B	5/18/2023	356023-MW12B	1.5	3.7	1.7	3.5	20 U	50 U	2 U	1 U	5 U	1 U	1.2
MW-14B	5/16/2023	356023-MW14B	3.7	1 U	1.2	1.1	20 U	50 U	2 U	1 U	5 U	1 U	1 U
MW-15B	5/17/2023	356023-MW15B	4.9	9.8	5.8	9.8	20 U	50 U	2 U	1 U	0.2 J	1 U	1.2
MW-16	5/17/2023	356023-MW16	0.29	0.4 J	1 U	0.47 J	20 U	2.1 J	2 U	1 U	5 U	1 U	1 U
MW-17-1	5/16/2023	356023-MW17-1	5.8	6.1	5	11	20 U	50 U	2 U	1 U	5 U	1 U	2.5
MW-17-2	5/16/2023	356023-MW17-2	8.8	5.6	7.3	12	20 U	50 U	2 U	0.32 J	5 U	1 U	2
MW-17-3	5/16/2023	356023-MW17-3	9.1	1.4	8.2	12	20 U	50 U	2 U	1.6	0.22 J	0.39 J	0.28 J
MW-21-1	5/17/2023	356023-MW21-1	1.1	1.7	0.65 J	2.6	20 U	50 U	2 U	1 U	0.23 J	1 U	2.3
MW-21-2	5/17/2023	356023-MW21-2	0.68	0.89 J	0.38 J	1.5	20 U	50 U	2 U	1 U	0.24 J	1 U	1.5
MW-21-4	5/17/2023	356023-MW21-4	1.8	0.95 J	1.3	3	20 U	50 U	2 U	1 U	5 U	1 U	1.7
MW-21-5	5/17/2023	356023-MW21-5	2.1	1.1	1.4	3.2	20 U	50 U	2 U	1 U	5 U	1 U	2.1
MW-21-6	5/17/2023	356023-MW21-6	2.1	1	1.6	3.2	20 U	50 U	2 U	1 U	5 U	1 U	1.9

Notes:
Dioxane by Method 8270E
Volatile Organic Compounds by Method 8260C
NYS Class GA = New York State Class GA Groundwater Standards
ug/L = micrograms per liter
Bold = Exceeds standard or guidance value
40 U = Method Detection Limit > NYS Class GA
U = Not Detected
J = Estimated Value

ATTACHMENT A1
NYSDEC ENGINEERING CONTROLS – STANDBY CONSULTANT
/CONTRACTOR CERTIFICATION FORM



Enclosure 1
Engineering Controls - Standby Consultant/Contractor Certification Form



Site Details		Box 1
Site No.	356023	
Site Name Mohonk Road Industrial Plant		
Site Address: Mohonk Road (High Falls) Zip Code: 12440		
City/Town: Marbletown and Rosendale		
County: Ulster		
Site Acreage: 14.5		
Reporting Period: June 01, 2022 to May 31, 2024		
		YES NO
1. Is the information above correct? - Corrections made above.		☐ ☒
If NO, include handwritten above or on a separate sheet.		
2. To your knowledge has some or all of the site property been sold, subdivided, merged, or undergone a tax map amendment during this Reporting Period?		☐ ☒
3. To your knowledge has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))?		☐ ☒
4. To your knowledge 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. To your knowledge is the site currently undergoing development?		☐ ☒

		Box 2
		YES NO
6. Is the current site use consistent with the use(s) listed below? Industrial		☒ ☐
7. Are all ICs/ECs in place and functioning as designed?		☒ ☐
IF THE ANSWER TO EITHER QUESTION 6 OR 7 IS NO, sign and date below and contact the DEC PM regarding the development of a Corrective Measures Work Plan to address these issues.		
Signature of Standby Consultant/Contractor		Date

Description of Institutional Controls

<u>Parcel</u>	<u>Owner</u>	<u>Institutional Control</u>
70.3-3-37.1	Craig's Closet LLC	Ground Water Use Restriction Monitoring Plan O&M Plan IC/EC Plan

An environmental easement is in place that restricts the use of groundwater beneath the site and requires the site owner to provide access to the near-field pump and treat system.

An on site bedrock pump and treat system was installed in 2001 for the near field plume and is operational. Monthly performance sampling is completed to monitor the pump and treat system operation.

A groundwater monitoring program is in place to monitor the near plume and monitor natural attenuation in the far-field plume.

A soil-vapor-extraction-system-and vapor mitigation system in the on-site building is are installed and operating.

A ordinance within the High Falls Water District prohibits residents from establishing or maintaining a source of drinking and domestic water separate from the public water supply.

Description of Engineering Controls

<u>Parcel</u>	<u>Engineering Control</u>
70.3-3-37.1	Groundwater Treatment System Vapor Mitigation Alternate Water Supply

Engineering Controls in place include a groundwater extraction and treatment system; groundwater monitoring well network and a subslab depressurization system (for control of soil vapors)

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 certification, including data and material prepared by previous contractors for the current certifying period, if any;

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 complete.

YES NO

☒ ☐

2. If this site has an IC/EC Plan (or equivalent as required in the Decision Document), for each Institutional or Engineering control listed in Boxes 3 and/or 4, I certify by checking "YES" below that all of the following statements are true:

(a) the Institutional Control and/or 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) nothing has occurred that would constitute a failure to comply with the Site Management Plan, or equivalent if no Site Management Plan exists.

YES NO

☒ ☐

IF THE ANSWER TO QUESTION 2 IS NO, sign and date below and contact the DEC PM regarding the development of a Corrective Measures Work Plan to address these issues.

Signature of Standby Consultant/Contractor

Date

IC/EC CERTIFICATIONS

Qualified Environmental Professional Signature

I certify that all information in Boxes 2 through 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 Mark Stelmack, P.E. at Earth & Environment Engineering and Geology, P.C.
print name

2 Monument Square, Suite 200
Portland, Maine, 04101

(print business address)

am certifying as a Qualified Environmental Professional.

Mark Stelmack

Signature of Qualified Environmental Professional



Stamp
(Required for PE)

September 30, 2024
Date

ATTACHMENT A2-1
FIELD FORMS
OM&M MONTHLY FIELD FORMS – JANUARY – MAY 2024

Mohonk Road - Groundwater Remediation System Checklist

Date: 1/10/24

Personnel Onsite Initials: PC

Input Name	Flow Rates (On Meter)	Totalizer (Procontrol)
(ER1FLO)	12.6	6086871
(W7RFLO)	7.4	3953311
(W5RFLO)	9.7	41799735
Exterior of building checked and grounds maintained (weedwack, etc)		Y / N
Clean influent flow meters		NA
Adjust flow to set points using valves (see below for set points)		Y / N
Redux drum changed		Y / N
How many Redux drums remaining		2
Redux remaining (in. from bottom)		10"
Nitrogen Pressure (in PSI)		600 / 644
Well Name	Set point (GPM)	
MW-5R	9.5	
MW-7R	7.5	
ERT-1	12	

↑ Tank
↑ Ao Control

Input Name	Water Level (Procontrol)
W5RLVL	-71.09
W7RLVL	-77.65
ER1LVL	-64.61
Location/ Input name	Pressure (Procontrol)
Transfer Pump (PREBAG)	4.6
Air Stripper (AS_PRS)	17.06
Discharge Pump (DSCPRS)	24.2
Location	Temp (Procontrol)
Room (RM_TMP)	52.2
Air Stripper (AS_TMP)	N/A Temp Sensor disconnected
Discharge Pump (H2OTMP)	50.5
Location	pH
Effluent (EFF_PH)	8.99
Effluent (Measured)	7.00

Take the following steps to record the flow totalizer for each well on the ProControl

- Login to ProControl (Password: EOS).
- Once logged in, press the "I/O Up" key until "ER1FLO" is on the display
- Press "Set Hi/Lo" key until "Totalizer" is displayed and record the value
- Once value is recorded, press "Set Hi/Lo" until "ER1FLO" is on the display
- Repeat steps ii-iv for W7RFLO and W5RFLO

Notes: Air Stripper temperature was not on pro control screens, Temperature sensor in process room is disconnected

Secondary tank pressure 900 off tank gauge / 967 on pro control

Replacement tank 2300 PSI on gauge / 2320 PSI on pro control

Mohonk Road - Additional Site Checklists

SSDS System Checklist

Date:

Fan	On/Off
1	☒ - off
2	☒ on
3	☒ on
4	☒ on
5	☒ on
6	☒ on
7	☒ on

Treatment
Plant

Fire Safety (Exit Sign) Checklist

Date:

Location	Y/N
Front Door	☒
Air Stripper Rm	☒
Back Door	☒



GeoLogic

<u>Location</u>	<u>Number of Bottles</u>	<u>Analysis Test</u>
SVE-19	3 - HCL VOAs	8260 VOCs Full List
SVE-21	3 - HCL VOAs	8260 VOCs Full List
SVE-22	3 - HCL VOAs	8260 VOCs Full List

Data Logging and Well Gauging (Monthly): Completed by: _____.

- Bring materials from shop and Treatment shed:
 1. Keys for MW-12B and MW-15B
 2. Interface probe
 3. iPad and Data logger
 4. Clipboard with Data table
 5. Map of the
 6. Flagging tape if needed
- Get data and well readings for each of the 6 wells: ERT-4, MW-4, MW5B, MW-11B, MW-12B, MW-15B.
- Check labels on each well and touch up.
- Starting with the cluster on the map of MW-4, MW-5B and ERT-4 take reading of depth to water using interface probe and record on table.
- Remove desiccant tube from transducer line and connect data logger to wire and power on.
- Open Vusitu on iPad (Passcode:001978) then connect data logger.
- Once connected download all data and save file to the iPad by creating a new folder and labeling it with collection date.
- Disconnect from the app and then remove the data logger and replace the desiccant tube back on the wire.
- Repeat this process for each well.
- Once back to the shop give iPad and data logger to NS and he will email files from the iPad to JG.

System Sampling (Monthly):

- Bring materials from shop:
- Large Cooler with Bottles and glassware
- Ice
- Count to make sure all bottles are there.
- Using gloves sample from each of the locations starting with effluent (cleanest) to Combined influent (dirtiest).
- Do not washout Acid from bottles.
- Contact Pace/ConTest - Office 518-357-3250 if any questions or concerns on the sampling bottles.

<u>Location</u>	<u>Number of Bottles</u>	<u>Analysis Test</u>
7R	7	See COC
ERT-1	7	See COC
5R	7	See COC
Combined Influent	7	See COC
Effluent	7	See COC

Temp pH ORP NS64 NTU DO
 10.41 6.91 166 0.515 0.8 3.04
 10.48 6.85 169 0.542 2.02 1152
 10.48 6.90 168 0.566 0.9 417
 11.72 7.07 207.520 0.0 440
 10.98 8.10 145 0.534 0.0 7.21

SVE Purge Table			
Well name:	<u>MW-19</u>	<u>MW-21</u>	<u>MW-22</u>
Time (minutes)	Depth to water (ft)	Depth to water (ft)	Depth to water (ft)
Initial (before purge)	26.42 26.42' 1025	39.32 39.32' 1010	33.73 33.73' 0950
Depth to bottom Dry (after purge)	DTB 57.71 1045 DTW 56.26	DTB 55.91 1020 DTW 54.70	DTB 55.51 1005 DTW 53.94
30mins	56.25 1115	54.50 1050	52.99 1035
1 hour	56.14 1145	54.15 1120	51.86 1105
1.5 hours	56.00 1215	53.82 1150	49.68 1135
2 hours	55.80 1250	53.55 1220	49.60 1205
2.5 hours	55.57 1315	53.18 1255	48.38 1235
3 hours	55.51 1345	52.87 1320	47.23 1305
3.5 hours	55.36 1415	52.54 1350	46.08 1335
4 hours	55.19 1445	52.26 1420	44.89 1405
Volume Purged using 5-gallon buckets	19.0	10.25	13.5

Water Quality Parameter Readings
MW-19 → 11.25°C, 6.71pH, 25 ORP, 0.944 mS/cm, 2.8 NTU, 3.8 mg/L DO
MW-21 → 12.06°C, 6.72pH, 17 ORP, 0.890 mS/cm, 18.2 NTU, 8.54 mg/L
MW-22 → 11.34°C, 6.76pH, 181 ORP, 1.07 mS/cm, 17.9 NTU, 7.94 mg/L DO

Data Logger Collection

<u>Location</u>	<u>Measured DTW BTAC</u>
ERT-4	25.74'
MW-4	2.98'
MW-5B	25.08'
MW-11B	33.55'
MW-12B	8.69'
MW-15B	— Access Flooded

Mohonk Road - Groundwater Remediation System Checklist

Date: 2/6/2024

Personnel Onsite Initials: _____

Input Name	Flow Rates (On Meter)	Totalizer (Procontrol)
(ER1FLO)	12.7	6578760
(W7RFLO)	6.6	4210869
(W5RFLO)	9.9	5179344
Exterior of building checked and grounds maintained (weedwack, etc)		Y / N
Clean influent flow meters		NA
Adjust flow to set points using valves (see below for set points)		Y / N
Redux drum changed		Y / N
How many Redux drums remaining		1
Redux remaining (in. from bottom)		29.5
Nitrogen Pressure (in PSI)		2114 / 2100
Well Name	Set point (GPM)	↑ B Tank control board
MW-5R	9.5	
MW-7R	7.5	
ERT-1	12	

Input Name	Water Level (Procontrol)
W5RLVL	68.53
W7RLVL	72.84
ER1LVL	61.49
Location/ Input name	Pressure (Procontrol)
Transfer Pump (PREBAG)	4.7
Air Stripper (AS_PRS)	17.31
Discharge Pump (DSCPRS)	24.6
Location	Temp (Procontrol)
Room (RM_TMP)	48.1
Air Stripper (AS_TMP)	—
Discharge Pump (H2OTMP)	50.7
Location	pH
Effluent (EFF_PH)	9.10
Effluent (Measured)	8.2 8.2

Take the following steps to record the flow totalizer for each well on the ProControl

- i. Login to ProControl (Password: EOS).
- ii. Once logged in, press the "I/O Up" key until "ER1FLO" is on the display
- iii. Press "Set Hi/Lo" key until "Totalizer" is displayed and record the value
- iv. Once value is recorded, press "Set Hi/Lo" until "ER1FLO" is on the display
- v. Repeat steps ii-iv for W7RFLO and W5RFLO

Notes:

Mohonk Road - Additional Site Checklists

SSDS System Checklist

Date:

2/6/24

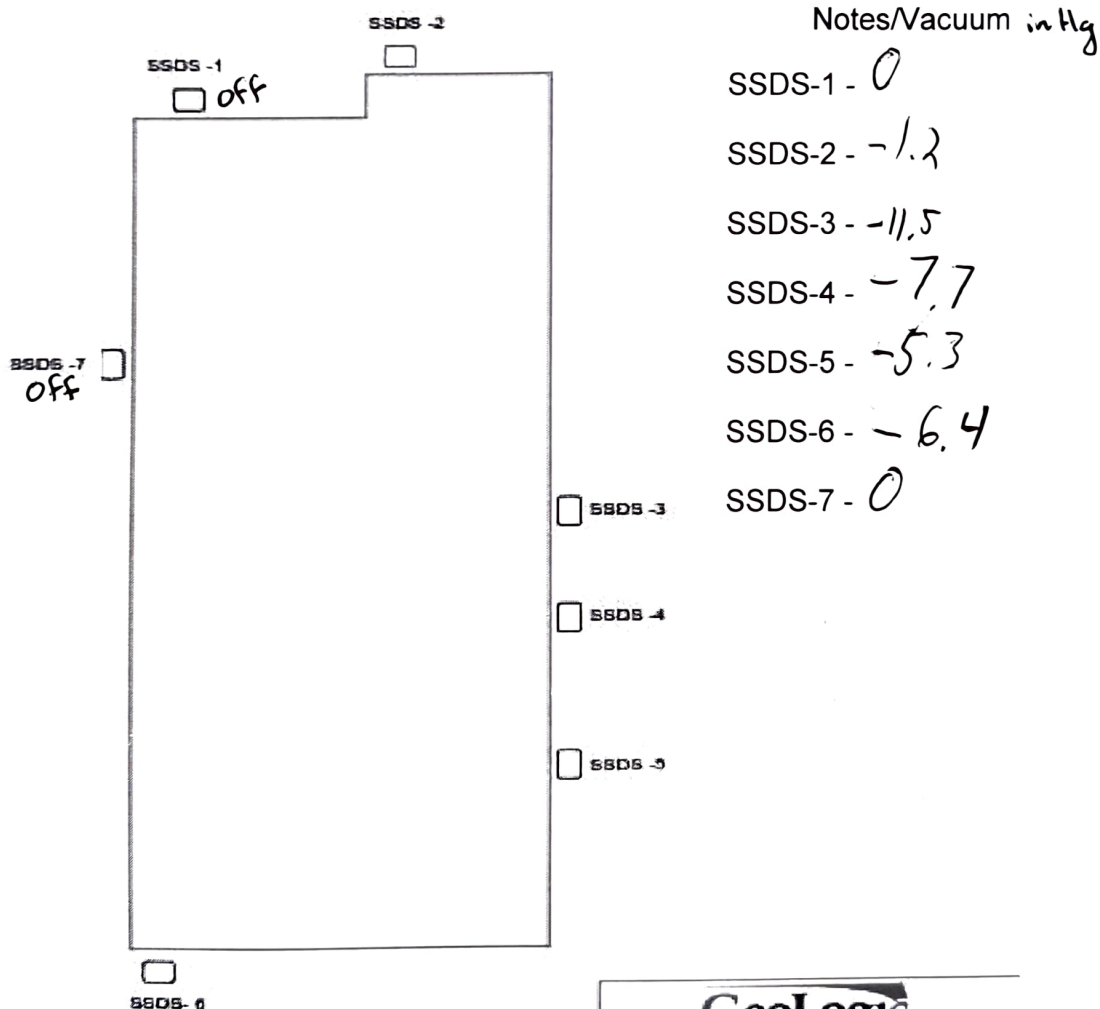
Fan	On/Off
1	off
2	on
3	on
4	on
5	on
6	on
7	off

Treatment
Plant

Fire Safety (Exit Sign) Checklist

Date:

Location	Y/N
Front Door	Y
Air Stripper Rm	Y
Back Door	Y



GeoLogic

MACTEC

2/6/2024

System Sampling Water Quality Parameter Readings						
	Temperature (°C)	pH	ORP mV	Sp. Cond. (mS/cm)	Turbidity (NTU)	DO mg/L
Effluent 1400	9.09	8.20	145	0.561	1.4	16.44
MW-7R 1415	9.59	7.34	172	0.532	0.0	6.58
ERT-1 1430	10.40	7.11	190	0.549	0.0	4.50
MW-SR 1445	9.58	7.13	183	0.572	0.0	9.60
Combined Influent 1505	9.98	7.10	211	0.573	0.0	5.40

SVE Purge Table						
Date: 2/6/24	Data Collected By: BVC					
Well ID:	MW-19		MW-21		MW-22	
	Time	DTW	Time	DTW	Time	DTW
Initial (Before Purge)	1043	15.58	1045	14.81	1044	32.17
Depth to Bottom (Dry)	1115	57.16	1150	55.43	1135	55.13
30 min	1145	56.05	1220	54.86	1205	53.86
1 hour	1215	55.91	1250	54.79	1275	53.26
1.5 hour	1245	55.81	1320	54.75	1305	52.57
2 hours	1315	55.68	1350	54.70	1335	51.85
2.5 hours	1345	55.61	1420	54.65	1405	51.17
3 hours	1415	55.35	1450	54.61	1475	50.52
3.5 hours	1445	55.21	1520	54.56	1505	49.81
4 hours	1515	55.09	1550	54.53	1535	49.06
Volume purged	~17 gal		~7 gal		11 ~12 gal	
Samples Collected:	3 VOCs @ 1055		3 VOCs @ 1140		3 VOCs @ 1120	

SVE Purge Water Quality Parameter Readings						
	Temperature (°C)	pH	ORP mV	Sp. Cond. (mS/cm)	Turbidity (NTU)	DO mg/L
MW-19	9.59	6.73	59	1.08	9.8	7.39
MW-21	11.90	7.29	176	.901	10.6	15.78
MW-22	11.77	7.11	187	1.20	30.7	8.73

Level Logger Data Collection			
Well ID	Measured DTW	Time	Notes
ERT-4 26.69	26.69	1310	0.5 PTD
MW-4	3.98	1700	0.1 PTD
MW-5B	25.62	1320	0.0 PTD
MW-11B	31.73	1430	0.0 PTD
MW-12B	8.79	1420	0.0 PTD
MW-15B	11.10	1405	0.0 PTD

Mohonk Road - Groundwater Remediation System Checklist

Date: 3/21/24

Personnel Onsite Initials: IM/RO/MF

Input Name	Flow Rates (On Meter)	Totalizer (Procontrol)
(ER1FLO)	0.0	
(W7RFLO)	13.15	
(W5RFLO)	0.0	
Exterior of building checked and grounds maintained (weedwack, etc)		(Y)N
Clean influent flow meters		NA
Adjust flow to set points using valves (see below for set points)		Y/N
Redux drum changed		Y/N
How many Redux drums remaining		1 Drum left
Redux remaining (in. from bottom)		1 Drum left
Nitrogen Pressure (in PSI)		2500 PSI / Pro Control 2543
Well Name	Set point (GPM)	
MW-5R	9.5	
MW-7R	7.5	
ERT-1	12	

(Doubled w/our wells off)

Input Name	Water Level (Procontrol)
W5RLVL	-51.65
W7RLVL	-66.11
ER1LVL	-42.86
Location/ Input name	Pressure (Procontrol)
Transfer Pump (PREBAG)	36 36
Air Stripper (AS_PRS)	0.49
Discharge Pump (DSCPRS)	0.2
Location	Temp (Procontrol)
Room (RM_TMP)	51.8
Air Stripper (AS_TMP)	N/A
Discharge Pump (H2OTMP)	51.3
Location	pH
Effluent (EFF_PH)	9.42
Effluent (Measured)	7.25

Take the following steps to record the flow totalizer for each well on the ProControl

- Login to ProControl (Password: EOS).
- Once logged in, press the "I/O Up" key until "ER1FLO" is on the display
- Press "Set Hi/Lo" key until "Totalizer" is displayed and record the value
- Once value is recorded, press "Set Hi/Lo" until "ER1FLO" is on the display
- Repeat steps ii-iv for W7RFLO and W5RFLO

Notes:

DTW Time

ERT-4	26.85	1140
MW-4	4.50	1135
MW-5B	25.78	1155
MW-11B	22.11	1220
MW-12B	7.22	1230
MW-15B	9.95	1240

* GET Rid of 5 Empty Drums

Mohonk Road - Additional Site Checklists

SSDS System Checklist

Date:

3/21/24

Fan	On/Off
1	OFF
2	OFF
3	ON
4	ON
5	ON
6	ON
7	OFF

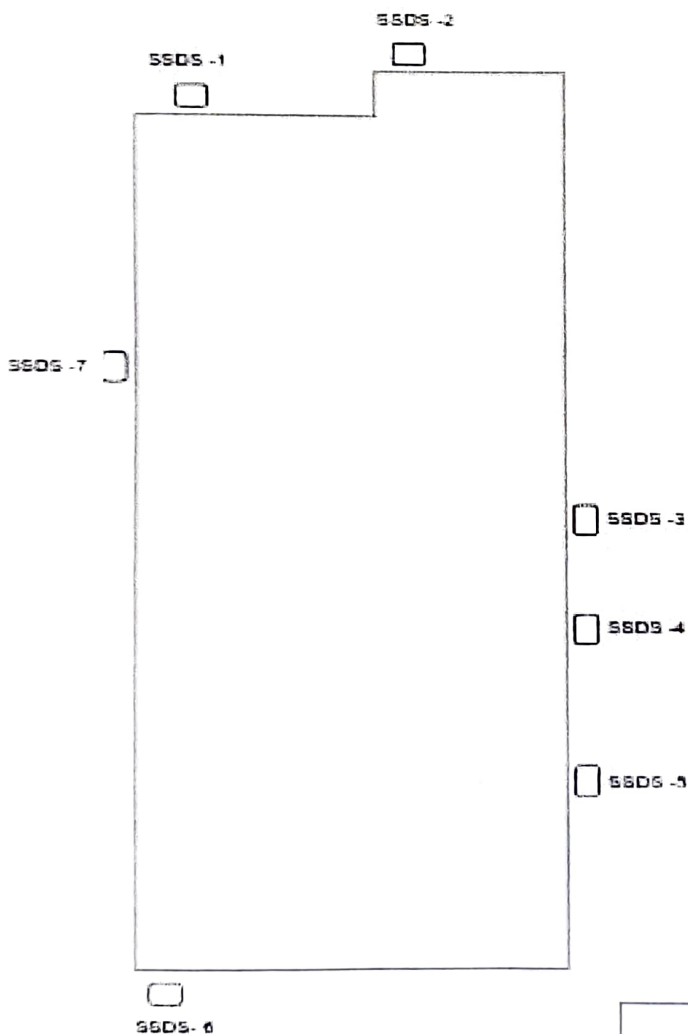
Fire Safety (Exit Sign) Checklist

Date:

3/21/24

Location	Y/N
Front Door	Y
Air Stripper Rm	Y
Back Door	Y

Treatment
Plant



Notes/Vacuum

SSDS-1 - OFF

SSDS-2 - 1.099

SSDS-3 - 1.787

SSDS-4 - 1.573

SSDS-5 - 1.359

SSDS-6 - 1.454

SSDS-7 - OFF

GeoLogic

 MACTEC

3/21/2024



MACTEC

Site Name: NYSDEC – Mohonk Road Industrial Plant

Project: 7772210116.03.01

Address:	186 Mohonk Road High Falls NY 12440	Door Code: 2-4-6-8
Site Owner/Contact:	NYSDEC – Charles Gregory 518-402-9813	
Task Requested	Monthly O&M / Sampling 2024 Quarterly SVE Well Sampling 2024	
Task To Be Completed By:	1 Foreman and 3 Tech – One 8 hr day. OT must be pre-approved	

HAS Overview:

1. Review site specific health and safety sheet. Identify all typical and new potential hazards. Sign into site using sign in sheet in treatment room.
2. Conduct tailgate safety meeting. Make sure all contractors and sub-contractors onsite sign the daily health and safety form. This includes all over site personnel (i.e. DEC, Engineering Firms, Etc...) **Return to PM, signed.**
3. Wear all necessary PPE when performing tasks onsite. This shall include but not be limited to: gloves, eye protection, hearing protection, and fall protection when working at elevations great than 6'.
4. **Bring a first aid kit.** Take precautions to avoid poison ivy and ticks at this site, as they are prevalent in the area.

SVE Well Purge (Monthly): Completed by: _____.

- Bring all need materials from treatment shed to SVE wells MW-19, MW-21, and MW-22:
 1. 3 dedicated whale pumps hanging in treatment room.
 2. 1 55-gallon drum
 3. 2 5-gallon buckets
 4. 3 marine batteries or 50ft lead cord for use of truck battery.
 5. Clipboard with Purge table
- Gauge each well using interface probe before beginning purge.
- Begin purging each well into a 5-gallon bucket record each full bucket then dump into 55-gallon drum until well is dry.
- Check to see if this event is for quarterly SVE sampling if yes, follow instructions below for sampling.
- Once well is dry record Depth to water using interface probe at 0 minutes, then every 30 minutes for 4 hours on the table provided for each individual well.
- Return the tabled data to Isaac Moser by end of day.

SVE Well Sampling and YSI readings (Quarterly): Completed by: _____.

- Materials needed from shop:
 1. Small cooler with Glassware
 2. Horiba (calibrated)
 3. Ice
- Check to make sure Horiba has been calibrated.
- During purge of each SVE well pump well until dry, then using water pumped into the final 5 gallon bucket collect Horiba reading and samples (see sample list below and COC). (Make sure there is enough water.)
- Then record amount of water in the last bucket for final volume pumped before dumping into drum.
- Repeat for each well.
- Send samples to Alpha Analytical. Lab Address: 8 Walkup Drive, Westborough, MA 01581

<u>Location</u>	<u>Number of Bottles</u>	<u>Analysis Test</u>
SVE-19	3 – HCL VOAs	8260 VOCs Full List
SVE-21	3 – HCL VOAs	8260 VOCs Full List
SVE-22	3 – HCL VOAs	8260 VOCs Full List

Data Logging and Well Gauging (Monthly): Completed by: _____.

- Bring materials from shop and Treatment shed:
 1. Keys for MW-12B and MW-15B
 2. Interface probe
 3. Data logger
 4. Clipboard with Data table
 5. Site Maps
 6. Flagging tape if needed
- Get data and physical water levels for each of the 6 wells: ERT-4, MW-4, MW5B, MW-11B, MW-12B, MW-15B.
- Check labels on each well and touch up.
- Starting with the cluster on the map of MW-4, MW-5B and ERT-4 take reading of depth to water using interface probe and record on table.
- Remove desiccant tube from transducer line and connect data logger to wire and power on.
- Open Vusitu on cell phone/device then connect data logger.
- Once connected download all data and save file by creating a new folder and labeling it with collection date.
- Disconnect from the app and then remove the data logger and replace the desiccant tube back on the wire.
- Repeat this process for each well.
- Once back to the shop email files to IM.

System Sampling (Monthly):

- Bring materials:
- Large Cooler with Bottles and glassware
- Ice
- Count to make sure all bottles are there.
- Using gloves sample from each of the locations starting with effluent (cleanest) to Combined influent (dirtiest).
- Do not washout Acid from bottles.

Contact Alpha Office 508-898-9220 if any questions or concerns on the sampling bottles.

Alpha PM is Nathalie Lewis.

Location	Number of Bottles	Analysis Test	
7R	7	See COC	e
ERT-1	7	See COC	NS
5R	7	See COC	NS
Combined Influent	7	See COC	NS
Effluent	7	See COC	e

System Check: (Bi-Weekly)

- Review site specific health and safety sheet. Identify all typical and new potential hazards. Sign into site using COVID-19 tracking sheet onsite. **Please return any full sign in sheets and start a new one to leave onsite.**
- Shovel if needed.
- Check all system conditions and provide notes recorded on system check sheet.
- Take all system readings and readings from the ProControl and record on the system check sheet including nitrogen pressure.
- Shut down system via ProControl and breaker.
- Drain influent lines into a bucket via the sample ports. Treat water through system. Close influent valves on both sides of the flow meter and disconnect flow meters using the true-union connection. Run a long brush through the flow meter from both ends to remove any possible scaling as needed.
- Reconnect union fittings and open valves all the way.
- Restart system.
- Set wells to setpoints listed on the system check sheet.
- Sweep/vacuum all floors and surfaces that need it. Wipe down surfaces, especially those with rodent droppings. Clean up plant. **Remove ALL food waste/trash from treatment building!**
- Check Effluent pH with strips onsite and record on the field log. Check with calibrated Horiba when possible.
- Walk the perimeter of the building that shares a parking lot with the plant and check the SSDS Fans. Fill out the SSDS Checklist on the back of the system log. Note any existing/potential issues.
- Test light on exit signs and mark on system check sheet. Check fire extinguishers.
- Check to make sure system is running before leaving and shut off all lights and lock door.

Tools / Equipment Required:

- Toolbox (to include at least: screwdrivers, pliers, hacksaw, hammer, flashlight, adjustable wrench, pipe wrenches, battery power tools etc.)
- Appropriate health and safety gear and H&S sheet/COVID-19 H&S log – return signed copy to
- System O&M Checklist
- Gloves (if needed leave a box onsite)
- VuSitu Data logger and data collection device.
- Interface probe
- Horiba (quarterly)
- Snow Shovel (if necessary)
- **Sample bottleware**

Requestor:

Please return notes to Isaac Moser

System Sampling Water Quality Parameter Readings						
	Temperature (°C)	pH	ORP mV	Sp. Cond. (mS/cm)	Turbidity (NTU)	DO mg/L
Effluent	10.15	8.58	188	0.517	1.2	8.77
MW-7R	9.91	7.42	210	0.542	46.0	5.79
ERT-1	Not Running					
MW-5R	Not Running					
Combined Influent	Not	Tallion	only	FR	Running	

SVE Purge Table						
Date:	Data Collected By: end Purge		end Purge		end Purge	
Well ID:	MW-19 1030		MW-21 1010		MW-22 1030	
	Time	DTW	Time	DTW	Time	DTW
Initial (Before Purge)	10:15	25.30	09:55	41.92	10:05	30.99
Depth to Bottom (Dry)	10:20	57.11	10:41.92	55.42	10:10	55.31
30 min	11:20	56.12	10:40	55.07	11:00	55.22
1 hour	11:56	56.02	11:10	54.95	11:30	53.53
1.5 hour	12:20	56.00	11:40	54.88	12:00	53.24
2 hours	12:56	55.93	12:10	54.80	12:30	52.72
2.5 hours	13:20	55.79	12:40	54.71	13:00	52.31
3 hours	13:50	55.67	13:10	54.64	13:30	51.85
3.5 hours	14:26	55.54	13:40	54.56	14:00	51.38
4 hours	14:50	55.43	14:10	54.49	14:30	50.92
Volume purged	15.5 gal		8 gal		16.5 gal	
Samples Collected:	NS		NS		NS	

SVE Purge Water Quality Parameter Readings						
	Temperature (°C)	pH	ORP mV	Sp. Cond. (mS/cm)	Turbidity (NTU)	DO mg/L
MW-19	11.03	7.49	103	0.917	85.3	5.05
MW-21	8.48	6.67	141	0.860	142	7.6
MW-22	9.62	7.19	125	1.14	115	11.31

Level Logger Data Collection			
Well ID	Measured DTW	Time	Notes
ERT-4	26.85	1140	
MW-4	4.50	1135	
MW-5B	25.78	1155	
MW-11B	22.11	1220	
MW-12B	7.22	1230	
MW-15B	9.95	1240	Collected data back to December

DTW 0 m. 99			
55.10	MW-21	1 + 3	8 GAL
55.30	MW-22	1 1 1 + 1	16 GAL
57.06	MW-19	1 1 1 + .5	15.5 GAL

4/10/24

Personnel Onsite Initials:

Input Name	Water Level (Procontrol)
W5RLVL	-43.96
W7RLVL	-59.15
ER1LVL	-35.5
Location/ Input name	Pressure (Procontrol)
Transfer Pump (PREBAG)	3.5
Air Stripper (AS_PRS)	0.37
Discharge Pump (DSCPRS)	0.1
Location	Temp (Procontrol)
Room (RM_TMP)	60.8
Air Stripper (AS_TMP)	⊗ —
Discharge Pump (H2OTMP)	51.6
Location	pH
Effluent (EFF_PH)	8.25 ✓
Effluent (Measured)	8.10

measured
after
attempting
to cal.brate
the pH sensor
previously
9.57

Notes:

2

Mohonk Road - Additional Site Checklists

SSDS System Checklist

Date: _____

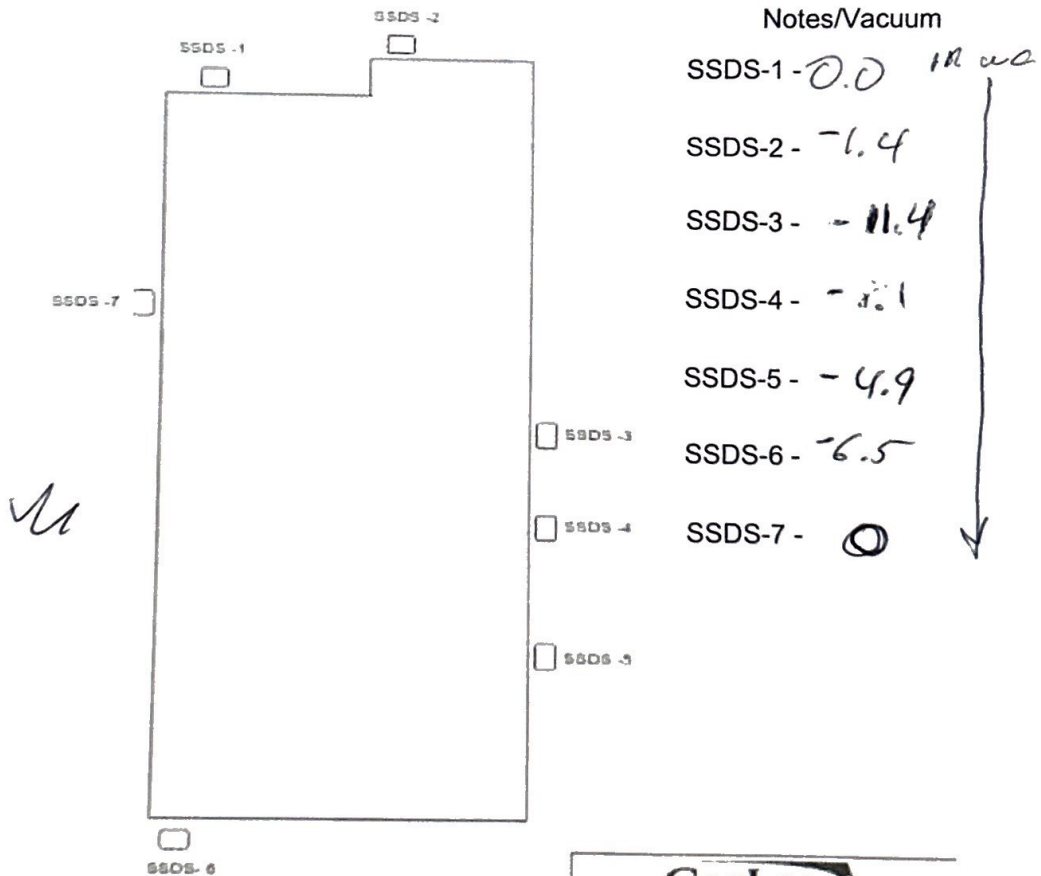
Fan	On/Off
1	Off
2	ON
3	ON
4	ON
5	ON
6	ON
7	Off

Treatment
Plant

Fire Safety (Exit Sign) Checklist

Date: _____

Location	Y/N
Front Door	✓
Air Stripper Rm	✓
Back Door	✓



GeoLogic

MACTEC

System Sampling Water Quality Parameter Readings						
	Temperature (°C)	pH	ORP mV	Sp. Cond. (mS/cm)	Turbidity (NTU)	DO mg/L
Effluent	10.73	8.10	-54	1456	0.0	5.56
MW-7R	10.77	7.38	-18	1450	0.0	1.94
ERT-1						
MW-5R						
Combined Influent						

SVE Purge Table						
Date:	Data Collected By:					
Well ID:	MW-19		MW-21		MW-22	
	Time	DTW	Time	DTW	Time	DTW
Initial (Before Purge)						
Depth to Bottom (Dry)						
30 min						
1 hour						
1.5 hour						
2 hours						
2.5 hours						
3 hours						
3.5 hours						
4 hours						
Volume purged						
Samples Collected:						

SVE Purge Water Quality Parameter Readings						
	Temperature (°C)	pH	ORP mV	Sp. Cond. (mS/cm)	Turbidity (NTU)	DO mg/L
MW-19						
MW-21						
MW-22						

Level Logger Data Collection			
Well ID	Measured DTW	Time	Notes
ERT-4			
MW-4			
MW-5B			
MW-11B			
MW-12B			
MW-15B			

System Sampling Water Quality Parameter Readings						
	Temperature (°C)	pH	ORP mV	Sp. Cond. (mS/cm)	Turbidity (NTU)	DO mg/L
Effluent						
MW-7R						
ERT-1						
MW-5R						
Combined Influent						

SVE Purge Table						
Date: _____ Data Collected By: _____						
Well ID:	MW-19 57.30		MW-21 55.30		MW-22 55.90	
	Time	DTW	Time	DTW	Time	DTW
Initial (Before Purge)	1015	24.52	1025	25.61	1120	25.48
Depth to Bottom (Dry)	1100	55.89	1135	54.53	1155	54.14
30 min	1130	54.69	1205	52.85	1225	53.90
1 hour	1200	53.49	1235	51.16	1255	53.34
1.5 hour	1230	52.50	1305	49.73	1325	52.99
2 hours	1300	51.69	1335	48.15	1355	52.50
2.5 hours	1330	50.86	1405	46.61	1425	52.06
3 hours	1400	50.05	1435	45.05	1455	51.61
3.5 hours	1430	49.28	1505	43.51	1525	51.20
4 hours	1500	48.41	1535	42.01	1555	50.79
Volume purged	24 GAL		20 GAL		14 GAL	
Samples Collected:	NA		NA		NA	

SVE Purge Water Quality Parameter Readings						
	Temperature (°C)	pH	ORP mV	Sp. Cond. (mS/cm)	Turbidity (NTU)	DO mg/L
MW-19	11.03	8.95	30	1.01	1.1	3.95
MW-21	10.70	7.01	213	1.80	8.1	0
MW-22	10.98	7.72	208	0.940	31.6	0

Level Logger Data Collection			
Well ID	Measured DTW	Time	Notes
ERT-4			
MW-4			
MW-5B			
MW-11B			
MW-12B			
MW-15B			

Balloons

MW-19 1111 + 4

MW-21 1111

MW-22 11 + 4

Date: 4/3/2024

Straight Bill of Lading

Page 1 of 1

SHIPPER (ORIGIN)

B/L NO. 28665

CONSIGNEE (DESTINATION)

Shipper No. 00Redux
Trailer No.
Seal No.Name: WSP
Address: Attn: Mark Selong
186 Mohonk Road
High Falls, NY 12440Name: Redux Technology
Address: A Division of Azure Water Services, LLC
280 Callegari Drive
West Haven, CT 06516

P.O. NO. R105521US001

THIRD PARTY FREIGHT CHARGES BILL TO

Name:
Address:SPECIAL INSTRUCTIONS: ☐ Master Bill of LadingShipTo Contact: Mark Selong 609-619-2777
LIFTGATE NEEDED
Deliver on Thursday 4/11/24 and pick-up four empties

Handling Units	HU Type	HM	Description of Articles, Special Marks and Exceptions	NMFC	Class	Weight Subj to Correction	Rate	Charge
3	Drum		Redux-390-475# Water Treatment Compound		60	1600 lbs		
LIFTGATE								
Delivery on Thursday 4/11/24								
One Pallet								

3 Total for All Pages (Weight in lbs) 1600 lbs 0.00

Hazardous Material Emergency Contact:

Chemtrec
1-800-424-9300

Freight Terms:

- ☒
- Prepaid (PPA)
-
- ☐
- Collect
-
- ☐
- Third Party

C.O.D. Amount

- ☐
- Prepaid
-
- ☐
- Collect
-
- ☐
- Customer Check Acceptable

DECLARED VALUE: Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows:
The agreed or declared value of the property is specifically stated by the shipper to be not

exceeding _____ per _____

The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges.

Shipper Signature

NOTE Liability Limitation for loss or damage in this shipment may be applicable. See 49 U.S.C. - 14706(c)(1)(A) and (B).

RECEIVED, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications and rules that have been established by the carrier and are available to the shipper on request. The property described above, in apparent good order, except as noted (contents and condition of contents of packages unknown), marked, consigned, and destined as shown above, which said carrier agrees to carry to destination, if on its route, or other wise deliver to another carrier on the route to destination. Every service to be performed hereunder shall be subject to all bill of lading terms and conditions in the governing classification on the date of the shipment. Shipper hereby certifies that he is hereby familiar with all the bill of lading terms and conditions in the governing classification and the said terms and conditions are hereby agreed to by the shipper and accepted for himself and his assigns.

This is to certify that the above named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

SHIPPER COMPANY NAME

Redux Technology

CARRIER

Redux Technology

Trailer Loaded

Freight Counted

SHIPPER SIGNATURE/ DATE

DRIVER

- ☐
- By Shipper
-
- ☐
- By Driver

- ☐
- By Shipper
-
- ☐
- By Driver / pallets said to contain
-
- ☐
- By Driver/Pieces

4-11-24

Mohonk Road - Groundwater Remediation System Checklist

Date: 5/9/24

Personnel Onsite Initials:

Input Name	Flow Rates (On Meter)	Totalizer (Procontrol)
(ER1FLO)	0.0	6783012
(W7RFLO)	12.0	5676159
(W5RFLO)	0.0	5822757
Exterior of building checked and grounds maintained (weedwack, etc)		Q/N
Clean influent flow meters		NA
Adjust flow to set points using valves (see below for set points)		Y/N
Redux drum changed		Y/N
How many Redux drums remaining		3.5
Redux remaining (in. from bottom)		1/2 Drum
Nitrogen Pressure (in PSI)		2626/60 Tanks Manifold
Well Name	Set point (GPM)	
MW-5R	9.5	
MW-7R	7.5	
ERT-1	12	

Input Name	Water Level (Procontrol)
W5RLVL	-43.41
W7RLVL	-56.22
ER1LVL	-34.56
Location/ Input name	Pressure (Procontrol)
Transfer Pump (PREBAG)	4.5
Air Stripper (AS_PRS)	17.00
Discharge Pump (DSCPRS)	24.5
Location	Temp (Procontrol)
Room (RM_TMP)	64.7
Air Stripper (AS_TMP)	—
Discharge Pump (H2OTMP)	52.2
Location	pH
Effluent (EFF_PH)	5.38
Effluent (Measured)	6.5

Take the following steps to record the flow totalizer for each well on the ProControl

- Login to ProControl (Password: EOS).
- Once logged in, press the "I/O Up" key until "ER1FLO" is on the display
- Press "Set Hi/Lo" key until "Totalizer" is displayed and record the value
- Once value is recorded, press "Set Hi/Lo" until "ER1FLO" is on the display
- Repeat steps ii-iv for W7RFLO and W5RFLO

Notes:

Mohonk Road - Additional Site Checklists

SSDS System Checklist

Date: 5/9/24

Fan	On/Off
1	OK
2	ON
3	ON
4	ON
5	ON
6	ON
7	OFF

Treatment Plant

Fire Safety (Exit Sign) Checklist

Date: 5/9/24

Location	Y/N
Front Door	Y
Air Stripper Rm	Y
Back Door	Y

Unit
INHG

Notes/Vacuum

SSDS-1 - NA

SSDS-2 - 0.10

SSDS-3 - 0.83

SSDS-4 - 6.62

SSDS-5 - 0.37

SSDS-6 - 0.48

SSDS-7 - NA

SSDS-7

SSDS-1

SSDS-2

SSDS-3

SSDS-4

SSDS-5

SSDS-6

GeoLogic

MACTEC

5/9/24

System Sampling Water Quality Parameter Readings						
	Temperature (°C)	pH	ORP mV	Sp. Cond. (mS/cm)	Turbidity (NTU)	DO mg/L
Effluent	14.40	7.09	228	0.676	0.1	8.47
MW-7R	13.72	6.96	214	0.704	0.0	3.55
ERT ERT-4	13.77	6.75	233	0.688	0.0	2.91
MW-5R						
Combined Influent						

- Turned on
Briefly
~ 40 gals

SVE Purge Table						
Date:	Data Collected By:					
Well ID:	MW-19		MW-21		MW-22	
	Time	DTW	Time	DTW	Time	DTW
Initial (Before Purge)	0930	30.80	0935	41.03	1010	35.33
Depth to Bottom (Dry)	0950	57.05	1005	55.85	1030	53.49
30 min	1020	56.26	1035	54.60	1100	54.13
1 hour	1030	56.18	1105	54.43	1130	53.76
1.5 hour	1120	56.09	1135	54.24	1200	53.40
2 hours	1130	56.00	1205	54.07	1230	53.03
2.5 hours	1220	55.91	1235	53.90	1300	52.66
3 hours	1250	55.82	1305	53.73	1330	52.32
3.5 hours	1320	55.74	1335	53.55	1400	51.96
4 hours	1350	55.65	1405	53.39	1430	51.60
Volume purged	11+4 = 14 GAL		1+3 = 8 GAL		11+1 = 11 GAL	
Samples Collected:						

SVE Purge Water Quality Parameter Readings						
	Temperature (°C)	pH	ORP mV	Sp. Cond. (mS/cm)	Turbidity (NTU)	DO mg/L
MW-19	13.90	6.18	254	1.17	0.0	3.61
MW-21	14.41	6.57	239	0.996	3.0	8.57
MW-22	13.16	6.38	218	1.38	5.2	1.58

Level Logger Data Collection			
Well ID	Measured DTW	Time	Notes
ERT-4	27.85	1120	
MW-4	4.34	1115	
MW-5B	26.87	1125	
MW-11B	15.47	1240	
MW-12B	5.49	1137	
MW-15B	9.05	1150	

5/9/24

System Sampling Water Quality Parameter Readings						
	Temperature (°C)	pH	ORP mV	Sp. Cond. (mS/cm)	Turbidity (NTU)	DO mg/L
Effluent	14.40	7.09	228	0.676	6.1	8.47
MW-7R	13.72	6.96	214	0.704	0.0	3.55
ERT- 500	13.77	6.75	233	0.688	0.0	2.91
MW-SR						
Combined Influent						

ERT

- Turned on
Briefly
~ 40 gals

SVE Purge Table						
Date:		Data Collected By:				
Well ID:	MW-19		MW-21		MW-22	
	Time	DTW	Time	DTW	Time	DTW
Initial (Before Purge)	0930	30.80	1055	41.03	1010	35.33
Depth to Bottom (Dry)	0950	67.05	1005	55.85	1030	53.49
30 min	1020	56.26	1035	54.60	1100	54.13
1 hour	1030	56.18	1105	54.43	1130	53.76
1.5 hour	1120	56.09	1135	54.24	1200	53.40
2 hours	1130	56.00	1205	54.07	1230	53.03
2.5 hours	1220	55.91	1235	53.90	1300	52.66
3 hours	1250	55.82	1305	53.73	1330	52.32
3.5 hours	1320	55.74	1335	53.55	1400	51.96
4 hours	1350	55.65	1405	53.39	1430	51.60
Volume purged	11+4 = 14 GAL		1+3 = 8 GAL		11+1 = 11 GAL	
Samples Collected:						

SVE Purge Water Quality Parameter Readings						
	Temperature (°C)	pH	ORP mV	Sp. Cond. (mS/cm)	Turbidity (NTU)	DO mg/L
MW-19	13.90	6.18	254	1.17	0.0	3.61
MW-21	14.41	6.57	239	0.996	3.0	3.57
MW-22	14.41 13.16	6.38	218	1.38	5.2	1.58

Level Logger Data Collection			
Well ID	Measured DTW	Time	Notes
ERT-4	27.85	1120	
MW-4	4.34	1115	
MW-5B	26.87	1125	
MW-11B	15.47	1240	
MW-12B	5.49	1137	
MW-15B	9.05	1150	



Site Name: NYSDEC – Mohonk Road Industrial Plant

Project: 7772210116.03.01

Address:	186 Mohonk Road High Falls NY 12440	Door Code: 2-4-6-8
Site Owner/Contact:	NYSDEC – Charles Gregory 518-402-9813	
Task Requested	Monthly O&M / Sampling 2024 Quarterly SVE Well Sampling 2024	
Task To Be Completed By:	1 Foreman and 3 Tech – One 8 hr day. OT must be pre-approved	

HAS Overview:

1. Review site specific health and safety sheet. Identify all typical and new potential hazards. Sign into site using sign in sheet in treatment room.
2. Conduct tailgate safety meeting. Make sure all contractors and sub-contractors onsite sign the daily health and safety form. This includes all over site personnel (i.e. DEC, Engineering Firms, Etc...) **Return to PM, signed.**
3. Wear all necessary PPE when performing tasks onsite. This shall include but not be limited to: gloves, eye protection, hearing protection, and fall protection when working at elevations great than 6'.
4. **Bring a first aid kit.** Take precautions to avoid poison ivy and ticks at this site, as they are prevalent in the area.

SVE Well Purge (Monthly): Completed by: _____.

- Bring all need materials from treatment shed to SVE wells MW-19, MW-21, and MW-22:
 1. 3 dedicated whale pumps hanging in treatment room.
 2. 1 55-gallon drum
 3. 2 5-gallon buckets
 4. 3 marine batteries or 50ft lead cord for use of truck battery.
 5. Clipboard with Purge table
- Gauge each well using interface probe before beginning purge.
- Begin purging each well into a 5-gallon bucket record each full bucket then dump into 55-gallon drum until well is dry.
- Check to see if this event is for quarterly SVE sampling if yes, follow instructions below for sampling.
- Once well is dry record Depth to water using interface probe at 0 minutes, then every 30 minutes for 4 hours on the table provided for each individual well.
- Return the tabled data to Isaac Moser by end of day.

SVE Well Sampling and YSI readings (Quarterly): Completed by: _____.

- Materials needed from shop:
 1. Small cooler with Glassware
 2. Horiba (calibrated)
 3. Ice
- Check to make sure Horiba has been calibrated.
- During purge of each SVE well pump well until dry, then using water pumped into the final 5 gallon bucket collect Horiba reading and samples (see sample list below and COC). (Make sure there is enough water.)
- Then record amount of water in the last bucket for final volume pumped before dumping into drum.
- Repeat for each well.
- Send samples to Alpha Analytical. Lab Address: 8 Walkup Drive, Westborough, MA 01581

<u>Location</u>	<u>Number of Bottles</u>	<u>Analysis Test</u>
SVE-19	3 – HCL VOAs	8260 VOCs Full List
SVE-21	3 – HCL VOAs	8260 VOCs Full List
SVE-22	3 – HCL VOAs	8260 VOCs Full List

Data Logging and Well Gauging (Monthly): Completed by: _____.

- Bring materials from shop and Treatment shed:
 1. Keys for MW-12B and MW-15B
 2. Interface probe
 3. Data logger
 4. Clipboard with Data table
 5. Site Maps
 6. Flagging tape if needed
- Get data and physical water levels for each of the 6 wells: ERT-4, MW-4, MW5B, MW-11B, MW-12B, MW-15B.
- Check labels on each well and touch up.
- Starting with the cluster on the map of MW-4, MW-5B and ERT-4 take reading of depth to water using interface probe and record on table.
- Remove desiccant tube from transducer line and connect data logger to wire and power on.
- Open Vusitu on cell phone/device then connect data logger.
- Once connected download all data and save file by creating a new folder and labeling it with collection date.
- Disconnect from the app and then remove the data logger and replace the desiccant tube back on the wire.
- Repeat this process for each well.
- Once back to the shop email files to IM.

System Sampling (Monthly):

- Bring materials:
- Large Cooler with Bottles and glassware
- Ice
- Count to make sure all bottles are there.
- Using gloves sample from each of the locations starting with effluent (cleanest) to Combined influent (dirtiest).
- Do not washout Acid from bottles.

Contact Alpha Office 508-898-9220 if any questions or concerns on the sampling bottles.

Alpah PM is Nathalie Lewis.

Location	Number of Bottles	Analysis Test
7R	7	See COC
ERT-1	7	See COC
5R	7	See COC
Combined Influent	7	See COC
Effluent	7	See COC

Mohonk Road - Groundwater Remediation System Checklist

Date: 6/12/24

Personnel Onsite Initials:

Input Name	Flow Rates (On Meter)	Totalizer (Procontrol)
(ER1FLO)	0	6783051
(W7RFLO)	10.4	6258805
(W5RFLO)	14.9	6130086
Exterior of building checked and grounds maintained (weedwack, etc)		Y / N
Clean influent flow meters		NA
Adjust flow to set points using valves (see below for set points)		Y / N
Redux drum changed		Y / N
How many Redux drums remaining		3
Redux remaining (in. from bottom)		7"
Nitrogen Pressure (in PSI)		2585
Well Name	Set point (GPM)	
MW-5R	9.5	
MW-7R	7.5	
ERT-1	12	

Input Name	Water Level (Procontrol)
W5RLVL	73.26
W7RLVL	78.65
ER1LVL	60.25
Location/ Input name	Pressure (Procontrol)
Transfer Pump (PREBAG)	13.2 4.6
Air Stripper (AS_PRS)	16.82
Discharge Pump (DSCPRS)	24.5
Location	Temp (Procontrol)
Room (RM_TMP)	68.4
Air Stripper (AS_TMP)	—
Discharge Pump (H2OTMP)	52.8
Location	pH
Effluent (EFF_PH)	5.65
Effluent (Measured)	8.79

Take the following steps to record the flow totalizer for each well on the ProControl

- i. Login to ProControl (Password: EOS).
- ii. Once logged in, press the "I/O Up" key until "ER1FLO" is on the display
- iii. Press "Set Hi/Lo" key until "Totalizer" is displayed and record the value
- iv. Once value is recorded, press "Set Hi/Lo" until "ER1FLO" is on the display
- v. Repeat steps ii-iv for W7RFLO and W5RFLO

Notes:

Mohonk Road - Additional Site Checklists

SSDS System Checklist

Date: _____

Fan	On/Off
1	Off
2	ON
3	ON
4	ON
5	ON
6	ON
7	Off

Fire Safety (Exit Sign) Checklist

Date: _____

Location	Y/N
Front Door	✓
Air Stripper Rm	✓
Back Door	✓

Treatment Plant

Notes

Vacuum (in wc → in Hg)

- 1 0 → 0
- 2 1.353 → 0.077
- 3 8.881 → 0.653
- 4 7.239 → 0.532
- 5 4.787 → 0.352
- 6 6.102 → 0.448
- 7 0 → 0

✓ SSDS-3

✓ SSDS-4

✓ SSDS-5

SSDS-7 ✓

SSDS-1 ✓

SSDS-2 ✓

SSDS-6 ✓

o/L
displayed at

#3

GeoLogic

 MACTEC

System Sampling Water Quality Parameter Readings						
	Temperature (°C)	pH	ORP mV	Sp. Cond. (mS/cm)	Turbidity (NTU)	DO mg/L
Effluent	16.08	8.79	248	0.685	0.0	12.10
MW-7R	15.90	6.74	270	0.742	0.0	14.89
ERT-1	Offline not measured					
MW-5R	19.58	6.64	190	0.450	0.0	5.13
Combined Influent	19.14	7.58	279	0.747	0.0	5.90

SVE Purge Table						
Date: 6/12/24 Data Collected By: HO						
Well ID:	MW-19		MW-21		MW-22	
	Time	DTW	Time	DTW	Time	DTW
Initial (Before Purge)	0944	39.97	0940	51.43	0942	40.89
Depth to Bottom (Dry)	1025	57.35	0950	55.96	1020	54.82
30 min	1055	56.51	1020	55.03	1050	54.32
1 hour	1135	56.49	1050	55.11	1120	54.15
1.5 hour	1205	56.47	1120	55.08	1150	54.06
2 hours	1235	56.44	1150	55.06	1220	54.02
2.5 hours	1205	56.43	1220	55.03	1250	53.92
3 hours	1335	56.43	1250	55.02	1320	53.85
3.5 hours	1405	56.43	1320	55.00	1350	53.77
4 hours	1435	56.42	1350	54.97	1420	53.68
Volume purged	12941		4941		9941	
Samples Collected:	0		0		0	

SVE Purge Water Quality Parameter Readings						
	Temperature (°C)	pH	ORP mV	Sp. Cond. (mS/cm)	Turbidity (NTU)	DO mg/L
MW-19	13.63	7.88	30	1.16	60.7	14.61
MW-21	14.91	7.77	273	1.01	217	13.32
MW-22	14.92	7.78	252	0.985	29	26.36

Level Logger Data Collection			
Well ID	Measured DTW	Time	Notes
ERT-4	35.58	1411	—
MW-4	9.30	1401	—
MW-5B	33.25	1418	—
MW-11B	35.24	1430	—
MW-12B	11.19	1438	—
MW-15B	10.73	1452	—

ATTACHMENT A2-2
FIELD FORMS
MAY 2023 GROUNDWATER FIELD SAMPLING FORMS

LOW FLOW GROUNDWATER SAMPLING RECORD



511 Congress Street
Suite 200
Portland, Maine 04101

PROJECT NAME
Mohawk Rd Industrial Plant

PROJECT NUMBER
77722 1016.01 *****

SAMPLE ID
356023-ERT4

SAMPLE TIME
1332

LOCATION ID
ERT-4

START TIME
1235

SITE NAME/INSTALLATION
356023

DATE
5/18/23

END TIME
1435

PAGE
1 OF 1

WELL DIAMETER (IN.) ☐ 1 ☐ 2 ☐ 4 ☒ 6 ☐ 8 ☐ OTHER _____

TUBING ID (INCHES) ☐ 1/8 ☐ 1/4 ☒ 3/8 ☐ 1/2 ☐ 5/8 ☐ OTHER _____

MEASUREMENT POINT (MP) ☐ TOP OF RISER (TOR) ☐ TOP OF CASING (TOC) ☐ OTHER _____

WELL INTEGRITY

YES NO N/A

CAP ☒ ☐ ☐

CASING ☒ ☐ ☐

LOCKED ☒ ☐ ☐

COLLAR ☒ ☐ ☐

INITIAL DTW (RMP) 31.16 FT FINAL DTW (BMP) 32.85 FT PROT. CASING STICKUP (AGS) ~2' FT TOC/TOR DIFFERENCE _____ FT

WELL DEPTH (RMP) 46.9 FT SCREEN INTERVAL NA FT PID AMBIENT AIR NA PPM REFILL TIMER SETTING NA SEC

WATER COLUMN _____ FT DRAWDOWN VOLUME _____ GAL PID WELL MOUTH NA PPM DISCHARGE TIMER SETTING NA SEC

CALCULATED GAL/VOL _____ GAL TOTAL VOL. PURGED _____ GAL DRAWDOWN/ TOTAL PURGED _____ PRESSURE TO PUMP NA PSI

(water column X well diameter² X 0.041) (mL per minute X total minutes X 0.00026 gal/mL)

FIELD PARAMETERS WITH PROGRAM STABILIZATION CRITERIA

TIME	DTW (FT)	PURGE RATE (mL/min)	TEMP. (°C) ±3%	SP. CONDUCTANCE (mS/cm) ±3%	DISS. O ₂ (mg/L) ±10% or 3 values <0.5 mg/L	pH (units) ±0.1	REDOX (mv) ±10 mv	TURBIDITY (ntu) ±10% or <10 ntu	PUMP INTAKE DEPTH (ft)	COMMENTS
BEGIN PURGING										
1250	31.16	100	17.78	0.712	10.94	7.60	215	1000+	40'	Accidentally hit bottom of well
1255	31.59	100	16.59	0.733	9.85	7.47	216	1000+		water coming out of hole
1300	31.75	100	16.58	0.737	8.67	7.40	214	1000+		water coming out of hole
1305	32.00	125	15.09	0.752	8.75	7.40	212	230		Pump shutting off @ 1000+ gpm
1310	32.20	125	14.96	0.741	8.26	7.40	210	208		Turn up a little bit.
1315	32.42	125	14.95	0.739	8.30	7.42	206	193		
1320	32.57	125	14.98	0.733	8.15	7.45	205	178		
1325	32.73	125	14.65	0.738	8.21	7.50	203	182		Temp = Flow cell now in shade
1330	32.85	125	14.67	0.737	8.18	7.52	202	180		

FINAL STABILIZED FIELD PARAMETERS (rounded to appropriate significant figures)

TEMP: nearest degree (ex. 10.1 = 10)
COND: 3 significant figure max (ex. 1.686 = 1.69)
pH: nearest tenth (ex. 5.53 = 5.5)
DO: nearest tenth (ex. 3.51 = 3.5)
TURB: 3 SF max, nearest tenth (6.19 = 6.2, 101 = 101)
ORP: 2 SF (44.1 = 44, 191 = 190)

EQUIPMENT DOCUMENTATION

TYPE OF PUMP: ☒ PERISTALTIC ☐ SUBMERSIBLE ☐ BLADDER ☐ WATERA ☐ OTHER _____

DECON FLUIDS USED: ☒ ALCONOX ☐ DEIONIZED WATER ☐ POTABLE WATER ☐ NITRIC ACID ☐ HEXANE ☐ METHANOL ☐ OTHER _____

TUBING/PUMP/BLADDER MATERIALS: ☒ SILICON TUBING ☐ HDPE TUBING ☐ LDPE TUBING ☐ OTHER _____

S. STEEL PUMP MATERIAL ☒ PVC PUMP MATERIAL ☐ GEOPROBE SCREEN ☐ OTHER _____

EQUIPMENT USED: ☒ WL METER ☐ PID ☒ WQ METER ☐ TURB. METER ☒ PUMP ☐ OTHER _____

FILTERS: NO. _____ TYPE _____

ANALYTICAL PARAMETERS

PARAMETER	METHOD NUMBER	ANALYTE LIST	FIELD FILTERED	PRESERVATION METHOD	VOLUME REQUIRED	QC COLLECTED
TU-VOC	8270 B STA		NO	HCl, etc	80 mL	MS/MSD
1,4 Dioxane	8270 D STA		NO	Ice	2 L	MS/MSD

PURGE OBSERVATIONS

PURGE WATER CONTAINERIZED: YES ☒ NO ☐

NO-PURGE METHOD UTILIZED: YES ☐ NO ☒

NUMBER OF GALLONS GENERATED _____

NOTES

low mL/min lowest rate possible

DEVIATIONS FROM THE WORK PLAN

Sampler Signature: _____

Print Name: _____

Checked By: _____

Date: _____

LOW FLOW GROUNDWATER SAMPLING RECORD



511 Congress Street
Suite 200
Portland, Maine 04101

PROJECT NAME: Mohawk Rd Industrial Pump
PROJECT NUMBER: 7772210116
SAMPLE ID: 356023-MW1B SAMPLE TIME: 1630

LOCATION ID: MW-1B DATE: 5/16/23
START TIME: 1530 END TIME: 1630
SITE NAME/INSTALLATION: 356023 PAGE: 1 OF 1

WELL DIAMETER (IN.) ☐ 1 ☐ 2 ☐ 4 ☐ 6 ☐ 8 ☒ OTHER 3"
TUBING ID (INCHES) ☐ 1/8 ☐ 1/4 ☒ 3/8 ☐ 1/2 ☐ 5/8 ☐ OTHER _____
MEASUREMENT POINT (MP) ☐ TOP OF RISER (TOR) ☐ TOP OF CASING (TOC) ☐ OTHER _____

WELL INTEGRITY
YES NO N/A

CAP ☒ YES ☐ NO ☐ N/A
CASING ☒ YES ☐ NO ☐ N/A
LOCKED ☒ YES ☐ NO ☐ N/A
COLLAR ☒ YES ☐ NO ☐ N/A

INITIAL DTW (BMP): 53.18 FT FINAL DTW (BMP): 56.10 FT PROT. CASING STICKUP (AGS): ~2' FT TOC/TOR DIFFERENCE: _____ FT
WELL DEPTH (BMP): ~100' FT SCREEN INTERVAL: Unk FT PID AMBIENT AIR: NA PPM REFILL TIMER SETTING: NA SEC
WATER COLUMN: _____ FT DRAWDOWN VOLUME: _____ GAL PID WELL MOUTH: NA PPM DISCHARGE TIMER SETTING: NA SEC
CALCULATED GAL/VOL: _____ GAL (water column X well diameter² X 0.041) TOTAL VOL. PURGED: _____ GAL (final DTW - initial DTW X well diam. squared X 0.041) DRAWDOWN/ TOTAL PURGED: _____ PSI (mL per minute X total minutes X 0.00026 gal/mL)

FIELD PARAMETERS WITH PROGRAM STABILIZATION CRITERIA

TIME	DTW (FT)	PURGE RATE (mL/min)	TEMP. (°C) ±3%	SP. CONDUCTANCE (mS/cm) ±3%	DISS. O ₂ (mg/L) ±10% or 3 values <0.5 mg/L	pH (units) ±0.1	REDOX (mv) ±10 mv	TURBIDITY (ntu) ±10% or <10 ntu	PUMP INTAKE DEPTH (ft)	COMMENTS
BEGIN PURGING										
1545	53.93	200	15.64	0.669	2.00	6.96	169	15.9	~95'	No odor
1550	54.30	200	17.52	0.677	1.44	6.92	160	11.8		"
1555	54.73	200	16.51	0.693	1.81	6.89	142	15.8		"
1600	54.93	200	16.08	0.696	2.82	6.87	144	15.5		"
1605	55.55	200	15.22	0.714	2.58	6.86	152	17.9		Pump briefly increased power drawage due to
1610	55.78	200	15.09	0.715	2.57	6.84	154	19.5		No odor
1615	55.93	200	15.13	0.718	2.58	6.83	164	28.5		"
1620	56.08	200	15.05	0.715	2.60	6.83	165	28.3		"
1625	56.10	150	15.08	0.717	2.60	6.82	166	28.6		"

FINAL STABILIZED FIELD PARAMETERS (rounded to appropriate significant figures)

TEMP: nearest degree (ex. 10.1 = 10)
COND: 3 significant figure max (ex. 1.686 = 1.69)
pH: nearest tenth (ex. 5.53 = 5.5)
DO: nearest tenth (ex. 3.51 = 3.5)
TURB: 3 SF max, nearest tenth (6.19 = 6.2, 101 = 101)
ORP: 2 SF (44.1 = 44, 191 = 190)

EQUIPMENT DOCUMENTATION

TYPE OF PUMP: ☒ PERISTALTIC ☐ SUBMERSIBLE ☐ BLADDER ☐ WATERA ☐ OTHER _____
DECON FLUIDS USED: ☒ ALCONOX ☐ DEIONIZED WATER ☐ POTABLE WATER ☐ NITRIC ACID ☐ HEXANE ☐ METHANOL ☐ OTHER _____
TUBING/PUMP/BLADDER MATERIALS: ☒ SILICON TUBING ☐ HDPE TUBING ☐ LDPE TUBING ☐ OTHER _____
S. STEEL PUMP MATERIAL ☐ PVC PUMP MATERIAL ☐ GEOPROBE SCREEN ☐ OTHER _____
EQUIPMENT USED: ☒ WL METER ☐ PID ☐ WQ METER ☐ TURB. METER ☐ PUMP ☐ OTHER _____
FILTERS: NO. _____ TYPE _____

ANALYTICAL PARAMETERS

PARAMETER	METHOD NUMBER	ANALYTE LIST	FIELD FILTERED	PRESERVATION METHOD	VOLUME REQUIRED	QC COLLECTED
VOC	8260B		No	HCL/He	80 mL	No
1,4 Dioxene	8210M		No	-He	2 L	No

PURGE OBSERVATIONS

PURGE WATER CONTAINERIZED: YES ☐ NO ☐
NO-PURGE METHOD UTILIZED: YES ☐ NO ☐
NUMBER OF GALLONS GENERATED: _____

NOTES

DEVIATIONS FROM THE WORK PLAN

Sampler Signature: [Signature] Print Name: Isaac Moser
Checked By: _____ Date: _____

LOW FLOW GROUNDWATER SAMPLING RECORD



511 Congress Street
Suite 200
Portland, Maine 04101

PROJECT NAME
Mohawk Industrial Plant

PROJECT NUMBER
777321016.01.***

SAMPLE ID
3560023 - MW4

SAMPLE TIME
1132

LOCATION ID
MW-4

DATE
5/18/23

START TIME
1050

END TIME
1202

SITE NAME/INSTALLATION

PAGE
1 OF 1

WELL DIAMETER (IN.) ☐ 1 ☒ 2 ☐ 4 ☐ 6 ☐ 8 ☐ OTHER

TUBING ID (INCHES) ☐ 1/8 ☐ 1/4 ☒ 3/8 ☐ 1/2 ☐ 5/8 ☐ OTHER

MEASUREMENT POINT (MP) ☐ TOP OF RISER (TOR) ☐ TOP OF CASING (TOC) ☐ OTHER

WELL INTEGRITY
YES NO N/A

CAP
CASING
LOCKED
COLLAR

INITIAL DTW (BMP) 7.06 FT

FINAL DTW (BMP) FT

PROT. CASING STICKUP (AGS) FT

TOC/TOR DIFFERENCE FT

WELL DEPTH (BMP) 21.06 FT

SCREEN INTERVAL FT

PID AMBIENT AIR NA PPM

REFILL TIMER SETTING NA SEC

WATER COLUMN FT

DRAWDOWN VOLUME (final DTW - initial DTW X well diam. squared X 0.041)

PID WELL MOUTH NA PPM

DISCHARGE TIMER SETTING NA SEC

CALCULATED GAL/VOL GAL

TOTAL VOL. PURGED GAL

DRAWDOWN/ TOTAL PURGED

PRESSURE TO PUMP NA PSI

FIELD PARAMETERS WITH PROGRAM STABILIZATION CRITERIA

TIME	DTW (FT)	PURGE RATE (mL/min)	TEMP. (°C) ±3%	SP. CONDUCTANCE (mS/cm) ±3%	DISS. O ₂ (mg/L) ±10% or 3 values <0.5 mg/L	pH (units) ±0.1	REDOX (mv) ±10 mv	TURBIDITY (ntu) ±10% or <10 ntu	PUMP INTAKE DEPTH (ft)	COMMENTS
BEGIN PURGING										
1000	7.07	100	13.18	0.947	4.18	7.05	165	421	16.5'	
105	8.93	100	13.82	0.941	0.00	6.93	180	326		
110	9.62	100	13.09	0.961	0.00	6.90	184	198		
115	9.65	100	13.80	0.946	0.00	6.91	183	189		
120	9.68	100	13.95	0.948	0.00	6.91	184	149		
125	9.71	100	14.01	0.950	0.00	6.91	185	142		
130	9.74	100	13.98	0.949	0.00	6.91	187	146		
1132	Sample									

FINAL STABILIZED FIELD PARAMETERS (rounded to appropriate significant figures)

TEMP: nearest degree (ex. 10.1 = 10)
COND: 3 significant figure max (ex. 1.686 = 1.69)
pH: nearest tenth (ex. 5.53 = 5.5)
DO: nearest tenth (ex. 3.51 = 3.5)
TURB: 3 SF max, nearest tenth (6.19 = 6.2, 101 = 101)
ORP: 2 SF (44.1 = 44, 191 = 190)

EQUIPMENT DOCUMENTATION

TYPE OF PUMP
☐ PERISTALTIC
☐ SUBMERSIBLE
☐ BLADDER
☐ WATER
☐ OTHER

DECON FLUIDS USED
☐ ALCONOX
☐ DEIONIZED WATER
☐ POTABLE WATER
☐ NITRIC ACID
☐ HEXANE
☐ METHANOL
☐ OTHER

TUBING/PUMP/BLADDER MATERIALS
☐ SILICON TUBING
☐ HDPE TUBING
☐ LDPE TUBING
☐ OTHER
☐ OTHER

EQUIPMENT USED
☐ S. STEEL PUMP MATERIAL
☐ PVC PUMP MATERIAL
☐ GEOPROBE SCREEN
☐ OTHER
☐ OTHER

WL METER
PID
WQ METER
TURB. METER
PUMP
OTHER
FILTERS NO. TYPE

ANALYTICAL PARAMETERS

PARAMETER	METHOD NUMBER	ANALYTE LIST	FIELD FILTERED	PRESERVATION METHOD	VOLUME REQUIRED	QC COLLECTED
☒ TOL VOCs	846013		no	Hel	8mL	no
☒ 1,4 Dioxane	847015		no	none	2L	no

PURGE OBSERVATIONS

PURGE WATER CONTAINERIZED ☒ YES ☐ NO
NO-PURGE METHOD UTILIZED ☐ YES ☐ NO

NUMBER OF GALLONS GENERATED

NOTES

Had to remove tubing from 6' down well before start, increased turbidity

DEVIATIONS FROM THE WORK PLAN

Sampler Signature

Print Name

Checked By

Date

LOW FLOW GROUNDWATER SAMPLING RECORD



511 Congress Street
Suite 200
Portland, Maine 04101

PROJECT NAME
Mohawk Bld Industrial Plant

PROJECT NUMBER
7772210116

SAMPLE ID
356023-MW5B

SAMPLE TIME
1505

LOCATION ID
MW-5B

DATE
5/16/23

START TIME
1400

END TIME
1510

SITE NAME/INSTALLATION
Mohawk 356023

PAGE
1 OF 1

WELL DIAMETER (IN.) ☐ 1 ☒ 2 ☐ 4 ☐ 6 ☐ 8 ☐ OTHER _____

TUBING ID (INCHES) ☐ 1/8 ☐ 1/4 ☒ 3/8 ☐ 1/2 ☐ 5/8 ☐ OTHER _____

MEASUREMENT POINT (MP) ☒ TOP OF RISER (TOR) ☐ TOP OF CASING (TOC) ☐ OTHER _____

WELL INTEGRITY

YES NO N/A

CAP ☒ ☐ ☐

CASING ☒ ☐ ☐

LOCKED ☒ ☐ ☐

COLLAR ☒ ☐ ☐

INITIAL DTW (BMP) 28.00 FT FINAL DTW (BMP) 28.20 FT PROT. CASING STICKUP (AGS) 43.6 FT TOC/TOR DIFFERENCE NA FT

WELL DEPTH (BMP) 36.30 FT SCREEN INTERVAL UNK FT PID AMBIENT AIR NA PPM REFILL TIMER SETTING NA SEC

WATER COLUMN 8.30 FT DRAWDOWN VOLUME (final DTW - initial DTW X well diam. squared X 0.041) NA GAL PID WELL MOUTH NA PPM DISCHARGE TIMER SETTING NA SEC

CALCULATED GAL/VOL (water column X well diameter² X 0.041) NA GAL DRAWDOWN/ TOTAL PURGED NA PSI

(water column X well diameter² X 0.041) (ml per minute X total minutes X 0.00026 gal/ml)

FIELD PARAMETERS WITH PROGRAM STABILIZATION CRITERIA

TIME	DTW (FT)	PURGE RATE (mL/min)	TEMP. (°C) ± 0.1	SP. CONDUCTANCE (mS/cm) ± 1%	DISS. O ₂ (mg/L) ± 0.1 or 3 values < 0.5 mg/L	pH (units) ± 0.1	REDOX (mv) ± 10 mv	TURBIDITY (ntu) ± 10% or < 10 ntu	PUMP INTAKE DEPTH (ft)	COMMENTS
BEGIN PURGING										
1428	28.20	150	16.15	0.452	6.01	6.78	155	50.2	34	No odor, No Color
1433	28.20	150	16.28	0.439	4.55	6.97	155	56.4	34	"
1438	28.20	150	14.83	0.473	4.61	6.90	162	19.5		"
1443	28.20	150	14.39	0.483	4.54	6.88	165	11.2		"
1448	28.20	150	14.06	0.490	4.60	6.85	168	7.2		"
1453	28.20	150	13.96	0.493	4.56	6.81	171	7.2		"
1458	28.20	150	13.97	0.494	4.55	6.80	172	7.3		"
1503	28.20	150	13.95	0.494	4.55	6.79	173	7.2		"

FINAL STABILIZED FIELD PARAMETERS (rounded to appropriate significant figures)

TEMP.: nearest degree (ex. 10.1 = 10)
COND.: 3 significant figure max (ex. 1.686 = 1.69)
pH: nearest tenth (ex. 5.53 = 5.5)
DO: nearest tenth (ex. 3.51 = 3.5)
TURB: 3 SF max, nearest tenth (6.19 = 6.2, 101 = 101)
ORP: 2 SF (44.1 = 44, 191 = 190)

EQUIPMENT DOCUMENTATION

TYPE OF PUMP: ☒ PERISTALTIC ☐ SUBMERSIBLE ☐ BLADDER ☐ WATERA ☐ OTHER _____

DECON FLUIDS USED: ☒ ALCONOX ☐ DEIONIZED WATER ☐ POTABLE WATER ☐ NITRIC ACID ☐ HEXANE ☐ METHANOL ☐ OTHER _____

TUBING/PUMP/BLADDER MATERIALS: ☒ SILICON TUBING ☐ HDPE TUBING ☐ LDPE TUBING ☐ OTHER _____

S. STEEL PUMP MATERIAL: ☒ PVC PUMP MATERIAL ☐ GEOPROBE SCREEN ☐ OTHER _____

EQUIPMENT USED: ☒ WL METER Hanna ☐ PID Flow-guill ☒ WQ METER Hanna ☐ TURB METER Hanna ☒ PUMP Geac Sub ☐ OTHER _____

FILTERS NO. _____ TYPE _____

ANALYTICAL PARAMETERS

PARAMETER	METHOD NUMBER	ANALYTE LIST	FIELD FILTERED	PRESERVATION METHOD	VOLUME REQUIRED	QC COLLECTED
TCL VOLs	8260B	1SP DEC TCL	No	HCl	80 mL (2 bags)	Yes
1,4-Dioxane	8260B SFM	SFM	No	Ice	2L (2 bags)	No

PURGE OBSERVATIONS

PURGE WATER CONTAINERIZED: YES ☒ NO ☐

NO PURGE METHOD UTILIZED: YES ☐ NO ☒

NUMBER OF GALLONS GENERATED _____

NOTES

DEVIATIONS FROM THE WORK PLAN

Sampler Signature: Isaac Moser Print Name: Isaac Moser

Checked By: Isaac Moser Date: 5/16/23

LOW FLOW GROUNDWATER SAMPLING RECORD



511 Congress Street
Suite 200
Portland, Maine 04101

PROJECT NAME
Monark Rd Industrial Plant

PROJECT NUMBER
77722101601.***

SAMPLE ID
356023-MW6B

SAMPLE TIME
1002

LOCATION ID
MW-6B

DATE
5/18/23

START TIME
0915

END TIME
1040

SITE NAME/INSTALLATION
956043

PAGE
1 OF 1

WELL DIAMETER (IN.) ☐ 1 ☐ 2 ☐ 4 ☐ 6 ☐ 8 ☒ OTHER 3"

TUBING ID (INCHES) ☐ 1/8 ☐ 1/4 ☒ 3/8 ☐ 1/2 ☐ 5/8 ☐ OTHER

MEASUREMENT POINT (MP) ☒ TOP OF RISER (TOR) ☐ TOP OF CASING (TOC) ☐ OTHER

WELL INTEGRITY

YES NO N/A

CAP ☒ ☐ ☐

CASING ☒ ☐ ☐

LOCKED ☒ ☐ ☐

COLLAR ☒ ☐ ☐

INITIAL DTW (BMP) 80.33 FT FINAL DTW (BMP) 82.00 FT PROT. CASING STICKUP (AGS) 2.35 FT TOC/TOR DIFFERENCE 0.41 FT

WELL DEPTH (BMP) 2100 FT SCREEN INTERVAL UNK FT PID AMBIENT AIR NA PPM REFILL TIMER SETTING NA SEC

WATER COLUMN FT DRAWDOWN VOLUME (final DTW - initial DTW X well diam. squared X 0.041) GAL PID WELL MOUTH NA PPM DISCHARGE TIMER SETTING NA SEC

CALCULATED GAL/VOL. (water column X well diameter² X 0.041) GAL TOTAL VOL. PURGED (mL per minute X total minutes X 0.00026 gal/mL) GAL DRAWDOWN/ TOTAL PURGED PSI

FIELD PARAMETERS WITH PROGRAM STABILIZATION CRITERIA

TIME	DTW (FT)	PURGE RATE (mL/min)	TEMP. (°C) ±3%	SP. CONDUCTANCE (mS/cm) ±3%	DISS. O ₂ (mg/L) ±10% or 3 values <0.5 mg/L	pH (units) ±0.1	REDOX (mv) ±10 mv	TURBIDITY (ntu) ±10% or <10 ntu	PUMP INTAKE DEPTH (ft)	COMMENTS
BEGIN PURGING										
0930	80.33	300	12.75	0.651	7.44	6.76	206	1.6	90i	
0935	82.52	300	12.79	0.653	6.25	6.99	254	0.6		reduce flow rate
0940	82.22	150	13.11	0.657	5.26	7.22	225	0.1		
0945	82.00	150	13.17	0.659	5.36	7.29	190	0.6		
0950	82.00	150	13.20	0.659	5.24	7.35	161	0.1		
0955	82.00	150	13.34	0.656	5.27	7.34	158	0.0		
1000	82.00	150	13.34	0.657	5.26	7.34	156	0.0		
1002	SAMPLE									

FINAL STABILIZED FIELD PARAMETERS (rounded to appropriate significant figures)

TEMP: nearest degree (ex. 10.1 = 10)
COND: 3 significant figure max (ex. 1.686 = 1.69)
pH: nearest tenth (ex. 5.53 = 5.5)
DO: nearest tenth (ex. 3.51 = 3.5)
TURB: 3 SF max, nearest tenth (6.19 = 6.2, 101 = 101)
ORP: 2 SF (44.1 = 44, 191 = 190)

EQUIPMENT DOCUMENTATION

TYPE OF PUMP ☒ PERISTALTIC ☐ SUBMERSIBLE ☐ BLADDER ☐ WATERA ☐ OTHER ☐

DECON FLUIDS USED ☒ ALCONOX ☐ DEIONIZED WATER ☐ POTABLE WATER ☐ NITRIC ACID ☐ HEXANE ☐ METHANOL ☐ OTHER

TUBING/PUMP/BLADDER MATERIALS ☒ SILICON TUBING ☐ HDPE TUBING ☐ LDPE TUBING ☐ OTHER ☐

S. STEEL PUMP MATERIAL ☐ PVC PUMP MATERIAL ☐ GEOPROBE SCREEN ☐ OTHER ☐

EQUIPMENT USED ☐ WL METER ☐ PID ☐ WQ METER ☐ TURB. METER ☐ PUMP ☐ OTHER ☐ FILTERS NO. TYPE

ANALYTICAL PARAMETERS

PARAMETER	METHOD NUMBER	ANALYTE LIST	FIELD FILTERED	PRESERVATION METHOD	VOLUME REQUIRED	QC COLLECTED
☒ <u>TH-106</u>	<u>8160B</u>		<u>no</u>	<u>HCl</u>	<u>80mL</u>	<u>DUP 4S/MSD</u>
☒ <u>1,4-Dioxane</u>	<u>8170 Spm</u>		<u>no</u>	<u>none</u>	<u>2L</u>	<u>DUP MS/MSD</u>

PURGE OBSERVATIONS

PURGE WATER CONTAINERIZED YES ☐ NO ☐

NO-PURGE METHOD UTILIZED YES ☐ NO ☐

NUMBER OF GALLONS GENERATED

NOTES

DEVIATIONS FROM THE WORK PLAN

Sampler Signature:

Print Name:

Checked By:

Date:

LOW FLOW GROUNDWATER SAMPLING RECORD



511 Congress Street
Suite 200
Portland, Maine 04101

PROJECT NAME: Mohawk Rd Industrial Plant
PROJECT NUMBER: 3649224 7772210116
SAMPLE ID: 366043-MW8B95 SAMPLE TIME: 1325

LOCATION ID: MW-8B DATE: 5/16/23
START TIME: 1130 END TIME: 1245
SITE NAME/INSTALLATION: 366043 PAGE: 1 OF 1

WELL DIAMETER (IN.) ☐ 1 ☐ 2 ☐ 4 ☒ 6 ☐ 8 ☐ OTHER _____
TUBING ID (INCHES) ☐ 1/8 ☐ 1/4 ☒ 3/8 ☐ 1/2 ☐ 5/8 ☐ OTHER _____
MEASUREMENT POINT (MP) ☐ TOP OF RISER (TOR) ☐ TOP OF CASING (TOC) ☐ OTHER _____

WELL INTEGRITY
YES NO N/A
CAP ☒ ☐ ☐
CASING ☒ ☐ ☐
LOCKED ☒ ☐ ☐
COLLAR ☒ ☐ ☐

INITIAL DTW (BMP): 31.46 FT FINAL DTW (BMP): 31.97 FT PROT. CASING STICKUP (AGS): 0 FT
WELL DEPTH (BMP): ~100 FT SCREEN INTERVAL: Unknown FT PID AMBIENT AIR: NA PPM
WATER COLUMN: 68.04 FT DRAWDOWN VOLUME: 1015 GAL PID WELL MOUTH: NA PPM
CALCULATED GAL/VOL: 100.48 GAL TOTAL VOL. PURGED: 2.6 GAL DRAWDOWN/ TOTAL PURGED: _____
(water column X well diameter² X 0.041) (mL per minute X total minutes X 0.00026 gal/mL)

TOC/TOR DIFFERENCE: (4) FT
REFILL TIMER SETTING: NA SEC
DISCHARGE TIMER SETTING: NA SEC
PRESSURE TO PUMP: NA PSI

FIELD PARAMETERS WITH PROGRAM STABILIZATION CRITERIA

TIME	DTW (FT)	PURGE RATE (mL/min)	TEMP. (°C) ±3%	SP. CONDUCTANCE (mS/cm) ±3%	DISS. O ₂ (mg/L) ±10% or 3 values <0.5 mg/L	pH (units) ±0.1	REDOX (mv) ±10 mv	TURBIDITY (ntu) ±10% or <10 ntu	PUMP INTAKE DEPTH (ft)	COMMENTS
1245	BEGIN PURGING									
1250	31.98	250	14.77	373	4.52	8.05	-100	27.7	95	
1255	31.98		13.88	376	2.07	8.05	-174	32.9		
1300	31.97		15.28	416	1.42	8.03	-172	47.6		544 cmceast from 366043
1305	31.99		15.02	436	1.34	8.02	-189	44.0		
1310	32.00		15.38	435	1.31	8.02	-185	41.1		
1315	32.00		15.46	479	1.27	8.02	-189	37.1		
1320	31.99	✓	15.63	440	1.22	8.01	-264	34.0	↓	
1325	Sample									

FINAL STABILIZED FIELD PARAMETERS (rounded to appropriate significant figures)

TEMP: nearest degree (ex. 10.1 = 10)
COND: 3 significant figure max (ex. 1.686 = 1.69)
pH: nearest tenth (ex. 5.53 = 5.5)
DO: nearest tenth (ex. 3.51 = 3.5)
TURB: 3 SF max, nearest tenth (6.19 = 6.2, 101 = 101)
ORP: 2 SF (44.1 = 44, 191 = 190)

EQUIPMENT DOCUMENTATION

TYPE OF PUMP: ☒ PERISTALTIC ☐ SUBMERSIBLE ☐ BLADDER ☐ WATERA ☐ OTHER _____
DECON FLUIDS USED: ☒ ALCONOX ☐ DEIONIZED WATER ☐ POTABLE WATER ☐ NITRIC ACID ☐ HEXANE ☐ METHANOL ☐ OTHER _____
TUBING/PUMP/BLADDER MATERIALS: ☒ SILICON TUBING ☐ HDPE TUBING ☐ LDPE TUBING ☐ OTHER _____
S. STEEL PUMP MATERIAL ☐ PVC PUMP MATERIAL ☐ GEOPROBE SCREEN ☐ OTHER _____
EQUIPMENT USED: ☒ WL METER Pipont ☐ PID ☒ WQ METER 4000 V-52 ☒ TURB. METER 4000 V-52 ☒ PUMP Geosygel ☐ OTHER _____
FILTERS NO. _____ TYPE _____

ANALYTICAL PARAMETERS

PARAMETER	METHOD NUMBER	ANALYTE LIST	FIELD FILTERED	PRESERVATION METHOD	VOLUME REQUIRED	QC COLLECTED
☒ TO Vals	<u>8260 B</u>		<u>no</u>	<u>HL</u>	<u>80 mL</u>	<u>no</u>
☒ 14 hexane	<u>8270 D SIM</u>		<u>no</u>		<u>2L</u>	<u>no</u>

PURGE OBSERVATIONS

PURGE WATER CONTAINERIZED: YES ☒ NO ☐
NO-PURGE METHOD UTILIZED: YES ☐ NO ☐
NUMBER OF GALLONS GENERATED: 2.5

NOTES

DEVIATIONS FROM THE WORK PLAN

Sampler Signature: _____

Print Name: _____

Checked By: _____

Date: _____

LOW FLOW GROUNDWATER SAMPLING RECORD



511 Congress Street
Suite 200
Portland, Maine 04101

PROJECT NAME: Moosehead Industrial Plant
PROJECT NUMBER: 777AA016.02.0001
SAMPLE ID: 756013-MU-9B SAMPLE TIME: 1405

LOCATION ID: MU-9B DATE: 5/17/13
START TIME: 1130 END TIME: _____
SITE NAME/INSTALLATION: 756013 PAGE: 1 OF 1

WELL DIAMETER (IN.) ☐ 1 ☐ 2 ☐ 4 ☒ 6 ☐ 8 ☐ OTHER _____
TUBING ID (INCHES) ☐ 1.8 ☐ 1.4 ☒ 3/8 ☐ 1/2 ☐ 5/8 ☐ OTHER _____
MEASUREMENT POINT (MP) ☐ TOP OF RISER (TOR) ☐ TOP OF CASING (TOC) ☐ OTHER _____

WELL INTEGRITY
CAP ☒ YES ☐ NO ☐ N/A
CASING ☒ YES ☐ NO ☐ N/A
LOCKED ☒ YES ☐ NO ☐ N/A
COLLAR ☒ YES ☐ NO ☐ N/A

INITIAL DTW (BMP): 17.85 FT FINAL DTW (BMP): 17.98 FT PROT. CASING STICKUP (AGS): _____ FT
WELL DEPTH (BMP): 145 FT SCREEN INTERVAL: _____ FT PID AMBIENT AIR: NA PPM
WATER COLUMN: 127.15 FT DRAWDOWN VOLUME: _____ GAL PID WELL MOUTH: NA PPM
CALCULATED GAL/VOL: 187.67 GAL TOTAL VOL. PURGED: _____ GAL DRAWDOWN/TOTAL PURGED: _____
(water column X well diameter² X 0.041) (mL per minute X total minutes X 0.00026 gal/mL)

FIELD PARAMETERS WITH PROGRAM STABILIZATION CRITERIA

TIME	DTW (FT)	PURGE RATE (mL/min)	TEMP. (°C) ±3%	SP. CONDUCTANCE (mS/cm) ±3%	DISS. O ₂ (mg/L) ±10% or 3 values <0.5 mg/L	pH (units) ±0.1	REDOX (mv) ±10 mv	TURBIDITY (ntu) ±10% or <10 ntu	PUMP INTAKE DEPTH (ft)	COMMENTS
1330	BEGIN PURGING									
1335	18.00	250	11.44	275	5.18	11.80	-71	89.7	140	
1340	17.94		11.08	213	84	9.00	-720	100		
1345	17.91		11.57	253	45	8.74	-777	92.1		
1350	17.92		11.53	283	75	7.96	-728	91.2		
1355	17.90		11.54	287	27	7.87	-726	92.2		
1400	17.93		11.56	289	30	7.82	-724	87.8		
1405	17.92		11.58	291	37	7.79	-722	79.5		
1410			11.59	292	45	7.78	-723	72.3		
1415	Sample									

FINAL STABILIZED FIELD PARAMETERS (rounded to appropriate significant figures)

TEMP.: nearest degree (ex. 10.1 = 10)
COND.: 3 significant figure max (ex. 1.686 = 1.69)
pH: nearest tenth (ex. 5.53 = 5.5)
DO: nearest tenth (ex. 3.51 = 3.5)
TURB: 3 SF max, nearest tenth (6.19 = 6.2, 101 = 101)
ORP: 2 SF (44.1 = 44, 191 = 190)

EQUIPMENT DOCUMENTATION

TYPE OF PUMP: ☒ PERISTALTIC ☐ SUBMERSIBLE ☐ BLADDER ☐ WATERA ☐ OTHER _____
DECON FLUIDS USED: ☒ ALCONOX ☐ DEIONIZED WATER ☐ POTABLE WATER ☐ NITRIC ACID ☐ HEXANE ☐ METHANOL ☐ OTHER _____
TUBING/PUMP/BLADDER MATERIALS: ☒ SILICON TUBING ☐ HDPE TUBING ☐ LDPE TUBING ☐ OTHER _____
S. STEEL PUMP MATERIAL ☐ PVC PUMP MATERIAL ☐ GEOPROBE SCREEN ☐ OTHER _____
EQUIPMENT USED: ☒ WL METER Solis Model 101 ☐ PID ☒ WQ METER Marine 6-53 ☐ TURB. METER Marine 6-53 ☒ PUMP Global ☐ OTHER _____
FILTERS: NO _____ TYPE _____

ANALYTICAL PARAMETERS

PARAMETER	METHOD NUMBER	ANALYTE LIST	FIELD FILTERED	PRESERVATION METHOD	VOLUME REQUIRED	QC COLLECTED
☒ TOL VAC	<u>84005</u>		<u>no</u>	<u>641</u>	<u>80ml</u>	<u>no</u>
☒ 441110	<u>84005</u>		<u>no</u>	<u>none</u>	<u>2L</u>	<u>no</u>

PURGE OBSERVATIONS

PURGE WATER CONTAINERIZED: ☒ YES ☐ NO
NO-PURGE METHOD UTILIZED: ☐ YES ☐ NO
NUMBER OF GALLONS GENERATED: 3.6

NOTES

DEVIATIONS FROM THE WORK PLAN

Sampler Signature: _____

Print Name: Frank Darden

Checked By: _____

Date: 5/17/13

LOW FLOW GROUNDWATER SAMPLING RECORD



511 Congress Street
Suite 200
Portland, Maine 04101

PROJECT NAME: Mw-10B Mactec Industrial Plant
PROJECT NUMBER: 777221011
SAMPLE ID: 356023-Mw 10B SAMPLE TIME: 1530

LOCATION ID: Mw-10B DATE: 5/16/23
START TIME: 1420 END TIME: 1540
SITE NAME/INSTALLATION: 356023 PAGE: 1 OF 1

WELL DIAMETER (IN.) ☐ 1 ☐ 2 ☐ 4 ☒ 6 ☐ 8 ☐ OTHER _____
TUBING ID (INCHES) ☐ 1/8 ☐ 1/4 ☒ 3/8 ☐ 1/2 ☐ 5/8 ☐ OTHER _____
MEASUREMENT POINT (MP) ☐ TOP OF RISER (TOR) ☐ TOP OF CASING (TOC) ☐ OTHER _____

WELL INTEGRITY

YES NO N/A
CAP ☒ ☐ ☐
CASING ☒ ☐ ☐
LOCKED ☒ ☐ ☐
COLLAR ☒ ☐ ☐

INITIAL DTW (BMP): 23.72 FT FINAL DTW (BMP): 23.79 FT PROT. CASING STICKUP (AGS): ~3' FT
WELL DEPTH (BMP): 100 FT SCREEN INTERVAL: UNK FT PID AMBIENT AIR: NA PPM
WATER COLUMN: 76.68 FT DRAWDOWN VOLUME: _____ GAL PID WELL MOUTH: NA PPM
CALCULATED GAL/VOL: 113.18 GAL TOTAL VOL. PURGED: _____ GAL DRAWDOWN/ TOTAL PURGED: _____
(water column X well diameter² X 0.041) (mL per minute X total minutes X 0.00026 gal/mL)

TOC/TOR DIFFERENCE: 7.4 FT
REFILL TIMER SETTING: NA SEC
DISCHARGE TIMER SETTING: NA SEC
PRESSURE TO PUMP: NA PSI

FIELD PARAMETERS WITH PROGRAM STABILIZATION CRITERIA

TIME	DTW (FT)	PURGE RATE (mL/min)	TEMP. (°C) ±3%	SP. CONDUCTANCE (mS/cm) ±3%	DISS. O ₂ (mg/L) ±10% or 3 values <0.5 mg/L	pH (units) ±0.1	REDOX (mv) ±10 mv	TURBIDITY (ntu) ±10% or <10 ntu	PUMP INTAKE DEPTH (ft)	COMMENTS
1450	BEGIN PURGING									
1455	23.49	250	12.86	1.63	7.05	6.82	101	2.4	95	
1500	23.59		12.18	1.87	1.11	6.58	107	0.0		
1505	23.61		11.98	1.91	2.7	6.55	108	0.2		
1510	23.66		11.92	1.92	0.2	6.51	109	1.1		
1515	23.70		11.82	1.93	0.2	6.50	108	5.5		
1520	23.74		11.61	1.91	0.9	6.55	107	9.8		
1525	23.79		11.77	1.91	1.2	6.55	105	7.2		
1530	sample									

FINAL STABILIZED FIELD PARAMETERS (rounded to appropriate significant figures)

TEMP.: nearest degree (ex. 10.1 = 10)
COND.: 3 significant figure max (ex. 1.686 = 1.69)
pH: nearest tenth (ex. 5.53 = 5.5)
DO: nearest tenth (ex. 3.51 = 3.5)
TURB: 3 SF max, nearest tenth (6.19 = 6.2, 101 = 101)
ORP: 2 SF (44.1 = 44, 191 = 190)

EQUIPMENT DOCUMENTATION

TYPE OF PUMP: ☒ PERISTALTIC ☐ SUBMERSIBLE ☐ BLADDER ☐ WATERA ☐ OTHER _____
DECON FLUIDS USED: ☒ ALCONOX ☐ DEIONIZED WATER ☐ POTABLE WATER ☐ NITRIC ACID ☐ HEXANE ☐ METHANOL ☐ OTHER _____
TUBING/PUMP/BLADDER MATERIALS: ☒ SILICON TUBING ☐ HDPE TUBING ☐ LDPE TUBING ☐ OTHER _____
S. STEEL PUMP MATERIAL ☐ PVC PUMP MATERIAL ☐ GEOPROBE SCREEN ☐ OTHER _____
EQUIPMENT USED: ☒ WL METER DRP-01 ☐ PID ☒ WQ METER DRP-01 ☐ TURB METER DRP-01 ☒ PUMP DRP-01 ☐ OTHER _____
FILTERS NO. _____ TYPE _____

ANALYTICAL PARAMETERS

PARAMETER	METHOD NUMBER	ANALYTE LIST	FIELD FILTERED	PRESERVATION METHOD	VOLUME REQUIRED	QC COLLECTED
TEL VOCs	8260 B		NO	HCl	80 mL	DRP + MS/MSD
1,4 Dioxane	8270 D SIM		NO	Ice	2 L	DRP + MS/MSD

PURGE OBSERVATIONS

PURGE WATER CONTAINERIZED: ☒ YES ☐ NO
NO-PURGE METHOD UTILIZED: ☐ YES ☐ NO
NUMBER OF GALLONS GENERATED: _____

NOTES

356023-DUP-01 collected & Here
MS/MSD collected

DEVIATIONS FROM THE WORK PLAN

Sampler Signature: _____

Print Name: _____

Checked By: _____

Date: _____

LOW FLOW GROUNDWATER SAMPLING RECORD



511 Congress Street
Suite 200
Portland, Maine 04101

PROJECT NAME: Mohawk Industrial Plant
PROJECT NUMBER: 7772210116.01.***
SAMPLE ID: 356037-MW11B
SAMPLE TIME: 1/13/13

LOCATION ID: MW-11B
DATE: 5/18/13
START TIME: 1100
END TIME: 1300
SITE NAME/INSTALLATION: 356037
PAGE: 1 OF 1

WELL DIAMETER (IN.) ☐ 1 ☐ 2 ☐ 4 ☒ 6 ☐ 8 ☐ OTHER _____
TUBING ID (INCHES) ☐ 1/8 ☐ 1/4 ☒ 3/8 ☐ 1/2 ☐ 5/8 ☐ OTHER _____
MEASUREMENT POINT (MP) ☐ TOP OF RISER (TOR) ☐ TOP OF CASING (TOC) ☐ OTHER _____

WELL INTEGRITY

YES NO N/A
CAP ☒ ☐ ☐
CASING ☒ ☐ ☐
LOCKED ☒ ☐ ☐
COLLAR ☒ ☐ ☒

INITIAL DTW (BMP): 76.51 FT FINAL DTW (BMP): 76.56 FT PROT. CASING STICKUP (AGS): 1.6 FT TOC/TOR DIFFERENCE: NA FT
WELL DEPTH (BMP): 181 FT SCREEN INTERVAL: open bore well FT PID AMBIENT AIR: NA PPM REFILL TIMER SETTING: NA SEC
WATER COLUMN: 144.49 FT DRAWDOWN VOLUME: _____ GAL PID WELL MOUTH: NA PPM DISCHARGE TIMER SETTING: NA SEC
CALCULATED GAL VOL: 217.27 GAL TOTAL VOL. PURGED: _____ GAL DRAWDOWN/ TOTAL PURGED: _____ PSI
(water column X well diameter² X 0.041) (mL per minute X total minutes X 0.00026 gal/mL)

FIELD PARAMETERS WITH PROGRAM STABILIZATION CRITERIA

TIME	DTW (FT)	PURGE RATE (mL/min)	TEMP. (°C) ±3%	SP. CONDUCTANCE (mS/cm) ±3%	DISS. O ₂ (mg/L) ±10% or 3 values <0.5 mg/L	pH (units) ±0.1	REDOX (mv) ±10 mv	TURBIDITY (ntu) ±10% or <10 ntu	PUMP INTAKE DEPTH (ft)	COMMENTS
1145	BEGIN PURGING									
1150	76.55	200	17.57	.485	1.71	7.45	-70	17.8	175	
1155	76.55		17.27	.489	1.18	7.44	-73	100.3		
1200	76.55		17.01	.496	1.06	7.44	-74	79.1		
1205	76.55		17.27	.497	0.94	7.44	-75	81.0		
1210	76.56		17.94	.497	0.86	7.44	-76	87.7		
1215	76.55		17.06	.496	0.81	7.44	-77	78.7		
1220	76.55		17.18	.495	0.81	7.44	-77	77.2		
1225	Sample									

FINAL STABILIZED FIELD PARAMETERS (rounded to appropriate significant figures)

TEMP: nearest degree (ex. 10.1 = 10)
COND: 3 significant figure max (ex. 1.686 = 1.69)
pH: nearest tenth (ex. 5.53 = 5.5)
DO: nearest tenth (ex. 3.51 = 3.5)
TURB: 3 SF max, nearest tenth (6.19 = 6.2, 101 = 101)
ORP: 2 SF (44.1 = 44, 191 = 190)

EQUIPMENT DOCUMENTATION

TYPE OF PUMP: ☒ PERISTALTIC ☐ SUBMERSIBLE ☐ BLADDER ☐ WATER ☐ OTHER _____
DECON FLUIDS USED: ☒ ALCONOX ☐ DEIONIZED WATER ☐ POTABLE WATER ☐ NITRIC ACID ☐ HEXANE ☐ METHANOL ☐ OTHER _____
TUBING/PUMP/BLADDER MATERIALS: ☒ SILICON TUBING ☐ HDPE TUBING ☐ LDPE TUBING ☐ OTHER _____
S. STEEL PUMP MATERIAL ☐ PVC PUMP MATERIAL ☐ GEOPROBE SCREEN ☐ OTHER _____
EQUIPMENT USED: ☒ WL METER ☐ PID ☒ WQ METER ☐ TURB. METER ☐ PUMP ☐ OTHER _____
FILTERS NO. _____ TYPE _____

ANALYTICAL PARAMETERS

PARAMETER	METHOD NUMBER	ANALYTE LIST	FIELD FILTERED	PRESERVATION METHOD	VOLUME REQUIRED	QC COLLECTED
☒ TCL VOCs	8260B		no	Hel	80 mL	no
☒ 1,4 Dioxane	8270B/ST		no	none	2 L	no

PURGE OBSERVATIONS

PURGE WATER CONTAINERIZED: YES ☒ NO ☐
NO-PURGE METHOD UTILIZED: YES ☐ NO ☐
NUMBER OF GALLONS GENERATED: 2.5

NOTES

Owner requests not to park in driveway while unloading, park by house

DEVIATIONS FROM THE WORK PLAN

Signature: [Signature]
Print Name: Ryan Ondaan

Checked By: _____
Date: 5/18/13

LOW FLOW GROUNDWATER SAMPLING RECORD



511 Congress Street
Suite 200
Portland, Maine 04101

PROJECT NAME: Prokorski Industrial Ponds
PROJECT NUMBER: 7772210116-02
SAMPLE ID: HC 356037
SAMPLE TIME: 1410

LOCATION ID: MW-11C
DATE: 5/18/13
START TIME: 1310
END TIME: 1445
SITE NAME/INSTALLATION: 356037
PAGE: 1 OF 1

WELL DIAMETER (IN.) ☐ 1 ☐ 2 ☐ 4 ☒ 6 ☐ 8 ☐ OTHER _____
TUBING ID (INCHES) ☐ 1.8 ☐ 1.4 ☒ 1.8 ☐ 1.2 ☐ 5/8 ☐ OTHER _____
MEASUREMENT POINT (MP) ☐ TOP OF RISER (TOR) ☐ TOP OF CASING (TOC) ☐ OTHER _____

WELL INTEGRITY
YES NO N/A

CAP _____
CASING _____
LOCKED _____
COLLAR _____

INITIAL DTW (BMP): 38.61 FT FINAL DTW (BMP): 38.72 FT PROT. CASING STICKUP (AGS): 1.9 FT TOC/TOR DIFFERENCE: NA FT
WELL DEPTH (BMP): 220 FT SCREEN INTERVAL: open bore hole FT PID AMBIENT AIR: NA PPM REFILL TIMER SETTING: NA SEC
WATER COLUMN: 181.39 FT DRAWDOWN VOLUME (final DTW - initial DTW X well diam. squared X 0.041): _____ GAL PID WELL MOUTH: NA PPM DISCHARGE TIMER SETTING: NA SEC
CALCULATED GAL VOL: 267.73 GAL TOTAL VOL.: _____ GAL PURGED: _____ GAL DRAWDOWN/ TOTAL PURGED: _____ PRESSURE TO PUMP: NA PSI
(water column X well diameter² X 0.041) (ml. per minute X total minutes X 0.00026 gal/mL)

FIELD PARAMETERS WITH PROGRAM STABILIZATION CRITERIA

TIME	DTW (FT)	PURGE RATE (mL/min)	TEMP. (°C) ±3%	SP. CONDUCTANCE (mS/cm) ±3%	DISS. O ₂ (mg/L) ±10% or 3 values > 0.5 mg/L	pH (units) ±0.1	REDOX (mv) ±10 mv	TURBIDITY (ntu) ±10% or < 10 ntu	PUMP INTAKE DEPTH (ft)	COMMENTS
1330	BEGIN PURGING									
1335	38.77	200	14.73	527	64	7.27	67	12.3	180	
1340	28.80		14.21	611	53	7.17	79	18.4		
1345	28.82		13.57	663	44	7.10	90	13.6		
1350	28.84		17.52	684	34	7.06	101	14.2		
1355	28.85		17.25	690	30	7.05	109	13.7		
1400	28.87		17.17	649	26	7.07	110	12.4		
1405	28.86		17.16	701	20	7.11	111	11.9		
1410	Sample									

FINAL STABILIZED FIELD PARAMETERS (rounded to appropriate significant figures)

TEMP: nearest degree (ex. 10.1 = 10)
COND: 3 significant figure max (ex. 1.686 = 1.69)
pH: nearest tenth (ex. 5.53 = 5.5)
DO: nearest tenth (ex. 3.51 = 3.5)
TURB: 3 SF max, nearest tenth (6.19 = 6.2, 101 = 101)
ORP: 2 SF (44.1 = 44, 191 = 190)

EQUIPMENT DOCUMENTATION

TYPE OF PUMP: ☒ PERISTALTIC ☐ SUBMERSIBLE ☐ BLADDER ☐ WATERA ☐ OTHER _____
DECON FLUIDS USED: ☒ ALCONOX ☐ DEIONIZED WATER ☐ POTABLE WATER ☐ NITRIC ACID ☐ HEXANE ☐ METHANOL ☐ OTHER _____
TUBING/PUMP/BLADDER MATERIALS: ☒ SILICON TUBING ☐ HDPE TUBING ☐ LDPE TUBING ☐ OTHER _____
S. STEEL PUMP MATERIAL ☐ PVC PUMP MATERIAL ☐ GEOPROBE SCREEN ☐ OTHER _____
EQUIPMENT USED: ☒ WL METER ☐ PID ☐ WQ METER ☐ TURB. METER ☐ PUMP ☐ OTHER _____
FILTERS: NO _____ TYPE _____

ANALYTICAL PARAMETERS

PARAMETER	METHOD NUMBER	ANALYTE LIST	FIELD FILTERED	PRESERVATION METHOD	VOLUME REQUIRED	QC COLLECTED
☒ TCL VOCs	8260B		no	HCL	80ml	no
☒ 1,4 Dioxane	8270D SIM		no	None	3L	no

PURGE OBSERVATIONS

PURGE WATER CONTAINERIZED: YES ☒ NO ☐
NO-PURGE METHOD UTILIZED: YES ☐ NO ☐
NUMBER OF GALLONS GENERATED: 3.5

NOTES: property owner requests we park near house, not in driveway, while unloading

DEVIATIONS FROM THE WORK PLAN

Sampler Signature: _____

Print Name: Ryan Orsler

Checked By: _____

Date: 5/18/13

LOW FLOW GROUNDWATER SAMPLING RECORD



511 Congress Street
Suite 200
Portland, Maine 04101

PROJECT NAME: Moranic Rd Industrial Plant
PROJECT NUMBER: 7772210116-02.***
SAMPLE ID: 356023-MW128 SAMPLE TIME: 1010

LOCATION ID: MW-128 DATE: 5/18/13
START TIME: 0900 END TIME: 1045
SITE NAME/INSTALLATION: 356023 PAGE: 1 OF 1

WELL DIAMETER (IN.) ☐ 1 ☐ 2 ☐ 4 ☒ 6 ☐ 8 ☐ OTHER _____
TUBING ID (INCHES) ☐ 1/8 ☐ 1/4 ☒ 3/8 ☐ 1/2 ☐ 5/8 ☐ OTHER _____
MEASUREMENT POINT (MP) ☐ TOP OF RISER (TOR) ☐ TOP OF CASING (TOC) ☐ OTHER _____

WELL INTEGRITY

YES NO N/A
CAP ☒ ☐ ☐
CASING ☒ ☐ ☐
LOCKED ☒ ☐ ☐
COLLAR ☒ ☐ ☐

INITIAL DTW (BMP): 11.19 FT FINAL DTW (BMP): 11.17 FT PROT. CASING STICKUP (AGS): _____ FT
WELL DEPTH (BMP): 200 FT SCREEN INTERVAL: _____ FT PID AMBIENT AIR: NA PPM
WATER COLUMN: 188.81 FT DRAWDOWN VOLUME: _____ GAL PID WELL MOUTH: NA PPM
CALCULATED GAL/VOL: 278.68 GAL TOTAL VOL. PURGED: _____ GAL
(water column X well diameter² X 0.041) (ml. per minute X total minutes X 0.00026 gal/mL)

TOC/TOR DIFFERENCE: _____ FT
REFILL TIMER SETTING: NA SEC
DISCHARGE TIMER SETTING: NA SEC
PRESSURE TO PUMP: NA PSI

FIELD PARAMETERS WITH PROGRAM STABILIZATION CRITERIA

TIME	DTW (FT)	PURGE RATE (mL/min)	TEMP. (°C) ±3%	SP. CONDUCTANCE (mS/cm) ±3%	DISS. O ₂ (mg/L) ±10% or 3 values <0.5 mg/L	pH (units) ±0.1	REDOX (mv) ±10 mv	TURBIDITY (ntu) ±10% or <10 ntu	PUMP INTAKE DEPTH (ft)	COMMENTS
0930	BEGIN PURGING									
0935	11.21	200	12.22	.416	2.63	6.91	189	38.7	190	
0940	11.23		12.72	.414	2.09	6.97	179	12.2		
0945	11.27		12.43	.414	1.80	6.99	173	9.6		
0950	11.24		12.55	.414	1.60	7.00	166	9.0		
0955	11.24		12.59	.413	1.48	7.01	160	9.7		
1000	11.24		12.66	.413	1.40	7.01	156	9.9		
1005	11.25		12.71	.413	1.34	7.02	152	9.5		
1010	Sample ✓									

FINAL STABILIZED FIELD PARAMETERS (rounded to appropriate significant figures)

TEMP: nearest degree (ex. 10.1 = 10)
COND: 3 significant figure max (ex. 1.686 = 1.69)
pH: nearest tenth (ex. 5.53 = 5.5)
DO: nearest tenth (ex. 3.51 = 3.5)
TURB: 3 SF max, nearest tenth (6.19 = 6.2, 101 = 101)
ORP: 2 SF (44.1 = 44, 191 = 190)

EQUIPMENT DOCUMENTATION

TYPE OF PUMP: ☒ PERISTALTIC ☐ SUBMERSIBLE ☐ BLADDER ☐ WATERA ☐ OTHER _____
DECON FLUIDS USED: ☒ ALCONOX ☐ DEIONIZED WATER ☐ POTABLE WATER ☐ NITRIC ACID ☐ HEXANE ☐ METHANOL ☐ OTHER _____
TUBING/PUMP/BLADDER MATERIALS: ☒ SILICON TUBING ☐ HDPE TUBING ☐ LDPE TUBING ☐ OTHER _____
S. STEEL PUMP MATERIAL ☐ PVC PUMP MATERIAL ☐ GEOPROBE SCREEN ☐ OTHER _____
EQUIPMENT USED: ☒ WL METER ☐ PID ☒ WQ METER ☐ TURB. METER ☐ PUMP ☐ OTHER _____
FILTERS: NO. _____ TYPE _____

ANALYTICAL PARAMETERS

PARAMETER	METHOD NUMBER	ANALYTE LIST	FIELD FILTERED	PRESERVATION METHOD	VOLUME REQUIRED	QC COLLECTED
☒ TCL VOCs	8260B		no	HCL	80mL	no
☒ 1,4-Dioxane	8270D SIA		no	none	2L	no

PURGE OBSERVATIONS

PURGE WATER CONTAINERIZED: ☒ YES ☐ NO
NO-PURGE METHOD UTILIZED: ☐ YES ☒ NO
NUMBER OF GALLONS GENERATED: 2.5

NOTES

DEVIATIONS FROM THE WORK PLAN

Sampler Signature: _____

Print Name: Ryan O'Shea

Checked By: _____

Date: 5/18/13

LOW FLOW GROUND WATER SAMPLING RECORD



511 Congress Street
Suite 200
Portland, Maine 04101

PROJECT NAME: Alconox Industrial
PROJECT NUMBER: 364497774 7772210116
SAMPLE ID: 350633-MW14B150 SAMPLE TIME: 1045

LOCATION ID: MW-14B DATE: 5/16/13
START TIME: 0910 END TIME: 1120
SITE NAME/INSTALLATION: 356033 PAGE: 1 OF 1

WELL DIAMETER (IN.) ☐ 1 ☐ 2 ☐ 4 ☒ 6 ☐ 8 ☐ OTHER _____
TUBING ID (INCHES) ☐ 1/8 ☐ 1/4 ☒ 3/8 ☐ 1/2 ☐ 5/8 ☐ OTHER _____
MEASUREMENT POINT (MP) ☒ TOP OF RISER (TOR) ☒ TOP OF CASING (TOC) ☐ OTHER _____

WELL INTEGRITY

CAP ☒ YES ☐ NO ☐ N/A
CASING ☒ YES ☐ NO ☐ N/A
LOCKED ☒ YES ☐ NO ☐ N/A
COLLAR ☒ YES ☐ NO ☐ N/A

INITIAL DTW (BMP): 4.98 FT FINAL DTW (BMP): 5.60 FT PROT. CASING STICKUP (AGS): 1 FT TOC/TOR DIFFERENCE: .3 FT
WELL DEPTH (BMP): 155 FT SCREEN INTERVAL: UNKNOWN PID AMBIENT AIR: NA PPM REFILL TIMER SETTING: NA SEC
WATER COLUMN: 150.02 FT DRAWDOWN VOLUME: .915 GAL PID WELL MOUTH: NA PPM DISCHARGE TIMER SETTING: NA SEC
CALCULATED GAL/VOL: 221.43 GAL TOTAL VOL. PURGED: 3.35 GAL DRAWDOWN/TOTAL PURGED: _____ PSI
(water column X well diameter² X 0.041) (mL per minute X total minutes X 0.00026 gal/mL)

FIELD PARAMETERS WITH PROGRAM STABILIZATION CRITERIA

TIME	DTW (FT)	PURGE RATE (mL/min)	TEMP. (°C) ±3%	SP. CONDUCTANCE (mS/cm) ±3%	DISS. O ₂ (mg/L) ±10% or 3 values <0.5 mg/L	pH (units) ±0.1	REDOX (mv) ±10 mv	TURBIDITY (ntu) ±10% or <10 ntu	PUMP INTAKE DEPTH (ft)	COMMENTS
0955	BEGIN PURGING									
1000	5.05	250	14.13	.437	3.03	6.84	34	98.4	150	
1005	5.12		13.29	.426	2.17	7.05	-17	46.7		
1010	5.20		13.22	.422	1.83	7.07	-30	31.8		
1015	5.27		13.15	.414	1.53	7.07	-47	26.5		
1020	5.33		13.11	.412	1.02	7.07	-53	27.0		
1025	5.42		13.05	.412	0.93	7.09	-60	24.3		
1030	5.48		12.95	.413	0.89	7.09	-64	21.9		
1035	5.51		12.97	.413	0.80	7.08	-66	20.0		
1040	5.54		12.98	.413	0.75	7.09	-67	18.7		
1045	Sampling									

FINAL STABILIZED FIELD PARAMETERS (rounded to appropriate significant figures)

TEMP: nearest degree (ex. 10.1 = 10)
COND: 3 significant figure max (ex. 1.080 = 1.08)
pH: nearest tenth (ex. 5.53 = 5.5)
DO: nearest tenth (ex. 3.51 = 3.5)
TURB: 3 SF max, nearest tenth (6.19 = 6.2, 101 = 101)
ORP: 2 SF (44.1 = 44, 191 = 190)

EQUIPMENT DOCUMENTATION

TYPE OF PUMP: ☒ PERISTALTIC ☐ SUBMERSIBLE ☐ BLADDER ☐ WATERA ☐ OTHER _____
DECON FLUIDS USED: ☒ ALCONOX ☐ DEIONIZED WATER ☐ POTABLE WATER ☐ NITRIC ACID ☐ HEXANE ☐ METHANOL ☐ OTHER _____
TUBING/PUMP/BLADDER MATERIALS: ☒ SILICON TUBING ☐ HDPE TUBING ☐ LDPE TUBING ☐ OTHER _____
S. STEEL PUMP MATERIAL ☐ PVC PUMP MATERIAL ☐ GEOPROBE SCREEN ☐ OTHER _____
EQUIPMENT USED: ☒ WL METER Pipette 20281 ☒ PID Naibav-52 2/2/11 ☒ WQ METER Naibav-52 2/2/11 ☒ TURB. METER Naibav-52 2/2/11 ☒ PUMP Geos 20281 ☐ OTHER _____
FILTERS: NO. _____ TYPE _____

ANALYTICAL PARAMETERS

PARAMETER	METHOD NUMBER	ANALYTE LIST	FIELD FILTERED	PRESERVATION METHOD	VOLUME REQUIRED	QC COLLECTED
☒ 1,4 Dioxane	8270D SIM		NO	HA	2L	NO
☒ Toluene	8260B		NO	HCl	80mL	NO

PURGE OBSERVATIONS

PURGE WATER CONTAINERIZED: ☒ YES ☐ NO
NO-PURGE METHOD UTILIZED: ☐ YES ☐ NO

NUMBER OF GALLONS GENERATED: 3.0

NOTES

DEVIATIONS FROM THE WORK PLAN

Sampler Signature: _____

Print Name: _____

Checked By: _____

Date: _____

LOW FLOW GROUNDWATER SAMPLING RECORD



511 Congress Street
Suite 200
Portland, Maine 04101

PROJECT NAME: Mohawk Rd Industrial Plant
PROJECT NUMBER: 261191234
SAMPLE ID: 756027 - MW 15B

LOCATION ID: MW-15B DATE: 5/17/13
START TIME: 0830 END TIME: 1615
SITE NAME/INSTALLATION: 756047 PAGE: 1 OF 1

WELL DIAMETER (IN.) ☐ 1 ☐ 2 ☐ 4 ☒ 6 ☐ 8 ☐ OTHER _____
TUBING ID (INCHES) ☐ 1/8 ☐ 1/4 ☒ 3/8 ☐ 1/2 ☐ 5/8 ☐ OTHER _____
MEASUREMENT POINT (MP) ☐ TOP OF RISER (TOR) ☐ TOP OF CASING (TOC) ☐ OTHER _____

WELL INTEGRITY

YES NO N/A
CAP _____
CASING _____
LOCKED _____
COLLAR _____

INITIAL DTW (BMP): 11.49 FT FINAL DTW (BMP): 11.75 FT PROT. CASING STICKUP (AGS): 2.2 FT
WELL DEPTH (BMP): 150 FT SCREEN INTERVAL: UNKNOWN FT PID AMBIENT AIR: NA PPM
WATER COLUMN: 17851 FT DRAWDOWN VOLUME: _____ GAL PID WELL MOUTH: NA PPM
CALCULATED GAL/VOL: 204.44 GAL TOTAL VOL. PURGED: _____ GAL DRAWDOWN/ TOTAL PURGED: _____
(water column X well diameter² X 0.041) (mL per minute X total minutes X 0.00026 gal/mL)

FIELD PARAMETERS WITH PROGRAM STABILIZATION CRITERIA

TIME	DTW (FT)	PURGE RATE (mL/min)	TEMP. (°C) ±3%	SP. CONDUCTANCE (mS/cm) ±3%	DISS. O ₂ (mg/L) ±10% or 3 values <0.5 mg/L	pH (units) ±0.1	REDOX (mv) ±10 mv	TURBIDITY (ntu) ±10% or <10 ntu	PUMP INTAKE DEPTH (ft)	COMMENTS
0850	BEGIN PURGING									
0855	11.61	200	10.95	.375	6.08	6.91	216	1.2	145	
0900	11.68		10.75	.427	5.55	7.17	212	15.6		
0905	11.71		10.70	.430	5.18	7.18	206	21.6		
0910	11.74		10.71	.434	5.13	7.18	195	17.2		
0915	11.76		10.77	.476	5.05	7.18	186	11.4		
0920	11.79		10.71	.476	4.84	7.18	180	9.4		
0925	11.83		10.70	.476	4.81	7.18	175	8.5		
0930	11.85		10.70	.476	4.79	7.18	169	4.8		
0935	Sample									

FINAL STABILIZED FIELD PARAMETERS (rounded to appropriate significant figures)

TEMP: nearest degree (ex. 10.1 = 10)
COND: 3 significant figure max (ex. 1.686 = 1.69)
pH: nearest tenth (ex. 5.53 = 5.5)
DO: nearest tenth (ex. 3.51 = 3.5)
TURB: 3 SF max, nearest tenth (ex. 6.19 = 6.2, 101 = 101)
ORP: 2 SF (44.1 = 44, 191 = 190)

EQUIPMENT DOCUMENTATION

TYPE OF PUMP: ☒ PERISTALTIC ☐ SUBMERSIBLE ☐ BLADDER ☐ WATERA ☐ OTHER _____
DECON FLUIDS USED: ☒ ALCONOX ☐ DEIONIZED WATER ☐ POTABLE WATER ☐ NITRIC ACID ☐ HEXANE ☐ METHANOL ☐ OTHER _____
TUBING/PUMP/BLADDER MATERIALS: ☒ SILICON TUBING ☐ HDPE TUBING ☐ LDPE TUBING ☐ OTHER _____
S. STEEL PUMP MATERIAL ☐ PVC PUMP MATERIAL ☐ GEOPROBE SCREEN ☐ OTHER _____
EQUIPMENT USED: ☒ WL METER ☐ PID ☒ WQ METER ☐ TURB. METER ☐ PUMP ☐ OTHER _____
FILTERS: NO _____ TYPE _____

ANALYTICAL PARAMETERS

PARAMETER	METHOD NUMBER	ANALYTE LIST	FIELD FILTERED	PRESERVATION METHOD	VOLUME REQUIRED	QC COLLECTED
TCL VOCs	8260 B		NA	HCl	80 mL	NO
1,4 Dioxane	8270 SIM		NO	HC	2 L	NO

PURGE OBSERVATIONS

PURGE WATER CONTAINERIZED: YES ☒ NO ☐
NO PURGE METHOD UTILIZED: YES ☐ NO ☐
NUMBER OF GALLONS GENERATED: _____

NOTES

DEVIATIONS FROM THE WORK PLAN

Sampler Signature: _____

Print Name: _____

Checked By: _____

Date: _____

LOW FLOW GROUNDWATER SAMPLING RECORD



511 Congress Street
Suite 200
Portland, Maine 04101

PROJECT NAME <i>Mohawk Rd Industrial Plant</i>	
PROJECT NUMBER <i>7772110116.62.***</i>	
SAMPLE ID <i>356023-MW16</i>	SAMPLE TIME <i>1640</i>

LOCATION ID <i>MW-16</i>	DATE <i>5/17/13</i>
START TIME <i>1530</i>	END TIME <i>1705</i>
SITE NAME/INSTALLATION <i>756023</i>	PAGE <i>1 OF 1</i>

WELL DIAMETER (IN.) ☐ 1 ☒ 2 ☐ 4 ☐ 6 ☐ 8 ☐ OTHER _____

TUBING ID (INCHES) ☐ 1/8 ☐ 1/4 ☒ 3/8 ☐ 1/2 ☐ 5/8 ☐ OTHER _____

MEASUREMENT POINT (MP) ☐ TOP OF RISER (TOR) ☒ TOP OF CASING (TOC) ☐ OTHER _____

WELL INTEGRITY

	YES	NO	N/A
CAP	☒	☐	☐
CASING	☒	☐	☐
LOCKED	☒	☐	☐
COLLAR	☒	☐	☐

INITIAL DTW (BMP) <i>25.02</i> FT	FINAL DTW (BMP) <i>26.56</i> FT	PROT. CASING STICKUP (AGS) _____ FT	TOC/TOR DIFFERENCE _____ FT
WELL DEPTH (BMP) <i>93.7</i> FT	SCREEN INTERVAL _____ FT	PID AMBIENT AIR NA PPM	REFILL TIMER SETTING NA SEC
WATER COLUMN _____ FT	DRAWDOWN VOLUME (final DTW - initial DTW X well diam. squared X 0.041) _____ GAL	PID WELL MOUTH NA PPM	DISCHARGE TIMER SETTING NA SEC
CALCULATED GAL/VOL _____ GAL	TOTAL VOL PURGED _____ GAL	DRAWDOWN/ TOTAL PURGED _____	PRESSURE TO PUMP NA PSI

(water column X well diameter² X 0.041) (mL per minute X total minutes X 0.00026 gal/mL)

FIELD PARAMETERS WITH PROGRAM STABILIZATION CRITERIA

TIME	DTW (FT)	PURGE RATE (mL/min)	TEMP. (°C) ±3%	SP. CONDUCTANCE (mS/cm) ±3%	DISS. O ₂ (mg/L) ±10% or 3 values <0.5 mg/L	pH (units) ±0.1	REDOX (mv) ±10 mv	TURBIDITY (ntu) ±10% or <10 ntu	PUMP INTAKE DEPTH (ft)	COMMENTS
1555	BEGIN PURGING									
1600	25.71	200	11.65	.129	6.28	7.34	135	136	28	
1605	25.73		11.54	.127	5.06	6.57	163	2164		
1610	25.77		11.61	.125	4.82	6.49	170	219		
1615	25.79		11.66	.126	4.44	6.46	175	209		
1640	25.81		11.68	.127	4.21	6.45	182	197		
1645	25.82		11.71	.127	3.91	6.44	186	185		
1650	25.82		11.67	.128	3.73	6.44	188	192		
1655	25.83		11.64	.128	2.54	6.43	191	195		
1640	Sample									

FINAL STABILIZED FIELD PARAMETERS (rounded to appropriate significant figures)

TEMP: nearest degree (ex. 10.1 = 10)
COND: 3 significant figure max (ex. 1.686 = 1.69)
pH: nearest tenth (ex. 5.53 = 5.5)
DO: nearest tenth (ex. 3.51 = 3.5)
TURB: 3 SF max, nearest tenth (6.19 = 6.2, 101 = 101)
ORP: 2 SF (44.1 = 44, 191 = 190)

EQUIPMENT DOCUMENTATION

TYPE OF PUMP		DECON FLUIDS USED		TUBING/PUMP/BLADDER MATERIALS		EQUIPMENT USED	
☒ PERISTALTIC	☒ ALCONOX	☒ SILICON TUBING	☐ S. STEEL PUMP MATERIAL	☒ WL METER			
☐ SUBMERSIBLE	☐ DEIONIZED WATER	☐ HDPE TUBING	☐ PVC PUMP MATERIAL	☒ PID			
☐ BLADDER	☐ POTABLE WATER	☐ LDPE TUBING	☐ GEOPROBE SCREEN	☒ WQ METER			
☐ WATERA	☐ NITRIC ACID	☐ OTHER	☐ OTHER	☒ TURB. METER			
☐ OTHER	☐ HEXANE	☐ OTHER	☐ OTHER	☒ PUMP			
☐ OTHER	☐ METHANOL	☐ OTHER	☐ OTHER	☒ OTHER			
	☐ OTHER			☐ FILTERS	NO	TYPE	

ANALYTICAL PARAMETERS

PARAMETER	METHOD NUMBER	ANALYTE LIST	FIELD FILTERED	PRESERVATION METHOD	VOLUME REQUIRED	QC COLLECTED
☒ TL HARS	<i>846013</i>		<i>no</i>	<i>HCL</i>	<i>8 mL</i>	<i>no</i>
☒ 1,4 Dioxane	<i>8470051A</i>		<i>no</i>	<i>none</i>	<i>2L</i>	<i>no</i>

PURGE OBSERVATIONS

PURGE WATER CONTAINERIZED	YES ☐	NO ☐	NUMBER OF GALLONS GENERATED
NO-PURGE METHOD UTILIZED	YES ☐	NO ☐	

NOTES

DEVIATIONS FROM THE WORK PLAN

Sampler Signature

Print Name: *Pyron Dasher*

Checked By:

Date: *5/17/13*

FLUTE-Lined Well Sampling Data Sheet

Project Name: Mohonk MRIP

Project No.: 7772210Wp

Sample Interval: 37-57

Sample ID: 392023-MW17-1

Well ID: MW-17-1

Date: 5/10/23

Sample Time: 22.5

Sampler: I, MUSER

Well Depth (from TOPT): 57

Purge Pressure (psi): $\frac{25}{40}$ $\frac{100}{60}$

Static Water Level (from TOPT): 5.60

Sampling Pressure (psi): ~~34~~ 50

Pump Tube PID: 0.0

Pump Type: Nitrogen Gas Purge

Tag Tube DTW (from TOT): 2.60

Sample Tube PID:

Instrument Type: Hutton-V-52

Serial Number: 21296

[illegible]

Page 1 of 1

Sample Interval: 95-110

Sample ID: 356023-MW17-2

Purge Pressure (psi): 65

Sampling Pressure (psi): 55

Tag Tube DTW (from TOT): 2.60

Sample Time: 12.30

Sampler: I. MOSCH

Pump Tube PID:

Sample Tube PID: 0.0

Instrument Type: Horizontal U-52

Serial Number: 21796

[illegible]

Page 1 of 1

Sample ID: 356023-MW17-3

Sample Time: 1735

Sampler: I MUSIC

Pump Tube PID:

Sample Tube PID: 0.0

Tag Tube DTW (from TOTT): 7.60

Sample Tube PID: 0.0

Serial Number: 212962

[illegible]

Page 1 of 1

Sample Interval: Unknown

Sample ID: ~~44021~~ 356023-11021-1

Date: 5/17/23

Sample Time: 1330

Sampler: I. Moser

Well Depth (from TOPT):

Purge Pressure (psi): 60

Static Water Level (from TOPT): 0.0

Sampling Pressure (psi): 60

Pump Tube PID: 0.0

Pump Type: Nitrogen Gas Purge

Tag Tube DTW (from TOT): 0.0

Sample Tube PID:

Instrument Type: Hosmer U-52

Serial Number:

[illegible]

Page 1 of 1

Sample Interval: UNKNOWN

Sample ID: 356023-MWZ1-2

Sample Time: 1335

Sampler: I. Moses

Well ID: MW-21-2

Date: 5/17/23

Well Depth (from TOPT):

Purge Pressure (psi): 60

Static Water Level (from TOPT): $\odot$, $\odot$

Sampling Pressure (psi):

Pump Tube PID: 6.6

Pump Type: Nitrogen Gas Purge

Tag Tube DTW (from TOTI): $\odot_1 \odot$

Sample Tube PID:

Instrument Type: Harmon U-52

Serial Number:

[illegible]

Page of

Project No. :

Sample Interval: Unknown
Sample ID: 35023-MWZ1-4
Sample Time: 1340
Sampler: T. Mosci

Well ID: ٢ - ا ح - ١ ص ج م

Date: 5/17/23

Well Depth (from TOPT)

Purge Pressure (psi): 6.0

Static Water Level (from TOPT) 0.0

Sampling Pressure (psi): 60

Pump Tube PID: 0.0

Pump Type: Nitrogen Gas Purge

Tag Tube DTW (from TOTT):

Sample Tube FID: 0.0

Instrument Type: Harmon USZ

Serial Number

[illegible]

Page _____ of _____

Project No.:

Sample Interval: unknown

Date: 5/17/23

Sample ID: 356023 - MWZ1-5

Sample Time: 1345

Sampler: I. Moses

Well Depth (from TOPT)

Purge Pressure (psi): 60

Pump Tube PID: 0.0

Static Water Level (from TOPT): 0.0

Sampling Pressure (psi): 60

Sample Tube PID:  

Pump Type: Nitrogen Gas Purge

Tag Tube DTW (from TOTT):

Sample Tube PID:  

Instrument Type: HOF, D3 U-5Z

Serial Number:

[illegible]

Page 1 of 1

Sample Interval: unknown
Sample ID: 356023-11W21-6
Sample Time: 1350
Sampler: I Moser

Date: 5/17/23

Purge Pressure (psi): 60
Sampling Pressure (psi): 60
Tag Tube DTW (from TOTT): 0.0

Pump Tube PID: 0.0
Sample Tube PID: 0.0

Instrument Type: Horizon US2
Serial Number:

[illegible]



511 Congress Street
Suite 200
Portland, Maine 04101

PROJECT NAME	Mohawk R.L. Industrial Plant	LOCATION ID	1000 ERT-1	DATE	5/17/23
PROJECT NUMBER	7772210116	START TIME	0910	END TIME	0915
SAMPLE ID	356023-ERT1	SAMPLE TIME	0915	SITE NAME/INSTALLATION	PAGE
			356023		OF 1

SAMPLE TYPE: ☒ GROUNDWATER ☐ SURFACE WATER ☐ STORM WATER ☐ DRINKING WATER ☐ PORE WATER ☐ OTHER:

FIELD PARAMETERS WITH PROGRAM STABILIZATION CRITERIA (AS LISTED IN THE OPP)

[illegible]**FINAL STABILIZED FIELD PARAMETERS (rounded to appropriate significant figures)**

TEMP.: nearest degree (ex. 10.1 = 10)
COND.: 3 significant figure (SF) max (ex. 1.686 = 1.69)
pH: nearest tenth (ex. 5.51 = 5.5)
DO: nearest tenth (ex. 3.51 = 3.5)
TURB: 3 SF max, nearest tenth (6.19 = 6.2, 101 = 101)
ORP: 2 SF (44.1 = 44, 191 = 190)

EQUIPMENT DOCUMENTATION

TYPE OF PUMP		DECON FLUIDS USED		TUBING/PUMP/BLADDER MATERIALS		EQUIPMENT USED				
☒	PERISTALTIC	☐	ALCONOX	☐	SILICON TUBING	☒	S. STEEL PUMP MATERIAL	☐	WL METER	
☐	SUBMERSIBLE	☐	HDPE DEIONIZED WATER	☐	HDPE TUBING	☐	PVC PUMP MATERIAL	☐	PID	
☐	BLADDER	☐	POTABLE WATER	☐	LDPE TUBING	☐	GEO PROBE SCREEN	☐	WQ METER	
☐	PDB	☐	NITRIC ACID	☐	OTHER	☐	OTHER	☐	TURB. METER	
☐	HYDRASLEEVE	☐	HEXANE	☐	OTHER	☐	OTHER	☐	PUMP	
☐	OTHER	☐	METHANOL	☐	OTHER	☐	OTHER	☐	OTHER	
		☐	OTHER					☐	FILTERS	NO. TYPE

ANALYTICAL PARAMETERS

PARAMETER	METHOD NUMBER	ANALYTE LIST	FIELD FILTERED	PRESERVATION METHOD	VOLUME REQUIRED	QC COLLECTED
TCL VOC	8260B		NA	HCL	80 mL	NO
1,4 Dioxane	8270D SIM		NA	ice	2L	NO

PURGE OBSERVATIONS

PURGE WATER	YES	NO	NUMBER OF GALLONS GENERATED _____
CONTAINERIZED	☐	☐	
NO-PURGE METHOD	YES	NO	
UTILIZED	☐	☐	

NOTES:

DEVIATIONS FROM THE WORK PLAN:

Sampler Signature: Isaac Mosca Print Name: Isaac Mosca
Checked By: _____ Date: 5/17/23

GRAB SAMPLING RECORD - WATER



511 Congress Street
Suite 200
Portland, Maine 04101

PROJECT NAME
Mechonik Rd Industrial Plant

PROJECT NUMBER

SAMPLE ID
356023-MW5R

SAMPLE TIME
0920

LOCATION ID
MW-5R

DATE
5/17/23

START TIME
0915

END TIME
0920

SITE NAME/INSTALLATION
10F1

PAGE

SAMPLE TYPE: ☒ GROUNDWATER ☐ SURFACE WATER ☐ STORM WATER ☐ DRINKING WATER ☐ PORE WATER ☐ OTHER

FIELD PARAMETERS WITH PROGRAM STABILIZATION CRITERIA (AS LISTED IN THE QPP)

TIME	DTW (FT)	PURGE RATE (mL/min)	TEMP. (°C) ±3%	SP CONDUCTANCE (mS/cm) ±3%	DISS. O ₂ (mg/L) ±10% or 3 values ≥0.5 mg/L	pH (units) ±0.1	REDOX (mv) ±10 mv	TURBIDITY (ntu) ±10% and <10 ntu or 3 values <5 ntu	PUMP INTAKE DEPTH (ft)	COMMENTS
0919	—	—	13.69	0.591	6.40	6.94	229	0.0	—	

FINAL STABILIZED FIELD PARAMETERS (rounded to appropriate significant figures)

TEMP: nearest degree (ex. 10.1 = 10)
COND: 3 significant figures (SF) max (ex. 1.686 = 1.69)
pH: nearest tenth (ex. 4.53 = 4.5)
DO: nearest tenth (ex. 3.51 = 3.5)
TURB: 3 SF max, nearest tenth (6.19 = 6.2; 0.1 = 0.1)
ORP: 2 SF (44.1 = 44; 191 = 190)

EQUIPMENT DOCUMENTATION

TYPE OF PUMP ☒ PERISTALTIC ☐ SUBMERSIBLE ☐ BLADDER ☐ PDB ☐ HYDRASLEEVE ☐ OTHER	DECON FLUIDS USED ☐ ALCONOX ☐ DEIONIZED WATER ☐ POTABLE WATER ☐ NITRIC ACID ☐ HEXANE ☐ METHANOL ☐ OTHER	TUBING/PUMP/BLADDER MATERIALS ☐ SILICON TUBING ☐ HDPE TUBING ☐ LDPE TUBING ☐ OTHER ☐ OTHER	EQUIPMENT USED ☒ S-STEEL PUMP MATERIAL ☐ PVC PUMP MATERIAL ☐ GEOPROBE SCREEN ☐ OTHER ☐ OTHER ☐ OTHER	W/ METER ☐ PID ☐ WQ METER ☐ TURB METER ☐ PUMP ☐ OTHER ☐ FILTERS NO. TYPE
--	--	---	--	---

ANALYTICAL PARAMETERS

PARAMETER	METHOD NUMBER	ANALYTE LIST	FIELD FILTERED	PRESERVATION METHOD	VOLUME REQUIRED	QC COLLECTED
TCL VOC	8260B		NO	HCl	80 mL	NO
1,4 Dioxane	8270DSM		NO	ice	2 L	NO

PURGE OBSERVATIONS

PURGE WATER: YES ☒ NO ☐

CONTAINERIZED: YES ☒ NO ☐

NO-PURGE METHOD: YES ☐ NO ☒

UTILIZED: YES ☐ NO ☒

NUMBER OF GALLONS GENERATED

NOTES:

DEVIATIONS FROM THE WORK PLAN:

Sampler Signature: [Signature] Print Name: Kevin Mosch

Checked By: [Signature] Date: 5/17/23

GRAB SAMPLING RECORD - WATER



511 Congress Street
Suite 200
Portland, Maine 04101

PROJECT NAME <i>Mohawk Rd Industrial Plant</i>		LOCATION ID <i>MW-7R</i>	DATE <i>5/17/23</i>
PROJECT NUMBER <i>7772210114</i>		START TIME <i>0905</i>	END TIME <i>0910</i>
SAMPLE ID <i>356023-MW7R</i>	SAMPLE TIME <i>0910</i>	SITE NAME/INSTALLATION <i>356023</i>	PAGE <i>1</i> OF <i>1</i>

SAMPLE TYPE: ☒ GROUNDWATER ☐ SURFACE WATER ☐ STORM WATER ☐ DRINKING WATER ☐ PORE WATER ☐ OTHER: _____

FIELD PARAMETERS WITH PROGRAM STABILIZATION CRITERIA (AS LISTED IN THE QPP)

TIME	DTW (FT)	PURGE RATE (mL/min)	TEMP. (°C) ±3%	CONDUCTANCE (mS/cm) ±3%	DISS. O ₂ (mg/L) ±10% or 3 values <0.5 mg/L	pH (units) ±0.1	REDOX (mv) ±10 mv	TURBIDITY (ntu) ±10% and <10 ntu or 3 values <5 ntu	PUMP INTAKE DEPTH (ft)	COMMENTS
<i>0908</i>	<i>—</i>	<i>—</i>	<i>16.45</i>	<i>0.507</i>	<i>9.55</i>	<i>6.99</i>	<i>239</i>	<i>0.0</i>	<i>—</i>	<i>Grab From System</i>

FINAL STABILIZED FIELD PARAMETERS (rounded to appropriate significant figures)

TEMP: nearest degree (ex. 10.1 = 10)
COND: 3 significant figure (SF) max (ex. 1.006 = 1.01)
pH: nearest tenth (ex. 5.51 = 5.5)
DO: nearest tenth (ex. 3.51 = 3.5)
TURB: 3 SF max, nearest tenth (ex. 0.19 = 0.2, 101 = 101)
ORP: 2 SF (44.1 = 44, 101 = 100)

EQUIPMENT DOCUMENTATION

TYPE OF PUMP ☒ PERISTALTIC ☐ SUBMERSIBLE ☐ BLADDER ☐ PDB ☐ HYDRASLEEVE ☐ OTHER _____	DECON FLUIDS USED ☐ ALCONOX ☐ DEIONIZED WATER ☐ POTABLE WATER ☐ NITRIC ACID ☐ HEXANE ☐ METHANOL ☐ OTHER _____	TUBING/PUMP/BLADDER MATERIALS ☐ SILICON TUBING ☐ HDPE TUBING ☐ LDPE TUBING ☐ OTHER _____ ☐ OTHER _____	EQUIPMENT USED ☐ S. STEEL PUMP MATERIAL ☐ PVC PUMP MATERIAL ☐ GEOPROBE SCREEN ☐ OTHER _____ ☐ OTHER _____	EQUIPMENT USED ☐ WL METER _____ ☐ PID _____ ☐ WQ METER _____ ☐ TURB METER _____ ☐ PUMP _____ ☐ OTHER _____ ☐ FILTERS NO. _____ TYPE _____
--	--	---	--	--

ANALYTICAL PARAMETERS

PARAMETER	METHOD NUMBER	ANALYTE LIST	FIELD FILTERED	PRESERVATION METHOD	VOLUME REQUIRED	QC COLLECTED
<i>TCL VOCs</i>	<i>8260B</i>		<i>No</i>	<i>HCl</i>	<i>80 mL</i>	<i>No</i>
<i>1,4 Dioxane</i>	<i>8270D SIM</i>		<i>No</i>	<i>ice</i>	<i>2 L</i>	<i>No</i>

PURGE OBSERVATIONS

PURGE WATER	YES ☒ NO ☐	NUMBER OF GALLONS GENERATED _____
CONTAINERIZED	YES ☒ NO ☐	
NO-PURGE METHOD	YES ☐ NO ☒	
UTILIZED	YES ☐ NO ☒	

NOTES:

DEVIATIONS FROM THE WORK PLAN:

Sampler Signature: *Isaac Moser* Print Name: *Isaac Moser*
 Checked By: _____ Date: *5/17/23*

ATTACHMENT A3
CATEGORY A REVIEW REPORT- LTM 2023

**CATEGORY A REVIEW REPORT
MAY 2023 GROUNDWATER SAMPLING
MOHONK ROAD INDUSTRIAL PLANT
HIGH FALLS, NEW YORK**

1.0 INTRODUCTION

Groundwater samples were collected in May 2023 at Mohonk Road Industrial Plant in High Falls, New York, and analyzed by Pace Analytical Services located in East Longmeadow, Massachusetts. Samples were analyzed by one or more of the following United States Environmental Protection Agency (USEPA) methods:

- Volatile Organic Compounds (VOCs) by Method 8260D
- 1,4-Dioxane by Method 8270E-Selected Ion Monitoring (SIM)

Results were reported in the following sample delivery groups (SDGs):

- 23E2893
- 23E2901

Sample event information included in this chemistry review is presented in the following Tables:

- Table 1 – Summary of Samples and Analytical Methods
- Table 2 – Summary of Analytical Results
- Table 3 – Summary of Qualification Actions

A summary of table notes applicable to Tables 1, 2, and 3 is presented just before Table 1.

Laboratory deliverables included:

- Category B deliverable as defined in the New York State Department of Environmental Conservation (NYSDEC) Analytical Services Protocols (NYSDEC, 2005).

The Category A review included the following evaluations. Data review checklists are provided as Attachment A.

- Lab Report Narrative Review
- Data Package Completeness and COC records (Table 1 verification)
- Sample Preservation and Holding Times
- QC Blanks
- Laboratory Control Samples (LCS)
- Matrix Spike and Matrix Spike Duplicate (MS/MSD) (as applicable)
- Field Duplicates (as applicable)
- Surrogates (as applicable)
- Reporting Limits
- Electronic Data Qualification and Verification

The following laboratory data qualifiers or data review qualifiers are used in the final data presentation:

U = Target analyte is not detected at or above the reporting limit

UJ = Target analyte is not detected, value is estimated

J = Result is estimated

Results are interpreted to be usable as reported by the laboratory or as qualified in the following section.

2.0 POTENTIAL DATA LIMITATIONS

Based on the Category A Review sample data are interpreted to meet the data quality objectives.

VOCs by Method 8260D

- The MS/MSD associated with sample 356023-ERT4 had percent recoveries that were less than project limits for a subset of VOCs. Affected VOC results in sample 356023-ERT4 were qualified estimated (J/UJ). Qualified results are listed in Table 3 with reason code MSL.
- The MS/MSD associated with sample 356023-MW6B had percent recoveries that were less than project limits for a subset of VOCs. Affected target analytes were not detected in the sample or associated field duplicate 356023-DUP-02, and reporting limits were qualified estimated (UJ). Qualified results are listed in Table 3 with reason code MSL.
- The MS/MSD associated with sample 356023-MW10B had percent recoveries that were less than project limits for a subset of VOCs. Affected target analytes were not detected in the sample or associated field duplicate 356023-DUP-01, and reporting limits were qualified estimated (UJ). Qualified results are listed in Table 3 with reason code MSL.
- Reporting limits are elevated for a subset of samples due to dilutions required for target compound concentrations.

1,4-Dioxane by Method 8270E-SIM

- The MS/MSD associated with sample 356023-MW6B had a relative percent difference between MS and MSD recoveries that was greater than the project limit. Results for 1,4-dioxane in sample 356023-MW6B and associated field duplicate 356023-DUP-02 were qualified estimated (J). Qualified results are included in Table 3 with reason code MSRPD.
- Results for 1,4-dioxane in sample 356023-MW6B and field duplicate 356023-DUP-02 were qualified estimated (J) based on a relative percent difference (71) that was greater than the project limit. Qualified results are included in Table 3 with reason code FD.

Reference:

NYSDEC, 2005. "Analytical Services Protocols"; July 2005.

NYSDEC, 2010. "Technical Guidance for Site Investigation and Remediation-Appendix 2B"; DER-10; Division of Environmental Remediation; May 2010.

USEPA, 2014. "Validating Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry SW-846 Method 8260B and 8260C"; HW-24, Revision 4; USEPA Region II Hazardous Waste Support Section; September 2014.

USEPA, 2010. "Validating Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry SW-846 Method 8270D"; HW-22, Revision 5; USEPA Region II Hazardous Waste Support Branch; December 2010.

Data Validator: Julie Ricardi

Handwritten signature of Julie Ricardi in black ink.

Date: November 8, 2023

Reviewed by: Chris Ricardi, NRCC-EAC

Handwritten signature of Chris Ricardi in black ink.

November 12, 2023

Standard Table Notes:

Sample Type (QC Code)

FS – field sample
FD – field duplicate
TB – trip blank
EB – equipment blank
FB – field blank

Matrix

GW – ground water
BW – blank water
TW – tap water
SV – soil vapor
SED - sediment

Units

mg/L – milligrams per liter
ng/L – nanograms per liter
µg/L – micrograms per liter
mg/kg – milligrams per kilogram
µg/kg – micrograms per kilogram
µg/m³ – micrograms per cubic meter

Qualifiers

U – not detected above quantitation limit
J – estimated quantity
J+ - estimated quantity, biased high
J- - estimated quantity, biased low
R – data unusable

Fraction

T – total
D – dissolved
N – normal

Qualification Reason Codes

BL1 – method blank qualifier
BL2 – field or trip blank qualifier
CCV – continuing calibration verification recovery outside limits
CCV%D – continuing calibration verification percent difference exceeds goal
CCVRRF – continuing calibration relative response factor low
CI – chromatographic interference present
DCPD – dual column percent difference exceeds limit
E – result exceeds calibration range
FD – field duplicate precision goal exceeded
FP – false positive interference
HT – holding time for prep or analysis exceeded
HTG – holding time for prep or analysis grossly exceeded
ICV – initial calibration verification recovery outside limit
ICVRRF – initial calibration verification relative response factor low
ICVRS D – initial calibration verification % relative standard deviation exceeds goal
ISH – internal standard response greater than limit
ISL – internal standard response less than limit
LCSH – laboratory control sample recovery high
LCSL – laboratory control sample recovery low
LCSRPD – laboratory control sample/duplicate relative % difference precision goal exceeded
LD – lab duplicate precision goal exceeded
MSH – matrix spike and/or MS duplicate recovery high
MSL – matrix spike and/or MS duplicate recovery low
MSRPD – matrix spike/duplicate relative % difference precision goal exceeded
N – analyte identification is not certain
PEM – performance evaluation mixture exceeds limit
PM – sample percent moisture exceeds EPA guideline
SD – serial dilution result exceeds percent difference limit
SP – sample preservation/collection does not meet method requirement
SSH – surrogate recovery high
SSL – surrogate recovery low
TD – dissolved concentration exceeds total

TABLE 1 - SUMMARY OF SAMPLES AND ANALYTICAL METHODS
CATEGORY A REVIEW REPORT
MAY 2023 GROUNDWATER SAMPLING
MOHONK ROAD INDUSTRIAL PLANT
HIGH FALLS, NEW YORK

Lab	SDG	Media	Location	Field Sample ID	Sample Date	Lab Id	PACE	PACE
						Method Class	VOCs	SVOCs
						Analysis Method	SW8260	SW8270
						Fraction	N	N
Lab	SDG	Media	Location	Field Sample ID	Sample Date	Qc Code	Parameters	Parameters
23E2893		GW	ERT-1	356023-ERT1	5/17/2023	FS	51	1
23E2893		GW	ERT-4	356023-ERT4	5/18/2023	FS	51	1
23E2893		GW	MW-10B	356023-DUP-01	5/16/2023	FD	51	1
23E2893		GW	MW-10B	356023-MW10B	5/16/2023	FS	51	1
23E2893		GW	MW-11B	356023-MW11B	5/18/2023	FS	51	1
23E2893		GW	MW-11C	356023-MW11C	5/18/2023	FS	51	1
23E2893		GW	MW-12B	356023-MW12B	5/18/2023	FS	51	1
23E2893		GW	MW-14B	356023-MW14B	5/16/2023	FS	51	1
23E2893		GW	MW-15B	356023-MW15B	5/17/2023	FS	51	1
23E2893		GW	MW-16	356023-MW16	5/17/2023	FS	51	1
23E2893		GW	MW-17-1	356023-MW17-1	5/16/2023	FS	51	1
23E2893		GW	MW-1B	356023-MW1B	5/16/2023	FS	51	1
23E2893		GW	MW-4	356023-MW4	5/18/2023	FS	51	1
23E2893		GW	MW-5B	356023-MW5B	5/16/2023	FS	51	1
23E2893		GW	MW-5R	356023-MW5R	5/17/2023	FS	51	1
23E2893		GW	MW-6B	356023-DUP-02	5/18/2023	FD	51	1
23E2893		GW	MW-6B	356023-MW6B	5/18/2023	FS	51	1
23E2893		GW	MW-7R	356023-MW7R	5/17/2023	FS	51	1
23E2893		GW	MW-8B	356023-MW8B	5/16/2023	FS	51	1
23E2893		GW	MW-9B	356023-MW9B	5/17/2023	FS	51	1
23E2901		GW	MW-17-2	356023-MW17-2	5/16/2023	FS	51	1
23E2901		GW	MW-17-3	356023-MW17-3	5/16/2023	FS	51	1
23E2901		GW	MW-21-1	356023-MW21-1	5/17/2023	FS	51	1
23E2901		GW	MW-21-2	356023-MW21-2	5/17/2023	FS	51	1
23E2901		GW	MW-21-4	356023-MW21-4	5/17/2023	FS	51	1
23E2901		GW	MW-21-5	356023-MW21-5	5/17/2023	FS	51	1
23E2901		GW	MW-21-6	356023-MW21-6	5/17/2023	FS	51	1
23E2901		BW	QC	Trip Blank	5/16/2023	TB	51	

TABLE 2 - SUMMARY OF ANALYTICAL RESULTS
CATEGORY A REVIEW REPORT
MAY 2023 GROUNDWATER SAMPLING
MOHONK ROAD INDUSTRIAL PLANT
HIGH FALLS, NEW YORK

Lab Sample Delivery Group				23E2893		23E2893		23E2893		23E2893		23E2893		23E2893		23E2893		23E2893		23E2893		23E2893		23E2893	
Location				ERT-1		ERT-4		MW-10B		MW-10B		MW-11B		MW-11C		MW-12B		MW-14B		MW-15B		MW-16		MW-17-1	
Sample Date				5/17/2023		5/18/2023		5/16/2023		5/16/2023		5/18/2023		5/18/2023		5/18/2023		5/16/2023		5/17/2023		5/17/2023		5/16/2023	
Sample ID				356023-ERT1		356023-ERT4		356023-DUP-01		356023-MW10B		356023-MW11B		356023-MW11C		356023-MW12B		356023-MW14B		356023-MW15B		356023-MW16		356023-MW17-1	
Qc Code				FS		FS		FD		FS		FS		FS		FS		FS		FS		FS		FS	
Method Class	Fraction	Parameter	Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
SVOCs	N	1,4-Dioxane	UG/L	5		3.5		0.2 U		0.2 U		2.2		1.2		1.5		3.7		4.9		0.29		5.8	
VOCs	N	1,1,1-Trichloroethane	UG/L	35		1000		1 U		1 U		0.58 J		1.4		3.7		1 U		9.8		0.4 J		6.1	
VOCs	N	1,1,2,2-Tetrachloroethane	UG/L	0.5 U		10 U		0.5 U		0.5 U		0.5 U		0.5 U		0.5 U		0.5 U		0.5 U		0.5 U		0.5 U	
VOCs	N	1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	UG/L	1 U		20 U		1 U		1 U		1 U		1 U		1 U		1 U		1 U		1 U		1 U	
VOCs	N	1,1,2-Trichloroethane	UG/L	1 U		20 U		1 U		1 U		1 U		1 U		1 U		1 U		1 U		1 U		1 U	
VOCs	N	1,1-Dichloroethane	UG/L	5.2		29		1 U		1 U		1.5		0.64 J		1.7		1.2		5.8		1 U		5	
VOCs	N	1,1-Dichloroethene	UG/L	10		82		1 U		1 U		2.5		2.1		3.5		1.1		9.8		0.47 J		11	
VOCs	N	1,2,3-Trichlorobenzene	UG/L	5 U		100 U		5 U		5 U		5 U		5 U		5 U		5 U		5 U		5 U		5 U	
VOCs	N	1,2,4-Trichlorobenzene	UG/L	1 U		20 U		1 U		1 U		1 U		1 U		1 U		1 U		1 U		1 U		1 U	
VOCs	N	1,2-Dibromo-3-chloropropane	UG/L	5 U		100 UJ		5 UJ		5 UJ		5 U		5 U		5 U		5 U		5 U		5 U		5 U	
VOCs	N	1,2-Dibromoethane	UG/L	0.5 U		10 U		0.5 U		0.5 U		0.5 U		0.5 U		0.5 U		0.5 U		0.5 U		0.5 U		0.5 U	
VOCs	N	1,2-Dichlorobenzene	UG/L	1 U		20 U		1 U		1 U		1 U		1 U		1 U		1 U		1 U		1 U		1 U	
VOCs	N	1,2-Dichloroethane	UG/L	1 U		20 U		1 U		1 U		1 U		1 U		1 U		1 U		1 U		1 U		1 U	
VOCs	N	1,2-Dichloropropane	UG/L	1 U		20 U		1 U		1 U		1 U		1 U		1 U		1 U		1 U		1 U		1 U	
VOCs	N	1,3-Dichlorobenzene	UG/L	1 U		20 U		1 U		1 U		1 U		1 U		1 U		1 U		1 U		1 U		1 U	
VOCs	N	1,4-Dichlorobenzene	UG/L	1 U		20 U		1 U		1 U		1 U		1 U		1 U		1 U		1 U		1 U		1 U	
VOCs	N	1,4-Dioxane	UG/L	50 U		1000 UJ		50 UJ		50 UJ		50 U		50 U		50 U		50 U		50 U		50 U		50 U	
VOCs	N	2-Butanone	UG/L	20 U		60 J		20 U		20 U		20 U		20 U		20 U		20 U		20 U		20 U		20 U	
VOCs	N	2-Hexanone	UG/L	10 U		200 UJ		10 UJ		10 UJ		10 U		10 U		10 U		10 U		10 U		10 U		10 U	
VOCs	N	4-Methyl-2-pentanone	UG/L	10 U		200 U		10 U		10 U		10 U		10 U		10 U		10 U		10 U		10 U		10 U	
VOCs	N	Acetic acid, methyl ester	UG/L	1 U		20 UJ		1 UJ		1 UJ		1 U		1 U		1 U		1 U		1 U		1 U		1 U	
VOCs	N	Acetone	UG/L	50 U		45 J		50 U		50 U		50 U		50 U		50 U		50 U		50 U		2.1 J		50 U	
VOCs	N	Benzene	UG/L	1 U		20 U		1 U		1 U		1 U		1 U		1 U		1 U		1 U		1 U		1 U	
VOCs	N	Bromochloromethane	UG/L	1 U		20 U		1 U		1 U		1 U		1 U		1 U		1 U		1 U		1 U		1 U	
VOCs	N	Bromodichloromethane	UG/L	0.5 U		10 U		0.5 U		0.5 U		0.5 U		0.5 U		0.5 U		0.5 U		0.5 U		0.5 U		0.5 U	
VOCs	N	Bromoform	UG/L	1 U		20 UJ		1 UJ		1 UJ		1 U		1 U		1 U		1 U		1 U		1 U		1 U	
VOCs	N	Bromomethane	UG/L	2 U		40 U		2 U		2 U		2 U		2 U		2 U		2 U		2 U		2 U		2 U	
VOCs	N	Carbon disulfide	UG/L	5 U		100 U		5 U		5 U		5 U		5 U		5 U		5 U		5 U		5 U		5 U	
VOCs	N	Carbon tetrachloride	UG/L	5 U		100 U		5 U		5 U		5 U		5 U		5 U		5 U		5 U		5 U		5 U	
VOCs	N	Chlorobenzene	UG/L	1 U		20 U		1 U		1 U		1 U		1 U		1 U		1 U		1 U		1 U		1 U	
VOCs	N	Chloroethane	UG/L	2 U		40 U		2 U		2 U		2 U		2 U		2 U		2 U		2 U		2 U		2 U	
VOCs	N	Chloroform	UG/L	2 U		40 U		2 U		2 U		2 U		2 U		2 U		2 U		2 U		2 U		2 U	
VOCs	N	Chloromethane	UG/L	2 U		40 U		2 U		2 U		2 U		2 U		2 U		2 U		2 U		2 U		2 U	
VOCs	N	cis-1,2-Dichloroethene	UG/L	0.24 J		6.8 J		1 U		1 U		1 U		1 U		1 U		1 U		1 U		1 U		1 U	
VOCs	N	cis-1,3-Dichloropropene	UG/L	0.5 U		10 U		0.5 UJ		0.5 UJ		0.5 U		0.5 U		0.5 U		0.5 U		0.5 U		0.5 U		0.5 U	
VOCs	N	Cyclohexane	UG/L	5 U		100 U		5 U		5 U		5 U		5 U		5 U		5 U		5 U		5 U		5 U	
VOCs	N	Dibromochloromethane	UG/L	0.5 U		10 U		0.5 U		0.5 U		0.5 U		0.5 U		0.5 U		0.5 U		0.5 U		0.5 U		0.5 U	
VOCs	N	Dichlorodifluoromethane	UG/L	2 U		40 U		2 U		2 U		2 U		2 U		2 U		2 U		2 U		2 U		2 U	
VOCs	N	Ethylbenzene	UG/L	1 U		20 U		1 U		1 U		1 U		1 U		1 U		1 U		1 U		1 U		1 U	
VOCs	N	Isopropylbenzene	UG/L	1 U		20 U		1 U		1 U		1 U		1 U		1 U		1 U		1 U		1 U		1 U	
VOCs	N	Methyl cyclohexane	UG/L	1 U		20 U		1 U		1 U		1 U		1 U		1 U		1 U		1 U		1 U		1 U	
VOCs	N	Methyl Tertbutyl Ether	UG/L	1 U		20 U		1 U		1 U		1 U		1 U		1 U		1 U		1 U		1 U		1 U	
VOCs	N	Methylene chloride	UG/L	5 U		100 U		5 U		5 U		5 U		5 U		5 U		5 U		0.2 J		5 U		5 U	
VOCs	N	Styrene	UG/L	1 U		20 U		1 U		1 U		1 U		1 U		1 U		1 U		1 U		1 U		1 U	
VOCs	N	Tetrachloroethene	UG/L	1 U		20 U		1 U		1 U		1 U		1 U		1 U		1 U		1 U		1 U		1 U	
VOCs	N	Toluene	UG/L	1 U		20 U		1 U		1 U		1 U		1 U		1 U		1 U		1 U		1 U		1 U	
VOCs	N	trans-1,2-Dichloroethene	UG/L	1 U		20 U		1 U		1 U		1 U		1 U		1 U		1 U		1 U		1 U		1 U	
VOCs	N	trans-1,3-Dichloropropene	UG/L	0.5 U		10 UJ		0.5 UJ		0.5 UJ		0.5 U		0.5 U		0.5 U		0.5 U		0.5 U		0.5 U		0.5 U	
VOCs	N	Trichloroethene	UG/L	3.5		67		1 U		1 U		0.52 J		0.61 J		1.2		1 U		1.2		1 U		2.5	
VOCs	N	Trichlorofluoromethane	UG/L	2 U		40 U		2 U		2 U		2 U		2 U		2 U		2 U		2 U		2 U		2 U	
VOCs	N	Vinyl chloride	UG/L	2 U		40 U		2 U		2 U		2 U		2 U		2 U		2 U		2 U		2 U		2 U	
VOCs	N	Xylenes, Total	UG/L	1 U		20 U		1 U		1 U		1 U		1 U		1 U		1 U		1 U		1 U		1 U	

TABLE 2 - SUMMARY OF ANALYTICAL RESULTS
CATEGORY A REVIEW REPORT
MAY 2023 GROUNDWATER SAMPLING
MOHONK ROAD INDUSTRIAL PLANT
HIGH FALLS, NEW YORK

Lab Sample Delivery Group				23E2893 MW-1B 5/16/2023 356023-MW1B FS		23E2893 MW-4 5/18/2023 356023-MW4 FS		23E2893 MW-5B 5/16/2023 356023-MW5B FS		23E2893 MW-5R 5/17/2023 356023-MW5R FS		23E2893 MW-6B 5/18/2023 356023-DUP-02 FD		23E2893 MW-6B 5/18/2023 356023-MW6B FS		23E2893 MW-7R 5/17/2023 356023-MW7R FS		23E2893 MW-8B 5/16/2023 356023-MW8B FS		23E2893 MW-9B 5/17/2023 356023-MW9B FS		23E2901 MW-17-2 5/16/2023 356023-MW17-2 FS		23E2901 MW-17-3 5/16/2023 356023-MW17-3 FS	
Method Class	Fraction	Parameter	Qc Code	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
SVOCs	N	1,4-Dioxane	UG/L	0.2	U	3		5.1		2.4		0.99	J	0.47	J	1.9		2.2		10		8.8		9.1	
VOCs	N	1,1,1-Trichloroethane	UG/L	1	U	400		490		28		4.3		4.4		55		1	U	0.22	J	5.6		1.4	
VOCs	N	1,1,2,2-Tetrachloroethane	UG/L	0.5	U	2.5	U	5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
VOCs	N	1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	UG/L	1	U	5	U	10	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
VOCs	N	1,1,2-Trichloroethane	UG/L	1	U	5	U	10	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
VOCs	N	1,1-Dichloroethane	UG/L	1	U	19		9.8	J	2.1		0.16	J	1	U	32		1	U	0.74	J	7.3		8.2	
VOCs	N	1,1-Dichloroethene	UG/L	1	U	58		61		7.3		0.94	J	0.97	J	7.1		1	U	1	U	12		12	
VOCs	N	1,2,3-Trichlorobenzene	UG/L	5	U	25	U	50	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
VOCs	N	1,2,4-Trichlorobenzene	UG/L	1	U	5	U	10	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
VOCs	N	1,2-Dibromo-3-chloropropane	UG/L	5	U	25	U	50	U	5	U	5	UJ	5	UJ	5	U	5	U	5	U	5	U	5	U
VOCs	N	1,2-Dibromoethane	UG/L	0.5	U	2.5	U	5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
VOCs	N	1,2-Dichlorobenzene	UG/L	1	U	5	U	10	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
VOCs	N	1,2-Dichloroethane	UG/L	1	U	5	U	10	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
VOCs	N	1,2-Dichloropropane	UG/L	1	U	5	U	10	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
VOCs	N	1,3-Dichlorobenzene	UG/L	1	U	5	U	10	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
VOCs	N	1,4-Dichlorobenzene	UG/L	1	U	5	U	10	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
VOCs	N	1,4-Dioxane	UG/L	50	U	250	U	500	U	50	U	50	UJ	50	UJ	50	U	50	U	50	U	50	U	50	U
VOCs	N	2-Butanone	UG/L	20	U	10	J	200	U	20	U	20	U	20	U	20	U	20	U	20	U	20	U	20	U
VOCs	N	2-Hexanone	UG/L	10	U	50	U	100	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
VOCs	N	4-Methyl-2-pentanone	UG/L	10	U	50	U	100	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
VOCs	N	Acetic acid, methyl ester	UG/L	1	U	5	U	10	U	1	U	1	UJ	1	UJ	1	U	1	U	1	U	1	U	1	U
VOCs	N	Acetone	UG/L	2.4	J	11	J	500	U	50	U	2.5	J	2.2	J	50	U	50	U	50	U	50	U	50	U
VOCs	N	Benzene	UG/L	1	U	5	U	10	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
VOCs	N	Bromochloromethane	UG/L	1	U	5	U	10	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
VOCs	N	Bromodichloromethane	UG/L	0.5	U	2.5	U	5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
VOCs	N	Bromoform	UG/L	1	U	5	U	10	U	1	U	1	UJ	1	UJ	1	U	1	U	1	U	1	U	1	U
VOCs	N	Bromomethane	UG/L	2	U	10	U	20	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U
VOCs	N	Carbon disulfide	UG/L	5	U	25	U	50	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
VOCs	N	Carbon tetrachloride	UG/L	5	U	25	U	50	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
VOCs	N	Chlorobenzene	UG/L	1	U	5	U	10	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
VOCs	N	Chloroethane	UG/L	2	U	10	U	20	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U
VOCs	N	Chloroform	UG/L	2	U	10	U	20	U	2	U	2	U	2	U	0.16	J	2	U	2	U	2	U	2	U
VOCs	N	Chloromethane	UG/L	2	U	10	U	20	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U
VOCs	N	cis-1,2-Dichloroethene	UG/L	1	U	12		10	U	1	U	1	U	1	U	0.97	J	1	U	1	U	1	U	1.6	
VOCs	N	cis-1,3-Dichloropropene	UG/L	0.5	U	2.5	U	5	U	0.5	U	0.5	UJ	0.5	UJ	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
VOCs	N	Cyclohexane	UG/L	5	U	25	U	50	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
VOCs	N	Dibromochloromethane	UG/L	0.5	U	2.5	U	5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
VOCs	N	Dichlorodifluoromethane	UG/L	2	U	10	U	20	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U
VOCs	N	Ethylbenzene	UG/L	1	U	5	U	10	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
VOCs	N	Isopropylbenzene	UG/L	1	U	5	U	10	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
VOCs	N	Methyl cyclohexane	UG/L	1	U	5	U	10	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
VOCs	N	Methyl Tertbutyl Ether	UG/L	1	U	5	U	10	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
VOCs	N	Methylene chloride	UG/L	5	U	25	U	50	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
VOCs	N	Styrene	UG/L	1	U	5	U	10	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
VOCs	N	Tetrachloroethene	UG/L	1	U	5	U	10	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
VOCs	N	Toluene	UG/L	1	U	5	U	10	U	1	U	1	U	1	U	1	U	0.23	J	1	U	1	U	1	U
VOCs	N	trans-1,2-Dichloroethene	UG/L	1	U	5	U	10	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
VOCs	N	trans-1,3-Dichloropropene	UG/L	0.5	U	2.5	U	5	U	0.5	U	0.5	UJ	0.5	UJ	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
VOCs	N	Trichloroethene	UG/L	1	U	240		32		2.5		1	U	1	U	0.87	J	1	U	1	U	2		1	U
VOCs	N	Trichlorofluoromethane	UG/L	2	U	10	U	20	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U
VOCs	N	Vinyl chloride	UG/L	2	U	10	U	20	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U
VOCs	N	Xylenes, Total	UG/L	1	U	5	U	10	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U

TABLE 2 - SUMMARY OF ANALYTICAL RESULTS
CATEGORY A REVIEW REPORT
MAY 2023 GROUNDWATER SAMPLING
MOHONK ROAD INDUSTRIAL PLANT
HIGH FALLS, NEW YORK

Lab Sample Delivery Group				23E2901		23E2901		23E2901		23E2901		23E2901		23E2901		23E2901	
Location				MW-21-1		MW-21-2		MW-21-4		MW-21-5		MW-21-6		QC			
Sample Date				5/16/2023		5/16/2023		5/16/2023		5/16/2023		5/16/2023		5/16/2023		5/16/2023	
Sample ID				356023-MW21-1		356023-MW21-2		356023-MW21-4		356023-MW21-5		356023-MW21-6		Trip Blank			
Qc Code				FS		FS		FS		FS		FS		FS		TB	
Method Class	Fraction	Parameter	Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
SVOCs	N	1,4-Dioxane	UG/L	1.1		0.68		1.8		2.1		2.1					
VOCs	N	1,1,1-Trichloroethane	UG/L	1.7		1 U		1 U		1.1		1		1 U			
VOCs	N	1,1,2,2-Tetrachloroethane	UG/L	0.5 U		0.5 U		0.5 U		0.5 U		0.5 U		0.5 U			
VOCs	N	1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	UG/L	1 U		1 U		1 U		1 U		1 U		1 U			
VOCs	N	1,1,2-Trichloroethane	UG/L	1 U		1 U		1 U		1 U		1 U		1 U			
VOCs	N	1,1-Dichloroethane	UG/L	1 U		1 U		1.3		1.4		1.6		1 U			
VOCs	N	1,1-Dichloroethene	UG/L	2.6		1.5		3		3.2		3.2		1 U			
VOCs	N	1,2,3-Trichlorobenzene	UG/L	5 U		5 U		5 U		5 U		5 U		5 U			
VOCs	N	1,2,4-Trichlorobenzene	UG/L	1 U		1 U		1 U		1 U		1 U		1 U			
VOCs	N	1,2-Dibromo-3-chloropropane	UG/L	5 U		5 U		5 U		5 U		5 U		5 U			
VOCs	N	1,2-Dibromoethane	UG/L	0.5 U		0.5 U		0.5 U		0.5 U		0.5 U		0.5 U			
VOCs	N	1,2-Dichlorobenzene	UG/L	1 U		1 U		1 U		1 U		1 U		1 U			
VOCs	N	1,2-Dichloroethane	UG/L	1 U		1 U		1 U		1 U		1 U		1 U			
VOCs	N	1,2-Dichloropropane	UG/L	1 U		1 U		1 U		1 U		1 U		1 U			
VOCs	N	1,3-Dichlorobenzene	UG/L	1 U		1 U		1 U		1 U		1 U		1 U			
VOCs	N	1,4-Dichlorobenzene	UG/L	1 U		1 U		1 U		1 U		1 U		1 U			
VOCs	N	1,4-Dioxane	UG/L	50 U		50 U		50 U		50 U		50 U		50 U			
VOCs	N	2-Butanone	UG/L	20 U		20 U		20 U		20 U		20 U		20 U			
VOCs	N	2-Hexanone	UG/L	10 U		10 U		10 U		10 U		10 U		10 U			
VOCs	N	4-Methyl-2-pentanone	UG/L	10 U		10 U		10 U		10 U		10 U		10 U			
VOCs	N	Acetic acid, methyl ester	UG/L	1 U		1 U		1 U		1 U		1 U		1 U			
VOCs	N	Acetone	UG/L	50 U		50 U		50 U		50 U		50 U		50 U			
VOCs	N	Benzene	UG/L	1 U		1 U		1 U		1 U		1 U		1 U			
VOCs	N	Bromochloromethane	UG/L	1 U		1 U		1 U		1 U		1 U		1 U			
VOCs	N	Bromodichloromethane	UG/L	0.5 U		0.5 U		0.5 U		0.5 U		0.5 U		0.5 U			
VOCs	N	Bromoform	UG/L	1 U		1 U		1 U		1 U		1 U		1 U			
VOCs	N	Bromomethane	UG/L	2 U		2 U		2 U		2 U		2 U		2 U			
VOCs	N	Carbon disulfide	UG/L	5 U		5 U		5 U		5 U		5 U		5 U			
VOCs	N	Carbon tetrachloride	UG/L	5 U		5 U		5 U		5 U		5 U		5 U			
VOCs	N	Chlorobenzene	UG/L	1 U		1 U		1 U		1 U		1 U		1 U			
VOCs	N	Chloroethane	UG/L	2 U		2 U		2 U		2 U		2 U		2 U			
VOCs	N	Chloroform	UG/L	2 U		2 U		2 U		2 U		2 U		2 U			
VOCs	N	Chloromethane	UG/L	2 U		2 U		2 U		2 U		2 U		2 U			
VOCs	N	cis-1,2-Dichloroethene	UG/L	1 U		1 U		1 U		1 U		1 U		1 U			
VOCs	N	cis-1,3-Dichloropropene	UG/L	0.5 U		0.5 U		0.5 U		0.5 U		0.5 U		0.5 U			
VOCs	N	Cyclohexane	UG/L	5 U		5 U		5 U		5 U		5 U		5 U			
VOCs	N	Dibromochloromethane	UG/L	0.5 U		0.5 U		0.5 U		0.5 U		0.5 U		0.5 U			
VOCs	N	Dichlorodifluoromethane	UG/L	2 U		2 U		2 U		2 U		2 U		2 U			
VOCs	N	Ethylbenzene	UG/L	1 U		1 U		1 U		1 U		1 U		1 U			
VOCs	N	Isopropylbenzene	UG/L	1 U		1 U		1 U		1 U		1 U		1 U			
VOCs	N	Methyl cyclohexane	UG/L	1 U		1 U		1 U		1 U		1 U		1 U			
VOCs	N	Methyl Tertbutyl Ether	UG/L	1 U		1 U		1 U		1 U		1 U		1 U			
VOCs	N	Methylene chloride	UG/L	5 U		5 U		5 U		5 U		5 U		5 U			
VOCs	N	Styrene	UG/L	1 U		1 U		1 U		1 U		1 U		1 U			
VOCs	N	Tetrachloroethene	UG/L	1 U		1 U		1 U		1 U		1 U		1 U			
VOCs	N	Toluene	UG/L	1 U		1 U		1 U		1 U		1 U		1 U			
VOCs	N	trans-1,2-Dichloroethene	UG/L	1 U		1 U		1 U		1 U		1 U		1 U			
VOCs	N	trans-1,3-Dichloropropene	UG/L	0.5 U		0.5 U		0.5 U		0.5 U		0.5 U		0.5 U			
VOCs	N	Trichloroethene	UG/L	2.3		1.5		1.7		2.1		1.9		1 U			
VOCs	N	Trichlorofluoromethane	UG/L	2 U		2 U		2 U		2 U		2 U		2 U			
VOCs	N	Vinyl chloride	UG/L	2 U		2 U		2 U		2 U		2 U		2 U			
VOCs	N	Xylenes, Total	UG/L	1 U		1 U		1 U		1 U		1 U		1 U			

TABLE 3 - SUMMARY OF QUALIFICATION ACTIONS
CATEGORY A REVIEW REPORT
MAY 2023 GROUNDWATER SAMPLING
MOHONK ROAD INDUSTRIAL PLANT
HIGH FALLS, NEW YORK

Lab SDG	Location	Field Sample ID	Lab Sample ID	Method	Fraction	Parameter	Lab Result	Lab Qualifier	Final Result	Final Qualifier	Val Reason Code	Units	Lab ID
23E2893	ERT-4	356023-ERT4	23E2893-02	SW8260	N	1,2-Dibromo-3-chloropropane	100	U	100	UJ	MSL	UG/L	PACE
23E2893	ERT-4	356023-ERT4	23E2893-02	SW8260	N	1,4-Dioxane	1000	U	1000	UJ	MSL	UG/L	PACE
23E2893	ERT-4	356023-ERT4	23E2893-02	SW8260	N	2-Hexanone	200	U	200	UJ	MSL	UG/L	PACE
23E2893	ERT-4	356023-ERT4	23E2893-02	SW8260	N	Acetic acid, methyl ester	20	U	20	UJ	MSL	UG/L	PACE
23E2893	ERT-4	356023-ERT4	23E2893-02	SW8260	N	Acetone	45	J	45	J	MSL	UG/L	PACE
23E2893	ERT-4	356023-ERT4	23E2893-02	SW8260	N	Bromoform	20	U	20	UJ	MSL	UG/L	PACE
23E2893	ERT-4	356023-ERT4	23E2893-02	SW8260	N	trans-1,3-Dichloropropene	10	U	10	UJ	MSL	UG/L	PACE
23E2893	MW-6B	356023-MW6B	23E2893-07	SW8260	N	1,2-Dibromo-3-chloropropane	5	U	5	UJ	MSL	UG/L	PACE
23E2893	MW-6B	356023-MW6B	23E2893-07	SW8260	N	1,4-Dioxane	50	U	50	UJ	MSL	UG/L	PACE
23E2893	MW-6B	356023-MW6B	23E2893-07	SW8260	N	Acetic acid, methyl ester	1	U	1	UJ	MSL	UG/L	PACE
23E2893	MW-6B	356023-MW6B	23E2893-07	SW8260	N	Bromoform	1	U	1	UJ	MSL	UG/L	PACE
23E2893	MW-6B	356023-MW6B	23E2893-07	SW8260	N	cis-1,3-Dichloropropene	0.5	U	0.5	UJ	MSL	UG/L	PACE
23E2893	MW-6B	356023-MW6B	23E2893-07	SW8260	N	trans-1,3-Dichloropropene	0.5	U	0.5	UJ	MSL	UG/L	PACE
23E2893	MW-6B	356023-MW6B	23E2893-07	SW8270	N	1,4-Dioxane	0.47		0.47	J	MSRPD, FD	UG/L	PACE
23E2893	MW-6B	356023-DUP-02	23E2893-08	SW8260	N	1,2-Dibromo-3-chloropropane	5	U	5	UJ	MSL	UG/L	PACE
23E2893	MW-6B	356023-DUP-02	23E2893-08	SW8260	N	1,4-Dioxane	50	U	50	UJ	MSL	UG/L	PACE
23E2893	MW-6B	356023-DUP-02	23E2893-08	SW8260	N	Acetic acid, methyl ester	1	U	1	UJ	MSL	UG/L	PACE
23E2893	MW-6B	356023-DUP-02	23E2893-08	SW8260	N	Bromoform	1	U	1	UJ	MSL	UG/L	PACE
23E2893	MW-6B	356023-DUP-02	23E2893-08	SW8260	N	cis-1,3-Dichloropropene	0.5	U	0.5	UJ	MSL	UG/L	PACE
23E2893	MW-6B	356023-DUP-02	23E2893-08	SW8260	N	trans-1,3-Dichloropropene	0.5	U	0.5	UJ	MSL	UG/L	PACE
23E2893	MW-6B	356023-DUP-02	23E2893-08	SW8270	N	1,4-Dioxane	0.99		0.99	J	MSRPD, FD	UG/L	PACE
23E2893	MW-10B	356023-MW10B	23E2893-12	SW8260	N	1,2-Dibromo-3-chloropropane	5	U	5	UJ	MSL	UG/L	PACE
23E2893	MW-10B	356023-MW10B	23E2893-12	SW8260	N	1,4-Dioxane	50	U	50	UJ	MSL	UG/L	PACE
23E2893	MW-10B	356023-MW10B	23E2893-12	SW8260	N	2-Hexanone	10	U	10	UJ	MSL	UG/L	PACE
23E2893	MW-10B	356023-MW10B	23E2893-12	SW8260	N	Acetic acid, methyl ester	1	U	1	UJ	MSL	UG/L	PACE
23E2893	MW-10B	356023-MW10B	23E2893-12	SW8260	N	Bromoform	1	U	1	UJ	MSL	UG/L	PACE
23E2893	MW-10B	356023-MW10B	23E2893-12	SW8260	N	cis-1,3-Dichloropropene	0.5	U	0.5	UJ	MSL	UG/L	PACE
23E2893	MW-10B	356023-MW10B	23E2893-12	SW8260	N	trans-1,3-Dichloropropene	0.5	U	0.5	UJ	MSL	UG/L	PACE
23E2893	MW-10B	356023-DUP-01	23E2893-13	SW8260	N	1,2-Dibromo-3-chloropropane	5	U	5	UJ	MSL	UG/L	PACE
23E2893	MW-10B	356023-DUP-01	23E2893-13	SW8260	N	1,4-Dioxane	50	U	50	UJ	MSL	UG/L	PACE
23E2893	MW-10B	356023-DUP-01	23E2893-13	SW8260	N	2-Hexanone	10	U	10	UJ	MSL	UG/L	PACE
23E2893	MW-10B	356023-DUP-01	23E2893-13	SW8260	N	Acetic acid, methyl ester	1	U	1	UJ	MSL	UG/L	PACE
23E2893	MW-10B	356023-DUP-01	23E2893-13	SW8260	N	Bromoform	1	U	1	UJ	MSL	UG/L	PACE
23E2893	MW-10B	356023-DUP-01	23E2893-13	SW8260	N	cis-1,3-Dichloropropene	0.5	U	0.5	UJ	MSL	UG/L	PACE
23E2893	MW-10B	356023-DUP-01	23E2893-13	SW8260	N	trans-1,3-Dichloropropene	0.5	U	0.5	UJ	MSL	UG/L	PACE

**CATEGORY A REVIEW REPORT
MAY 2023 GROUNDWATER SAMPLING
MOHONK ROAD INDUSTRIAL PLANT
HIGH FALLS, NEW YORK**

ATTACHMENT A

VOCs

PROJECT CATEGORY A REVIEW RECORD

Project: Mohonk Road

Method : SW-846 8260C (or specify)

Laboratory: Pace

SDG(s): 23E2893, 23E2901

Date: 11/7/2023

Reviewer: Julie Ricardi

Review Level ☒ CATEGORY A

1. ☒ **Case Narrative Review and COC/Data Package Completeness** COMMENTS
Were problems noted? See below and attached for Cat A Review QC items noted in narrative.

Were all the samples on the COC analyzed for the requested analyses? YES NO (circle one)

Are Field Sample IDs and Locations assigned correctly? YES NO (circle one)
2. ☒ **Holding time and Sample Collection**
Were all samples properly preserved and analyzed within the 14 day holding time? (7 day holding time for unpreserved samples) YES NO (circle one) (See Table 1, USEPA Region 2 SOP HW-24, Rev 4, Sep 2014)
3. ☒ **QC Blanks**
Are method blanks free of contamination? YES NO (circle one)

Are Trip blanks free of contamination? YES NO (circle one)

Are Rinse blanks free of contamination? YES NO NA (circle one)
4. ☒ **Matrix Spike** – Use nominal limits for recovery (water and soil 70-130%) and relative percent difference (RPD) (water RPD ≤ 20 , soil RPD ≤ 35) based on Region 2 SOP guidance.
Were MS/MSDs submitted/analyzed? YES NO
356023-ERT4 MS/MSD / 356023-MW6B MS/MSD / 356023-MW10B MS/MSD --See attached for eval and quals
Were all results within above QC limits? YES NO NA (circle one)
Were any recoveries <20%? YES NO NA (circle one) [National Functional Guidelines 2020 [Expanded Lower Acceptance Limit]]
5. ☒ **Laboratory Control Sample Results** – Use nominal limits for recovery (water and soil 70-130%) and RPD (water RPD ≤ 20 , soil RPD ≤ 35) based on Region 2 SOP guidance.

Were all results within above QC limits? YES NO (circle one)
6. ☒ **Surrogate Recovery** – Use nominal limits for recovery (water 80-120%, soil 70-130%) based on Region 2 SOP guidance.

Were all results within above QC limits? YES NO (circle one)
Were any results <10%? YES NO NA (circle one) [National Functional Guidelines 2020 [Expanded Lower Acceptance Limit]]
7. ☒ **Field Duplicates** - Region 2 limits (water RPD 50, soil RPD 100)
Were Field Duplicates submitted/analyzed? YES NO
DUP-01 / MW10B – Okay DUP-02 / MW6B -- Okay
Were all results within Region 2 Limits? YES NO NA (circle one)
8. ☒ **Reporting Limits:** Were samples analyzed at a dilution? YES NO (circle one)
Subset ND at 5X: 356023-MW4
Subset ND at 10X: 356023-MW5B
Subset ND at 20X: 356023-ERT4

9. ☒ **Electronic Data Review and Edits**

Does the EDD match the Form Is? **YES** NO (circle one)

10. ☒ **Table Review**

Table 1 (Samples and Analytical Methods)

Table 2 (Analytical Results)

Table 3 (Qualification Actions)

Were all tables produced and reviewed? **YES** NO (circle one)

Table 4 (TICs) Did lab report TICs? YES **NO** (circle one)

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

QUALITY CONTROL
Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B341325 - SW-846 5030B										
LCS Dup (B341325-BSD1)										
Prepared: 05/25/23 Analyzed: 05/26/23										
1,1,2,2-Tetrachloroethane	9.59	0.50	µg/L	10.0		95.9	70-130	4.04	25	
Tetrachloroethylene	10.2	1.0	µg/L	10.0		102	70-130	1.07	25	
Toluene	10.7	1.0	µg/L	10.0		107	70-130	0.187	25	
1,2,3-Trichlorobenzene	10.7	5.0	µg/L	10.0		107	70-130	2.66	25	
1,2,4-Trichlorobenzene	10.4	1.0	µg/L	10.0		104	70-130	2.93	25	
1,1,1-Trichloroethane	9.76	1.0	µg/L	10.0		97.6	70-130	0.411	25	
1,1,2-Trichloroethane	10.4	1.0	µg/L	10.0		104	70-130	0.577	25	
Trichloroethylene	10.4	1.0	µg/L	10.0		104	70-130	0.482	25	
Trichlorofluoromethane (Freon 11)	9.52	2.0	µg/L	10.0		95.2	70-130	2.49	25	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	9.73	1.0	µg/L	10.0		97.3	70-130	3.34	25	
Vinyl Chloride	11.1	2.0	µg/L	10.0		111	40-160	0.724	25	†
m+p Xylene	20.8	2.0	µg/L	20.0		104	70-130	0.0480	25	
o-Xylene	10.4	1.0	µg/L	10.0		104	70-130	1.95	25	
Xylenes (total)	31.2	1.0	µg/L	30.0		104	0-200	0.675		
Surrogate: 1,2-Dichloroethane-d4	24.2		µg/L	25.0		97.0	70-130			
Surrogate: Toluene-d8	25.3		µg/L	25.0		101	70-130			
Surrogate: 4-Bromofluorobenzene	24.4		µg/L	25.0		97.4	70-130			
356023-ERT4 MS/MSD										
Matrix Spike (B341325-MS1)										
Source: 23E2893-02 Prepared: 05/25/23 Analyzed: 05/27/23										
Acetone	1400	1000	µg/L	2000	44.6	67.8	* 70-130	UJ MSL Sample; detected <MDMS-24		
Benzene	179	20	µg/L	200	ND	89.6	70-130			
Bromochloromethane	189	20	µg/L	200	ND	94.6	70-130			
Bromodichloromethane	161	10	µg/L	200	ND	80.5	70-130			
Bromoform	121	20	µg/L	200	ND	60.7	* 70-130	UJ MSL Sample		MS-07A, V-05
Bromomethane	163	40	µg/L	200	ND	81.5	70-130			
2-Butanone (MEK)	1650	400	µg/L	2000	60.0	79.3	70-130			
Carbon Disulfide	1570	100	µg/L	2000	ND	78.7	70-130			
Carbon Tetrachloride	162	100	µg/L	200	ND	81.0	70-130			
Chlorobenzene	176	20	µg/L	200	ND	88.1	70-130			
Chlorodibromomethane	145	10	µg/L	200	ND	72.5	70-130			
Chloroethane	166	40	µg/L	200	ND	82.8	70-130			
Chloroform	169	40	µg/L	200	ND	84.6	70-130			
Chloromethane	194	40	µg/L	200	ND	96.9	70-130			
Cyclohexane	184	100	µg/L	200	ND	91.8	70-130			
1,2-Dibromo-3-chloropropane (DBCP)	117	100	µg/L	200	ND	58.7	* 70-130	UJ MSL Sample		MS-07A
1,2-Dibromoethane (EDB)	166	10	µg/L	200	ND	83.0	70-130			
1,2-Dichlorobenzene	166	20	µg/L	200	ND	82.8	70-130			
1,3-Dichlorobenzene	167	20	µg/L	200	ND	83.3	70-130			
1,4-Dichlorobenzene	161	20	µg/L	200	ND	80.3	70-130			
Dichlorodifluoromethane (Freon 12)	194	40	µg/L	200	ND	96.9	70-130			
1,1-Dichloroethane	198	20	µg/L	200	28.8	84.4	70-130			
1,2-Dichloroethane	163	20	µg/L	200	ND	81.7	70-130			
1,1-Dichloroethylene	240	20	µg/L	200	82.0	79.2	70-130			
cis-1,2-Dichloroethylene	162	20	µg/L	200	6.80	77.5	70-130			
trans-1,2-Dichloroethylene	158	20	µg/L	200	ND	79.0	70-130			
1,2-Dichloropropane	179	20	µg/L	200	ND	89.3	70-130			
cis-1,3-Dichloropropene	148	10	µg/L	200	ND	73.8	70-130			
trans-1,3-Dichloropropene	137	10	µg/L	200	ND	68.5	* 70-130	UJ MSL Sample		MS-24
1,4-Dioxane	1280	1000	µg/L	2000	ND	64.0	* 70-130	UJ MSL Sample		MS-24
Ethylbenzene	172	20	µg/L	200	ND	85.8	70-130			
2-Hexanone (MBK)	1380	200	µg/L	2000	ND	69.0	* 70-130	UJ MSL Sample		MS-24
Isopropylbenzene (Cumene)	165	20	µg/L	200	ND	82.4	70-130			

jar 11/12/2023

jar 11/12/2023

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QUALITY CONTROL
Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B341325 - SW-846 5030B

356023-ERT4 MS/MSD

Matrix Spike (B341325-MS1)
Source: 23E2893-02

Prepared: 05/25/23 Analyzed: 05/27/23

Methyl Acetate	123	20	µg/L	200	ND	61.3	*	70-130	UJ MSL Sample	MS-07A, V-05
Methyl tert-Butyl Ether (MTBE)	146	20	µg/L	200	ND	73.1		70-130		
Methyl Cyclohexane	176	20	µg/L	200	ND	88.2		70-130		
Methylene Chloride	165	100	µg/L	200	ND	82.3		70-130		
4-Methyl-2-pentanone (MIBK)	1420	200	µg/L	2000	ND	70.9		70-130		
Styrene	168	20	µg/L	200	ND	84.0		70-130		
1,1,2,2-Tetrachloroethane	153	10	µg/L	200	ND	76.3		70-130		
Tetrachloroethylene	169	20	µg/L	200	ND	84.5		70-130		
Toluene	177	20	µg/L	200	ND	88.3		70-130		
1,2,3-Trichlorobenzene	145	100	µg/L	200	ND	72.6		70-130		
1,2,4-Trichlorobenzene	142	20	µg/L	200	ND	71.1		70-130		
1,1,1-Trichloroethane	1190	20	µg/L	200	1020	82.6		70-130		
1,1,2-Trichloroethane	171	20	µg/L	200	ND	85.7		70-130		
Trichloroethylene	228	20	µg/L	200	66.8	80.4		70-130		
Trichlorofluoromethane (Freon 11)	167	40	µg/L	200	ND	83.7		70-130		
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	168	20	µg/L	200	ND	83.9		70-130		
Vinyl Chloride	190	40	µg/L	200	ND	95.0		70-130		
m+p Xylene	342	40	µg/L	400	ND	85.6		70-130		
o-Xylene	162	20	µg/L	200	ND	80.9		70-130		
Xylenes (total)	504	20	µg/L	600	ND	84.0		0-200		
Surrogate: 1,2-Dichloroethane-d4	23.6		µg/L	25.0		94.6		70-130		
Surrogate: Toluene-d8	25.8		µg/L	25.0		103		70-130		
Surrogate: 4-Bromofluorobenzene	24.2		µg/L	25.0		96.6		70-130		

356023-ERT4 MS/MSD

Matrix Spike Dup (B341325-MSD1)
Source: 23E2893-02

Prepared: 05/25/23 Analyzed: 05/27/23

Acetone	1560	1000	µg/L	2000	44.6	75.8		70-130	10.8	30	
Benzene	196	20	µg/L	200	ND	97.9		70-130	8.85	30	
Bromochloromethane	198	20	µg/L	200	ND	99.2		70-130	4.75	30	
Bromodichloromethane	168	10	µg/L	200	ND	83.9		70-130	4.14	30	
Bromoform	134	20	µg/L	200	ND	66.8	*	70-130	9.57	30	V-05, MS-07A
Bromomethane	177	40	µg/L	200	ND	88.4		70-130	8.12	30	UJ MSL Sample
2-Butanone (MEK)	1830	400	µg/L	2000	60.0	88.3		70-130	10.4	30	
Carbon Disulfide	1720	100	µg/L	2000	ND	85.9		70-130	8.73	30	
Carbon Tetrachloride	178	100	µg/L	200	ND	89.2		70-130	9.64	30	
Chlorobenzene	185	20	µg/L	200	ND	92.7		70-130	5.09	30	
Chlorodibromomethane	155	10	µg/L	200	ND	77.3		70-130	6.41	30	
Chloroethane	180	40	µg/L	200	ND	90.1		70-130	8.44	30	
Chloroform	183	40	µg/L	200	ND	91.3		70-130	7.62	30	
Chloromethane	202	40	µg/L	200	ND	101		70-130	3.95	30	
Cyclohexane	191	100	µg/L	200	ND	95.6		70-130	4.06	30	
1,2-Dibromo-3-chloropropane (DBCP)	135	100	µg/L	200	ND	67.7	*	70-130	14.2	30	MS-07A
1,2-Dibromoethane (EDB)	172	10	µg/L	200	ND	85.8		70-130	3.32	30	UJ MSL Sample
1,2-Dichlorobenzene	182	20	µg/L	200	ND	90.9		70-130	9.33	30	
1,3-Dichlorobenzene	186	20	µg/L	200	ND	93.2		70-130	11.2	30	
1,4-Dichlorobenzene	175	20	µg/L	200	ND	87.6		70-130	8.70	30	
Dichlorodifluoromethane (Freon 12)	213	40	µg/L	200	ND	107		70-130	9.53	30	
1,1-Dichloroethane	218	20	µg/L	200	28.8	94.4		70-130	9.63	30	
1,2-Dichloroethane	172	20	µg/L	200	ND	85.9		70-130	5.01	30	
1,1-Dichloroethylene	265	20	µg/L	200	82.0	91.7		70-130	9.89	30	
cis-1,2-Dichloroethylene	175	20	µg/L	200	6.80	84.3		70-130	8.07	30	
trans-1,2-Dichloroethylene	173	20	µg/L	200	ND	86.3		70-130	8.83	30	
1,2-Dichloropropane	190	20	µg/L	200	ND	95.1		70-130	6.29	30	

jar 11/12/2023

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

QUALITY CONTROL
Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B341325 - SW-846 5030B

Matrix Spike Dup (B341325-MSD1)										
356023-ERT4 MS/MSD Source: 23E2893-02 Prepared: 05/25/23 Analyzed: 05/27/23										
cis-1,3-Dichloropropene	153	10	µg/L	200	ND	76.3	70-130	3.33	30	
trans-1,3-Dichloropropene	148	10	µg/L	200	ND	74.0	70-130	7.72	30	
1,4-Dioxane	1580	1000	µg/L	2000	ND	79.0	70-130	21.0	30	
Ethylbenzene	186	20	µg/L	200	ND	92.9	70-130	7.95	30	
2-Hexanone (MBK)	1520	200	µg/L	2000	ND	75.8	70-130	9.43	30	
Isopropylbenzene (Cumene)	178	20	µg/L	200	ND	89.1	70-130	7.81	30	
Methyl Acetate	132	20	µg/L	200	ND	66.0 *	70-130	7.38	30	V-05 MS-07A UJ MSL Sample
Methyl tert-Butyl Ether (MTBE)	159	20	µg/L	200	ND	79.5	70-130	8.39	30	
Methyl Cyclohexane	190	20	µg/L	200	ND	95.1	70-130	7.53	30	
Methylene Chloride	177	100	µg/L	200	ND	88.7	70-130	7.49	30	
4-Methyl-2-pentanone (MIBK)	1540	200	µg/L	2000	ND	77.1	70-130	8.38	30	
Styrene	180	20	µg/L	200	ND	90.1	70-130	7.01	30	
1,1,2,2-Tetrachloroethane	169	10	µg/L	200	ND	84.6	70-130	10.3	30	
Tetrachloroethylene	182	20	µg/L	200	ND	91.0	70-130	7.41	30	
Toluene	187	20	µg/L	200	ND	93.6	70-130	5.83	30	
1,2,3-Trichlorobenzene	163	100	µg/L	200	ND	81.4	70-130	11.4	30	
1,2,4-Trichlorobenzene	164	20	µg/L	200	ND	82.1	70-130	14.4	30	
1,1,1-Trichloroethane	1220	20	µg/L	200	1020	99.4	70-130	2.79	30	
1,1,2-Trichloroethane	180	20	µg/L	200	ND	90.1	70-130	5.01	30	
Trichloroethylene	235	20	µg/L	200	66.8	84.1	70-130	3.20	30	
Trichlorofluoromethane (Freon 11)	179	40	µg/L	200	ND	89.4	70-130	6.59	30	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	188	20	µg/L	200	ND	94.0	70-130	11.4	30	
Vinyl Chloride	211	40	µg/L	200	ND	106	70-130	10.6	30	
m+p Xylene	367	40	µg/L	400	ND	91.8	70-130	6.94	20	
o-Xylene	177	20	µg/L	200	ND	88.4	70-130	8.86	30	
Xylenes (total)	544	20	µg/L	600	ND	90.6	0-200	7.56		
Surrogate: 1,2-Dichloroethane-d4	24.8		µg/L	25.0		99.1	70-130			
Surrogate: Toluene-d8	25.4		µg/L	25.0		102	70-130			
Surrogate: 4-Bromofluorobenzene	24.1		µg/L	25.0		96.2	70-130			

Batch B341326 - SW-846 5030B

Blank (B341326-BLK1)										
Prepared: 05/25/23 Analyzed: 05/27/23										
Acetone	ND	50	µg/L							
Benzene	ND	1.0	µg/L							
Bromochloromethane	ND	1.0	µg/L							
Bromodichloromethane	ND	0.50	µg/L							
Bromoform	ND	1.0	µg/L							
Bromomethane	ND	2.0	µg/L							
2-Butanone (MEK)	ND	20	µg/L							
Carbon Disulfide	ND	5.0	µg/L							
Carbon Tetrachloride	ND	5.0	µg/L							
Chlorobenzene	ND	1.0	µg/L							
Chlorodibromomethane	ND	0.50	µg/L							
Chloroethane	ND	2.0	µg/L							
Chloroform	ND	2.0	µg/L							
Chloromethane	ND	2.0	µg/L							
Cyclohexane	ND	5.0	µg/L							
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0	µg/L							
1,2-Dibromoethane (EDB)	ND	0.50	µg/L							
1,2-Dichlorobenzene	ND	1.0	µg/L							
1,3-Dichlorobenzene	ND	1.0	µg/L							

jar 11/12/2023
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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL
Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B341326 - SW-846 5030B										
LCS Dup (B341326-BSD1)										
Prepared: 05/25/23 Analyzed: 05/27/23										
o-Xylene	10.4	1.0	µg/L	10.0		104	70-130	0.867	25	
Xylenes (total)	31.9	1.0	µg/L	30.0		106	0-200	1.58		
Surrogate: 1,2-Dichloroethane-d4	25.3		µg/L	25.0		101	70-130			
Surrogate: Toluene-d8	25.5		µg/L	25.0		102	70-130			
Surrogate: 4-Bromofluorobenzene	24.1		µg/L	25.0		96.5	70-130			
356023-MW6B (associated with DUP-02)										
Matrix Spike (B341326-MS1)										
Source: 23E2893-07 Prepared: 05/25/23 Analyzed: 05/27/23										
Acetone	76.3	50	µg/L	100	2.23	74.0	70-130			
Benzene	9.71	1.0	µg/L	10.0	ND	97.1	70-130			
Bromochloromethane	9.61	1.0	µg/L	10.0	ND	96.1	70-130			
Bromodichloromethane	8.07	0.50	µg/L	10.0	ND	80.7	70-130			
Bromoform	6.21	1.0	µg/L	10.0	ND	62.1	* 70-130	UJ MSL Sample and FD		MS-07A
Bromomethane	10.6	2.0	µg/L	10.0	ND	106	70-130			
2-Butanone (MEK)	83.9	20	µg/L	100	ND	83.9	70-130			
Carbon Disulfide	79.3	5.0	µg/L	100	ND	79.3	70-130			
Carbon Tetrachloride	8.45	5.0	µg/L	10.0	ND	84.5	70-130			
Chlorobenzene	8.96	1.0	µg/L	10.0	ND	89.6	70-130			
Chlorodibromomethane	7.41	0.50	µg/L	10.0	ND	74.1	70-130			
Chloroethane	8.95	2.0	µg/L	10.0	ND	89.5	70-130			
Chloroform	8.75	2.0	µg/L	10.0	ND	87.5	70-130			
Chloromethane	9.46	2.0	µg/L	10.0	ND	94.6	70-130			
Cyclohexane	9.44	5.0	µg/L	10.0	ND	94.4	70-130			
1,2-Dibromo-3-chloropropane (DBCP)	6.20	5.0	µg/L	10.0	ND	62.0	* 70-130	UJ MSL Sample and FD		MS-07A
1,2-Dibromoethane (EDB)	8.27	0.50	µg/L	10.0	ND	82.7	70-130			
1,2-Dichlorobenzene	8.53	1.0	µg/L	10.0	ND	85.3	70-130			
1,3-Dichlorobenzene	8.27	1.0	µg/L	10.0	ND	82.7	70-130			
1,4-Dichlorobenzene	8.02	1.0	µg/L	10.0	ND	80.2	70-130			
Dichlorodifluoromethane (Freon 12)	9.89	2.0	µg/L	10.0	ND	98.9	70-130			
1,1-Dichloroethane	9.32	1.0	µg/L	10.0	ND	93.2	70-130			
1,2-Dichloroethane	8.30	1.0	µg/L	10.0	ND	83.0	70-130			
1,1-Dichloroethylene	9.69	1.0	µg/L	10.0	0.970	87.2	70-130			
cis-1,2-Dichloroethylene	8.15	1.0	µg/L	10.0	ND	81.5	70-130			
trans-1,2-Dichloroethylene	8.02	1.0	µg/L	10.0	ND	80.2	70-130			
1,2-Dichloropropane	8.92	1.0	µg/L	10.0	ND	89.2	70-130			
cis-1,3-Dichloropropene	6.82	0.50	µg/L	10.0	ND	68.2	* 70-130	UJ MSL Sample and FD		MS-24
trans-1,3-Dichloropropene	6.61	0.50	µg/L	10.0	ND	66.1	* 70-130	UJ MSL Sample and FD		MS-07A
1,4-Dioxane	61.8	50	µg/L	100	ND	61.8	* 70-130	UJ MSL Sample and FD		MS-07A
Ethylbenzene	8.75	1.0	µg/L	10.0	ND	87.5	70-130			
2-Hexanone (MBK)	72.7	10	µg/L	100	ND	72.7	70-130			
Isopropylbenzene (Cumene)	8.29	1.0	µg/L	10.0	ND	82.9	70-130			
Methyl Acetate	3.90	1.0	µg/L	10.0	ND	39.0	* 70-130	UJ MSL Sample and FD		MS-07A, V-05
Methyl tert-Butyl Ether (MTBE)	7.64	1.0	µg/L	10.0	ND	76.4	70-130			
Methyl Cyclohexane	8.57	1.0	µg/L	10.0	ND	85.7	70-130			
Methylene Chloride	8.61	5.0	µg/L	10.0	ND	86.1	70-130			
4-Methyl-2-pentanone (MIBK)	72.9	10	µg/L	100	ND	72.9	70-130			
Styrene	8.25	1.0	µg/L	10.0	ND	82.5	70-130			
1,1,2,2-Tetrachloroethane	7.93	0.50	µg/L	10.0	ND	79.3	70-130			
Tetrachloroethylene	8.49	1.0	µg/L	10.0	ND	84.9	70-130			
Toluene	8.94	1.0	µg/L	10.0	ND	89.4	70-130			
1,2,3-Trichlorobenzene	7.37	5.0	µg/L	10.0	ND	73.7	70-130			
1,2,4-Trichlorobenzene	7.55	1.0	µg/L	10.0	ND	75.5	70-130			
1,1,1-Trichloroethane	12.9	1.0	µg/L	10.0	4.35	85.7	70-130			

jar 11/12/2023

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

QUALITY CONTROL
Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B341326 - SW-846 5030B										
356023-MW6B (associated with DUP-02)										
Matrix Spike (B341326-MS1)	Source: 23E2893-07		Prepared: 05/25/23 Analyzed: 05/27/23							
1,1,2-Trichloroethane	8.69	1.0	µg/L	10.0	ND	86.9	70-130			
Trichloroethylene	8.50	1.0	µg/L	10.0	ND	85.0	70-130			
Trichlorofluoromethane (Freon 11)	8.68	2.0	µg/L	10.0	ND	86.8	70-130			
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	8.60	1.0	µg/L	10.0	ND	86.0	70-130			
Vinyl Chloride	10.1	2.0	µg/L	10.0	ND	101	70-130			
m+p Xylene	17.1	2.0	µg/L	20.0	ND	85.6	70-130			
o-Xylene	8.44	1.0	µg/L	10.0	ND	84.4	70-130			
Xylenes (total)	25.6	1.0	µg/L	30.0	ND	85.2	0-200			
Surrogate: 1,2-Dichloroethane-d4	24.2		µg/L	25.0		96.9	70-130			
Surrogate: Toluene-d8	24.9		µg/L	25.0		99.7	70-130			
Surrogate: 4-Bromofluorobenzene	23.9		µg/L	25.0		95.7	70-130			
356023-MW10B (associated with DUP-01)										
Matrix Spike (B341326-MS2)	Source: 23E2893-12		Prepared: 05/25/23 Analyzed: 05/27/23							
Acetone	74.3	50	µg/L	100	ND	74.3	70-130			
Benzene	9.69	1.0	µg/L	10.0	ND	96.9	70-130			
Bromochloromethane	9.78	1.0	µg/L	10.0	ND	97.8	70-130			
Bromodichloromethane	8.51	0.50	µg/L	10.0	ND	85.1	70-130			
Bromoform	6.24	1.0	µg/L	10.0	ND	62.4	* 70-130	UJ MSL Sample and FD		MS-07A
Bromomethane	10.3	2.0	µg/L	10.0	ND	103	70-130			
2-Butanone (MEK)	84.4	20	µg/L	100	ND	84.4	70-130			
Carbon Disulfide	81.5	5.0	µg/L	100	ND	81.5	70-130			
Carbon Tetrachloride	8.68	5.0	µg/L	10.0	ND	86.8	70-130			
Chlorobenzene	8.95	1.0	µg/L	10.0	ND	89.5	70-130			
Chlorodibromomethane	7.83	0.50	µg/L	10.0	ND	78.3	70-130			
Chloroethane	9.21	2.0	µg/L	10.0	ND	92.1	70-130			
Chloroform	9.08	2.0	µg/L	10.0	ND	90.8	70-130			
Chloromethane	9.63	2.0	µg/L	10.0	ND	96.3	70-130			
Cyclohexane	9.62	5.0	µg/L	10.0	ND	96.2	70-130			
1,2-Dibromo-3-chloropropane (DBCP)	6.80	5.0	µg/L	10.0	ND	68.0	* 70-130	UJ MSL Sample and FD		MS-07A
1,2-Dibromoethane (EDB)	8.53	0.50	µg/L	10.0	ND	85.3	70-130			
1,2-Dichlorobenzene	8.98	1.0	µg/L	10.0	ND	89.8	70-130			
1,3-Dichlorobenzene	8.73	1.0	µg/L	10.0	ND	87.3	70-130			
1,4-Dichlorobenzene	8.22	1.0	µg/L	10.0	ND	82.2	70-130			
Dichlorodifluoromethane (Freon 12)	10.2	2.0	µg/L	10.0	ND	102	70-130			
1,1-Dichloroethane	9.27	1.0	µg/L	10.0	ND	92.7	70-130			
1,2-Dichloroethane	8.52	1.0	µg/L	10.0	ND	85.2	70-130			
1,1-Dichloroethylene	8.89	1.0	µg/L	10.0	ND	88.9	70-130			
cis-1,2-Dichloroethylene	8.33	1.0	µg/L	10.0	ND	83.3	70-130			
trans-1,2-Dichloroethylene	8.27	1.0	µg/L	10.0	ND	82.7	70-130			
1,2-Dichloropropane	9.32	1.0	µg/L	10.0	ND	93.2	70-130			
cis-1,3-Dichloropropene	7.17	0.50	µg/L	10.0	ND	71.7	70-130			
trans-1,3-Dichloropropene	6.68	0.50	µg/L	10.0	ND	66.8	* 70-130	UJ MSL Sample and FD		MS-07A
1,4-Dioxane	71.4	50	µg/L	100	ND	71.4	70-130			
Ethylbenzene	9.02	1.0	µg/L	10.0	ND	90.2	70-130			
2-Hexanone (MBK)	69.4	10	µg/L	100	ND	69.4	* 70-130	UJ MSL Sample and FD		MS-07A
Isopropylbenzene (Cumene)	8.62	1.0	µg/L	10.0	ND	86.2	70-130			
Methyl Acetate	3.82	1.0	µg/L	10.0	ND	38.2	* 70-130	UJ MSL Sample and FD		MS-07A, V-05
Methyl tert-Butyl Ether (MTBE)	7.75	1.0	µg/L	10.0	ND	77.5	70-130			
Methyl Cyclohexane	8.99	1.0	µg/L	10.0	ND	89.9	70-130			
Methylene Chloride	8.51	5.0	µg/L	10.0	ND	85.1	70-130			
4-Methyl-2-pentanone (MIBK)	74.0	10	µg/L	100	ND	74.0	70-130			
Styrene	8.64	1.0	µg/L	10.0	ND	86.4	70-130			

jar 11/12/2023

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

QUALITY CONTROL
Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B341326 - SW-846 5030B										
Matrix Spike (B341326-MS2)										
356023-MW10B (associated with DUP-01)										
Source: 23E2893-12 Prepared: 05/25/23 Analyzed: 05/27/23										
1,1,2,2-Tetrachloroethane	8.11	0.50	µg/L	10.0	ND	81.1	70-130			
Tetrachloroethylene	8.61	1.0	µg/L	10.0	ND	86.1	70-130			
Toluene	9.24	1.0	µg/L	10.0	ND	92.4	70-130			
1,2,3-Trichlorobenzene	8.13	5.0	µg/L	10.0	ND	81.3	70-130			
1,2,4-Trichlorobenzene	7.87	1.0	µg/L	10.0	ND	78.7	70-130			
1,1,1-Trichloroethane	8.92	1.0	µg/L	10.0	ND	89.2	70-130			
1,1,2-Trichloroethane	8.86	1.0	µg/L	10.0	ND	88.6	70-130			
Trichloroethylene	8.68	1.0	µg/L	10.0	ND	86.8	70-130			
Trichlorofluoromethane (Freon 11)	8.94	2.0	µg/L	10.0	ND	89.4	70-130			
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	8.87	1.0	µg/L	10.0	ND	88.7	70-130			
Vinyl Chloride	10.4	2.0	µg/L	10.0	ND	104	70-130			
m+p Xylene	17.8	2.0	µg/L	20.0	ND	89.0	70-130			
o-Xylene	8.60	1.0	µg/L	10.0	ND	86.0	70-130			
Xylenes (total)	26.4	1.0	µg/L	30.0	ND	88.0	0-200			
Surrogate: 1,2-Dichloroethane-d4	24.2		µg/L	25.0		96.8	70-130			
Surrogate: Toluene-d8	25.5		µg/L	25.0		102	70-130			
Surrogate: 4-Bromofluorobenzene	23.7		µg/L	25.0		94.7	70-130			
356023-MW6B (associated with DUP-02)										
Matrix Spike Dup (B341326-MSD1)										
Source: 23E2893-07 Prepared: 05/25/23 Analyzed: 05/27/23										
Acetone	73.0	50	µg/L	100	2.23	70.8	70-130	4.31	30	
Benzene	9.58	1.0	µg/L	10.0	ND	95.8	70-130	1.35	30	
Bromochloromethane	9.74	1.0	µg/L	10.0	ND	97.4	70-130	1.34	30	
Bromodichloromethane	8.54	0.50	µg/L	10.0	ND	85.4	70-130	5.66	30	
Bromoform	6.16	1.0	µg/L	10.0	ND	61.6	* 70-130	0.808	30	MS-07A
Bromomethane	10.4	2.0	µg/L	10.0	ND	104	70-130	1.14	30	UJ MSL Sample and FD
2-Butanone (MEK)	81.8	20	µg/L	100	ND	81.8	70-130	2.47	30	
Carbon Disulfide	80.2	5.0	µg/L	100	ND	80.2	70-130	1.07	30	
Carbon Tetrachloride	8.40	5.0	µg/L	10.0	ND	84.0	70-130	0.593	30	
Chlorobenzene	9.04	1.0	µg/L	10.0	ND	90.4	70-130	0.889	30	
Chlorodibromomethane	7.57	0.50	µg/L	10.0	ND	75.7	70-130	2.14	30	
Chloroethane	9.02	2.0	µg/L	10.0	ND	90.2	70-130	0.779	30	
Chloroform	9.07	2.0	µg/L	10.0	ND	90.7	70-130	3.59	30	
Chloromethane	9.89	2.0	µg/L	10.0	ND	98.9	70-130	4.44	30	
Cyclohexane	9.21	5.0	µg/L	10.0	ND	92.1	70-130	2.47	30	
1,2-Dibromo-3-chloropropane (DBCP)	6.61	5.0	µg/L	10.0	ND	66.1	* 70-130	6.40	30	MS-07A
1,2-Dibromoethane (EDB)	8.44	0.50	µg/L	10.0	ND	84.4	70-130	2.03	30	UJ MSL Sample and FD
1,2-Dichlorobenzene	9.05	1.0	µg/L	10.0	ND	90.5	70-130	5.92	30	
1,3-Dichlorobenzene	8.81	1.0	µg/L	10.0	ND	88.1	70-130	6.32	30	
1,4-Dichlorobenzene	8.40	1.0	µg/L	10.0	ND	84.0	70-130	4.63	30	
Dichlorodifluoromethane (Freon 12)	9.81	2.0	µg/L	10.0	ND	98.1	70-130	0.812	30	
1,1-Dichloroethane	9.32	1.0	µg/L	10.0	ND	93.2	70-130	0.00	30	
1,2-Dichloroethane	8.43	1.0	µg/L	10.0	ND	84.3	70-130	1.55	30	
1,1-Dichloroethylene	9.54	1.0	µg/L	10.0	0.970	85.7	70-130	1.56	30	
cis-1,2-Dichloroethylene	8.37	1.0	µg/L	10.0	ND	83.7	70-130	2.66	30	
trans-1,2-Dichloroethylene	8.28	1.0	µg/L	10.0	ND	82.8	70-130	3.19	30	
1,2-Dichloropropane	9.12	1.0	µg/L	10.0	ND	91.2	70-130	2.22	30	
cis-1,3-Dichloropropene	7.06	0.50	µg/L	10.0	ND	70.6	70-130	3.46	30	
trans-1,3-Dichloropropene	6.80	0.50	µg/L	10.0	ND	68.0	* 70-130	2.83	30	UJ MSL Sample and FD
1,4-Dioxane	65.0	50	µg/L	100	ND	65.0	* 70-130	4.97	30	MS-07A
Ethylbenzene	8.82	1.0	µg/L	10.0	ND	88.2	70-130	0.797	30	UJ MSL Sample and FD
2-Hexanone (MBK)	72.4	10	µg/L	100	ND	72.4	70-130	0.414	30	
Isopropylbenzene (Cumene)	8.43	1.0	µg/L	10.0	ND	84.3	70-130	1.67	30	

jar 11/12/2023

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

QUALITY CONTROL
Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B341326 - SW-846 5030B										
356023-MW6B (associated with DUP-02) Matrix Spike Dup (B341326-MSD1) Source: 23E2893-07 Prepared: 05/25/23 Analyzed: 05/27/23										
Methyl Acetate	3.85	1.0	µg/L	10.0	ND	38.5	* 70-130	1.29	30	MS-07A, V-05 UJ MSL Sample and FD
Methyl tert-Butyl Ether (MTBE)	7.78	1.0	µg/L	10.0	ND	77.8	70-130	1.82	30	
Methyl Cyclohexane	8.88	1.0	µg/L	10.0	ND	88.8	70-130	3.55	30	
Methylene Chloride	8.60	5.0	µg/L	10.0	ND	86.0	70-130	0.116	30	
4-Methyl-2-pentanone (MIBK)	72.0	10	µg/L	100	ND	72.0	70-130	1.28	30	
Styrene	8.38	1.0	µg/L	10.0	ND	83.8	70-130	1.56	30	
1,1,2,2-Tetrachloroethane	7.80	0.50	µg/L	10.0	ND	78.0	70-130	1.65	30	
Tetrachloroethylene	8.74	1.0	µg/L	10.0	ND	87.4	70-130	2.90	30	
Toluene	9.24	1.0	µg/L	10.0	ND	92.4	70-130	3.30	30	
1,2,3-Trichlorobenzene	7.94	5.0	µg/L	10.0	ND	79.4	70-130	7.45	30	
1,2,4-Trichlorobenzene	7.78	1.0	µg/L	10.0	ND	77.8	70-130	3.00	30	
1,1,1-Trichloroethane	13.0	1.0	µg/L	10.0	4.35	86.8	70-130	0.848	30	
1,1,2-Trichloroethane	8.67	1.0	µg/L	10.0	ND	86.7	70-130	0.230	30	
Trichloroethylene	8.98	1.0	µg/L	10.0	ND	89.8	70-130	5.49	30	
Trichlorofluoromethane (Freon 11)	8.68	2.0	µg/L	10.0	ND	86.8	70-130	0.00	30	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	8.71	1.0	µg/L	10.0	ND	87.1	70-130	1.27	30	
Vinyl Chloride	10.1	2.0	µg/L	10.0	ND	101	70-130	0.199	30	
m+p Xylene	17.6	2.0	µg/L	20.0	ND	88.1	70-130	2.94	20	
o-Xylene	8.43	1.0	µg/L	10.0	ND	84.3	70-130	0.119	30	
Xylenes (total)	26.0	1.0	µg/L	30.0	ND	86.8	0-200	1.94		
Surrogate: 1,2-Dichloroethane-d4	24.5		µg/L	25.0		98.0	70-130			
Surrogate: Toluene-d8	25.6		µg/L	25.0		103	70-130			
Surrogate: 4-Bromofluorobenzene	23.7		µg/L	25.0		94.6	70-130			
356023-MW10B (associated with DUP-01) Matrix Spike Dup (B341326-MSD2) Source: 23E2893-12 Prepared: 05/25/23 Analyzed: 05/27/23										
Acetone	76.3	50	µg/L	100	ND	76.3	70-130	2.67	30	
Benzene	9.37	1.0	µg/L	10.0	ND	93.7	70-130	3.36	30	
Bromochloromethane	9.45	1.0	µg/L	10.0	ND	94.5	70-130	3.43	30	
Bromodichloromethane	7.69	0.50	µg/L	10.0	ND	76.9	70-130	10.1	30	
Bromoform	6.16	1.0	µg/L	10.0	ND	61.6	* 70-130	1.29	30	MS-07A UJ MSL Sample and FD
Bromomethane	9.78	2.0	µg/L	10.0	ND	97.8	70-130	5.18	30	
2-Butanone (MEK)	85.2	20	µg/L	100	ND	85.2	70-130	0.837	30	
Carbon Disulfide	79.1	5.0	µg/L	100	ND	79.1	70-130	3.00	30	
Carbon Tetrachloride	8.30	5.0	µg/L	10.0	ND	83.0	70-130	4.48	30	
Chlorobenzene	8.70	1.0	µg/L	10.0	ND	87.0	70-130	2.83	30	
Chlorodibromomethane	7.07	0.50	µg/L	10.0	ND	70.7	70-130	10.2	30	
Chloroethane	8.90	2.0	µg/L	10.0	ND	89.0	70-130	3.42	30	
Chloroform	8.63	2.0	µg/L	10.0	ND	86.3	70-130	5.08	30	
Chloromethane	9.26	2.0	µg/L	10.0	ND	92.6	70-130	3.92	30	
Cyclohexane	9.22	5.0	µg/L	10.0	ND	92.2	70-130	4.25	30	
1,2-Dibromo-3-chloropropane (DBCP)	6.45	5.0	µg/L	10.0	ND	64.5	* 70-130	5.28	30	MS-07A UJ MSL Sample and FD
1,2-Dibromoethane (EDB)	8.11	0.50	µg/L	10.0	ND	81.1	70-130	5.05	30	
1,2-Dichlorobenzene	8.80	1.0	µg/L	10.0	ND	88.0	70-130	2.02	30	
1,3-Dichlorobenzene	8.46	1.0	µg/L	10.0	ND	84.6	70-130	3.14	30	
1,4-Dichlorobenzene	8.31	1.0	µg/L	10.0	ND	83.1	70-130	1.09	30	
Dichlorodifluoromethane (Freon 12)	9.67	2.0	µg/L	10.0	ND	96.7	70-130	5.24	30	
1,1-Dichloroethane	8.85	1.0	µg/L	10.0	ND	88.5	70-130	4.64	30	
1,2-Dichloroethane	8.04	1.0	µg/L	10.0	ND	80.4	70-130	5.80	30	
1,1-Dichloroethylene	8.23	1.0	µg/L	10.0	ND	82.3	70-130	7.71	30	
cis-1,2-Dichloroethylene	7.81	1.0	µg/L	10.0	ND	78.1	70-130	6.44	30	
trans-1,2-Dichloroethylene	7.92	1.0	µg/L	10.0	ND	79.2	70-130	4.32	30	
1,2-Dichloropropane	8.43	1.0	µg/L	10.0	ND	84.3	70-130	10.0	30	

jar 11/12/2023

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

QUALITY CONTROL
Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B341326 - SW-846 5030B										
356023-MW10B (associated with DUP-01) Matrix Spike Dup (B341326-MSD2) Source: 23E2893-12 Prepared: 05/25/23 Analyzed: 05/27/23										
cis-1,3-Dichloropropene	6.72	0.50	µg/L	10.0	ND	67.2	* 70-130	6.48	30	MS-24 UJ MSL Sample and FD
trans-1,3-Dichloropropene	6.26	0.50	µg/L	10.0	ND	62.6	* 70-130	6.49	30	MS-07A UJ MSL Sample and FD
1,4-Dioxane	64.4	50	µg/L	100	ND	64.4	* 70-130	10.3	30	MS-24 UJ MSL Sample and FD
Ethylbenzene	8.61	1.0	µg/L	10.0	ND	86.1	70-130	4.65	30	
2-Hexanone (MBK)	68.7	10	µg/L	100	ND	68.7	* 70-130	0.985	30	MS-07A
Isopropylbenzene (Cumene)	8.38	1.0	µg/L	10.0	ND	83.8	70-130	2.82	30	UJ MSL Sample and FD
Methyl Acetate	3.43	1.0	µg/L	10.0	ND	34.3	* 70-130	10.8	30	MS-07A V-05 UJ MSL Sample and FD
Methyl tert-Butyl Ether (MTBE)	7.55	1.0	µg/L	10.0	ND	75.5	70-130	2.61	30	
Methyl Cyclohexane	8.46	1.0	µg/L	10.0	ND	84.6	70-130	6.07	30	
Methylene Chloride	8.32	5.0	µg/L	10.0	ND	83.2	70-130	2.26	30	
4-Methyl-2-pentanone (MIBK)	71.9	10	µg/L	100	ND	71.9	70-130	2.86	30	
Styrene	8.33	1.0	µg/L	10.0	ND	83.3	70-130	3.65	30	
1,1,2,2-Tetrachloroethane	8.00	0.50	µg/L	10.0	ND	80.0	70-130	1.37	30	
Tetrachloroethylene	8.32	1.0	µg/L	10.0	ND	83.2	70-130	3.43	30	
Toluene	8.75	1.0	µg/L	10.0	ND	87.5	70-130	5.45	30	
1,2,3-Trichlorobenzene	8.40	5.0	µg/L	10.0	ND	84.0	70-130	3.27	30	
1,2,4-Trichlorobenzene	7.80	1.0	µg/L	10.0	ND	78.0	70-130	0.893	30	
1,1,1-Trichloroethane	8.38	1.0	µg/L	10.0	ND	83.8	70-130	6.24	30	
1,1,2-Trichloroethane	8.35	1.0	µg/L	10.0	ND	83.5	70-130	5.93	30	
Trichloroethylene	8.39	1.0	µg/L	10.0	ND	83.9	70-130	3.40	30	
Trichlorofluoromethane (Freon 11)	8.58	2.0	µg/L	10.0	ND	85.8	70-130	4.11	30	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	8.63	1.0	µg/L	10.0	ND	86.3	70-130	2.74	30	
Vinyl Chloride	9.73	2.0	µg/L	10.0	ND	97.3	70-130	6.37	30	
m+p Xylene	17.0	2.0	µg/L	20.0	ND	84.9	70-130	4.77	20	
o-Xylene	8.24	1.0	µg/L	10.0	ND	82.4	70-130	4.28	30	
Xylenes (total)	25.2	1.0	µg/L	30.0	ND	84.1	0-200	4.61		
Surrogate: 1,2-Dichloroethane-d4	25.2		µg/L	25.0		101	70-130			
Surrogate: Toluene-d8	24.6		µg/L	25.0		98.6	70-130			
Surrogate: 4-Bromofluorobenzene	23.6		µg/L	25.0		94.4	70-130			

jar 11/12/2023

SVOC

NYSDEC PROJECT CATEGORY A REVIEW RECORD

Project: Mohonk Road

Method : SW-846 8270D (or specify)

Laboratory and SDG(s): Pace

SDG# 23E2893, 23E2901

Date: 11/7/2023

Reviewer: Julie Ricardi

Review Level ☒ CATEGORY A

1. ☒ **Case Narrative Review and Data Package Completeness** COMMENTS
Were problems noted? YES **NO** (circle one)

Were all the samples on the COC analyzed for the requested analyses? **YES** NO (circle one)

Are Field Sample IDs and Locations assigned correctly? **YES** NO (circle one)
2. ☒ **Holding time and Sample Collection**
Were all water samples extracted within the 7 day holding time, and/or soil within 14 days? **YES** NO (circle one)
Were extracts analyzed within 40 days of extraction? **YES** NO (circle one)
3. ☒ **QC Blanks**
Are method blanks free of contamination? **YES** NO (circle one)

Are field blanks free of contamination? YES NO **NA** (circle one)
4. ☒ **Laboratory Control Sample Results** (Nominal water&soil limits: Base/Neutral 50-140%, Acid 30-140%)
Were all results within limits? **YES** NO (circle one) Lab Limits
5. ☒ **Matrix Spike** (Nominal water & soil limits: Base/neutral 50-140; Acid 30-140; RPD water = 20; RPD soil = 35)
Were MS/MSDs submitted/analyzed? **YES** NO

Were all results within limits? YES **NO** NA (circle one) See attached; J 1,4-D in MW6B / DUP-02 MSRPD
6. ☒ **Surrogate Recovery** (Nominal water and soil limits: Base/Neutral 50-140%, Acid 30-140%)
Were all results within limits? **YES** NO (circle one)
Were any recoveries < 10%? (Reject fraction compounds if ND and recoveries are < 10%)
7. ☒ **Field Duplicates** (RPD limits = water:50, soil:100)
Were Field Duplicates submitted/analyzed? **YES** NO

Were RPDs within criteria. YES **NO** NA (circle one)
MW6B / DUP-02: RPD = 71 J both results, FD
8. ☒ **Reporting Limits:**
Were samples analyzed at a dilution? YES **NO** (circle one)
9. ☒ **Electronic Data Review and Edits:**
Does the EDD match the Form Is? **YES** NO (circle one)

10. ☒ **Table Review**

Table 1 (Samples and Analytical Methods)

Table 2 (Analytical Results)

Table 3 (Qualification Actions)

Were all tables produced and reviewed? **YES** NO (circle one)

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

QUALITY CONTROL
1,4-Dioxane by isotope dilution GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B341039 - SW-846 3510C										
Blank (B341039-BLK1)				Prepared: 05/23/23 Analyzed: 05/25/23						
1,4-Dioxane	ND	0.20	µg/L							
Surrogate: 1,4-Dioxane-d8	2.64		µg/L	10.0		26.4	15-110			
LCS (B341039-BS1)				Prepared: 05/23/23 Analyzed: 05/29/23						
1,4-Dioxane	10.3	0.20	µg/L	10.0		103	40-140			
Surrogate: 1,4-Dioxane-d8	3.26		µg/L	10.0		32.6	15-110			
LCS Dup (B341039-BSD1)				Prepared: 05/23/23 Analyzed: 05/25/23						
1,4-Dioxane	10.9	0.20	µg/L	10.0		109	40-140	5.31	30	
Surrogate: 1,4-Dioxane-d8	2.85		µg/L	10.0		28.5	15-110			
Matrix Spike (B341039-MS2)				Source: 23E2893-12		Prepared: 05/23/23 Analyzed: 06/02/23				
1,4-Dioxane	11.8	0.21	µg/L	10.5	ND	112	40-140			
Surrogate: 1,4-Dioxane-d8	3.52		µg/L	10.5		33.4	15-110			
Matrix Spike Dup (B341039-MSD2)				Source: 23E2893-12		Prepared: 05/23/23 Analyzed: 06/02/23				
1,4-Dioxane	10.8	0.20	µg/L	10.0	ND	108	40-140	8.40	20	
Surrogate: 1,4-Dioxane-d8	3.39		µg/L	10.0		33.9	15-110			
Batch B341193 - SW-846 3510C										
Blank (B341193-BLK1)				Prepared: 05/24/23 Analyzed: 05/29/23						
1,4-Dioxane	ND	0.20	µg/L							
Surrogate: 1,4-Dioxane-d8	3.03		µg/L	10.0		30.3	15-110			
LCS (B341193-BS1)				Prepared: 05/24/23 Analyzed: 05/29/23						
1,4-Dioxane	10.2	0.20	µg/L	10.0		102	40-140			
Surrogate: 1,4-Dioxane-d8	2.96		µg/L	10.0		29.6	15-110			
LCS Dup (B341193-BSD1)				Prepared: 05/24/23 Analyzed: 05/29/23						
1,4-Dioxane	10.8	0.20	µg/L	10.0		108	40-140	5.85	30	
Surrogate: 1,4-Dioxane-d8	3.22		µg/L	10.0		32.2	15-110			
Matrix Spike (B341193-MS3)				Source: 23E2893-07		Prepared: 05/24/23 Analyzed: 05/29/23				
1,4-Dioxane	5.90	0.20	µg/L	10.0	0.467	54.3	40-140			
Surrogate: 1,4-Dioxane-d8	6.52		µg/L	10.0		65.2	15-110			
Matrix Spike Dup (B341193-MSD3)				Source: 23E2893-07		Prepared: 05/24/23 Analyzed: 05/29/23				
1,4-Dioxane	11.6	0.20	µg/L	10.1	0.467	110	40-140	65.2	*	20 R-06
Surrogate: 1,4-Dioxane-d8	3.27		µg/L	10.1		32.4	15-110	MSRPD Sample and FD		

jar 11/12/2023

ATTACHMENT A4
SPDES PERMIT EQUIVALENT - FEBRUARY 9, 2021

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Water, Bureau of Water Permits
625 Broadway, Albany, New York 12233
www.dec.ny.gov

MEMORANDUM SPDES Permit Equivalent

TO: Charles Gregory, DER
FROM: Alison Wasserbauer, Bureau of Water Permits, DOW
SUBJECT: SPDES Permit Equivalent: Mohonk Road Industrial Plant, DER Site ID#
3-56-023
DRAINAGE BASIN: 13 / 06
DATE: February 9, 2021

In response to your request dated September 29, 2020, attached please find the effluent limitations and monitoring requirements for the above noted remediation discharge.

The discharge consists of treated water from contaminated groundwater. The treatment system consists of a pump and treat system with bag filters and an air stripper.

The DOW does not have any regulatory authority over a discharge from a State, PRP, or Federal Superfund Site. DER will be responsible for ensuring compliance with the attached effluent limitations and monitoring requirements, and approval of all engineering submissions. The additional conditions identifies the appropriate DER contact person who will receive all effluent results, engineering submissions, and modification requests. The Regional Water Engineer should be kept apprised of the status of this discharge and, in accordance with the attached criteria, receive a copy of the effluent results for informational purposes.

If you have any questions, please call Alison Wasserbauer at 518-402-8126.

Attachment (Effluent Limitations and Monitoring Requirements)

cc: Region 3 Regional Water Engineer (via email, w/attach)
BWP Section Chief, DOW (via email, w/attach)



Department of
Environmental
Conservation

EFFLUENT LIMITATIONS & MONITORING REQUIREMENTS

OUTFALL	DISCHARGE TYPE	LATITUDE/ LONGITUDE	RECEIVING WATER and CLASS	EFFECTIVE	EXPIRING
001	Treated Remediation Wastewater	41° 48' 56" N 74° 07' 33" W	Coxing Kill and Tribs, Class C(T)	2/9/2021	2/8/2026

The discharges from the treatment facility shall be limited and monitored by the operator as specified below:

Outfall and Parameters	CAS No.	Monthly Ave. Limits	Daily Max Limits	Units	Minimum Monitoring Requirements		FN
Outfall 001					Measurement Frequency	Sample Type	
Flow	NA	Monitor	72,000	GPD	Continuous	Recorder	
pH	NA	-	6.5 – 8.5	SU	Monthly	Grab	
Total Suspended Solids	NA	Monitor	20	mg/L	Monthly	Grab	
Total Dissolved Solids	NA	Monitor	Monitor	mg/L	Monthly	Grab	
Methylene Chloride	75-09-2	Monitor	10	µg/L	Monthly	Grab	
Acetone	67-64-1	Monitor	50	µg/L	Monthly	Grab	
1,1-Dichloroethylene	00075-35-4	Monitor	10	µg/L	Monthly	Grab	
1,1-Dichloroethane	75-34-3	Monitor	10	µg/L	Monthly	Grab	
1,1,1-Trichloroethane	00071-55-6	Monitor	10	µg/L	Monthly	Grab	
1,2-Dichloroethane	00107-06-2	Monitor	10	µg/L	Monthly	Grab	
Carbon Tetrachloride	00056-23-5	Monitor	10	µg/L	Monthly	Grab	
1,2-Dichloroethylene (Total)	540-59-0	Monitor	10	µg/L	Monthly	Grab	
Chloroform	00067-66-3	Monitor	10	µg/L	Monthly	Grab	
Trichloroethene	00079-01-6	Monitor	10	µg/L	Monthly	Grab	
1,4-Dioxane	00123-91-1	Monitor	Monitor	µg/L	Monthly	Grab	
1,1,2-Trichloroethane	00079-00-5	Monitor	10	µg/L	Monthly	Grab	
Benzene	00071-43-2	Monitor	5.0	µg/L	Monthly	Grab	1
Toluene	00108-88-3	Monitor	5.0	µg/L	Monthly	Grab	
Iron, Total	07439-89-6	Monitor	540	µg/L	Monthly	Grab	

Footnotes:

1. Benzene analyses must achieve an MDL of 0.2 µg/L and a PWL of 0.8 µg/L

Additional Conditions:

1. Discharge is not authorized until such time as an engineering submission showing the method of treatment is approved by the Department. The discharge rate may not exceed the effective or design treatment system capacity. All monitoring data, engineering submissions and modification requests must be submitted to:



Charles Gregory
Division of Environmental Remediation
NYSDEC, 625 Broadway, Albany, New York 12233- 7015,
Tel: 518-402- 9819

With a copy sent to:

Regional Water Engineer, Region 3
100 Hillside Avenue, Suite 1W, White Plains, New York, 10603-2860
Phone: (914) 428-2505

2. Samples and measurements, to comply with the monitoring requirements specified above, must be taken from the effluent side of the final treatment unit prior to discharge to the receiving water body unless otherwise noted above.
3. Only site generated wastewater is authorized for treatment and discharge.
4. Authorization to discharge is valid only for the period noted above but may be renewed if appropriate. A request for renewal must be received 6 months prior to the expiration date to allow for a review of monitoring data and reassessment of monitoring requirements.
5. Both concentration (mg/l or µg/l) and mass loadings (lbs/day) must be reported to the Department for all parameters except flow and pH.
6. Any use of corrosion/scale inhibitors, biocidal-type compounds, or other water treatment chemicals used in the treatment process must be approved by the department prior to use.
7. This discharge and administration of this discharge must comply with the substantive requirements of 6NYCRR Part 750.



MONITORING LOCATIONS

