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Spring Valley, New York

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Recipient **Robert Strang, E.I.T.**
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Prepared by **Sarah Travalay, Robert Hornung**
Checked by **Paul D'Annibale**
Approved by **Bradley A. Kubiak, PE**

Ramboll
94 New Karner Road
Suite 106
Albany, NY 12203
USA

T 518-724-7272
F 315-463-7554
<https://ramboll.com>

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Executive Summary

In 1978, the Consolidated Stamp Company (COSCO) Site (the Site) and Continental Plastic Company (CPC) facility were identified as potential sources for the Site-related constituents of concern (COCs) tetrachloroethene (PCE), and its associated degradation products trichloroethene (TCE), dichloroethene (DCE), and vinyl chloride (VC) contamination at the former Spring Valley Well Field Site (ID No. 3-44-018). A Record of Decision (ROD) was issued by New York State Department of Environmental Conservation (NYSDEC) in March 1990 and amended in August 1999.

In November 2003, a groundwater extraction and treatment (GWE&T) system was placed into operation at the Site, consisting of two overburden recovery wells (RW-1S and RW-8S) and one bedrock recovery well (RW-3D).

The current Institutional Controls governing the Site include the August 1999 ROD amendment and the 2022 Site Management Plan (SMP; Ramboll Americas Engineering Solutions, Inc. (Ramboll), 2022). The Engineering Controls at the Site consist of an asphalt cap installed over the Tailings Dump Area, a security perimeter fence, the sub-slab depressurization system (SSDS) installed at an off-Site property on Commerce Street, the GWE&T system, and the overburden and bedrock monitoring well network.

The annual Site inspection included an evaluation of the Tailings Dump Area and security fencing surrounding the Tailings Dump Area. Both Engineering Controls were observed to be in acceptable condition with no evidence of excessive wear or cracks in the asphalt cover and continue to meet the remedial goals of the ROD. A visual inspection of the SSDS located at the off-Site property on Commerce Street indicated that the SSDS fan and the piping outside the basement was in acceptable condition and properly supported. Access to the interior of the property was not granted during this reporting period.

The results of the groundwater quality sampling and the GWE&T system influent and effluent sampling indicate that the overburden and bedrock groundwater conditions are still meeting the remedial goals for the Site since migration of contaminated groundwater has not been observed in side gradient or downgradient monitoring wells and the GWE&T system effluent concentrations were below the effluent limitations established in the State Pollutant Discharge Elimination System (SPDES) permit equivalent during the reporting period.

In 2022, a Remedial System Optimization (RSO) enhanced in-situ bioremediation (EISB) pilot study was initiated at the Site and will continue through 2023. The Periodic Review Report (PRR) frequency for the Site should remain annually.

1. Introduction

1.1 Introduction

This Periodic Review Report (PRR) has been prepared by Ramboll for the New York State Department of Environmental Conservation (NYSDEC) to document the implementation of, and compliance with, Site Management (SM) requirements for the COSCO Site located in Spring Valley, New York, as discussed in the 2022 SMP (Ramboll, 2022). This PRR was prepared in accordance with the Work Assignment (WA) (#D009810-03) submitted to the NYSDEC on June 1, 2020 and approved on June 19, 2020.

This PRR covers the reporting period from April 4, 2022, through April 4, 2023, and summarizes the Site activities performed by Ramboll and Operation and Maintenance (O&M) activities performed by LaBella. The results and a general summary of the O&M activities performed by LaBella are also incorporated in this PRR.

1.1.1 Site Location and Description

The Site is located at 15 West Street, in the village of Spring Valley, Rockland County, New York (**Figure 1-1**). The Site is managed under the New York State Inactive Hazardous Waste Disposal Site Remedial Program administered by NYSDEC (Ramboll, 2020). The Site is listed by the NYSDEC as a Class 4 Inactive Hazardous Waste Disposal Site (ID No. 3-44-035). Class 4 sites are hazardous waste sites that have been properly closed but require continued O&M of remedial systems and/or continued site monitoring.

The Site is the location of the former COSCO facility located at 15 West Street, and the former CPC facility, located at 2 North Cole Avenue, about 200 feet northwest of the former COSCO facility (NYSDEC, 1999). The COSCO property is bound to the east by West Street, to the south by West Central Avenue and to the north by an inactive Conrail line and right-of-way. Industrial and commercial facilities are located on the north side of the right-of-way including the former CPC facility, a communications tower, and the Spring Valley Department of Public Works (DPW) maintenance facility.

A drainage way, known as the Reach B Diversion (**Figure 1-2**) runs between the facilities. The drainage way originates to the southwest and continues to the northeast and discharges into the West Branch of Pascack Brook, east of the Site. The Tailings Dump Area is an approximate 18,750 square-foot, triangular-shaped, and fenced area at the western end of the property. At present, the Tailings Dump Area is the only portion of the original Site that remains within the current Site boundaries as defined by NYSDEC.

1.2 Remedial History

In 1978, the RCDOH identified PCE, TCE, DCE, and 1,1,1-TCA in the well field operated by the Spring Valley Water Company (Aztech, 2020). The COSCO facility and CPC facility were identified as potential sources for the contamination at the former Spring Valley Well Field Site (ID No. 3-44-018). The results of a survey performed by Spring Valley Water Company in 1979 found that the CPC facility was discharging approximately 20 to 30 gpm of TCE and PCE contaminated non-contact cooling water into Reach B Diversion. In addition, The COSCO facility was using TCE as part of a vapor degreasing process and discharging the rinse water into Reach B Diversion. In 1980, Reach B Diversion was diverted away from the former Spring Valley Well Field Site into the West Branch of the Pascack Brook. After reconfiguring the discharge for Reach B Diversion, the former waterway was sampled at multiple locations for volatile organic compounds (VOCs) in soil, sediment, and surface water. In addition, semi-volatile organic compounds (SVOCs), pesticides, and polychlorinated biphenyls (PCBs) were identified in the Tailings Dump Area (Aztech, 2016).

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From 1987 to 1990, an RI/FS was performed for the Site by GHR Engineering Associates, Inc. The objective of the RI/FS was to evaluate potential source areas for Site-related constituents of concern (COCs), PCE and its associated degradation products TCE, DCE, and VC.

As documented in the RI Report, the former soil source area was located north of the COSCO facility and extended east-west from the east side of bedrock monitoring well GP-4D to east of overburden recovery well RW-1S. The northern extent of source area soil was located south of the Conrail track line that extends east-west north of the COSCO facility. The approximate impacted area of soil was 140-feet long by 40-feet wide (**Figure 1-2**). The maximum historical concentrations of PCE, TCE, and DCE in source area soils were 1.9 parts per million (ppm), 13 ppm, and 2.6 ppm, respectively. Cyanide, cadmium, lead, and zinc were detected in source area soils with maximum concentrations of 28 ppm, 4.2 ppm, 1,140 ppm and 4,120 ppm, respectively. Concentrations of other inorganic constituents detected in source area soils were within background values (Aztech, 2020).

Site-related COCs were not detected in soils within the Tailings Dump Area during the RI. However, several SVOCs including polycyclic aromatic hydrocarbons (PAHs) were detected. The maximum concentrations of PAHs detected were approximately 90 ppm. In addition, pesticides 4,4-DDT and gamma chlordane, and PCBs were detected in one soil sample from the Tailings Dump Area. Inorganic constituents cyanide and cadmium were also detected in the Tailings Dump Area (similar to source area soils).

Sediment samples collected from the former waterway drainage channel (Reach B Diversion) had detected concentrations of PCE, TCE, and DCE with a maximum total VOC concentration of 38.7 ppm in a sediment sample collected from the DPW property (north of the soil source area).

Site-related COCs were detected in overburden groundwater at a maximum total concentration of 24,861 parts per billion (ppb) and in bedrock groundwater at a maximum total concentration of 15,437 ppb.

Following the RI, an FS was performed to identify, screen, and evaluate potential remedial alternatives and a ROD was issued by NYSDEC for the Site in March 1990. The ROD detailed selected remedies to address contamination at the COSCO Site and CPC facility, which included:

- Source area groundwater extraction and treatment by ultraviolet (UV) chemical oxidation and polishing;
- Source area soil and sediment soil vapor extraction (SVE); and,
- Capping of the Tailings Dump Area to prevent human exposure to remaining contaminated soil.

Pursuant to the results of the RI and a petition from the Spring Valley Water Company to delist the Site, the Site boundaries were redefined, the COSCO Site and CPC facility were listed under the New York State Inactive Hazardous Waste Disposal Site Remedial Program, and the former Spring Valley Well Field Site was delisted in December 1990.

Two post-ROD groundwater studies were conducted to evaluate groundwater flow in the bedrock aquifer. The first study was performed in the summer of 1990 by COSCO and Sara Lee Corporation (Sara Lee). The second study, a supplemental RI, was performed in 1992 by COSCO, Sara Lee, and the Spring Valley Water Company. In March of 1996, COSCO and Sara Lee settled with NYSDEC to contribute to past and future costs for remediation of the Site.

A pre-design investigation (PDI) was performed in 1997 and 1998 by Camp Dresser and McKee on behalf of NYSDEC to fill identified data gaps and evaluate the appropriateness of the remedial action recommended in the 1990 ROD. Field investigations performed during the PDI included:

- Soil and groundwater sampling;
- Aquifer pump testing; and,
- Vapor extraction pilot testing.

Six soil borings were completed in the source area. The soil borings were advanced from eight to twenty feet below grade, depending on location at the Site. Soil samples were collected at four-foot intervals. Fifteen soil samples were collected during the soil boring program. Total VOC concentrations detected in soil ranged from non-detect to 0.726 ppm (approximately one-quarter of the maximum concentration of total VOCs in soil reported during the RI). The soil boring program also identified the presence of low permeability soils in the source area, interbedded with more permeable soils.

The former drainage channel area (Reach B Diversion) could not be sampled during the PDI as the channel had been filled in and a communications tower had been constructed in the area following completion of the 1990 RI. As a result, five soil borings were advanced adjacent to the communications tower. Soil samples were collected at three of the five boring locations and a groundwater sample was collected at one boring location. The detected concentrations of VOCs in soil samples ranged from 0.0012 to 0.0099 ppm. The total VOC concentration detected in the groundwater sample was 1,270 ppb. These results suggested that the total VOC concentrations in overburden groundwater were still elevated near the former drainage channel, and that the total VOC concentration in soil was low.

As part of the PDI, two overburden monitoring wells (GW-1S and GW-4S) and four bedrock monitoring wells (GW-2D, GW-3D, GP-4D, and GW-5D) were installed at the Site and groundwater samples were collected for VOC analysis to compare to previous results. Groundwater sample results collected from the six monitoring wells indicated that VOC concentrations in both the overburden and bedrock had decreased since the RI.

In addition, during the PDI it was noted that an asphalt cap was installed over most of the Tailings Dump Area. This asphalt cap satisfied the capping requirement presented in the 1990 ROD.

The 1990 ROD was amended by NYSDEC in August 1999 (1999 ROD amendment). The changes to the 1990 ROD were based on the results of the 1997-1998 PDI which concluded relatively low-level VOC concentrations remained in the soil and sediments at the Site and therefore the effectiveness of the recommended SVE would be limited. In addition, the soil samples collected adjacent to the communications tower constructed near the former drainage channel had VOC detections below NYSDEC Soil Clean-up Objectives (NYSDEC, 2006). As a result, NYSDEC selected the following for the 1999 ROD amendment:

- No further action for source area soils and sediments;
- Extraction of contaminated overburden and bedrock groundwater in the source area and treatment by chemical oxidation and polishing technologies;
- Completion/repair of the existing asphalt cap over the Tailings Dump Area; and,
- Long-term groundwater monitoring to evaluate the effectiveness of both the groundwater extraction and the Tailings Dump Area.

1.2.1 Soil Vapor Intrusion Evaluations

Independent of and subsequent to the 1999 ROD amendment, two soil vapor intrusion (SVI) evaluations were conducted for the Site – one on-Site and the other off-Site. The on-Site SVI evaluation was conducted by Environmental Resources Management, Inc. in January 2006. Six overburden groundwater samples and six soil vapor samples were collected and analyzed for VOCs in the area north of the COSCO facility building and along the Conrail railroad line and right-of-way. Two of the six groundwater samples had detections of Site-related COCs at concentrations less than 100 ppb. Site-related COCs were also detected in soil vapor samples.

Based on the results of the 2006 on-Site SVI evaluation, an off-Site supplemental SVI evaluation was performed to evaluate the residential and commercial area east of the Site. The off-Site SVI evaluation was performed by AECOM from December 2008 through March 2009. The off-Site supplemental SVI evaluation included collection of sub-slab soil gas samples with co-located indoor air samples at residential and commercial properties east of the Site on Commerce Street. The results of the off-Site supplemental SVI evaluation identified concentrations of PCE and TCE in the sub-slab sample collected at an off-Site property on Commerce Street in excess of the New York State Department of Health (NYSDOH) soil vapor/indoor air guideline values listed in Matrix A and Matrix B (NYSDOH, 2017). The analytical results for the six other properties included in the off-Site supplemental SVI evaluation had elevated VOC reporting limits, resulting in non-detection of VOCs.

In February 2010, an additional round of SVI sampling was performed to compare to the initial off-Site supplemental SVI results. The results of the additional round of off-Site supplemental SVI sampling indicated that concentrations of PCE and TCE were still present in the sub-slab soil vapor at the off-Site property on Commerce and Site-related COCs were not detected at the six other properties. Based on the detected concentrations of PCE and TCE in sub-slab soil vapor at the off-Site property, an SSDS was installed to mitigate the sub-slab vapor intrusion to the property. The SSDS at the off-Site property continues to operate with maintenance and inspection activities being performed by HDR Engineering, Inc. of Mahwah, New Jersey.

As recommended by NYSDEC and NYSDOH, a final round of off-Site SVI sampling was performed at three of the six other off-Site properties in March 2012. The results of the final round of off-Site SVI sampling indicated that no further action or mitigation was warranted. SVI sampling was also proposed for a fourth property; however, the property owner did not grant access.

A remedial Site history summary is provided in **Appendix A**.

1.3 Regulatory Requirements and Current Site Status

As discussed above, the components of the 1990 ROD were amended in August 1999 at the Site. The components of the 1999 ROD amendment include the following:

- No further action for source area soils and sediments;
- Extraction of contaminated overburden and bedrock groundwater in the source area and treatment by chemical oxidation and polishing technologies;
- Completion/repair of the existing asphalt cap over the Tailings Dump Area; and,
- Long-term groundwater monitoring to evaluate the effectiveness of both the groundwater extraction and the Tailings Dump Area.

As discussed above, remedial actions were initiated at the Site beginning in the late 1990's when the Tailings Dump Area was capped with asphalt. In November 2003, the GWE&T system was placed into operation and consists of two overburden recovery wells (RW-1S and RW-8S) and one

bedrock recovery well (RW-3D). Recovery wells RW-1S and RW-3D are repurposed monitoring wells, formerly GW-1S and GW-3D. The wells were installed as part of the PDI in December 1997 by American Auger and Ditching, of Constantia, New York (Aztech, 2020).

The GWE&T system initially included treatment of extracted groundwater via UV light and peroxide oxidation. Operational issues resulted in a system shutdown within the first two years of operation. The GWE&T system design was re-evaluated to improve treatment efficiency, reduce costs, and to continue to meet the goals of the 1999 ROD amendment. The GWE&T system redesign was completed in December 2011, and the UV light and peroxide oxidation treatment were replaced by an air stripper.

Since 2011, extracted groundwater has been conveyed via underground piping from the recovery wells to the remedial system shed (see **Figure 1-2**) and is contained in a 1,500-gallon polyethylene batch tank prior to treatment. The extracted groundwater passes through two bag filter units, connected in parallel, prior to treatment in a ShallowTray® model 2341-P air stripper. The air stripper comprises four stripper trays and a sump tank. The air stripper is also equipped with sight tub and alarm switches and gauges connected to a programmable logic controller (PLC) to monitor the operation of the treatment system. Treated groundwater is discharged to Reach B Diversion via underground piping. Reach B Diversion ultimately discharges into Pascack Brook.

Overburden recovery wells RW-1S and RW-8S have been offline since the fall of 2015. Evaluations were performed between 2016 and 2019 to redevelop the overburden recovery wells and install new submersible pumps with associated pressure transducer controllers; however, since the overburden recovery wells have historically yielded low groundwater volumes during extraction, the evaluations concluded that returning RW-1S and RW-8S to operation would not be cost-effective. Bedrock recovery well RW-3D was in operation until July 2022, when it was taken offline as part of the Remedial System Optimization (RSO) enhanced in-situ bioremediation (EISB) pilot study. The RSO EISB pilot study scope of work is presented in **Appendix B**.

As presented in the Pre-Design Investigation (PDI) Report (Ramboll, 2022), the RSO EISB pilot study was initiated in April 2022 to evaluate bedrock conditions to support the design and implementation of the subsurface amendment injections proposed in the RSO. The bedrock evaluation included installation of four shallow bedrock wells (injection wells INJ-1S and INJ-2S and observation wells BDW-1S and BDW-2S), baseline groundwater monitoring, cross-hole and hydraulic conductivity testing, and short-duration injection testing. The PDI results will be used to develop the final amendment injection design and rates for the EISB pilot study. The EISB pilot study results will be reported under separate cover at the conclusion of the pilot study in 2025.

2. Site Institutional and Engineering Controls

The Site is managed under the New York State Inactive Hazardous Waste Disposal Site Remedial Program administered by NYSDEC and is listed by the NYSDEC as a Class 4 Inactive Hazardous Waste Disposal Site (ID No. 3-44-035). Class 4 sites are hazardous waste sites that have been properly closed but, require continued O&M of remedial systems and/or continued site monitoring.

2.1 Institutional Controls

The current Institutional Controls (ICs) governing the Site include the August 1999 ROD amendment and the 2022 SMP. Adherence to ICs is discussed within the SMP prepared by Ramboll (Ramboll, 2022). Adherence to ICs under the SMP include:

- Compliance with the SMP by the owner and remedial party (the remedial party for the purpose of the SMP is the NYSDEC);
- Engineering Controls (ECs), discussed in greater detail below, must be operated or maintained as specified in the SMP;
- ECs at the Site must be inspected at a frequency and manner defined in the SMP;
- Environmental monitoring for public health must be performed as defined in the SMP; and,
- Data and information pertinent to management of the Site must be reported at the frequency and in a manner defined in the SMP.

ICs, and Site restrictions, may not be discontinued without amendment to the SMP and approval from the NYSDEC. The following Site restrictions apply:

- The Site may only be used for commercial/industrial use provided that long-term ECs and ICs included in the SMP are employed;
- The Site may not be used for a higher level of use, such as unrestricted or restricted-residential use, without additional remediation and amendment of the SMP, as approved by the NYSDEC;
- Future activities conducted at the Site that disturb in-situ source soil and/or fill material that could contain potential Site-related COCs must be conducted in accordance with the SMP;
- The use of groundwater underlying the property is prohibited;
- Vegetable gardens and farming on the property are prohibited; and,
- A written statement certifying: 1). The ECs and/or ICs employed at the Site are unchanged from the previous certification or that any changes to the ECs and/or ICs were approved by the NYSDEC; and 2). ECs and/or ICs have not been impaired to protect public health and the environment or that constitute a violation or failure to comply with the SMP. NYSDEC retains the right to access the Site at any time in order to evaluate the continued maintenance of any and all ECs and/or ICs. The certification shall be submitted annually (or at an alternate time acceptable to NYSDEC) and, will be made by an expert that the NYSDEC finds acceptable.

2.2 Engineering Controls

The ECs at the Site consist of the asphalt cap installed over the Tailings Dump Area, a perimeter security fence, the SSDS installed at the off-Site property on Commerce Street, the GWE&T system, and the overburden and bedrock monitoring well network.

Asphalt Cap

The asphalt cap installed over the Tailings Dump Area during the PDI prevents exposure to impacted soil/solid wastes in the Tailings Dump Area.

Perimeter Security Fence

A perimeter security fence was installed around the Tailings Dump Area and the monitoring well network at the Site to limit access.

Sub-Slab Depressurization System

A SSDS was installed by NYSDEC at the off-Site property on Commerce Street to minimize exposure to elevated concentrations of VOCs in sub-slab/indoor air at the property and to mitigate future VOC exposure to the public. The SSDS consists of one centrally located system suction point (SSP) that induces air flow through a RadonAway™ model RP-145 fan. The RP-145 fan is mounted on the southwestern exterior of the property. Continued operation of the SSDS is a component of the overall remedial program for the Site.

Groundwater Extraction and Treatment System

As discussed above, the GWE&T system at the Site consists of two overburden recovery wells, one bedrock recovery well, and a four-tray air stripper. The overburden recovery wells have been offline since 2015 and as discussed in Section 1.3, bedrock recovery well RW-3D was in operation until July 2022. When in operation, treated groundwater from the GW&T system was discharged to Reach B Diversion via underground piping. Reach B Diversion ultimately discharges into Pascack Brook.

Overburden and Bedrock Monitoring Well Network

The Site includes eight original groundwater monitoring and/or recovery wells and four newly installed monitoring and/or injection wells. Wells GW-4S, MW-3, MW-18, RW-1S, and RW-8S are completed within the overburden and wells DW-1, GP-4D, RW-3D, and newly installed wells BDW-1S, BDW-2S, INJ-1S, and INJ-2S are completed within the bedrock. During the RSO EISB well installation, existing monitoring well MW-18 was converted from a stick up to flush mount surface completion to provide access for the drill rig. The newly installed monitoring and injection wells are not part of the current groundwater quality sampling program.

2.3 Certification of Institutional and Engineering Controls

The Institutional and Engineering Controls Certification Form is presented in **Attachment 1**.

3. Site Monitoring and Sampling

3.1 Annual Site Inspection

The annual Site inspection for this reporting period was completed on March 9, 2023. The Site inspection included an evaluation of the current condition of the asphalt cap and security fencing at the Tailings Dump Area to confirm they continue to meet the remedial goals of reducing or eliminating direct human contact with possible contaminated soils and preventing, to the extent practicable, migration of potential contaminated soils/solid waste, as detailed in the ROD. In addition, the Site inspection evaluated other Site conditions, including the presence of vegetative growth and inspection of the rest of the perimeter fence for breaks in the linkage or loose poles. The inspection also included an evaluation of the current recovery well and monitoring well network. In addition, presence of debris, trespassing, and indications of vandalism were also observed during the annual Site inspection. A Site inspection summary is provided in **Appendix C-1**.

As shown in **Appendix C-1**, the asphalt cap over the Tailings Dump Area was observed to be in acceptable condition with no evidence of excessive wear or cracks in the asphalt. The security fencing surrounding the Tailings Dump Area was also in acceptable condition with no breaks in the linkage. Vegetative growth was observed along the portion of the perimeter security fencing surrounding the Tailings Dump Area. Several large holes in the linkage of the portion of the perimeter security fence near the current recovery well and monitoring well network were observed. Debris and evidence of trespassers were also observed near overburden recovery well RW-1S, bedrock recovery well RW-3D, overburden monitoring wells MW-18 and GW-4S, and bedrock monitoring well GP-4D. The surface completions of monitoring and recovery wells were observed to be in functional condition. The recommended maintenance and corrective actions from the annual Site inspection are presented in Section 6.

3.1.1 Sub-Slab Depressurization System Inspection

Ramboll performed a visual inspection of the sub-slab depressurization system (SSDS) located at the off-Site property on March 9, 2023. At the time of the inspection, the fan and the piping outside the basement in acceptable condition and properly supported. The fan was not in operation at the time of the inspection. An attempt was made to contact the property owner to request access for an interior inspection of the system, but they were unavailable. The inspection form is presented in **Appendix C-2** and photo documentation is presented in **Appendix C-1**. Recommended actions for the annual SSDS inspection are presented in Section 6.

3.2 Groundwater Monitoring Program

Groundwater level measurements and groundwater quality samples were collected from Site monitoring and recovery wells MW-3, MW-18, GW-4S, GP-4D, DW-1, RW-1S, RW-3D, and RW-8S on a semi-annual basis during the reporting period. The first semi-annual sampling event was completed on July 26 and 27, 2022, in conjunction with the EISB pilot study baseline sampling event. The second semi-annual sampling event was completed on March 8 and 9, 2023. A summary of the overburden and bedrock monitoring well construction specifications is presented on **Table 3-1**.

3.2.1 Water Level Monitoring

Groundwater level measurements were collected from each of the eight original monitoring and recovery wells prior to collection of groundwater quality samples during each semi-annual sampling event. The groundwater level measurements and corresponding groundwater level elevations are presented on **Table 3-2**.

Hydraulic conditions at the Site are illustrated through groundwater contour maps for the overburden and bedrock hydrostratigraphic units. The groundwater contour maps were prepared based on the groundwater level measurements collected during the semi-annual sampling events. The July 2022 and March 2023 overburden groundwater contour maps are shown on **Figure 3-1** and **Figure 3-3**, respectively. The July 2022 and March 2023 bedrock groundwater contour maps are shown on **Figure 3-2** and **Figure 3-4**, respectively.

As shown on **Figure 3-1** and **Figure 3-3**, groundwater flow in the overburden is generally to the north or northeast towards Pascack Brook and does not appear to be under the influence of formerly active bedrock recovery well RW-3D at this time. As shown on **Figure 3-2** and **Figure 3-4**, groundwater flow in the bedrock is generally to the north or northeast, with localized flow towards formerly active recovery well RW-3D.

3.2.2 Groundwater Quality Sampling

Semi-annual groundwater samples were collected from the eight original groundwater monitoring and recovery wells at the Site. In July 2022, monitoring wells GP-4D and DW-1, and formerly active bedrock recovery well RW-3D were purged and sampled utilizing a bladder pump as part of the EISB pilot study. Monitoring wells GW-4S, MW-3, and MW-18, and inactive recovery wells RW-1S and RW-8S were purged and sampled utilizing dedicated, disposable bailers. In March 2023, monitoring wells DW-1 and GP-4D, and formerly active recovery well RW-3D were purged and sampled utilizing an inertial Waterra pump. Monitoring wells GW-4S, MW-3, and MW-18, and inactive recovery wells RW-1S and RW-8S were purged and sampled utilizing dedicated, disposable bailers.

Field quality assurance/quality control (QA/QC) samples consisted of one blind field duplicate, one matrix spike (MS), one matrix spike duplicate (MSD), and trip blanks for each day of sample collection. Groundwater samples were analyzed for VOCs by USEPA Method 624.1 for the July 2022 event and by USEPA Method 8260D for the March 2023 event by Con-test, a Pace Analytical Laboratory, in East Longmeadow, Massachusetts. The groundwater sampling field forms are provided in **Appendix D**.

Detected constituents in groundwater from the July 2022 and March 2023 semi-annual sampling events are presented on **Table 3-3** and **Table 3-4**, respectively. Detected constituents in overburden and bedrock groundwater for the Site-related COCs are also illustrated on **Figure 3-5** and **Figure 3-6**, respectively.

As presented on **Table 3-3** and illustrated on **Figure 3-5**, in July 2022, Site-related COCs were detected above the New York State Class GA Standards in overburden recovery wells RW-1S and RW-8S, and overburden monitoring well MW-18. TCE was detected in recovery wells RW-1S and RW-8S at concentrations of 7.4 ppb and 8.8 ppb, respectively, slightly above the Class GA Standard of 5 ppb. In overburden monitoring well MW-18, total DCE was detected at a concentration of 19 ppb, above the Class GA Standard of 5 ppb and VC was detected at a concentration of 9.8 ppb, above the Class GA Standard of 2 ppb. As presented on **Table 3-3** and illustrated on **Figure 3-6**, PCE was detected in RW-3D at a concentration of 230 ppb, TCE was detected at a concentration of 240 ppb, and total DCE was detected at a concentration of 120 ppb, each above the Class GA Standards for these constituents of 5 ppb. The remaining Site-related COCs detected in overburden monitoring and inactive recovery wells were below their respective Class GA Standards.

As presented on **Table 3-4** and **Figure 3-5**, in March 2023, Site-related COCs were detected above the New York State Class GA Standards in overburden recovery well RW-8S and

overburden monitoring well MW-18. In recovery well RW-8S total DCE and TCE were detected at concentrations of 5.7 ppb and 7.1 ppb, respectively, slightly above the Class GA Standards of 5 ppb. In monitoring well MW-18, total DCE and VC were detected at 56 ppb and 55 ppb, respectively, above the Class GA Standards of 5 ppb and 2 ppb, respectively. As presented on **Table 3-4** and illustrated on **Figure 3-6**, PCE was detected in RW-3D at a concentration of 180 ppb, TCE was detected at a concentration of 180 ppb, and total DCE was detected at a concentration of 120 ppb, each above the Class GA Standards for these constituents of 5 ppb. The remaining Site-related COCs detected in overburden monitoring and inactive recovery wells were below their respective Class GA Standards.

A laboratory analytical results summary is provided in **Appendix E**. Data validation was performed for the July 2022 and March 2023 semi-annual sampling events by Vali-Data of WNY, LLC, located in Fulton, New York. The data usability summary reports (DUSRs) are provided in **Appendix F**.

The detected concentrations of Site-related COCs during this reporting period are consistent with historical results. Historical concentration trend plots of Site-related COCs are provided in **Appendix G**. Recommended actions for the groundwater quality sampling are presented in Section 6.

3.3 Groundwater Extraction and Treatment System Operations

Operation, maintenance, and repair activities are routinely performed by LaBella to maintain the efficiency of the GWE&T system. The GWE&T system was temporarily shut down on April 7, 2022, in preparation for drilling associated with the EISB pilot study near bedrock recovery well RW-3D. Bedrock recovery well RW-3D was returned to operation on May 9, 2022. In addition, the system was shut down in June to accommodate for development of the newly installed monitoring and injection wells. The pump was taken offline again and removed on July 18, 2022, ahead of the EISB baseline groundwater sampling event. Based on these shutdowns and the removal of the pump in July 2022, the system operated for approximately 12 days during the reporting period, with an average flow rate of approximately 26 gpm. Approximately 296,710 gallons of groundwater were treated and discharged by the GWE&T system during the reporting period.

Maintenance and repair activities performed during the reporting period were documented in the quarterly system monitoring reports prepared by LaBella. The quarterly system monitoring reports are provided in **Appendix H**. A summary of the routine and non-routine activities performed by LaBella during the reporting period are presented below.

Routine Activities

Sampling Visit:

- The system was inspected for issues and unusual operation.
- Valves on the air stripper effluent were exercised and cleaned, if needed.
- Samples were collected from the system.
- Parameters were recorded on the site visit log, including the pump speeds and flow for RW-3D, and discharge and pressure of bag filters.
- The air stripper was cleaned every six months and trays were unclogged using acid.
- Performed grounds maintenance.

Non-sampling Visit:

- The system was inspected for issues and unusual operation.
- Bag filters were changed.

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- Parameters were recorded on the site visit log, including the pump speeds and flow for RW-3D, and discharge and pressure of bag filters.
- Pressures were recorded before and after bag filter was changed.
- Performed grounds maintenance.

Non-Routine Activities

- The system was reset as needed due to unexpected shutdowns (i.e., temporary power failure).
- Drums of spent bag filters were removed and replaced as they were filled.
- Bag filters were restocked.
- The pump from RW-3D was removed from the well.

3.3.1 Groundwater Extraction and Treatment System Performance

Compliance samples were collected each month the GWE&T system was in operation (May 2022 – July 2022) to monitor system effectiveness. Compliance samples serve to document that treatment system discharge limits are maintained. Influent and effluent samples were collected and analyzed for VOCs by USEPA Method 624.1, Total Dissolved Solids (TDS) by Standard Method (SM) 2540C, and pH by SM 4500HB by Con-test, a Pace Analytical Laboratory, of East Longmeadow, Massachusetts. Site-related COCs were detected below the effluent limitations and monitoring requirements set forth in the September 9, 2020 NYSDEC State Pollutant Discharge Elimination System (SPDES) permit equivalent for the Site (NYSDEC, 2020) during each monthly sampling event. Groundwater treated by the GWE&T system discharges to Reach B Diversion, ultimately discharging into Pascack Brook. Monthly influent and effluent VOC, TDS, and pH data are presented in **Appendix H**.

4. Site Cost Evaluation

The Site cost evaluation summarizes the costs for the period of April 1, 2022, through April 1, 2023, the approximate reporting period for this PRR. The costs are itemized by NYSDEC subcontractor (Ramboll and LaBella). The approximate costs are presented on **Table 4-1**. Overall, the total approximate cost for Ramboll and LaBella Site activities was \$58,900. Ramboll Site activities included subcontractor coordination, two semi-annual groundwater sampling events, in July 2022 and March 2023, and reporting. LaBella Site activities included the O&M of the GWE&T system, monthly sampling, and reporting.

5. Conclusions and Recommendations

5.1 Conclusions

During this reporting period, the Tailings Dump Area was observed to be in acceptable condition with no evidence of excessive wear or cracks in the asphalt cover. The security fencing surrounding the Tailings Dump Area was also generally in acceptable condition with no break in the linkage. Both the asphalt cap and security fencing continue to meet the remedial goals of the ROD. However, several large holes in the linkage of the portion of the perimeter security fence near the current monitoring and recovery well network were observed, in addition to a damaged section of the perimeter security fence north of West Central Avenue, adjacent to the Tailings Dump Area. In addition, debris was observed along the Tailings Dump Area fence and the near monitoring well network (see **Appendix C**).

Although the GWE&T system was in operation for a limited time during the reporting period, the results of the groundwater quality sampling indicate that the overburden and bedrock groundwater conditions are still meeting the remedial goals for the Site since migration of contaminated groundwater has not been observed in side gradient or downgradient monitoring wells and detected concentrations of Site-related COCs during this reporting period remained consistent with historical results.

The results of the GWE&T system influent and effluent sampling show that the system was effective reducing Site-related COC concentrations from recovered groundwater to below the effluent limitations established in the SPDES permit equivalent during the reporting period. The GWE&T system was shut down and the pump was removed from bedrock recovery well RW-3D on July 18, 2022.

The RSO EISB pilot study was initiated in April 2022 to support the design and implementation of the subsurface amendment injections. Since the proposed activities of RSO EISB pilot study, with the exception of shutting down the GWE&T system, will not impact most of the ICs, Site Restrictions, and ECs for the Site, the Site remedy will continue to be protective of human health and the environment during the implementation of the EISB pilot study. Results for the EISB pilot study will be reported under separate cover.

5.2 Recommendations

Based on a review of the annual Site inspection, the monitoring and hydraulic data collected in 2022 and 2023, and the requirements of the 1999 ROD amendment, the following recommendations are presented:

- Tailings Dump Area – It is recommended that continued monitoring of the vegetative growth along the perimeter security fence and debris along the western portion of the Tailings Dump Area be performed as described in the SMP.
- SSDS Inspection – It is recommended that subsequent attempts be made to contact the property owner of the SSDS on Commerce Street to inspect the interior components of the SSDS system as described in the SMP.

6. References

- Aztech Environmental Technologies, 2016. *Site Management Plan Volume I COSCO*, Spring Valley, Rockland County, New York. NYSDEC Site No.:3-44-035. Prepared for the New York State Department of Environmental Conservation. January 21, 2016.
- Aztech Environmental Technologies, 2020. *Periodic Review Report COSCO*, Spring Valley, Rockland County, New York. Covering the Time Period from April 4, 2019 through April 4, 2020. NYSDEC Site No.:3-44-035. Prepared for the New York State Department of Environmental Conservation. May 1, 2020.
- New York State Department of Environmental Conservation (NYSDEC), 1998 with all current addendums. Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, Division of Water Technical and Operational Guidance Series (1.1.1). June 17, 1998.
- New York State Department of Environmental Conservation (NYSDEC), 1999. *Record of Decision Amendment COSCO/CPC Site*, Spring Valley, Rockland County, New York. NYSDEC Site No.: 3-44-035. August 2, 1999.
- New York State Department of Environmental Conservation (NYSDEC), 2006. 6 NYCRR Part 375, Subpart 375.6: Remedial Program Soil Cleanup Objectives (SCOs). December 14, 2006.
- New York State Department of Environmental Conservation (NYSDEC), 2020. *Memorandum SPDES Permit Equivalent: COSCO.CPC, DER Site ID# 344035*. September 9, 2020.
- New York State Department of Health (NYSDOH), 2017. *Guidance for Evaluating Soil Vapor Intrusion in the State of New York* (October 2006), and Updates May 2017.
- Ramboll, 2020. *Schedule 1 Scope of Work Assignment Package for the COSCO Site*, Spring Valley, New York. Work Assignment #D009810-03. NYSDEC Site No.:3-44-035. June 1, 2020.
- Ramboll, 2022. *Site Management Plan NYSDEC COSCO Site*, 2022. Spring Valley, Rockland County, New York. NYSDEC Site No.:3-44-035. Prepared for the New York State Department of Environmental Conservation. August, 2022.
- Ramboll, 2022. *Pre-Design Investigation Report NYSDEC COSCO Site*, 2022. Spring Valley, Rockland County, New York. NYSDEC Site No.:3-44-035. Prepared for the New York State Department of Environmental Conservation. October 31, 2022.

TABLES

Table 3-1
Overburden and Bedrock Monitoring Well Summary
NYSDEC COSCO Site
Spring Valley, New York

Well	Geologic Unit	Measuring Point Elevation (ft amsl)	Well Diameter (inches)	Total Depth of Well (ft bmp)	Screen Interval (ft bg)
MW-3	Overburden	98.64	2.0	16.75	?-16.8
MW-18	Overburden	99.32	2.0	23.00	11.0-23.0
GW-4S	Overburden	101.49	2.0	25.00	10.0-25.0
RW-1S	Overburden	101.00	4.0	28.00	10.0-25.0
RW-8S	Overburden	97.74	4.0	25.00	10.0-25.0
DW-1	Bedrock	100.12	4.0	66.00	51.0-61.0 ^a
GP-4D	Bedrock	101.01	2.0	99.00	41.0-99.0
RW-3D	Bedrock	100.54	4.0	102.50	41.0-102.5

Notes:

1. "NYSDEC" designates New York State Department of Environmental Conservation.
2. "ft amsl" designates elevations are in feet above mean sea level.
3. "ft bmp" designates feet below measuring point.
4. "ft bg" designates feet below grade.
5. Table modified from April 4, 2019 through April 4, 2020 Periodic Review Report prepared by Aztech Environmental Technologies (Aztech, 2020).
6. "^a" designates five-foot sump present from 61.0-66.0 feet below grade.
7. RW-1S and RW-8S are inactive overburden recovery wells.
RW-3D is a formerly active bedrock recovery well.

Table 3-2
Summary of Water Level Measurements and Groundwater Elevations
NYSDEC COSCO Site
Spring Valley, New York

Well	Geologic Unit	Measuring Point Elevation (ft amsl)	July 2022		March 2023	
			Depth to Water (ft bmp)	Water Level Elevation (ft amsl)	Depth to Water (ft bmp)	Water Level Elevation (ft amsl)
MW-3	Overburden	98.64	12.01	86.63	10.95	87.69
MW-18	Overburden	99.32	8.94	90.38	10.12	89.2
GW-4S	Overburden	101.49	13.32	88.17	13.10	88.39
RW-1S	Overburden	101.00	13.85	87.15	13.99	87.01
RW-8S	Overburden	97.74	10.96	86.78	11.02	86.72
DW-1	Bedrock	100.12	26.58	73.54	27.85	72.27
GP-4D	Bedrock	101.01	12.60	88.41	12.44	88.57
RW-3D	Bedrock	100.54	47.66	52.88	50.2	50.34

Notes:

1. "NYSDEC" designates New York State Department of Environmental Conservation.
2. "ft amsl" designates elevations are in feet above mean sea level.
3. "ft bmp" designates feet below measuring point.
6. Water levels measured by Ramboll Americas Engineering Solutions, Inc.

Table 3-3
Summary of Detected Constituents in Groundwater - July 2022
NYSDEC COSCO Site
Spring Valley, New York

Compounds	Regulatory Criteria	DW-1	GP-4D	GW-4S	MW-3	MW-18	RW-1S	RW-3D	RW-8S	RW-8S	Trip Blank	Trip Blank
		7/27/2022	7/26/2022	7/26/2022	7/27/2022	7/26/2022	7/27/2022	7/27/2022	7/27/2022	7/27/2022	7/27/2022	7/26/2022
2-Butanone	50	20 U	20 U	20 U	4.2 J	20 U	20 U	80 U	20 U	20 U	20 U	20 U
Acetone	50	50 U	50 U	50 U	20 J	50 U	50 U	200 U	50 U	50 U	50 U	50 U
Chloroethane	5	2.0 U	2.0 U	2.0 U	0.69 J	2.0 U	2.0 U	8.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Chloroform	7	0.33 J	0.34 J	2.0 U	2.0 U	2.0 U	2.0 U	8.0 U	2.0 U	2.0 U	2.0 U	2.0 U
cis-1,2-Dichloroethene	5 ³	1.0 U	1.0 U	0.42 J	0.15 J	19	0.59 J	120 D	4.8	5.5	1.0 U	1.0 U
Tetrachloroethene	5	2.8	1.0 U	1.0 U	1.0 U	1.4	2.1	230 D	1.1	1.1	1.0 U	1.0 U
trans-1,2-Dichloroethene	5 ³	1.0 U	1.0 U	1.0 U	1.0 U	0.23 J	0.20 J	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	5	2.1	1.0 U	4.5	1.0 U	2.1	7.4	240 D	8.8	9.2	1.0 U	1.0 U
Vinyl chloride	2	2.0 U	2.0 U	2.0 U	2.0 U	9.8	2.0 U	8.0 U	0.21 J	0.22 J	2.0 U	2.0 U

Notes:

1. Samples analyzed for volatile organic compounds using United States Environmental Protection Agency (EPA) Method 8260D by Pace New England in East Longmeadow, Massachusetts.
2. Regulatory criteria are 6NYCRR Part 703 Surface Water and Groundwater Quality Standards and Groundwater Effluent Limitations and Ambient Water Quality Standards and Guidance Values from New York State Department of Environmental Conservation (NYSDEC) Technical and Operational Guidance Series (TOGS) 1.1.1. Class GA Standards and Guidance Values, June 1998, with all current addendums.
3. ³To be conservative, the individual Class GA Standard is used for cis-1,2-dichloroethene and trans-1,2-dichloroethene.
4. Results are reported in parts per million (ppm).
5. "U" indicates that the compound was not detected at or above the practical quantitation limit shown.
6. "J" indicates that the compound was detected at an estimated concentration.
7. "D" indicates that that value is the result of a dilution.
8. Blind duplicate shown immediately after parent sample.
9. Values that are bold indicate exceedance of criteria.

Table 3-4
Summary of Detected Constituents in Groundwater - March 2023
NYSDEC COSCO Site
Spring Valley, New York

Compounds	Regulatory Criteria	DW-1	GP-4D	GW-4S	MW-18	MW-3	RW-1S	RW-3D	RW-8S	RW-8S	Trip Blank	Trip Blank
		3/8/2023	3/8/2023	3/8/2023	3/9/2023	3/8/2023	3/9/2023	3/9/2023	3/8/2023	3/8/2023	3/8/2023	3/9/2023
1,1-Dichloroethene	5	1.0 U	1.0 U	1.0 U	0.18 J	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Acetone	50	3.3 J	2.7 J	50 U	3.2 J	7.9 J	50 U	100 U	4.7 J	4.3 J	2.9 J	50 U
Chloroform	7	0.48 J	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	4.0 U	2.0 U	2.0 U	0.20 J	0.22 J
Chloromethane	5	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	4.0 U	2.0 U	2.0 U	2.0 U	2.0 U
cis-1,2-Dichloroethene	5 ³	1.0 U	1.0 U	0.66 J	56	1.0 U	0.74 J	120 D	5.7	5.5	1.0 U	1.0 U
Tetrachloroethene	5	1.6	1.0 U	0.19 J	0.41 J	1.0 U	1.3	180 D	0.74 J	0.73 J	1.0 U	1.0 U
trans-1,2-Dichloroethene	5 ³	1.0 U	1.0 U	1.0 U	0.40 J	1.0 U	0.24 J	0.44 JD	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	5	1.3	1.0 U	4.3	1.2	1.0 U	5.0	180 D	7.1	6.9	1.0 U	1.0 U
Vinyl chloride	2	2.0 U	2.0 U	2.0 U	55	2.0 U	2.0 U	4.0 U	2.0 U	2.0 U	2.0 U	2.0 U

Notes:

1. Samples analyzed for volatile organic compounds using United States Environmental Protection Agency (EPA) Method 8260D by Pace New England in East Longmeadow, Massachusetts.
2. Regulatory criteria are 6NYCRR Part 703 Surface Water and Groundwater Quality Standards and Groundwater Effluent Limitations and Ambient Water Quality Standards and Guidance Values from New York State Department of Environmental Conservation (NYSDEC) Technical and Operational Guidance Series (TOGS) 1.1.1. Class GA Standards and Guidance Values, June 1998, with all current addendums.
3. ³To be conservative, the individual Class GA Standard is used for cis-1,2-dichloroethene and trans-1,2-dichloroethene.
4. Results are reported in parts per million (ppm).
5. "U" indicates that the compound was not detected at or above the practical quantitation limit shown.
6. "J" indicates that the compound was detected at an estimated concentration.
7. "D" indicates that that value is the result of a dilution.
8. Blind duplicate shown immediately after parent sample.
9. Values that are bold indicate exceedance of criteria.

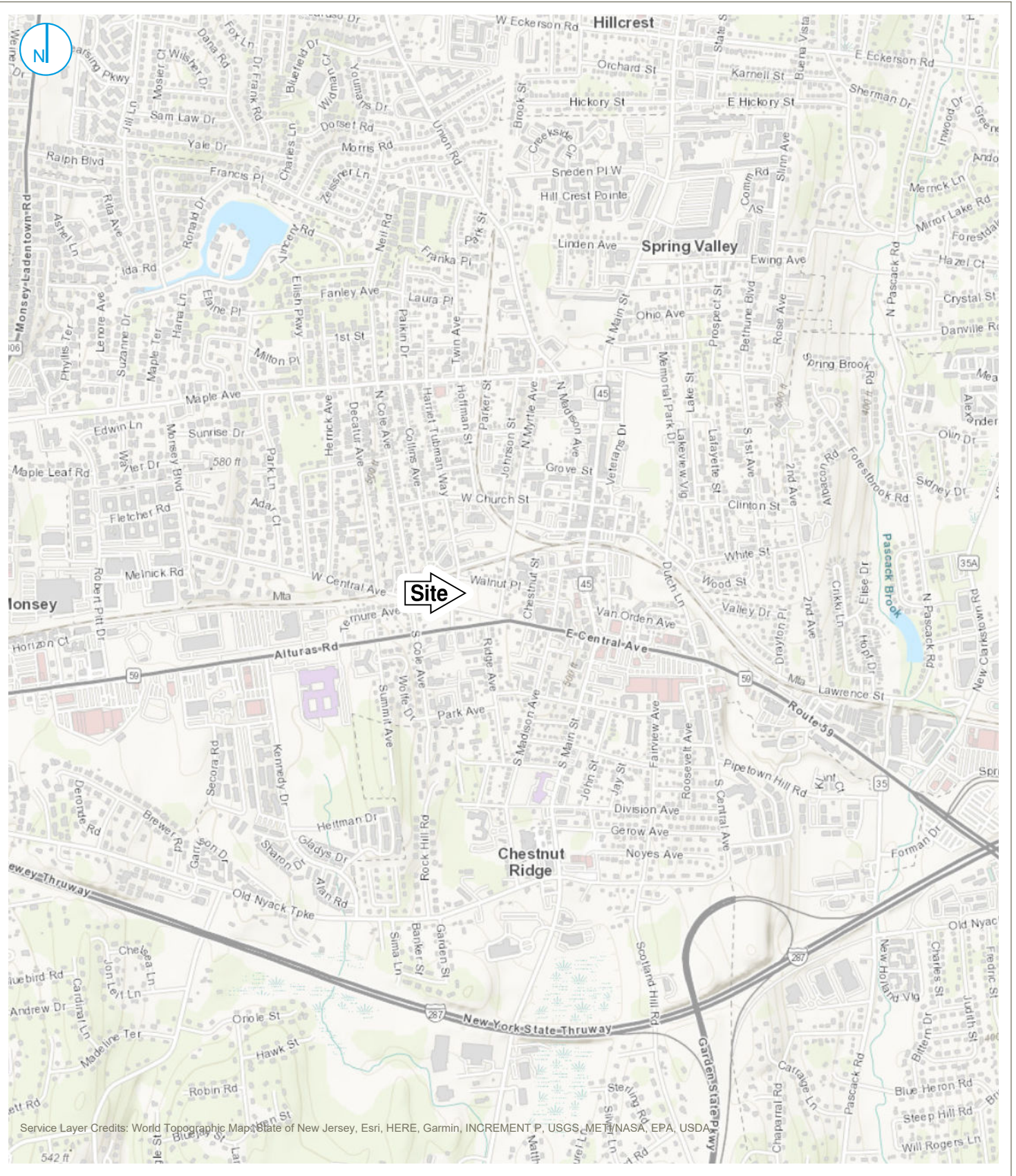
Table 4-1
Site Operational Costs GWE&T System and Site Monitoring, Sampling, and Reporting
NYSDEC COSCO Site
Spring Valley, New York

Summary of Approximate Costs		
Cost Items	Amount Expended (April 1, 2022 through April 1, 2023)	Percent of Total Cost
Groundwater Extraction and Treatment System Operation and Maintenance, Monthly Sampling, and Reporting ^a	\$16,500	28%
Semi-Annual Sampling, Monitoring, and Reporting ^b	\$42,400	72%

Notes:

1. "GWE&T" designates groundwater extraction and treatment.
2. "NYSDEC" designates New York State Department of Environmental Conservation.
3. "^a" costs include operation, maintenance, monitoring, monthly sampling, and reporting activities incurred by LaBella Associates. Reporting costs include the quarterly system monitoring reports.
4. "^b" costs include the first and second semi-annual sampling events, the semi-annual post groundwater monitoring report, the 2022/2023 periodic review report and updates to the site management plan. Additional costs associated with subcontractor coordination are also included. Costs do not include the remedial system optimization enhanced in-situ bioremediation pilot study implementation and reporting.

FIGURES



SITE LOCATION MAP

FIGURE 1-1

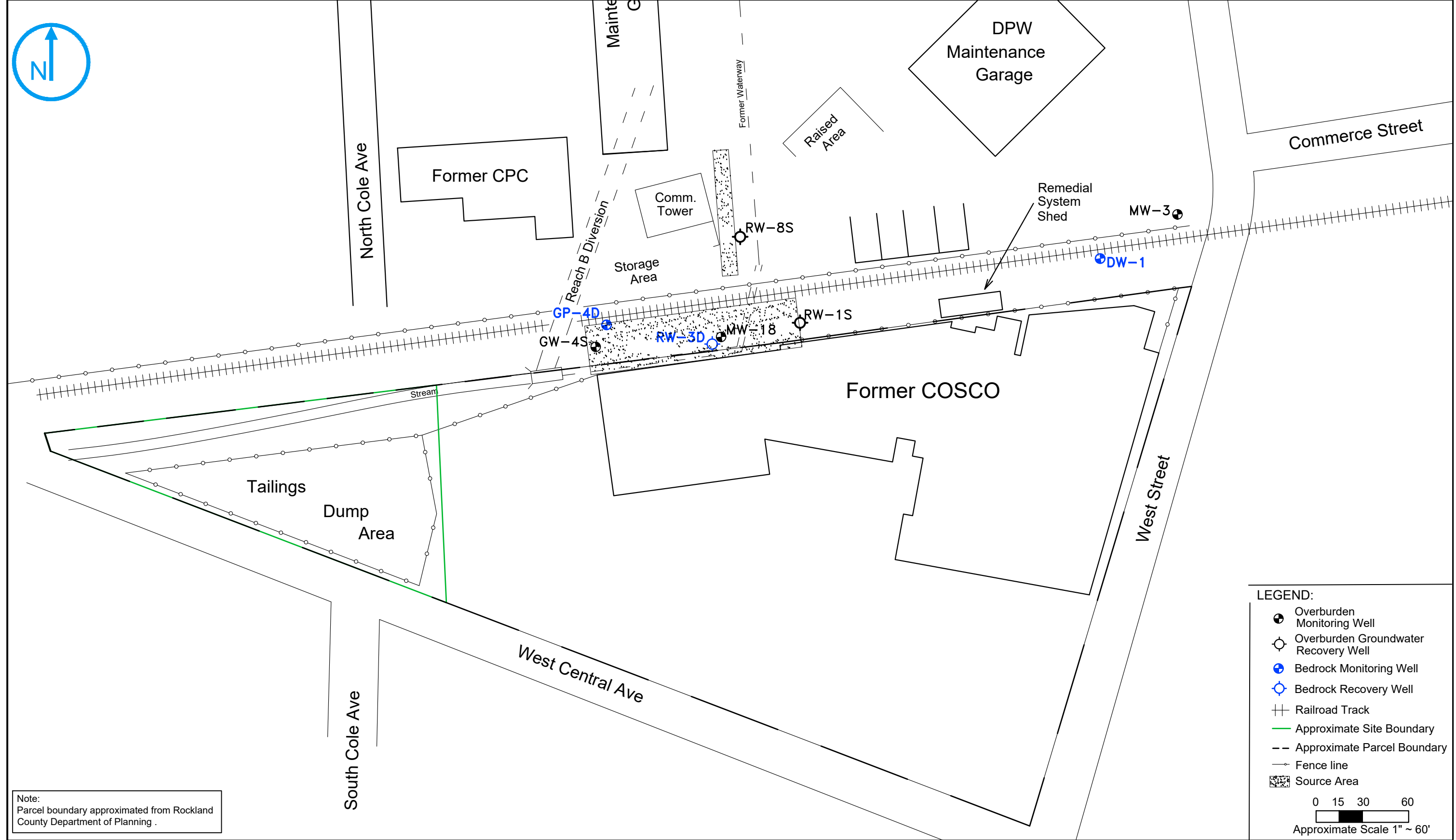
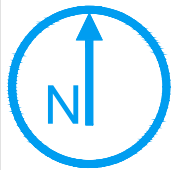


0 1,000 2,000 Feet

NYSDEC COSCO SITE
 15 West Street
 Spring Valley, New York
 NYSDEC Site ID No. 3-44-035

RAMBOLL US CONSULTING, INC.
 A RAMBOLL COMPANY





Note:
Parcel boundary approximated from Rockland
County Department of Planning .

LEGEND:

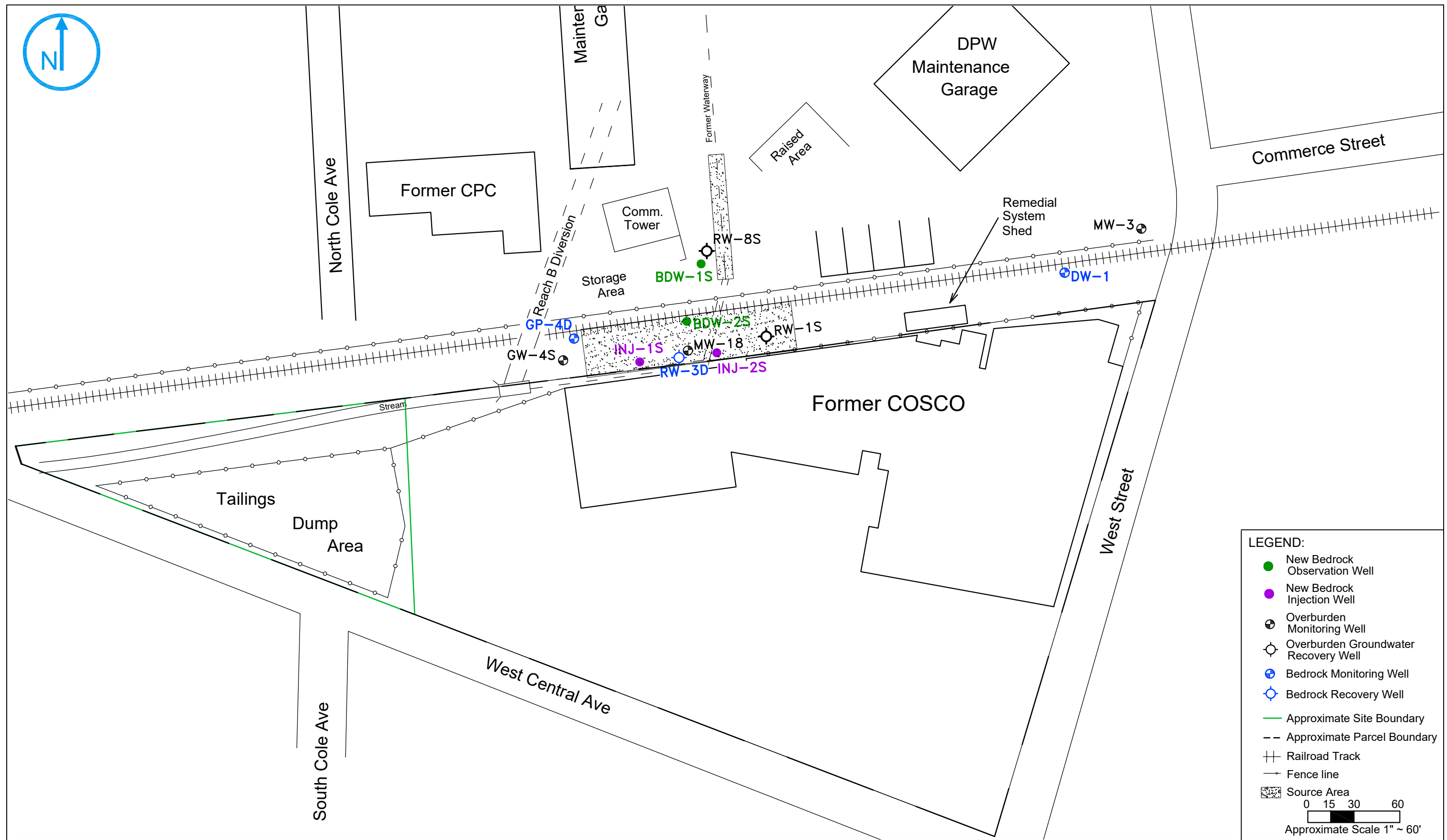
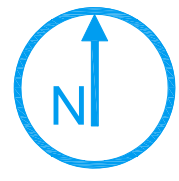
- Overburden Monitoring Well
- Overburden Groundwater Recovery Well
- Bedrock Monitoring Well
- Bedrock Recovery Well
- Railroad Track
- Approximate Site Boundary
- Approximate Parcel Boundary
- Fence line
- Source Area

0 15 30 60
Approximate Scale 1" ~ 60'



NYSDEC COSCO
SPRING VALLEY, NEW YORK
MONITORING AND EXTRACTION
WELL LOCATION MAP

FILE NO.
75217
DATE
APRIL 2023



LEGEND:

- New Bedrock Observation Well
- New Bedrock Injection Well
- Overburden Monitoring Well
- Overburden Groundwater Recovery Well
- Bedrock Monitoring Well
- Bedrock Recovery Well
- Approximate Site Boundary
- Approximate Parcel Boundary
- |+| Railroad Track
- Fence line
- Source Area

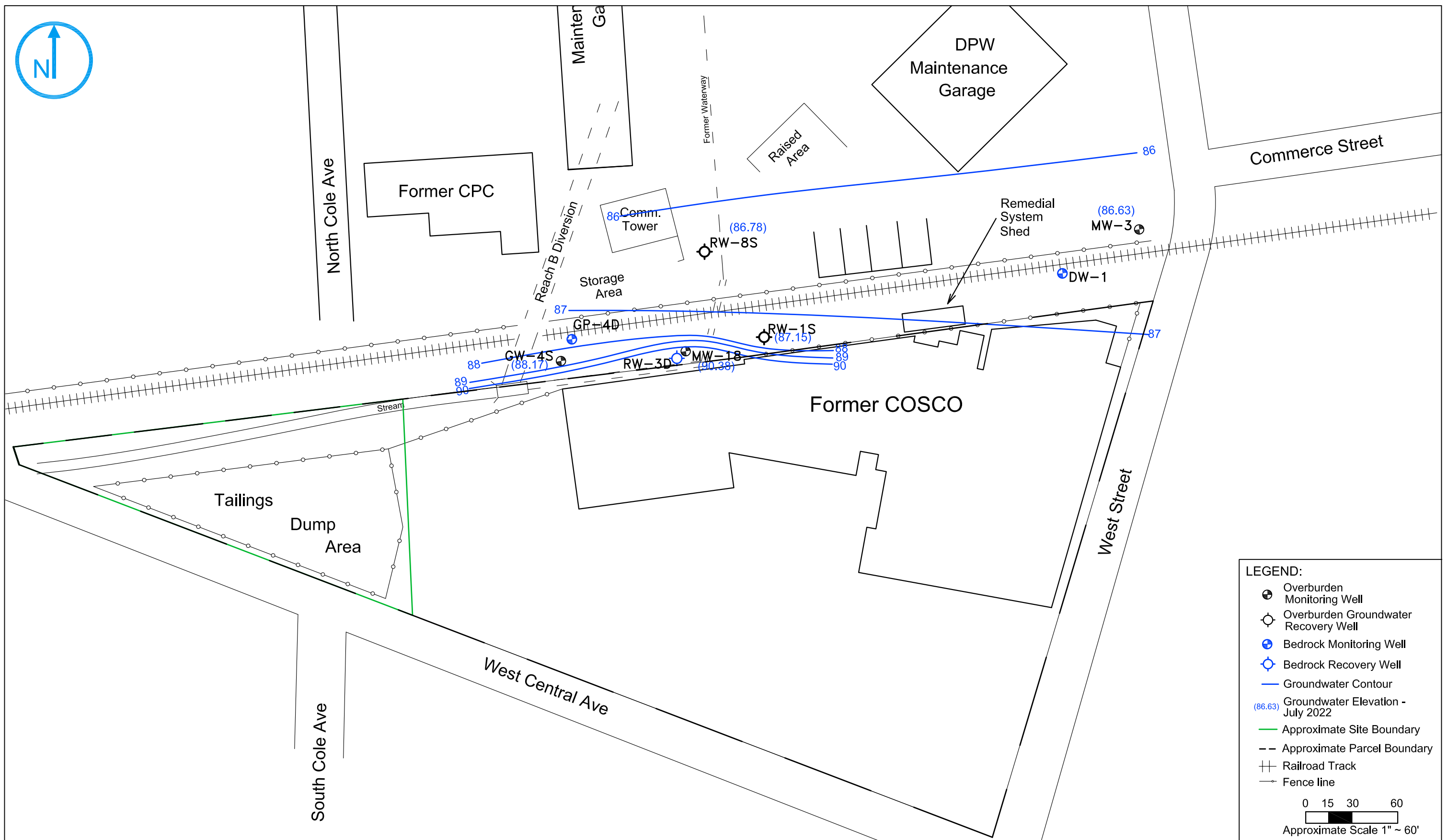
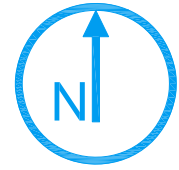
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NYSDEC COSCO
 SPRING VALLEY, NEW YORK
**EISB INJECTION AND
 MONITORING WELL
 LOCATION MAP**

FILE NO.	75217
DATE	APRIL 2023

1-3

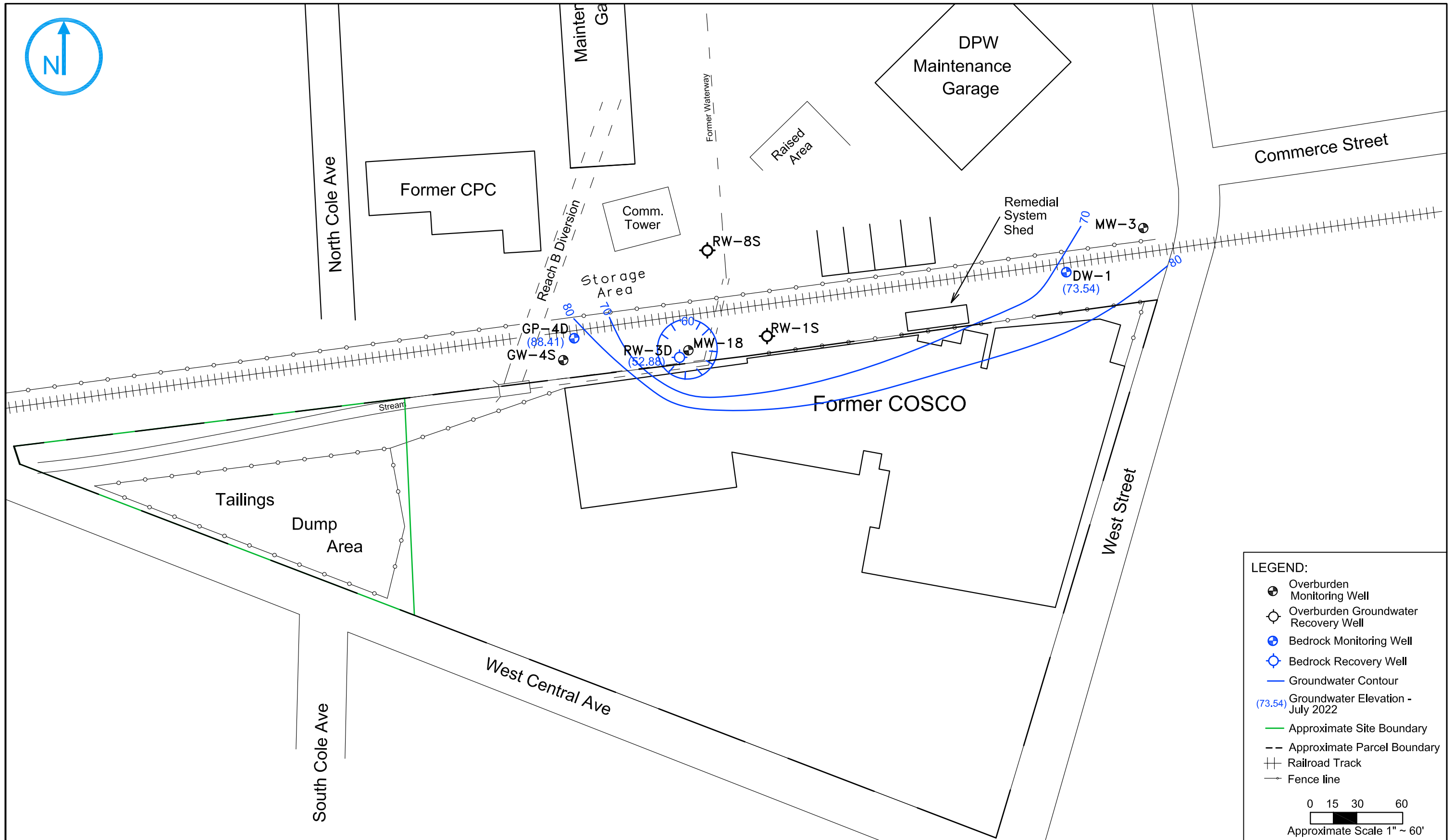
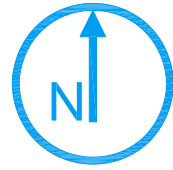


LEGEND:

- Overburden Monitoring Well
- Overburden Groundwater Recovery Well
- Bedrock Monitoring Well
- Bedrock Recovery Well
- Groundwater Contour
- Groundwater Elevation - July 2022
- Approximate Site Boundary
- Approximate Parcel Boundary
- Railroad Track
- Fence line

0 15 30 60
 Approximate Scale 1" ~ 60'

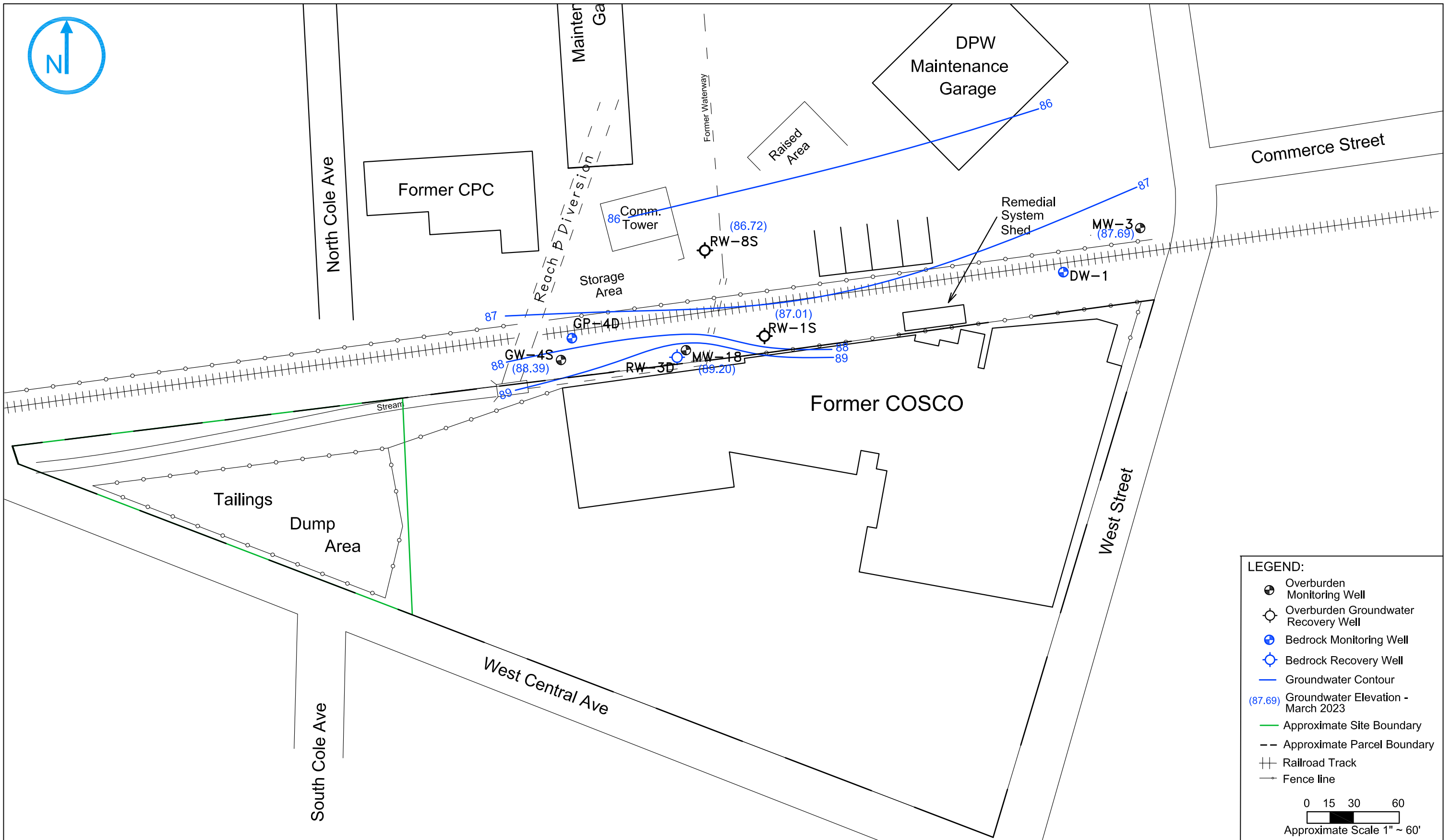
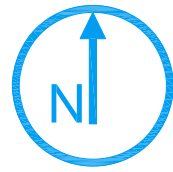
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	OVERBURDEN GROUNDWATER ELEVATION CONTOUR MAP - JULY 2022		DATE APRIL 2023	



NYSDEC COSCO
 SPRING VALLEY, NEW YORK
 BEDROCK GROUNDWATER
 ELEVATION CONTOUR MAP –
 JULY 2022

FILE NO.
 75217
 DATE
 APRIL 2023

3-2

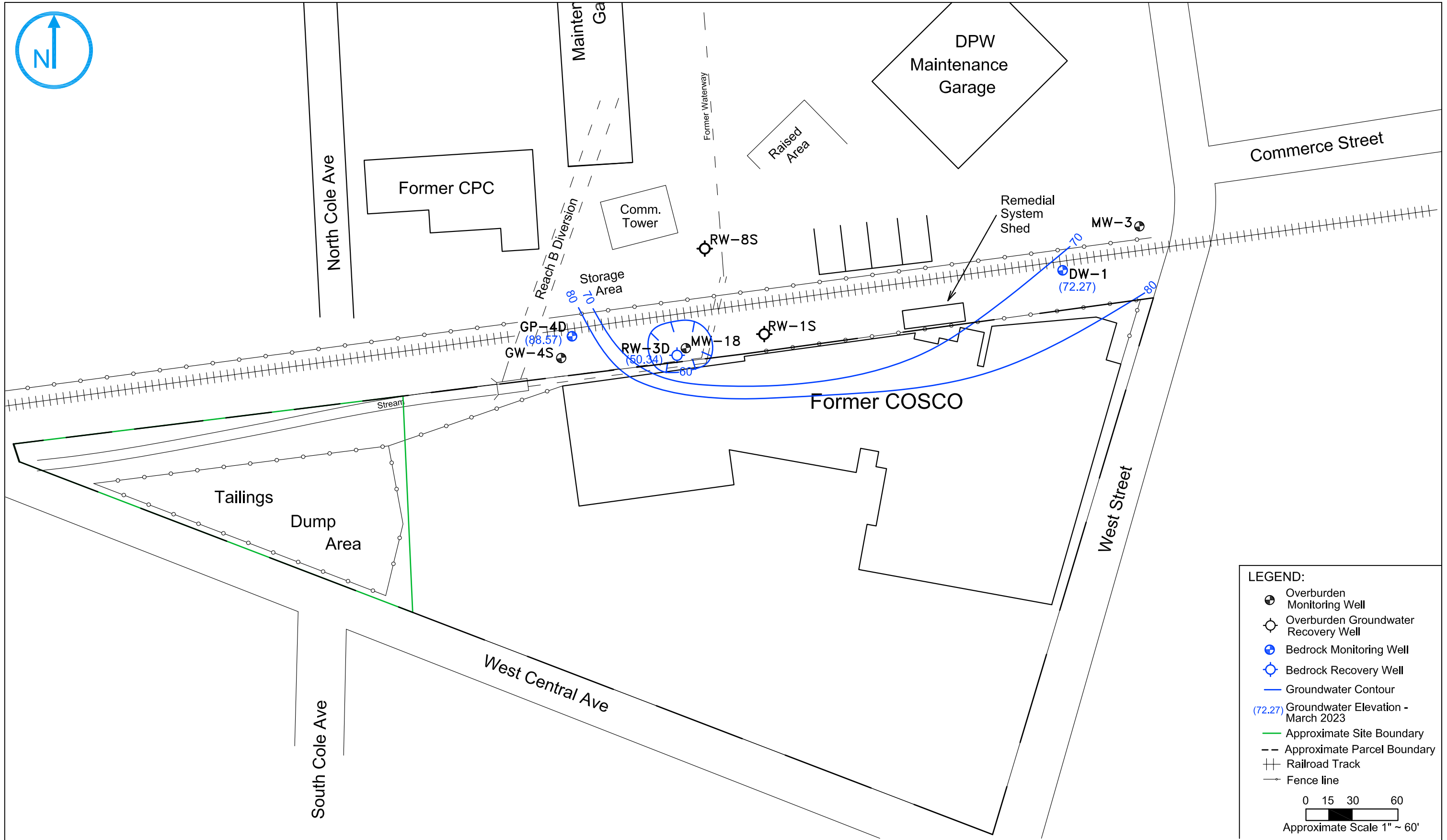
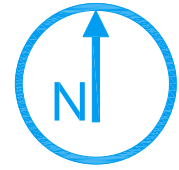


LEGEND:

- Overburden Monitoring Well
- Overburden Groundwater Recovery Well
- Bedrock Monitoring Well
- Bedrock Recovery Well
- Groundwater Contour
- Groundwater Elevation - March 2023
- Approximate Site Boundary
- Approximate Parcel Boundary
- Railroad Track
- Fence line

0 15 30 60
Approximate Scale 1" ~ 60'

	NYSDEC COSCO SPRING VALLEY, NEW YORK		FILE NO. 75217	3-3
	OVERBURDEN GROUNDWATER ELEVATION CONTOUR MAP - MARCH 2023		DATE APRIL 2023	

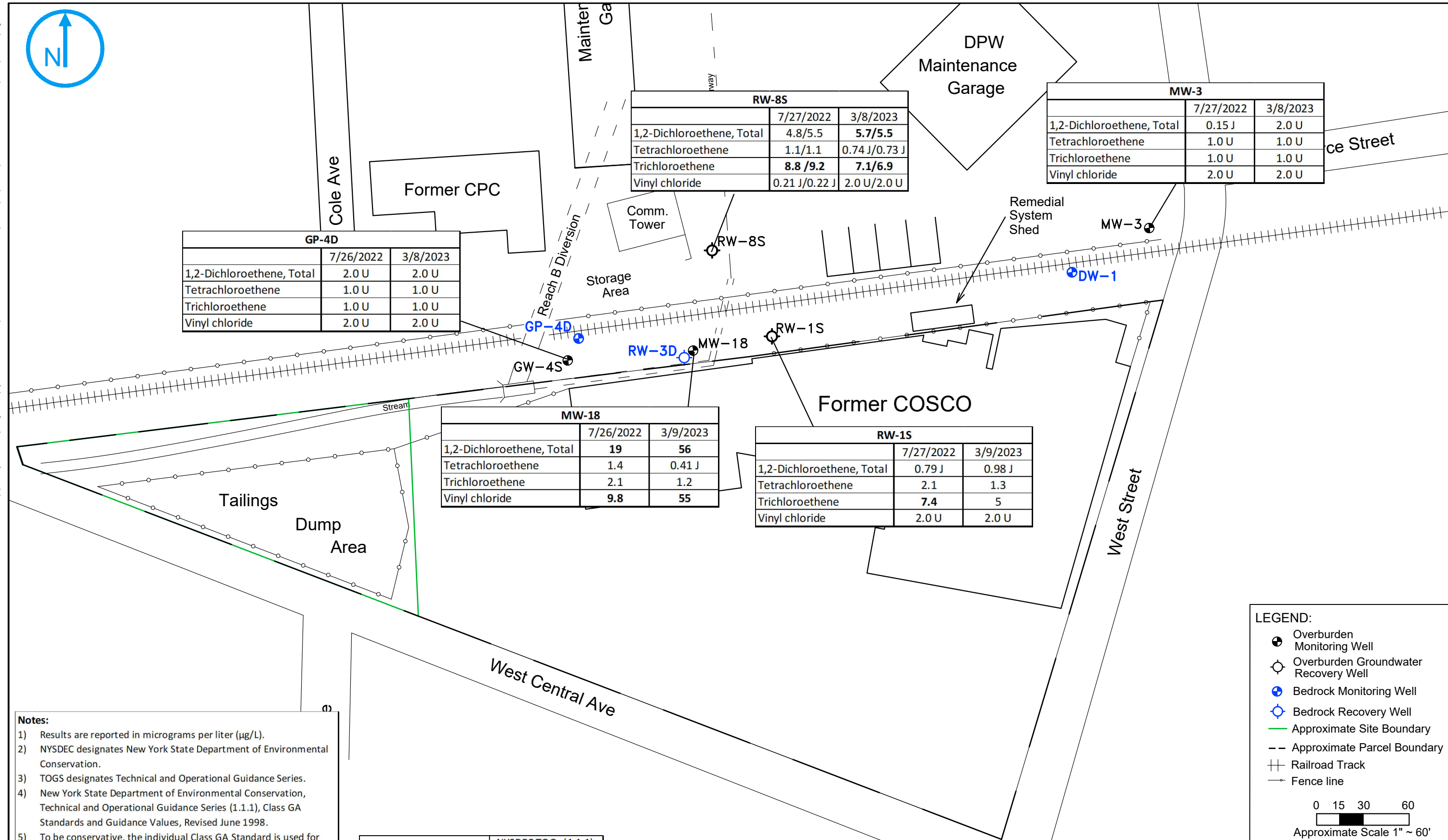
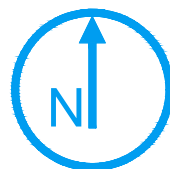


LEGEND:

- Overburden Monitoring Well
- Overburden Groundwater Recovery Well
- Bedrock Monitoring Well
- Bedrock Recovery Well
- Groundwater Contour
- (72.27) Groundwater Elevation - March 2023
- Approximate Site Boundary
- Approximate Parcel Boundary
- Railroad Track
- Fence line

0 15 30 60
Approximate Scale 1" ~ 60'

	NYSDEC COSCO SPRING VALLEY, NEW YORK		FILE NO. 75217	3-4
	BEDROCK GROUNDWATER ELEVATION CONTOUR MAP - MARCH 2023		DATE APRIL 2023	



RW-8S		
	7/27/2022	3/8/2023
1,2-Dichloroethene, Total	4.8/5.5	5.7/5.5
Tetrachloroethene	1.1/1.1	0.74 J/0.73 J
Trichloroethene	8.8/9.2	7.1/6.9
Vinyl chloride	0.21 J/0.22 J	2.0 U/2.0 U

MW-3		
	7/27/2022	3/8/2023
1,2-Dichloroethene, Total	0.15 J	2.0 U
Tetrachloroethene	1.0 U	1.0 U
Trichloroethene	1.0 U	1.0 U
Vinyl chloride	2.0 U	2.0 U

GP-4D		
	7/26/2022	3/8/2023
1,2-Dichloroethene, Total	2.0 U	2.0 U
Tetrachloroethene	1.0 U	1.0 U
Trichloroethene	1.0 U	1.0 U
Vinyl chloride	2.0 U	2.0 U

MW-18		
	7/26/2022	3/9/2023
1,2-Dichloroethene, Total	19	56
Tetrachloroethene	1.4	0.41 J
Trichloroethene	2.1	1.2
Vinyl chloride	9.8	55

RW-1S		
	7/27/2022	3/9/2023
1,2-Dichloroethene, Total	0.79 J	0.98 J
Tetrachloroethene	2.1	1.3
Trichloroethene	7.4	5
Vinyl chloride	2.0 U	2.0 U

- Notes:**
- 1) Results are reported in micrograms per liter (µg/L).
 - 2) NYSDEC designates New York State Department of Environmental Conservation.
 - 3) TOGS designates Technical and Operational Guidance Series.
 - 4) New York State Department of Environmental Conservation, Technical and Operational Guidance Series (1.1.1), Class GA Standards and Guidance Values, Revised June 1998.
 - 5) To be conservative, the individual Class GA Standard is used for cis-1,2-dichloroethene and trans-1,2-dichloroethene.
 - 6) U indicates that the compound was not detected at or above the practical quantitation limit shown.
 - 7) J indicates that the compound was detected at an estimated concentration.
 - 8) D indicates that that value is the result of a dilution.
 - 9) Values that are bold indicate exceedance of criteria.

	NYSDEC TOGs (1.1.1), Class GA Standards and Guidance Values
1,2-Dichloroethene, Total	5
Tetrachloroethene	5
Trichloroethene	5
Vinyl chloride	2

LEGEND:

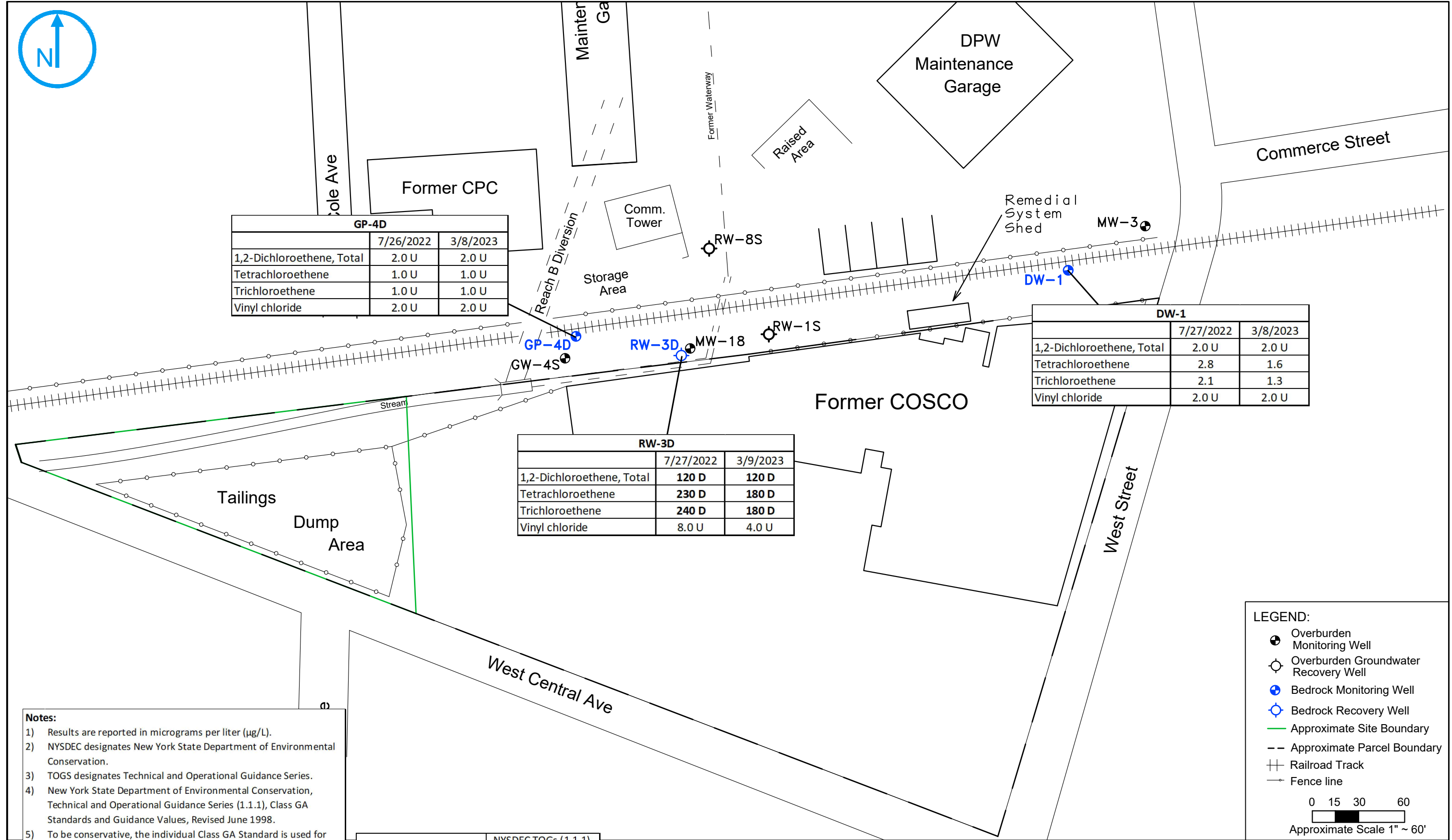
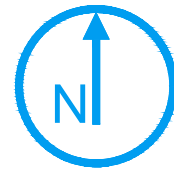
- Overburden Monitoring Well
- Overburden Groundwater Recovery Well
- ⊕ Bedrock Monitoring Well
- ⊕ Bedrock Recovery Well
- Approximate Site Boundary
- - - Approximate Parcel Boundary
- ⊕ Railroad Track
- Fence line

0 15 30 60
Approximate Scale 1" ~ 60'



NYSDEC COSCO
SPRING VALLEY, NEW YORK
**SUMMARY OF OVERBURDEN
GROUNDWATER ANALYTICAL
RESULTS IN 2022/2023**

FILE NO. 75217	3-5
DATE APRIL 2023	



GP-4D		
	7/26/2022	3/8/2023
1,2-Dichloroethene, Total	2.0 U	2.0 U
Tetrachloroethene	1.0 U	1.0 U
Trichloroethene	1.0 U	1.0 U
Vinyl chloride	2.0 U	2.0 U

DW-1		
	7/27/2022	3/8/2023
1,2-Dichloroethene, Total	2.0 U	2.0 U
Tetrachloroethene	2.8	1.6
Trichloroethene	2.1	1.3
Vinyl chloride	2.0 U	2.0 U

RW-3D		
	7/27/2022	3/9/2023
1,2-Dichloroethene, Total	120 D	120 D
Tetrachloroethene	230 D	180 D
Trichloroethene	240 D	180 D
Vinyl chloride	8.0 U	4.0 U

- Notes:**
- 1) Results are reported in micrograms per liter (µg/L).
 - 2) NYSDEC designates New York State Department of Environmental Conservation.
 - 3) TOGS designates Technical and Operational Guidance Series.
 - 4) New York State Department of Environmental Conservation, Technical and Operational Guidance Series (1.1.1), Class GA Standards and Guidance Values, Revised June 1998.
 - 5) To be conservative, the individual Class GA Standard is used for cis-1,2-dichloroethene and trans-1,2-dichloroethene.
 - 6) U indicates that the compound was not detected at or above the practical quantitation limit shown.
 - 7) J indicates that the compound was detected at an estimated concentration.
 - 8) D indicates that that value is the result of a dilution.
 - 9) Values that are bold indicate exceedance of criteria.

	NYSDEC TOGs (1.1.1), Class GA Standards and Guidance Values
1,2-Dichloroethene, Total	5
Tetrachloroethene	5
Trichloroethene	5
Vinyl chloride	2

LEGEND:

- Overburden Monitoring Well
- Overburden Groundwater Recovery Well
- ⊕ Bedrock Monitoring Well
- ⊕ Bedrock Recovery Well
- Approximate Site Boundary
- - - Approximate Parcel Boundary
- ⊕⊕ Railroad Track
- Fence line

0 15 30 60
Approximate Scale 1" ~ 60'

APPENDICES

**APPENDIX A
SITE HISTORY SUMMARY**

Appendix A Summary of Site History

New York State Department of Environmental Conservation (NYSDEC) Consolidated Stamp Company (COSCO) Site (ID No. 3-44-035)

<u>Date</u>	<u>Description</u>
1978	The Rockland County Department of Health (RCDOH) identified tetrachloroethene (PCE), trichloroethene (TCE), dichloroethene (DCE), and 1,1,1-trichloroethane (TCA) in the well field operated by the Spring Valley Water Company. The COSCO Site and Continental Plastic Company (CPC) facility were identified as potential sources to the former Spring Valley Well Field Site (ID No. 3-44-018).
1979	The results of a survey performed by Spring Valley Water Company found that CPC facility was pumping 20 to 30 gallons per minute (gpm) of TCE and PCE contaminated non-contact cooling water into Reach B Diversion. In addition, COSCO facility was using TCE as part of a vapor degreasing process and discharging the rinse water into Reach B Diversion.
1980	Reach B Diversion was diverted away from the former Spring Valley Well Field Site into the West Branch of Pascack Brook.
1987-1990	GHR Engineering Associates, Inc. performed a Remedial Investigation (RI)/Feasibility Study (FS). The RI/FS was performed to evaluate potential source areas for Site-related constituents of concern (COCs) (i.e., PCE, TCE, DCE and vinyl chloride [VC]).
1990	Record of Decision (ROD) issued for the Site in March 1990. The ROD detailed selected remedies to address contamination at the COSCO Site and CPC facility. The selected remedies included: <ul style="list-style-type: none"> • Source area groundwater extraction and treatment by ultraviolet (UV) chemical oxidation and polishing; • Source area soil and sediment soil vapor extraction (SVE); and, • Capping of the Tailings Dump Area to prevent erosion and disturbance.
1990	The former Spring Valley Well Field Site (ID No. 3-44-018) was delisted in December 1990, and the COSCO Site and CPC facility were listed under the New York State Inactive Hazardous Waste Disposal Site Remedial Program.
1990-1992	Two post-ROD groundwater studies were conducted to evaluate groundwater flow in the bedrock aquifer. The first study was performed in the summer of 1990 by COSCO and Sara Lee Corporation ¹ . The second study, a supplemental RI, was performed in 1992 by COSCO, Sara Lee, and the Spring Valley Water Company.
1997-1998	Pre-design investigation (PDI) performed by Camp Dresser and McKee on behalf of NYSDEC to fill identified gaps and evaluate the appropriateness of the remedial actions recommended in the 1990 ROD. During implementation of the PDI, the Tailings Dump Area asphalt cap was installed that satisfied the capping requirement in the 1990 ROD.
1999	1990 ROD amended in August 1999 based on the results of the PDI. The amended remedies in the 1999 ROD amendment included: <ul style="list-style-type: none"> • No further action for source area soils and sediments;

¹ Sara Lee Corporation previously owned certain assets of the COSCO Site (NYSDEC, 1999).

- Extraction of contaminated overburden and bedrock groundwater in the source area and treatment by chemical oxidation and polishing technologies;
- Completion/repair of the existing asphalt cap over the Tailings Dump Area; and,
- Long-term groundwater monitoring to evaluate the effectiveness of both the groundwater extraction and the Tailings Dump Area.

2003	The groundwater extraction and treatment (GWE&T) system placed into operation. The system consists of two overburden recovery wells (RW-1S and RW-8S, now inactive) and one active bedrock recovery well (RW-3D). The GWE&T system included treatment of extracted groundwater via UV light and peroxide oxidation.
2006	On-Site soil vapor intrusion (SVI) evaluation conducted by Environmental Resources Management, Inc. in January 2006.
2008-2009	Off-Site SVI evaluation performed to evaluate the residential and commercial area east of the Site. The off-Site SVI evaluation was performed by AECOM from December 2008 through March 2009.
2010	Additional off-Site SVI evaluation performed in February 2010 to compare the initial results of the samples collected. Based on detected concentrations of PCE and TCE in sub-slab soil vapor at 47 Commerce Street, a sub-slab depressurization system (SSDS) was installed to mitigate the sub-slab vapor intrusion to the property.
2011	GWE&T system design re-evaluated to maximize efficiency, minimize cost, and meet goals of 1999 ROD amendment. Redesign completed in December 2011, replacing UV light and peroxide oxidation treatment with an air stripper.
2012	A final round of off-Site SVI sampling conducted in March 2012. The final round of off-Site SVI sampling indicated no further action or mitigation was warranted, except for one property located near the Site where an SSDS was installed to mitigate vapor intrusion.
2020	Ramboll initiated a Remedial System Optimization (RSO) to evaluate the effectiveness of the continued operation of the current GWE&T system contrasted with potential cost-effective remedial alternatives for the Site.
2022	Ramboll initiated an enhanced in-situ bioremediation (EISB) pilot study as part of the RSO. Shallow bedrock injection wells INJ-1S and INJ-2S and shallow bedrock monitoring wells BDW-1S and BDW-2S were installed and developed. Bedrock recovery well RW-3D was taken offline in July and baseline groundwater monitoring, cross-hole hydraulic testing, and short-duration injection testing were performed as part of the RSO EISB.

APPENDIX B
RSO EISB PILOT STUDY SCOPE OF WORK

SCHEDULE 1 SCOPE OF WORK
WORK ASSIGNMENT D009810-03
COSCO
SPRING VALLEY, NY

1.0 BACKGROUND AND PROJECT OBJECTIVES

Site Description

The former Consolidated Stamp Company (COSCO) Site (the Site) is located at 15 West Street, Spring Valley, New York. The Site is managed under the New York State Inactive Hazardous Waste Disposal Site Remedial Program administered by New York State Department of Environmental Conservation (NYSDEC). The Site is listed by the NYSDEC as a Class 4 Inactive Hazardous Waste Site (ID No. 3-44-035). Class 4 sites are hazardous waste sites that have been properly closed but, require continued operation and maintenance of remedial systems and/or continued site monitoring.

Current Site Features and Location

The Tailings Dump Area of the Site is 0.3 acres of relatively flat land, including a parking lot and small field and is the only remaining portion of the original Site. The block is bordered by an inactive railroad track to the north and west, West Central Avenue to the west and south, and the former COSCO buildings and West Street to the east.

Historic Use

The Site operated as a machine shop, plastics manufacturer, and a metal plating operation until 1990. Operations included the discharge of plastics manufacturing wastewater and metal plating wastewater to a subsurface drainage structure

Previous Investigations

Several investigation and remedial activities have been conducted at the Site in accordance with the March 1990 Record of Decision (ROD) and ROD amendment of August 1999. The findings of these investigations have identified soil and groundwater impacted with the Site-related compounds of concern (COCs) trichloroethene (TCE), tetrachloroethene (PCE), 1,2-dichloroethene (DCE) and vinyl chloride (VC).

Institutional and Engineering controls (ICs/ECs) have been implemented in order to control exposure to Site-related COCs. The current ICs for the Site include the August 1999 ROD amendment and the 2016 Site Management Plan (SMP). The August, 1999 ROD amendment established ECs for the Site that include an asphalt cap placed over (and perimeter fencing around) the Tailings Dump Area in order to restrict access; a sub slab depressurization system (SSDS) installed at a nearby structure (#47 Commerce Street) and, operation of a groundwater extraction and treatment (GWE&T) system. The GWE&T system, which has the capability to extract groundwater from the shallow/unconsolidated zone and underlying bedrock, is currently extracting groundwater from the bedrock only. Groundwater monitoring is also considered to be an EC for the Site.

Site Geology and Hydrogeology

The overburden is generally composed of sand and gravel fill underlain by native silty clay, sands and gravel, and glacial till. Bedrock in the area is approximately 40 feet below grade and consists of red shales, mudstone, sandstone, and conglomerates of the Brunswick Formation. Groundwater flow has been reported to be generally to the southeast in the overburden and to the northeast in the bedrock, with localized groundwater flow towards the operating on-Site groundwater extraction wells in both the overburden and bedrock.

Project Objectives

The objective of this scope of work is to provide Operations Maintenance and Monitoring (OM&M) support for the Site for a three-year period. The OM&M support will include:

- Coordination between Ramboll, NYSDEC, and the OM&M contractor
- Performing an annual Site inspection
- Performing semi-annual groundwater sampling
- Preparation of an Annual Periodic Review Report (PRR)

In addition, a review of the existing recovery and monitoring well network will be performed to evaluate potential optimization of the remedial system.

Aztech Environmental Technologies, Inc. (Aztech) has been contracted by NYSDEC as the OM&M contractor to operate the groundwater recovery and treatment system.

2.0 SCOPING (TASK 1)

Preliminary activities include review of Site-related historic information, preparation of this scope of work, schedule, and completion of NYSDEC contract-related forms. A progress schedule will be developed for the project.

3.0 SITE MANAGEMENT PLAN (SMP) (TASK 2)

The SMP, dated January 21, 2016 was not prepared using the current NYSDEC template. NYSDEC has requested that the SMP be updated to the current format. In addition, modifications made to the program or system, data collected since 2016, and optimizations made to the Site remedial system will be incorporated into the updated SMP as needed.

Assumptions:

- The SMP will be updated after implementation of the optimization evaluation recommendations identified as Task 6
- The NYSDEC template will be used and portions of the existing SMP will be used as appropriate.

4.0 O&M (TASK 3)

This task is to coordinate with Aztech and complete the annual site inspection. The scope of work, based on the April 2018 - April 2019 PRR, is for the annual monitoring period from April to April for each year.

NYSDEC and OM&M Contractor Coordination

Ramboll will coordinate a monthly conference call to review the activities being completed at the Site. Topics for review may include:

- Activities completed during previous month
- Activities scheduled for upcoming month
- System problems, changes or observations, and suggested follow-up.

Annual Site Wide Inspection

An annual Site inspection will be completed in accordance with the SMP. Ramboll will inspect the asphalt cap and fence associated with the Tailings Dump Area and other Site conditions. The inspection will focus on the physical condition of the cap. Signs of degradation such as erosion, crumbling, cracking or vegetative growth will be noted. The perimeter fence will be inspected for breaks in the linkage or loose poles. Presence of vegetative overgrowth will also be monitored.

In addition, the inspection will include evaluation of monitoring well integrity, presence of trash or indications of vandalism, and evidence of a business occupying/vacating the COSCO building, as appropriate.

Assumptions:

- The coordination call will take place on a routine, pre-established schedule.
- The coordination call will be attended by the Ramboll PM, a representative of Aztech, and the NYSDEC PM.
- Call duration will be approximately 30 minutes.
- Ramboll will distribute call notes afterwards.
- Aztech will prepare the quarterly reports summarizing Site activities and GWE&T system operational data.
- The annual Site inspection will take place during a semi-annual groundwater sampling event and therefore the direct expenses are included in Task 4 Monitoring and Reporting.
- Ramboll will incorporate the annual Site inspection form into the PRR.
- Aztech will perform the inspection of the remedial shed components.
- Although included as part of the SMP for the Site, it is understood that the sub-slab depressurization system is managed separately under contract with NYSDEC and is not part of this scope of work.

5.0 MONITORING AND REPORTING (TASK 4)

As outlined in the SMP, groundwater samples are collected from eight wells on a semi-annual basis. Three of the wells (RW-1S, RW-3D, and RW-8S) are recovery wells and five (GW-4S, GW-4D, MW-18, DW-1 and MW-3) are 2-inch diameter monitoring wells. Depth to water measurements will be collected prior to purging and sampling. Monitoring wells will be purged and sampled by removing three well volumes using a dedicated, disposable bailer. Grab groundwater samples will be collected at active recovery wells directly from a sample tap located on the discharge line. Inactive recovery wells will be purged and sampled using dedicated, disposable bailers in the same manner as the monitoring wells. Quality assurance/quality control (QA/QC) samples consisting of a matrix spike (MS), matrix spike duplicate (MSD), and blind field duplicate will be collected for analysis. In addition, a trip blank will accompany the samples. A summary of groundwater samples to be collected per semi-annual event is

shown on Table 1. The samples will be analyzed for volatile organic compounds (VOCs) by United States Environmental Protection Agency (USEPA) Method 624.

Table 1: Groundwater Sample Summary

Recovery/Monitoring Well Samples	QA/QC Samples	Trip Blanks	Total
8	3	2	13

The samples will be delivered under chain-of-custody to the NYSDEC-specific call-out laboratory for analysis. The laboratory will provide a full category B deliverable per the New York State ASP analysis and reporting guidelines. An electronic data deliverable (EDD) will also be provided. The data will be reviewed by a third-party data validator and a data usability summary report (DUSR) will be prepared.

Following receipt of the DUSR, a summary report will be provided to NYSDEC. The report will include a summary table of the detected constituents compared to Class GA groundwater quality standards and guidelines.

Assumptions:

- NYSDEC will contract the analytical laboratory under a separate call-out contract.
- The semi-annual groundwater sampling events will occur in the second and fourth quarter of each year.
- Access agreements will be obtained by NYSDEC and provided.
- Ramboll will provide a 2-person team to perform the semi-annual groundwater sampling event.
- It is assumed that each groundwater sampling event will be completed in two, 12-hour field days.
- Purge water generated from the semi-annual groundwater sampling will be transferred to the GWE&T shed.
- Field parameters will not be collected during the semi-annual groundwater sampling events.
- Ramboll will subcontract the third-party data validator for preparation of the DUSR.
- Ramboll will provide a semi-annual summary of the validated groundwater sampling results, the report will include a data table of the detected constituents in one or more of the samples and include the groundwater sampling forms and analytical data package as attachments.
- Ramboll will prepare and submit the EDDs to NYSDEC.

6.0 PERIODIC REVIEW (PR) AND REPORT (PRR) (TASK 5)

The annual PRR will be prepared for a reporting period of April 4th to April 4th for each year. In accordance with the SMP, the PRR will consist of:

- The signed certification of the ICs/ECs by a Qualified Environmental Professional.
- Assessment of the IC and ECs associated with the remedy for the Site as documented by the collected data and Site inspection activities.
- The results of the annual Site inspection including the inspection form.
- An overview of system operation and run time during the reporting period.
- A summary of the discharge monitoring data, evaluation and conclusions.
- A description of maintenance and/or repairs implemented during the reporting period.

- Data summary tables and graphical representation of Site-related COCs in groundwater, regulatory standards, and exceedances.
- Incorporation of previous year's data, as appropriate, and discussion of trends.
- Groundwater flow maps (overburden and bedrock) and a groundwater quality databox figure.
- Copies of sampling, inspection, and other field forms collected during the reporting period.

The PRR will also include a discussion of the effectiveness of the remedial system, progress toward attainment of the remedial goals, and present recommendations for optimization, as appropriate.

Assumptions:

- Ramboll will complete the PRRs beginning in April 2021 and ending in April 2023.
- Aztech will provide information associated with the operation of the recovery wells and treatment system as well as discharge data including associated forms and analytical data during the monitoring period covered by the PRR.
- Aztech will provide excel spreadsheets containing historic recovery system operation data and groundwater quality data.
- Access agreements for completion of the Site inspections will be obtained by NYSDEC and provided.
- Ramboll will submit the PRR electronically to NYSDEC.

7.0 REMEDIAL SYSTEM OPTIMIZATION (TASK 6)

The PRR dated May 2019 for the period of April 4, 2018 through April 4, 2019 included the following observations and recommendations:

- Shallow recovery wells RW-1S and RW-8S are not currently operating and the bedrock recovery wells do not sufficiently influence the overburden.
- It is proposed that well RW-1S be redeveloped and a new pump and pressure transducer control be installed. Based on the results of the redevelopment, RW-8S may be redeveloped also.
- The monitoring well network is not sufficient to establish the extent of the COC plume or the radius of influence of bedrock recovery well RW-3D; additional wells should be installed.
- It is suggested that the low yields of the overburden recovery wells may not be sufficient to capture the impacted groundwater plume and therefore, and in-situ remedy may be warranted to reduce COC concentrations.
- An adjustment to the GWE&T sampling schedule is recommended to eliminate the "post bag filter" sample, as it is redundant with the system influent sample.

Ramboll will review information provided in the PRR as well as additional information provided by NYSDEC and Aztech associated with the existing recovery and monitoring well network and subsurface conditions. Following review, Ramboll will provide optimization recommendations for the Site remedial system to NYSDEC for review.

Assumptions:

- Ramboll will perform a site visit to review the existing recovery and monitoring well network.
- Additional groundwater quality samples will be collected from three wells (assume one bedrock and two overburden) for geochemical analyses as part of the optimization evaluation.

- Groundwater samples will be collected using low-flow purging/sampling or bailing techniques. Field parameters will be recorded.
- Geochemical analyses will include major cations and anions, total organic carbon, total alkalinity, dissolved iron, manganese, and gases (methane, ethane, ethene). The NYSDEC call-out laboratory will be used for the geochemical analyses.
- It is assumed the data will not be validated.
- The optimization evaluation will include evaluation of the need for installation of additional wells, modifications to groundwater sampling methods, enhancements to the GWE&T system, and application of *in situ* treatment technologies, if appropriate.

8.0 AMENDMENT 1 - ENHANCED IN-SITU BIOREMEDIATION PILOT STUDY (TASK 7)

In accordance with the NYSDEC's request during the May 28, 2021 Monthly Coordination Call, Ramboll has prepared the following Scope of Work (SOW) for implementation of an enhanced in-situ bioremediation (EISB) pilot study via reductive dechlorination at the COSCO Site located at 15 West Street, Spring Valley, New York. This pilot study would be performed as part of the optimization of the Site remedial system. As discussed in Appendix G of the 2020/2021 Periodic Review Report (Ramboll, 2021), several advantages exist at the Site for implementation of an EISB pilot study via reductive dechlorination of chlorinated ethenes, which include:

- Reductive dechlorination via biodegradation works in concert with the natural oxidation-reduction conditions in the subsurface to degrade Site-related chlorinated ethenes in place.
- The amendments used during implementation of the EISB pilot study are much longer-lived (e.g., one to four years), in sharp contrast to the oxidants used for in-situ chemical oxidation (ISCO). Studies have shown that EISB is less prone to rebound, likely in part due to the difference in longevity of the amendments.
- The size and depth of the source area that would be targeted is not significant, which means that the pilot study could be designed to be sufficient to transition the Site from pump-and-treat to monitored natural attenuation (MNA).
- All injection amendments are food grade, safe, and non-hazardous.
- Injection of amendments may be possible through the existing Site wells.¹
- During the pilot study, the GWE&T system would not be in operation; therefore, costs associated with the OM&M of the GWE&T system could be applied to the labor and direct costs associated with the pilot study and performance monitoring.

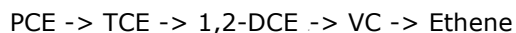
The SOW activities proposed below will be conducted in a phased approach to allow information obtained during each phase of the pilot study to be used to guide subsequent phases.

Task Objectives

The objective of the activities in this SOW is to perform subsurface amendment injections to promote the biodegradation of VOCs, specifically, PCE, TCE, cis-1,2-dichloroethene (1,2-DCE²), and VC. The goal of the pilot study is to stimulate reductive dechlorination of PCE and its daughter products through the addition of commercial bacterial cultures to the subsurface. Degradation of chlorinated ethenes can

¹ Although existing Site recovery well RW-3D will be used for injections of amendments, Ramboll proposes to install new additional shallow bedrock injection and monitoring wells which will be better suited to implement the pilot study vs. exclusively using the existing wells and well network.

occur in multiple ways, depending upon subsurface conditions and the remedial technology applied. The predominant pathway exploited for the Site-related VOCs is reductive dechlorination, expressed as:



This pathway occurs under anaerobic conditions and results in the sequential removal of chlorine from parent compounds (i.e., PCE and TCE to 1,2-DCE and VC) until ethene is formed (Leeson et al., 2004; Interstate Technology & Regulatory Council [ITRC], 2008; Marks and Acheson, 2018). Reductive dechlorination requires the presence of an electron donor (e.g., source of carbon and energy) and electron acceptor (e.g., iron, sulfate, and carbon dioxide). Several bacteria are capable of reducing PCE and/or TCE to 1,2-DCE. *Dehalococcoides* (DHC) has been identified as the bacteria that can mediate the reduction of 1,2-DCE to VC to ethene. DHC typically use hydrogen generated through fermentation of electron donors (e.g., oils, fatty acids, and sugars) as their source of energy. Deeply reducing conditions are generally preferred for complete reductive dechlorination of PCE and TCE to ethene. Anaerobic conditions already occur at the Site at/near overburden monitoring well MW-18. However, the current conditions in the bedrock groundwater are not sufficient for reduction of chlorinated ethenes to ethene via DHC. In order to promote bacterial growth and allow for the appropriate environment for DHC to thrive, various amendments, including electron donors (sodium lactate and emulsified vegetable oil [EVO]) and nutrients, will be injected into the subsurface through two new shallow bedrock injection wells (INJ-1S and INJ-2S) and existing deep bedrock recovery well RW-3D (see **Figure 1**) to promote suitable conditions for the complete dechlorination of the chlorinated ethenes. Monitoring wells, consisting of two new shallow bedrock monitoring wells (BDW-1S and BDW-2S) and two existing bedrock monitoring wells (GP-4D and DW-1), will be monitored through time to evaluate the biodegradation of the Site-related VOCs.

The pilot study will involve a pre-design investigation (PDI) to develop and design the amendment injection program, a baseline groundwater monitoring event for initial geochemical parameters, microbial population(s), and VOCs of interest in the source area, crossgradient, and downgradient in bedrock groundwater, and implementation of the amendment injection pilot study and subsequent performance monitoring of bedrock groundwater to evaluate the biodegradation. A two-year post-injection groundwater performance monitoring program is included in this SOW the effectiveness of the bioremediation. Additionally, a Remedial System Optimization Report (RSOR) for the work completed under this Work Assignment (WA) SOW will be developed and, if the bioremediation is successful, the Site Management Plan (SMP) will be modified following the RSOR.

Pilot Study Design

Pilot study design will require review of Site-related historic information, preparation of this SOW and associated cost estimate, schedule, permits, and necessary completion of NYSDEC contract-related forms. A tentative progress schedule will be developed for the project following NYSDEC approval of the SOW.

The pilot study in this SOW is phased as follows:

- Step 1 – Installation of new shallow bedrock injection and monitoring wells;

² The cis isomer is the dominant form of 1,2-dichloroethene produced via biotic degradation from PCE and TCE.

- Step 2 – Development of the wells/boreholes and re-development of existing wells GP-4D and DW-1;
- Step 3 – PDI activities (baseline groundwater monitoring, cross-hole testing, short-duration injection testing);
- Step 4 – Amendment injection design and implementation;
- Step 5 – Post-injection performance monitoring; and,
- Step 6 – Reporting.

STEP 1: INSTALLATION OF NEW SHALLOW BEDROCK INJECTION AND MONITORING WELLS

Additional bedrock injection and monitoring wells are needed to distribute the amendments into the bedrock geologic unit and assess the effects of the bioremediation. Two new shallow bedrock injection wells (INJ-1S and INJ-2S) and two new shallow bedrock monitoring wells (BDW-1S and BDW-2S) are proposed as shown on **Figure 1**. Each shallow bedrock injection and monitoring well will be installed from approximately 50 to 75 feet below grade. The shallow bedrock injection and monitoring wells will be installed utilizing HQ3 wireline coring, wash rotary, air rotary, or roto-sonic drilling techniques. The preferred installation method will consist of drilling through the overburden utilizing hollow stem augers (HSA). Subsequent to reaching the top of the bedrock surface, a rock socket will be drilled using wash rotary techniques (e.g., tri-cone roller bit) followed by setting an overburden isolation casing. Once the overburden isolation casing is set within the rock socket, the bedrock will be advanced utilizing HQ3 wireline coring techniques. If Site conditions warrant, alternative drilling methods may be utilized, as mentioned above. Community Air Monitoring Plan (CAMP) monitoring will be performed while installing the bedrock wells in accordance with the New York State Department of Health (NYSDOH) generic CAMP requirements outlined in Appendix 1A of the DER-10 guidance document (NYSDEC, 2010).

Overburden drilling at each shallow bedrock well location will be completed by advancing the borehole through the overburden into the shallow bedrock approximately 3 to 5 feet into competent bedrock. Prior to advancing the borehole into the overburden, each new bedrock well location will be hand cleared to a minimum depth of 5 feet to confirm the presence/absence of subsurface utilities in the proposed drilling locations. The overburden will be sealed off by grouting a 4-inch steel overburden isolation casing into the rock socket. The grout will be allowed to cure for approximately 24 hours before advancing the borehole to the final depth.

At the completion of overburden isolation casing installation, each shallow bedrock injection and monitoring well will be completed as an open bedrock borehole.³ The borehole will be advanced approximately 25 feet below the casing utilizing HQ3 wireline coring, wash rotary, air rotary, or roto-sonic drilling techniques.

Well heads will be completed as 8-inch diameter, bolt down, water-tight traffic rated flush-mount road boxes (BDW-1S) or above grade protective casings (BDW-2S, INJ-1S, and INJ-2S). If the well heads are completed as above grade protective casings, two protective bollards will be completed and cemented in-place adjacent to the well locations for additional protection. The road boxes or protective casings will be completed in a two-foot concrete well pad, flush to existing grade.

³ If hole collapse is anticipated after drilling is completed, the wells will be sleeved with polyvinyl chloride (PVC) to stabilize each borehole.

Should the wells be installed using wireline coring techniques, each section of core will be described on a core log by a Ramboll geologist including related depth, identification of visible fractures, percent recovery, rock type, color, grain size, texture, bedding, and rock quality designation (RQD). The bedrock will also be screened with a photoionization detector (PID). Bedrock will be placed into labeled core boxes and/or 55-gallon steel drums and staged at the Site pending subsequent characterization and disposal.

Assumptions:

- Two shallow bedrock injection wells (INJ-1S and INJ-2S) and two shallow bedrock monitoring wells (BDW-1S and BDW-2S) will be installed at the locations shown on **Figure 1** to approximately 70 feet below grade.
- Overburden drilling will be completed utilizing 6 1/4" hollow stem augers to the top of the bedrock surface, which is assumed at approximately 40 feet below grade.
- Bedrock drilling will be completed utilizing wash rotary drilling (e.g., tri-cone roller bit) and HQ3 wireline coring techniques. 25 feet of bedrock drilling at each location is assumed.
- The shallow bedrock monitoring and injection wells will be completed as open bedrock boreholes.³
- Prior to drilling activities, Ramboll will coordinate access for location BDW-1S from the Spring Valley Department of Public Works.
- Prior to drilling activities, the drilling subcontractor will contact Dig Safely New York (DSNY) to locate public utilities at the Site.
- A private utility locator will be subcontracted to locate and mark subsurface utilities using a combination of stakes and flagging, spray paint, or pin flags. It is assumed that the subsurface utility work will be completed in 1 working day.
- The wells will be hand-cleared to a minimum of five feet prior to further advancing the borehole through the overburden. Hand clearing is anticipated to take approximately 2 days.
- It is assumed that the installation of the four bedrock wells will be completed in 13 working days, not including hand clearing.
- Permits will be completed by Ramboll for installation of the bedrock injection and monitoring wells per the Rockland County Department of Health (RCDOH).
- Photographs and video of the well installation activities will be completed and submitted to RCDOH, as necessary.
- Ramboll will provide one geologist to oversee the installation of the four bedrock well locations.
- Work will be performed in modified Level D personal protective equipment (PPE) without Tyvek® coveralls.
- CAMP monitoring will be performed during hand clearing, drilling, and installation of monitoring wells.
- Well location BDW-1S will not require traffic control other than safety cones.
- It is assumed that the drilling subcontractor is not subject to prevailing wage.
- Investigation-derived waste (IDW) generated during drilling and installation of the monitoring wells will be managed by the drilling subcontractor and Ramboll at the Site.⁴
- Approximate costs to manage IDW are included in an engineer's estimate. The final costs will be determined following completion of the drilling and well installation.

⁴ IDW management consists of PPE/debris, soil cuttings, bedrock cuttings, and rock coring water. Rock coring water will be managed and treated at the Site through the GWE&T system.

STEP 2: WELL DEVELOPMENT/RE-DEVELOPMENT ACTIVITIES

Each of the newly installed shallow bedrock injection and monitoring wells will be developed to remove the fine-grained material which may have settled within the well and to provide hydraulic communication with the surrounding formation. In addition, existing bedrock monitoring wells GP-4D and DW-1 will be re-developed.⁵

Development of the new shallow bedrock injection and monitoring wells will occur no sooner than 24 hours after final completion. Re-development of existing wells GP-4D and DW-1 will be performed during the same period. Development will be performed by surging and purging the well using either a bailer or pump, as appropriate. Groundwater quality parameters will be measured and recorded at the start of development, after removal of each well volume during development, and at the conclusion of development. Parameters will include turbidity, pH, temperature, and specific conductance. Water levels and total depth measurements will be collected prior to and at the conclusion of development. A minimum of five well volumes will be removed from each well unless the well goes dry during development and does not sufficiently recharge within a one-hour period to remove the five well volumes before going dry a second time. Well development will be considered complete when the development water is visibly clear and sediment free and a minimum of five well volumes are removed or the well goes dry a third time, whichever occurs first. Well development data will be recorded on a well development log.

Assumptions:

- It is assumed that the two new shallow bedrock injection wells and two new shallow bedrock monitoring wells can be developed in two-days by a two-person Ramboll team.
- It is assumed that the two existing bedrock monitoring wells, GP-4D and DW-1, can be re-developed in one-day by a two-person Ramboll field team.
- Work will be conducted in modified Level D personal protection without Tyvek® coveralls.
- CAMP monitoring will not be performed during development of monitoring and injection wells.
- Work at well location BDW-1S will not require traffic control other than safety cones.

STEP 3: PRE-DESIGN INVESTIGATION

Several activities are recommended before designing the amendment mixture and performing the injections. The pre-design activities include baseline groundwater monitoring, cross-hole hydraulic testing, and short-duration injection testing.

BASELINE GROUNDWATER MONITORING EVENT

Groundwater samples will be collected to assess the current geochemical and biological conditions in the bedrock groundwater at the Site and obtain the information needed to evaluate the post-injection performance monitoring results. It is anticipated that the GWE&T system bedrock recovery well RW-3D will be shut down for a minimum of one month prior to collection of water levels and the baseline groundwater samples.

Prior to collection of groundwater samples, groundwater levels will be measured from the three existing bedrock monitoring and recovery wells (GP-4D, DW-1, and RW-3D) and the new shallow bedrock injection and monitoring wells. Water levels will be measured to the nearest 0.01 foot using an

⁵ The recommendation to re-develop these wells is based on the approximate 15-foot variation in groundwater elevation observed between the monitoring wells.

electronic water level probe. The water level in each well will be allowed to equilibrate, as necessary, prior to measuring the depth to water. Water level measurements will be recorded from the top of the well casing.

Baseline groundwater samples will be collected from the three existing bedrock monitoring and recovery wells (GP-4D, DW-1, and RW-3D) and the new shallow bedrock injection and monitoring wells as outlined on **Table 1**. The groundwater samples will be collected using low-flow groundwater sampling techniques to facilitate the collection of stabilized water quality parameters as outlined below:

- Temperature \pm 3% of measurement;
- pH \pm 0.1 pH units;
- Specific conductance \pm 3% of measurement;
- Oxidation-reduction potential (ORP) \pm 10 millivolts (mV);
- Dissolved oxygen (DO) \pm 10% of measurement; and,
- Turbidity \pm 10% of measurement.

If a stable groundwater level cannot be achieved at a yield of at least 100 milliliters per minute (ml/min), the well will be dewatered to the intake of the pump and allowed to recover before the baseline groundwater sample is collected.

Upon stabilization, groundwater samples will be collected at each of the bedrock injection and monitoring wells listed on **Table 1** for VOC analysis by USEPA Method 8260. To establish a baseline for the post-injection performance monitoring, additional samples will be collected at each well location per **Table 1** for natural attenuation parameters (dissolved iron, manganese, and sodium [field filtered] by USEPA Method 6010D, chloride, nitrate, and sulfate by USEPA Method 353.2, sulfide by USEPA Method 4500-S₂F-2000, total organic carbon [TOC] by Method SM20 5310C, dissolved gases [methane, ethane, and ethene] by Method RSK-175, and alkalinity [reported as CaCO₃ including carbonate, bicarbonate, and total alkalinity]). At two of the well locations (RW-3D and either BDW-1S or BDW-2S), samples will also be obtained for compound-specific stable isotope analysis (CSIA) and microbiological analysis.⁶

Microbiological analyses and carbon isotope analyses are important measurements to understand the potential for reductive dechlorination of VOCs at the Site. Microbiological analysis (i.e., QuantArray[®]-Chlor suite) by Microbial Insights, Inc. (MI) allows for evaluation of potential biodegradation by multiple pathways by analyzing for a broad suite of microbiological targets (bacterial communities and functional genes). These targets will be used to document the baseline microbiological conditions for comparison with post-injection conditions. Understanding the makeup of the microbial community at the Site will assess if bioaugmentation will be needed at the Site or if the current microbial community is sufficient to support biotic degradation of the Site-related VOCs. For the purposes of this SOW, it is assumed that bioaugmentation will be needed.

The QuantArray[®]-Chlor Suite of microbiological targets will be analyzed in source area bedrock recovery well RW-3D and one of the two new shallow bedrock observation wells (BDW-1S or BDW-2S).⁶ The CSIA and microbiological samples will be submitted to MI for analysis.

⁶ CSIA will be performed at BDW-1S or BDW-2S after confirming the VOC concentrations are sufficient to perform the analyses.

CSIA samples will be collected during the baseline groundwater monitoring event to quantify the current extent of degradation of the chlorinated ethenes (i.e., PCE, TCE, and 1,2-DCE). CSIA allows for an assessment of the extent of biodegradation that is independent of VOC concentration. In this case, the C^{13}/C^{12} ratios for the chlorinated ethenes at the Site will be measured. Analyses of the carbon isotopes for PCE, TCE, and 1,2-DCE will be performed.

The remaining VOC and natural attenuation parameter groundwater samples will be submitted to the designated NYSDEC analytical laboratory under the separate call-out contract. QC samples will be collected at a frequency of one set per 20 normal environmental samples and will include blind duplicate samples, equipment blank samples (for non-disposable equipment), MS/MSD sample pairs, and trip blanks. Trip blanks for VOC analysis will be included with each sample cooler containing VOC samples. Blind duplicate, MS/MSD sample pairs, and trip blank samples will be collected for VOC analysis only. A blind duplicate sample will also be collected for each natural attenuation parameter. No QC samples will be collected for the CSIA or microbiological analyses. Given that this is a pilot test, data validation of the VOC, natural attenuation parameter, CSIA, and microbiological results is not included.

Purge water generated during the sampling event will be containerized in sealed 5-gallon buckets and transferred to the equalization tank in the GWE&T system shed at the Site for subsequent treatment through the GWE&T system and discharge into Reach B Diversion. Alternatively, the purge water will be characterized and transported offsite.

Assumptions:

- Groundwater sampling will not be performed sooner than 72 hours following the completion of well development.⁷
- Groundwater sampling will be performed over a three-day period by a two-person Ramboll field team.
- Groundwater samples will be collected as specified on **Table 1**.
- QC samples will be collected for VOCs and natural attenuation parameters only and QC samples will not be collected for CSIA or microbiological analyses.
- QC samples for VOCs will consist of a blind duplicate, MS/MSD pair, an equipment blank, and trip blanks. QC samples for natural attenuation parameters will consist of a blind duplicate.
- Samples collected during the baseline groundwater monitoring event will not be validated.
- Purge water will be transferred into the equalization tank for treatment through the existing GWE&T system.
- Work will be conducted in modified Level D personal protection without Tyvek® coveralls.
- CAMP monitoring will not be performed during the baseline groundwater sampling event.

CROSS-HOLE HYDRAULIC TESTING

The cross-hole hydraulic testing will be performed to further understand the horizontal and vertical connectivity within the bedrock. The cross-hole testing will be conducted by monitoring the water level response in one or more wells to a quick pneumatic perturbation in a test well with measurement of the head responses in the other wells. Cross-hole hydraulic testing will be conducted using a portable air compressor, to a target pressure of approximately 5, 10, and/or 20 pounds per square inch (psi). The target pressure will be maintained in the test well using the air compressor’s regulator. After

⁷ This assumption assumes that the new bedrock monitoring and injection wells will recharge sufficiently after development is completed to facilitate collection of groundwater samples.

stabilization of the pressure head for a minimum of 10 minutes, the pressure in the test well will be released and the water level in the test well and designated observation wells will be recorded using pressure transducers and associated data loggers. The data recording frequency for the pressure transducers in the observation wells will be set to 1 second for the entire length of the test. The test well data recording frequency will be set to 10 seconds during pressurization and stabilization prior to the test, and a logarithmic time interval (beginning at 1 second) during pressure release and recovery. All observation and test well pressure transducers and associated data loggers will be set to a pressure head reference value of zero prior to the pressure release. Up to three tests will be conducted at each of the shallow bedrock injection and monitoring wells (INJ-1S, INJ-2S, BDW-1S, and BDW-2S). Analysis of the cross-hole hydraulic tests will be performed using a qualitative visual inspection of the water levels in the test and observation wells.

Assumptions:

- It is assumed that the two new shallow bedrock injection wells (INJ-1S and INJ-2S) and two new shallow bedrock monitoring wells (BDW-1S and BDW-2S) will be tested in two-days by a two-person Ramboll field team.
- Work will be conducted in modified Level D personal protection without Tyvek® coveralls.
- CAMP monitoring will not be performed during cross-hole hydraulic testing.

SHORT-DURATION INJECTION TESTING

To evaluate injection rates at the shallow and deep bedrock injection wells during the amendment injections, short-duration (approximately 30-minute) injection tests will be performed at INJ-1S, INJ-2S, and RW-3D using a temporary injection apparatus and water either derived from a local drinking water municipality (i.e., Spring Valley Department of Public Works or a local water provider) or pumped from the Site wells. The short-duration testing will be completed using relatively low pressures (i.e., less than 10 to 20 psi) to evaluate achievable injection rates. The testing will require approximately 500 gallons of water for each shallow and deep bedrock injection well.

Assumptions:

- It is assumed that the two new shallow bedrock injection wells (INJ-1S and INJ-2S) and existing deep bedrock well RW-3D will be tested in three days by a three-person Ramboll field team.
- Water from the injection testing will be provided by a local drinking water municipality (i.e., Spring Valley Department of Public Works or a local water provider).
- Work will be conducted in modified Level D personal protection without Tyvek® coveralls.
- CAMP monitoring will not be conducted during short-duration injection testing.
- Permits will be prepared and submitted to NYSDEC prior to initiating the short-duration injection testing as specified in the Underground Injection Control (UIC) Program administered by USEPA.

STEP 4: AMENDMENT INJECTION DESIGN AND IMPLEMENTATION

AMENDMENT INJECTION DESIGN

Following completion of the pre-design activities, Ramboll will prepare and submit a final amendment injection design to NYSDEC for review and approval prior to implementation of the amendment injections. The final amendment injection design will be incorporated into an interim submittal that summarizes the results of the PDI activities. The amendments used during the injections will be selected based on the results of the baseline groundwater monitoring event. The primary candidates are sodium

lactate and EVO, with EVO being preferred because it is longer lasting. Any of the amendments would be diluted down to working strength in mixing tanks using dechlorinated municipal drinking water obtained under a permit with the Spring Valley Department of Public Works Water Department, suitable local water provider, and/or pumped groundwater from each injection well. Appropriate amounts of micronutrients (e.g., nitrogen, phosphorus), essential to bacterial growth, will be added with the carbon amendments.

This design effort will be presented in the PDI Report interim submittal presented in Step 6 of this SOW.

AMENDMENT INJECTION (costs not included)

Amendment discussion below presents the general approach that will be taken. Costs for amendment injection are not included in this submittal because amendment selection will require evaluation of data collected through Step 3. As noted above, final amendment design will be presented in the PDI Report.

The amendments will be injected into the three bedrock injection wells into the subsurface through an injection manifold consisting of piping, injection pumps, flow meters, pressure gauges, and back-pressure regulators connected to the amendment mixing tanks. For the purposes of this SOW, it is assumed that two amendment injections (initial and supplemental) will be performed. As discussed above, the amendment injections will consist of a mixture of amendments and nutrients containing vitamin B12, micronutrients, and municipal drinking water or Site groundwater to aid in the distribution of the amendments out into the formation. The amendments will provide a carbon source, generate hydrogen from electron donor fermentation, and promote the anaerobic conditions necessary for degradation of VOCs.

In the event that the baseline groundwater monitoring event indicates that the requisite bacteria to promote the various biodegradation pathways required by the pilot test are not present in the subsurface or not present at suitable levels, then bioaugmentation will be performed after the initial amendment injections. Bioaugmentation will involve purchase of a commercial bacterial culture and transport of that culture to the Site in stainless-steel canisters. The commercial bacterial culture will be added through the injection wells once the subsurface is sufficiently reduced by the amendments and distributed into the formation using anaerobic chase water. For the purposes of this SOW, it is assumed that bioaugmentation will be required.

During the amendment injections, water quality parameters consisting of temperature, specific-conductance, and turbidity will be evaluated in nearby monitoring wells in an attempt to measure amendment distribution in the subsurface. These parameters will be recorded using submersible data logging water quality meters deployed in Site and bedrock monitoring wells to be selected after evaluation of the PDI results. The water quality meters will be installed at the approximate midpoint of each monitoring well or adjacent to a fracture(s) of interest. Water quality parameters will be recorded at least every 15 minutes during injections. In addition, pH, DO, and ORP measurements will also be recorded for informational purposes. Water quality parameters will be collected at least one hour before the injections begin and will continue until breakthrough of the amendments has been established.

It should be noted that the amendment injections may result in adverse impacts to the GWE&T system should the system be placed back into operation before completion of the pilot study (before the

injected amendments have time to ferment and/or dissipate). Therefore, it is important to complete the post-injection performance monitoring before resuming operation of the GWE&T system.

Assumptions:

- It is assumed that two rounds of amendment injections will be performed during this future phase of work not included in this submittal.
- It is assumed that bioaugmentation will be performed after the amendment injections.
- Breakthrough of amendment injections will be monitored using submersible water quality meters deployed in Site bedrock wells.
- Work will be conducted in modified Level D personal protection without Tyvek® coveralls.
- CAMP monitoring will not be conducted during amendment injections and bioaugmentation.
- It is assumed that a skid-steer and operator will be required to move water tanks and amendments for mixing/injection, as necessary.
- Permits will be prepared and submitted to NYSDEC prior to initiating the amendment injections as specified in the UIC Program.
- It is assumed that the final amendments selected, amendment volumes, injection design and implementation, and costs will be included in the interim submittal (detailed in Step 6) and are not included in this Amendment.

STEP 5: POST-INJECTION GROUNDWATER PERFORMANCE MONITORING

Costs for Step 5 are included in this amendment because performance monitoring will not be affected by amendment selection.

After the completion of the initial amendment injections, groundwater performance monitoring will be performed on a quarterly basis in select monitoring wells (see **Table 1**) using low-flow groundwater sampling techniques.

Groundwater samples from each performance monitoring well location will be collected for VOCs by USEPA Method 8260. Groundwater samples will also be collected at select well locations that are in and downgradient from the source area for natural attenuation parameters (dissolved iron, manganese, and sodium [field filtered] by USEPA Method 6010D, chloride, nitrate, and sulfate by USEPA Method 353.2, sulfide by USEPA Method 4500-S₂F-2000, TOC by Method SM20 5310C, dissolved gases [methane, ethane, and ethene] by Method RSK-175, alkalinity [reported as CaCO₃ including carbonate, bicarbonate, and total alkalinity]), CSIA and microbiological analyses to assess the biodegradation and to document the growth of the specific bacteria required to support reductive dechlorination of the Site-related VOCs.

Quarterly sampling will be completed at all of the source, downgradient, and crossgradient well locations listed on **Table 1** for VOCs during a two-year performance monitoring period. Natural attenuation parameters will also be collected from source and downgradient well locations. In addition to VOCs and natural attenuation parameters, groundwater samples will also be collected annually for microbiological analyses and CSIA at new shallow bedrock observation well BDW-1S or BDW-2S.⁶

Consistent with the baseline groundwater monitoring event, the post-injection performance monitoring samples collected for CSIA and microbiological analyses will be submitted to MI for analysis. The remaining VOC and natural attenuation parameter samples will be submitted to the designated NYSDEC

analytical laboratory under the separate call-out contract. QC samples will be collected at a frequency of one set per 20 normal environmental samples and will include blind duplicate samples, equipment blank samples (for non-disposable equipment), MS/MSD sample pairs, and trip blanks. Trip blanks for VOC analysis will be included with each sample cooler containing VOC samples. Blind duplicate, MS/MSD sample pairs, and trip blank samples will be collected for VOC analysis only. A blind duplicate sample will also be collected for each natural attenuation parameter. No QC samples will be collected for the CSIA or microbiological analyses. Given that this is a pilot test, data validation of the VOC, natural attenuation parameter, CSIA, and microbiological results is not included.

Assumptions:

- It is assumed that eight post-injection groundwater performance monitoring events (i.e., one per quarter) will be performed over a two-year period.
- It is assumed that each quarterly post-injection groundwater performance monitoring event will be completed in one day by a two-person Ramboll field team.
- Groundwater samples will be collected as specified on **Table 1**.
- QC samples will be collected for VOCs and natural attenuation parameters. QC samples will not be collected for CSIA or microbiological analyses.
- QC samples for VOCs will consist of a blind duplicate, an MS/MSD pair, an equipment blank, and trip blanks. QC samples for natural attenuation parameters will consist of a blind duplicate.
- It is assumed that groundwater samples collected during the post-injection groundwater performance monitoring events will not be validated.
- It is assumed that each quarterly post-injection groundwater performance well will be sampled via low-flow purging and sampling methods.
- Purge water generated during groundwater sampling will be transferred to 55-gallon drums and staged for subsequent characterization and disposal.
- Work will be conducted in modified Level D personal protection without Tyvek® coveralls.
- CAMP monitoring will not be conducted during the groundwater sampling events.

INVESTIGATION-DERIVED WASTE MANAGEMENT

IDW will include PPE, plastic sheeting, soil and bedrock drill cuttings, settled solids, and decontamination fluids. This IDW will be segregated and placed in 55-gallon steel drums staged at the Site for subsequent characterization and proper disposal.

Assumptions:

- The generator for waste profiling and manifests will be identified as follows:
 - NYSDEC – COSCO Site
15 West Street
Spring Valley, NY 10977
- Consistent with Section 3.3(e) of DER-10, it is assumed that soil cuttings, bedrock cuttings, and purge water IDW from the Site is non-hazardous until analysis indicates otherwise, precluding the need for a 6NYCRR Part 364 Permit.
- One composite sample of soil cuttings, one composite sample of bedrock cuttings, and one composite sample of purge water (as needed) will be collected from the IDW for analysis of Toxicity Characteristic Leaching Procedure (TCLP) VOCs, ignitability, corrosivity, and reactivity.

- Ramboll will provide one person to collect the IDW characterization samples. The samples will be collected in conjunction with other on-Site tasks (i.e., survey oversight, post-injection groundwater performance monitoring events, etc.).
- It is assumed that Ramboll will obtain approval from the DPW to temporarily stage drummed IDW on the DPW property prior to characterization, transportation, and disposal.
- IDW drums will be labeled as IDW, pending sampling analysis, and staged transportation and disposal.
- It is assumed that Ramboll will provide one person to perform oversight of two IDW shipment events (i.e., one in 2023 and one in 2024). Each IDW shipment event is assumed to be completed in one day.
- Initial costs for IDW generation, characterization, transportation, and disposal are provided in the engineer's estimate.

SURVEYING

The newly-installed bedrock injection and monitoring wells will be surveyed by a New York State-licensed surveyor for horizontal and vertical control. The horizontal datum will be referenced to North American Datum (NAD) 1983 New York State Plane East Zone and the vertical datum to North American Vertical Datum (NAVD) 1988. Ground elevation data for the wells will be surveyed to the nearest 0.1-foot accuracy and measuring point and top-of-casing elevation data for the wells will be surveyed to the nearest 0.01-foot accuracy.

Assumptions:

- Ramboll will provide one person to review survey locations and provide access to the Site wells.
- It is assumed that the surveying will take one day to complete.
- As a licensed professional, the surveyor is not subject to prevailing wage.
- To the extent possible, surveying will be completed in conjunction with other on-Site tasks (i.e., post-injection groundwater performance monitoring events, etc.).

STEP 6: REPORTING

Reporting during the pilot study will consist of (a) an interim submittal detailing the PDI results and the final amendment injection design, (b) regular updates during the Monthly Coordination Calls with NYSDEC to document groundwater monitoring results during implementation of the pilot study, and (c) an RSOR and revised SMP, if the bioremediation is successful.

Interim Submittal with Final Amendment Injection Design

An interim submittal will be prepared for NYSDEC that documents the results of the PDI activities and the final amendment injection design prior to the initial amendment injections. The interim submittal will include:

- A summary of the PDI activities;
- The baseline groundwater sampling event results;
- The cross-hole hydraulic testing results;
- The short-term injection test results;
- The final amendment injection design including a summary of the final design and schematic of the system, summary of amendment and bioaugmentation products/materials to be used during injections, and injection rates and volumes or mass of the products/materials used during injection; and,

- Revised schedule of the initial injections, post-injection performance monitoring, RSOR, and revised SMP, if successful, preparation and submittal.

Routine Pilot Test Updates

Regular updates will be performed to provide NYSDEC to discuss the pilot test activities and the results of the quarterly post-injection performance monitoring in advance of the RSOR and revised SMP, if successful, preparation and submittal. The regular updates will be provided to NYSDEC as a data submittal attachment with the Monthly Coordination Call minutes. The data submittals will include laboratory analytical results provided by MI and the designated NYSDEC analytical laboratory under the separate call-out contract. Additional summary tables and figures may be prepared at the request of NYSDEC.

Remedial System Optimization Report

A RSOR will be prepared to document the implementation of the pilot study outlined in this SOW. The RSOR will include:

- A summary of the well installation and PDI results, amendment injection implementation, and post-injection groundwater performance monitoring;
- Summary data tables and figures of the results of the PDI activities, amendment injection implementation, and post-injection groundwater performance monitoring;
- Appendices consisting of well construction details, well development logs, low-flow groundwater sampling logs, laboratory analytical results, CAMP monitoring data, surveying results, and waste manifests; and,
- Conclusions and recommendations.

The RSOR will be prepared and submitted to NYSDEC within 30 days following the receipt of the analytical data packages for the last quarterly groundwater performance monitoring event (at the end of the two-year period) from MI and the designated NYSDEC analytical laboratory under the separate call-out contract. Additional details, assumptions, and clarifications regarding the schedule are discussed below.

Updated Site Management Plan

Assuming the bioremediation is successful and following review of the RSOR by NYSDEC, the SMP will be revised and submitted to NYSDEC for review and approval. The revised SMP will include recommendations to the current remedy as a result of the pilot study. For the purposes of this SOW, it is assumed that the costs to revise the SMP are included under Task 2 of Ramboll's original SOW.

Schedule

A tentative schedule summarizing the first phase of fieldwork activities (i.e., well installation, PDI activities and interim submittal with final amendment injection design) will be prepared for NYSDEC following approval of this SOW. The schedule will begin with submission and approval of this SOW. An assumed NYSDEC review time of 30 calendar days is included following the PDI submittal, and 45 calendar days following submittal of the RSOR. The schedule assumes 15 calendar days for Ramboll to address comments from NYSDEC on the initial submittals. Field activities will be initiated following NYSDEC-approval of this SOW provided all access agreements and permits are in place. A tentative schedule was provided to NYSDEC, and will be updated periodically during implementation of this SOW. The following provides an estimated schedule for the activities discussed in Steps 1 through 3 above assuming no significant delays due to uncontrollable circumstances:

- | | |
|---|---|
| • Private subsurface utility locating | 1-2 weeks following approval of SOW |
| • Installation of shallow bedrock wells | 1 week after private subsurface utility locating |
| • Well development/re-development | 1 week after completion of wells |
| • Baseline groundwater monitoring event | 1 week after completion of development |
| • Cross-hole hydraulic testing | 2 weeks after completion of sampling |
| • Short-duration injection testing | 2 weeks after cross-hole hydraulic testing |
| • Interim PDI submittal | 15 days following receipt of all baseline results |

Other assumptions/clarifications associated with the schedule include the following:

- Implementation of the SOW work activities including all fieldwork and laboratory analyses assumes no delays in the schedule due to NYSDEC and/or NYSDOH comments.
- This schedule assumes no additional field activities are required.
- This schedule assumes that there are no significant delays in field work due to inclement weather, subcontractor availability or due to the COVID-19 pandemic. Ramboll is closely following COVID-19 developments and will contact NYSDEC in the event any delay(s) become likely during implementation of the work.

Based on the above tasks sequencing and estimated timelines and assuming Ramboll is authorized to proceed by March 4, 2022, it is anticipated that Task 7 will commence during the week of March 7, 2022.

9.0 AMENDMENT 2 - ENHANCED IN-SITU BIOREMEDIATION PILOT STUDY (TASK 7) OUT-OF-SCOPE ITEMS

Several out-of-scope items were requested/required to execute Amendment 1 (Task 7). A summary of these items are as follows:

- Labor time to coordinate with Conrail, prepare a right-of-entry agreement, and obtain certificates of insurance (COI) documents to fully execute the agreement
- Labor time and direct expenses to participate in a Conrail Site-specific safety training to access the Site for personnel
- Coordination with Metropolitan Transit Authority (MTA) to prepare a right-of-entry agreement between Ramboll and MTA
- Additional coordination time with the NYSDEC call-out laboratory for revisions to laboratory reports
- NYSDEC-requested photo logs summarizing the drilling progress during installation of the shallow bedrock injection and monitoring wells

The costs for these out-of-scope items are included in this amendment.

10.0 AMENDMENT 2 - EISB PILOT STUDY AMENDMENT INJECTION DESIGN AND PASSIVE DIFFUSION BAG SAMPLING EVENT AT BDW-2S (TASK 8)

As discussed in the Pre-Design Investigation (PDI) Report, submitted by Ramboll to NYSDEC on November 1, 2022, and approved on November 28, 2022, the results of the PDI support the objective of the EISB pilot study; subsurface amendment injections with bioaugmentation to promote biodegradation of VOCs at the Site and subsequent post-injection groundwater performance monitoring. Additionally, the PDI also recommended:

(a) Based on the potentially anomalous VOC concentrations in BDW-2S compared to other nearby bedrock wells (INJ-1S, INJ-2S, and BDW-1S), BDW-2S should be re-sampled using a passive diffusion bag (PDB) to confirm of the baseline sampling results, and

(b) Based on the results of the cross-hole and short-duration injection testing, shallow bedrock observation well BDW-2S demonstrated hydraulic connection to the injection wells and as a result, may experience fouling after the injections are completed. Should this fouling occur and amendment cannot be flushed from the borehole, a contingent bedrock well may need to be installed further downgradient from the injection area to support post-injection groundwater performance monitoring events.

This task provides specific details for the final amendment injection design as a refinement to the information presented above. The final amendment injection design will include:

- The design and schematic of the system
- A summary of amendment and bioaugmentation products/materials to be used
- Injection rates and volumes or mass of the products/materials to be used

This task also documents the steps that will be performed for completion of the passive diffusion bag sampling event in shallow bedrock monitoring well BDW-2S and the contingent scope for installation of a new bedrock well should BDW-2S experience fouling.

AMENDMENT INJECTION DESIGN

The final amendment injection design consists of amendment injections (initial and supplemental), injection monitoring, and chase water injections. Amendments will be mixed in plastic polyethylene holding tank(s) at the surface and will be injected simultaneously into the two new shallow bedrock injection wells (INJ-1S and INJ-2S). After successful completion of the amendment injections into the shallow bedrock injection wells, amendments will be injected into deep bedrock recovery well RW-3D. The amendments will be injected into the three well locations using an injection manifold consisting of piping, injection pump(s), flow meters, pressure gauges, and back-pressure regulators connected to the amendment mixing tanks.

The amendment injections will be performed by Ramboll. It is assumed that two rounds of amendment injections (initial and supplemental) will be performed followed by chase water consisting of non-chlorinated potable water. Based on the results of the PDI, the initial amendment injection will consist of an EVO and nutrient batch containing a 2 percent (%) EVO mixture with vitamin B12, micronutrients (liquid growth factors and dibasic ammonium phosphate), and potable water to further distribute the amendments out into the formation. Hydrogen (electron donor) will be generated from degradation and promote anaerobic conditions necessary for bacterial degradation of VOCs. In addition, nitrogen, phosphorus, and other micronutrients (e.g., yeast) essential for bacteria growth will be added.

As presented in the PDI Report, the results of the baseline groundwater monitoring event indicate that the requisite bacteria populations are not robust enough to support reductive dechlorination at suitable levels (see Section 3.1.3). To introduce a strong microbiological community and enhance reductive dechlorination, bioaugmentation will be performed after the initial amendment injection.

Bioaugmentation will involve purchase of a commercial bacterial culture and transport of that culture to the Site. The commercial bacterial culture will be added into the injection wells once subsurface conditions are sufficiently reducing, allowing the bacteria to subsist and thrive.

The supplemental amendment injection will be consistent with the initial amendment injection, except without the bioaugmentation, as the bacterial culture will still be present.

Assumptions:

- An injection rate of 5-gallons per minute (gpm) is assumed.
- EVO injections will require approximately 25,000 gallons of mixture for the initial amendment injection, approximately 6,600 gallons per shallow injection well and approximately 11,800 gallons for RW-3D.
- Potable water for the amendment injections will be supplied locally.
- If non-chlorinated potable water is not obtainable, the water will be allowed to off-gas until chlorine is present at acceptable levels.
- The amendment injections will be performed by a two-person Ramboll field team.
- Approximately 20 days will be required to perform the initial amendment injection.
- It is assumed the supplemental EVO injection will be comparable in volume and duration to the initial EVO injection.
- It is assumed that the supplemental injections will be performed approximately one-year following completion of the initial amendment injections and subsequent post-injection groundwater performance monitoring.
- Work will be conducted in modified Level D personal protection without Tyvek® coveralls.
- CAMP monitoring will not be conducted during the amendment injections.

INITIAL AMENDMENT INJECTION MONITORING

During the initial amendment injection, water quality parameters will be monitored to evaluate the distribution of the amendments in the subsurface. Water quality parameters consisting of temperature, pH, specific-conductance, dissolved oxygen, oxidation reduction potential, and turbidity will be evaluated in nearby bedrock monitoring wells to measure amendment distribution in the subsurface. These parameters will be recorded using submersible data logging water quality meters deployed in Site bedrock monitoring wells BDW-1S, BDW-2S, DW-1, GP-4D, and RW-3D during the shallow bedrock amendment injections and BDW-1S, BDW-2S, DW-1, and GP-4D during the deep bedrock amendment injections. The water quality meters will be installed at the approximate midpoint of each monitoring well or adjacent to fracture(s) of observed during coring. Water quality parameters will be collected at least one hour before the injections begin and will continue until breakthrough of the amendments has been established.⁸

⁸ Because RW-3D is the only deep bedrock well at the Site, breakthrough of the amendments may not be observed in these shallow bedrock wells while performing the injection monitoring.

PASSIVE DIFFUSION BAG SAMPLING EVENT AT BDW-2S

As recommended in the PDI report, sampling of BDW-2S using a PDB will be performed prior to the amendment injections to evaluate the anomalously low concentrations of VOCs measured in the well during the July 2022 baseline groundwater sampling event. The PDB will be deployed at the midpoint of the saturated portion of the open bedrock borehole in BDW-2S for a minimum of 14 days to allow for equilibration between the PDB and the surrounding formation water. A groundwater sample will be collected for VOCs by USEPA Method 624 and submitted to the NYSDEC-specific call-out laboratory. A trip blank will be submitted with the sample. Data validation will not be performed on the PDB sample.

Assumptions:

- Ramboll will provide a two-person team to deploy the PDB and retrieve and sample the PDB.
- To the extent feasible, the PDB sampling will be performed in conjunction with other activities at the Site (i.e., upcoming IDW pick-up, etc.) to minimize costs.
- Water generated during groundwater sampling event will be transferred to 55-gallon drum and staged for subsequent transportation and disposal in accordance with the IDW management discussed in Task 7.
- Work will be conducted in modified Level D personal protection without Tyvek® coveralls.
- CAMP monitoring will not be conducted during the sampling event.

CONTINGENT BEDROCK WELL DRILLING AND INSTALLATION

Presented below is the general approach if an additional bedrock well is required to replace BDW-2S. Costs for the drilling and well installation are not included in this submittal; and, if necessary will be included in a subsequent amendment to NYSDEC.

Should BDW-2S become fouled, an additional bedrock monitoring well may be required to monitor VOC degradation downgradient of the source area. To maximize usability, the contingent well would be completed as shallow/deep bedrock pair within a single borehole. The shallow bedrock well would be completed from approximately 50 to 70 feet below grade, and the deep bedrock well would be completed from approximately 80 to 100 feet below grade. The shallow/deep bedrock monitoring well will be installed utilizing HQ3 wireline coring, wash rotary, air rotary, or roto sonic drilling techniques. The preferred overburden drilling method will be performed utilizing wash rotary. Prior to advancing the borehole into the overburden, the well location will be hand cleared to a minimum depth of 5 feet to confirm the presence/absence of subsurface utilities in the proposed drilling location. Upon reaching the top of the bedrock surface, a rock socket will be drilled using wash rotary techniques (e.g., tri-cone roller bit), followed by setting of an overburden isolation casing. The overburden will be sealed off by grouting the steel overburden isolation casing into the rock socket. The grout will be allowed to cure for approximately 24 hours before advancing the borehole to the final depth. After installation of the overburden isolation casing, the bedrock will be advanced utilizing HQ3 wireline coring techniques. If Site conditions warrant, alternative drilling methods may be utilized, as mentioned above.

The borehole will be cored to approximately 100 feet below grade. Each section of core will be described on a core log by a Ramboll geologist including related depth, identification of visible fractures, percent recovery, rock type, color, grain size, texture, bedding, and RQD. The bedrock will also be screened with a PID. Bedrock will be placed into labeled core boxes and staged at the Site. After the completion of rock coring, 2-inch, schedule 40 PVC riser pipe, and fifteen feet of 0.020"-slot well screen will be

installed within the open bedrock borehole. A filter pack silica sand, sized appropriately to the well screen in the borehole, will be introduced into the annular space surrounding the borehole to a height of approximately two feet above the top of the well screen. A bentonite slurry or chip seal will be placed in the annular space in the borehole to a height of approximately 70 feet below grade. The remainder of the annular space will be left as an open hole (from approximately 50 to 70 feet below grade). The open annular space will serve as the shallow bedrock monitoring well, while the screened portion below will serve as the deep monitoring well.

CAMP monitoring will be performed while installing the bedrock monitoring well in accordance with the NYSDOH generic CAMP requirements outlined in Appendix 1A of the DER-10 guidance document (NYSDEC, 2010).

The well will be completed as either an 8-inch diameter, bolt down, water-tight traffic rated flush-mount road boxes or above grade protective casing. The road box or protective casing will be completed in a two-foot concrete well pad, flush to existing grade.

REVISED SCHEDULE

A revised Gantt schedule was provided to NYSDEC on September 22, 2022, and will be updated periodically. The following provides an estimated schedule for the PDB sampling event at BDW-2S and initial amendment injections and bioaugmentation activities discussed in Task 8 above assuming no significant delays:

- Deploy PDB in BDW-2S January 2023
- Retrieve/sample PDB from BDW-2S February or March 2023
- Begin initial amendment injections March 2023
- Complete initial amendment injections April 2023
- Complete bioaugmentation activities April 2023

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APPENDIX C
ANNUAL INSPECTIONS

**APPENDIX C-1
ANNUAL SITE INSPECTION AND PHOTOGRAPHIC LOG**

NYSDEC COSCO SITE INSPECTION PHOTO LOG

Client name: NYSDEC		Site location: Spring Valley, NY	Project no.: 1940075217.005.016
Photo no. 1	Date: 3/9/2023		
Description:			
Monitoring well DW-1.			

Client name: NYSDEC		Site location: Spring Valley, NY	Project no.: 1940075217.005.016
Photo no. 2	Date: 3/9/2023		
Description:			
Monitoring well GP-4D.			

Client name: NYSDEC

Site location: Spring Valley, NY

Project no.: 1940075217.005.016

Photo no. 3

Date: 3/9/2023

Description:

Monitoring well GW-4S.



Client name: NYSDEC

Site location: Spring Valley, NY

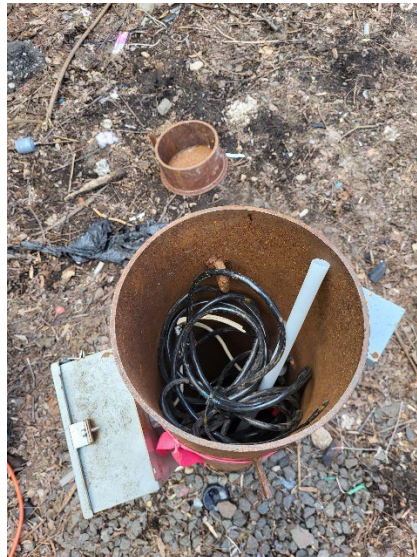
Project no.: 1940075217.005.016

Photo no. 4

Date: 3/9/2023

Description:

Recovery well RW-3D.



Client name: NYSDEC

Site location: Spring Valley, NY

Project no.: 1940075217.005.016

Photo no. 5

Date: 3/9/2023

Description:

Recovery well RW-1S.



Client name: NYSDEC

Site location: Spring Valley, NY

Project no.: 1940075217.005.016

Photo no. 6

Date: 3/9/2023

Description:

Monitoring well MW-18.



Client name: NYSDEC

Site location: Spring Valley, NY

Project no.: 1940075217.005.016

Photo no. 7

Date: 3/9/2023

Description:

Monitoring well MW-3.



Site location: Spring Valley, NY

Project no.: 1940075217.005.016

Photo no. 8

Date: 3/9/2023

Description:

Recovery well RW-8S.



Client name: NYSDEC

Site location: Spring Valley, NY

Project no.: 1940075217.005.016

Photo no. 9

Date: 3/9/2023

Description:

Injection Well INJ-1S.



Client name: NYSDEC

Site location: Spring Valley, NY

Project no.: 1940075217.005.016

Photo no. 10

Date: 3/9/2023

Description:

Injection Well INJ-2S .



Client name: NYSDEC **Site location: Spring Valley, NY** **Project no.: 1940075217.005.016**

Photo no. 11 Date: 3/9/2023

Description:

Recovery well BDW-1S.



Client name: NYSDEC **Site location: Spring Valley, NY** **Project no.: 1940075217.005.016**

Photo no. 12 Date: 3/9/2023

Description:

Well BDW-2S.



Photo no. 13 Date: 3/9/2023

Description:

Tailings Dump Area cap facing north.



Client name: NYSDEC

Site location: Spring Valley, NY

Project no.: 1940075217.005.016

Photo no. 14 Date: 3/9/2023

Description:

Tailings Dump Area cap facing north west.



Client name: NYSDEC

Site location: Spring Valley, NY

Project no.: 1940075217.005.016

Photo no. 15

Date: 3/9/2023

Description:

Closed gate to Tailings Dump Area.



Client name: NYSDEC

Site location: Spring Valley, NY

Project no.: 1940075217.005.016

Photo no. 16

Date: 3/9/2023

Description:

Close up of signs on Tailings Dump Area access gate.



Photo no. 17

Date: 3/9/2023

Description:

Site perimeter security fence and entrance gate along eastern edge of Site.



Photo no. 18

Date: 3/9/2023

Description:

Security fence in front of east side of COSCO building.



Client name: NYSDEC

Site location: Spring Valley, NY

Project no.: 1940075217.005.016

Photo no. 19

Date: 3/9/2023

Description:

Interior of onsite treatment system shed.



Client name: NYSDEC

Site location: Spring Valley, NY

Project no.: 1940075217.005.016

Photo no. 20

Date: 3/9/2023

Description:

SSDS located at 47 Commerce Street



APPENDIX C-2
ANNUAL SUB-SLAB DEPRESSURIZATION SYSTEM INSPECTION

SSDS and Crawlspace Venting Systems - Annual OM&M Inspection Form

System Address: 47 Commerce St Inspection Date/Time: 3/9/23 / 1100

Inspected By: Chris Weimer

Property Owner/Tenant Information

Name: unknown

Address (if different from system address): NA-

Phone: unknown

Tenant Name (if applicable): unknown

Weather Conditions:	<u>40°, sunny</u>
Inside Temp (F):	
Outside Temp (F):	<u>40°</u>
Barometric Pressure (in Hg): (from local weather station)	<u>30.17</u>

System Inspection (Circle Yes or No)

- Is the fan operating properly? Yes No *Appears to be off, no sound*
- Is the alarm system operating properly? Yes No *unknown*
- Is the fan making any unusual noises? Yes No *no noise*
- Is piping inside basement intact and properly supported? Yes No *unknown*
- Is piping outside basement intact and properly supported? Yes No
- Is any floor, wall or penetration sealing necessary? Yes No *unknown*
- Are system parameters within typical ranges? Yes No *unknown*

If not, please explain or note adjustments made: The fan appears to be off, unable to access site for further investigation

Are any system repairs/modifications required?

Yes

No

List areas sealed during O&M visit: none

List other system observations: none

List system repairs or modifications performed: none

Occupant Observations (Circle Yes or No) -

(can be completed over the phone during O&M visit scheduling or in person during O&M visit)

Have you noticed any changes to fan noise since last O&M visit? Yes No

Have you turned the fan(s) off for any period of time? Yes No

If yes, give reason: _____

Have you made or are you aware of any basement or foundation modifications? Yes No

If yes, describe changes: _____

Has alarm been triggered since last O&M visit? Yes No

If yes, describe situation: _____

APPENDIX D
GROUNDWATER SAMPLING FIELD FORMS

Groundwater Monitoring Purging and Sampling Form

**COSCO Site
Spring Valley, New York**

General

Well No.: MW-18
 Field Personnel: Sarah Travaly
 Weather Conditions: +80°F, Sunny
 Physical Condition of Well: Fire converted to flush mount
 Equipment used: Bailer

Purging Information

Date:	<u>7/26/22</u>	Measuring Point Elevation:	<u>99.32</u> ft. amsl
Purging Time:	Start: <u>1010</u>	Well Diameter:	<u>2.00</u> in.
	Stop: <u>1030</u>	Total Depth of Well Installed:	<u>23</u> ft. bmp
Volume to be Purged (3 vol.):	<u>6.81</u> gal.	Total Depth of Well Measured:	<u>22.86</u> ft. bmp
Volume Purged:	<u>6.81</u> gal.	Depth to Water:	<u>8.94</u> ft. bmp
Purging Method:	<u>Dedicated Bailer</u>	1 Well Volume:	<u>13.92</u> X <u>0.163</u> = <u>2.27</u> gal.
Purge Water Disposal Method:	<u>Containerize, transport to, and treat at the remedial shed on-site.</u>		

Purge Water Characteristics

Color: Brown Presence of NAPL: None
 Odor: None Other: _____
 Turbidity: High

Sampling Information

Date of Sample Collection: 7/26/22
 Time of Sample Collection: 1030 1045
 Sample Identification: MW-18-072622
 Method of Sample Collection: Dedicated Bailer
 Sample Description: Brown
 Containers: 3 x 40ml glass vov vials unpreserved
 Type of Preservative if any: none, cool 4°C
 Analytical Method Requested: VOCs by USEPA Method 624

4" well volume multiplier (gallons per foot) = 0.653 2" well volume multiplier (gallons per foot) = 0.163

Notes MS/MSD collected here
MW-18-072622-MS
MW-18-072622-MSD

Groundwater Monitoring Purging and Sampling Form

**COSCO Site
Spring Valley, New York**

General

Well No.: GW-4S
 Field Personnel: Sarah Travaly
 Weather Conditions: ± 80°F, Sunny
 Physical Condition of Well: Fine
 Equipment used: Bailer

Purging Information

Date: 7/26/22 Measuring Point Elevation: 101.49 ft. amsl
 Purging Time: Start: 1220 Well Diameter: 4.00 in.
 Stop: 1250 Total Depth of Well Installed: 25 ft. bmp
 Volume to be Purged (3 vol.): 24.73 gal. Total Depth of Well Measured: 28.50 ft. bmp
 Volume Purged: 30 gal. Depth to Water: 13.32 ft. bmp
 Purging Method: Dedicated Bailer 1 Well Volume: 15.18 X 0.653 = 9.91 gal.
 Purge Water Disposal Method: Containerize, transport to, and treat at the remedial shed on-site.

Purge Water Characteristics

Color: Brown Presence of NAPL: None
 Odor: None Other: _____
 Turbidity: High

Sampling Information

Date of Sample Collection: 7/26/22
 Time of Sample Collection: 1255
 Sample Identification: GW-4S-072622
 Method of Sample Collection: Dedicated Bailer
 Sample Description: Brown, turbid
 Containers: 28 x 40ml glass vov vials unpreserved
 Type of Preservative if any: none, cool 4°C
 Analytical Method Requested: VOCs by USEPA Method 624

4" well volume multiplier (gallons per foot) = 0.653 2" well volume multiplier (gallons per foot) = 0.163

Notes Need new 4" bailer & rope.



Groundwater Monitoring Purging and Sampling Form

COSCO Site
Spring Valley, New York

General

Well No.: RW-1S
 Field Personnel: Sarah Travalay
 Weather Conditions: +80°F, Sunny
 Physical Condition of Well: Fine
 Equipment used: Bailer

Purging Information

Date: 7-27-22 Measuring Point Elevation: 101.00 ft. amsl
 Purging Time: Start: 1140 Well Diameter: 4.00 in.
 Stop: 1155 Total Depth of Well Installed: 28 ft. bmp
 Volume to be Purged (3 vol.): 28.47 gal. Total Depth of Well Measured: 28.38 ft. bmp
 Volume Purged: 28.50 gal. Depth to Water: 13.85 ft. bmp
 Purging Method: Dedicated Bailer 1 Well Volume: 14.53 X 0.663 = 9.49 gal.
 Purge Water Disposal Method: Containerize, transport to, and treat at the remedial shed on-site.

Purge Water Characteristics

Color: Brown Presence of NAPL: None
 Odor: None Other: _____
 Turbidity: High

Sampling Information

Date of Sample Collection: 7-27-22
 Time of Sample Collection: 1200
 Sample Identification: RW-1S RW-1S-072722
 Method of Sample Collection: Dedicated Bailer
 Sample Description: Brown
 Containers: 2 x 40ml glass vials unpreserved
 Type of Preservative if any: none, cool 4°C
 Analytical Method Requested: VOCs by USEPA Method 624

4" well volume multiplier (gallons per foot) = 0.653 2" well volume multiplier (gallons per foot) = 0.163

Notes

Groundwater Monitoring Purging and Sampling Form

**COSCO Site
Spring Valley, New York**

General

Well No.: MW-3
 Field Personnel: Sarah Travalay
 Weather Conditions: +80°F Sunny
 Physical Condition of Well: Fair
 Equipment used: Bailer

Purging Information

Date: 7-27-22 Measuring Point Elevation: 98.64 ft. amsl
 Purging Time: Start: 0945 Well Diameter: 2.00 in.
 Stop: _____ Total Depth of Well Installed: 16.75 ft. bmp
 Volume to be Purged (3 vol.): 2.49 gal. Total Depth of Well Measured: 17.10 ft. bmp
 Volume Purged: 2.25 ~~2.50~~ gal. ⁽⁵⁾ Depth to Water: 12.01 ft. bmp
 Purging Method: Dedicated Bailer ^{7/27/22} 1 Well Volume: 5.09 X 0.163 = 0.83 gal.
 Purge Water Disposal Method: Containerize, transport to, and treat at the remedial shed on-site.

Purge Water Characteristics

Color: light brown Presence of NAPL: No, but iridescent sheen
 Odor: Moderate chemical Other: _____
 Turbidity: moderate

Sampling Information

Date of Sample Collection: 7-27-22
 Time of Sample Collection: _____
 Sample Identification: MW-3-072722
 Method of Sample Collection: Dedicated Bailer
 Sample Description: light brown
 Containers: 2 x 40ml glass vials unpreserved
 Type of Preservative if any: none, cool 4°C
 Analytical Method Requested: VOCs by USEPA Method 624

4" well volume multiplier (gallons per foot) = 0.653 2" well volume multiplier (gallons per foot) = 0.163

Notes

well purged dry 3 times w/ >1hr recharge between each
Needs new bailer.

Groundwater Monitoring Purging and Sampling Form

**COSCO Site
Spring Valley, New York**

General

Well No.: RW-8S
 Field Personnel: Sarah Travaly
 Weather Conditions: +80°F, sunny
 Physical Condition of Well: Fair
 Equipment used: Bailer

Purging Information

Date: 7/27/22 Measuring Point Elevation: 97.74 ft. amsl
 Purging Time: Start: 0905 Well Diameter: 4.00 in.
 Stop: 0925 Total Depth of Well Installed: 25 ft. bmp
 Volume to be Purged (3 vol.): 23.31 gal. Total Depth of Well Measured: 22.84 ft. bmp
 Volume Purged: 23.30 gal. Depth to Water: 10.96 ft. bmp
 Purging Method: Dedicated Bailer 1 Well Volume: 11.90 X 0.653 = 7.77 gal.
 Purge Water Disposal Method: Containerize, transport to, and treat at the remedial shed on-site.

Purge Water Characteristics

Color: Brown Presence of NAPL: None
 Odor: Organic Other: _____
 Turbidity: High

Sampling Information

Date of Sample Collection: 7-27-22
 Time of Sample Collection: 0930
 Sample Identification: RW-8S-072722
 Method of Sample Collection: Dedicated Bailer
 Sample Description: Brown, turbid
 Containers: 27 x 40ml glass vials unpreserved
 Type of Preservative if any: none, cool 4°C
 Analytical Method Requested: VOCs by USEPA Method 624

4" well volume multiplier (gallons per foot) = 0.653 2" well volume multiplier (gallons per foot) = 0.163

Notes

Field Dup X-01-072722 collected here

Site Name: NYSDEC - COSCO

Sampling Method: Bladder Pump

Field Personnel: CDU

Site Location: Spring Valley, NY

Monitoring Equipment: YSI & Lamotte 2020

Date: 7/26/22

Project #: 1940075217

Equipment ID#: Fao 2111/5064

Weather: Hot and Sunny

Well information:

Depth of Well*: 98.75 ft. bmp.
Depth to Water*: 12.65 ft. bmp.
Length of Water Column: 86.10 ft.
Well Diameter: 4.0 in.
Well Volume: 14,03 gal.

Well Volume Multipliers:

- 1 in. = 0.041 gal/ft
1.5 in. = 0.092 gal/ft
2 in. = 0.163 gal/ft
4 in. = 0.653 gal/ft

* Measurement Point:

- Well Casing
Protective Casing
Other:

Screen Interval: ft. bmp.
Pump Intake Depth*: 88 ft. bmp.

Start Purge Time: 1230 1255

Initial Observations:

Indicate Units

Table with 10 columns: Elapsed Time (minutes), Depth to Water (ft bmp), Temperature (Celsius), pH (SU), Specific Conductivity (mS/cm), ORP (mV), Dissolved Oxygen (mg/L), Turbidity (NTU), Flow Rate (mL/min), Other. Rows contain data from 0 to 40 minutes.

Stabilization table with columns for various parameters and their stabilization ranges (e.g., Δ ≤ 0.3', ± 3%, ± 0.1, ± 3%, ± 10 mV, ± 10%, ± 10%, 200 ≤ X ≤ 500).

End Purge Time: 1330

Total volume of groundwater purged: 3.5 gal.

Final Observations: Color Clear Odor None Sheen/Free Product none

Sample ID: GP-40-072622

Sample Time: 1440 1340

Analytical Parameters:

Table with 5 columns: Container Size, Container Type, # Collected, Field Filtered?, Preservative, Analysis.

Notes:

Site Name: NYSDEC - COSCO
 Site Location: Spring Valley, NY
 Project #: 1940075217

Sampling Method: Bladder Pump
 Monitoring Equipment: YSI & Lamotte 2020
 Equipment ID#: FAD 2111 13817

Field Personnel: CDW
 Date: 7/27/22
 Weather: 80° Sunny

Well information:

Depth of Well*: 105.64 ft. bmp.
 Depth to Water*: 47.66 ft. bmp.
 Length of Water Column: 57.98 ft.
 Well Diameter: 4.0 in.
 Well Volume: 37.86 gal.

Well Volume Multipliers:

- 1 in. = 0.041 gal/ft
 1.5 in. = 0.092 gal/ft
 2 in. = 0.163 gal/ft
 4 in. = 0.653 gal/ft

*** Measurement Point:**

- Well Casing
 Protective Casing
 Other: _____
 Screen Interval: _____ ft. bmp.
 Pump Intake Depth*: 85 80.0 ft. bmp.

Start Purge Time: 930
 Initial Observations:

Indicate Units

Elapsed Time (minutes)	Depth to Water (ft bmp)	Temperature (Celsius)	pH (SU)	Specific Conductivity (mS/cm)	ORP (mV)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	Flow Rate (mL/min)	Other ()
0	47.66	15.2	6.34	1.31	69.1	4.88	21.3	+100	
5	47.67	17.5	6.53	1.31	60.3	4.72	12.7	225	
10	47.66	16.9	6.85	1.31	59.3	4.60	10.38	240	
15	47.69	16.4	7.00	1.31	56.3	4.69	8.93	240	
20	47.70	15.9	7.13	1.31	59.6	4.75	8.24	240	
25	47.71	16.0	7.20	1.31	54.2	5.07	5.26	240	
30	47.72	16.1	7.24	1.31	55.1	5.10	3.41	240	
35	47.73	15.9	7.27	1.31	56.0	5.27	2.88	240	✓
40	47.74	15.9	7.29	1.31	56.0	5.24	2.63	240	
45	47.75	15.6	7.30	1.31	55.9	5.28	2.58	240	

Stabilization $\Delta \leq 0.3'$ $\pm 3\%$ ± 0.1 $\pm 3\%$ ± 10 mV $\pm 10\%$ $\pm 10\%$ $200 \leq X \leq 500$

End Purge Time: 1015

Total volume of groundwater purged: 3 gal.

Final Observations: Color clear Odor none Sheen/Free Product none

Sample ID: RW-3D-072722

Sample Time: 1020

Analytical Parameters:

Container Size	Container Type	# Collected	Field Filtered?	Preservative	Analysis

Notes: _____



Low Flow Groundwater Sampling Log

Well ID: DW-1

Site Name: NYSDEC - COSCO
 Site Location: Spring Valley, NY
 Project #: 1940075217

Sampling Method: - Bladder Pump
 Monitoring Equipment: YSI & Lamotte 2020
 Equipment ID#: SAP

Field Personnel: VCF
 Date: 7/27/22
 Weather: sunny 85

Well information:

Depth of Well*: 66.50 ft. bmp.
 Depth to Water*: 26.58 ft. bmp.
 Length of Water Column: _____ ft.
 Well Diameter: 4.0 in.
 Well Volume: _____ gal.

Well Volume Multipliers:

- 1 in. = 0.041 gal/ft
- 1.5 in. = 0.092 gal/ft
- 2 in. = 0.163 gal/ft
- 4 in. = 0.653 gal/ft

*** Measurement Point:**

- Well Casing
 - Protective Casing
 - Other: _____
- Screen Interval: 56.50 ft. bmp.
 Pump Intake Depth*: 56.50 ft. bmp.

Start Purge Time: 11:45

Initial Observations:

Indicate Units

Elapsed Time (minutes)	Depth to Water (ft bmp)	Temperature (Celsius)	pH (SU)	Specific Conductivity (mS/cm)	ORP (mV)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	Flow Rate (mL/min)	Other ()
5	<u>26.64</u>	<u>14.5</u>	<u>8.71</u>	<u>0.94</u>	<u>269.0</u>	<u>9.69</u>	<u>3.44</u>	<u>200</u>	
10	<u>26.64</u>	<u>14.4</u>	<u>8.50</u>	<u>0.99</u>	<u>265.8</u>	<u>8.57</u>	<u>2.89</u>	<u>200</u>	
15	<u>26.64</u>	<u>14.3</u>	<u>8.33</u>	<u>0.99</u>	<u>264.7</u>	<u>7.8</u>	<u>4.61</u>	<u>200</u>	
20	<u>26.64</u>	<u>14.3</u>	<u>8.23</u>	<u>1.00</u>	<u>267.1</u>	<u>7.56</u>	<u>3.14</u>	<u>200</u>	
25	<u>26.64</u>	<u>14.4</u>	<u>8.15</u>	<u>1.00</u>	<u>267.9</u>	<u>7.31</u>	<u>2.96</u>		
30	<u>26.64</u>	<u>14.4</u>	<u>8.16</u>	<u>1.00</u>	<u>267.3</u>	<u>7.20</u>	<u>3.01</u>		
35	<u>26.64</u>	<u>14.4</u>	<u>8.15</u>	<u>1.00</u>	<u>268.1</u>	<u>7.27</u>	<u>3.76</u>		
40	<u>26.64</u>	<u>14.4</u>	<u>8.14</u>	<u>1.00</u>	<u>268.6</u>	<u>7.19</u>	<u>1.54</u>		
Stabilization	Δ ≤ 0.3'	± 3%	± 0.1	± 3%	± 10 mV	± 10%	± 10%	200 ≤ X ≤ 500	

End Purge Time: 12:25

Total volume of groundwater purged: 3 gal.

Final Observations: Color clear Odor = Sheen/Free Product _____

Sample ID: DW-1-072722 Sample Time: 12:30

Analytical Parameters:

Container Size	Container Type	# Collected	Field Filtered?	Preservative	Analysis

Notes: _____

Groundwater Monitoring Purging and Sampling Form

COSCO Site
Spring Valley, New York**General**

Well No.: DW-1
 Field Personnel: AAV
 Weather Conditions: 40°, Sunny
 Physical Condition of Well: Good
 Equipment used: Waterra pump

Purging Information

Date: 03/08/2023 Measuring Point Elevation: 100.12 ft. amsl
 Purging Time: Start: 1050 Well Diameter: 4.00 in.
 Stop: 1225 Total Depth of Well Installed: 66.00 ft. bmp
 Volume to be Purged (3 vol.): 71.84 gal. Total Depth of Well Measured: 64.52 ft. bmp
 Volume Purged: 72 gal. Depth to Water: 27.85 ft. bmp
 Purging Method: Waterra pump 1 Well Volume: 36.67 X 0.653 = 23.94 gal.
 Purge Water Disposal Method: Containerize, transport to, and treat at the remedial shed on-site. 71.84

Purge Water Characteristics

Color: pale brown Presence of NAPL: none
 Odor: none Other: _____
 Turbidity: med

Sampling Information

Date of Sample Collection: 3/8/23
 Time of Sample Collection: 1230
 Sample Identification: DW-1-030823
 Method of Sample Collection: Waterra pump
 Sample Description: _____
 Containers: 2 x 40ml glass vials
 Type of Preservative if any: HCl, cool 4°C
 Analytical Method Requested: VOCs by USEPA Method 8260D

4" well volume multiplier (gallons per foot) = 0.653 2" well volume multiplier (gallons per foot) = 0.163

Notes

Groundwater Monitoring Purging and Sampling Form

**COSCO Site
Spring Valley, New York**

General

Well No.: MW-3
 Field Personnel: CDW
 Weather Conditions: 40° / Sunny
 Physical Condition of Well: good
 Equipment used: Bailer

Purging Information

Date:	<u>3/18/23</u>	Measuring Point Elevation:	<u>98.64</u> ft. amsl
Purging Time:	Start: <u>1100</u> Stop: <u>1110</u>	Well Diameter:	<u>2.00</u> in.
Volume to be Purged (3 vol.):	<u>3</u> gal.	Total Depth of Well Installed:	<u>16.75</u> ft. bmp
Volume Purged:	<u>3</u> gal.	Total Depth of Well Measured:	<u>17.15</u> ft. bmp
Purging Method:	<u>Dedicated Bailer</u>	Depth to Water:	<u>10.95</u> ft. bmp
Purge Water Disposal Method:	<u>Containerize, transport to, and treat at the remedial shed on-site.</u>		
		1 Well Volume:	<u>6.2 X 0.163 = 1.0</u> gal.

Purge Water Characteristics

Color: pale brown
 Odor: chemical
 Turbidity: med
 Presence of NAPL: iridescent sheen but no product
 Other: _____

Sampling Information

Date of Sample Collection: 3/18/23
 Time of Sample Collection: 1115
 Sample Identification: MW-3-030823
 Method of Sample Collection: Dedicated Bailer
 Sample Description: _____
 Containers: 3 x 40ml glass vov vials
 Type of Preservative if any: HCl, cool 4°C
 Analytical Method Requested: VOCs by USEPA Method 8260D

4" well volume multiplier (gallons per foot) = 0.653 2" well volume multiplier (gallons per foot) = 0.163

Notes replaced bailer

Groundwater Monitoring Purging and Sampling Form

**COSCO Site
Spring Valley, New York**

General

Well No.: RW-8S
 Field Personnel: CDW
 Weather Conditions: 40°, sunny
 Physical Condition of Well: 1 good
 Equipment used: Bailer

Purging Information

Date:	<u>3/8/23</u>	Measuring Point Elevation:	<u>97.74</u> ft. amsl
Purging Time:	Start: <u>.135</u>	Well Diameter:	<u>4.00</u> in.
	Stop: <u>1:55</u>	Total Depth of Well Installed:	<u>25.00</u> ft. bmp
Volume to be Purged (3 vol.):	<u>22.3</u> gal.	Total Depth of Well Measured:	<u>22.74</u> ft. bmp
Volume Purged:	<u>23</u> gal.	Depth to Water:	<u>11.02</u> ft. bmp
Purging Method:	<u>Dedicated Bailer</u>	1 Well Volume:	<u>11.72 X 0.653 = 7.4</u> gal. x3
Purge Water Disposal Method:	<u>Containerize, transport to, and treat at the remedial shed on-site.</u>		

Purge Water Characteristics

Color: Brown Presence of NAPL: none
 Odor: none Other: _____
 Turbidity: high

Sampling Information

Date of Sample Collection: 3/8/23
 Time of Sample Collection: 1200
 Sample Identification: RW-8S-030823 / Dup-01-030823
 Method of Sample Collection: Dedicated Bailer
 Sample Description: Cloudy
 Containers: 2x 40ml glass vov vials
 Type of Preservative if any: HCl, cool 4°C
 Analytical Method Requested: VOCs by USEPA Method 8260D

4" well volume multiplier (gallons per foot) = 0.653 2" well volume multiplier (gallons per foot) = 0.163

Notes

collected Dup 01 at this location

Groundwater Monitoring Purging and Sampling Form

**COSCO Site
Spring Valley, New York**

General

Well No.: GP-4D
 Field Personnel: CPD
 Weather Conditions: 40°, Sunny
 Physical Condition of Well: good
 Equipment used: Waterco

Purging Information

Date: 3/8/23 Measuring Point Elevation: 100.10 ft. amsl
 Purging Time: Start: 1400 Well Diameter: 2.00 in.
 Stop: 1442 Total Depth of Well Installed: 99.00 ft. bmp
 Volume to be Purged (3 vol.): 42.3 gal. Total Depth of Well Measured: 98.85 ft. bmp
 Volume Purged: 43 gal. Depth to Water: 12.44 ft. bmp
 Purging Method: Dedicated Bailer 1 Well Volume: 86.41 X = 14.6 gal.
 Purge Water Disposal Method: Containerize, transport to, and treat at the remedial shed on-site.

Purge Water Characteristics

Color: clear Brown tint Presence of NAPL: None
 Odor: none Other: _____
 Turbidity: low

Sampling Information

Date of Sample Collection: 3/8/23
 Time of Sample Collection: 1445
 Sample Identification: GP-4D-030823
 Method of Sample Collection: Dedicated Bailer
 Sample Description: _____
 Containers: 3 x 40ml glass vov vials
 Type of Preservative if any: HCl, cool 4°C
 Analytical Method Requested: VOCs by USEPA Method 8260D

4" well volume multiplier (gallons per foot) = 0.653 2" well volume multiplier (gallons per foot) = 0.163

Notes

Groundwater Monitoring Purging and Sampling Form

**COSCO Site
Spring Valley, New York**

General

Well No.: GW-4S
 Field Personnel: AAV
 Weather Conditions: 40°, sunny
 Physical Condition of Well: good
 Equipment used: Bailer

Purging Information

Date: 3/8/23 Measuring Point Elevation: 101.49 ft. amsl
 Purging Time: Start: 1400 Well Diameter: 4.00 in.
 Stop: 1430 Total Depth of Well Installed: 25.00 ft. bmp
 Volume to be Purged (3 vol.): 30.12 gal. Total Depth of Well Measured: 28.48 ft. bmp
 Volume Purged: gal. Depth to Water: 13.10 ft. bmp
 Purging Method: Dedicated Bailer 1 Well Volume: 15.38 X 0.653 = 10.04 gal.
 Purge Water Disposal Method: Containerize, transport to, and treat at the remedial shed on-site.

Purge Water Characteristics

Color: Brown Presence of NAPL: none
 Odor: None Other:
 Turbidity: low

Sampling Information

Date of Sample Collection: 3/8/23
 Time of Sample Collection: 1430
 Sample Identification: GW-4S-030823
 Method of Sample Collection: Dedicated Bailer
 Sample Description:
 Containers: 3 x 40ml glass voa vials
 Type of Preservative if any: HCl, cool 4°C
 Analytical Method Requested: VOCs by USEPA Method 8260D

4" well volume multiplier (gallons per foot) = 0.653 2" well volume multiplier (gallons per foot) = 0.163

Notes

Groundwater Monitoring Purging and Sampling Form

**COSCO Site
Spring Valley, New York**

General

Well No.: RW-3D
 Field Personnel: EDJ AAH
 Weather Conditions: 40°
 Physical Condition of Well: Good
 Equipment used: water pump

Purging Information

Date:	<u>3/19/23</u>	Measuring Point Elevation:	<u>100.54</u> ft. amsl
Purging Time:	Start: <u>900920</u>	Well Diameter:	<u>4.0</u> in. 0.00
	Stop: <u>1128</u>	Total Depth of Well Installed:	<u>102.50</u> ft. bmp
Volume to be Purged (3 vol.):	<u>109</u> gal.	Total Depth of Well Measured:	<u>105.5</u> ft. bmp
Volume Purged:	<u>110</u> gal.	Depth to Water:	<u>49.72</u> ft. bmp
Purging Method:	<u>Waterra pump</u>	1 Well Volume:	<u>55.74</u> X <u>0.653</u> = <u>36.42</u> gal.
Purge Water Disposal Method:	<u>Containerize, transport to, and treat at the remedial shed on-site.</u>		

Purge Water Characteristics

Color: Clear Presence of NAPL: None
 Odor: None Other: _____
 Turbidity: 100

Sampling Information

Date of Sample Collection: 3/19/23
 Time of Sample Collection: _____
 Sample Identification: RW-3D-030923/-MS/-MSD
 Method of Sample Collection: Waterra pump
 Sample Description: 1130
 Containers: 3 x 40ml glass vov vials
 Type of Preservative if any: HCl, cool 4°C
 Analytical Method Requested: VOCs by USEPA Method 8260D

4" well volume multiplier (gallons per foot) = 0.653 2" well volume multiplier (gallons per foot) = 0.163

Notes

6" well volume multiplier (gallons per foot) = 1.5
collected MS/MSD @ this location

Groundwater Monitoring Purging and Sampling Form

**COSCO Site
Spring Valley, New York**

General

Well No.: MW-18
 Field Personnel: CW AV
 Weather Conditions: 45° sunny
 Physical Condition of Well: Good
 Equipment used: Bailer

Purging Information

Date:	<u>3/19/23</u>	Measuring Point Elevation:	<u>99.32</u> ft. amsl
Purging Time:	Start: <u>1315</u>	Well Diameter:	<u>2.00</u> in.
	Stop: <u>1330</u>	Total Depth of Well Installed:	<u>23.00</u> ft. bmp
Volume to be Purged (3 vol.):	<u>6.25</u> gal.	Total Depth of Well Measured:	<u>22.86</u> ft. bmp
Volume Purged:	<u>6.5</u> gal.	Depth to Water:	<u>10.05</u> ft. bmp
Purging Method:	<u>Dedicated Bailer</u>	1 Well Volume:	<u>12.81</u> X <u>163</u> = <u>2.08</u> gal.
Purge Water Disposal Method:	<u>Containerize, transport to, and treat at the remedial shed on-site.</u>		

Purge Water Characteristics

Color: Brown Presence of NAPL: none
 Odor: slight chem Other: _____
 Turbidity: modest

Sampling Information

Date of Sample Collection: 3/19/23
 Time of Sample Collection: 1335
 Sample Identification: MW-18-030923
 Method of Sample Collection: Dedicated Bailer
 Sample Description: _____
 Containers: 3 x 40ml glass vov vials
 Type of Preservative if any: HCl, cool 4°C
 Analytical Method Requested: VOCs by USEPA Method 8260D

4" well volume multiplier (gallons per foot) = 0.653 2" well volume multiplier (gallons per foot) = 0.163

Notes

Groundwater Monitoring Purging and Sampling Form

**COSCO Site
Spring Valley, New York**

General

Well No.: RW-1S
 Field Personnel: CDW AAV
 Weather Conditions: 50°, sunny
 Physical Condition of Well: good
 Equipment used: bailer

Purging Information

Date: 3/9/23 Measuring Point Elevation: 101.00 ft. amsl
 Purging Time: Start: 1315 Well Diameter: 4.00 in.
 Stop: ~~1325~~ 1325 Total Depth of Well Installed: 28.00 ft. bmp
 Volume to be Purged (3 vol.): 2.8 gal. Total Depth of Well Measured: 28.45 ft. bmp
 Volume Purged: 2.8 gal. Depth to Water: 14.13 ft. bmp
 Purging Method: Dedicated Bailer 1 Well Volume: 14.32 X 0.653 = gal.
 Purge Water Disposal Method: Containerize, transport to, and treat at the remedial shed on-site.

Purge Water Characteristics

Color: Brown Presence of NAPL: none
 Odor: none Other: _____
 Turbidity: med

Sampling Information

Date of Sample Collection: 3/9/23
 Time of Sample Collection: 1330
 Sample Identification: RW-1S-030923
 Method of Sample Collection: Dedicated Bailer
 Sample Description: _____
 Containers: 3 x 40ml glass voa vials
 Type of Preservative if any: HCl, cool 4°C
 Analytical Method Requested: VOCs by USEPA Method 8260D

4" well volume multiplier (gallons per foot) = 0.653 2" well volume multiplier (gallons per foot) = 0.163

Notes

APPENDIX E
LABORATORY ANALYTICAL RESULTS SUMMARY

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

Project Location: Spring Valley, NY

Sample Description:

Work Order: 22G1491

Date Received: 7/27/2022

Field Sample #: MW-18-072622

Sampled: 7/26/2022 10:45

Sample ID: 22G1491-01

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	50	2.0	µg/L	1	V-05	SW-846 8260D	7/28/22	7/28/22 14:33	LBD
Acrylonitrile	ND	5.0	0.55	µg/L	1		SW-846 8260D	7/28/22	7/28/22 14:33	LBD
tert-Amyl Methyl Ether (TAME)	ND	0.50	0.14	µg/L	1		SW-846 8260D	7/28/22	7/28/22 14:33	LBD
Benzene	ND	1.0	0.20	µg/L	1		SW-846 8260D	7/28/22	7/28/22 14:33	LBD
Bromobenzene	ND	1.0	0.15	µg/L	1		SW-846 8260D	7/28/22	7/28/22 14:33	LBD
Bromochloromethane	ND	1.0	0.31	µg/L	1	UJ	SW-846 8260D	7/28/22	7/28/22 14:33	LBD
Bromodichloromethane	ND	0.50	0.18	µg/L	1		SW-846 8260D	7/28/22	7/28/22 14:33	LBD
Bromoform	ND	1.0	0.38	µg/L	1		SW-846 8260D	7/28/22	7/28/22 14:33	LBD
Bromomethane	ND	5.0	1.5	µg/L	1	V-34 UJ	SW-846 8260D	7/28/22	7/28/22 14:33	LBD
2-Butanone (MEK)	ND	20	1.6	µg/L	1	V-05	SW-846 8260D	7/28/22	7/28/22 14:33	LBD
tert-Butyl Alcohol (TBA)	ND	20	4.7	µg/L	1	V-05 UJ	SW-846 8260D	7/28/22	7/28/22 14:33	LBD
n-Butylbenzene	ND	1.0	0.15	µg/L	1		SW-846 8260D	7/28/22	7/28/22 14:33	LBD
sec-Butylbenzene	ND	1.0	0.11	µg/L	1		SW-846 8260D	7/28/22	7/28/22 14:33	LBD
tert-Butylbenzene	ND	1.0	0.13	µg/L	1		SW-846 8260D	7/28/22	7/28/22 14:33	LBD
tert-Butyl Ethyl Ether (TBEE)	ND	0.50	0.15	µg/L	1		SW-846 8260D	7/28/22	7/28/22 14:33	LBD
Carbon Disulfide	ND	5.0	1.4	µg/L	1		SW-846 8260D	7/28/22	7/28/22 14:33	LBD
Carbon Tetrachloride	ND	5.0	0.16	µg/L	1		SW-846 8260D	7/28/22	7/28/22 14:33	LBD
Chlorobenzene	ND	1.0	0.11	µg/L	1		SW-846 8260D	7/28/22	7/28/22 14:33	LBD
Chlorodibromomethane	ND	0.50	0.22	µg/L	1		SW-846 8260D	7/28/22	7/28/22 14:33	LBD
Chloroethane	ND	2.0	0.32	µg/L	1		SW-846 8260D	7/28/22	7/28/22 14:33	LBD
Chloroform	ND	2.0	0.17	µg/L	1		SW-846 8260D	7/28/22	7/28/22 14:33	LBD
Chloromethane	ND	2.0	0.52	µg/L	1	L-04, V-05, V-34 UJ	SW-846 8260D	7/28/22	7/28/22 14:33	LBD
2-Chlorotoluene	ND	1.0	0.11	µg/L	1		SW-846 8260D	7/28/22	7/28/22 14:33	LBD
4-Chlorotoluene	ND	1.0	0.12	µg/L	1		SW-846 8260D	7/28/22	7/28/22 14:33	LBD
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0	0.80	µg/L	1	V-05 UJ	SW-846 8260D	7/28/22	7/28/22 14:33	LBD
1,2-Dibromoethane (EDB)	ND	0.50	0.17	µg/L	1		SW-846 8260D	7/28/22	7/28/22 14:33	LBD
Dibromomethane	ND	1.0	0.35	µg/L	1		SW-846 8260D	7/28/22	7/28/22 14:33	LBD
1,2-Dichlorobenzene	ND	1.0	0.12	µg/L	1		SW-846 8260D	7/28/22	7/28/22 14:33	LBD
1,3-Dichlorobenzene	ND	1.0	0.12	µg/L	1		SW-846 8260D	7/28/22	7/28/22 14:33	LBD
1,4-Dichlorobenzene	ND	1.0	0.13	µg/L	1		SW-846 8260D	7/28/22	7/28/22 14:33	LBD
trans-1,4-Dichloro-2-butene	ND	2.0	1.6	µg/L	1		SW-846 8260D	7/28/22	7/28/22 14:33	LBD
Dichlorodifluoromethane (Freon 12)	ND	2.0	0.19	µg/L	1		SW-846 8260D	7/28/22	7/28/22 14:33	LBD
1,1-Dichloroethane	ND	1.0	0.14	µg/L	1		SW-846 8260D	7/28/22	7/28/22 14:33	LBD
1,2-Dichloroethane	ND	1.0	0.31	µg/L	1		SW-846 8260D	7/28/22	7/28/22 14:33	LBD
1,1-Dichloroethylene	ND	1.0	0.14	µg/L	1		SW-846 8260D	7/28/22	7/28/22 14:33	LBD
cis-1,2-Dichloroethylene	19	1.0	0.15	µg/L	1		SW-846 8260D	7/28/22	7/28/22 14:33	LBD
trans-1,2-Dichloroethylene	0.23	1.0	0.17	µg/L	1	J	SW-846 8260D	7/28/22	7/28/22 14:33	LBD
1,2-Dichloropropane	ND	1.0	0.18	µg/L	1		SW-846 8260D	7/28/22	7/28/22 14:33	LBD
1,3-Dichloropropane	ND	0.50	0.13	µg/L	1		SW-846 8260D	7/28/22	7/28/22 14:33	LBD
2,2-Dichloropropane	ND	1.0	0.33	µg/L	1		SW-846 8260D	7/28/22	7/28/22 14:33	LBD
1,1-Dichloropropene	ND	2.0	0.15	µg/L	1		SW-846 8260D	7/28/22	7/28/22 14:33	LBD
cis-1,3-Dichloropropene	ND	0.50	0.16	µg/L	1		SW-846 8260D	7/28/22	7/28/22 14:33	LBD
trans-1,3-Dichloropropene	ND	0.50	0.17	µg/L	1		SW-846 8260D	7/28/22	7/28/22 14:33	LBD
Diethyl Ether	ND	2.0	0.18	µg/L	1		SW-846 8260D	7/28/22	7/28/22 14:33	LBD

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

Project Location: Spring Valley, NY

Sample Description:

Work Order: 22G1491

Date Received: 7/27/2022

Field Sample #: MW-18-072622

Sampled: 7/26/2022 10:45

Sample ID: 22G1491-01

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	0.50	0.13	µg/L	1		SW-846 8260D	7/28/22	7/28/22 14:33	LBD
1,4-Dioxane	ND	50	21	µg/L	1		SW-846 8260D	7/28/22	7/28/22 14:33	LBD
Ethylbenzene	ND	1.0	0.21	µg/L	1		SW-846 8260D	7/28/22	7/28/22 14:33	LBD
Hexachlorobutadiene	ND	0.60	0.46	µg/L	1		SW-846 8260D	7/28/22	7/28/22 14:33	LBD
2-Hexanone (MBK)	ND	10	1.1	µg/L	1		SW-846 8260D	7/28/22	7/28/22 14:33	LBD
Isopropylbenzene (Cumene)	ND	1.0	0.11	µg/L	1		SW-846 8260D	7/28/22	7/28/22 14:33	LBD
p-Isopropyltoluene (p-Cymene)	ND	1.0	0.097	µg/L	1		SW-846 8260D	7/28/22	7/28/22 14:33	LBD
Methyl Acetate	ND	1.0	0.45	µg/L	1	V-05	SW-846 8260D	7/28/22	7/28/22 14:33	LBD
Methyl tert-Butyl Ether (MTBE)	ND	1.0	0.17	µg/L	1		SW-846 8260D	7/28/22	7/28/22 14:33	LBD
Methyl Cyclohexane	ND	1.0	0.24	µg/L	1		SW-846 8260D	7/28/22	7/28/22 14:33	LBD
Methylene Chloride	ND	5.0	0.23	µg/L	1		SW-846 8260D	7/28/22	7/28/22 14:33	LBD
4-Methyl-2-pentanone (MIBK)	ND	10	1.3	µg/L	1		SW-846 8260D	7/28/22	7/28/22 14:33	LBD
Naphthalene	ND	2.0	0.24	µg/L	1	V-05 UJ	SW-846 8260D	7/28/22	7/28/22 14:33	LBD
n-Propylbenzene	ND	1.0	0.086	µg/L	1		SW-846 8260D	7/28/22	7/28/22 14:33	LBD
Styrene	ND	1.0	0.11	µg/L	1		SW-846 8260D	7/28/22	7/28/22 14:33	LBD
1,1,1,2-Tetrachloroethane	ND	1.0	0.18	µg/L	1		SW-846 8260D	7/28/22	7/28/22 14:33	LBD
1,1,2,2-Tetrachloroethane	ND	0.50	0.13	µg/L	1		SW-846 8260D	7/28/22	7/28/22 14:33	LBD
Tetrachloroethylene	1.4	1.0	0.19	µg/L	1		SW-846 8260D	7/28/22	7/28/22 14:33	LBD
Tetrahydrofuran	ND	10	0.49	µg/L	1		SW-846 8260D	7/28/22	7/28/22 14:33	LBD
Toluene	ND	1.0	0.22	µg/L	1		SW-846 8260D	7/28/22	7/28/22 14:33	LBD
1,2,3-Trichlorobenzene	ND	5.0	0.30	µg/L	1	V-05	SW-846 8260D	7/28/22	7/28/22 14:33	LBD
1,2,4-Trichlorobenzene	ND	1.0	0.25	µg/L	1		SW-846 8260D	7/28/22	7/28/22 14:33	LBD
1,3,5-Trichlorobenzene	ND	1.0	0.21	µg/L	1		SW-846 8260D	7/28/22	7/28/22 14:33	LBD
1,1,1-Trichloroethane	ND	1.0	0.17	µg/L	1		SW-846 8260D	7/28/22	7/28/22 14:33	LBD
1,1,2-Trichloroethane	ND	1.0	0.18	µg/L	1		SW-846 8260D	7/28/22	7/28/22 14:33	LBD
Trichloroethylene	2.1	1.0	0.19	µg/L	1		SW-846 8260D	7/28/22	7/28/22 14:33	LBD
Trichlorofluoromethane (Freon 11)	ND	2.0	0.18	µg/L	1		SW-846 8260D	7/28/22	7/28/22 14:33	LBD
1,2,3-Trichloropropane	ND	2.0	0.28	µg/L	1		SW-846 8260D	7/28/22	7/28/22 14:33	LBD
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	1.0	0.23	µg/L	1		SW-846 8260D	7/28/22	7/28/22 14:33	LBD
1,2,4-Trimethylbenzene	ND	1.0	0.20	µg/L	1		SW-846 8260D	7/28/22	7/28/22 14:33	LBD
1,3,5-Trimethylbenzene	ND	1.0	0.11	µg/L	1		SW-846 8260D	7/28/22	7/28/22 14:33	LBD
Vinyl Chloride	9.8	2.0	0.21	µg/L	1		SW-846 8260D	7/28/22	7/28/22 14:33	LBD
m+p Xylene	ND	2.0	0.46	µg/L	1		SW-846 8260D	7/28/22	7/28/22 14:33	LBD
o-Xylene	ND	1.0	0.23	µg/L	1		SW-846 8260D	7/28/22	7/28/22 14:33	LBD
Surrogates		% Recovery	Recovery Limits			Flag/Qual				
1,2-Dichloroethane-d4		79.2	70-130						7/28/22 14:33	
Toluene-d8		96.3	70-130						7/28/22 14:33	
4-Bromofluorobenzene		104	70-130						7/28/22 14:33	

VJM
3/30/23

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

Project Location: Spring Valley, NY

Sample Description:

Work Order: 22G1491

Date Received: 7/27/2022

Field Sample #: GW-4S-072622

Sampled: 7/26/2022 12:55

Sample ID: 22G1491-03

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	50	2.0	µg/L	1	V-05	SW-846 8260D	7/28/22	7/28/22 15:00	LBD
Acrylonitrile	ND	5.0	0.55	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:00	LBD
tert-Amyl Methyl Ether (TAME)	ND	0.50	0.14	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:00	LBD
Benzene	ND	1.0	0.20	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:00	LBD
Bromobenzene	ND	1.0	0.15	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:00	LBD
Bromochloromethane	ND	1.0	0.31	µg/L	1	UJ	SW-846 8260D	7/28/22	7/28/22 15:00	LBD
Bromodichloromethane	ND	0.50	0.18	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:00	LBD
Bromoform	ND	1.0	0.38	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:00	LBD
Bromomethane	ND	5.0	1.5	µg/L	1	V-34 UJ	SW-846 8260D	7/28/22	7/28/22 15:00	LBD
2-Butanone (MEK)	ND	20	1.6	µg/L	1	V-05	SW-846 8260D	7/28/22	7/28/22 15:00	LBD
tert-Butyl Alcohol (TBA)	ND	20	4.7	µg/L	1	V-05 UJ	SW-846 8260D	7/28/22	7/28/22 15:00	LBD
n-Butylbenzene	ND	1.0	0.15	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:00	LBD
sec-Butylbenzene	ND	1.0	0.11	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:00	LBD
tert-Butylbenzene	ND	1.0	0.13	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:00	LBD
tert-Butyl Ethyl Ether (TBEE)	ND	0.50	0.15	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:00	LBD
Carbon Disulfide	ND	5.0	1.4	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:00	LBD
Carbon Tetrachloride	ND	5.0	0.16	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:00	LBD
Chlorobenzene	ND	1.0	0.11	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:00	LBD
Chlorodibromomethane	ND	0.50	0.22	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:00	LBD
Chloroethane	ND	2.0	0.32	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:00	LBD
Chloroform	ND	2.0	0.17	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:00	LBD
Chloromethane	ND	2.0	0.52	µg/L	1	V-05, V-34, L-04 UJ	SW-846 8260D	7/28/22	7/28/22 15:00	LBD
2-Chlorotoluene	ND	1.0	0.11	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:00	LBD
4-Chlorotoluene	ND	1.0	0.12	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:00	LBD
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0	0.80	µg/L	1	V-05 UJ	SW-846 8260D	7/28/22	7/28/22 15:00	LBD
1,2-Dibromoethane (EDB)	ND	0.50	0.17	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:00	LBD
Dibromomethane	ND	1.0	0.35	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:00	LBD
1,2-Dichlorobenzene	ND	1.0	0.12	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:00	LBD
1,3-Dichlorobenzene	ND	1.0	0.12	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:00	LBD
1,4-Dichlorobenzene	ND	1.0	0.13	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:00	LBD
trans-1,4-Dichloro-2-butene	ND	2.0	1.6	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:00	LBD
Dichlorodifluoromethane (Freon 12)	ND	2.0	0.19	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:00	LBD
1,1-Dichloroethane	ND	1.0	0.14	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:00	LBD
1,2-Dichloroethane	ND	1.0	0.31	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:00	LBD
1,1-Dichloroethylene	ND	1.0	0.14	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:00	LBD
cis-1,2-Dichloroethylene	0.42	1.0	0.15	µg/L	1	J	SW-846 8260D	7/28/22	7/28/22 15:00	LBD
trans-1,2-Dichloroethylene	ND	1.0	0.17	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:00	LBD
1,2-Dichloropropane	ND	1.0	0.18	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:00	LBD
1,3-Dichloropropane	ND	0.50	0.13	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:00	LBD
2,2-Dichloropropane	ND	1.0	0.33	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:00	LBD
1,1-Dichloropropene	ND	2.0	0.15	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:00	LBD
cis-1,3-Dichloropropene	ND	0.50	0.16	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:00	LBD
trans-1,3-Dichloropropene	ND	0.50	0.17	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:00	LBD
Diethyl Ether	ND	2.0	0.18	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:00	LBD

 VJH
 3/30/23

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

Project Location: Spring Valley, NY

Sample Description:

Work Order: 22G1491

Date Received: 7/27/2022

Field Sample #: GW-4S-072622

Sampled: 7/26/2022 12:55

Sample ID: 22G1491-03

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	0.50	0.13	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:00	LBD
1,4-Dioxane	ND	50	21	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:00	LBD
Ethylbenzene	ND	1.0	0.21	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:00	LBD
Hexachlorobutadiene	ND	0.60	0.46	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:00	LBD
2-Hexanone (MBK)	ND	10	1.1	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:00	LBD
Isopropylbenzene (Cumene)	ND	1.0	0.11	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:00	LBD
p-Isopropyltoluene (p-Cymene)	ND	1.0	0.097	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:00	LBD
Methyl Acetate	ND	1.0	0.45	µg/L	1	V-05	SW-846 8260D	7/28/22	7/28/22 15:00	LBD
Methyl tert-Butyl Ether (MTBE)	ND	1.0	0.17	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:00	LBD
Methyl Cyclohexane	ND	1.0	0.24	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:00	LBD
Methylene Chloride	ND	5.0	0.23	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:00	LBD
4-Methyl-2-pentanone (MIBK)	ND	10	1.3	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:00	LBD
Naphthalene	ND	2.0	0.24	µg/L	1	V-05 UJ	SW-846 8260D	7/28/22	7/28/22 15:00	LBD
n-Propylbenzene	ND	1.0	0.086	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:00	LBD
Styrene	ND	1.0	0.11	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:00	LBD
1,1,1,2-Tetrachloroethane	ND	1.0	0.18	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:00	LBD
1,1,2,2-Tetrachloroethane	ND	0.50	0.13	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:00	LBD
Tetrachloroethylene	ND	1.0	0.19	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:00	LBD
Tetrahydrofuran	ND	10	0.49	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:00	LBD
Toluene	ND	1.0	0.22	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:00	LBD
1,2,3-Trichlorobenzene	ND	5.0	0.30	µg/L	1	V-05	SW-846 8260D	7/28/22	7/28/22 15:00	LBD
1,2,4-Trichlorobenzene	ND	1.0	0.25	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:00	LBD
1,3,5-Trichlorobenzene	ND	1.0	0.21	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:00	LBD
1,1,1-Trichloroethane	ND	1.0	0.17	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:00	LBD
1,1,2-Trichloroethane	ND	1.0	0.18	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:00	LBD
Trichloroethylene	4.5	1.0	0.19	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:00	LBD
Trichlorofluoromethane (Freon 11)	ND	2.0	0.18	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:00	LBD
1,2,3-Trichloropropane	ND	2.0	0.28	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:00	LBD
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	1.0	0.23	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:00	LBD
1,2,4-Trimethylbenzene	ND	1.0	0.20	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:00	LBD
1,3,5-Trimethylbenzene	ND	1.0	0.11	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:00	LBD
Vinyl Chloride	ND	2.0	0.21	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:00	LBD
m+p Xylene	ND	2.0	0.46	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:00	LBD
o-Xylene	ND	1.0	0.23	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:00	LBD
Surrogates		% Recovery	Recovery Limits			Flag/Qual				
1,2-Dichloroethane-d4		78.8	70-130						7/28/22 15:00	
Toluene-d8		91.6	70-130						7/28/22 15:00	
4-Bromofluorobenzene		103	70-130						7/28/22 15:00	

VJH 3/30/23

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

Project Location: Spring Valley, NY

Sample Description:

Work Order: 22G1491

Date Received: 7/27/2022

Field Sample #: GP-4D-072622

Sampled: 7/26/2022 13:40

Sample ID: 22G1491-05

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	50	2.0	µg/L	1	V-05	SW-846 8260D	7/28/22	7/28/22 15:26	LBD
Acrylonitrile	ND	5.0	0.55	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:26	LBD
tert-Amyl Methyl Ether (TAME)	ND	0.50	0.14	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:26	LBD
Benzene	ND	1.0	0.20	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:26	LBD
Bromobenzene	ND	1.0	0.15	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:26	LBD
Bromochloromethane	ND	1.0	0.31	µg/L	1	UJ	SW-846 8260D	7/28/22	7/28/22 15:26	LBD
Bromodichloromethane	ND	0.50	0.18	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:26	LBD
Bromoform	ND	1.0	0.38	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:26	LBD
Bromomethane	ND	5.0	1.5	µg/L	1	V-34 UJ	SW-846 8260D	7/28/22	7/28/22 15:26	LBD
2-Butanone (MEK)	ND	20	1.6	µg/L	1	V-05	SW-846 8260D	7/28/22	7/28/22 15:26	LBD
tert-Butyl Alcohol (TBA)	ND	20	4.7	µg/L	1	V-05 UJ	SW-846 8260D	7/28/22	7/28/22 15:26	LBD
n-Butylbenzene	ND	1.0	0.15	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:26	LBD
sec-Butylbenzene	ND	1.0	0.11	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:26	LBD
tert-Butylbenzene	ND	1.0	0.13	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:26	LBD
tert-Butyl Ethyl Ether (TBEE)	ND	0.50	0.15	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:26	LBD
Carbon Disulfide	ND	5.0	1.4	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:26	LBD
Carbon Tetrachloride	ND	5.0	0.16	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:26	LBD
Chlorobenzene	ND	1.0	0.11	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:26	LBD
Chlorodibromomethane	ND	0.50	0.22	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:26	LBD
Chloroethane	ND	2.0	0.32	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:26	LBD
Chloroform	0.34	2.0	0.17	µg/L	1	J	SW-846 8260D	7/28/22	7/28/22 15:26	LBD
Chloromethane	ND	2.0	0.52	µg/L	1	L-04, V-05, V-34 UJ	SW-846 8260D	7/28/22	7/28/22 15:26	LBD
2-Chlorotoluene	ND	1.0	0.11	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:26	LBD
4-Chlorotoluene	ND	1.0	0.12	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:26	LBD
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0	0.80	µg/L	1	V-05 UJ	SW-846 8260D	7/28/22	7/28/22 15:26	LBD
1,2-Dibromoethane (EDB)	ND	0.50	0.17	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:26	LBD
Dibromomethane	ND	1.0	0.35	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:26	LBD
1,2-Dichlorobenzene	ND	1.0	0.12	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:26	LBD
1,3-Dichlorobenzene	ND	1.0	0.12	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:26	LBD
1,4-Dichlorobenzene	ND	1.0	0.13	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:26	LBD
trans-1,4-Dichloro-2-butene	ND	2.0	1.6	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:26	LBD
Dichlorodifluoromethane (Freon 12)	ND	2.0	0.19	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:26	LBD
1,1-Dichloroethane	ND	1.0	0.14	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:26	LBD
1,2-Dichloroethane	ND	1.0	0.31	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:26	LBD
1,1-Dichloroethylene	ND	1.0	0.14	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:26	LBD
cis-1,2-Dichloroethylene	ND	1.0	0.15	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:26	LBD
trans-1,2-Dichloroethylene	ND	1.0	0.17	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:26	LBD
1,2-Dichloropropane	ND	1.0	0.18	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:26	LBD
1,3-Dichloropropane	ND	0.50	0.13	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:26	LBD
2,2-Dichloropropane	ND	1.0	0.33	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:26	LBD
1,1-Dichloropropene	ND	2.0	0.15	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:26	LBD
cis-1,3-Dichloropropene	ND	0.50	0.16	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:26	LBD
trans-1,3-Dichloropropene	ND	0.50	0.17	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:26	LBD
Diethyl Ether	ND	2.0	0.18	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:26	LBD

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

Project Location: Spring Valley, NY

Sample Description:

Work Order: 22G1491

Date Received: 7/27/2022

Field Sample #: GP-4D-072622

Sampled: 7/26/2022 13:40

Sample ID: 22G1491-05

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	0.50	0.13	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:26	LBD
1,4-Dioxane	ND	50	21	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:26	LBD
Ethylbenzene	ND	1.0	0.21	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:26	LBD
Hexachlorobutadiene	ND	0.60	0.46	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:26	LBD
2-Hexanone (MBK)	ND	10	1.1	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:26	LBD
Isopropylbenzene (Cumene)	ND	1.0	0.11	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:26	LBD
p-Isopropyltoluene (p-Cymene)	ND	1.0	0.097	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:26	LBD
Methyl Acetate	ND	1.0	0.45	µg/L	1	V-05	SW-846 8260D	7/28/22	7/28/22 15:26	LBD
Methyl tert-Butyl Ether (MTBE)	ND	1.0	0.17	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:26	LBD
Methyl Cyclohexane	ND	1.0	0.24	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:26	LBD
Methylene Chloride	ND	5.0	0.23	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:26	LBD
4-Methyl-2-pentanone (MIBK)	ND	10	1.3	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:26	LBD
Naphthalene	ND	2.0	0.24	µg/L	1	V-05 UJ	SW-846 8260D	7/28/22	7/28/22 15:26	LBD
n-Propylbenzene	ND	1.0	0.086	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:26	LBD
Styrene	ND	1.0	0.11	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:26	LBD
1,1,1,2-Tetrachloroethane	ND	1.0	0.18	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:26	LBD
1,1,2,2-Tetrachloroethane	ND	0.50	0.13	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:26	LBD
Tetrachloroethylene	ND	1.0	0.19	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:26	LBD
Tetrahydrofuran	ND	10	0.49	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:26	LBD
Toluene	ND	1.0	0.22	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:26	LBD
1,2,3-Trichlorobenzene	ND	5.0	0.30	µg/L	1	V-05	SW-846 8260D	7/28/22	7/28/22 15:26	LBD
1,2,4-Trichlorobenzene	ND	1.0	0.25	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:26	LBD
1,3,5-Trichlorobenzene	ND	1.0	0.21	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:26	LBD
1,1,1-Trichloroethane	ND	1.0	0.17	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:26	LBD
1,1,2-Trichloroethane	ND	1.0	0.18	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:26	LBD
Trichloroethylene	ND	1.0	0.19	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:26	LBD
Trichlorofluoromethane (Freon 11)	ND	2.0	0.18	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:26	LBD
1,2,3-Trichloropropane	ND	2.0	0.28	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:26	LBD
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	1.0	0.23	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:26	LBD
1,2,4-Trimethylbenzene	ND	1.0	0.20	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:26	LBD
1,3,5-Trimethylbenzene	ND	1.0	0.11	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:26	LBD
Vinyl Chloride	ND	2.0	0.21	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:26	LBD
m+p Xylene	ND	2.0	0.46	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:26	LBD
o-Xylene	ND	1.0	0.23	µg/L	1		SW-846 8260D	7/28/22	7/28/22 15:26	LBD
Surrogates		% Recovery	Recovery Limits			Flag/Qual				
1,2-Dichloroethane-d4		79.2	70-130					7/28/22	15:26	
Toluene-d8		92.4	70-130					7/28/22	15:26	
4-Bromofluorobenzene		104	70-130					7/28/22	15:26	

VJM 3/30/23

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

Project Location: Spring Valley, NY

Sample Description:

Work Order: 22G1491

Date Received: 7/27/2022

Field Sample #: Trip Blank01-072622

Sampled: 7/26/2022 00:00

Sample ID: 22G1491-07

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	50	2.0	µg/L	1	V-05	SW-846 8260D	7/28/22	7/28/22 12:48	LBD
Acrylonitrile	ND	5.0	0.55	µg/L	1		SW-846 8260D	7/28/22	7/28/22 12:48	LBD
tert-Amyl Methyl Ether (TAME)	ND	0.50	0.14	µg/L	1		SW-846 8260D	7/28/22	7/28/22 12:48	LBD
Benzene	ND	1.0	0.20	µg/L	1		SW-846 8260D	7/28/22	7/28/22 12:48	LBD
Bromobenzene	ND	1.0	0.15	µg/L	1		SW-846 8260D	7/28/22	7/28/22 12:48	LBD
Bromochloromethane	ND	1.0	0.31	µg/L	1	UJ	SW-846 8260D	7/28/22	7/28/22 12:48	LBD
Bromodichloromethane	ND	0.50	0.18	µg/L	1		SW-846 8260D	7/28/22	7/28/22 12:48	LBD
Bromoform	ND	1.0	0.38	µg/L	1		SW-846 8260D	7/28/22	7/28/22 12:48	LBD
Bromomethane	ND	5.0	1.5	µg/L	1	V-34 UJ	SW-846 8260D	7/28/22	7/28/22 12:48	LBD
2-Butanone (MEK)	ND	20	1.6	µg/L	1	V-05	SW-846 8260D	7/28/22	7/28/22 12:48	LBD
tert-Butyl Alcohol (TBA)	ND	20	4.7	µg/L	1	V-05 UJ	SW-846 8260D	7/28/22	7/28/22 12:48	LBD
n-Butylbenzene	ND	1.0	0.15	µg/L	1		SW-846 8260D	7/28/22	7/28/22 12:48	LBD
sec-Butylbenzene	ND	1.0	0.11	µg/L	1		SW-846 8260D	7/28/22	7/28/22 12:48	LBD
tert-Butylbenzene	ND	1.0	0.13	µg/L	1		SW-846 8260D	7/28/22	7/28/22 12:48	LBD
tert-Butyl Ethyl Ether (TBEE)	ND	0.50	0.15	µg/L	1		SW-846 8260D	7/28/22	7/28/22 12:48	LBD
Carbon Disulfide	ND	5.0	1.4	µg/L	1		SW-846 8260D	7/28/22	7/28/22 12:48	LBD
Carbon Tetrachloride	ND	5.0	0.16	µg/L	1		SW-846 8260D	7/28/22	7/28/22 12:48	LBD
Chlorobenzene	ND	1.0	0.11	µg/L	1		SW-846 8260D	7/28/22	7/28/22 12:48	LBD
Chlorodibromomethane	ND	0.50	0.22	µg/L	1		SW-846 8260D	7/28/22	7/28/22 12:48	LBD
Chloroethane	ND	2.0	0.32	µg/L	1		SW-846 8260D	7/28/22	7/28/22 12:48	LBD
Chloroform	ND	2.0	0.17	µg/L	1		SW-846 8260D	7/28/22	7/28/22 12:48	LBD
Chloromethane	ND	2.0	0.52	µg/L	1	L-04, V-05, V-34 UJ	SW-846 8260D	7/28/22	7/28/22 12:48	LBD
2-Chlorotoluene	ND	1.0	0.11	µg/L	1		SW-846 8260D	7/28/22	7/28/22 12:48	LBD
4-Chlorotoluene	ND	1.0	0.12	µg/L	1		SW-846 8260D	7/28/22	7/28/22 12:48	LBD
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0	0.80	µg/L	1	V-05 UJ	SW-846 8260D	7/28/22	7/28/22 12:48	LBD
1,2-Dibromoethane (EDB)	ND	0.50	0.17	µg/L	1		SW-846 8260D	7/28/22	7/28/22 12:48	LBD
Dibromomethane	ND	1.0	0.35	µg/L	1		SW-846 8260D	7/28/22	7/28/22 12:48	LBD
1,2-Dichlorobenzene	ND	1.0	0.12	µg/L	1		SW-846 8260D	7/28/22	7/28/22 12:48	LBD
1,3-Dichlorobenzene	ND	1.0	0.12	µg/L	1		SW-846 8260D	7/28/22	7/28/22 12:48	LBD
1,4-Dichlorobenzene	ND	1.0	0.13	µg/L	1		SW-846 8260D	7/28/22	7/28/22 12:48	LBD
trans-1,4-Dichloro-2-butene	ND	2.0	1.6	µg/L	1		SW-846 8260D	7/28/22	7/28/22 12:48	LBD
Dichlorodifluoromethane (Freon 12)	ND	2.0	0.19	µg/L	1		SW-846 8260D	7/28/22	7/28/22 12:48	LBD
1,1-Dichloroethane	ND	1.0	0.14	µg/L	1		SW-846 8260D	7/28/22	7/28/22 12:48	LBD
1,2-Dichloroethane	ND	1.0	0.31	µg/L	1		SW-846 8260D	7/28/22	7/28/22 12:48	LBD
1,1-Dichloroethylene	ND	1.0	0.14	µg/L	1		SW-846 8260D	7/28/22	7/28/22 12:48	LBD
cis-1,2-Dichloroethylene	ND	1.0	0.15	µg/L	1		SW-846 8260D	7/28/22	7/28/22 12:48	LBD
trans-1,2-Dichloroethylene	ND	1.0	0.17	µg/L	1		SW-846 8260D	7/28/22	7/28/22 12:48	LBD
1,2-Dichloropropane	ND	1.0	0.18	µg/L	1		SW-846 8260D	7/28/22	7/28/22 12:48	LBD
1,3-Dichloropropane	ND	0.50	0.13	µg/L	1		SW-846 8260D	7/28/22	7/28/22 12:48	LBD
2,2-Dichloropropane	ND	1.0	0.33	µg/L	1		SW-846 8260D	7/28/22	7/28/22 12:48	LBD
1,1-Dichloropropene	ND	2.0	0.15	µg/L	1		SW-846 8260D	7/28/22	7/28/22 12:48	LBD
cis-1,3-Dichloropropene	ND	0.50	0.16	µg/L	1		SW-846 8260D	7/28/22	7/28/22 12:48	LBD
trans-1,3-Dichloropropene	ND	0.50	0.17	µg/L	1		SW-846 8260D	7/28/22	7/28/22 12:48	LBD
Diethyl Ether	ND	2.0	0.18	µg/L	1		SW-846 8260D	7/28/22	7/28/22 12:48	LBD

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

Project Location: Spring Valley, NY

Sample Description:

Work Order: 22G1491

Date Received: 7/27/2022

Field Sample #: Trip Blank01-072622

Sampled: 7/26/2022 00:00

Sample ID: 22G1491-07

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	0.50	0.13	µg/L	1		SW-846 8260D	7/28/22	7/28/22 12:48	LBD
1,4-Dioxane	ND	50	21	µg/L	1		SW-846 8260D	7/28/22	7/28/22 12:48	LBD
Ethylbenzene	ND	1.0	0.21	µg/L	1		SW-846 8260D	7/28/22	7/28/22 12:48	LBD
Hexachlorobutadiene	ND	0.60	0.46	µg/L	1		SW-846 8260D	7/28/22	7/28/22 12:48	LBD
2-Hexanone (MBK)	ND	10	1.1	µg/L	1		SW-846 8260D	7/28/22	7/28/22 12:48	LBD
Isopropylbenzene (Cumene)	ND	1.0	0.11	µg/L	1		SW-846 8260D	7/28/22	7/28/22 12:48	LBD
p-Isopropyltoluene (p-Cymene)	ND	1.0	0.097	µg/L	1		SW-846 8260D	7/28/22	7/28/22 12:48	LBD
Methyl Acetate	ND	1.0	0.45	µg/L	1	V-05	SW-846 8260D	7/28/22	7/28/22 12:48	LBD
Methyl tert-Butyl Ether (MTBE)	ND	1.0	0.17	µg/L	1		SW-846 8260D	7/28/22	7/28/22 12:48	LBD
Methyl Cyclohexane	ND	1.0	0.24	µg/L	1		SW-846 8260D	7/28/22	7/28/22 12:48	LBD
Methylene Chloride	ND	5.0	0.23	µg/L	1		SW-846 8260D	7/28/22	7/28/22 12:48	LBD
4-Methyl-2-pentanone (MIBK)	ND	10	1.3	µg/L	1		SW-846 8260D	7/28/22	7/28/22 12:48	LBD
Naphthalene	ND	2.0	0.24	µg/L	1	V-05 UJ	SW-846 8260D	7/28/22	7/28/22 12:48	LBD
n-Propylbenzene	ND	1.0	0.086	µg/L	1		SW-846 8260D	7/28/22	7/28/22 12:48	LBD
Styrene	ND	1.0	0.11	µg/L	1		SW-846 8260D	7/28/22	7/28/22 12:48	LBD
1,1,1,2-Tetrachloroethane	ND	1.0	0.18	µg/L	1		SW-846 8260D	7/28/22	7/28/22 12:48	LBD
1,1,2,2-Tetrachloroethane	ND	0.50	0.13	µg/L	1		SW-846 8260D	7/28/22	7/28/22 12:48	LBD
Tetrachloroethylene	ND	1.0	0.19	µg/L	1		SW-846 8260D	7/28/22	7/28/22 12:48	LBD
Tetrahydrofuran	ND	10	0.49	µg/L	1		SW-846 8260D	7/28/22	7/28/22 12:48	LBD
Toluene	ND	1.0	0.22	µg/L	1		SW-846 8260D	7/28/22	7/28/22 12:48	LBD
1,2,3-Trichlorobenzene	ND	5.0	0.30	µg/L	1	V-05	SW-846 8260D	7/28/22	7/28/22 12:48	LBD
1,2,4-Trichlorobenzene	ND	1.0	0.25	µg/L	1		SW-846 8260D	7/28/22	7/28/22 12:48	LBD
1,3,5-Trichlorobenzene	ND	1.0	0.21	µg/L	1		SW-846 8260D	7/28/22	7/28/22 12:48	LBD
1,1,1-Trichloroethane	ND	1.0	0.17	µg/L	1		SW-846 8260D	7/28/22	7/28/22 12:48	LBD
1,1,2-Trichloroethane	ND	1.0	0.18	µg/L	1		SW-846 8260D	7/28/22	7/28/22 12:48	LBD
Trichloroethylene	ND	1.0	0.19	µg/L	1		SW-846 8260D	7/28/22	7/28/22 12:48	LBD
Trichlorofluoromethane (Freon 11)	ND	2.0	0.18	µg/L	1		SW-846 8260D	7/28/22	7/28/22 12:48	LBD
1,2,3-Trichloropropane	ND	2.0	0.28	µg/L	1		SW-846 8260D	7/28/22	7/28/22 12:48	LBD
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	1.0	0.23	µg/L	1		SW-846 8260D	7/28/22	7/28/22 12:48	LBD
1,2,4-Trimethylbenzene	ND	1.0	0.20	µg/L	1		SW-846 8260D	7/28/22	7/28/22 12:48	LBD
1,3,5-Trimethylbenzene	ND	1.0	0.11	µg/L	1		SW-846 8260D	7/28/22	7/28/22 12:48	LBD
Vinyl Chloride	ND	2.0	0.21	µg/L	1		SW-846 8260D	7/28/22	7/28/22 12:48	LBD
m+p Xylene	ND	2.0	0.46	µg/L	1		SW-846 8260D	7/28/22	7/28/22 12:48	LBD
o-Xylene	ND	1.0	0.23	µg/L	1		SW-846 8260D	7/28/22	7/28/22 12:48	LBD
Surrogates		% Recovery	Recovery Limits			Flag/Qual				
1,2-Dichloroethane-d4		81.0	70-130						7/28/22 12:48	
Toluene-d8		91.0	70-130						7/28/22 12:48	
4-Bromofluorobenzene		102	70-130						7/28/22 12:48	


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

Project Location: Spring Valley, NY

Sample Description:

Work Order: 22G1596

Date Received: 7/28/2022

Field Sample #: RW-8S-072722

Sampled: 7/27/2022 09:30

Sample ID: 22G1596-01

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	50	2.0	µg/L	1	V-05	SW-846 8260D	7/29/22	7/29/22 13:37	LBD
Acrylonitrile	ND	5.0	0.55	µg/L	1		SW-846 8260D	7/29/22	7/29/22 13:37	LBD
tert-Amyl Methyl Ether (TAME)	ND	0.50	0.14	µg/L	1		SW-846 8260D	7/29/22	7/29/22 13:37	LBD
Benzene	ND	1.0	0.20	µg/L	1		SW-846 8260D	7/29/22	7/29/22 13:37	LBD
Bromobenzene	ND	1.0	0.15	µg/L	1		SW-846 8260D	7/29/22	7/29/22 13:37	LBD
Bromochloromethane	ND	1.0	0.31	µg/L	1		SW-846 8260D	7/29/22	7/29/22 13:37	LBD
Bromodichloromethane	ND	0.50	0.18	µg/L	1		SW-846 8260D	7/29/22	7/29/22 13:37	LBD
Bromoform	ND	1.0	0.38	µg/L	1		SW-846 8260D	7/29/22	7/29/22 13:37	LBD
Bromomethane	ND	5.0	1.5	µg/L	1	V-34 UJ	SW-846 8260D	7/29/22	7/29/22 13:37	LBD
2-Butanone (MEK)	ND	20	1.6	µg/L	1	V-05	SW-846 8260D	7/29/22	7/29/22 13:37	LBD
tert-Butyl Alcohol (TBA)	ND	20	4.7	µg/L	1		SW-846 8260D	7/29/22	7/29/22 13:37	LBD
n-Butylbenzene	ND	1.0	0.15	µg/L	1		SW-846 8260D	7/29/22	7/29/22 13:37	LBD
sec-Butylbenzene	ND	1.0	0.11	µg/L	1		SW-846 8260D	7/29/22	7/29/22 13:37	LBD
tert-Butylbenzene	ND	1.0	0.13	µg/L	1		SW-846 8260D	7/29/22	7/29/22 13:37	LBD
tert-Butyl Ethyl Ether (TBEE)	ND	0.50	0.15	µg/L	1		SW-846 8260D	7/29/22	7/29/22 13:37	LBD
Carbon Disulfide	ND	5.0	1.4	µg/L	1		SW-846 8260D	7/29/22	7/29/22 13:37	LBD
Carbon Tetrachloride	ND	5.0	0.16	µg/L	1		SW-846 8260D	7/29/22	7/29/22 13:37	LBD
Chlorobenzene	ND	1.0	0.11	µg/L	1		SW-846 8260D	7/29/22	7/29/22 13:37	LBD
Chlorodibromomethane	ND	0.50	0.22	µg/L	1		SW-846 8260D	7/29/22	7/29/22 13:37	LBD
Chloroethane	ND	2.0	0.32	µg/L	1		SW-846 8260D	7/29/22	7/29/22 13:37	LBD
Chloroform	ND	2.0	0.17	µg/L	1		SW-846 8260D	7/29/22	7/29/22 13:37	LBD
Chloromethane	ND	2.0	0.52	µg/L	1	L-04, V-05, V-34 UJ	SW-846 8260D	7/29/22	7/29/22 13:37	LBD
2-Chlorotoluene	ND	1.0	0.11	µg/L	1		SW-846 8260D	7/29/22	7/29/22 13:37	LBD
4-Chlorotoluene	ND	1.0	0.12	µg/L	1		SW-846 8260D	7/29/22	7/29/22 13:37	LBD
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0	0.80	µg/L	1	V-05 UJ	SW-846 8260D	7/29/22	7/29/22 13:37	LBD
1,2-Dibromoethane (EDB)	ND	0.50	0.17	µg/L	1		SW-846 8260D	7/29/22	7/29/22 13:37	LBD
Dibromomethane	ND	1.0	0.35	µg/L	1		SW-846 8260D	7/29/22	7/29/22 13:37	LBD
1,2-Dichlorobenzene	ND	1.0	0.12	µg/L	1		SW-846 8260D	7/29/22	7/29/22 13:37	LBD
1,3-Dichlorobenzene	ND	1.0	0.12	µg/L	1		SW-846 8260D	7/29/22	7/29/22 13:37	LBD
1,4-Dichlorobenzene	ND	1.0	0.13	µg/L	1		SW-846 8260D	7/29/22	7/29/22 13:37	LBD
trans-1,4-Dichloro-2-butene	ND	2.0	1.6	µg/L	1		SW-846 8260D	7/29/22	7/29/22 13:37	LBD
Dichlorodifluoromethane (Freon 12)	ND	2.0	0.19	µg/L	1		SW-846 8260D	7/29/22	7/29/22 13:37	LBD
1,1-Dichloroethane	ND	1.0	0.14	µg/L	1		SW-846 8260D	7/29/22	7/29/22 13:37	LBD
1,2-Dichloroethane	ND	1.0	0.31	µg/L	1		SW-846 8260D	7/29/22	7/29/22 13:37	LBD
1,1-Dichloroethylene	ND	1.0	0.14	µg/L	1		SW-846 8260D	7/29/22	7/29/22 13:37	LBD
cis-1,2-Dichloroethylene	4.8	1.0	0.15	µg/L	1		SW-846 8260D	7/29/22	7/29/22 13:37	LBD
trans-1,2-Dichloroethylene	ND	1.0	0.17	µg/L	1		SW-846 8260D	7/29/22	7/29/22 13:37	LBD
1,2-Dichloropropane	ND	1.0	0.18	µg/L	1		SW-846 8260D	7/29/22	7/29/22 13:37	LBD
1,3-Dichloropropane	ND	0.50	0.13	µg/L	1		SW-846 8260D	7/29/22	7/29/22 13:37	LBD
2,2-Dichloropropane	ND	1.0	0.33	µg/L	1		SW-846 8260D	7/29/22	7/29/22 13:37	LBD
1,1-Dichloropropene	ND	2.0	0.15	µg/L	1		SW-846 8260D	7/29/22	7/29/22 13:37	LBD
cis-1,3-Dichloropropene	ND	0.50	0.16	µg/L	1		SW-846 8260D	7/29/22	7/29/22 13:37	LBD
trans-1,3-Dichloropropene	ND	0.50	0.17	µg/L	1		SW-846 8260D	7/29/22	7/29/22 13:37	LBD
Diethyl Ether	ND	2.0	0.18	µg/L	1		SW-846 8260D	7/29/22	7/29/22 13:37	LBD

VJM 3/30/23

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

Project Location: Spring Valley, NY

Sample Description:

Work Order: 22G1596

Date Received: 7/28/2022

Field Sample #: RW-8S-072722

Sampled: 7/27/2022 09:30

Sample ID: 22G1596-01

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	0.50	0.13	µg/L	1		SW-846 8260D	7/29/22	7/29/22 13:37	LBD
1,4-Dioxane	ND	50	21	µg/L	1		SW-846 8260D	7/29/22	7/29/22 13:37	LBD
Ethylbenzene	ND	1.0	0.21	µg/L	1		SW-846 8260D	7/29/22	7/29/22 13:37	LBD
Hexachlorobutadiene	ND	0.60	0.46	µg/L	1	V-05 UJ	SW-846 8260D	7/29/22	7/29/22 13:37	LBD
2-Hexanone (MBK)	ND	10	1.1	µg/L	1		SW-846 8260D	7/29/22	7/29/22 13:37	LBD
Isopropylbenzene (Cumene)	ND	1.0	0.11	µg/L	1		SW-846 8260D	7/29/22	7/29/22 13:37	LBD
p-Isopropyltoluene (p-Cymene)	ND	1.0	0.097	µg/L	1		SW-846 8260D	7/29/22	7/29/22 13:37	LBD
Methyl Acetate	ND	1.0	0.45	µg/L	1	V-05	SW-846 8260D	7/29/22	7/29/22 13:37	LBD
Methyl tert-Butyl Ether (MTBE)	ND	1.0	0.17	µg/L	1		SW-846 8260D	7/29/22	7/29/22 13:37	LBD
Methyl Cyclohexane	ND	1.0	0.24	µg/L	1		SW-846 8260D	7/29/22	7/29/22 13:37	LBD
Methylene Chloride	ND	5.0	0.23	µg/L	1		SW-846 8260D	7/29/22	7/29/22 13:37	LBD
4-Methyl-2-pentanone (MIBK)	ND	10	1.3	µg/L	1		SW-846 8260D	7/29/22	7/29/22 13:37	LBD
Naphthalene	ND	2.0	0.24	µg/L	1	V-05 UJ	SW-846 8260D	7/29/22	7/29/22 13:37	LBD
n-Propylbenzene	ND	1.0	0.086	µg/L	1		SW-846 8260D	7/29/22	7/29/22 13:37	LBD
Styrene	ND	1.0	0.11	µg/L	1		SW-846 8260D	7/29/22	7/29/22 13:37	LBD
1,1,1,2-Tetrachloroethane	ND	1.0	0.18	µg/L	1		SW-846 8260D	7/29/22	7/29/22 13:37	LBD
1,1,2,2-Tetrachloroethane	ND	0.50	0.13	µg/L	1		SW-846 8260D	7/29/22	7/29/22 13:37	LBD
Tetrachloroethylene	1.1	1.0	0.19	µg/L	1		SW-846 8260D	7/29/22	7/29/22 13:37	LBD
Tetrahydrofuran	ND	10	0.49	µg/L	1		SW-846 8260D	7/29/22	7/29/22 13:37	LBD
Toluene	ND	1.0	0.22	µg/L	1		SW-846 8260D	7/29/22	7/29/22 13:37	LBD
1,2,3-Trichlorobenzene	ND	5.0	0.30	µg/L	1	V-05	SW-846 8260D	7/29/22	7/29/22 13:37	LBD
1,2,4-Trichlorobenzene	ND	1.0	0.25	µg/L	1		SW-846 8260D	7/29/22	7/29/22 13:37	LBD
1,3,5-Trichlorobenzene	ND	1.0	0.21	µg/L	1		SW-846 8260D	7/29/22	7/29/22 13:37	LBD
1,1,1-Trichloroethane	ND	1.0	0.17	µg/L	1		SW-846 8260D	7/29/22	7/29/22 13:37	LBD
1,1,2-Trichloroethane	ND	1.0	0.18	µg/L	1		SW-846 8260D	7/29/22	7/29/22 13:37	LBD
Trichloroethylene	8.8	1.0	0.19	µg/L	1		SW-846 8260D	7/29/22	7/29/22 13:37	LBD
Trichlorofluoromethane (Freon 11)	ND	2.0	0.18	µg/L	1		SW-846 8260D	7/29/22	7/29/22 13:37	LBD
1,2,3-Trichloropropane	ND	2.0	0.28	µg/L	1		SW-846 8260D	7/29/22	7/29/22 13:37	LBD
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	1.0	0.23	µg/L	1		SW-846 8260D	7/29/22	7/29/22 13:37	LBD
1,2,4-Trimethylbenzene	ND	1.0	0.20	µg/L	1		SW-846 8260D	7/29/22	7/29/22 13:37	LBD
1,3,5-Trimethylbenzene	ND	1.0	0.11	µg/L	1		SW-846 8260D	7/29/22	7/29/22 13:37	LBD
Vinyl Chloride	0.21	2.0	0.21	µg/L	1	J	SW-846 8260D	7/29/22	7/29/22 13:37	LBD
m+p Xylene	ND	2.0	0.46	µg/L	1		SW-846 8260D	7/29/22	7/29/22 13:37	LBD
o-Xylene	ND	1.0	0.23	µg/L	1		SW-846 8260D	7/29/22	7/29/22 13:37	LBD
Surrogates		% Recovery	Recovery Limits			Flag/Qual				
1,2-Dichloroethane-d4		78.2	70-130					7/29/22	13:37	
Toluene-d8		92.8	70-130					7/29/22	13:37	
4-Bromofluorobenzene		103	70-130					7/29/22	13:37	

VJM 3/30/23

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

Project Location: Spring Valley, NY

Sample Description:

Work Order: 22G1596

Date Received: 7/28/2022

Field Sample #: RW-3D-072722

Sampled: 7/27/2022 10:20

Sample ID: 22G1596-03

Sample Matrix: Ground Water

Sample Flags: RL-11

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	200	8.1	µg/L	4	V-05	SW-846 8260D	7/29/22	7/29/22 20:11	LBD
Acrylonitrile	ND	20	2.2	µg/L	4		SW-846 8260D	7/29/22	7/29/22 20:11	LBD
tert-Amyl Methyl Ether (TAME)	ND	2.0	0.57	µg/L	4		SW-846 8260D	7/29/22	7/29/22 20:11	LBD
Benzene	ND	4.0	0.80	µg/L	4		SW-846 8260D	7/29/22	7/29/22 20:11	LBD
Bromobenzene	ND	4.0	0.60	µg/L	4		SW-846 8260D	7/29/22	7/29/22 20:11	LBD
Bromochloromethane	ND	4.0	1.2	µg/L	4		SW-846 8260D	7/29/22	7/29/22 20:11	LBD
Bromodichloromethane	ND	2.0	0.72	µg/L	4		SW-846 8260D	7/29/22	7/29/22 20:11	LBD
Bromoform	ND	4.0	1.5	µg/L	4		SW-846 8260D	7/29/22	7/29/22 20:11	LBD
Bromomethane	ND	20	6.2	µg/L	4	V-34 UJ	SW-846 8260D	7/29/22	7/29/22 20:11	LBD
2-Butanone (MEK)	ND	80	6.5	µg/L	4	V-05	SW-846 8260D	7/29/22	7/29/22 20:11	LBD
tert-Butyl Alcohol (TBA)	ND	80	19	µg/L	4		SW-846 8260D	7/29/22	7/29/22 20:11	LBD
n-Butylbenzene	ND	4.0	0.61	µg/L	4		SW-846 8260D	7/29/22	7/29/22 20:11	LBD
sec-Butylbenzene	ND	4.0	0.44	µg/L	4		SW-846 8260D	7/29/22	7/29/22 20:11	LBD
tert-Butylbenzene	ND	4.0	0.52	µg/L	4		SW-846 8260D	7/29/22	7/29/22 20:11	LBD
tert-Butyl Ethyl Ether (TBEE)	ND	2.0	0.59	µg/L	4		SW-846 8260D	7/29/22	7/29/22 20:11	LBD
Carbon Disulfide	ND	20	5.8	µg/L	4		SW-846 8260D	7/29/22	7/29/22 20:11	LBD
Carbon Tetrachloride	ND	20	0.66	µg/L	4		SW-846 8260D	7/29/22	7/29/22 20:11	LBD
Chlorobenzene	ND	4.0	0.42	µg/L	4		SW-846 8260D	7/29/22	7/29/22 20:11	LBD
Chlorodibromomethane	ND	2.0	0.89	µg/L	4		SW-846 8260D	7/29/22	7/29/22 20:11	LBD
Chloroethane	ND	8.0	1.3	µg/L	4		SW-846 8260D	7/29/22	7/29/22 20:11	LBD
Chloroform	ND	8.0	0.67	µg/L	4		SW-846 8260D	7/29/22	7/29/22 20:11	LBD
Chloromethane	ND	8.0	2.1	µg/L	4	L-04, V-05, V-34 UJ	SW-846 8260D	7/29/22	7/29/22 20:11	LBD
2-Chlorotoluene	ND	4.0	0.46	µg/L	4		SW-846 8260D	7/29/22	7/29/22 20:11	LBD
4-Chlorotoluene	ND	4.0	0.47	µg/L	4		SW-846 8260D	7/29/22	7/29/22 20:11	LBD
1,2-Dibromo-3-chloropropane (DBCP)	ND	20	3.2	µg/L	4	V-05 UJ	SW-846 8260D	7/29/22	7/29/22 20:11	LBD
1,2-Dibromoethane (EDB)	ND	2.0	0.68	µg/L	4		SW-846 8260D	7/29/22	7/29/22 20:11	LBD
Dibromomethane	ND	4.0	1.4	µg/L	4		SW-846 8260D	7/29/22	7/29/22 20:11	LBD
1,2-Dichlorobenzene	ND	4.0	0.49	µg/L	4		SW-846 8260D	7/29/22	7/29/22 20:11	LBD
1,3-Dichlorobenzene	ND	4.0	0.47	µg/L	4		SW-846 8260D	7/29/22	7/29/22 20:11	LBD
1,4-Dichlorobenzene	ND	4.0	0.52	µg/L	4		SW-846 8260D	7/29/22	7/29/22 20:11	LBD
trans-1,4-Dichloro-2-butene	ND	8.0	6.5	µg/L	4		SW-846 8260D	7/29/22	7/29/22 20:11	LBD
Dichlorodifluoromethane (Freon 12)	ND	8.0	0.77	µg/L	4		SW-846 8260D	7/29/22	7/29/22 20:11	LBD
1,1-Dichloroethane	ND	4.0	0.57	µg/L	4		SW-846 8260D	7/29/22	7/29/22 20:11	LBD
1,2-Dichloroethane	ND	4.0	1.2	µg/L	4		SW-846 8260D	7/29/22	7/29/22 20:11	LBD
1,1-Dichloroethylene	ND	4.0	0.57	µg/L	4		SW-846 8260D	7/29/22	7/29/22 20:11	LBD
cis-1,2-Dichloroethylene	120	4.0	0.59	µg/L	4		SW-846 8260D	7/29/22	7/29/22 20:11	LBD
trans-1,2-Dichloroethylene	ND	4.0	0.67	µg/L	4		SW-846 8260D	7/29/22	7/29/22 20:11	LBD
1,2-Dichloropropane	ND	4.0	0.72	µg/L	4		SW-846 8260D	7/29/22	7/29/22 20:11	LBD
1,3-Dichloropropane	ND	2.0	0.52	µg/L	4		SW-846 8260D	7/29/22	7/29/22 20:11	LBD
2,2-Dichloropropane	ND	4.0	1.3	µg/L	4		SW-846 8260D	7/29/22	7/29/22 20:11	LBD
1,1-Dichloropropene	ND	8.0	0.60	µg/L	4		SW-846 8260D	7/29/22	7/29/22 20:11	LBD
cis-1,3-Dichloropropene	ND	2.0	0.63	µg/L	4		SW-846 8260D	7/29/22	7/29/22 20:11	LBD
trans-1,3-Dichloropropene	ND	2.0	0.67	µg/L	4		SW-846 8260D	7/29/22	7/29/22 20:11	LBD
Diethyl Ether	ND	8.0	0.73	µg/L	4		SW-846 8260D	7/29/22	7/29/22 20:11	LBD

VJM 3/30/23

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

Project Location: Spring Valley, NY

Sample Description:

Work Order: 22G1596

Date Received: 7/28/2022

Field Sample #: RW-3D-072722

Sampled: 7/27/2022 10:20

Sample ID: 22G1596-03

Dup of RW-8S

Type text here

Sample Matrix: Ground Water

Sample Flags: RL-11

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	2.0	0.51	µg/L	4		SW-846 8260D	7/29/22	7/29/22 20:11	LBD
1,4-Dioxane	ND	200	82	µg/L	4		SW-846 8260D	7/29/22	7/29/22 20:11	LBD
Ethylbenzene	ND	4.0	0.86	µg/L	4		SW-846 8260D	7/29/22	7/29/22 20:11	LBD
Hexachlorobutadiene	ND	2.4	1.8	µg/L	4	V-05 UJ	SW-846 8260D	7/29/22	7/29/22 20:11	LBD
2-Hexanone (MBK)	ND	40	4.5	µg/L	4		SW-846 8260D	7/29/22	7/29/22 20:11	LBD
Isopropylbenzene (Cumene)	ND	4.0	0.43	µg/L	4		SW-846 8260D	7/29/22	7/29/22 20:11	LBD
p-Isopropyltoluene (p-Cymene)	ND	4.0	0.39	µg/L	4		SW-846 8260D	7/29/22	7/29/22 20:11	LBD
Methyl Acetate	ND	4.0	1.8	µg/L	4	V-05	SW-846 8260D	7/29/22	7/29/22 20:11	LBD
Methyl tert-Butyl Ether (MTBE)	ND	4.0	0.69	µg/L	4		SW-846 8260D	7/29/22	7/29/22 20:11	LBD
Methyl Cyclohexane	ND	4.0	0.98	µg/L	4		SW-846 8260D	7/29/22	7/29/22 20:11	LBD
Methylene Chloride	ND	20	0.94	µg/L	4		SW-846 8260D	7/29/22	7/29/22 20:11	LBD
4-Methyl-2-pentanone (MIBK)	ND	40	5.1	µg/L	4		SW-846 8260D	7/29/22	7/29/22 20:11	LBD
Naphthalene	ND	8.0	0.97	µg/L	4	V-05 UJ	SW-846 8260D	7/29/22	7/29/22 20:11	LBD
n-Propylbenzene	ND	4.0	0.34	µg/L	4		SW-846 8260D	7/29/22	7/29/22 20:11	LBD
Styrene	ND	4.0	0.42	µg/L	4		SW-846 8260D	7/29/22	7/29/22 20:11	LBD
1,1,1,2-Tetrachloroethane	ND	4.0	0.71	µg/L	4		SW-846 8260D	7/29/22	7/29/22 20:11	LBD
1,1,2,2-Tetrachloroethane	ND	2.0	0.51	µg/L	4		SW-846 8260D	7/29/22	7/29/22 20:11	LBD
Tetrachloroethylene	230	4.0	0.75	µg/L	4		SW-846 8260D	7/29/22	7/29/22 20:11	LBD
Tetrahydrofuran	ND	40	2.0	µg/L	4		SW-846 8260D	7/29/22	7/29/22 20:11	LBD
Toluene	ND	4.0	0.90	µg/L	4		SW-846 8260D	7/29/22	7/29/22 20:11	LBD
1,2,3-Trichlorobenzene	ND	20	1.2	µg/L	4	V-05	SW-846 8260D	7/29/22	7/29/22 20:11	LBD
1,2,4-Trichlorobenzene	ND	4.0	0.99	µg/L	4		SW-846 8260D	7/29/22	7/29/22 20:11	LBD
1,3,5-Trichlorobenzene	ND	4.0	0.84	µg/L	4		SW-846 8260D	7/29/22	7/29/22 20:11	LBD
1,1,1-Trichloroethane	ND	4.0	0.68	µg/L	4		SW-846 8260D	7/29/22	7/29/22 20:11	LBD
1,1,2-Trichloroethane	ND	4.0	0.73	µg/L	4		SW-846 8260D	7/29/22	7/29/22 20:11	LBD
Trichloroethylene	240	4.0	0.76	µg/L	4		SW-846 8260D	7/29/22	7/29/22 20:11	LBD
Trichlorofluoromethane (Freon 11)	ND	8.0	0.70	µg/L	4		SW-846 8260D	7/29/22	7/29/22 20:11	LBD
1,2,3-Trichloropropane	ND	8.0	1.1	µg/L	4		SW-846 8260D	7/29/22	7/29/22 20:11	LBD
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	4.0	0.91	µg/L	4		SW-846 8260D	7/29/22	7/29/22 20:11	LBD
1,2,4-Trimethylbenzene	ND	4.0	0.80	µg/L	4		SW-846 8260D	7/29/22	7/29/22 20:11	LBD
1,3,5-Trimethylbenzene	ND	4.0	0.45	µg/L	4		SW-846 8260D	7/29/22	7/29/22 20:11	LBD
Vinyl Chloride	ND	8.0	0.83	µg/L	4		SW-846 8260D	7/29/22	7/29/22 20:11	LBD
m+p Xylene	ND	8.0	1.8	µg/L	4		SW-846 8260D	7/29/22	7/29/22 20:11	LBD
o-Xylene	ND	4.0	0.92	µg/L	4		SW-846 8260D	7/29/22	7/29/22 20:11	LBD
Surrogates		% Recovery	Recovery Limits			Flag/Qual				
1,2-Dichloroethane-d4		75.4	70-130					7/29/22	20:11	
Toluene-d8		90.0	70-130					7/29/22	20:11	
4-Bromofluorobenzene		102	70-130					7/29/22	20:11	

VJM 3/30/23

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

Project Location: Spring Valley, NY

Sample Description:

Work Order: 22G1596

Date Received: 7/28/2022

Field Sample #: RW-1S-072722

Sampled: 7/27/2022 12:00

Sample ID: 22G1596-04

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	50	2.0	µg/L	1	V-05	SW-846 8260D	7/29/22	7/29/22 14:03	LBD
Acrylonitrile	ND	5.0	0.55	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:03	LBD
tert-Amyl Methyl Ether (TAME)	ND	0.50	0.14	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:03	LBD
Benzene	ND	1.0	0.20	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:03	LBD
Bromobenzene	ND	1.0	0.15	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:03	LBD
Bromochloromethane	ND	1.0	0.31	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:03	LBD
Bromodichloromethane	ND	0.50	0.18	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:03	LBD
Bromoform	ND	1.0	0.38	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:03	LBD
Bromomethane	ND	5.0	1.5	µg/L	1	V-34 UJ	SW-846 8260D	7/29/22	7/29/22 14:03	LBD
2-Butanone (MEK)	ND	20	1.6	µg/L	1	V-05	SW-846 8260D	7/29/22	7/29/22 14:03	LBD
tert-Butyl Alcohol (TBA)	ND	20	4.7	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:03	LBD
n-Butylbenzene	ND	1.0	0.15	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:03	LBD
sec-Butylbenzene	ND	1.0	0.11	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:03	LBD
tert-Butylbenzene	ND	1.0	0.13	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:03	LBD
tert-Butyl Ethyl Ether (TBEE)	ND	0.50	0.15	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:03	LBD
Carbon Disulfide	ND	5.0	1.4	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:03	LBD
Carbon Tetrachloride	ND	5.0	0.16	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:03	LBD
Chlorobenzene	ND	1.0	0.11	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:03	LBD
Chlorodibromomethane	ND	0.50	0.22	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:03	LBD
Chloroethane	ND	2.0	0.32	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:03	LBD
Chloroform	ND	2.0	0.17	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:03	LBD
Chloromethane	ND	2.0	0.52	µg/L	1	L-04, V-05, V-34 UJ	SW-846 8260D	7/29/22	7/29/22 14:03	LBD
2-Chlorotoluene	ND	1.0	0.11	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:03	LBD
4-Chlorotoluene	ND	1.0	0.12	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:03	LBD
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0	0.80	µg/L	1	V-05 UJ	SW-846 8260D	7/29/22	7/29/22 14:03	LBD
1,2-Dibromoethane (EDB)	ND	0.50	0.17	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:03	LBD
Dibromomethane	ND	1.0	0.35	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:03	LBD
1,2-Dichlorobenzene	ND	1.0	0.12	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:03	LBD
1,3-Dichlorobenzene	ND	1.0	0.12	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:03	LBD
1,4-Dichlorobenzene	ND	1.0	0.13	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:03	LBD
trans-1,4-Dichloro-2-butene	ND	2.0	1.6	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:03	LBD
Dichlorodifluoromethane (Freon 12)	ND	2.0	0.19	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:03	LBD
1,1-Dichloroethane	ND	1.0	0.14	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:03	LBD
1,2-Dichloroethane	ND	1.0	0.31	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:03	LBD
1,1-Dichloroethylene	ND	1.0	0.14	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:03	LBD
cis-1,2-Dichloroethylene	0.59	1.0	0.15	µg/L	1	J	SW-846 8260D	7/29/22	7/29/22 14:03	LBD
trans-1,2-Dichloroethylene	0.20	1.0	0.17	µg/L	1	J	SW-846 8260D	7/29/22	7/29/22 14:03	LBD
1,2-Dichloropropane	ND	1.0	0.18	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:03	LBD
1,3-Dichloropropane	ND	0.50	0.13	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:03	LBD
2,2-Dichloropropane	ND	1.0	0.33	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:03	LBD
1,1-Dichloropropene	ND	2.0	0.15	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:03	LBD
cis-1,3-Dichloropropene	ND	0.50	0.16	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:03	LBD
trans-1,3-Dichloropropene	ND	0.50	0.17	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:03	LBD
Diethyl Ether	ND	2.0	0.18	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:03	LBD

VJH
3/30/23

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

Project Location: Spring Valley, NY

Sample Description:

Work Order: 22G1596

Date Received: 7/28/2022

Field Sample #: RW-1S-072722

Sampled: 7/27/2022 12:00

Sample ID: 22G1596-04 Dup of RW-8S

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	0.50	0.13	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:03	LBD
1,4-Dioxane	ND	50	21	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:03	LBD
Ethylbenzene	ND	1.0	0.21	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:03	LBD
Hexachlorobutadiene	ND	0.60	0.46	µg/L	1	V-05 UJ	SW-846 8260D	7/29/22	7/29/22 14:03	LBD
2-Hexanone (MBK)	ND	10	1.1	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:03	LBD
Isopropylbenzene (Cumene)	ND	1.0	0.11	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:03	LBD
p-Isopropyltoluene (p-Cymene)	ND	1.0	0.097	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:03	LBD
Methyl Acetate	ND	1.0	0.45	µg/L	1	V-05	SW-846 8260D	7/29/22	7/29/22 14:03	LBD
Methyl tert-Butyl Ether (MTBE)	ND	1.0	0.17	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:03	LBD
Methyl Cyclohexane	ND	1.0	0.24	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:03	LBD
Methylene Chloride	ND	5.0	0.23	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:03	LBD
4-Methyl-2-pentanone (MIBK)	ND	10	1.3	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:03	LBD
Naphthalene	ND	2.0	0.24	µg/L	1	V-05 UJ	SW-846 8260D	7/29/22	7/29/22 14:03	LBD
n-Propylbenzene	ND	1.0	0.086	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:03	LBD
Styrene	ND	1.0	0.11	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:03	LBD
1,1,1,2-Tetrachloroethane	ND	1.0	0.18	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:03	LBD
1,1,2,2-Tetrachloroethane	ND	0.50	0.13	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:03	LBD
Tetrachloroethylene	2.1	1.0	0.19	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:03	LBD
Tetrahydrofuran	ND	10	0.49	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:03	LBD
Toluene	ND	1.0	0.22	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:03	LBD
1,2,3-Trichlorobenzene	ND	5.0	0.30	µg/L	1	V-05	SW-846 8260D	7/29/22	7/29/22 14:03	LBD
1,2,4-Trichlorobenzene	ND	1.0	0.25	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:03	LBD
1,3,5-Trichlorobenzene	ND	1.0	0.21	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:03	LBD
1,1,1-Trichloroethane	ND	1.0	0.17	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:03	LBD
1,1,2-Trichloroethane	ND	1.0	0.18	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:03	LBD
Trichloroethylene	7.4	1.0	0.19	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:03	LBD
Trichlorofluoromethane (Freon 11)	ND	2.0	0.18	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:03	LBD
1,2,3-Trichloropropane	ND	2.0	0.28	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:03	LBD
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	1.0	0.23	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:03	LBD
1,2,4-Trimethylbenzene	ND	1.0	0.20	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:03	LBD
1,3,5-Trimethylbenzene	ND	1.0	0.11	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:03	LBD
Vinyl Chloride	ND	2.0	0.21	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:03	LBD
m+p Xylene	ND	2.0	0.46	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:03	LBD
o-Xylene	ND	1.0	0.23	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:03	LBD
Surrogates		% Recovery	Recovery Limits			Flag/Qual				
1,2-Dichloroethane-d4		79.3	70-130					7/29/22	14:03	
Toluene-d8		95.4	70-130					7/29/22	14:03	
4-Bromofluorobenzene		101	70-130					7/29/22	14:03	

VJM 3/30/23

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

Project Location: Spring Valley, NY

Sample Description:

Work Order: 22G1596

Date Received: 7/28/2022

Field Sample #: DW-1-072722

Sampled: 7/27/2022 12:30

Sample ID: 22G1596-05

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	50	2.0	µg/L	1	V-05	SW-846 8260D	7/29/22	7/29/22 14:29	LBD
Acrylonitrile	ND	5.0	0.55	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:29	LBD
tert-Amyl Methyl Ether (TAME)	ND	0.50	0.14	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:29	LBD
Benzene	ND	1.0	0.20	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:29	LBD
Bromobenzene	ND	1.0	0.15	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:29	LBD
Bromochloromethane	ND	1.0	0.31	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:29	LBD
Bromodichloromethane	ND	0.50	0.18	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:29	LBD
Bromoform	ND	1.0	0.38	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:29	LBD
Bromomethane	ND	5.0	1.5	µg/L	1	V-34 UJ	SW-846 8260D	7/29/22	7/29/22 14:29	LBD
2-Butanone (MEK)	ND	20	1.6	µg/L	1	V-05	SW-846 8260D	7/29/22	7/29/22 14:29	LBD
tert-Butyl Alcohol (TBA)	ND	20	4.7	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:29	LBD
n-Butylbenzene	ND	1.0	0.15	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:29	LBD
sec-Butylbenzene	ND	1.0	0.11	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:29	LBD
tert-Butylbenzene	ND	1.0	0.13	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:29	LBD
tert-Butyl Ethyl Ether (TBEE)	ND	0.50	0.15	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:29	LBD
Carbon Disulfide	ND	5.0	1.4	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:29	LBD
Carbon Tetrachloride	ND	5.0	0.16	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:29	LBD
Chlorobenzene	ND	1.0	0.11	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:29	LBD
Chlorodibromomethane	ND	0.50	0.22	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:29	LBD
Chloroethane	ND	2.0	0.32	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:29	LBD
Chloroform	0.33	2.0	0.17	µg/L	1	J	SW-846 8260D	7/29/22	7/29/22 14:29	LBD
Chloromethane	ND	2.0	0.52	µg/L	1	L-04, V-05, V-34 UJ	SW-846 8260D	7/29/22	7/29/22 14:29	LBD
2-Chlorotoluene	ND	1.0	0.11	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:29	LBD
4-Chlorotoluene	ND	1.0	0.12	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:29	LBD
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0	0.80	µg/L	1	V-05 UJ	SW-846 8260D	7/29/22	7/29/22 14:29	LBD
1,2-Dibromoethane (EDB)	ND	0.50	0.17	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:29	LBD
Dibromomethane	ND	1.0	0.35	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:29	LBD
1,2-Dichlorobenzene	ND	1.0	0.12	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:29	LBD
1,3-Dichlorobenzene	ND	1.0	0.12	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:29	LBD
1,4-Dichlorobenzene	ND	1.0	0.13	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:29	LBD
trans-1,4-Dichloro-2-butene	ND	2.0	1.6	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:29	LBD
Dichlorodifluoromethane (Freon 12)	ND	2.0	0.19	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:29	LBD
1,1-Dichloroethane	ND	1.0	0.14	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:29	LBD
1,2-Dichloroethane	ND	1.0	0.31	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:29	LBD
1,1-Dichloroethylene	ND	1.0	0.14	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:29	LBD
cis-1,2-Dichloroethylene	ND	1.0	0.15	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:29	LBD
trans-1,2-Dichloroethylene	ND	1.0	0.17	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:29	LBD
1,2-Dichloropropane	ND	1.0	0.18	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:29	LBD
1,3-Dichloropropane	ND	0.50	0.13	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:29	LBD
2,2-Dichloropropane	ND	1.0	0.33	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:29	LBD
1,1-Dichloropropene	ND	2.0	0.15	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:29	LBD
cis-1,3-Dichloropropene	ND	0.50	0.16	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:29	LBD
trans-1,3-Dichloropropene	ND	0.50	0.17	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:29	LBD
Diethyl Ether	ND	2.0	0.18	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:29	LBD

VJH 3/30/23

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

Project Location: Spring Valley, NY

Sample Description:

Work Order: 22G1596

Date Received: 7/28/2022

Field Sample #: DW-1-072722

Sampled: 7/27/2022 12:30

Sample ID: 22G1596-05

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	0.50	0.13	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:29	LBD
1,4-Dioxane	ND	50	21	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:29	LBD
Ethylbenzene	ND	1.0	0.21	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:29	LBD
Hexachlorobutadiene	ND	0.60	0.46	µg/L	1	V-05 UJ	SW-846 8260D	7/29/22	7/29/22 14:29	LBD
2-Hexanone (MBK)	ND	10	1.1	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:29	LBD
Isopropylbenzene (Cumene)	ND	1.0	0.11	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:29	LBD
p-Isopropyltoluene (p-Cymene)	ND	1.0	0.097	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:29	LBD
Methyl Acetate	ND	1.0	0.45	µg/L	1	V-05	SW-846 8260D	7/29/22	7/29/22 14:29	LBD
Methyl tert-Butyl Ether (MTBE)	ND	1.0	0.17	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:29	LBD
Methyl Cyclohexane	ND	1.0	0.24	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:29	LBD
Methylene Chloride	ND	5.0	0.23	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:29	LBD
4-Methyl-2-pentanone (MIBK)	ND	10	1.3	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:29	LBD
Naphthalene	ND	2.0	0.24	µg/L	1	V-05 UJ	SW-846 8260D	7/29/22	7/29/22 14:29	LBD
n-Propylbenzene	ND	1.0	0.086	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:29	LBD
Styrene	ND	1.0	0.11	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:29	LBD
1,1,1,2-Tetrachloroethane	ND	1.0	0.18	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:29	LBD
1,1,2,2-Tetrachloroethane	ND	0.50	0.13	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:29	LBD
Tetrachloroethylene	2.8	1.0	0.19	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:29	LBD
Tetrahydrofuran	ND	10	0.49	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:29	LBD
Toluene	ND	1.0	0.22	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:29	LBD
1,2,3-Trichlorobenzene	ND	5.0	0.30	µg/L	1	V-05	SW-846 8260D	7/29/22	7/29/22 14:29	LBD
1,2,4-Trichlorobenzene	ND	1.0	0.25	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:29	LBD
1,3,5-Trichlorobenzene	ND	1.0	0.21	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:29	LBD
1,1,1-Trichloroethane	ND	1.0	0.17	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:29	LBD
1,1,2-Trichloroethane	ND	1.0	0.18	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:29	LBD
Trichloroethylene	2.1	1.0	0.19	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:29	LBD
Trichlorofluoromethane (Freon 11)	ND	2.0	0.18	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:29	LBD
1,2,3-Trichloropropane	ND	2.0	0.28	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:29	LBD
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	1.0	0.23	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:29	LBD
1,2,4-Trimethylbenzene	ND	1.0	0.20	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:29	LBD
1,3,5-Trimethylbenzene	ND	1.0	0.11	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:29	LBD
Vinyl Chloride	ND	2.0	0.21	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:29	LBD
m+p Xylene	ND	2.0	0.46	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:29	LBD
o-Xylene	ND	1.0	0.23	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:29	LBD
Surrogates		% Recovery	Recovery Limits			Flag/Qual				
1,2-Dichloroethane-d4		79.3	70-130					7/29/22	14:29	
Toluene-d8		93.2	70-130					7/29/22	14:29	
4-Bromofluorobenzene		103	70-130					7/29/22	14:29	

VJM 3/30/23

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

Project Location: Spring Valley, NY

Sample Description:

Work Order: 22G1596

Date Received: 7/28/2022

Field Sample #: MW-3-072722

Sampled: 7/27/2022 14:00

Sample ID: 22G1596-07

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	20	50	2.0	µg/L	1	V-05, J	SW-846 8260D	7/29/22	7/29/22 14:56	LBD
Acrylonitrile	ND	5.0	0.55	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:56	LBD
tert-Amyl Methyl Ether (TAME)	ND	0.50	0.14	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:56	LBD
Benzene	ND	1.0	0.20	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:56	LBD
Bromobenzene	ND	1.0	0.15	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:56	LBD
Bromochloromethane	ND	1.0	0.31	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:56	LBD
Bromodichloromethane	ND	0.50	0.18	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:56	LBD
Bromoform	ND	1.0	0.38	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:56	LBD
Bromomethane	ND	5.0	1.5	µg/L	1	V-34 UJ	SW-846 8260D	7/29/22	7/29/22 14:56	LBD
2-Butanone (MEK)	4.2	20	1.6	µg/L	1	V-05, J	SW-846 8260D	7/29/22	7/29/22 14:56	LBD
tert-Butyl Alcohol (TBA)	ND	20	4.7	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:56	LBD
n-Butylbenzene	ND	1.0	0.15	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:56	LBD
sec-Butylbenzene	ND	1.0	0.11	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:56	LBD
tert-Butylbenzene	ND	1.0	0.13	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:56	LBD
tert-Butyl Ethyl Ether (TBEE)	ND	0.50	0.15	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:56	LBD
Carbon Disulfide	ND	5.0	1.4	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:56	LBD
Carbon Tetrachloride	ND	5.0	0.16	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:56	LBD
Chlorobenzene	ND	1.0	0.11	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:56	LBD
Chlorodibromomethane	ND	0.50	0.22	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:56	LBD
Chloroethane	0.69	2.0	0.32	µg/L	1	J	SW-846 8260D	7/29/22	7/29/22 14:56	LBD
Chloroform	ND	2.0	0.17	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:56	LBD
Chloromethane	ND	2.0	0.52	µg/L	1	L-04, V-05, V-34 UJ	SW-846 8260D	7/29/22	7/29/22 14:56	LBD
2-Chlorotoluene	ND	1.0	0.11	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:56	LBD
4-Chlorotoluene	ND	1.0	0.12	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:56	LBD
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0	0.80	µg/L	1	V-05 UJ	SW-846 8260D	7/29/22	7/29/22 14:56	LBD
1,2-Dibromoethane (EDB)	ND	0.50	0.17	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:56	LBD
Dibromomethane	ND	1.0	0.35	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:56	LBD
1,2-Dichlorobenzene	ND	1.0	0.12	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:56	LBD
1,3-Dichlorobenzene	ND	1.0	0.12	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:56	LBD
1,4-Dichlorobenzene	ND	1.0	0.13	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:56	LBD
trans-1,4-Dichloro-2-butene	ND	2.0	1.6	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:56	LBD
Dichlorodifluoromethane (Freon 12)	ND	2.0	0.19	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:56	LBD
1,1-Dichloroethane	ND	1.0	0.14	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:56	LBD
1,2-Dichloroethane	ND	1.0	0.31	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:56	LBD
1,1-Dichloroethylene	ND	1.0	0.14	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:56	LBD
cis-1,2-Dichloroethylene	0.15	1.0	0.15	µg/L	1	J	SW-846 8260D	7/29/22	7/29/22 14:56	LBD
trans-1,2-Dichloroethylene	ND	1.0	0.17	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:56	LBD
1,2-Dichloropropane	ND	1.0	0.18	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:56	LBD
1,3-Dichloropropane	ND	0.50	0.13	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:56	LBD
2,2-Dichloropropane	ND	1.0	0.33	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:56	LBD
1,1-Dichloropropene	ND	2.0	0.15	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:56	LBD
cis-1,3-Dichloropropene	ND	0.50	0.16	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:56	LBD
trans-1,3-Dichloropropene	ND	0.50	0.17	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:56	LBD
Diethyl Ether	ND	2.0	0.18	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:56	LBD

VJM 3/30/23

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

Project Location: Spring Valley, NY

Sample Description:

Work Order: 22G1596

Date Received: 7/28/2022

Field Sample #: MW-3-072722

Sampled: 7/27/2022 14:00

Sample ID: 22G1596-07

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	0.50	0.13	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:56	LBD
1,4-Dioxane	ND	50	21	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:56	LBD
Ethylbenzene	ND	1.0	0.21	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:56	LBD
Hexachlorobutadiene	ND	0.60	0.46	µg/L	1	V-05 UJ	SW-846 8260D	7/29/22	7/29/22 14:56	LBD
2-Hexanone (MBK)	ND	10	1.1	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:56	LBD
Isopropylbenzene (Cumene)	ND	1.0	0.11	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:56	LBD
p-Isopropyltoluene (p-Cymene)	ND	1.0	0.097	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:56	LBD
Methyl Acetate	ND	1.0	0.45	µg/L	1	V-05	SW-846 8260D	7/29/22	7/29/22 14:56	LBD
Methyl tert-Butyl Ether (MTBE)	ND	1.0	0.17	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:56	LBD
Methyl Cyclohexane	ND	1.0	0.24	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:56	LBD
Methylene Chloride	ND	5.0	0.23	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:56	LBD
4-Methyl-2-pentanone (MIBK)	ND	10	1.3	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:56	LBD
Naphthalene	ND	2.0	0.24	µg/L	1	V-05 UJ	SW-846 8260D	7/29/22	7/29/22 14:56	LBD
n-Propylbenzene	ND	1.0	0.086	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:56	LBD
Styrene	ND	1.0	0.11	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:56	LBD
1,1,1,2-Tetrachloroethane	ND	1.0	0.18	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:56	LBD
1,1,2,2-Tetrachloroethane	ND	0.50	0.13	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:56	LBD
Tetrachloroethylene	ND	1.0	0.19	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:56	LBD
Tetrahydrofuran	ND	10	0.49	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:56	LBD
Toluene	ND	1.0	0.22	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:56	LBD
1,2,3-Trichlorobenzene	ND	5.0	0.30	µg/L	1	V-05	SW-846 8260D	7/29/22	7/29/22 14:56	LBD
1,2,4-Trichlorobenzene	ND	1.0	0.25	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:56	LBD
1,3,5-Trichlorobenzene	ND	1.0	0.21	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:56	LBD
1,1,1-Trichloroethane	ND	1.0	0.17	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:56	LBD
1,1,2-Trichloroethane	ND	1.0	0.18	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:56	LBD
Trichloroethylene	ND	1.0	0.19	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:56	LBD
Trichlorofluoromethane (Freon 11)	ND	2.0	0.18	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:56	LBD
1,2,3-Trichloropropane	ND	2.0	0.28	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:56	LBD
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	1.0	0.23	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:56	LBD
1,2,4-Trimethylbenzene	ND	1.0	0.20	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:56	LBD
1,3,5-Trimethylbenzene	ND	1.0	0.11	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:56	LBD
Vinyl Chloride	ND	2.0	0.21	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:56	LBD
m+p Xylene	ND	2.0	0.46	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:56	LBD
o-Xylene	ND	1.0	0.23	µg/L	1		SW-846 8260D	7/29/22	7/29/22 14:56	LBD
Surrogates		% Recovery	Recovery Limits			Flag/Qual				
1,2-Dichloroethane-d4		79.0	70-130						7/29/22 14:56	
Toluene-d8		93.4	70-130						7/29/22 14:56	
4-Bromofluorobenzene		101	70-130						7/29/22 14:56	

VJM 3/30/23

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

Project Location: Spring Valley, NY

Sample Description:

Work Order: 22G1596

Date Received: 7/28/2022

Field Sample #: X-01-072722

Sampled: 7/27/2022 00:00

Sample ID: 22G1596-08

Dup of RW-8S

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	50	2.0	µg/L	1	V-05	SW-846 8260D	7/29/22	7/29/22 15:22	LBD
Acrylonitrile	ND	5.0	0.55	µg/L	1		SW-846 8260D	7/29/22	7/29/22 15:22	LBD
tert-Amyl Methyl Ether (TAME)	ND	0.50	0.14	µg/L	1		SW-846 8260D	7/29/22	7/29/22 15:22	LBD
Benzene	ND	1.0	0.20	µg/L	1		SW-846 8260D	7/29/22	7/29/22 15:22	LBD
Bromobenzene	ND	1.0	0.15	µg/L	1		SW-846 8260D	7/29/22	7/29/22 15:22	LBD
Bromochloromethane	ND	1.0	0.31	µg/L	1		SW-846 8260D	7/29/22	7/29/22 15:22	LBD
Bromodichloromethane	ND	0.50	0.18	µg/L	1		SW-846 8260D	7/29/22	7/29/22 15:22	LBD
Bromoform	ND	1.0	0.38	µg/L	1		SW-846 8260D	7/29/22	7/29/22 15:22	LBD
Bromomethane	ND	5.0	1.5	µg/L	1	V-34 UJ	SW-846 8260D	7/29/22	7/29/22 15:22	LBD
2-Butanone (MEK)	ND	20	1.6	µg/L	1	V-05	SW-846 8260D	7/29/22	7/29/22 15:22	LBD
tert-Butyl Alcohol (TBA)	ND	20	4.7	µg/L	1		SW-846 8260D	7/29/22	7/29/22 15:22	LBD
n-Butylbenzene	ND	1.0	0.15	µg/L	1		SW-846 8260D	7/29/22	7/29/22 15:22	LBD
sec-Butylbenzene	ND	1.0	0.11	µg/L	1		SW-846 8260D	7/29/22	7/29/22 15:22	LBD
tert-Butylbenzene	ND	1.0	0.13	µg/L	1		SW-846 8260D	7/29/22	7/29/22 15:22	LBD
tert-Butyl Ethyl Ether (TBEE)	ND	0.50	0.15	µg/L	1		SW-846 8260D	7/29/22	7/29/22 15:22	LBD
Carbon Disulfide	ND	5.0	1.4	µg/L	1		SW-846 8260D	7/29/22	7/29/22 15:22	LBD
Carbon Tetrachloride	ND	5.0	0.16	µg/L	1		SW-846 8260D	7/29/22	7/29/22 15:22	LBD
Chlorobenzene	ND	1.0	0.11	µg/L	1		SW-846 8260D	7/29/22	7/29/22 15:22	LBD
Chlorodibromomethane	ND	0.50	0.22	µg/L	1		SW-846 8260D	7/29/22	7/29/22 15:22	LBD
Chloroethane	ND	2.0	0.32	µg/L	1		SW-846 8260D	7/29/22	7/29/22 15:22	LBD
Chloroform	ND	2.0	0.17	µg/L	1		SW-846 8260D	7/29/22	7/29/22 15:22	LBD
Chloromethane	ND	2.0	0.52	µg/L	1	L-04, V-05, V-34 UJ	SW-846 8260D	7/29/22	7/29/22 15:22	LBD
2-Chlorotoluene	ND	1.0	0.11	µg/L	1		SW-846 8260D	7/29/22	7/29/22 15:22	LBD
4-Chlorotoluene	ND	1.0	0.12	µg/L	1		SW-846 8260D	7/29/22	7/29/22 15:22	LBD
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0	0.80	µg/L	1	V-05 UJ	SW-846 8260D	7/29/22	7/29/22 15:22	LBD
1,2-Dibromoethane (EDB)	ND	0.50	0.17	µg/L	1		SW-846 8260D	7/29/22	7/29/22 15:22	LBD
Dibromomethane	ND	1.0	0.35	µg/L	1		SW-846 8260D	7/29/22	7/29/22 15:22	LBD
1,2-Dichlorobenzene	ND	1.0	0.12	µg/L	1		SW-846 8260D	7/29/22	7/29/22 15:22	LBD
1,3-Dichlorobenzene	ND	1.0	0.12	µg/L	1		SW-846 8260D	7/29/22	7/29/22 15:22	LBD
1,4-Dichlorobenzene	ND	1.0	0.13	µg/L	1		SW-846 8260D	7/29/22	7/29/22 15:22	LBD
trans-1,4-Dichloro-2-butene	ND	2.0	1.6	µg/L	1		SW-846 8260D	7/29/22	7/29/22 15:22	LBD
Dichlorodifluoromethane (Freon 12)	ND	2.0	0.19	µg/L	1		SW-846 8260D	7/29/22	7/29/22 15:22	LBD
1,1-Dichloroethane	ND	1.0	0.14	µg/L	1		SW-846 8260D	7/29/22	7/29/22 15:22	LBD
1,2-Dichloroethane	ND	1.0	0.31	µg/L	1		SW-846 8260D	7/29/22	7/29/22 15:22	LBD
1,1-Dichloroethylene	ND	1.0	0.14	µg/L	1		SW-846 8260D	7/29/22	7/29/22 15:22	LBD
cis-1,2-Dichloroethylene	5.5	1.0	0.15	µg/L	1		SW-846 8260D	7/29/22	7/29/22 15:22	LBD
trans-1,2-Dichloroethylene	ND	1.0	0.17	µg/L	1		SW-846 8260D	7/29/22	7/29/22 15:22	LBD
1,2-Dichloropropane	ND	1.0	0.18	µg/L	1		SW-846 8260D	7/29/22	7/29/22 15:22	LBD
1,3-Dichloropropane	ND	0.50	0.13	µg/L	1		SW-846 8260D	7/29/22	7/29/22 15:22	LBD
2,2-Dichloropropane	ND	1.0	0.33	µg/L	1		SW-846 8260D	7/29/22	7/29/22 15:22	LBD
1,1-Dichloropropene	ND	2.0	0.15	µg/L	1		SW-846 8260D	7/29/22	7/29/22 15:22	LBD
cis-1,3-Dichloropropene	ND	0.50	0.16	µg/L	1		SW-846 8260D	7/29/22	7/29/22 15:22	LBD
trans-1,3-Dichloropropene	ND	0.50	0.17	µg/L	1		SW-846 8260D	7/29/22	7/29/22 15:22	LBD
Diethyl Ether	ND	2.0	0.18	µg/L	1		SW-846 8260D	7/29/22	7/29/22 15:22	LBD

VJM 3/30/23

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

Project Location: Spring Valley, NY

Sample Description:

Work Order: 22G1596

Date Received: 7/28/2022

Field Sample #: X-01-072722

Sampled: 7/27/2022 00:00

Sample ID: 22G1596-08

Dup of RW-8S

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	0.50	0.13	µg/L	1		SW-846 8260D	7/29/22	7/29/22 15:22	LBD
1,4-Dioxane	ND	50	21	µg/L	1		SW-846 8260D	7/29/22	7/29/22 15:22	LBD
Ethylbenzene	ND	1.0	0.21	µg/L	1		SW-846 8260D	7/29/22	7/29/22 15:22	LBD
Hexachlorobutadiene	ND	0.60	0.46	µg/L	1	V-05 UJ	SW-846 8260D	7/29/22	7/29/22 15:22	LBD
2-Hexanone (MBK)	ND	10	1.1	µg/L	1		SW-846 8260D	7/29/22	7/29/22 15:22	LBD
Isopropylbenzene (Cumene)	ND	1.0	0.11	µg/L	1		SW-846 8260D	7/29/22	7/29/22 15:22	LBD
p-Isopropyltoluene (p-Cymene)	ND	1.0	0.097	µg/L	1		SW-846 8260D	7/29/22	7/29/22 15:22	LBD
Methyl Acetate	ND	1.0	0.45	µg/L	1	V-05	SW-846 8260D	7/29/22	7/29/22 15:22	LBD
Methyl tert-Butyl Ether (MTBE)	ND	1.0	0.17	µg/L	1		SW-846 8260D	7/29/22	7/29/22 15:22	LBD
Methyl Cyclohexane	ND	1.0	0.24	µg/L	1		SW-846 8260D	7/29/22	7/29/22 15:22	LBD
Methylene Chloride	ND	5.0	0.23	µg/L	1		SW-846 8260D	7/29/22	7/29/22 15:22	LBD
4-Methyl-2-pentanone (MIBK)	ND	10	1.3	µg/L	1		SW-846 8260D	7/29/22	7/29/22 15:22	LBD
Naphthalene	ND	2.0	0.24	µg/L	1	V-05 UJ	SW-846 8260D	7/29/22	7/29/22 15:22	LBD
n-Propylbenzene	ND	1.0	0.086	µg/L	1		SW-846 8260D	7/29/22	7/29/22 15:22	LBD
Styrene	ND	1.0	0.11	µg/L	1		SW-846 8260D	7/29/22	7/29/22 15:22	LBD
1,1,1,2-Tetrachloroethane	ND	1.0	0.18	µg/L	1		SW-846 8260D	7/29/22	7/29/22 15:22	LBD
1,1,2,2-Tetrachloroethane	ND	0.50	0.13	µg/L	1		SW-846 8260D	7/29/22	7/29/22 15:22	LBD
Tetrachloroethylene	1.1	1.0	0.19	µg/L	1		SW-846 8260D	7/29/22	7/29/22 15:22	LBD
Tetrahydrofuran	ND	10	0.49	µg/L	1		SW-846 8260D	7/29/22	7/29/22 15:22	LBD
Toluene	ND	1.0	0.22	µg/L	1		SW-846 8260D	7/29/22	7/29/22 15:22	LBD
1,2,3-Trichlorobenzene	ND	5.0	0.30	µg/L	1	V-05	SW-846 8260D	7/29/22	7/29/22 15:22	LBD
1,2,4-Trichlorobenzene	ND	1.0	0.25	µg/L	1		SW-846 8260D	7/29/22	7/29/22 15:22	LBD
1,3,5-Trichlorobenzene	ND	1.0	0.21	µg/L	1		SW-846 8260D	7/29/22	7/29/22 15:22	LBD
1,1,1-Trichloroethane	ND	1.0	0.17	µg/L	1		SW-846 8260D	7/29/22	7/29/22 15:22	LBD
1,1,2-Trichloroethane	ND	1.0	0.18	µg/L	1		SW-846 8260D	7/29/22	7/29/22 15:22	LBD
Trichloroethylene	9.2	1.0	0.19	µg/L	1		SW-846 8260D	7/29/22	7/29/22 15:22	LBD
Trichlorofluoromethane (Freon 11)	ND	2.0	0.18	µg/L	1		SW-846 8260D	7/29/22	7/29/22 15:22	LBD
1,2,3-Trichloropropane	ND	2.0	0.28	µg/L	1		SW-846 8260D	7/29/22	7/29/22 15:22	LBD
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	1.0	0.23	µg/L	1		SW-846 8260D	7/29/22	7/29/22 15:22	LBD
1,2,4-Trimethylbenzene	ND	1.0	0.20	µg/L	1		SW-846 8260D	7/29/22	7/29/22 15:22	LBD
1,3,5-Trimethylbenzene	ND	1.0	0.11	µg/L	1		SW-846 8260D	7/29/22	7/29/22 15:22	LBD
Vinyl Chloride	0.22	2.0	0.21	µg/L	1	J	SW-846 8260D	7/29/22	7/29/22 15:22	LBD
m+p Xylene	ND	2.0	0.46	µg/L	1		SW-846 8260D	7/29/22	7/29/22 15:22	LBD
o-Xylene	ND	1.0	0.23	µg/L	1		SW-846 8260D	7/29/22	7/29/22 15:22	LBD
Surrogates		% Recovery	Recovery Limits			Flag/Qual				
1,2-Dichloroethane-d4		81.1	70-130					7/29/22	15:22	
Toluene-d8		94.2	70-130					7/29/22	15:22	
4-Bromofluorobenzene		103	70-130					7/29/22	15:22	

VJM 3/30/23

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

Project Location: Spring Valley, NY

Sample Description:

Work Order: 22G1596

Date Received: 7/28/2022

Field Sample #: Trip Blank 02-072722

Sampled: 7/27/2022 00:00

Sample ID: 22G1596-09

Sample Matrix: Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	50	2.0	µg/L	1	V-05	SW-846 8260D	7/29/22	7/29/22 11:52	LBD
Acrylonitrile	ND	5.0	0.55	µg/L	1		SW-846 8260D	7/29/22	7/29/22 11:52	LBD
tert-Amyl Methyl Ether (TAME)	ND	0.50	0.14	µg/L	1		SW-846 8260D	7/29/22	7/29/22 11:52	LBD
Benzene	ND	1.0	0.20	µg/L	1		SW-846 8260D	7/29/22	7/29/22 11:52	LBD
Bromobenzene	ND	1.0	0.15	µg/L	1		SW-846 8260D	7/29/22	7/29/22 11:52	LBD
Bromochloromethane	ND	1.0	0.31	µg/L	1		SW-846 8260D	7/29/22	7/29/22 11:52	LBD
Bromodichloromethane	ND	0.50	0.18	µg/L	1		SW-846 8260D	7/29/22	7/29/22 11:52	LBD
Bromoform	ND	1.0	0.38	µg/L	1		SW-846 8260D	7/29/22	7/29/22 11:52	LBD
Bromomethane	ND	5.0	1.5	µg/L	1	V-34 UJ	SW-846 8260D	7/29/22	7/29/22 11:52	LBD
2-Butanone (MEK)	ND	20	1.6	µg/L	1	V-05	SW-846 8260D	7/29/22	7/29/22 11:52	LBD
tert-Butyl Alcohol (TBA)	ND	20	4.7	µg/L	1		SW-846 8260D	7/29/22	7/29/22 11:52	LBD
n-Butylbenzene	ND	1.0	0.15	µg/L	1		SW-846 8260D	7/29/22	7/29/22 11:52	LBD
sec-Butylbenzene	ND	1.0	0.11	µg/L	1		SW-846 8260D	7/29/22	7/29/22 11:52	LBD
tert-Butylbenzene	ND	1.0	0.13	µg/L	1		SW-846 8260D	7/29/22	7/29/22 11:52	LBD
tert-Butyl Ethyl Ether (TBEE)	ND	0.50	0.15	µg/L	1		SW-846 8260D	7/29/22	7/29/22 11:52	LBD
Carbon Disulfide	ND	5.0	1.4	µg/L	1		SW-846 8260D	7/29/22	7/29/22 11:52	LBD
Carbon Tetrachloride	ND	5.0	0.16	µg/L	1		SW-846 8260D	7/29/22	7/29/22 11:52	LBD
Chlorobenzene	ND	1.0	0.11	µg/L	1		SW-846 8260D	7/29/22	7/29/22 11:52	LBD
Chlorodibromomethane	ND	0.50	0.22	µg/L	1		SW-846 8260D	7/29/22	7/29/22 11:52	LBD
Chloroethane	ND	2.0	0.32	µg/L	1		SW-846 8260D	7/29/22	7/29/22 11:52	LBD
Chloroform	ND	2.0	0.17	µg/L	1		SW-846 8260D	7/29/22	7/29/22 11:52	LBD
Chloromethane	ND	2.0	0.52	µg/L	1	L-04, V-05, V-34 UJ	SW-846 8260D	7/29/22	7/29/22 11:52	LBD
2-Chlorotoluene	ND	1.0	0.11	µg/L	1		SW-846 8260D	7/29/22	7/29/22 11:52	LBD
4-Chlorotoluene	ND	1.0	0.12	µg/L	1		SW-846 8260D	7/29/22	7/29/22 11:52	LBD
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0	0.80	µg/L	1	V-05 UJ	SW-846 8260D	7/29/22	7/29/22 11:52	LBD
1,2-Dibromoethane (EDB)	ND	0.50	0.17	µg/L	1		SW-846 8260D	7/29/22	7/29/22 11:52	LBD
Dibromomethane	ND	1.0	0.35	µg/L	1		SW-846 8260D	7/29/22	7/29/22 11:52	LBD
1,2-Dichlorobenzene	ND	1.0	0.12	µg/L	1		SW-846 8260D	7/29/22	7/29/22 11:52	LBD
1,3-Dichlorobenzene	ND	1.0	0.12	µg/L	1		SW-846 8260D	7/29/22	7/29/22 11:52	LBD
1,4-Dichlorobenzene	ND	1.0	0.13	µg/L	1		SW-846 8260D	7/29/22	7/29/22 11:52	LBD
trans-1,4-Dichloro-2-butene	ND	2.0	1.6	µg/L	1		SW-846 8260D	7/29/22	7/29/22 11:52	LBD
Dichlorodifluoromethane (Freon 12)	ND	2.0	0.19	µg/L	1		SW-846 8260D	7/29/22	7/29/22 11:52	LBD
1,1-Dichloroethane	ND	1.0	0.14	µg/L	1		SW-846 8260D	7/29/22	7/29/22 11:52	LBD
1,2-Dichloroethane	ND	1.0	0.31	µg/L	1		SW-846 8260D	7/29/22	7/29/22 11:52	LBD
1,1-Dichloroethylene	ND	1.0	0.14	µg/L	1		SW-846 8260D	7/29/22	7/29/22 11:52	LBD
cis-1,2-Dichloroethylene	ND	1.0	0.15	µg/L	1		SW-846 8260D	7/29/22	7/29/22 11:52	LBD
trans-1,2-Dichloroethylene	ND	1.0	0.17	µg/L	1		SW-846 8260D	7/29/22	7/29/22 11:52	LBD
1,2-Dichloropropane	ND	1.0	0.18	µg/L	1		SW-846 8260D	7/29/22	7/29/22 11:52	LBD
1,3-Dichloropropane	ND	0.50	0.13	µg/L	1		SW-846 8260D	7/29/22	7/29/22 11:52	LBD
2,2-Dichloropropane	ND	1.0	0.33	µg/L	1		SW-846 8260D	7/29/22	7/29/22 11:52	LBD
1,1-Dichloropropene	ND	2.0	0.15	µg/L	1		SW-846 8260D	7/29/22	7/29/22 11:52	LBD
cis-1,3-Dichloropropene	ND	0.50	0.16	µg/L	1		SW-846 8260D	7/29/22	7/29/22 11:52	LBD
trans-1,3-Dichloropropene	ND	0.50	0.17	µg/L	1		SW-846 8260D	7/29/22	7/29/22 11:52	LBD
Diethyl Ether	ND	2.0	0.18	µg/L	1		SW-846 8260D	7/29/22	7/29/22 11:52	LBD

VJM 3/30/23

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

Project Location: Spring Valley, NY

Sample Description:

Work Order: 22G1596

Date Received: 7/28/2022

Field Sample #: Trip Blank 02-072722

Sampled: 7/27/2022 00:00

Sample ID: 22G1596-09

Sample Matrix: Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	0.50	0.13	µg/L	1		SW-846 8260D	7/29/22	7/29/22 11:52	LBD
1,4-Dioxane	ND	50	21	µg/L	1		SW-846 8260D	7/29/22	7/29/22 11:52	LBD
Ethylbenzene	ND	1.0	0.21	µg/L	1		SW-846 8260D	7/29/22	7/29/22 11:52	LBD
Hexachlorobutadiene	ND	0.60	0.46	µg/L	1	V-05 UJ	SW-846 8260D	7/29/22	7/29/22 11:52	LBD
2-Hexanone (MBK)	ND	10	1.1	µg/L	1		SW-846 8260D	7/29/22	7/29/22 11:52	LBD
Isopropylbenzene (Cumene)	ND	1.0	0.11	µg/L	1		SW-846 8260D	7/29/22	7/29/22 11:52	LBD
p-Isopropyltoluene (p-Cymene)	ND	1.0	0.097	µg/L	1		SW-846 8260D	7/29/22	7/29/22 11:52	LBD
Methyl Acetate	ND	1.0	0.45	µg/L	1	V-05	SW-846 8260D	7/29/22	7/29/22 11:52	LBD
Methyl tert-Butyl Ether (MTBE)	ND	1.0	0.17	µg/L	1		SW-846 8260D	7/29/22	7/29/22 11:52	LBD
Methyl Cyclohexane	ND	1.0	0.24	µg/L	1		SW-846 8260D	7/29/22	7/29/22 11:52	LBD
Methylene Chloride	ND	5.0	0.23	µg/L	1		SW-846 8260D	7/29/22	7/29/22 11:52	LBD
4-Methyl-2-pentanone (MIBK)	ND	10	1.3	µg/L	1		SW-846 8260D	7/29/22	7/29/22 11:52	LBD
Naphthalene	ND	2.0	0.24	µg/L	1	V-05 UJ	SW-846 8260D	7/29/22	7/29/22 11:52	LBD
n-Propylbenzene	ND	1.0	0.086	µg/L	1		SW-846 8260D	7/29/22	7/29/22 11:52	LBD
Styrene	ND	1.0	0.11	µg/L	1		SW-846 8260D	7/29/22	7/29/22 11:52	LBD
1,1,1,2-Tetrachloroethane	ND	1.0	0.18	µg/L	1		SW-846 8260D	7/29/22	7/29/22 11:52	LBD
1,1,2,2-Tetrachloroethane	ND	0.50	0.13	µg/L	1		SW-846 8260D	7/29/22	7/29/22 11:52	LBD
Tetrachloroethylene	ND	1.0	0.19	µg/L	1		SW-846 8260D	7/29/22	7/29/22 11:52	LBD
Tetrahydrofuran	ND	10	0.49	µg/L	1		SW-846 8260D	7/29/22	7/29/22 11:52	LBD
Toluene	ND	1.0	0.22	µg/L	1		SW-846 8260D	7/29/22	7/29/22 11:52	LBD
1,2,3-Trichlorobenzene	ND	5.0	0.30	µg/L	1	V-05	SW-846 8260D	7/29/22	7/29/22 11:52	LBD
1,2,4-Trichlorobenzene	ND	1.0	0.25	µg/L	1		SW-846 8260D	7/29/22	7/29/22 11:52	LBD
1,3,5-Trichlorobenzene	ND	1.0	0.21	µg/L	1		SW-846 8260D	7/29/22	7/29/22 11:52	LBD
1,1,1-Trichloroethane	ND	1.0	0.17	µg/L	1		SW-846 8260D	7/29/22	7/29/22 11:52	LBD
1,1,2-Trichloroethane	ND	1.0	0.18	µg/L	1		SW-846 8260D	7/29/22	7/29/22 11:52	LBD
Trichloroethylene	ND	1.0	0.19	µg/L	1		SW-846 8260D	7/29/22	7/29/22 11:52	LBD
Trichlorofluoromethane (Freon 11)	ND	2.0	0.18	µg/L	1		SW-846 8260D	7/29/22	7/29/22 11:52	LBD
1,2,3-Trichloropropane	ND	2.0	0.28	µg/L	1		SW-846 8260D	7/29/22	7/29/22 11:52	LBD
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	1.0	0.23	µg/L	1		SW-846 8260D	7/29/22	7/29/22 11:52	LBD
1,2,4-Trimethylbenzene	ND	1.0	0.20	µg/L	1		SW-846 8260D	7/29/22	7/29/22 11:52	LBD
1,3,5-Trimethylbenzene	ND	1.0	0.11	µg/L	1		SW-846 8260D	7/29/22	7/29/22 11:52	LBD
Vinyl Chloride	ND	2.0	0.21	µg/L	1		SW-846 8260D	7/29/22	7/29/22 11:52	LBD
m+p Xylene	ND	2.0	0.46	µg/L	1		SW-846 8260D	7/29/22	7/29/22 11:52	LBD
o-Xylene	ND	1.0	0.23	µg/L	1		SW-846 8260D	7/29/22	7/29/22 11:52	LBD
Surrogates		% Recovery	Recovery Limits			Flag/Qual				
1,2-Dichloroethane-d4		79.0	70-130						7/29/22 11:52	
Toluene-d8		92.6	70-130						7/29/22 11:52	
4-Bromofluorobenzene		101	70-130						7/29/22 11:52	

VJM 3/30/23

Project Location: 15 West Street, Spring Valley, NY

Sample Description:

Work Order: 23C1069

Date Received: 3/9/2023

Field Sample #: MW-3-030823

Sampled: 3/8/2023 11:10

Sample ID: 23C1069-01

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	7.9	50	2.0	µg/L	1	J	SW-846 8260D	3/13/23	3/13/23 15:28	EEH
Acrylonitrile	ND	5.0	0.47	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:28	EEH
tert-Amyl Methyl Ether (TAME)	ND	0.50	0.13	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:28	EEH
Benzene	ND	1.0	0.18	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:28	EEH
Bromobenzene	ND	1.0	0.15	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:28	EEH
Bromochloromethane	ND	1.0	0.28	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:28	EEH
Bromodichloromethane	ND	0.50	0.16	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:28	EEH
Bromoform	ND	1.0	0.41	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:28	EEH
Bromomethane	ND	2.0	1.3	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:28	EEH
2-Butanone (MEK)	ND	20	1.7	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:28	EEH
tert-Butyl Alcohol (TBA)	ND	20	4.3	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:28	EEH
n-Butylbenzene	ND	1.0	0.15	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:28	EEH
sec-Butylbenzene	ND	1.0	0.13	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:28	EEH
tert-Butylbenzene	ND	1.0	0.14	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:28	EEH
tert-Butyl Ethyl Ether (TBEE)	ND	0.50	0.15	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:28	EEH
Carbon Disulfide	ND	5.0	1.6	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:28	EEH
Carbon Tetrachloride	ND	5.0	0.16	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:28	EEH
Chlorobenzene	ND	1.0	0.12	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:28	EEH
Chlorodibromomethane	ND	0.50	0.20	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:28	EEH
Chloroethane	ND	2.0	0.34	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:28	EEH
Chloroform	ND	2.0	0.14	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:28	EEH
Chloromethane	ND	2.0	0.50	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:28	EEH
2-Chlorotoluene	ND	1.0	0.15	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:28	EEH
4-Chlorotoluene	ND	1.0	0.15	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:28	EEH
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0	0.85	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:28	EEH
1,2-Dibromoethane (EDB)	ND	0.50	0.16	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:28	EEH
Dibromomethane	ND	1.0	0.32	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:28	EEH
1,2-Dichlorobenzene	ND	1.0	0.13	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:28	EEH
1,3-Dichlorobenzene	ND	1.0	0.14	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:28	EEH
1,4-Dichlorobenzene	ND	1.0	0.13	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:28	EEH
trans-1,4-Dichloro-2-butene	ND	2.0	1.5	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:28	EEH
Dichlorodifluoromethane (Freon 12)	ND	2.0	0.16	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:28	EEH
1,1-Dichloroethane	ND	1.0	0.14	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:28	EEH
1,2-Dichloroethane	ND	1.0	0.30	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:28	EEH
1,1-Dichloroethylene	ND	1.0	0.14	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:28	EEH
cis-1,2-Dichloroethylene	ND	1.0	0.14	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:28	EEH
trans-1,2-Dichloroethylene	ND	1.0	0.17	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:28	EEH
1,2-Dichloropropane	ND	1.0	0.19	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:28	EEH
1,3-Dichloropropane	ND	0.50	0.12	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:28	EEH
2,2-Dichloropropane	ND	1.0	0.35	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:28	EEH
1,1-Dichloropropene	ND	2.0	0.15	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:28	EEH
cis-1,3-Dichloropropene	ND	0.50	0.16	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:28	EEH
trans-1,3-Dichloropropene	ND	0.50	0.14	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:28	EEH
Diethyl Ether	ND	2.0	0.14	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:28	EEH

Project Location: 15 West Street, Spring Valley, NY

Sample Description:

Work Order: 23C1069

Date Received: 3/9/2023

Field Sample #: MW-3-030823

Sampled: 3/8/2023 11:10

Sample ID: 23C1069-01

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	0.50	0.20	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:28	EEH
1,4-Dioxane	ND	50	18	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:28	EEH
Ethylbenzene	ND	1.0	0.22	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:28	EEH
Hexachlorobutadiene	ND	0.60	0.47	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:28	EEH
2-Hexanone (MBK)	ND	10	1.2	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:28	EEH
Isopropylbenzene (Cumene)	ND	1.0	0.15	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:28	EEH
p-Isopropyltoluene (p-Cymene)	ND	1.0	0.13	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:28	EEH
Methyl Acetate	ND	1.0	0.61	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:28	EEH
Methyl tert-Butyl Ether (MTBE)	ND	1.0	0.17	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:28	EEH
Methyl Cyclohexane	ND	1.0	0.16	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:28	EEH
Methylene Chloride	ND	5.0	0.18	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:28	EEH
4-Methyl-2-pentanone (MIBK)	ND	10	1.3	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:28	EEH
Naphthalene	ND	2.0	0.38	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:28	EEH
n-Propylbenzene	ND	1.0	0.12	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:28	EEH
Styrene	ND	1.0	0.15	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:28	EEH
1,1,1,2-Tetrachloroethane	ND	1.0	0.16	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:28	EEH
1,1,2,2-Tetrachloroethane	ND	0.50	0.14	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:28	EEH
Tetrachloroethylene	ND	1.0	0.17	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:28	EEH
Tetrahydrofuran	ND	10	0.49	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:28	EEH
Toluene	ND	1.0	0.22	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:28	EEH
1,2,3-Trichlorobenzene	ND	5.0	0.34	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:28	EEH
1,2,4-Trichlorobenzene	ND	1.0	0.30	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:28	EEH
1,3,5-Trichlorobenzene	ND	1.0	0.21	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:28	EEH
1,1,1-Trichloroethane	ND	1.0	0.15	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:28	EEH
1,1,2-Trichloroethane	ND	1.0	0.19	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:28	EEH
Trichloroethylene	ND	1.0	0.17	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:28	EEH
Trichlorofluoromethane (Freon 11)	ND	2.0	0.15	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:28	EEH
1,2,3-Trichloropropane	ND	2.0	0.28	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:28	EEH
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	1.0	0.21	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:28	EEH
1,2,4-Trimethylbenzene	ND	1.0	0.20	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:28	EEH
1,3,5-Trimethylbenzene	ND	1.0	0.15	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:28	EEH
Vinyl Chloride	ND	2.0	0.24	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:28	EEH
m+p Xylene	ND	2.0	0.49	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:28	EEH
o-Xylene	ND	1.0	0.24	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:28	EEH
Surrogates		% Recovery	Recovery Limits			Flag/Qual				
1,2-Dichloroethane-d4		99.9	70-130						3/13/23 15:28	
Toluene-d8		100	70-130						3/13/23 15:28	
4-Bromofluorobenzene		98.8	70-130						3/13/23 15:28	

Project Location: 15 West Street, Spring Valley, NY

Sample Description:

Work Order: 23C1069

Date Received: 3/9/2023

Field Sample #: RW-8S-030823

Sampled: 3/8/2023 12:00

Sample ID: 23C1069-02

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	4.7	50	2.0	µg/L	1	J	SW-846 8260D	3/13/23	3/13/23 15:55	EEH
Acrylonitrile	ND	5.0	0.47	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:55	EEH
tert-Amyl Methyl Ether (TAME)	ND	0.50	0.13	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:55	EEH
Benzene	ND	1.0	0.18	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:55	EEH
Bromobenzene	ND	1.0	0.15	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:55	EEH
Bromochloromethane	ND	1.0	0.28	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:55	EEH
Bromodichloromethane	ND	0.50	0.16	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:55	EEH
Bromoform	ND	1.0	0.41	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:55	EEH
Bromomethane	ND	2.0	1.3	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:55	EEH
2-Butanone (MEK)	ND	20	1.7	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:55	EEH
tert-Butyl Alcohol (TBA)	ND	20	4.3	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:55	EEH
n-Butylbenzene	ND	1.0	0.15	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:55	EEH
sec-Butylbenzene	ND	1.0	0.13	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:55	EEH
tert-Butylbenzene	ND	1.0	0.14	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:55	EEH
tert-Butyl Ethyl Ether (TBEE)	ND	0.50	0.15	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:55	EEH
Carbon Disulfide	ND	5.0	1.6	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:55	EEH
Carbon Tetrachloride	ND	5.0	0.16	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:55	EEH
Chlorobenzene	ND	1.0	0.12	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:55	EEH
Chlorodibromomethane	ND	0.50	0.20	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:55	EEH
Chloroethane	ND	2.0	0.34	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:55	EEH
Chloroform	ND	2.0	0.14	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:55	EEH
Chloromethane	ND	2.0	0.50	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:55	EEH
2-Chlorotoluene	ND	1.0	0.15	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:55	EEH
4-Chlorotoluene	ND	1.0	0.15	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:55	EEH
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0	0.85	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:55	EEH
1,2-Dibromoethane (EDB)	ND	0.50	0.16	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:55	EEH
Dibromomethane	ND	1.0	0.32	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:55	EEH
1,2-Dichlorobenzene	ND	1.0	0.13	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:55	EEH
1,3-Dichlorobenzene	ND	1.0	0.14	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:55	EEH
1,4-Dichlorobenzene	ND	1.0	0.13	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:55	EEH
trans-1,4-Dichloro-2-butene	ND	2.0	1.5	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:55	EEH
Dichlorodifluoromethane (Freon 12)	ND	2.0	0.16	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:55	EEH
1,1-Dichloroethane	ND	1.0	0.14	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:55	EEH
1,2-Dichloroethane	ND	1.0	0.30	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:55	EEH
1,1-Dichloroethylene	ND	1.0	0.14	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:55	EEH
cis-1,2-Dichloroethylene	5.7	1.0	0.14	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:55	EEH
trans-1,2-Dichloroethylene	ND	1.0	0.17	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:55	EEH
1,2-Dichloropropane	ND	1.0	0.19	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:55	EEH
1,3-Dichloropropane	ND	0.50	0.12	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:55	EEH
2,2-Dichloropropane	ND	1.0	0.35	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:55	EEH
1,1-Dichloropropene	ND	2.0	0.15	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:55	EEH
cis-1,3-Dichloropropene	ND	0.50	0.16	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:55	EEH
trans-1,3-Dichloropropene	ND	0.50	0.14	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:55	EEH
Diethyl Ether	ND	2.0	0.14	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:55	EEH

Project Location: 15 West Street, Spring Valley, NY

Sample Description:

Work Order: 23C1069

Date Received: 3/9/2023

Field Sample #: RW-8S-030823

Sampled: 3/8/2023 12:00

Sample ID: 23C1069-02

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	0.50	0.20	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:55	EEH
1,4-Dioxane	ND	50	18	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:55	EEH
Ethylbenzene	ND	1.0	0.22	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:55	EEH
Hexachlorobutadiene	ND	0.60	0.47	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:55	EEH
2-Hexanone (MBK)	ND	10	1.2	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:55	EEH
Isopropylbenzene (Cumene)	ND	1.0	0.15	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:55	EEH
p-Isopropyltoluene (p-Cymene)	ND	1.0	0.13	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:55	EEH
Methyl Acetate	ND	1.0	0.61	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:55	EEH
Methyl tert-Butyl Ether (MTBE)	ND	1.0	0.17	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:55	EEH
Methyl Cyclohexane	ND	1.0	0.16	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:55	EEH
Methylene Chloride	ND	5.0	0.18	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:55	EEH
4-Methyl-2-pentanone (MIBK)	ND	10	1.3	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:55	EEH
Naphthalene	ND	2.0	0.38	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:55	EEH
n-Propylbenzene	ND	1.0	0.12	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:55	EEH
Styrene	ND	1.0	0.15	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:55	EEH
1,1,1,2-Tetrachloroethane	ND	1.0	0.16	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:55	EEH
1,1,2,2-Tetrachloroethane	ND	0.50	0.14	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:55	EEH
Tetrachloroethylene	0.74	1.0	0.17	µg/L	1	J	SW-846 8260D	3/13/23	3/13/23 15:55	EEH
Tetrahydrofuran	ND	10	0.49	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:55	EEH
Toluene	ND	1.0	0.22	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:55	EEH
1,2,3-Trichlorobenzene	ND	5.0	0.34	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:55	EEH
1,2,4-Trichlorobenzene	ND	1.0	0.30	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:55	EEH
1,3,5-Trichlorobenzene	ND	1.0	0.21	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:55	EEH
1,1,1-Trichloroethane	ND	1.0	0.15	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:55	EEH
1,1,2-Trichloroethane	ND	1.0	0.19	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:55	EEH
Trichloroethylene	7.1	1.0	0.17	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:55	EEH
Trichlorofluoromethane (Freon 11)	ND	2.0	0.15	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:55	EEH
1,2,3-Trichloropropane	ND	2.0	0.28	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:55	EEH
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	1.0	0.21	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:55	EEH
1,2,4-Trimethylbenzene	ND	1.0	0.20	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:55	EEH
1,3,5-Trimethylbenzene	ND	1.0	0.15	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:55	EEH
Vinyl Chloride	ND	2.0	0.24	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:55	EEH
m+p Xylene	ND	2.0	0.49	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:55	EEH
o-Xylene	ND	1.0	0.24	µg/L	1		SW-846 8260D	3/13/23	3/13/23 15:55	EEH
Surrogates		% Recovery	Recovery Limits			Flag/Qual				
1,2-Dichloroethane-d4		101	70-130						3/13/23 15:55	
Toluene-d8		101	70-130						3/13/23 15:55	
4-Bromofluorobenzene		101	70-130						3/13/23 15:55	

Project Location: 15 West Street, Spring Valley, NY

Sample Description:

Work Order: 23C1069

Date Received: 3/9/2023

Field Sample #: DW-1-030823

Sampled: 3/8/2023 12:30

Sample ID: 23C1069-03

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	3.3	50	2.0	µg/L	1	J	SW-846 8260D	3/13/23	3/13/23 16:23	EEH
Acrylonitrile	ND	5.0	0.47	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:23	EEH
tert-Amyl Methyl Ether (TAME)	ND	0.50	0.13	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:23	EEH
Benzene	ND	1.0	0.18	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:23	EEH
Bromobenzene	ND	1.0	0.15	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:23	EEH
Bromochloromethane	ND	1.0	0.28	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:23	EEH
Bromodichloromethane	ND	0.50	0.16	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:23	EEH
Bromoform	ND	1.0	0.41	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:23	EEH
Bromomethane	ND	2.0	1.3	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:23	EEH
2-Butanone (MEK)	ND	20	1.7	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:23	EEH
tert-Butyl Alcohol (TBA)	ND	20	4.3	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:23	EEH
n-Butylbenzene	ND	1.0	0.15	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:23	EEH
sec-Butylbenzene	ND	1.0	0.13	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:23	EEH
tert-Butylbenzene	ND	1.0	0.14	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:23	EEH
tert-Butyl Ethyl Ether (TBEE)	ND	0.50	0.15	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:23	EEH
Carbon Disulfide	ND	5.0	1.6	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:23	EEH
Carbon Tetrachloride	ND	5.0	0.16	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:23	EEH
Chlorobenzene	ND	1.0	0.12	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:23	EEH
Chlorodibromomethane	ND	0.50	0.20	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:23	EEH
Chloroethane	ND	2.0	0.34	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:23	EEH
Chloroform	0.48	2.0	0.14	µg/L	1	J	SW-846 8260D	3/13/23	3/13/23 16:23	EEH
Chloromethane	ND	2.0	0.50	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:23	EEH
2-Chlorotoluene	ND	1.0	0.15	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:23	EEH
4-Chlorotoluene	ND	1.0	0.15	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:23	EEH
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0	0.85	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:23	EEH
1,2-Dibromoethane (EDB)	ND	0.50	0.16	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:23	EEH
Dibromomethane	ND	1.0	0.32	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:23	EEH
1,2-Dichlorobenzene	ND	1.0	0.13	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:23	EEH
1,3-Dichlorobenzene	ND	1.0	0.14	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:23	EEH
1,4-Dichlorobenzene	ND	1.0	0.13	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:23	EEH
trans-1,4-Dichloro-2-butene	ND	2.0	1.5	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:23	EEH
Dichlorodifluoromethane (Freon 12)	ND	2.0	0.16	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:23	EEH
1,1-Dichloroethane	ND	1.0	0.14	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:23	EEH
1,2-Dichloroethane	ND	1.0	0.30	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:23	EEH
1,1-Dichloroethylene	ND	1.0	0.14	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:23	EEH
cis-1,2-Dichloroethylene	ND	1.0	0.14	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:23	EEH
trans-1,2-Dichloroethylene	ND	1.0	0.17	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:23	EEH
1,2-Dichloropropane	ND	1.0	0.19	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:23	EEH
1,3-Dichloropropane	ND	0.50	0.12	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:23	EEH
2,2-Dichloropropane	ND	1.0	0.35	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:23	EEH
1,1-Dichloropropene	ND	2.0	0.15	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:23	EEH
cis-1,3-Dichloropropene	ND	0.50	0.16	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:23	EEH
trans-1,3-Dichloropropene	ND	0.50	0.14	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:23	EEH
Diethyl Ether	ND	2.0	0.14	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:23	EEH

Project Location: 15 West Street, Spring Valley, NY

Sample Description:

Work Order: 23C1069

Date Received: 3/9/2023

Field Sample #: DW-1-030823

Sampled: 3/8/2023 12:30

Sample ID: 23C1069-03

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	0.50	0.20	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:23	EEH
1,4-Dioxane	ND	50	18	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:23	EEH
Ethylbenzene	ND	1.0	0.22	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:23	EEH
Hexachlorobutadiene	ND	0.60	0.47	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:23	EEH
2-Hexanone (MBK)	ND	10	1.2	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:23	EEH
Isopropylbenzene (Cumene)	ND	1.0	0.15	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:23	EEH
p-Isopropyltoluene (p-Cymene)	ND	1.0	0.13	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:23	EEH
Methyl Acetate	ND	1.0	0.61	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:23	EEH
Methyl tert-Butyl Ether (MTBE)	ND	1.0	0.17	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:23	EEH
Methyl Cyclohexane	ND	1.0	0.16	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:23	EEH
Methylene Chloride	ND	5.0	0.18	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:23	EEH
4-Methyl-2-pentanone (MIBK)	ND	10	1.3	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:23	EEH
Naphthalene	ND	2.0	0.38	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:23	EEH
n-Propylbenzene	ND	1.0	0.12	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:23	EEH
Styrene	ND	1.0	0.15	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:23	EEH
1,1,1,2-Tetrachloroethane	ND	1.0	0.16	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:23	EEH
1,1,2,2-Tetrachloroethane	ND	0.50	0.14	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:23	EEH
Tetrachloroethylene	1.6	1.0	0.17	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:23	EEH
Tetrahydrofuran	ND	10	0.49	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:23	EEH
Toluene	ND	1.0	0.22	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:23	EEH
1,2,3-Trichlorobenzene	ND	5.0	0.34	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:23	EEH
1,2,4-Trichlorobenzene	ND	1.0	0.30	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:23	EEH
1,3,5-Trichlorobenzene	ND	1.0	0.21	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:23	EEH
1,1,1-Trichloroethane	ND	1.0	0.15	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:23	EEH
1,1,2-Trichloroethane	ND	1.0	0.19	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:23	EEH
Trichloroethylene	1.3	1.0	0.17	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:23	EEH
Trichlorofluoromethane (Freon 11)	ND	2.0	0.15	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:23	EEH
1,2,3-Trichloropropane	ND	2.0	0.28	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:23	EEH
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	1.0	0.21	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:23	EEH
1,2,4-Trimethylbenzene	ND	1.0	0.20	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:23	EEH
1,3,5-Trimethylbenzene	ND	1.0	0.15	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:23	EEH
Vinyl Chloride	ND	2.0	0.24	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:23	EEH
m+p Xylene	ND	2.0	0.49	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:23	EEH
o-Xylene	ND	1.0	0.24	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:23	EEH
Surrogates		% Recovery	Recovery Limits			Flag/Qual				
1,2-Dichloroethane-d4		101	70-130						3/13/23 16:23	
Toluene-d8		102	70-130						3/13/23 16:23	
4-Bromofluorobenzene		103	70-130						3/13/23 16:23	

Project Location: 15 West Street, Spring Valley, NY

Sample Description:

Work Order: 23C1069

Date Received: 3/9/2023

Field Sample #: GW-4S-030823

Sampled: 3/8/2023 14:30

Sample ID: 23C1069-04

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	50	2.0	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:50	EEH
Acrylonitrile	ND	5.0	0.47	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:50	EEH
tert-Amyl Methyl Ether (TAME)	ND	0.50	0.13	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:50	EEH
Benzene	ND	1.0	0.18	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:50	EEH
Bromobenzene	ND	1.0	0.15	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:50	EEH
Bromochloromethane	ND	1.0	0.28	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:50	EEH
Bromodichloromethane	ND	0.50	0.16	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:50	EEH
Bromoform	ND	1.0	0.41	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:50	EEH
Bromomethane	ND	2.0	1.3	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:50	EEH
2-Butanone (MEK)	ND	20	1.7	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:50	EEH
tert-Butyl Alcohol (TBA)	ND	20	4.3	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:50	EEH
n-Butylbenzene	ND	1.0	0.15	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:50	EEH
sec-Butylbenzene	ND	1.0	0.13	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:50	EEH
tert-Butylbenzene	ND	1.0	0.14	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:50	EEH
tert-Butyl Ethyl Ether (TBEE)	ND	0.50	0.15	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:50	EEH
Carbon Disulfide	ND	5.0	1.6	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:50	EEH
Carbon Tetrachloride	ND	5.0	0.16	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:50	EEH
Chlorobenzene	ND	1.0	0.12	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:50	EEH
Chlorodibromomethane	ND	0.50	0.20	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:50	EEH
Chloroethane	ND	2.0	0.34	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:50	EEH
Chloroform	ND	2.0	0.14	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:50	EEH
Chloromethane	ND	2.0	0.50	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:50	EEH
2-Chlorotoluene	ND	1.0	0.15	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:50	EEH
4-Chlorotoluene	ND	1.0	0.15	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:50	EEH
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0	0.85	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:50	EEH
1,2-Dibromoethane (EDB)	ND	0.50	0.16	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:50	EEH
Dibromomethane	ND	1.0	0.32	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:50	EEH
1,2-Dichlorobenzene	ND	1.0	0.13	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:50	EEH
1,3-Dichlorobenzene	ND	1.0	0.14	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:50	EEH
1,4-Dichlorobenzene	ND	1.0	0.13	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:50	EEH
trans-1,4-Dichloro-2-butene	ND	2.0	1.5	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:50	EEH
Dichlorodifluoromethane (Freon 12)	ND	2.0	0.16	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:50	EEH
1,1-Dichloroethane	ND	1.0	0.14	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:50	EEH
1,2-Dichloroethane	ND	1.0	0.30	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:50	EEH
1,1-Dichloroethylene	ND	1.0	0.14	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:50	EEH
cis-1,2-Dichloroethylene	0.66	1.0	0.14	µg/L	1	J	SW-846 8260D	3/13/23	3/13/23 16:50	EEH
trans-1,2-Dichloroethylene	ND	1.0	0.17	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:50	EEH
1,2-Dichloropropane	ND	1.0	0.19	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:50	EEH
1,3-Dichloropropane	ND	0.50	0.12	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:50	EEH
2,2-Dichloropropane	ND	1.0	0.35	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:50	EEH
1,1-Dichloropropene	ND	2.0	0.15	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:50	EEH
cis-1,3-Dichloropropene	ND	0.50	0.16	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:50	EEH
trans-1,3-Dichloropropene	ND	0.50	0.14	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:50	EEH
Diethyl Ether	ND	2.0	0.14	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:50	EEH

Project Location: 15 West Street, Spring Valley, NY

Sample Description:

Work Order: 23C1069

Date Received: 3/9/2023

Field Sample #: GW-4S-030823

Sampled: 3/8/2023 14:30

Sample ID: 23C1069-04

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	0.50	0.20	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:50	EEH
1,4-Dioxane	ND	50	18	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:50	EEH
Ethylbenzene	ND	1.0	0.22	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:50	EEH
Hexachlorobutadiene	ND	0.60	0.47	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:50	EEH
2-Hexanone (MBK)	ND	10	1.2	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:50	EEH
Isopropylbenzene (Cumene)	ND	1.0	0.15	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:50	EEH
p-Isopropyltoluene (p-Cymene)	ND	1.0	0.13	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:50	EEH
Methyl Acetate	ND	1.0	0.61	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:50	EEH
Methyl tert-Butyl Ether (MTBE)	ND	1.0	0.17	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:50	EEH
Methyl Cyclohexane	ND	1.0	0.16	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:50	EEH
Methylene Chloride	ND	5.0	0.18	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:50	EEH
4-Methyl-2-pentanone (MIBK)	ND	10	1.3	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:50	EEH
Naphthalene	ND	2.0	0.38	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:50	EEH
n-Propylbenzene	ND	1.0	0.12	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:50	EEH
Styrene	ND	1.0	0.15	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:50	EEH
1,1,1,2-Tetrachloroethane	ND	1.0	0.16	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:50	EEH
1,1,2,2-Tetrachloroethane	ND	0.50	0.14	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:50	EEH
Tetrachloroethylene	0.19	1.0	0.17	µg/L	1	J	SW-846 8260D	3/13/23	3/13/23 16:50	EEH
Tetrahydrofuran	ND	10	0.49	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:50	EEH
Toluene	ND	1.0	0.22	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:50	EEH
1,2,3-Trichlorobenzene	ND	5.0	0.34	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:50	EEH
1,2,4-Trichlorobenzene	ND	1.0	0.30	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:50	EEH
1,3,5-Trichlorobenzene	ND	1.0	0.21	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:50	EEH
1,1,1-Trichloroethane	ND	1.0	0.15	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:50	EEH
1,1,2-Trichloroethane	ND	1.0	0.19	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:50	EEH
Trichloroethylene	4.3	1.0	0.17	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:50	EEH
Trichlorofluoromethane (Freon 11)	ND	2.0	0.15	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:50	EEH
1,2,3-Trichloropropane	ND	2.0	0.28	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:50	EEH
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	1.0	0.21	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:50	EEH
1,2,4-Trimethylbenzene	ND	1.0	0.20	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:50	EEH
1,3,5-Trimethylbenzene	ND	1.0	0.15	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:50	EEH
Vinyl Chloride	ND	2.0	0.24	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:50	EEH
m+p Xylene	ND	2.0	0.49	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:50	EEH
o-Xylene	ND	1.0	0.24	µg/L	1		SW-846 8260D	3/13/23	3/13/23 16:50	EEH
Surrogates		% Recovery	Recovery Limits			Flag/Qual				
1,2-Dichloroethane-d4		101	70-130						3/13/23 16:50	
Toluene-d8		102	70-130						3/13/23 16:50	
4-Bromofluorobenzene		101	70-130						3/13/23 16:50	

Project Location: 15 West Street, Spring Valley, NY

Sample Description:

Work Order: 23C1069

Date Received: 3/9/2023

Field Sample #: GP-4D-030823

Sampled: 3/8/2023 14:45

Sample ID: 23C1069-05

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	2.7	50	2.0	µg/L	1	J	SW-846 8260D	3/13/23	3/13/23 17:17	EEH
Acrylonitrile	ND	5.0	0.47	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:17	EEH
tert-Amyl Methyl Ether (TAME)	ND	0.50	0.13	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:17	EEH
Benzene	ND	1.0	0.18	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:17	EEH
Bromobenzene	ND	1.0	0.15	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:17	EEH
Bromochloromethane	ND	1.0	0.28	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:17	EEH
Bromodichloromethane	ND	0.50	0.16	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:17	EEH
Bromoform	ND	1.0	0.41	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:17	EEH
Bromomethane	ND	2.0	1.3	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:17	EEH
2-Butanone (MEK)	ND	20	1.7	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:17	EEH
tert-Butyl Alcohol (TBA)	ND	20	4.3	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:17	EEH
n-Butylbenzene	ND	1.0	0.15	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:17	EEH
sec-Butylbenzene	ND	1.0	0.13	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:17	EEH
tert-Butylbenzene	ND	1.0	0.14	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:17	EEH
tert-Butyl Ethyl Ether (TBEE)	ND	0.50	0.15	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:17	EEH
Carbon Disulfide	ND	5.0	1.6	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:17	EEH
Carbon Tetrachloride	ND	5.0	0.16	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:17	EEH
Chlorobenzene	ND	1.0	0.12	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:17	EEH
Chlorodibromomethane	ND	0.50	0.20	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:17	EEH
Chloroethane	ND	2.0	0.34	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:17	EEH
Chloroform	ND	2.0	0.14	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:17	EEH
Chloromethane	ND	2.0	0.50	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:17	EEH
2-Chlorotoluene	ND	1.0	0.15	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:17	EEH
4-Chlorotoluene	ND	1.0	0.15	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:17	EEH
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0	0.85	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:17	EEH
1,2-Dibromoethane (EDB)	ND	0.50	0.16	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:17	EEH
Dibromomethane	ND	1.0	0.32	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:17	EEH
1,2-Dichlorobenzene	ND	1.0	0.13	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:17	EEH
1,3-Dichlorobenzene	ND	1.0	0.14	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:17	EEH
1,4-Dichlorobenzene	ND	1.0	0.13	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:17	EEH
trans-1,4-Dichloro-2-butene	ND	2.0	1.5	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:17	EEH
Dichlorodifluoromethane (Freon 12)	ND	2.0	0.16	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:17	EEH
1,1-Dichloroethane	ND	1.0	0.14	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:17	EEH
1,2-Dichloroethane	ND	1.0	0.30	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:17	EEH
1,1-Dichloroethylene	ND	1.0	0.14	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:17	EEH
cis-1,2-Dichloroethylene	ND	1.0	0.14	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:17	EEH
trans-1,2-Dichloroethylene	ND	1.0	0.17	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:17	EEH
1,2-Dichloropropane	ND	1.0	0.19	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:17	EEH
1,3-Dichloropropane	ND	0.50	0.12	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:17	EEH
2,2-Dichloropropane	ND	1.0	0.35	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:17	EEH
1,1-Dichloropropene	ND	2.0	0.15	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:17	EEH
cis-1,3-Dichloropropene	ND	0.50	0.16	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:17	EEH
trans-1,3-Dichloropropene	ND	0.50	0.14	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:17	EEH
Diethyl Ether	ND	2.0	0.14	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:17	EEH

Project Location: 15 West Street, Spring Valley, NY

Sample Description:

Work Order: 23C1069

Date Received: 3/9/2023

Field Sample #: GP-4D-030823

Sampled: 3/8/2023 14:45

Sample ID: 23C1069-05

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	0.50	0.20	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:17	EEH
1,4-Dioxane	ND	50	18	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:17	EEH
Ethylbenzene	ND	1.0	0.22	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:17	EEH
Hexachlorobutadiene	ND	0.60	0.47	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:17	EEH
2-Hexanone (MBK)	ND	10	1.2	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:17	EEH
Isopropylbenzene (Cumene)	ND	1.0	0.15	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:17	EEH
p-Isopropyltoluene (p-Cymene)	ND	1.0	0.13	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:17	EEH
Methyl Acetate	ND	1.0	0.61	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:17	EEH
Methyl tert-Butyl Ether (MTBE)	ND	1.0	0.17	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:17	EEH
Methyl Cyclohexane	ND	1.0	0.16	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:17	EEH
Methylene Chloride	ND	5.0	0.18	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:17	EEH
4-Methyl-2-pentanone (MIBK)	ND	10	1.3	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:17	EEH
Naphthalene	ND	2.0	0.38	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:17	EEH
n-Propylbenzene	ND	1.0	0.12	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:17	EEH
Styrene	ND	1.0	0.15	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:17	EEH
1,1,1,2-Tetrachloroethane	ND	1.0	0.16	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:17	EEH
1,1,2,2-Tetrachloroethane	ND	0.50	0.14	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:17	EEH
Tetrachloroethylene	ND	1.0	0.17	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:17	EEH
Tetrahydrofuran	ND	10	0.49	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:17	EEH
Toluene	ND	1.0	0.22	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:17	EEH
1,2,3-Trichlorobenzene	ND	5.0	0.34	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:17	EEH
1,2,4-Trichlorobenzene	ND	1.0	0.30	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:17	EEH
1,3,5-Trichlorobenzene	ND	1.0	0.21	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:17	EEH
1,1,1-Trichloroethane	ND	1.0	0.15	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:17	EEH
1,1,2-Trichloroethane	ND	1.0	0.19	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:17	EEH
Trichloroethylene	ND	1.0	0.17	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:17	EEH
Trichlorofluoromethane (Freon 11)	ND	2.0	0.15	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:17	EEH
1,2,3-Trichloropropane	ND	2.0	0.28	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:17	EEH
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	1.0	0.21	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:17	EEH
1,2,4-Trimethylbenzene	ND	1.0	0.20	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:17	EEH
1,3,5-Trimethylbenzene	ND	1.0	0.15	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:17	EEH
Vinyl Chloride	ND	2.0	0.24	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:17	EEH
m+p Xylene	ND	2.0	0.49	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:17	EEH
o-Xylene	ND	1.0	0.24	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:17	EEH
Surrogates		% Recovery	Recovery Limits			Flag/Qual				
1,2-Dichloroethane-d4		99.5	70-130						3/13/23 17:17	
Toluene-d8		102	70-130						3/13/23 17:17	
4-Bromofluorobenzene		99.5	70-130						3/13/23 17:17	

Project Location: 15 West Street, Spring Valley, NY

Sample Description:

Work Order: 23C1069

Date Received: 3/9/2023

Field Sample #: DUP-01-030823

Sampled: 3/8/2023 00:00

Sample ID: 23C1069-06

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	4.3	50	2.0	µg/L	1	J	SW-846 8260D	3/13/23	3/13/23 17:45	EEH
Acrylonitrile	ND	5.0	0.47	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:45	EEH
tert-Amyl Methyl Ether (TAME)	ND	0.50	0.13	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:45	EEH
Benzene	ND	1.0	0.18	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:45	EEH
Bromobenzene	ND	1.0	0.15	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:45	EEH
Bromochloromethane	ND	1.0	0.28	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:45	EEH
Bromodichloromethane	ND	0.50	0.16	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:45	EEH
Bromoform	ND	1.0	0.41	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:45	EEH
Bromomethane	ND	2.0	1.3	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:45	EEH
2-Butanone (MEK)	ND	20	1.7	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:45	EEH
tert-Butyl Alcohol (TBA)	ND	20	4.3	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:45	EEH
n-Butylbenzene	ND	1.0	0.15	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:45	EEH
sec-Butylbenzene	ND	1.0	0.13	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:45	EEH
tert-Butylbenzene	ND	1.0	0.14	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:45	EEH
tert-Butyl Ethyl Ether (TBEE)	ND	0.50	0.15	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:45	EEH
Carbon Disulfide	ND	5.0	1.6	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:45	EEH
Carbon Tetrachloride	ND	5.0	0.16	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:45	EEH
Chlorobenzene	ND	1.0	0.12	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:45	EEH
Chlorodibromomethane	ND	0.50	0.20	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:45	EEH
Chloroethane	ND	2.0	0.34	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:45	EEH
Chloroform	ND	2.0	0.14	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:45	EEH
Chloromethane	ND	2.0	0.50	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:45	EEH
2-Chlorotoluene	ND	1.0	0.15	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:45	EEH
4-Chlorotoluene	ND	1.0	0.15	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:45	EEH
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0	0.85	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:45	EEH
1,2-Dibromoethane (EDB)	ND	0.50	0.16	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:45	EEH
Dibromomethane	ND	1.0	0.32	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:45	EEH
1,2-Dichlorobenzene	ND	1.0	0.13	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:45	EEH
1,3-Dichlorobenzene	ND	1.0	0.14	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:45	EEH
1,4-Dichlorobenzene	ND	1.0	0.13	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:45	EEH
trans-1,4-Dichloro-2-butene	ND	2.0	1.5	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:45	EEH
Dichlorodifluoromethane (Freon 12)	ND	2.0	0.16	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:45	EEH
1,1-Dichloroethane	ND	1.0	0.14	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:45	EEH
1,2-Dichloroethane	ND	1.0	0.30	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:45	EEH
1,1-Dichloroethylene	ND	1.0	0.14	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:45	EEH
cis-1,2-Dichloroethylene	5.5	1.0	0.14	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:45	EEH
trans-1,2-Dichloroethylene	ND	1.0	0.17	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:45	EEH
1,2-Dichloropropane	ND	1.0	0.19	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:45	EEH
1,3-Dichloropropane	ND	0.50	0.12	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:45	EEH
2,2-Dichloropropane	ND	1.0	0.35	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:45	EEH
1,1-Dichloropropene	ND	2.0	0.15	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:45	EEH
cis-1,3-Dichloropropene	ND	0.50	0.16	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:45	EEH
trans-1,3-Dichloropropene	ND	0.50	0.14	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:45	EEH
Diethyl Ether	ND	2.0	0.14	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:45	EEH

Project Location: 15 West Street, Spring Valley, NY

Sample Description:

Work Order: 23C1069

Date Received: 3/9/2023

Field Sample #: DUP-01-030823

Sampled: 3/8/2023 00:00

Sample ID: 23C1069-06

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	0.50	0.20	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:45	EEH
1,4-Dioxane	ND	50	18	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:45	EEH
Ethylbenzene	ND	1.0	0.22	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:45	EEH
Hexachlorobutadiene	ND	0.60	0.47	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:45	EEH
2-Hexanone (MBK)	ND	10	1.2	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:45	EEH
Isopropylbenzene (Cumene)	ND	1.0	0.15	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:45	EEH
p-Isopropyltoluene (p-Cymene)	ND	1.0	0.13	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:45	EEH
Methyl Acetate	ND	1.0	0.61	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:45	EEH
Methyl tert-Butyl Ether (MTBE)	ND	1.0	0.17	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:45	EEH
Methyl Cyclohexane	ND	1.0	0.16	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:45	EEH
Methylene Chloride	ND	5.0	0.18	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:45	EEH
4-Methyl-2-pentanone (MIBK)	ND	10	1.3	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:45	EEH
Naphthalene	ND	2.0	0.38	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:45	EEH
n-Propylbenzene	ND	1.0	0.12	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:45	EEH
Styrene	ND	1.0	0.15	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:45	EEH
1,1,1,2-Tetrachloroethane	ND	1.0	0.16	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:45	EEH
1,1,2,2-Tetrachloroethane	ND	0.50	0.14	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:45	EEH
Tetrachloroethylene	0.73	1.0	0.17	µg/L	1	J	SW-846 8260D	3/13/23	3/13/23 17:45	EEH
Tetrahydrofuran	ND	10	0.49	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:45	EEH
Toluene	ND	1.0	0.22	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:45	EEH
1,2,3-Trichlorobenzene	ND	5.0	0.34	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:45	EEH
1,2,4-Trichlorobenzene	ND	1.0	0.30	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:45	EEH
1,3,5-Trichlorobenzene	ND	1.0	0.21	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:45	EEH
1,1,1-Trichloroethane	ND	1.0	0.15	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:45	EEH
1,1,2-Trichloroethane	ND	1.0	0.19	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:45	EEH
Trichloroethylene	6.9	1.0	0.17	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:45	EEH
Trichlorofluoromethane (Freon 11)	ND	2.0	0.15	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:45	EEH
1,2,3-Trichloropropane	ND	2.0	0.28	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:45	EEH
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	1.0	0.21	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:45	EEH
1,2,4-Trimethylbenzene	ND	1.0	0.20	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:45	EEH
1,3,5-Trimethylbenzene	ND	1.0	0.15	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:45	EEH
Vinyl Chloride	ND	2.0	0.24	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:45	EEH
m+p Xylene	ND	2.0	0.49	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:45	EEH
o-Xylene	ND	1.0	0.24	µg/L	1		SW-846 8260D	3/13/23	3/13/23 17:45	EEH
Surrogates		% Recovery	Recovery Limits			Flag/Qual				
1,2-Dichloroethane-d4		101	70-130						3/13/23 17:45	
Toluene-d8		101	70-130						3/13/23 17:45	
4-Bromofluorobenzene		101	70-130						3/13/23 17:45	

Project Location: 15 West Street, Spring Valley, NY

Sample Description:

Work Order: 23C1069

Date Received: 3/9/2023

Field Sample #: TripBlank-01-030823

Sampled: 3/8/2023 00:00

Sample ID: 23C1069-07

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	2.9	50	2.0	µg/L	1	J	SW-846 8260D	3/13/23	3/13/23 13:11	EEH
Acrylonitrile	ND	5.0	0.47	µg/L	1		SW-846 8260D	3/13/23	3/13/23 13:11	EEH
tert-Amyl Methyl Ether (TAME)	ND	0.50	0.13	µg/L	1		SW-846 8260D	3/13/23	3/13/23 13:11	EEH
Benzene	ND	1.0	0.18	µg/L	1		SW-846 8260D	3/13/23	3/13/23 13:11	EEH
Bromobenzene	ND	1.0	0.15	µg/L	1		SW-846 8260D	3/13/23	3/13/23 13:11	EEH
Bromochloromethane	ND	1.0	0.28	µg/L	1		SW-846 8260D	3/13/23	3/13/23 13:11	EEH
Bromodichloromethane	ND	0.50	0.16	µg/L	1		SW-846 8260D	3/13/23	3/13/23 13:11	EEH
Bromoform	ND	1.0	0.41	µg/L	1		SW-846 8260D	3/13/23	3/13/23 13:11	EEH
Bromomethane	ND	2.0	1.3	µg/L	1		SW-846 8260D	3/13/23	3/13/23 13:11	EEH
2-Butanone (MEK)	ND	20	1.7	µg/L	1		SW-846 8260D	3/13/23	3/13/23 13:11	EEH
tert-Butyl Alcohol (TBA)	ND	20	4.3	µg/L	1		SW-846 8260D	3/13/23	3/13/23 13:11	EEH
n-Butylbenzene	ND	1.0	0.15	µg/L	1		SW-846 8260D	3/13/23	3/13/23 13:11	EEH
sec-Butylbenzene	ND	1.0	0.13	µg/L	1		SW-846 8260D	3/13/23	3/13/23 13:11	EEH
tert-Butylbenzene	ND	1.0	0.14	µg/L	1		SW-846 8260D	3/13/23	3/13/23 13:11	EEH
tert-Butyl Ethyl Ether (TBEE)	ND	0.50	0.15	µg/L	1		SW-846 8260D	3/13/23	3/13/23 13:11	EEH
Carbon Disulfide	ND	5.0	1.6	µg/L	1		SW-846 8260D	3/13/23	3/13/23 13:11	EEH
Carbon Tetrachloride	ND	5.0	0.16	µg/L	1		SW-846 8260D	3/13/23	3/13/23 13:11	EEH
Chlorobenzene	ND	1.0	0.12	µg/L	1		SW-846 8260D	3/13/23	3/13/23 13:11	EEH
Chlorodibromomethane	ND	0.50	0.20	µg/L	1		SW-846 8260D	3/13/23	3/13/23 13:11	EEH
Chloroethane	ND	2.0	0.34	µg/L	1		SW-846 8260D	3/13/23	3/13/23 13:11	EEH
Chloroform	0.20	2.0	0.14	µg/L	1	J	SW-846 8260D	3/13/23	3/13/23 13:11	EEH
Chloromethane	ND	2.0	0.50	µg/L	1		SW-846 8260D	3/13/23	3/13/23 13:11	EEH
2-Chlorotoluene	ND	1.0	0.15	µg/L	1		SW-846 8260D	3/13/23	3/13/23 13:11	EEH
4-Chlorotoluene	ND	1.0	0.15	µg/L	1		SW-846 8260D	3/13/23	3/13/23 13:11	EEH
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0	0.85	µg/L	1		SW-846 8260D	3/13/23	3/13/23 13:11	EEH
1,2-Dibromoethane (EDB)	ND	0.50	0.16	µg/L	1		SW-846 8260D	3/13/23	3/13/23 13:11	EEH
Dibromomethane	ND	1.0	0.32	µg/L	1		SW-846 8260D	3/13/23	3/13/23 13:11	EEH
1,2-Dichlorobenzene	ND	1.0	0.13	µg/L	1		SW-846 8260D	3/13/23	3/13/23 13:11	EEH
1,3-Dichlorobenzene	ND	1.0	0.14	µg/L	1		SW-846 8260D	3/13/23	3/13/23 13:11	EEH
1,4-Dichlorobenzene	ND	1.0	0.13	µg/L	1		SW-846 8260D	3/13/23	3/13/23 13:11	EEH
trans-1,4-Dichloro-2-butene	ND	2.0	1.5	µg/L	1		SW-846 8260D	3/13/23	3/13/23 13:11	EEH
Dichlorodifluoromethane (Freon 12)	ND	2.0	0.16	µg/L	1		SW-846 8260D	3/13/23	3/13/23 13:11	EEH
1,1-Dichloroethane	ND	1.0	0.14	µg/L	1		SW-846 8260D	3/13/23	3/13/23 13:11	EEH
1,2-Dichloroethane	ND	1.0	0.30	µg/L	1		SW-846 8260D	3/13/23	3/13/23 13:11	EEH
1,1-Dichloroethylene	ND	1.0	0.14	µg/L	1		SW-846 8260D	3/13/23	3/13/23 13:11	EEH
cis-1,2-Dichloroethylene	ND	1.0	0.14	µg/L	1		SW-846 8260D	3/13/23	3/13/23 13:11	EEH
trans-1,2-Dichloroethylene	ND	1.0	0.17	µg/L	1		SW-846 8260D	3/13/23	3/13/23 13:11	EEH
1,2-Dichloropropane	ND	1.0	0.19	µg/L	1		SW-846 8260D	3/13/23	3/13/23 13:11	EEH
1,3-Dichloropropane	ND	0.50	0.12	µg/L	1		SW-846 8260D	3/13/23	3/13/23 13:11	EEH
2,2-Dichloropropane	ND	1.0	0.35	µg/L	1		SW-846 8260D	3/13/23	3/13/23 13:11	EEH
1,1-Dichloropropene	ND	2.0	0.15	µg/L	1		SW-846 8260D	3/13/23	3/13/23 13:11	EEH
cis-1,3-Dichloropropene	ND	0.50	0.16	µg/L	1		SW-846 8260D	3/13/23	3/13/23 13:11	EEH
trans-1,3-Dichloropropene	ND	0.50	0.14	µg/L	1		SW-846 8260D	3/13/23	3/13/23 13:11	EEH
Diethyl Ether	ND	2.0	0.14	µg/L	1		SW-846 8260D	3/13/23	3/13/23 13:11	EEH

Project Location: 15 West Street, Spring Valley, NY

Sample Description:

Work Order: 23C1069

Date Received: 3/9/2023

Field Sample #: TripBlank-01-030823

Sampled: 3/8/2023 00:00

Sample ID: 23C1069-07

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	0.50	0.20	µg/L	1		SW-846 8260D	3/13/23	3/13/23 13:11	EEH
1,4-Dioxane	ND	50	18	µg/L	1		SW-846 8260D	3/13/23	3/13/23 13:11	EEH
Ethylbenzene	ND	1.0	0.22	µg/L	1		SW-846 8260D	3/13/23	3/13/23 13:11	EEH
Hexachlorobutadiene	ND	0.60	0.47	µg/L	1		SW-846 8260D	3/13/23	3/13/23 13:11	EEH
2-Hexanone (MBK)	ND	10	1.2	µg/L	1		SW-846 8260D	3/13/23	3/13/23 13:11	EEH
Isopropylbenzene (Cumene)	ND	1.0	0.15	µg/L	1		SW-846 8260D	3/13/23	3/13/23 13:11	EEH
p-Isopropyltoluene (p-Cymene)	ND	1.0	0.13	µg/L	1		SW-846 8260D	3/13/23	3/13/23 13:11	EEH
Methyl Acetate	ND	1.0	0.61	µg/L	1		SW-846 8260D	3/13/23	3/13/23 13:11	EEH
Methyl tert-Butyl Ether (MTBE)	ND	1.0	0.17	µg/L	1		SW-846 8260D	3/13/23	3/13/23 13:11	EEH
Methyl Cyclohexane	ND	1.0	0.16	µg/L	1		SW-846 8260D	3/13/23	3/13/23 13:11	EEH
Methylene Chloride	ND	5.0	0.18	µg/L	1		SW-846 8260D	3/13/23	3/13/23 13:11	EEH
4-Methyl-2-pentanone (MIBK)	ND	10	1.3	µg/L	1		SW-846 8260D	3/13/23	3/13/23 13:11	EEH
Naphthalene	ND	2.0	0.38	µg/L	1		SW-846 8260D	3/13/23	3/13/23 13:11	EEH
n-Propylbenzene	ND	1.0	0.12	µg/L	1		SW-846 8260D	3/13/23	3/13/23 13:11	EEH
Styrene	ND	1.0	0.15	µg/L	1		SW-846 8260D	3/13/23	3/13/23 13:11	EEH
1,1,1,2-Tetrachloroethane	ND	1.0	0.16	µg/L	1		SW-846 8260D	3/13/23	3/13/23 13:11	EEH
1,1,2,2-Tetrachloroethane	ND	0.50	0.14	µg/L	1		SW-846 8260D	3/13/23	3/13/23 13:11	EEH
Tetrachloroethylene	ND	1.0	0.17	µg/L	1		SW-846 8260D	3/13/23	3/13/23 13:11	EEH
Tetrahydrofuran	ND	10	0.49	µg/L	1		SW-846 8260D	3/13/23	3/13/23 13:11	EEH
Toluene	ND	1.0	0.22	µg/L	1		SW-846 8260D	3/13/23	3/13/23 13:11	EEH
1,2,3-Trichlorobenzene	ND	5.0	0.34	µg/L	1		SW-846 8260D	3/13/23	3/13/23 13:11	EEH
1,2,4-Trichlorobenzene	ND	1.0	0.30	µg/L	1		SW-846 8260D	3/13/23	3/13/23 13:11	EEH
1,3,5-Trichlorobenzene	ND	1.0	0.21	µg/L	1		SW-846 8260D	3/13/23	3/13/23 13:11	EEH
1,1,1-Trichloroethane	ND	1.0	0.15	µg/L	1		SW-846 8260D	3/13/23	3/13/23 13:11	EEH
1,1,2-Trichloroethane	ND	1.0	0.19	µg/L	1		SW-846 8260D	3/13/23	3/13/23 13:11	EEH
Trichloroethylene	ND	1.0	0.17	µg/L	1		SW-846 8260D	3/13/23	3/13/23 13:11	EEH
Trichlorofluoromethane (Freon 11)	ND	2.0	0.15	µg/L	1		SW-846 8260D	3/13/23	3/13/23 13:11	EEH
1,2,3-Trichloropropane	ND	2.0	0.28	µg/L	1		SW-846 8260D	3/13/23	3/13/23 13:11	EEH
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	1.0	0.21	µg/L	1		SW-846 8260D	3/13/23	3/13/23 13:11	EEH
1,2,4-Trimethylbenzene	ND	1.0	0.20	µg/L	1		SW-846 8260D	3/13/23	3/13/23 13:11	EEH
1,3,5-Trimethylbenzene	ND	1.0	0.15	µg/L	1		SW-846 8260D	3/13/23	3/13/23 13:11	EEH
Vinyl Chloride	ND	2.0	0.24	µg/L	1		SW-846 8260D	3/13/23	3/13/23 13:11	EEH
m+p Xylene	ND	2.0	0.49	µg/L	1		SW-846 8260D	3/13/23	3/13/23 13:11	EEH
o-Xylene	ND	1.0	0.24	µg/L	1		SW-846 8260D	3/13/23	3/13/23 13:11	EEH
Surrogates		% Recovery	Recovery Limits			Flag/Qual				
1,2-Dichloroethane-d4		102	70-130						3/13/23 13:11	
Toluene-d8		102	70-130						3/13/23 13:11	
4-Bromofluorobenzene		99.6	70-130						3/13/23 13:11	

Project Location: 15 West Street, Spring Valley, NY

Sample Description:

Work Order: 23C1069

Date Received: 3/9/2023

Field Sample #: RW-3D-030923

Sampled: 3/9/2023 11:30

Sample ID: 23C1069-08

Sample Matrix: Ground Water

Sample Flags: RL-11

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	100	4.0	µg/L	2		SW-846 8260D	3/13/23	3/14/23 9:00	EEH
Acrylonitrile	ND	10	0.93	µg/L	2		SW-846 8260D	3/13/23	3/14/23 9:00	EEH
tert-Amyl Methyl Ether (TAME)	ND	1.0	0.26	µg/L	2		SW-846 8260D	3/13/23	3/14/23 9:00	EEH
Benzene	ND	2.0	0.37	µg/L	2		SW-846 8260D	3/13/23	3/14/23 9:00	EEH
Bromobenzene	ND	2.0	0.30	µg/L	2		SW-846 8260D	3/13/23	3/14/23 9:00	EEH
Bromochloromethane	ND	2.0	0.57	µg/L	2		SW-846 8260D	3/13/23	3/14/23 9:00	EEH
Bromodichloromethane	ND	1.0	0.32	µg/L	2		SW-846 8260D	3/13/23	3/14/23 9:00	EEH
Bromoform	ND	2.0	0.82	µg/L	2		SW-846 8260D	3/13/23	3/14/23 9:00	EEH
Bromomethane	ND	4.0	2.6	µg/L	2		SW-846 8260D	3/13/23	3/14/23 9:00	EEH
2-Butanone (MEK)	ND	40	3.4	µg/L	2		SW-846 8260D	3/13/23	3/14/23 9:00	EEH
tert-Butyl Alcohol (TBA)	ND	40	8.5	µg/L	2		SW-846 8260D	3/13/23	3/14/23 9:00	EEH
n-Butylbenzene	ND	2.0	0.30	µg/L	2		SW-846 8260D	3/13/23	3/14/23 9:00	EEH
sec-Butylbenzene	ND	2.0	0.25	µg/L	2		SW-846 8260D	3/13/23	3/14/23 9:00	EEH
tert-Butylbenzene	ND	2.0	0.28	µg/L	2		SW-846 8260D	3/13/23	3/14/23 9:00	EEH
tert-Butyl Ethyl Ether (TBEE)	ND	1.0	0.31	µg/L	2		SW-846 8260D	3/13/23	3/14/23 9:00	EEH
Carbon Disulfide	ND	10	3.1	µg/L	2		SW-846 8260D	3/13/23	3/14/23 9:00	EEH
Carbon Tetrachloride	ND	10	0.33	µg/L	2		SW-846 8260D	3/13/23	3/14/23 9:00	EEH
Chlorobenzene	ND	2.0	0.24	µg/L	2		SW-846 8260D	3/13/23	3/14/23 9:00	EEH
Chlorodibromomethane	ND	1.0	0.40	µg/L	2		SW-846 8260D	3/13/23	3/14/23 9:00	EEH
Chloroethane	ND	4.0	0.68	µg/L	2		SW-846 8260D	3/13/23	3/14/23 9:00	EEH
Chloroform	ND	4.0	0.28	µg/L	2		SW-846 8260D	3/13/23	3/14/23 9:00	EEH
Chloromethane	ND	4.0	1.0	µg/L	2		SW-846 8260D	3/13/23	3/14/23 9:00	EEH
2-Chlorotoluene	ND	2.0	0.31	µg/L	2		SW-846 8260D	3/13/23	3/14/23 9:00	EEH
4-Chlorotoluene	ND	2.0	0.31	µg/L	2		SW-846 8260D	3/13/23	3/14/23 9:00	EEH
1,2-Dibromo-3-chloropropane (DBCP)	ND	10	1.7	µg/L	2		SW-846 8260D	3/13/23	3/14/23 9:00	EEH
1,2-Dibromoethane (EDB)	ND	1.0	0.32	µg/L	2		SW-846 8260D	3/13/23	3/14/23 9:00	EEH
Dibromomethane	ND	2.0	0.64	µg/L	2		SW-846 8260D	3/13/23	3/14/23 9:00	EEH
1,2-Dichlorobenzene	ND	2.0	0.26	µg/L	2		SW-846 8260D	3/13/23	3/14/23 9:00	EEH
1,3-Dichlorobenzene	ND	2.0	0.27	µg/L	2		SW-846 8260D	3/13/23	3/14/23 9:00	EEH
1,4-Dichlorobenzene	ND	2.0	0.26	µg/L	2		SW-846 8260D	3/13/23	3/14/23 9:00	EEH
trans-1,4-Dichloro-2-butene	ND	4.0	3.0	µg/L	2		SW-846 8260D	3/13/23	3/14/23 9:00	EEH
Dichlorodifluoromethane (Freon 12)	ND	4.0	0.32	µg/L	2		SW-846 8260D	3/13/23	3/14/23 9:00	EEH
1,1-Dichloroethane	ND	2.0	0.27	µg/L	2		SW-846 8260D	3/13/23	3/14/23 9:00	EEH
1,2-Dichloroethane	ND	2.0	0.61	µg/L	2		SW-846 8260D	3/13/23	3/14/23 9:00	EEH
1,1-Dichloroethylene	ND	2.0	0.28	µg/L	2		SW-846 8260D	3/13/23	3/14/23 9:00	EEH
cis-1,2-Dichloroethylene	120	2.0	0.28	µg/L	2	MS-19	SW-846 8260D	3/13/23	3/14/23 9:00	EEH
trans-1,2-Dichloroethylene	0.44	2.0	0.34	µg/L	2	J	SW-846 8260D	3/13/23	3/14/23 9:00	EEH
1,2-Dichloropropane	ND	2.0	0.39	µg/L	2		SW-846 8260D	3/13/23	3/14/23 9:00	EEH
1,3-Dichloropropane	ND	1.0	0.23	µg/L	2		SW-846 8260D	3/13/23	3/14/23 9:00	EEH
2,2-Dichloropropane	ND	2.0	0.70	µg/L	2	MS-07A	SW-846 8260D	3/13/23	3/14/23 9:00	EEH
1,1-Dichloropropene	ND	4.0	0.30	µg/L	2		SW-846 8260D	3/13/23	3/14/23 9:00	EEH
cis-1,3-Dichloropropene	ND	1.0	0.33	µg/L	2		SW-846 8260D	3/13/23	3/14/23 9:00	EEH
trans-1,3-Dichloropropene	ND	1.0	0.28	µg/L	2		SW-846 8260D	3/13/23	3/14/23 9:00	EEH
Diethyl Ether	ND	4.0	0.29	µg/L	2		SW-846 8260D	3/13/23	3/14/23 9:00	EEH

Project Location: 15 West Street, Spring Valley, NY

Sample Description:

Work Order: 23C1069

Date Received: 3/9/2023

Field Sample #: RW-3D-030923

Sampled: 3/9/2023 11:30

Sample ID: 23C1069-08

Sample Matrix: Ground Water

Sample Flags: RL-11

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	1.0	0.40	µg/L	2		SW-846 8260D	3/13/23	3/14/23 9:00	EEH
1,4-Dioxane	ND	100	36	µg/L	2		SW-846 8260D	3/13/23	3/14/23 9:00	EEH
Ethylbenzene	ND	2.0	0.44	µg/L	2		SW-846 8260D	3/13/23	3/14/23 9:00	EEH
Hexachlorobutadiene	ND	1.2	0.94	µg/L	2		SW-846 8260D	3/13/23	3/14/23 9:00	EEH
2-Hexanone (MBK)	ND	20	2.4	µg/L	2		SW-846 8260D	3/13/23	3/14/23 9:00	EEH
Isopropylbenzene (Cumene)	ND	2.0	0.30	µg/L	2		SW-846 8260D	3/13/23	3/14/23 9:00	EEH
p-Isopropyltoluene (p-Cymene)	ND	2.0	0.25	µg/L	2		SW-846 8260D	3/13/23	3/14/23 9:00	EEH
Methyl Acetate	ND	2.0	1.2	µg/L	2		SW-846 8260D	3/13/23	3/14/23 9:00	EEH
Methyl tert-Butyl Ether (MTBE)	ND	2.0	0.34	µg/L	2		SW-846 8260D	3/13/23	3/14/23 9:00	EEH
Methyl Cyclohexane	ND	2.0	0.31	µg/L	2		SW-846 8260D	3/13/23	3/14/23 9:00	EEH
Methylene Chloride	ND	10	0.35	µg/L	2		SW-846 8260D	3/13/23	3/14/23 9:00	EEH
4-Methyl-2-pentanone (MIBK)	ND	20	2.6	µg/L	2		SW-846 8260D	3/13/23	3/14/23 9:00	EEH
Naphthalene	ND	4.0	0.76	µg/L	2		SW-846 8260D	3/13/23	3/14/23 9:00	EEH
n-Propylbenzene	ND	2.0	0.25	µg/L	2		SW-846 8260D	3/13/23	3/14/23 9:00	EEH
Styrene	ND	2.0	0.30	µg/L	2		SW-846 8260D	3/13/23	3/14/23 9:00	EEH
1,1,1,2-Tetrachloroethane	ND	2.0	0.32	µg/L	2		SW-846 8260D	3/13/23	3/14/23 9:00	EEH
1,1,2,2-Tetrachloroethane	ND	1.0	0.27	µg/L	2		SW-846 8260D	3/13/23	3/14/23 9:00	EEH
Tetrachloroethylene	180	2.0	0.34	µg/L	2	MS-19	SW-846 8260D	3/13/23	3/14/23 9:00	EEH
Tetrahydrofuran	ND	20	0.98	µg/L	2		SW-846 8260D	3/13/23	3/14/23 9:00	EEH
Toluene	ND	2.0	0.45	µg/L	2		SW-846 8260D	3/13/23	3/14/23 9:00	EEH
1,2,3-Trichlorobenzene	ND	10	0.68	µg/L	2		SW-846 8260D	3/13/23	3/14/23 9:00	EEH
1,2,4-Trichlorobenzene	ND	2.0	0.60	µg/L	2		SW-846 8260D	3/13/23	3/14/23 9:00	EEH
1,3,5-Trichlorobenzene	ND	2.0	0.42	µg/L	2		SW-846 8260D	3/13/23	3/14/23 9:00	EEH
1,1,1-Trichloroethane	ND	2.0	0.30	µg/L	2		SW-846 8260D	3/13/23	3/14/23 9:00	EEH
1,1,2-Trichloroethane	ND	2.0	0.38	µg/L	2		SW-846 8260D	3/13/23	3/14/23 9:00	EEH
Trichloroethylene	180	2.0	0.35	µg/L	2	MS-19	SW-846 8260D	3/13/23	3/14/23 9:00	EEH
Trichlorofluoromethane (Freon 11)	ND	4.0	0.31	µg/L	2		SW-846 8260D	3/13/23	3/14/23 9:00	EEH
1,2,3-Trichloropropane	ND	4.0	0.55	µg/L	2		SW-846 8260D	3/13/23	3/14/23 9:00	EEH
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	2.0	0.42	µg/L	2		SW-846 8260D	3/13/23	3/14/23 9:00	EEH
1,2,4-Trimethylbenzene	ND	2.0	0.40	µg/L	2		SW-846 8260D	3/13/23	3/14/23 9:00	EEH
1,3,5-Trimethylbenzene	ND	2.0	0.30	µg/L	2		SW-846 8260D	3/13/23	3/14/23 9:00	EEH
Vinyl Chloride	ND	4.0	0.47	µg/L	2		SW-846 8260D	3/13/23	3/14/23 9:00	EEH
m+p Xylene	ND	4.0	0.98	µg/L	2		SW-846 8260D	3/13/23	3/14/23 9:00	EEH
o-Xylene	ND	2.0	0.49	µg/L	2		SW-846 8260D	3/13/23	3/14/23 9:00	EEH
Surrogates		% Recovery	Recovery Limits			Flag/Qual				
1,2-Dichloroethane-d4		102	70-130						3/14/23 9:00	
Toluene-d8		100	70-130						3/14/23 9:00	
4-Bromofluorobenzene		101	70-130						3/14/23 9:00	

Project Location: 15 West Street, Spring Valley, NY

Sample Description:

Work Order: 23C1069

Date Received: 3/9/2023

Field Sample #: MW-18-030923

Sampled: 3/9/2023 13:35

Sample ID: 23C1069-09

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	3.2	50	2.0	µg/L	1	J	SW-846 8260D	3/13/23	3/14/23 2:01	EEH
Acrylonitrile	ND	5.0	0.47	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:01	EEH
tert-Amyl Methyl Ether (TAME)	ND	0.50	0.13	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:01	EEH
Benzene	ND	1.0	0.18	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:01	EEH
Bromobenzene	ND	1.0	0.15	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:01	EEH
Bromochloromethane	ND	1.0	0.28	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:01	EEH
Bromodichloromethane	ND	0.50	0.16	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:01	EEH
Bromoform	ND	1.0	0.41	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:01	EEH
Bromomethane	ND	2.0	1.3	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:01	EEH
2-Butanone (MEK)	ND	20	1.7	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:01	EEH
tert-Butyl Alcohol (TBA)	ND	20	4.3	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:01	EEH
n-Butylbenzene	ND	1.0	0.15	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:01	EEH
sec-Butylbenzene	ND	1.0	0.13	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:01	EEH
tert-Butylbenzene	ND	1.0	0.14	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:01	EEH
tert-Butyl Ethyl Ether (TBEE)	ND	0.50	0.15	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:01	EEH
Carbon Disulfide	ND	5.0	1.6	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:01	EEH
Carbon Tetrachloride	ND	5.0	0.16	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:01	EEH
Chlorobenzene	ND	1.0	0.12	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:01	EEH
Chlorodibromomethane	ND	0.50	0.20	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:01	EEH
Chloroethane	ND	2.0	0.34	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:01	EEH
Chloroform	ND	2.0	0.14	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:01	EEH
Chloromethane	ND	2.0	0.50	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:01	EEH
2-Chlorotoluene	ND	1.0	0.15	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:01	EEH
4-Chlorotoluene	ND	1.0	0.15	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:01	EEH
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0	0.85	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:01	EEH
1,2-Dibromoethane (EDB)	ND	0.50	0.16	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:01	EEH
Dibromomethane	ND	1.0	0.32	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:01	EEH
1,2-Dichlorobenzene	ND	1.0	0.13	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:01	EEH
1,3-Dichlorobenzene	ND	1.0	0.14	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:01	EEH
1,4-Dichlorobenzene	ND	1.0	0.13	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:01	EEH
trans-1,4-Dichloro-2-butene	ND	2.0	1.5	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:01	EEH
Dichlorodifluoromethane (Freon 12)	ND	2.0	0.16	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:01	EEH
1,1-Dichloroethane	ND	1.0	0.14	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:01	EEH
1,2-Dichloroethane	ND	1.0	0.30	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:01	EEH
1,1-Dichloroethylene	0.18	1.0	0.14	µg/L	1	J	SW-846 8260D	3/13/23	3/14/23 2:01	EEH
cis-1,2-Dichloroethylene	56	1.0	0.14	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:01	EEH
trans-1,2-Dichloroethylene	0.40	1.0	0.17	µg/L	1	J	SW-846 8260D	3/13/23	3/14/23 2:01	EEH
1,2-Dichloropropane	ND	1.0	0.19	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:01	EEH
1,3-Dichloropropane	ND	0.50	0.12	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:01	EEH
2,2-Dichloropropane	ND	1.0	0.35	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:01	EEH
1,1-Dichloropropene	ND	2.0	0.15	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:01	EEH
cis-1,3-Dichloropropene	ND	0.50	0.16	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:01	EEH
trans-1,3-Dichloropropene	ND	0.50	0.14	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:01	EEH
Diethyl Ether	ND	2.0	0.14	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:01	EEH

Project Location: 15 West Street, Spring Valley, NY

Sample Description:

Work Order: 23C1069

Date Received: 3/9/2023

Field Sample #: MW-18-030923

Sampled: 3/9/2023 13:35

Sample ID: 23C1069-09

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	0.50	0.20	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:01	EEH
1,4-Dioxane	ND	50	18	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:01	EEH
Ethylbenzene	ND	1.0	0.22	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:01	EEH
Hexachlorobutadiene	ND	0.60	0.47	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:01	EEH
2-Hexanone (MBK)	ND	10	1.2	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:01	EEH
Isopropylbenzene (Cumene)	ND	1.0	0.15	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:01	EEH
p-Isopropyltoluene (p-Cymene)	ND	1.0	0.13	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:01	EEH
Methyl Acetate	ND	1.0	0.61	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:01	EEH
Methyl tert-Butyl Ether (MTBE)	ND	1.0	0.17	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:01	EEH
Methyl Cyclohexane	ND	1.0	0.16	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:01	EEH
Methylene Chloride	ND	5.0	0.18	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:01	EEH
4-Methyl-2-pentanone (MIBK)	ND	10	1.3	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:01	EEH
Naphthalene	ND	2.0	0.38	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:01	EEH
n-Propylbenzene	ND	1.0	0.12	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:01	EEH
Styrene	ND	1.0	0.15	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:01	EEH
1,1,1,2-Tetrachloroethane	ND	1.0	0.16	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:01	EEH
1,1,2,2-Tetrachloroethane	ND	0.50	0.14	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:01	EEH
Tetrachloroethylene	0.41	1.0	0.17	µg/L	1	J	SW-846 8260D	3/13/23	3/14/23 2:01	EEH
Tetrahydrofuran	ND	10	0.49	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:01	EEH
Toluene	ND	1.0	0.22	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:01	EEH
1,2,3-Trichlorobenzene	ND	5.0	0.34	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:01	EEH
1,2,4-Trichlorobenzene	ND	1.0	0.30	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:01	EEH
1,3,5-Trichlorobenzene	ND	1.0	0.21	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:01	EEH
1,1,1-Trichloroethane	ND	1.0	0.15	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:01	EEH
1,1,2-Trichloroethane	ND	1.0	0.19	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:01	EEH
Trichloroethylene	1.2	1.0	0.17	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:01	EEH
Trichlorofluoromethane (Freon 11)	ND	2.0	0.15	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:01	EEH
1,2,3-Trichloropropane	ND	2.0	0.28	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:01	EEH
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	1.0	0.21	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:01	EEH
1,2,4-Trimethylbenzene	ND	1.0	0.20	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:01	EEH
1,3,5-Trimethylbenzene	ND	1.0	0.15	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:01	EEH
Vinyl Chloride	55	2.0	0.24	µg/L	1	V-06	SW-846 8260D	3/13/23	3/14/23 2:01	EEH
m+p Xylene	ND	2.0	0.49	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:01	EEH
o-Xylene	ND	1.0	0.24	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:01	EEH
Surrogates		% Recovery	Recovery Limits			Flag/Qual				
1,2-Dichloroethane-d4		99.6	70-130						3/14/23 2:01	
Toluene-d8		99.8	70-130						3/14/23 2:01	
4-Bromofluorobenzene		102	70-130						3/14/23 2:01	

Project Location: 15 West Street, Spring Valley, NY

Sample Description:

Work Order: 23C1069

Date Received: 3/9/2023

Field Sample #: RW-1S-030923

Sampled: 3/9/2023 13:30

Sample ID: 23C1069-10

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	50	2.0	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:29	EEH
Acrylonitrile	ND	5.0	0.47	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:29	EEH
tert-Amyl Methyl Ether (TAME)	ND	0.50	0.13	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:29	EEH
Benzene	ND	1.0	0.18	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:29	EEH
Bromobenzene	ND	1.0	0.15	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:29	EEH
Bromochloromethane	ND	1.0	0.28	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:29	EEH
Bromodichloromethane	ND	0.50	0.16	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:29	EEH
Bromoform	ND	1.0	0.41	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:29	EEH
Bromomethane	ND	2.0	1.3	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:29	EEH
2-Butanone (MEK)	ND	20	1.7	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:29	EEH
tert-Butyl Alcohol (TBA)	ND	20	4.3	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:29	EEH
n-Butylbenzene	ND	1.0	0.15	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:29	EEH
sec-Butylbenzene	ND	1.0	0.13	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:29	EEH
tert-Butylbenzene	ND	1.0	0.14	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:29	EEH
tert-Butyl Ethyl Ether (TBEE)	ND	0.50	0.15	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:29	EEH
Carbon Disulfide	ND	5.0	1.6	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:29	EEH
Carbon Tetrachloride	ND	5.0	0.16	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:29	EEH
Chlorobenzene	ND	1.0	0.12	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:29	EEH
Chlorodibromomethane	ND	0.50	0.20	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:29	EEH
Chloroethane	ND	2.0	0.34	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:29	EEH
Chloroform	ND	2.0	0.14	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:29	EEH
Chloromethane	ND	2.0	0.50	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:29	EEH
2-Chlorotoluene	ND	1.0	0.15	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:29	EEH
4-Chlorotoluene	ND	1.0	0.15	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:29	EEH
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0	0.85	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:29	EEH
1,2-Dibromoethane (EDB)	ND	0.50	0.16	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:29	EEH
Dibromomethane	ND	1.0	0.32	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:29	EEH
1,2-Dichlorobenzene	ND	1.0	0.13	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:29	EEH
1,3-Dichlorobenzene	ND	1.0	0.14	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:29	EEH
1,4-Dichlorobenzene	ND	1.0	0.13	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:29	EEH
trans-1,4-Dichloro-2-butene	ND	2.0	1.5	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:29	EEH
Dichlorodifluoromethane (Freon 12)	ND	2.0	0.16	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:29	EEH
1,1-Dichloroethane	ND	1.0	0.14	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:29	EEH
1,2-Dichloroethane	ND	1.0	0.30	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:29	EEH
1,1-Dichloroethylene	ND	1.0	0.14	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:29	EEH
cis-1,2-Dichloroethylene	0.74	1.0	0.14	µg/L	1	J	SW-846 8260D	3/13/23	3/14/23 2:29	EEH
trans-1,2-Dichloroethylene	0.24	1.0	0.17	µg/L	1	J	SW-846 8260D	3/13/23	3/14/23 2:29	EEH
1,2-Dichloropropane	ND	1.0	0.19	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:29	EEH
1,3-Dichloropropane	ND	0.50	0.12	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:29	EEH
2,2-Dichloropropane	ND	1.0	0.35	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:29	EEH
1,1-Dichloropropene	ND	2.0	0.15	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:29	EEH
cis-1,3-Dichloropropene	ND	0.50	0.16	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:29	EEH
trans-1,3-Dichloropropene	ND	0.50	0.14	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:29	EEH
Diethyl Ether	ND	2.0	0.14	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:29	EEH

Project Location: 15 West Street, Spring Valley, NY

Sample Description:

Work Order: 23C1069

Date Received: 3/9/2023

Field Sample #: RW-1S-030923

Sampled: 3/9/2023 13:30

Sample ID: 23C1069-10

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	0.50	0.20	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:29	EEH
1,4-Dioxane	ND	50	18	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:29	EEH
Ethylbenzene	ND	1.0	0.22	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:29	EEH
Hexachlorobutadiene	ND	0.60	0.47	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:29	EEH
2-Hexanone (MBK)	ND	10	1.2	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:29	EEH
Isopropylbenzene (Cumene)	ND	1.0	0.15	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:29	EEH
p-Isopropyltoluene (p-Cymene)	ND	1.0	0.13	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:29	EEH
Methyl Acetate	ND	1.0	0.61	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:29	EEH
Methyl tert-Butyl Ether (MTBE)	ND	1.0	0.17	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:29	EEH
Methyl Cyclohexane	ND	1.0	0.16	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:29	EEH
Methylene Chloride	ND	5.0	0.18	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:29	EEH
4-Methyl-2-pentanone (MIBK)	ND	10	1.3	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:29	EEH
Naphthalene	ND	2.0	0.38	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:29	EEH
n-Propylbenzene	ND	1.0	0.12	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:29	EEH
Styrene	ND	1.0	0.15	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:29	EEH
1,1,1,2-Tetrachloroethane	ND	1.0	0.16	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:29	EEH
1,1,2,2-Tetrachloroethane	ND	0.50	0.14	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:29	EEH
Tetrachloroethylene	1.3	1.0	0.17	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:29	EEH
Tetrahydrofuran	ND	10	0.49	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:29	EEH
Toluene	ND	1.0	0.22	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:29	EEH
1,2,3-Trichlorobenzene	ND	5.0	0.34	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:29	EEH
1,2,4-Trichlorobenzene	ND	1.0	0.30	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:29	EEH
1,3,5-Trichlorobenzene	ND	1.0	0.21	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:29	EEH
1,1,1-Trichloroethane	ND	1.0	0.15	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:29	EEH
1,1,2-Trichloroethane	ND	1.0	0.19	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:29	EEH
Trichloroethylene	5.0	1.0	0.17	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:29	EEH
Trichlorofluoromethane (Freon 11)	ND	2.0	0.15	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:29	EEH
1,2,3-Trichloropropane	ND	2.0	0.28	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:29	EEH
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	1.0	0.21	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:29	EEH
1,2,4-Trimethylbenzene	ND	1.0	0.20	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:29	EEH
1,3,5-Trimethylbenzene	ND	1.0	0.15	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:29	EEH
Vinyl Chloride	ND	2.0	0.24	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:29	EEH
m+p Xylene	ND	2.0	0.49	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:29	EEH
o-Xylene	ND	1.0	0.24	µg/L	1		SW-846 8260D	3/13/23	3/14/23 2:29	EEH
Surrogates		% Recovery	Recovery Limits			Flag/Qual				
1,2-Dichloroethane-d4		100	70-130						3/14/23 2:29	
Toluene-d8		100	70-130						3/14/23 2:29	
4-Bromofluorobenzene		101	70-130						3/14/23 2:29	

Project Location: 15 West Street, Spring Valley, NY

Sample Description:

Work Order: 23C1069

Date Received: 3/9/2023

Field Sample #: TripBlank-02-030923

Sampled: 3/9/2023 00:00

Sample ID: 23C1069-11

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	50	2.0	µg/L	1		SW-846 8260D	3/13/23	3/13/23 14:05	EEH
Acrylonitrile	ND	5.0	0.47	µg/L	1		SW-846 8260D	3/13/23	3/13/23 14:05	EEH
tert-Amyl Methyl Ether (TAME)	ND	0.50	0.13	µg/L	1		SW-846 8260D	3/13/23	3/13/23 14:05	EEH
Benzene	ND	1.0	0.18	µg/L	1		SW-846 8260D	3/13/23	3/13/23 14:05	EEH
Bromobenzene	ND	1.0	0.15	µg/L	1		SW-846 8260D	3/13/23	3/13/23 14:05	EEH
Bromochloromethane	ND	1.0	0.28	µg/L	1		SW-846 8260D	3/13/23	3/13/23 14:05	EEH
Bromodichloromethane	ND	0.50	0.16	µg/L	1		SW-846 8260D	3/13/23	3/13/23 14:05	EEH
Bromoform	ND	1.0	0.41	µg/L	1		SW-846 8260D	3/13/23	3/13/23 14:05	EEH
Bromomethane	ND	2.0	1.3	µg/L	1		SW-846 8260D	3/13/23	3/13/23 14:05	EEH
2-Butanone (MEK)	ND	20	1.7	µg/L	1		SW-846 8260D	3/13/23	3/13/23 14:05	EEH
tert-Butyl Alcohol (TBA)	ND	20	4.3	µg/L	1		SW-846 8260D	3/13/23	3/13/23 14:05	EEH
n-Butylbenzene	ND	1.0	0.15	µg/L	1		SW-846 8260D	3/13/23	3/13/23 14:05	EEH
sec-Butylbenzene	ND	1.0	0.13	µg/L	1		SW-846 8260D	3/13/23	3/13/23 14:05	EEH
tert-Butylbenzene	ND	1.0	0.14	µg/L	1		SW-846 8260D	3/13/23	3/13/23 14:05	EEH
tert-Butyl Ethyl Ether (TBEE)	ND	0.50	0.15	µg/L	1		SW-846 8260D	3/13/23	3/13/23 14:05	EEH
Carbon Disulfide	ND	5.0	1.6	µg/L	1		SW-846 8260D	3/13/23	3/13/23 14:05	EEH
Carbon Tetrachloride	ND	5.0	0.16	µg/L	1		SW-846 8260D	3/13/23	3/13/23 14:05	EEH
Chlorobenzene	ND	1.0	0.12	µg/L	1		SW-846 8260D	3/13/23	3/13/23 14:05	EEH
Chlorodibromomethane	ND	0.50	0.20	µg/L	1		SW-846 8260D	3/13/23	3/13/23 14:05	EEH
Chloroethane	ND	2.0	0.34	µg/L	1		SW-846 8260D	3/13/23	3/13/23 14:05	EEH
Chloroform	0.22	2.0	0.14	µg/L	1	J	SW-846 8260D	3/13/23	3/13/23 14:05	EEH
Chloromethane	ND	2.0	0.50	µg/L	1		SW-846 8260D	3/13/23	3/13/23 14:05	EEH
2-Chlorotoluene	ND	1.0	0.15	µg/L	1		SW-846 8260D	3/13/23	3/13/23 14:05	EEH
4-Chlorotoluene	ND	1.0	0.15	µg/L	1		SW-846 8260D	3/13/23	3/13/23 14:05	EEH
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0	0.85	µg/L	1		SW-846 8260D	3/13/23	3/13/23 14:05	EEH
1,2-Dibromoethane (EDB)	ND	0.50	0.16	µg/L	1		SW-846 8260D	3/13/23	3/13/23 14:05	EEH
Dibromomethane	ND	1.0	0.32	µg/L	1		SW-846 8260D	3/13/23	3/13/23 14:05	EEH
1,2-Dichlorobenzene	ND	1.0	0.13	µg/L	1		SW-846 8260D	3/13/23	3/13/23 14:05	EEH
1,3-Dichlorobenzene	ND	1.0	0.14	µg/L	1		SW-846 8260D	3/13/23	3/13/23 14:05	EEH
1,4-Dichlorobenzene	ND	1.0	0.13	µg/L	1		SW-846 8260D	3/13/23	3/13/23 14:05	EEH
trans-1,4-Dichloro-2-butene	ND	2.0	1.5	µg/L	1		SW-846 8260D	3/13/23	3/13/23 14:05	EEH
Dichlorodifluoromethane (Freon 12)	ND	2.0	0.16	µg/L	1		SW-846 8260D	3/13/23	3/13/23 14:05	EEH
1,1-Dichloroethane	ND	1.0	0.14	µg/L	1		SW-846 8260D	3/13/23	3/13/23 14:05	EEH
1,2-Dichloroethane	ND	1.0	0.30	µg/L	1		SW-846 8260D	3/13/23	3/13/23 14:05	EEH
1,1-Dichloroethylene	ND	1.0	0.14	µg/L	1		SW-846 8260D	3/13/23	3/13/23 14:05	EEH
cis-1,2-Dichloroethylene	ND	1.0	0.14	µg/L	1		SW-846 8260D	3/13/23	3/13/23 14:05	EEH
trans-1,2-Dichloroethylene	ND	1.0	0.17	µg/L	1		SW-846 8260D	3/13/23	3/13/23 14:05	EEH
1,2-Dichloropropane	ND	1.0	0.19	µg/L	1		SW-846 8260D	3/13/23	3/13/23 14:05	EEH
1,3-Dichloropropane	ND	0.50	0.12	µg/L	1		SW-846 8260D	3/13/23	3/13/23 14:05	EEH
2,2-Dichloropropane	ND	1.0	0.35	µg/L	1		SW-846 8260D	3/13/23	3/13/23 14:05	EEH
1,1-Dichloropropene	ND	2.0	0.15	µg/L	1		SW-846 8260D	3/13/23	3/13/23 14:05	EEH
cis-1,3-Dichloropropene	ND	0.50	0.16	µg/L	1		SW-846 8260D	3/13/23	3/13/23 14:05	EEH
trans-1,3-Dichloropropene	ND	0.50	0.14	µg/L	1		SW-846 8260D	3/13/23	3/13/23 14:05	EEH
Diethyl Ether	ND	2.0	0.14	µg/L	1		SW-846 8260D	3/13/23	3/13/23 14:05	EEH

Project Location: 15 West Street, Spring Valley, NY

Sample Description:

Work Order: 23C1069

Date Received: 3/9/2023

Field Sample #: TripBlank-02-030923

Sampled: 3/9/2023 00:00

Sample ID: 23C1069-11

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	0.50	0.20	µg/L	1		SW-846 8260D	3/13/23	3/13/23 14:05	EEH
1,4-Dioxane	ND	50	18	µg/L	1		SW-846 8260D	3/13/23	3/13/23 14:05	EEH
Ethylbenzene	ND	1.0	0.22	µg/L	1		SW-846 8260D	3/13/23	3/13/23 14:05	EEH
Hexachlorobutadiene	ND	0.60	0.47	µg/L	1		SW-846 8260D	3/13/23	3/13/23 14:05	EEH
2-Hexanone (MBK)	ND	10	1.2	µg/L	1		SW-846 8260D	3/13/23	3/13/23 14:05	EEH
Isopropylbenzene (Cumene)	ND	1.0	0.15	µg/L	1		SW-846 8260D	3/13/23	3/13/23 14:05	EEH
p-Isopropyltoluene (p-Cymene)	ND	1.0	0.13	µg/L	1		SW-846 8260D	3/13/23	3/13/23 14:05	EEH
Methyl Acetate	ND	1.0	0.61	µg/L	1		SW-846 8260D	3/13/23	3/13/23 14:05	EEH
Methyl tert-Butyl Ether (MTBE)	ND	1.0	0.17	µg/L	1		SW-846 8260D	3/13/23	3/13/23 14:05	EEH
Methyl Cyclohexane	ND	1.0	0.16	µg/L	1		SW-846 8260D	3/13/23	3/13/23 14:05	EEH
Methylene Chloride	ND	5.0	0.18	µg/L	1		SW-846 8260D	3/13/23	3/13/23 14:05	EEH
4-Methyl-2-pentanone (MIBK)	ND	10	1.3	µg/L	1		SW-846 8260D	3/13/23	3/13/23 14:05	EEH
Naphthalene	ND	2.0	0.38	µg/L	1		SW-846 8260D	3/13/23	3/13/23 14:05	EEH
n-Propylbenzene	ND	1.0	0.12	µg/L	1		SW-846 8260D	3/13/23	3/13/23 14:05	EEH
Styrene	ND	1.0	0.15	µg/L	1		SW-846 8260D	3/13/23	3/13/23 14:05	EEH
1,1,1,2-Tetrachloroethane	ND	1.0	0.16	µg/L	1		SW-846 8260D	3/13/23	3/13/23 14:05	EEH
1,1,2,2-Tetrachloroethane	ND	0.50	0.14	µg/L	1		SW-846 8260D	3/13/23	3/13/23 14:05	EEH
Tetrachloroethylene	ND	1.0	0.17	µg/L	1		SW-846 8260D	3/13/23	3/13/23 14:05	EEH
Tetrahydrofuran	ND	10	0.49	µg/L	1		SW-846 8260D	3/13/23	3/13/23 14:05	EEH
Toluene	ND	1.0	0.22	µg/L	1		SW-846 8260D	3/13/23	3/13/23 14:05	EEH
1,2,3-Trichlorobenzene	ND	5.0	0.34	µg/L	1		SW-846 8260D	3/13/23	3/13/23 14:05	EEH
1,2,4-Trichlorobenzene	ND	1.0	0.30	µg/L	1		SW-846 8260D	3/13/23	3/13/23 14:05	EEH
1,3,5-Trichlorobenzene	ND	1.0	0.21	µg/L	1		SW-846 8260D	3/13/23	3/13/23 14:05	EEH
1,1,1-Trichloroethane	ND	1.0	0.15	µg/L	1		SW-846 8260D	3/13/23	3/13/23 14:05	EEH
1,1,2-Trichloroethane	ND	1.0	0.19	µg/L	1		SW-846 8260D	3/13/23	3/13/23 14:05	EEH
Trichloroethylene	ND	1.0	0.17	µg/L	1		SW-846 8260D	3/13/23	3/13/23 14:05	EEH
Trichlorofluoromethane (Freon 11)	ND	2.0	0.15	µg/L	1		SW-846 8260D	3/13/23	3/13/23 14:05	EEH
1,2,3-Trichloropropane	ND	2.0	0.28	µg/L	1		SW-846 8260D	3/13/23	3/13/23 14:05	EEH
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	1.0	0.21	µg/L	1		SW-846 8260D	3/13/23	3/13/23 14:05	EEH
1,2,4-Trimethylbenzene	ND	1.0	0.20	µg/L	1		SW-846 8260D	3/13/23	3/13/23 14:05	EEH
1,3,5-Trimethylbenzene	ND	1.0	0.15	µg/L	1		SW-846 8260D	3/13/23	3/13/23 14:05	EEH
Vinyl Chloride	ND	2.0	0.24	µg/L	1		SW-846 8260D	3/13/23	3/13/23 14:05	EEH
m+p Xylene	ND	2.0	0.49	µg/L	1		SW-846 8260D	3/13/23	3/13/23 14:05	EEH
o-Xylene	ND	1.0	0.24	µg/L	1		SW-846 8260D	3/13/23	3/13/23 14:05	EEH
Surrogates		% Recovery	Recovery Limits			Flag/Qual				
1,2-Dichloroethane-d4		100	70-130						3/13/23 14:05	
Toluene-d8		102	70-130						3/13/23 14:05	
4-Bromofluorobenzene		99.2	70-130						3/13/23 14:05	

**APPENDIX E-1
SUMMARY OF LABORATORY ANALYTICAL RESULTS IN MONTHLY
SAMPLES COLLECTED AT RW-3D**

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

Project Location: NY

Sample Description:

Work Order: 22E0628

Date Received: 5/10/2022

Field Sample #: RW-3D

Sampled: 5/9/2022 10:20

Sample ID: 22E0628-01

Sample Matrix: Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Benzene	<0.200	1.00	0.200	µg/L	1		624.1	5/11/22	5/11/22 22:05	MFF
Bromodichloromethane	<0.180	2.00	0.180	µg/L	1		624.1	5/11/22	5/11/22 22:05	MFF
Bromoform	<0.383	2.00	0.383	µg/L	1		624.1	5/11/22	5/11/22 22:05	MFF
Bromomethane	<1.54	2.00	1.54	µg/L	1		624.1	5/11/22	5/11/22 22:05	MFF
Carbon Tetrachloride	<0.165	2.00	0.165	µg/L	1		624.1	5/11/22	5/11/22 22:05	MFF
Chlorobenzene	<0.105	2.00	0.105	µg/L	1		624.1	5/11/22	5/11/22 22:05	MFF
Chlorodibromomethane	<0.222	2.00	0.222	µg/L	1		624.1	5/11/22	5/11/22 22:05	MFF
Chloroethane	<0.320	2.00	0.320	µg/L	1		624.1	5/11/22	5/11/22 22:05	MFF
Chloroform	0.680	2.00	0.168	µg/L	1	J	624.1	5/11/22	5/11/22 22:05	MFF
Chloromethane	<0.522	2.00	0.522	µg/L	1		624.1	5/11/22	5/11/22 22:05	MFF
1,2-Dichlorobenzene	<0.122	2.00	0.122	µg/L	1		624.1	5/11/22	5/11/22 22:05	MFF
1,3-Dichlorobenzene	<0.118	2.00	0.118	µg/L	1		624.1	5/11/22	5/11/22 22:05	MFF
1,4-Dichlorobenzene	<0.130	2.00	0.130	µg/L	1		624.1	5/11/22	5/11/22 22:05	MFF
1,2-Dichloroethane	<0.308	2.00	0.308	µg/L	1		624.1	5/11/22	5/11/22 22:05	MFF
1,1-Dichloroethane	<0.142	2.00	0.142	µg/L	1		624.1	5/11/22	5/11/22 22:05	MFF
1,1-Dichloroethylene	<0.141	2.00	0.141	µg/L	1		624.1	5/11/22	5/11/22 22:05	MFF
trans-1,2-Dichloroethylene	<0.169	2.00	0.169	µg/L	1		624.1	5/11/22	5/11/22 22:05	MFF
1,2-Dichloropropane	<0.181	2.00	0.181	µg/L	1		624.1	5/11/22	5/11/22 22:05	MFF
cis-1,3-Dichloropropene	<0.158	2.00	0.158	µg/L	1		624.1	5/11/22	5/11/22 22:05	MFF
trans-1,3-Dichloropropene	<0.168	2.00	0.168	µg/L	1		624.1	5/11/22	5/11/22 22:05	MFF
Ethylbenzene	<0.215	2.00	0.215	µg/L	1		624.1	5/11/22	5/11/22 22:05	MFF
Methyl tert-Butyl Ether (MTBE)	<0.172	2.00	0.172	µg/L	1		624.1	5/11/22	5/11/22 22:05	MFF
Methylene Chloride	<0.235	5.00	0.235	µg/L	1		624.1	5/11/22	5/11/22 22:05	MFF
1,1,2,2-Tetrachloroethane	<0.127	2.00	0.127	µg/L	1		624.1	5/11/22	5/11/22 22:05	MFF
Tetrachloroethylene	140	2.00	0.187	µg/L	1		624.1	5/11/22	5/11/22 22:05	MFF
Toluene	<0.224	1.00	0.224	µg/L	1		624.1	5/11/22	5/11/22 22:05	MFF
1,1,1-Trichloroethane	<0.169	2.00	0.169	µg/L	1		624.1	5/11/22	5/11/22 22:05	MFF
1,1,2-Trichloroethane	<0.183	2.00	0.183	µg/L	1		624.1	5/11/22	5/11/22 22:05	MFF
Trichloroethylene	121	2.00	0.189	µg/L	1		624.1	5/11/22	5/11/22 22:05	MFF
Trichlorofluoromethane (Freon 11)	<0.176	2.00	0.176	µg/L	1		624.1	5/11/22	5/11/22 22:05	MFF
Vinyl Chloride	<0.208	2.00	0.208	µg/L	1		624.1	5/11/22	5/11/22 22:05	MFF
m+p Xylene	<0.459	2.00	0.459	µg/L	1		624.1	5/11/22	5/11/22 22:05	MFF
o-Xylene	<0.230	1.00	0.230	µg/L	1		624.1	5/11/22	5/11/22 22:05	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual
1,2-Dichloroethane-d4	96.9	70-130	5/11/22 22:05
Toluene-d8	97.6	70-130	5/11/22 22:05
4-Bromofluorobenzene	97.0	70-130	5/11/22 22:05

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

Project Location: NY

Sample Description:

Work Order: 22E0628

Date Received: 5/10/2022

Field Sample #: RW-3D

Sampled: 5/9/2022 10:20

Sample ID: 22E0628-01

Sample Matrix: Water

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
pH @17.8°C	7.2		pH Units	1	H-05	SM21-23 4500 H B	5/10/22	5/10/22 20:20	JEC

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

Project Location: NY

Sample Description:

Work Order: 22E0628

Date Received: 5/10/2022

Field Sample #: RW-3D

Sampled: 5/9/2022 10:20

Sample ID: 22E0628-01

Sample Matrix: Water

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Dissolved)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Total Dissolved Solids	590	10	mg/L	1		SM21-23 2540C	5/12/22	5/12/22 12:23	LL

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

Project Location: NY

Sample Description:

Work Order: 22E0628

Date Received: 5/10/2022

Field Sample #: Effluent

Sampled: 5/9/2022 10:15

Sample ID: 22E0628-02

Sample Matrix: Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Benzene	<0.200	1.00	0.200	µg/L	1		624.1	5/11/22	5/11/22 21:41	MFF
Bromodichloromethane	<0.180	2.00	0.180	µg/L	1		624.1	5/11/22	5/11/22 21:41	MFF
Bromoform	<0.383	2.00	0.383	µg/L	1		624.1	5/11/22	5/11/22 21:41	MFF
Bromomethane	<1.54	2.00	1.54	µg/L	1		624.1	5/11/22	5/11/22 21:41	MFF
Carbon Tetrachloride	<0.165	2.00	0.165	µg/L	1		624.1	5/11/22	5/11/22 21:41	MFF
Chlorobenzene	<0.105	2.00	0.105	µg/L	1		624.1	5/11/22	5/11/22 21:41	MFF
Chlorodibromomethane	<0.222	2.00	0.222	µg/L	1		624.1	5/11/22	5/11/22 21:41	MFF
Chloroethane	<0.320	2.00	0.320	µg/L	1		624.1	5/11/22	5/11/22 21:41	MFF
Chloroform	<0.168	2.00	0.168	µg/L	1		624.1	5/11/22	5/11/22 21:41	MFF
Chloromethane	<0.522	2.00	0.522	µg/L	1		624.1	5/11/22	5/11/22 21:41	MFF
1,2-Dichlorobenzene	<0.122	2.00	0.122	µg/L	1		624.1	5/11/22	5/11/22 21:41	MFF
1,3-Dichlorobenzene	<0.118	2.00	0.118	µg/L	1		624.1	5/11/22	5/11/22 21:41	MFF
1,4-Dichlorobenzene	<0.130	2.00	0.130	µg/L	1		624.1	5/11/22	5/11/22 21:41	MFF
1,2-Dichloroethane	<0.308	2.00	0.308	µg/L	1		624.1	5/11/22	5/11/22 21:41	MFF
1,1-Dichloroethane	<0.142	2.00	0.142	µg/L	1		624.1	5/11/22	5/11/22 21:41	MFF
1,1-Dichloroethylene	<0.141	2.00	0.141	µg/L	1		624.1	5/11/22	5/11/22 21:41	MFF
trans-1,2-Dichloroethylene	<0.169	2.00	0.169	µg/L	1		624.1	5/11/22	5/11/22 21:41	MFF
1,2-Dichloropropane	<0.181	2.00	0.181	µg/L	1		624.1	5/11/22	5/11/22 21:41	MFF
cis-1,3-Dichloropropene	<0.158	2.00	0.158	µg/L	1		624.1	5/11/22	5/11/22 21:41	MFF
trans-1,3-Dichloropropene	<0.168	2.00	0.168	µg/L	1		624.1	5/11/22	5/11/22 21:41	MFF
Ethylbenzene	<0.215	2.00	0.215	µg/L	1		624.1	5/11/22	5/11/22 21:41	MFF
Methyl tert-Butyl Ether (MTBE)	<0.172	2.00	0.172	µg/L	1		624.1	5/11/22	5/11/22 21:41	MFF
Methylene Chloride	<0.235	5.00	0.235	µg/L	1		624.1	5/11/22	5/11/22 21:41	MFF
1,1,2,2-Tetrachloroethane	<0.127	2.00	0.127	µg/L	1		624.1	5/11/22	5/11/22 21:41	MFF
Tetrachloroethylene	0.560	2.00	0.187	µg/L	1	J	624.1	5/11/22	5/11/22 21:41	MFF
Toluene	<0.224	1.00	0.224	µg/L	1		624.1	5/11/22	5/11/22 21:41	MFF
1,1,1-Trichloroethane	<0.169	2.00	0.169	µg/L	1		624.1	5/11/22	5/11/22 21:41	MFF
1,1,2-Trichloroethane	<0.183	2.00	0.183	µg/L	1		624.1	5/11/22	5/11/22 21:41	MFF
Trichloroethylene	0.240	2.00	0.189	µg/L	1	J	624.1	5/11/22	5/11/22 21:41	MFF
Trichlorofluoromethane (Freon 11)	<0.176	2.00	0.176	µg/L	1		624.1	5/11/22	5/11/22 21:41	MFF
Vinyl Chloride	<0.208	2.00	0.208	µg/L	1		624.1	5/11/22	5/11/22 21:41	MFF
m+p Xylene	<0.459	2.00	0.459	µg/L	1		624.1	5/11/22	5/11/22 21:41	MFF
o-Xylene	<0.230	1.00	0.230	µg/L	1		624.1	5/11/22	5/11/22 21:41	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual
1,2-Dichloroethane-d4	98.7	70-130	5/11/22 21:41
Toluene-d8	98.8	70-130	5/11/22 21:41
4-Bromofluorobenzene	98.2	70-130	5/11/22 21:41

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

Project Location: NY

Sample Description:

Work Order: 22E0628

Date Received: 5/10/2022

Field Sample #: Effluent

Sampled: 5/9/2022 10:15

Sample ID: 22E0628-02

Sample Matrix: Water

Conventional Chemistry Parameters by EPA/PHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
pH @18.7°C	8.2		pH Units	1	H-05	SM21-23 4500 H B	5/10/22	5/10/22 20:20	JEC

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

Project Location: NY

Sample Description:

Work Order: 22E0628

Date Received: 5/10/2022

Sampled: 5/9/2022 10:15

Field Sample #: Effluent
Sample ID: 22E0628-02

Sample Matrix: Water

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Dissolved)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Total Dissolved Solids	610	10	mg/L	1		SM21-23 2540C	5/12/22	5/12/22 12:23	LL

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

Project Location: 15 West St., Spring Valley, NY

Sample Description:

Work Order: 22F0542

Date Received: 6/8/2022

Field Sample #: RW-3D

Sampled: 6/8/2022 11:00

Sample ID: 22F0542-01

Sample Matrix: Water

Sample Flags: RL-11

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Benzene	<0.400	2.00	0.400	µg/L	2		624.1	6/9/22	6/9/22 7:42	MFF
Bromodichloromethane	<0.361	4.00	0.361	µg/L	2		624.1	6/9/22	6/9/22 7:42	MFF
Bromoform	<0.766	4.00	0.766	µg/L	2		624.1	6/9/22	6/9/22 7:42	MFF
Bromomethane	<3.08	10.0	3.08	µg/L	2	R-05	624.1	6/9/22	6/9/22 7:42	MFF
Carbon Tetrachloride	<0.330	4.00	0.330	µg/L	2		624.1	6/9/22	6/9/22 7:42	MFF
Chlorobenzene	<0.211	4.00	0.211	µg/L	2		624.1	6/9/22	6/9/22 7:42	MFF
Chlorodibromomethane	<0.445	4.00	0.445	µg/L	2		624.1	6/9/22	6/9/22 7:42	MFF
Chloroethane	<0.641	4.00	0.641	µg/L	2		624.1	6/9/22	6/9/22 7:42	MFF
Chloroform	0.460	4.00	0.335	µg/L	2	J	624.1	6/9/22	6/9/22 7:42	MFF
Chloromethane	<1.04	4.00	1.04	µg/L	2		624.1	6/9/22	6/9/22 7:42	MFF
1,2-Dichlorobenzene	<0.244	4.00	0.244	µg/L	2		624.1	6/9/22	6/9/22 7:42	MFF
1,3-Dichlorobenzene	<0.236	4.00	0.236	µg/L	2		624.1	6/9/22	6/9/22 7:42	MFF
1,4-Dichlorobenzene	<0.261	4.00	0.261	µg/L	2		624.1	6/9/22	6/9/22 7:42	MFF
1,2-Dichloroethane	<0.616	4.00	0.616	µg/L	2		624.1	6/9/22	6/9/22 7:42	MFF
1,1-Dichloroethane	<0.283	4.00	0.283	µg/L	2		624.1	6/9/22	6/9/22 7:42	MFF
1,1-Dichloroethylene	<0.283	4.00	0.283	µg/L	2		624.1	6/9/22	6/9/22 7:42	MFF
trans-1,2-Dichloroethylene	0.720	4.00	0.337	µg/L	2	J	624.1	6/9/22	6/9/22 7:42	MFF
1,2-Dichloropropane	<0.362	4.00	0.362	µg/L	2		624.1	6/9/22	6/9/22 7:42	MFF
cis-1,3-Dichloropropene	<0.316	4.00	0.316	µg/L	2		624.1	6/9/22	6/9/22 7:42	MFF
trans-1,3-Dichloropropene	<0.336	4.00	0.336	µg/L	2		624.1	6/9/22	6/9/22 7:42	MFF
Ethylbenzene	<0.430	4.00	0.430	µg/L	2		624.1	6/9/22	6/9/22 7:42	MFF
Methyl tert-Butyl Ether (MTBE)	<0.344	4.00	0.344	µg/L	2		624.1	6/9/22	6/9/22 7:42	MFF
Methylene Chloride	<0.470	10.0	0.470	µg/L	2		624.1	6/9/22	6/9/22 7:42	MFF
1,1,2,2-Tetrachloroethane	<0.253	4.00	0.253	µg/L	2		624.1	6/9/22	6/9/22 7:42	MFF
Tetrachloroethylene	190	4.00	0.374	µg/L	2		624.1	6/9/22	6/9/22 7:42	MFF
Toluene	<0.448	2.00	0.448	µg/L	2		624.1	6/9/22	6/9/22 7:42	MFF
1,1,1-Trichloroethane	<0.338	4.00	0.338	µg/L	2		624.1	6/9/22	6/9/22 7:42	MFF
1,1,2-Trichloroethane	<0.365	4.00	0.365	µg/L	2		624.1	6/9/22	6/9/22 7:42	MFF
Trichloroethylene	162	4.00	0.379	µg/L	2		624.1	6/9/22	6/9/22 7:42	MFF
Trichlorofluoromethane (Freon 11)	<0.352	4.00	0.352	µg/L	2		624.1	6/9/22	6/9/22 7:42	MFF
Vinyl Chloride	<0.415	4.00	0.415	µg/L	2		624.1	6/9/22	6/9/22 7:42	MFF
m+p Xylene	<0.918	4.00	0.918	µg/L	2		624.1	6/9/22	6/9/22 7:42	MFF
o-Xylene	<0.459	2.00	0.459	µg/L	2		624.1	6/9/22	6/9/22 7:42	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual
1,2-Dichloroethane-d4	76.4	70-130	6/9/22 7:42
Toluene-d8	101	70-130	6/9/22 7:42
4-Bromofluorobenzene	103	70-130	6/9/22 7:42

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

Project Location: 15 West St., Spring Valley, NY

Sample Description:

Work Order: 22F0542

Date Received: 6/8/2022

Field Sample #: RW-3D

Sampled: 6/8/2022 11:00

Sample ID: 22F0542-01

Sample Matrix: Water

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
pH @24.3°C	7.4		pH Units	1	H-05	SM21-23 4500 H B	6/8/22	6/8/22 21:10	JEC

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

Project Location: 15 West St., Spring Valley, NY

Sample Description:

Work Order: 22F0542

Date Received: 6/8/2022

Field Sample #: RW-3D

Sampled: 6/8/2022 11:00

Sample ID: 22F0542-01

Sample Matrix: Water

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Dissolved)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Total Dissolved Solids	610	10	mg/L	1		SM21-23 2540C	6/13/22	6/14/22 12:25	LL

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

Project Location: 15 West St., Spring Valley, NY

Sample Description:

Work Order: 22F0542

Date Received: 6/8/2022

Field Sample #: Effluent

Sampled: 6/8/2022 11:10

Sample ID: 22F0542-02

Sample Matrix: Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Benzene	<0.200	1.00	0.200	µg/L	1		624.1	6/9/22	6/9/22 7:15	MFF
Bromodichloromethane	<0.180	2.00	0.180	µg/L	1		624.1	6/9/22	6/9/22 7:15	MFF
Bromoform	<0.383	2.00	0.383	µg/L	1		624.1	6/9/22	6/9/22 7:15	MFF
Bromomethane	<1.54	5.00	1.54	µg/L	1	R-05	624.1	6/9/22	6/9/22 7:15	MFF
Carbon Tetrachloride	<0.165	2.00	0.165	µg/L	1		624.1	6/9/22	6/9/22 7:15	MFF
Chlorobenzene	<0.105	2.00	0.105	µg/L	1		624.1	6/9/22	6/9/22 7:15	MFF
Chlorodibromomethane	<0.222	2.00	0.222	µg/L	1		624.1	6/9/22	6/9/22 7:15	MFF
Chloroethane	<0.320	2.00	0.320	µg/L	1		624.1	6/9/22	6/9/22 7:15	MFF
Chloroform	<0.168	2.00	0.168	µg/L	1		624.1	6/9/22	6/9/22 7:15	MFF
Chloromethane	<0.522	2.00	0.522	µg/L	1		624.1	6/9/22	6/9/22 7:15	MFF
1,2-Dichlorobenzene	<0.122	2.00	0.122	µg/L	1		624.1	6/9/22	6/9/22 7:15	MFF
1,3-Dichlorobenzene	<0.118	2.00	0.118	µg/L	1		624.1	6/9/22	6/9/22 7:15	MFF
1,4-Dichlorobenzene	<0.130	2.00	0.130	µg/L	1		624.1	6/9/22	6/9/22 7:15	MFF
1,2-Dichloroethane	<0.308	2.00	0.308	µg/L	1		624.1	6/9/22	6/9/22 7:15	MFF
1,1-Dichloroethane	<0.142	2.00	0.142	µg/L	1		624.1	6/9/22	6/9/22 7:15	MFF
1,1-Dichloroethylene	<0.141	2.00	0.141	µg/L	1		624.1	6/9/22	6/9/22 7:15	MFF
trans-1,2-Dichloroethylene	<0.169	2.00	0.169	µg/L	1		624.1	6/9/22	6/9/22 7:15	MFF
1,2-Dichloropropane	<0.181	2.00	0.181	µg/L	1		624.1	6/9/22	6/9/22 7:15	MFF
cis-1,3-Dichloropropene	<0.158	2.00	0.158	µg/L	1		624.1	6/9/22	6/9/22 7:15	MFF
trans-1,3-Dichloropropene	<0.168	2.00	0.168	µg/L	1		624.1	6/9/22	6/9/22 7:15	MFF
Ethylbenzene	<0.215	2.00	0.215	µg/L	1		624.1	6/9/22	6/9/22 7:15	MFF
Methyl tert-Butyl Ether (MTBE)	<0.172	2.00	0.172	µg/L	1		624.1	6/9/22	6/9/22 7:15	MFF
Methylene Chloride	<0.235	5.00	0.235	µg/L	1		624.1	6/9/22	6/9/22 7:15	MFF
1,1,2,2-Tetrachloroethane	<0.127	2.00	0.127	µg/L	1		624.1	6/9/22	6/9/22 7:15	MFF
Tetrachloroethylene	0.410	2.00	0.187	µg/L	1	J	624.1	6/9/22	6/9/22 7:15	MFF
Toluene	<0.224	1.00	0.224	µg/L	1		624.1	6/9/22	6/9/22 7:15	MFF
1,1,1-Trichloroethane	<0.169	2.00	0.169	µg/L	1		624.1	6/9/22	6/9/22 7:15	MFF
1,1,2-Trichloroethane	<0.183	2.00	0.183	µg/L	1		624.1	6/9/22	6/9/22 7:15	MFF
Trichloroethylene	<0.189	2.00	0.189	µg/L	1		624.1	6/9/22	6/9/22 7:15	MFF
Trichlorofluoromethane (Freon 11)	<0.176	2.00	0.176	µg/L	1		624.1	6/9/22	6/9/22 7:15	MFF
Vinyl Chloride	<0.208	2.00	0.208	µg/L	1		624.1	6/9/22	6/9/22 7:15	MFF
m+p Xylene	<0.459	2.00	0.459	µg/L	1		624.1	6/9/22	6/9/22 7:15	MFF
o-Xylene	<0.230	1.00	0.230	µg/L	1		624.1	6/9/22	6/9/22 7:15	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual
1,2-Dichloroethane-d4	76.2	70-130	6/9/22 7:15
Toluene-d8	99.4	70-130	6/9/22 7:15
4-Bromofluorobenzene	102	70-130	6/9/22 7:15

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

Project Location: 15 West St., Spring Valley, NY

Sample Description:

Work Order: 22F0542

Date Received: 6/8/2022

Field Sample #: Effluent

Sampled: 6/8/2022 11:10

Sample ID: 22F0542-02

Sample Matrix: Water

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
pH @24.1°C	8.0		pH Units	1	H-05	SM21-23 4500 H B	6/8/22	6/8/22 21:10	JEC

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

Project Location: 15 West St., Spring Valley, NY

Sample Description:

Work Order: 22F0542

Date Received: 6/8/2022

Field Sample #: Effluent

Sampled: 6/8/2022 11:10

Sample ID: 22F0542-02

Sample Matrix: Water

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Dissolved)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Total Dissolved Solids	550	10	mg/L	1		SM21-23 2540C	6/13/22	6/14/22 12:25	LL

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

Project Location: NY

Sample Description:

Work Order: 22G0976

Date Received: 7/18/2022

Field Sample #: RW-3D

Sampled: 7/13/2022 11:15

Sample ID: 22G0976-01

Sample Matrix: Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Benzene	<0.200	1.00	0.200	µg/L	1		624.1	7/19/22	7/19/22 21:14	MFF
Bromodichloromethane	<0.180	2.00	0.180	µg/L	1		624.1	7/19/22	7/19/22 21:14	MFF
Bromoform	<0.383	2.00	0.383	µg/L	1		624.1	7/19/22	7/19/22 21:14	MFF
Bromomethane	<1.54	5.00	1.54	µg/L	1		624.1	7/19/22	7/19/22 21:14	MFF
Carbon Tetrachloride	<0.165	2.00	0.165	µg/L	1		624.1	7/19/22	7/19/22 21:14	MFF
Chlorobenzene	<0.105	2.00	0.105	µg/L	1		624.1	7/19/22	7/19/22 21:14	MFF
Chlorodibromomethane	<0.222	2.00	0.222	µg/L	1		624.1	7/19/22	7/19/22 21:14	MFF
Chloroethane	<0.320	2.00	0.320	µg/L	1		624.1	7/19/22	7/19/22 21:14	MFF
Chloroform	0.670	2.00	0.168	µg/L	1	J	624.1	7/19/22	7/19/22 21:14	MFF
Chloromethane	<0.522	2.00	0.522	µg/L	1		624.1	7/19/22	7/19/22 21:14	MFF
1,2-Dichlorobenzene	<0.122	2.00	0.122	µg/L	1		624.1	7/19/22	7/19/22 21:14	MFF
1,3-Dichlorobenzene	<0.118	2.00	0.118	µg/L	1		624.1	7/19/22	7/19/22 21:14	MFF
1,4-Dichlorobenzene	<0.130	2.00	0.130	µg/L	1		624.1	7/19/22	7/19/22 21:14	MFF
1,2-Dichloroethane	<0.308	2.00	0.308	µg/L	1		624.1	7/19/22	7/19/22 21:14	MFF
1,1-Dichloroethane	<0.142	2.00	0.142	µg/L	1		624.1	7/19/22	7/19/22 21:14	MFF
1,1-Dichloroethylene	<0.141	2.00	0.141	µg/L	1		624.1	7/19/22	7/19/22 21:14	MFF
trans-1,2-Dichloroethylene	0.550	2.00	0.169	µg/L	1	J	624.1	7/19/22	7/19/22 21:14	MFF
1,2-Dichloropropane	<0.181	2.00	0.181	µg/L	1		624.1	7/19/22	7/19/22 21:14	MFF
cis-1,3-Dichloropropene	<0.158	2.00	0.158	µg/L	1		624.1	7/19/22	7/19/22 21:14	MFF
trans-1,3-Dichloropropene	<0.168	2.00	0.168	µg/L	1		624.1	7/19/22	7/19/22 21:14	MFF
Ethylbenzene	<0.215	2.00	0.215	µg/L	1		624.1	7/19/22	7/19/22 21:14	MFF
Methyl tert-Butyl Ether (MTBE)	<0.172	2.00	0.172	µg/L	1		624.1	7/19/22	7/19/22 21:14	MFF
Methylene Chloride	<0.235	5.00	0.235	µg/L	1		624.1	7/19/22	7/19/22 21:14	MFF
1,1,2,2-Tetrachloroethane	<0.127	2.00	0.127	µg/L	1		624.1	7/19/22	7/19/22 21:14	MFF
Tetrachloroethylene	188	2.00	0.187	µg/L	1		624.1	7/19/22	7/19/22 21:14	MFF
Toluene	<0.224	1.00	0.224	µg/L	1		624.1	7/19/22	7/19/22 21:14	MFF
1,1,1-Trichloroethane	<0.169	2.00	0.169	µg/L	1		624.1	7/19/22	7/19/22 21:14	MFF
1,1,2-Trichloroethane	<0.183	2.00	0.183	µg/L	1		624.1	7/19/22	7/19/22 21:14	MFF
Trichloroethylene	167	2.00	0.189	µg/L	1		624.1	7/19/22	7/19/22 21:14	MFF
Trichlorofluoromethane (Freon 11)	<0.176	2.00	0.176	µg/L	1	R-05	624.1	7/19/22	7/19/22 21:14	MFF
Vinyl Chloride	<0.208	2.00	0.208	µg/L	1		624.1	7/19/22	7/19/22 21:14	MFF
m+p Xylene	<0.459	2.00	0.459	µg/L	1		624.1	7/19/22	7/19/22 21:14	MFF
o-Xylene	<0.230	1.00	0.230	µg/L	1		624.1	7/19/22	7/19/22 21:14	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual
1,2-Dichloroethane-d4	89.5	70-130	7/19/22 21:14
Toluene-d8	102	70-130	7/19/22 21:14
4-Bromofluorobenzene	103	70-130	7/19/22 21:14

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

Project Location: NY

Sample Description:

Work Order: 22G0976

Date Received: 7/18/2022

Sampled: 7/13/2022 11:15

Field Sample #: RW-3D
Sample ID: 22G0976-01

Sample Matrix: Water

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
pH @20.5°C	7.4		pH Units	1	H-05	SM21-23 4500 H B	7/18/22	7/18/22 18:20	JEC

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Project Location: NY

Sample Description:

Work Order: 22G0976

Date Received: 7/18/2022

Field Sample #: RW-3D

Sampled: 7/13/2022 11:15

Sample ID: 22G0976-01

Sample Matrix: Water

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Dissolved)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Total Dissolved Solids	590	10	mg/L	1		SM21-23 2540C	7/20/22	7/20/22 11:00	LL

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Project Location: NY

Sample Description:

Work Order: 22G0976

Date Received: 7/18/2022

Field Sample #: Effluent

Sampled: 7/13/2022 11:10

Sample ID: 22G0976-02

Sample Matrix: Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Benzene	<0.200	1.00	0.200	µg/L	1		624.1	7/19/22	7/19/22 22:33	MFF
Bromodichloromethane	<0.180	2.00	0.180	µg/L	1		624.1	7/19/22	7/19/22 22:33	MFF
Bromoform	<0.383	2.00	0.383	µg/L	1		624.1	7/19/22	7/19/22 22:33	MFF
Bromomethane	<1.54	5.00	1.54	µg/L	1		624.1	7/19/22	7/19/22 22:33	MFF
Carbon Tetrachloride	<0.165	2.00	0.165	µg/L	1		624.1	7/19/22	7/19/22 22:33	MFF
Chlorobenzene	<0.105	2.00	0.105	µg/L	1		624.1	7/19/22	7/19/22 22:33	MFF
Chlorodibromomethane	<0.222	2.00	0.222	µg/L	1		624.1	7/19/22	7/19/22 22:33	MFF
Chloroethane	<0.320	2.00	0.320	µg/L	1		624.1	7/19/22	7/19/22 22:33	MFF
Chloroform	<0.168	2.00	0.168	µg/L	1		624.1	7/19/22	7/19/22 22:33	MFF
Chloromethane	<0.522	2.00	0.522	µg/L	1		624.1	7/19/22	7/19/22 22:33	MFF
1,2-Dichlorobenzene	<0.122	2.00	0.122	µg/L	1		624.1	7/19/22	7/19/22 22:33	MFF
1,3-Dichlorobenzene	<0.118	2.00	0.118	µg/L	1		624.1	7/19/22	7/19/22 22:33	MFF
1,4-Dichlorobenzene	<0.130	2.00	0.130	µg/L	1		624.1	7/19/22	7/19/22 22:33	MFF
1,2-Dichloroethane	<0.308	2.00	0.308	µg/L	1		624.1	7/19/22	7/19/22 22:33	MFF
1,1-Dichloroethane	<0.142	2.00	0.142	µg/L	1		624.1	7/19/22	7/19/22 22:33	MFF
1,1-Dichloroethylene	<0.141	2.00	0.141	µg/L	1		624.1	7/19/22	7/19/22 22:33	MFF
trans-1,2-Dichloroethylene	<0.169	2.00	0.169	µg/L	1		624.1	7/19/22	7/19/22 22:33	MFF
1,2-Dichloropropane	<0.181	2.00	0.181	µg/L	1		624.1	7/19/22	7/19/22 22:33	MFF
cis-1,3-Dichloropropene	<0.158	2.00	0.158	µg/L	1		624.1	7/19/22	7/19/22 22:33	MFF
trans-1,3-Dichloropropene	<0.168	2.00	0.168	µg/L	1		624.1	7/19/22	7/19/22 22:33	MFF
Ethylbenzene	<0.215	2.00	0.215	µg/L	1		624.1	7/19/22	7/19/22 22:33	MFF
Methyl tert-Butyl Ether (MTBE)	<0.172	2.00	0.172	µg/L	1		624.1	7/19/22	7/19/22 22:33	MFF
Methylene Chloride	<0.235	5.00	0.235	µg/L	1		624.1	7/19/22	7/19/22 22:33	MFF
1,1,2,2-Tetrachloroethane	<0.127	2.00	0.127	µg/L	1		624.1	7/19/22	7/19/22 22:33	MFF
Tetrachloroethylene	<0.187	2.00	0.187	µg/L	1		624.1	7/19/22	7/19/22 22:33	MFF
Toluene	<0.224	1.00	0.224	µg/L	1		624.1	7/19/22	7/19/22 22:33	MFF
1,1,1-Trichloroethane	<0.169	2.00	0.169	µg/L	1		624.1	7/19/22	7/19/22 22:33	MFF
1,1,2-Trichloroethane	<0.183	2.00	0.183	µg/L	1		624.1	7/19/22	7/19/22 22:33	MFF
Trichloroethylene	<0.189	2.00	0.189	µg/L	1		624.1	7/19/22	7/19/22 22:33	MFF
Trichlorofluoromethane (Freon 11)	<0.176	2.00	0.176	µg/L	1	R-05	624.1	7/19/22	7/19/22 22:33	MFF
Vinyl Chloride	<0.208	2.00	0.208	µg/L	1		624.1	7/19/22	7/19/22 22:33	MFF
m+p Xylene	<0.459	2.00	0.459	µg/L	1		624.1	7/19/22	7/19/22 22:33	MFF
o-Xylene	<0.230	1.00	0.230	µg/L	1		624.1	7/19/22	7/19/22 22:33	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual
1,2-Dichloroethane-d4	79.1	70-130	7/19/22 22:33
Toluene-d8	103	70-130	7/19/22 22:33
4-Bromofluorobenzene	104	70-130	7/19/22 22:33

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

Project Location: NY

Sample Description:

Work Order: 22G0976

Date Received: 7/18/2022

Sampled: 7/13/2022 11:10

Field Sample #: Effluent
Sample ID: 22G0976-02

Sample Matrix: Water

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
pH @20.6°C	8.3		pH Units	1	H-05	SM21-23 4500 H B	7/18/22	7/18/22 18:20	JEC

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Project Location: NY

Sample Description:

Work Order: 22G0976

Date Received: 7/18/2022

Field Sample #: Effluent

Sampled: 7/13/2022 11:10

Sample ID: 22G0976-02

Sample Matrix: Water

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Dissolved)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Total Dissolved Solids	630	10	mg/L	1		SM21-23 2540C	7/20/22	7/20/22 11:00	LL

APPENDIX F
DATA USABILITY SUMMARY REPORTS

Data Usability Summary Report

Vali-Data of WNY, LLC
20 Hickory Grove Spur
Fulton, NY 13069

Cosco, Spring Valley, NY
Pace/Con-test SDG#22G1491
November 8, 2022
Reissued: January 9, 2023
Sampling date: 7/26/2022

Prepared by:
Jodi Zimmerman
Vali-Data of WNY, LLC
20 Hickory Grove Spur
Fulton, NY 13069

Cosco, Spring Valley, NY
SDG# 22G1491

DELIVERABLES

This Data Usability Summary Report (DUSR) was prepared by evaluating the analytical data package (reissued: January 9, 2023) for Ramboll US Consulting, Inc., project located at Cosco, Spring Valley, NY, Pace/Con-test SDG#22G1491 submitted to Vali-Data of WNY, LLC on October 11, 2022. This DUSR has been prepared in general compliance USEPA National Functional Guidelines (NFG) and NYSDEC Analytical Services Protocols. The laboratory performed the analysis using USEPA method Volatile Organics (8260D).

ID	Sample ID	Laboratory ID
1	MW-18-072622	22G1491-01
2	GW-4S-072622	22G1491-03
3	GP-4D-072622	22G1491-05
4	Trip Blank 01-072622	22G1491-07

VOLATILE ORGANIC COMPOUNDS

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Internal Standard (IS) Area Performance
- Surrogate Spike Recoveries
- Method Blank
- Field Duplicate Sample Precision
- Laboratory Control Samples
- MS/MSD
- Compound Quantitation
- Initial Calibration
- Continuing Calibration
- GC/MS Performance Check

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above and qualified accordingly.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use except where qualified below in Laboratory Control Samples, MS/MSD, Initial Calibration and Continuing Calibration.

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

HOLDING TIMES

All holding times were met.

INTERNAL STANDARD (IS)

All criteria were met.

SURROGATE SPIKE RECOVERIES

All criteria were met.

METHOD BLANK

All criteria were met.

FIELD DUPLICATE SAMPLE PRECISION

No field duplicate was acquired.

LABORATORY CONTROL SAMPLES

All criteria were met except a target analyte was outside QC limits in B314020-BS1/BSD1 and should be qualified as estimated.

Target Analyte	LCS %Rec	LCSD %Rec	Qualifier	Associated Sample
Chloromethane	32.5	32.9	UJ	1-4

Some target analytes were outside QC limits in the laboratory control sample or the laboratory control sample duplicate but not both, so no further action is required.

MS/MSD

All criteria were met except a couple of target analytes were outside QC limits in the matrix spikes and matrix spike duplicates and should be qualified as estimated.

Target Analyte	%Rec 1MS	%Rec 1MSD	Qualifier	Associated Sample
Chloromethane	35.0	36.0	UJ	1
Naphthalene	65.4	63.5	UJ	1

Some target analytes were outside QC limits in the matrix spike or the matrix spike duplicate but not both, so no further action is required.

Cosco, Spring Valley, NY

SDG# 22G1491

COMPOUND QUANTITATION

All criteria were met.

INITIAL CALIBRATION

All criteria were met except the %D of a couple of target analytes were outside QC limits in the initial calibration verification. These target analytes should be qualified as estimated in the associated blanks, samples and spikes.

Ical/ICV instrument or ID	Target Analyte	RRF/%D	Qualifier	Associated Sample
S049200-ICV	Chloromethane	-54.5	UJ/J	B314020, 1-4
S049200-ICV	Bromomethane	-37.4	UJ/J	B314020, 1-4

Alternate forms of regression were performed on some target analytes, with acceptable results.

CONTINUING CALIBRATION

All criteria were met except several target analytes were outside QC limits in the continuing calibrations and should be qualified as estimated in the associated samples, blanks and spikes.

CCal ID	Target Analyte	%D/RRF	Qualifier	Associated Sample
S074616-CCV1	Chloromethane	-67.4	UJ/J	B314020, 1-4
S074616-CCV1	1,2-Dibromo-3-chloropropane	-34.9	UJ/J	B314020, 1-4
S074616-CCV1	Naphthalene	-37.8	UJ/J	B314020, 1-4
S074616-CCV1	Bromochloromethane	27.1	UJ/J	B314020, 1-4
S074616-CCV1	tert-Butyl alcohol	-20.8	UJ/J	B314020, 1-4

Some target analytes were outside laboratory QC limits but within NFG QC limits, so no further action is required.

GC/MS PERFORMANCE CHECK

All criteria were met.

CASE NARRATIVE SUMMARY

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

REVISED 1/9/23: Report revised to include MS/MSD results previously analyzed set to not report.

REVISED 9/21/22: Per client request, sample collection date for sample -04 and sample ID for sample -05 revised.

REVISED 9/9/22: Per client request, all magnesium, sodium and MS/MSD have been removed from final report.

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

SW-846 8260D

Qualifications:

L-04

Laboratory fortified blank/laboratory control sample recovery and duplicate recovery are outside of control limits. Reported value for this compound is likely to be biased on the low side.

Analyte & Samples(s) Qualified:

Chloromethane

22G1491-01[MW-18-072622], 22G1491-02[INJ-2S-072622], 22G1491-03[GW-4S-072622], 22G1491-04[INJ-1S-072622], 22G1491-05[GP-4D-072622], 22G1491-06[X-02-072622], 22G1491-07[Trip Blank01-072622], B314020-BLK1, B314020-BS1, B314020-BSD1, B314020-MS1, B314020-MS2, B314020-MSD1, B314020-MSD2, S074616-CCV1

L-07

Either laboratory fortified blank/laboratory control sample or duplicate recovery is outside of control limits, but the other is within limits. RPD between the two LFB/LCS results is within method specified criteria.

Analyte & Samples(s) Qualified:

1,2-Dibromo-3-chloropropane (DBCP)

B314020-BSD1

MS-09

Matrix spike recovery and/or matrix spike duplicate recovery outside of control limits. Possibility of sample matrix effects that lead to a low bias for reported result or non-homogeneous sample aliquots cannot be eliminated.

Analyte & Samples(s) Qualified:

Chloromethane

B314020-MS1, B314020-MS2, B314020-MSD1, B314020-MSD2

Naphthalene

B314020-MS1, B314020-MS2, B314020-MSD1, B314020-MSD2

MS-22

Either matrix spike or MS duplicate is outside of control limits, but the other is within limits. RPD between the two MS/MSD results is within method specified criteria.

Analyte & Samples(s) Qualified:

1,2,3-Trichlorobenzene

B314020-MSD1

1,2-Dibromo-3-chloropropane (DBCP)

B314020-MSD1

Bromochloromethane

B314020-MS2

Methyl Acetate

B314020-MSD1

MS-24

Either matrix spike or matrix spike duplicate is outside of control limits, but the other is within limits. Analysis is in control based on laboratory fortified blank recovery.

Analyte & Samples(s) Qualified:

Bromomethane

B314020-MS2

cis-1,2-Dichloroethylene

B314020-MS1

Vinyl Chloride

B314020-MS1

RL-11

Elevated reporting limit due to high concentration of target compounds.

Analyte & Samples(s) Qualified:

22G1491-02[INJ-2S-072622], 22G1491-04[INJ-1S-072622], 22G1491-06[X-02-072622]

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

V-05

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

Analyte & Samples(s) Qualified:**1,2,3-Trichlorobenzene**

22G1491-01[MW-18-072622], 22G1491-02[INJ-2S-072622], 22G1491-03[GW-4S-072622], 22G1491-04[INJ-1S-072622], 22G1491-05[GP-4D-072622], 22G1491-06[X-02-072622], 22G1491-07[Trip Blank01-072622], B314020-BLK1, B314020-BS1, B314020-BSD1, B314020-MS1, B314020-MS2, B314020-MSD1, B314020-MSD2, S074616-CCV1

1,2-Dibromo-3-chloropropane (DBCP)

22G1491-01[MW-18-072622], 22G1491-02[INJ-2S-072622], 22G1491-03[GW-4S-072622], 22G1491-04[INJ-1S-072622], 22G1491-05[GP-4D-072622], 22G1491-06[X-02-072622], 22G1491-07[Trip Blank01-072622], B314020-BLK1, B314020-BS1, B314020-BSD1, B314020-MS1, B314020-MS2, B314020-MSD1, B314020-MSD2, S074616-CCV1

2-Butanone (MEK)

22G1491-01[MW-18-072622], 22G1491-02[INJ-2S-072622], 22G1491-03[GW-4S-072622], 22G1491-04[INJ-1S-072622], 22G1491-05[GP-4D-072622], 22G1491-06[X-02-072622], 22G1491-07[Trip Blank01-072622], B314020-BLK1, B314020-BS1, B314020-BSD1, B314020-MS1, B314020-MS2, B314020-MSD1, B314020-MSD2, S074616-CCV1

Acetone

22G1491-01[MW-18-072622], 22G1491-02[INJ-2S-072622], 22G1491-03[GW-4S-072622], 22G1491-04[INJ-1S-072622], 22G1491-05[GP-4D-072622], 22G1491-06[X-02-072622], 22G1491-07[Trip Blank01-072622], B314020-BLK1, B314020-BS1, B314020-BSD1, B314020-MS1, B314020-MS2, B314020-MSD1, B314020-MSD2, S074616-CCV1

Chloromethane

22G1491-01[MW-18-072622], 22G1491-02[INJ-2S-072622], 22G1491-03[GW-4S-072622], 22G1491-04[INJ-1S-072622], 22G1491-05[GP-4D-072622], 22G1491-06[X-02-072622], 22G1491-07[Trip Blank01-072622], B314020-BLK1, B314020-BS1, B314020-BSD1, B314020-MS1, S074616-CCV1

Methyl Acetate

22G1491-01[MW-18-072622], 22G1491-02[INJ-2S-072622], 22G1491-03[GW-4S-072622], 22G1491-04[INJ-1S-072622], 22G1491-05[GP-4D-072622], 22G1491-06[X-02-072622], 22G1491-07[Trip Blank01-072622], B314020-BLK1, B314020-BS1, B314020-BSD1, B314020-MS1, B314020-MS2, B314020-MSD1, B314020-MSD2, S074616-CCV1

Naphthalene

22G1491-01[MW-18-072622], 22G1491-02[INJ-2S-072622], 22G1491-03[GW-4S-072622], 22G1491-04[INJ-1S-072622], 22G1491-05[GP-4D-072622], 22G1491-06[X-02-072622], 22G1491-07[Trip Blank01-072622], B314020-BLK1, B314020-BS1, B314020-BSD1, B314020-MS1, B314020-MS2, B314020-MSD1, B314020-MSD2, S074616-CCV1

tert-Butyl Alcohol (TBA)

22G1491-01[MW-18-072622], 22G1491-02[INJ-2S-072622], 22G1491-03[GW-4S-072622], 22G1491-04[INJ-1S-072622], 22G1491-05[GP-4D-072622], 22G1491-06[X-02-072622], 22G1491-07[Trip Blank01-072622], B314020-BLK1, B314020-BS1, B314020-BSD1, B314020-MS1, B314020-MS2, B314020-MSD1, B314020-MSD2, S074616-CCV1

V-20

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

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

B314020-BS1, B314020-BSD1, B314020-MS1, B314020-MS2, B314020-MSD1, B314020-MSD2, S074616-CCV1

V-34

Initial calibration verification (ICV) did not meet method specifications and was biased on the low side for this compound. Reported result is estimated.

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

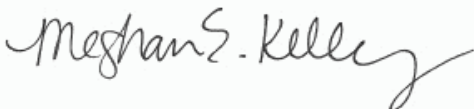
22G1491-01[MW-18-072622], 22G1491-02[INJ-2S-072622], 22G1491-03[GW-4S-072622], 22G1491-04[INJ-1S-072622], 22G1491-05[GP-4D-072622], 22G1491-06[X-02-072622], 22G1491-07[Trip Blank01-072622], B314020-BLK1, B314020-BS1, B314020-BSD1, B314020-MS1, B314020-MS2, B314020-MSD1, B314020-MSD2, S074616-CCV1

Chloromethane

22G1491-01[MW-18-072622], 22G1491-02[INJ-2S-072622], 22G1491-03[GW-4S-072622], 22G1491-04[INJ-1S-072622], 22G1491-05[GP-4D-072622], 22G1491-06[X-02-072622], 22G1491-07[Trip Blank01-072622], B314020-BLK1, B314020-BS1, B314020-BSD1, B314020-MS1, B314020-MS2, B314020-MSD1, B314020-MSD2, S074616-CCV1

The results of analyses reported only relate to samples submitted to Con-Test, a Pace Analytical Laboratory, for testing.

I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.



Meghan E. Kelley
Reporting Specialist

Data Usability Summary Report

Vali-Data of WNY, LLC
20 Hickory Grove Spur
Fulton, NY 13069

Cosco, Spring Valley, NY
Pace/Con-test SDG#22G1596
November 7, 2022
Sampling date: 7/27/2022

Prepared by:
Jodi Zimmerman
Vali-Data of WNY, LLC
20 Hickory Grove Spur
Fulton, NY 13069

Cosco, Spring Valley, NY
SDG# 22G1596

DELIVERABLES

This Data Usability Summary Report (DUSR) was prepared by evaluating the analytical data package for Ramboll US Consulting, Inc., project located at Cosco, Spring Valley, NY, Pace/Contest SDG#22G1596 submitted to Vali-Data of WNY, LLC on September 28, 2022. This DUSR has been prepared in general compliance USEPA National Functional Guidelines (NFG) and NYSDEC Analytical Services Protocols. The laboratory performed the analysis using USEPA method Volatile Organics (8260D).

ID	Sample ID	Laboratory ID
1	RW-8S-072722	22G1596-01
2	RW-3D-072722	22G1596-03
3	RW-1S-072722	22G1596-04
4	DW-1-072722	22G1596-05
5	MW-3-072722	22G1596-07
6	X-01-072722	22G1596-08
7	Trip Blank 02-072722	22G1596-09

VOLATILE ORGANIC COMPOUNDS

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Internal Standard (IS) Area Performance
- Surrogate Spike Recoveries
- Method Blank
- Field Duplicate Sample Precision
- Laboratory Control Samples
- MS/MSD
- Compound Quantitation
- Initial Calibration
- Continuing Calibration
- GC/MS Performance Check

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above and qualified accordingly.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use except where qualified below in Laboratory Control Samples,

Cosco, Spring Valley, NY

SDG# 22G1596

Initial Calibration and Continuing Calibration.

Sample: DUSR ID#2 was diluted due to high target analyte concentrations.

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

HOLDING TIMES

All holding times were met.

INTERNAL STANDARD (IS)

All criteria were met.

SURROGATE SPIKE RECOVERIES

All criteria were met.

METHOD BLANK

All criteria were met.

FIELD DUPLICATE SAMPLE PRECISION

All criteria were met.

LABORATORY CONTROL SAMPLES

All criteria were met except a target analyte was outside QC limits in B314114-BS1/BSD1 and should be qualified as estimated.

Target Analyte	LCS %Rec	LCSD %Rec	Qualifier	Associated Sample
Chloromethane	35.1	36.4	UJ	1-7

MS/MSD

No MS/MSD was acquired.

COMPOUND QUANTITATION

All criteria were met.

INITIAL CALIBRATION

All criteria were met except the %D of a couple of target analytes were outside QC limits in the initial calibration verification. These target analytes should be qualified as estimated in the

associated blanks, samples and spikes.

Ical/ICV instrument or ID	Target Analyte	RRF/%D	Qualifier	Associated Sample
S049200-ICV	Chloromethane	-54.5	UJ/J	B314114, 1-7
S049200-ICV	Bromomethane	-37.4	UJ/J	B314114, 1-7

Alternate forms of regression were performed on some target analytes, with acceptable results.

CONTINUING CALIBRATION

All criteria were met except several target analytes were outside QC limits in the continuing calibrations and should be qualified as estimated in the associated samples, blanks and spikes.

CCal ID	Target Analyte	%D/RRF	Qualifier	Associated Sample
S074631-CCV1	Chloromethane	-67.2	UJ/J	B314114, 1-7
S074631-CCV1	1,2-Dibromo-3-chloropropane	-33.9	UJ/J	B314114, 1-7
S074631-CCV1	Naphthalene	-37.7	UJ/J	B314114, 1-7
S074631-CCV1	Hexachlorobutadiene	-20.7	UJ/J	B314114, 1-7

Some target analytes were outside laboratory QC limits but within NFG QC limits, so no further action is required.

GC/MS PERFORMANCE CHECK

All criteria were met.

CASE NARRATIVE SUMMARY

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

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

SW-846 6010D

Qualifications:

MS-19

Sample to spike ratio is greater than or equal to 4:1. Spiked amount is not representative of the native amount in the sample. Appropriate or meaningful recoveries cannot be calculated.

Analyte & Samples(s) Qualified:

Sodium

22G1596-02[BDW-1S-072722], B314278-MS1

R-04

Duplicate relative percent difference (RPD) is a less useful indicator of sample precision for sample results that are <5 times the reporting limit (RL).

Analyte & Samples(s) Qualified:

Manganese

22G1596-02[BDW-1S-072722], B314278-DUP1

SW-846 8260D

Qualifications:

L-04

Laboratory fortified blank/laboratory control sample recovery and duplicate recovery are outside of control limits. Reported value for this compound is likely to be biased on the low side.

Analyte & Samples(s) Qualified:

Chloromethane

22G1596-01[RW-8S-072722], 22G1596-02[BDW-1S-072722], 22G1596-03[RW-3D-072722], 22G1596-04[RW-1S-072722], 22G1596-05[DW-1-072722], 22G1596-06[BDW-2S-072722], 22G1596-07[MW-3-072722], 22G1596-08[X-01-072722], 22G1596-09[Trip Blank 02-072722], B314114-BLK1, B314114-BS1, B314114-BSD1, S074631-CCV1

L-07

Either laboratory fortified blank/laboratory control sample or duplicate recovery is outside of control limits, but the other is within limits. RPD between the two LFB/LCS results is within method specified criteria.

Analyte & Samples(s) Qualified:

1,2-Dibromo-3-chloropropane (DBP)

B314114-BS1

RL-11

Elevated reporting limit due to high concentration of target compounds.

Analyte & Samples(s) Qualified:

22G1596-02[BDW-1S-072722], 22G1596-03[RW-3D-072722]

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

V-05

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

Analyte & Samples(s) Qualified:**1,2,3-Trichlorobenzene**

22G1596-01[RW-8S-072722], 22G1596-02[BDW-1S-072722], 22G1596-03[RW-3D-072722], 22G1596-04[RW-1S-072722], 22G1596-05[DW-1-072722], 22G1596-06[BDW-2S-072722], 22G1596-07[MW-3-072722], 22G1596-08[X-01-072722], 22G1596-09[Trip Blank 02-072722], B314114-BLK1, B314114-BS1, B314114-BSD1, S074631-CCV1

1,2-Dibromo-3-chloropropane (DBP)

22G1596-01[RW-8S-072722], 22G1596-02[BDW-1S-072722], 22G1596-03[RW-3D-072722], 22G1596-04[RW-1S-072722], 22G1596-05[DW-1-072722], 22G1596-06[BDW-2S-072722], 22G1596-07[MW-3-072722], 22G1596-08[X-01-072722], 22G1596-09[Trip Blank 02-072722], B314114-BLK1, B314114-BS1, B314114-BSD1, S074631-CCV1

2-Butanone (MEK)

22G1596-01[RW-8S-072722], 22G1596-02[BDW-1S-072722], 22G1596-03[RW-3D-072722], 22G1596-04[RW-1S-072722], 22G1596-05[DW-1-072722], 22G1596-06[BDW-2S-072722], 22G1596-07[MW-3-072722], 22G1596-08[X-01-072722], 22G1596-09[Trip Blank 02-072722], B314114-BLK1, B314114-BS1, B314114-BSD1, S074631-CCV1

Acetone

22G1596-01[RW-8S-072722], 22G1596-02[BDW-1S-072722], 22G1596-03[RW-3D-072722], 22G1596-04[RW-1S-072722], 22G1596-05[DW-1-072722], 22G1596-06[BDW-2S-072722], 22G1596-07[MW-3-072722], 22G1596-08[X-01-072722], 22G1596-09[Trip Blank 02-072722], B314114-BLK1, B314114-BS1, B314114-BSD1, S074631-CCV1

Chloromethane

22G1596-01[RW-8S-072722], 22G1596-02[BDW-1S-072722], 22G1596-03[RW-3D-072722], 22G1596-04[RW-1S-072722], 22G1596-05[DW-1-072722], 22G1596-06[BDW-2S-072722], 22G1596-07[MW-3-072722], 22G1596-08[X-01-072722], 22G1596-09[Trip Blank 02-072722], B314114-BLK1, B314114-BS1, B314114-BSD1, S074631-CCV1

Hexachlorobutadiene

22G1596-01[RW-8S-072722], 22G1596-02[BDW-1S-072722], 22G1596-03[RW-3D-072722], 22G1596-04[RW-1S-072722], 22G1596-05[DW-1-072722], 22G1596-06[BDW-2S-072722], 22G1596-07[MW-3-072722], 22G1596-08[X-01-072722], 22G1596-09[Trip Blank 02-072722], B314114-BLK1, B314114-BS1, B314114-BSD1, S074631-CCV1

Methyl Acetate

22G1596-01[RW-8S-072722], 22G1596-02[BDW-1S-072722], 22G1596-03[RW-3D-072722], 22G1596-04[RW-1S-072722], 22G1596-05[DW-1-072722], 22G1596-06[BDW-2S-072722], 22G1596-07[MW-3-072722], 22G1596-08[X-01-072722], 22G1596-09[Trip Blank 02-072722], B314114-BLK1, B314114-BS1, B314114-BSD1, S074631-CCV1

Naphthalene

22G1596-01[RW-8S-072722], 22G1596-02[BDW-1S-072722], 22G1596-03[RW-3D-072722], 22G1596-04[RW-1S-072722], 22G1596-05[DW-1-072722], 22G1596-06[BDW-2S-072722], 22G1596-07[MW-3-072722], 22G1596-08[X-01-072722], 22G1596-09[Trip Blank 02-072722], B314114-BLK1, B314114-BS1, B314114-BSD1, S074631-CCV1

V-20

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

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

B314114-BS1, B314114-BSD1, S074631-CCV1

V-34

Initial calibration verification (ICV) did not meet method specifications and was biased on the low side for this compound. Reported result is estimated.

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

22G1596-01[RW-8S-072722], 22G1596-02[BDW-1S-072722], 22G1596-03[RW-3D-072722], 22G1596-04[RW-1S-072722], 22G1596-05[DW-1-072722], 22G1596-06[BDW-2S-072722], 22G1596-07[MW-3-072722], 22G1596-08[X-01-072722], 22G1596-09[Trip Blank 02-072722], B314114-BLK1, B314114-BS1, B314114-BSD1, S074631-CCV1

Chloromethane

22G1596-01[RW-8S-072722], 22G1596-02[BDW-1S-072722], 22G1596-03[RW-3D-072722], 22G1596-04[RW-1S-072722], 22G1596-05[DW-1-072722], 22G1596-06[BDW-2S-072722], 22G1596-07[MW-3-072722], 22G1596-08[X-01-072722], 22G1596-09[Trip Blank 02-072722], B314114-BLK1, B314114-BS1, B314114-BSD1, S074631-CCV1

The results of analyses reported only relate to samples submitted to Con-Test, a Pace Analytical Laboratory, for testing.

I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

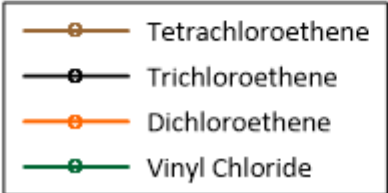
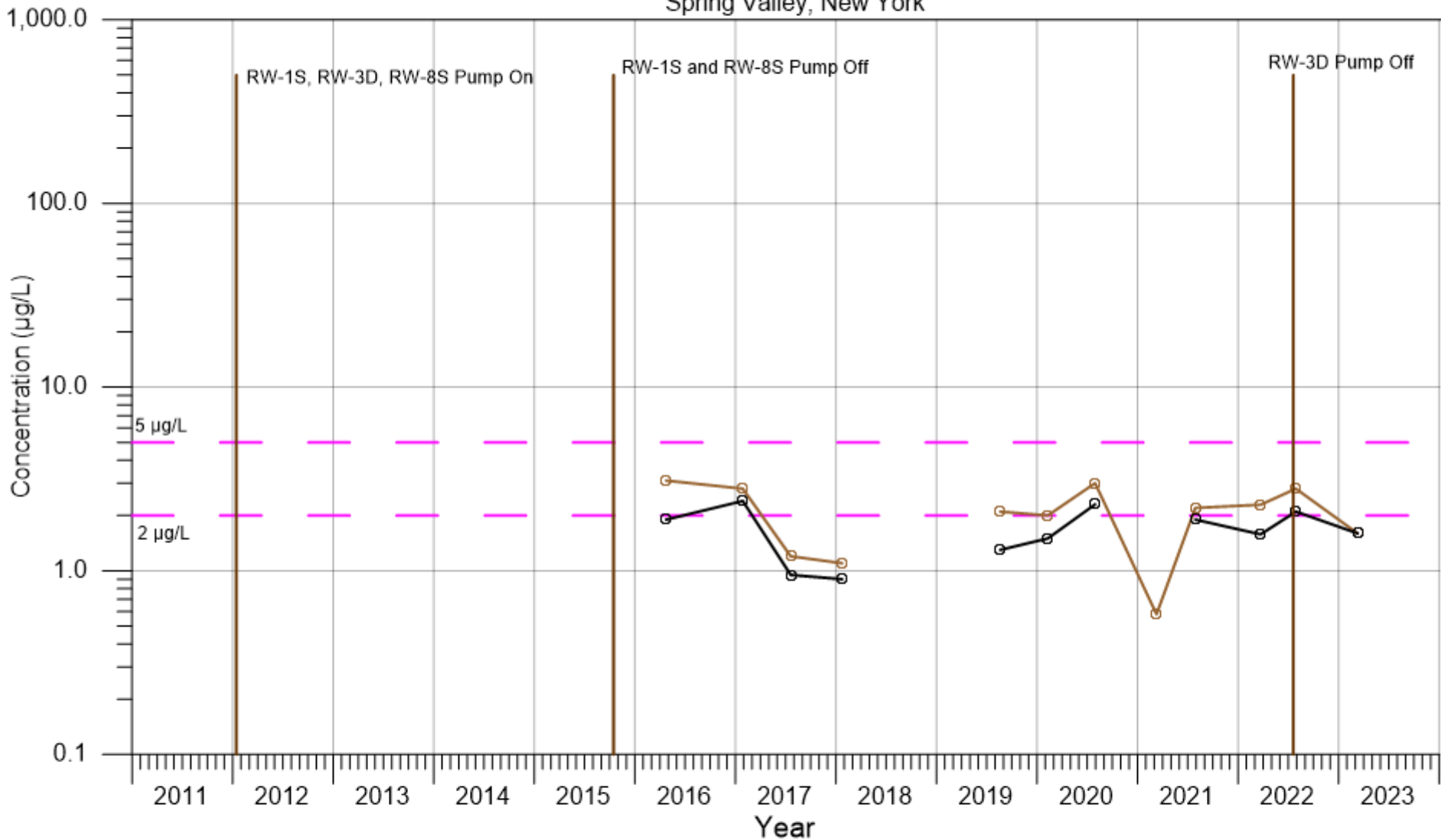


Lisa A. Worthington
Technical Representative

APPENDIX G
CONCENTRATION TREND PLOTS OF SITE CONSTITUENTS OF CONCERN

Concentrations of PCE, TCE, DCE, and VC at Monitoring Well DW-1

NYSDEC COSCO Site
Spring Valley, New York

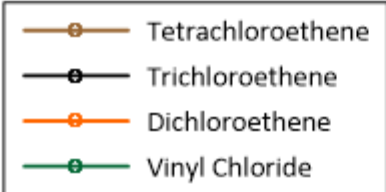
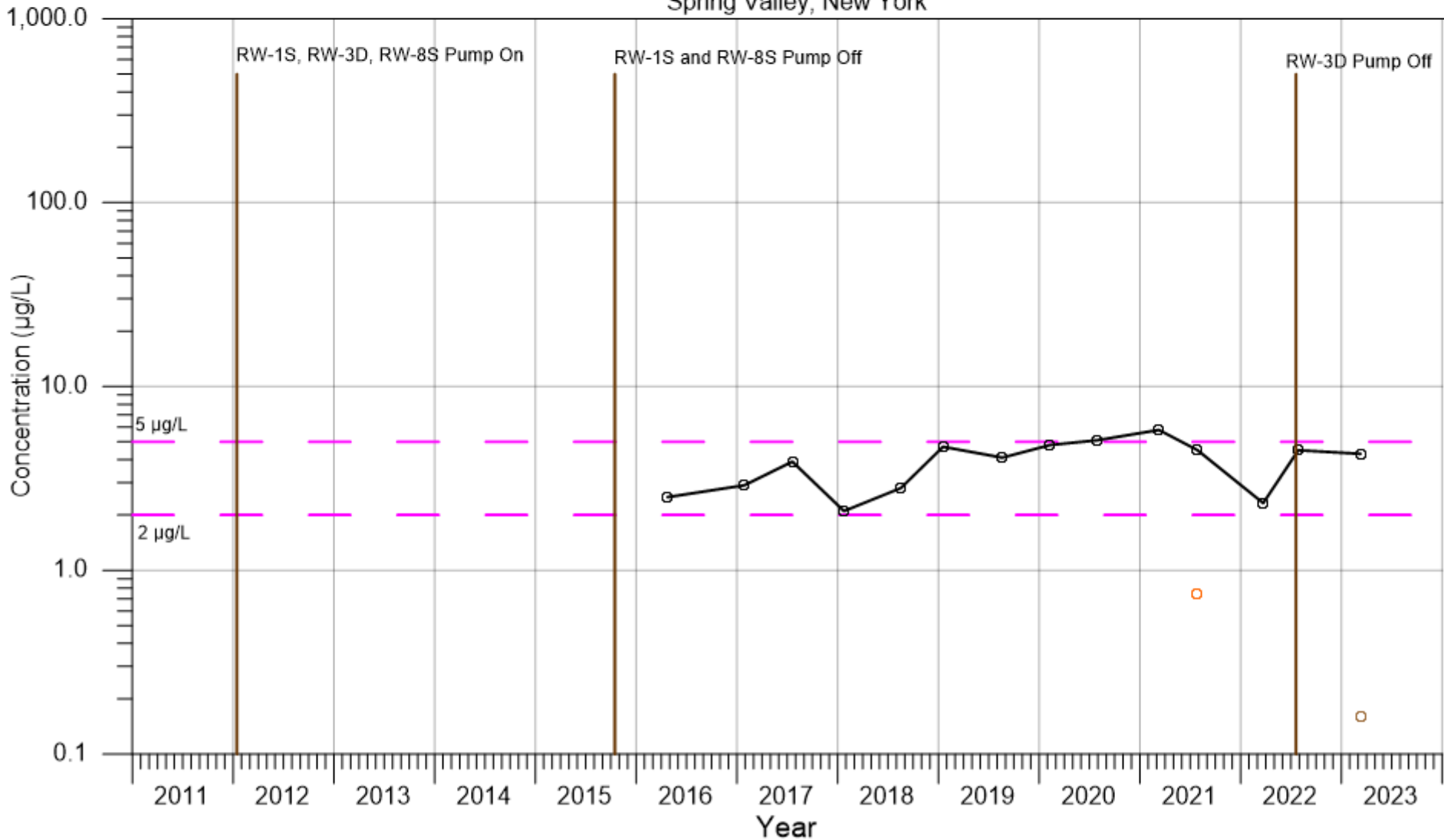


Notes:

1. The sum of cis-1,2-dichloroethene and trans-1,2-dichloroethene is plotted.
2. The Class GA Standard of 2 micrograms per liter (ug/L) for vinyl chloride is shown.
3. The Class GA Standard of 5 ug/L for tetrachloroethene and trichloroethene is shown.
4. To be conservative, the individual Class GA Standard is plotted for cis-1,2-dichloroethene and trans-1,2-dichloroethene, 5 ug/L.
5. For clarity, non-detects are not shown.

Concentrations of PCE, TCE, DCE, and VC at Monitoring Well GW-4S

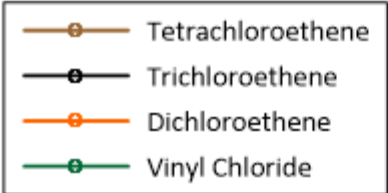
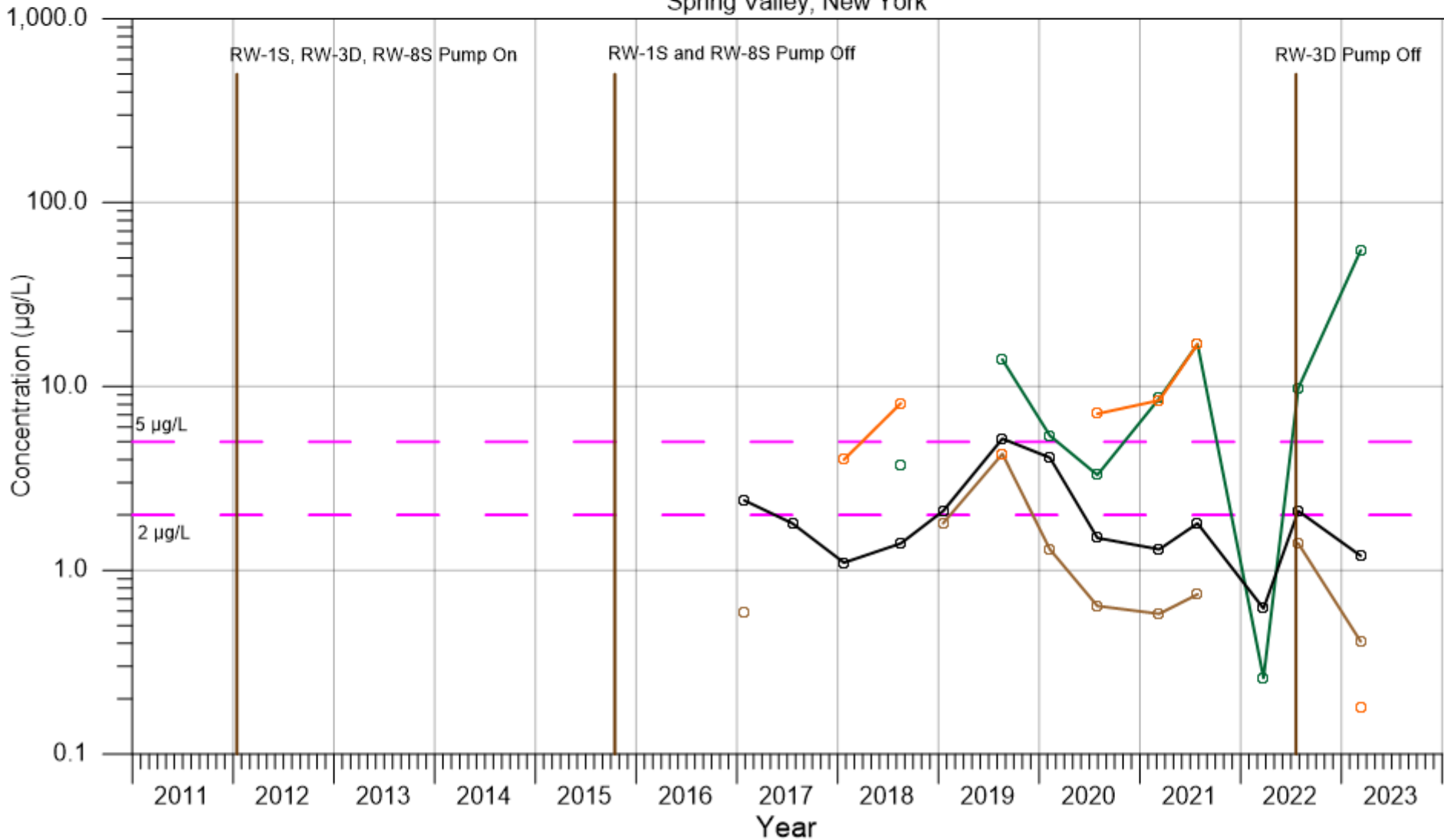
NYSDEC COSCO Site
Spring Valley, New York



- Notes:**
1. The sum of cis-1,2-dichloroethene and trans-1,2-dichloroethene is plotted.
 2. The Class GA Standard of 2 micrograms per liter (ug/L) for vinyl chloride is shown.
 3. The Class GA Standard of 5 ug/L for tetrachloroethene and trichloroethene is shown.
 4. To be conservative, the individual Class GA Standard is plotted for cis-1,2-dichloroethene and trans-1,2-dichloroethene, 5 ug/L.
 5. For clarity, non-detects are not shown.

Concentrations of PCE, TCE, DCE, and VC at Monitoring Well MW-18

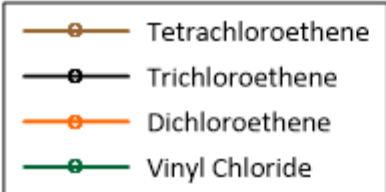
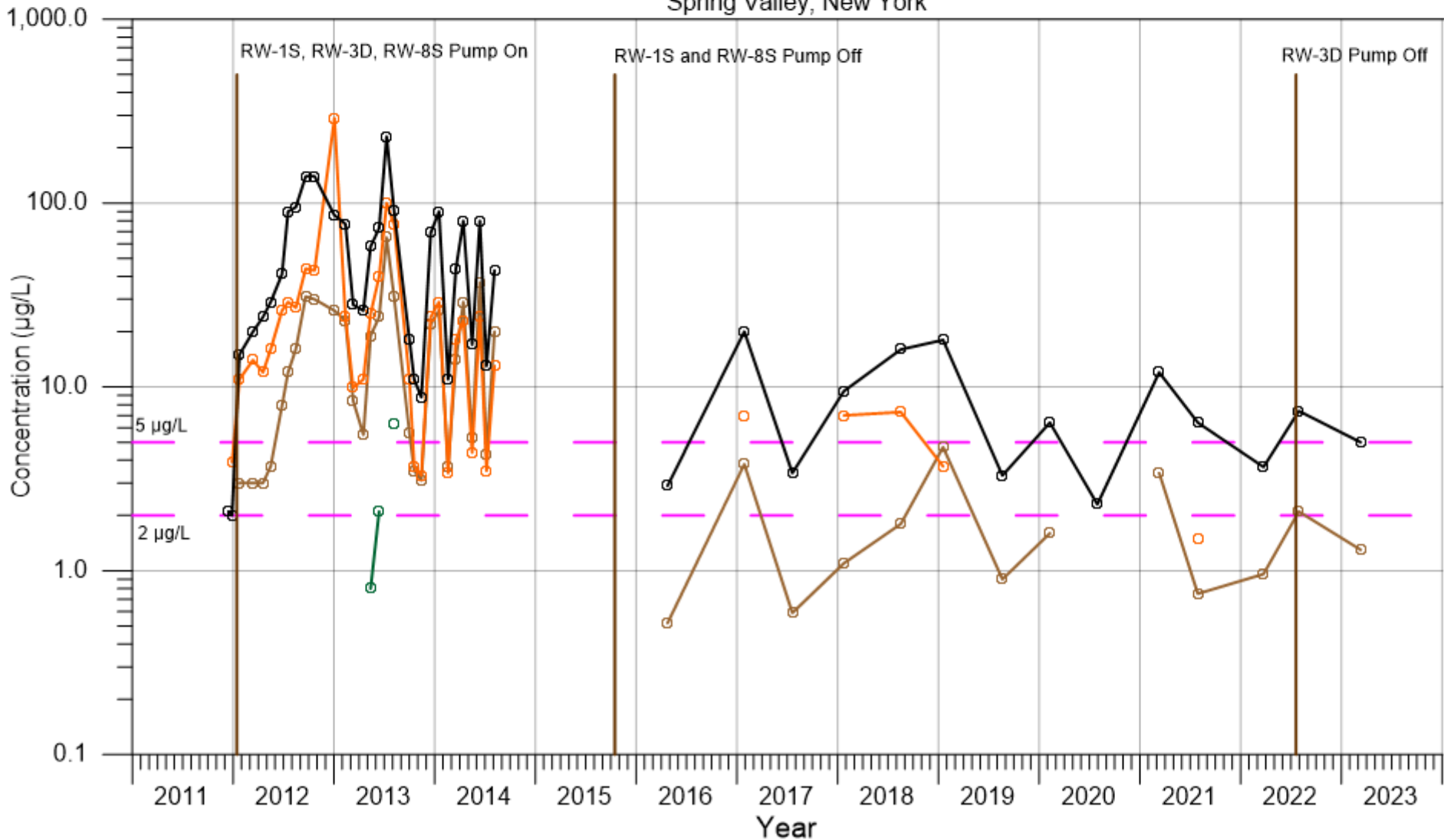
NYSDEC COSCO Site
Spring Valley, New York



- Notes:**
1. The sum of cis-1,2-dichloroethene and trans-1,2-dichloroethene is plotted.
 2. The Class GA Standard of 2 micrograms per liter (ug/L) for vinyl chloride is shown.
 3. The Class GA Standard of 5 ug/L for tetrachloroethene and trichloroethene is shown.
 4. To be conservative, the individual Class GA Standard is plotted for cis-1,2-dichloroethene and trans-1,2-dichloroethene, 5 ug/L.
 5. For clarity, non-detects are not shown.

Concentrations of PCE, TCE, DCE, and VC at Recovery Well RW-1S

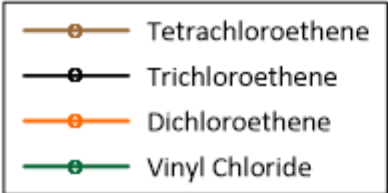
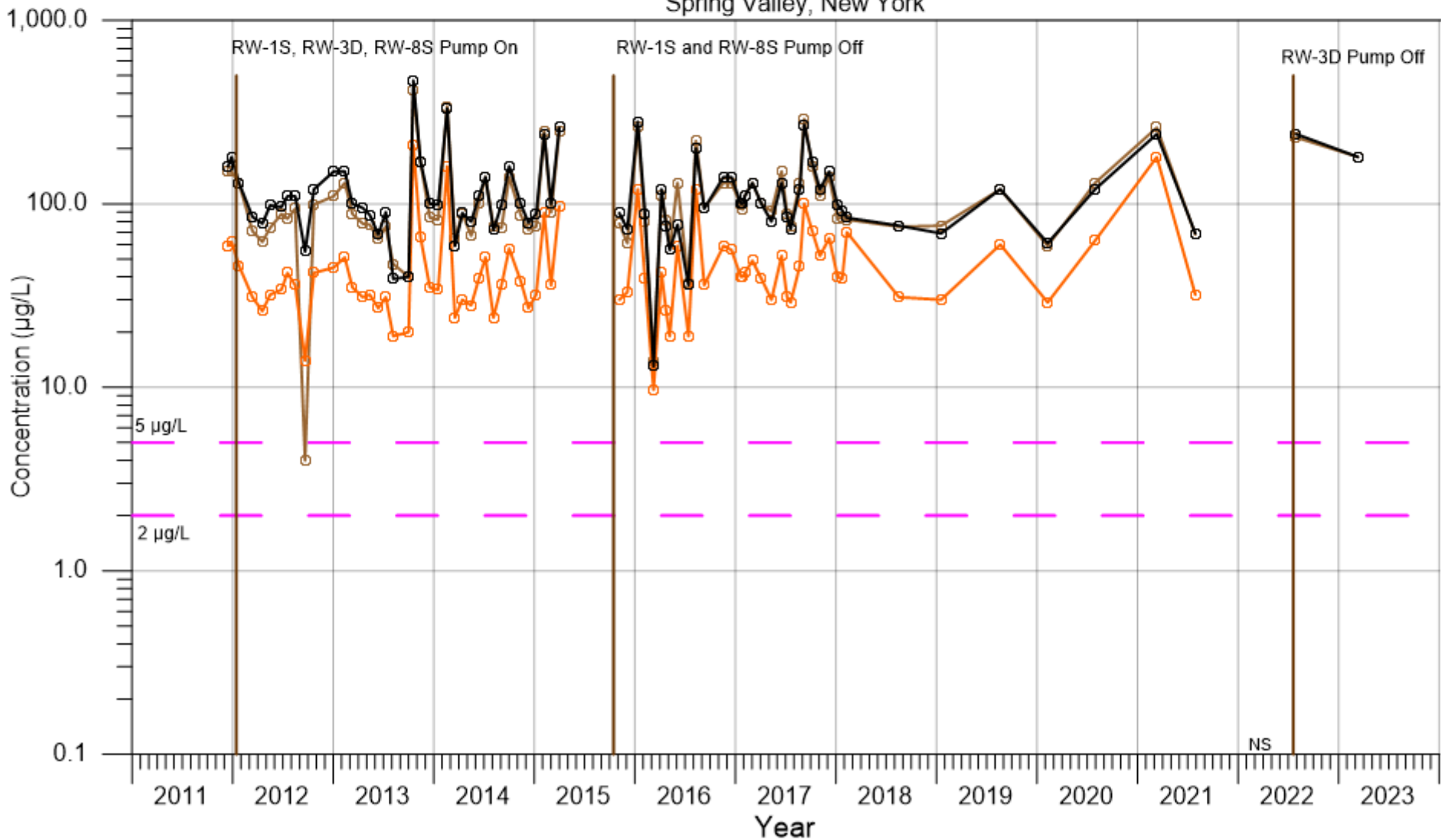
NYSDEC COSCO Site
Spring Valley, New York



- Notes:**
1. The sum of cis-1,2-dichloroethene and trans-1,2-dichloroethene is plotted.
 2. The Class GA Standard of 2 micrograms per liter (µg/L) for vinyl chloride is shown.
 3. The Class GA Standard of 5 µg/L for tetrachloroethene and trichloroethene is shown.
 4. To be conservative, the individual Class GA Standard is plotted for cis-1,2-dichloroethene and trans-1,2-dichloroethene, 5 µg/L.
 5. For clarity, non-detects are not shown.

Concentrations of PCE, TCE, DCE, and VC at Recovery Well RW-3D

NYSDEC COSCO Site
Spring Valley, New York

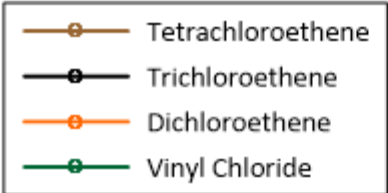
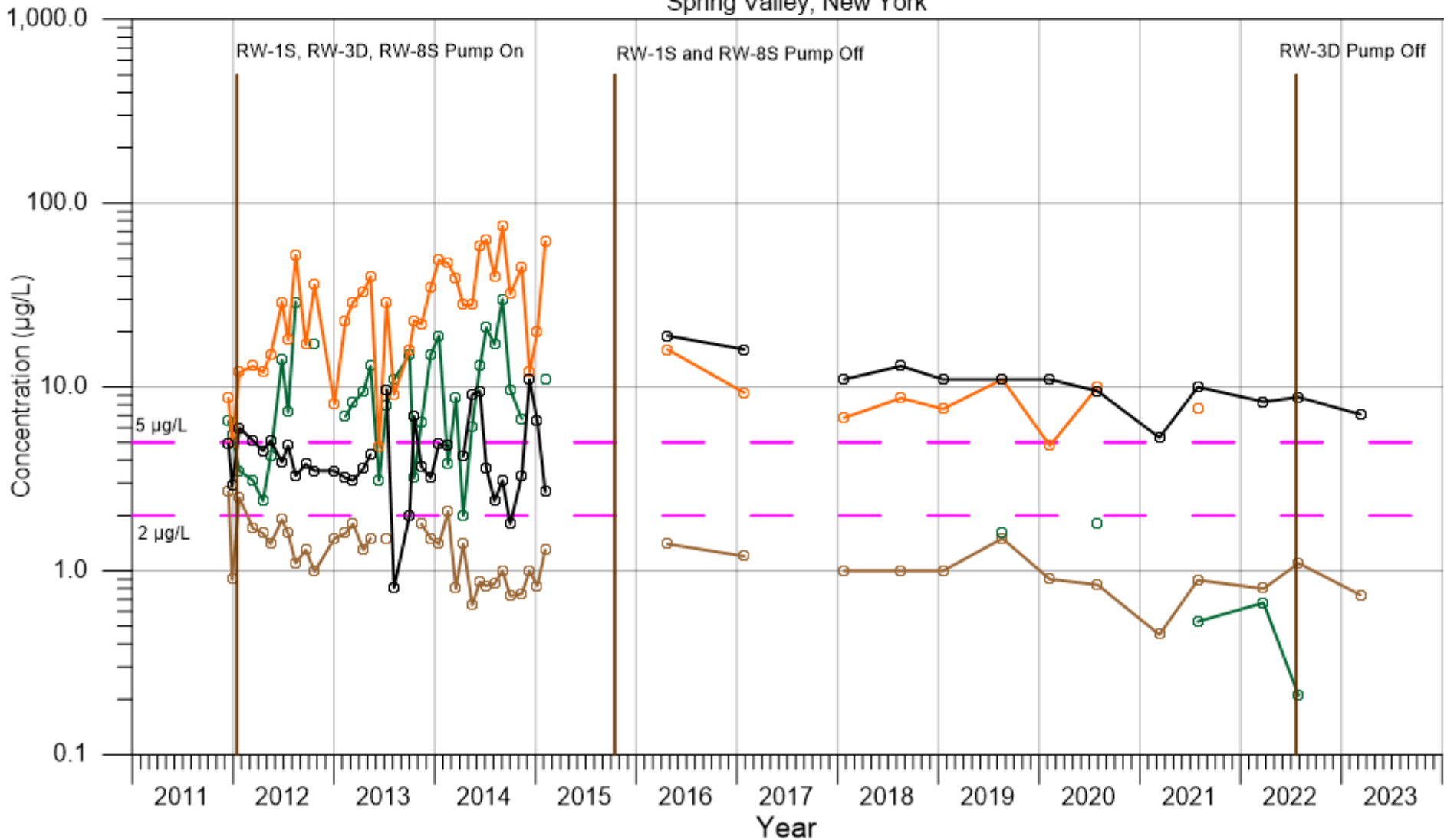


Notes:

1. The sum of cis-1,2-dichloroethene and trans-1,2-dichloroethene is plotted.
2. The Class GA Standard of 2 micrograms per liter (ug/L) for vinyl chloride is shown.
3. The Class GA Standard of 5 ug/L for tetrachloroethene and trichloroethene is shown.
4. To be conservative, the individual Class GA Standard is plotted for cis-1,2-dichloroethene and trans-1,2-dichloroethene, 5 ug/L.
5. For clarity, non-detects are not shown.
6. "NS" indicates that RW-3D was not sampled in April 2022.

Concentrations of PCE, TCE, DCE, and VC at Recovery Well RW-8S

NYSDEC COSCO Site
Spring Valley, New York



Notes:

1. The sum of cis-1,2-dichloroethene and trans-1,2-dichloroethene is plotted.
2. The Class GA Standard of 2 micrograms per liter (ug/L) for vinyl chloride is shown.
3. The Class GA Standard of 5 ug/L for tetrachloroethene and trichloroethene is shown.
4. To be conservative, the individual Class GA Standard is plotted for cis-1,2-dichloroethene and trans-1,2-dichloroethene, 5 ug/L.
5. For clarity, non-detects are not shown.

APPENDIX H
QUARTERLY OPERATING SUMMARY REPORTS

April 10, 2022

Robert Strang, E.I.T.
New York State Department of Environmental Conservation
Remedial Section D, Bureau E
Division of Environmental Remediation
625 Broadway
Albany, NY 12233-7014

**RE: Second Quarter 2022 Operating Summary Report – Cosco Site
Site Number 344035**

Mr. Strang,

LaBella Associates (LaBella) has prepared the following correspondence to summarize the operation and maintenance (O&M) activities and laboratory analytical results for the New York State Department of Environmental Conservation (NYSDEC) COSCO site located in Spring Valley, New York. The activities summarized within this report include the Second quarter of 2022 operation and maintenance O&M, and system sampling events conducted by LaBella. Typical tasks performed during O&M activities include:

- System performance readings (flow, pressure, control settings);
- Well gauging;
- Monthly system sampling and laboratory analysis;
- System maintenance;
- Grounds maintenance.

Non-routing O&M activities include:

- Annual SSDS inspection;
- Semi-annual site-wide sampling

Non-routine O&M activities are reported in separate reports.

Site Background

The site is located in the Village of Spring Valley, Rockland County, New York. The site is bordered by a Conrail right of way to the north, West Central Avenue to the south, West Street to the east. The western end of the site is bounded by the intersection between the Conrail right of way and West Central Avenue (**Figure 1**).

The Consolidated Stamp Company (COSCO) historically used trichloroethylene (TCE) in a vapor degreasing process as part of their operation and also discharged wastewater containing TCE into a drainage feature known as the “Reach B Diversion”.

The remedial objective for groundwater at the COSCO site (as per the August 1999 Amendment to the Record of Decision) is to contain the site related contaminants by extracting groundwater from overburden and bedrock, treat the groundwater onsite to remove volatile organic compounds



(VOC's), and discharge the treated groundwater. The primary contaminants of concern (COCs) are TCE, tetrachloroethylene (PCE) and Cis-1-2-dichloroethene (DCE), and degradation byproducts.

The site includes eight (8) groundwater monitoring and/or recovery wells from which monitoring of groundwater quality can be conducted. Five (5) of these wells are completed within the shallow unconsolidated deposits and three (3) are completed within the bedrock.

The current groundwater extraction and treatment (GWE&T) system became operational at the site in January, 2012. This system has extracted groundwater from the overburden via recovery wells RW-1S and RW-8S, and from the bedrock via well RW-3D. The GWE&T system currently extracts groundwater from the bedrock lift well RW-3D. Extracted groundwater is conveyed via underground piping from the recovery well(s) to the treatment system shed located in the area along the Conrail right of way north of the COSCO building. The extracted groundwater is temporarily held in a 1,500-gallon polyethylene batch tank prior to treatment. Treatment is via two (2) bag filter units (connected in a parallel configuration) followed by air stripping. Once air stripping is completed, the treated water is discharged to the "Reach B Diversion" via underground piping.

Procedures

The GWE&T system O&M is via a combination of daily e-mails from the systems programmable logic controller (PLC), and bi-weekly site visits. The daily emails include specific system performance readings (flows, pressures, etc.) that help to evaluate system performance and anticipate O&M tasks to be performed during the bi-weekly site visits.

- System Performance Readings:
 - System Flow – system flow rate and flow total data is transmitted daily via email. Data includes flow rate from active recovery well(s) (currently RW-3D) and flow total from discharge. The emails also include data regarding system operational status and system alarms.
 - System Pressure –Pressure readings are recorded during site inspections. Pressure readings are recorded at: the transfer pump; at each bag filter, and; at the effluent pump. Pressure readings are also monitored via the daily emails at each bag filter and the air stripper.
 - Control Settings – Transfer pump, effluent pump and air stripper blower variable frequency drive (VFD) readings are recorded during bi-weekly site inspections. This data is monitored to ensure that the system motors are operating within prescribed parameters.
- Well Gauging –The eight (8) site wells are gauged during site visits to determine the depth to groundwater using an electronic water level meter graduated in 0.01 foot intervals. Groundwater measurements are taken from the top of well casings. The wells are gauged: while the remedial system is running; immediately after the system is shutdown, and; 30 minutes after the system is shutdown. The system is restarted when gauging is completed.
- Monthly System Sampling and Laboratory Analysis – The system influent and effluent (post-treatment) is sampled monthly for laboratory analysis using EPA Method 624. The samples are also analyzed for total dissolved solids (TDS) and acidity (pH). Influent samples are collected from a sample port located on the RW-3D influent line. No other wells are being utilized for groundwater extraction at this time. Effluent samples are collected from a sample port located after the air stripper discharge pump. The samples are delivered under chain of custody protocols to Test America Laboratories, Inc. Laboratory reports are attached.
- System Maintenance – typical routine system maintenance includes: bag filter changes, valve maintenance/cleaning. Frequent non-routine maintenance typically includes: pump and blower repairs/replacement; valve replacement; air stripper cleaning.



System Flow

During the second quarter of 2022, a total of 174,633 gallons were treated at an average flow rate of approximately 24,710 gallons per day. This flow varied due to the system being turned on and off for sampling during the work near RW-3D.

Operation and Maintenance Site Inspections

Compiled below is a summary of significant O&M tasks and events pertaining to the COSCO site. These tasks were completed during site visits completed by Aztech for the time period reported herein.

April 7, 2022 (Sampling)

The system was operational upon arrival. Samples were collected. RW-3 was shut down on departure.

May 9, 2022 (Sampling)

System down upon arrival. System restarted to take readings and samples. System is down because of drilling on site. System shut down on departure.

May 23, 2022 (Non-Sampling)

System not running on arrival. Bag filters changed out. Left system on but RW-3 was left off because off drilling near well. Heat tape and heaters turned off.

June 8, 2022 (Sampling)

System not in operation on arrival. Samples collected. System left nonoperational on departure.

June 28, 2022 (Non-Sampling)

System down on arrival, system restarted to take readings. Bag filters changed. System left nonoperational on departure.

Summary and Recommendations

Site visits and system sampling continue on a bi-monthly basis. During each non-sampling site visit, bag filters are replaced and valves are cleaned. Additionally, system performance readings as well as water level readings are taken. Samples are collected from the RW-3D, and effluent sampling ports at the first site visit of the month.

LaBella recommends continuing the treatment of recovered groundwater at the site utilizing air stripper treatment system. Further recommendations are outlined in the sites periodic review.

LaBella would like to thank you for the opportunity to offer our services for this site.

If you have any questions or comments regarding the information contained herein, please contact our office at 518-885-5383.

Respectfully submitted,

LaBella Associates



Nate Shaw
Staff Engineer

ATTACHMENTS:

Laboratory Analytical Reports
Figure 1



April 2022 Analytical Data

April 11, 2022

Paul D'Annibale
NYDEC_Ramboll US Consulting, Inc. - Syracuse
94 New Karner Road Suite 106
Albany, NY 12203

Project Location: NY
Client Job Number:
Project Number: 344035
Laboratory Work Order Number: 22C1442

Enclosed are results of analyses for samples as received by the laboratory on March 22, 2022. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Mike Buttrick
Project Manager

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

NYDEC_Ramboll US Consulting, Inc. - Syracuse
94 New Karner Road Suite 106
Albany, NY 12203
ATTN: Paul D'Annibale

REPORT DATE: 4/11/2022

PURCHASE ORDER NUMBER: 142773

PROJECT NUMBER: 344035

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 22C1442

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

PROJECT LOCATION: NY

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
GW-4S-032122	22C1442-01	Ground Water		624.1	
GP-4D-032122	22C1442-02	Ground Water		624.1	
DW-1-032122	22C1442-03	Ground Water		624.1	
DUP-01-032122	22C1442-04	Ground Water		624.1	
Trip Blank-01-032122	22C1442-05	Ground Water		624.1	

CASE NARRATIVE SUMMARY

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

624.1

Qualifications:

PR-08

pH of sample (pH 5) is outside of method specified preservation criteria.

Analyte & Samples(s) Qualified:

22C1442-05[Trip Blank-01-032122]

PR-09

pH of sample (pH 6) is outside of method specified preservation criteria.

Analyte & Samples(s) Qualified:

22C1442-01[GW-4S-032122], 22C1442-02[GP-4D-032122], 22C1442-03[DW-1-032122], 22C1442-04[DUP-01-032122]

The results of analyses reported only relate to samples submitted to Con-Test, a Pace Analytical Laboratory, for testing.

I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.



Lisa A. Worthington
Technical Representative

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

Project Location: NY

Sample Description:

Work Order: 22C1442

Date Received: 3/22/2022

Field Sample #: GW-4S-032122

Sampled: 3/21/2022 12:30

Sample ID: 22C1442-01

Sample Matrix: Ground Water

Sample Flags: PR-09

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Benzene	<0.200	1.00	0.200	µg/L	1		624.1	3/23/22	3/23/22 15:21	LBD
Bromodichloromethane	<0.180	2.00	0.180	µg/L	1		624.1	3/23/22	3/23/22 15:21	LBD
Bromoform	<0.383	2.00	0.383	µg/L	1		624.1	3/23/22	3/23/22 15:21	LBD
Bromomethane	<1.54	5.00	1.54	µg/L	1		624.1	3/23/22	3/23/22 15:21	LBD
Carbon Tetrachloride	<0.165	2.00	0.165	µg/L	1		624.1	3/23/22	3/23/22 15:21	LBD
Chlorobenzene	<0.105	2.00	0.105	µg/L	1		624.1	3/23/22	3/23/22 15:21	LBD
Chlorodibromomethane	<0.222	2.00	0.222	µg/L	1		624.1	3/23/22	3/23/22 15:21	LBD
Chloroethane	<0.320	2.00	0.320	µg/L	1		624.1	3/23/22	3/23/22 15:21	LBD
Chloroform	<0.168	2.00	0.168	µg/L	1		624.1	3/23/22	3/23/22 15:21	LBD
Chloromethane	<0.522	2.00	0.522	µg/L	1		624.1	3/23/22	3/23/22 15:21	LBD
1,2-Dichlorobenzene	<0.122	2.00	0.122	µg/L	1		624.1	3/23/22	3/23/22 15:21	LBD
1,3-Dichlorobenzene	<0.118	2.00	0.118	µg/L	1		624.1	3/23/22	3/23/22 15:21	LBD
1,4-Dichlorobenzene	<0.130	2.00	0.130	µg/L	1		624.1	3/23/22	3/23/22 15:21	LBD
1,2-Dichloroethane	<0.308	2.00	0.308	µg/L	1		624.1	3/23/22	3/23/22 15:21	LBD
1,1-Dichloroethane	<0.142	2.00	0.142	µg/L	1		624.1	3/23/22	3/23/22 15:21	LBD
1,1-Dichloroethylene	<0.141	2.00	0.141	µg/L	1		624.1	3/23/22	3/23/22 15:21	LBD
trans-1,2-Dichloroethylene	<0.169	2.00	0.169	µg/L	1		624.1	3/23/22	3/23/22 15:21	LBD
1,2-Dichloropropane	<0.181	2.00	0.181	µg/L	1		624.1	3/23/22	3/23/22 15:21	LBD
cis-1,3-Dichloropropene	<0.158	2.00	0.158	µg/L	1		624.1	3/23/22	3/23/22 15:21	LBD
trans-1,3-Dichloropropene	<0.168	2.00	0.168	µg/L	1		624.1	3/23/22	3/23/22 15:21	LBD
Ethylbenzene	<0.215	2.00	0.215	µg/L	1		624.1	3/23/22	3/23/22 15:21	LBD
Methyl tert-Butyl Ether (MTBE)	<0.172	2.00	0.172	µg/L	1		624.1	3/23/22	3/23/22 15:21	LBD
Methylene Chloride	<0.235	5.00	0.235	µg/L	1		624.1	3/23/22	3/23/22 15:21	LBD
1,1,2,2-Tetrachloroethane	<0.127	2.00	0.127	µg/L	1		624.1	3/23/22	3/23/22 15:21	LBD
Tetrachloroethylene	<0.187	2.00	0.187	µg/L	1		624.1	3/23/22	3/23/22 15:21	LBD
Toluene	<0.224	1.00	0.224	µg/L	1		624.1	3/23/22	3/23/22 15:21	LBD
1,1,1-Trichloroethane	<0.169	2.00	0.169	µg/L	1		624.1	3/23/22	3/23/22 15:21	LBD
1,1,2-Trichloroethane	<0.183	2.00	0.183	µg/L	1		624.1	3/23/22	3/23/22 15:21	LBD
Trichloroethylene	2.32	2.00	0.189	µg/L	1		624.1	3/23/22	3/23/22 15:21	LBD
Trichlorofluoromethane (Freon 11)	<0.176	2.00	0.176	µg/L	1		624.1	3/23/22	3/23/22 15:21	LBD
Vinyl Chloride	<0.208	2.00	0.208	µg/L	1		624.1	3/23/22	3/23/22 15:21	LBD
m+p Xylene	<0.459	2.00	0.459	µg/L	1		624.1	3/23/22	3/23/22 15:21	LBD
o-Xylene	<0.230	1.00	0.230	µg/L	1		624.1	3/23/22	3/23/22 15:21	LBD

Surrogates	% Recovery	Recovery Limits	Flag/Qual
1,2-Dichloroethane-d4	83.0	70-130	3/23/22 15:21
Toluene-d8	89.9	70-130	3/23/22 15:21
4-Bromofluorobenzene	92.8	70-130	3/23/22 15:21

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

Project Location: NY

Sample Description:

Work Order: 22C1442

Date Received: 3/22/2022

Field Sample #: GP-4D-032122

Sampled: 3/21/2022 13:10

Sample ID: 22C1442-02

Sample Matrix: Ground Water

Sample Flags: PR-09

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Benzene	<0.200	1.00	0.200	µg/L	1		624.1	3/23/22	3/23/22 15:48	LBD
Bromodichloromethane	0.190	2.00	0.180	µg/L	1	J	624.1	3/23/22	3/23/22 15:48	LBD
Bromoform	<0.383	2.00	0.383	µg/L	1		624.1	3/23/22	3/23/22 15:48	LBD
Bromomethane	<1.54	5.00	1.54	µg/L	1		624.1	3/23/22	3/23/22 15:48	LBD
Carbon Tetrachloride	<0.165	2.00	0.165	µg/L	1		624.1	3/23/22	3/23/22 15:48	LBD
Chlorobenzene	<0.105	2.00	0.105	µg/L	1		624.1	3/23/22	3/23/22 15:48	LBD
Chlorodibromomethane	<0.222	2.00	0.222	µg/L	1		624.1	3/23/22	3/23/22 15:48	LBD
Chloroethane	<0.320	2.00	0.320	µg/L	1		624.1	3/23/22	3/23/22 15:48	LBD
Chloroform	1.07	2.00	0.168	µg/L	1	J	624.1	3/23/22	3/23/22 15:48	LBD
Chloromethane	<0.522	2.00	0.522	µg/L	1		624.1	3/23/22	3/23/22 15:48	LBD
1,2-Dichlorobenzene	<0.122	2.00	0.122	µg/L	1		624.1	3/23/22	3/23/22 15:48	LBD
1,3-Dichlorobenzene	<0.118	2.00	0.118	µg/L	1		624.1	3/23/22	3/23/22 15:48	LBD
1,4-Dichlorobenzene	<0.130	2.00	0.130	µg/L	1		624.1	3/23/22	3/23/22 15:48	LBD
1,2-Dichloroethane	<0.308	2.00	0.308	µg/L	1		624.1	3/23/22	3/23/22 15:48	LBD
1,1-Dichloroethane	<0.142	2.00	0.142	µg/L	1		624.1	3/23/22	3/23/22 15:48	LBD
1,1-Dichloroethylene	<0.141	2.00	0.141	µg/L	1		624.1	3/23/22	3/23/22 15:48	LBD
trans-1,2-Dichloroethylene	<0.169	2.00	0.169	µg/L	1		624.1	3/23/22	3/23/22 15:48	LBD
1,2-Dichloropropane	<0.181	2.00	0.181	µg/L	1		624.1	3/23/22	3/23/22 15:48	LBD
cis-1,3-Dichloropropene	<0.158	2.00	0.158	µg/L	1		624.1	3/23/22	3/23/22 15:48	LBD
trans-1,3-Dichloropropene	<0.168	2.00	0.168	µg/L	1		624.1	3/23/22	3/23/22 15:48	LBD
Ethylbenzene	<0.215	2.00	0.215	µg/L	1		624.1	3/23/22	3/23/22 15:48	LBD
Methyl tert-Butyl Ether (MTBE)	<0.172	2.00	0.172	µg/L	1		624.1	3/23/22	3/23/22 15:48	LBD
Methylene Chloride	<0.235	5.00	0.235	µg/L	1		624.1	3/23/22	3/23/22 15:48	LBD
1,1,2,2-Tetrachloroethane	<0.127	2.00	0.127	µg/L	1		624.1	3/23/22	3/23/22 15:48	LBD
Tetrachloroethylene	<0.187	2.00	0.187	µg/L	1		624.1	3/23/22	3/23/22 15:48	LBD
Toluene	<0.224	1.00	0.224	µg/L	1		624.1	3/23/22	3/23/22 15:48	LBD
1,1,1-Trichloroethane	<0.169	2.00	0.169	µg/L	1		624.1	3/23/22	3/23/22 15:48	LBD
1,1,2-Trichloroethane	<0.183	2.00	0.183	µg/L	1		624.1	3/23/22	3/23/22 15:48	LBD
Trichloroethylene	<0.189	2.00	0.189	µg/L	1		624.1	3/23/22	3/23/22 15:48	LBD
Trichlorofluoromethane (Freon 11)	<0.176	2.00	0.176	µg/L	1		624.1	3/23/22	3/23/22 15:48	LBD
Vinyl Chloride	<0.208	2.00	0.208	µg/L	1		624.1	3/23/22	3/23/22 15:48	LBD
m+p Xylene	<0.459	2.00	0.459	µg/L	1		624.1	3/23/22	3/23/22 15:48	LBD
o-Xylene	<0.230	1.00	0.230	µg/L	1		624.1	3/23/22	3/23/22 15:48	LBD

Surrogates	% Recovery	Recovery Limits	Flag/Qual
1,2-Dichloroethane-d4	81.8	70-130	3/23/22 15:48
Toluene-d8	89.0	70-130	3/23/22 15:48
4-Bromofluorobenzene	92.8	70-130	3/23/22 15:48

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

Project Location: NY

Sample Description:

Work Order: 22C1442

Date Received: 3/22/2022

Field Sample #: DW-1-032122

Sampled: 3/21/2022 15:25

Sample ID: 22C1442-03

Sample Matrix: Ground Water

Sample Flags: PR-09

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Benzene	<0.200	1.00	0.200	µg/L	1		624.1	3/23/22	3/23/22 16:14	LBD
Bromodichloromethane	<0.180	2.00	0.180	µg/L	1		624.1	3/23/22	3/23/22 16:14	LBD
Bromoform	<0.383	2.00	0.383	µg/L	1		624.1	3/23/22	3/23/22 16:14	LBD
Bromomethane	<1.54	5.00	1.54	µg/L	1		624.1	3/23/22	3/23/22 16:14	LBD
Carbon Tetrachloride	<0.165	2.00	0.165	µg/L	1		624.1	3/23/22	3/23/22 16:14	LBD
Chlorobenzene	<0.105	2.00	0.105	µg/L	1		624.1	3/23/22	3/23/22 16:14	LBD
Chlorodibromomethane	<0.222	2.00	0.222	µg/L	1		624.1	3/23/22	3/23/22 16:14	LBD
Chloroethane	<0.320	2.00	0.320	µg/L	1		624.1	3/23/22	3/23/22 16:14	LBD
Chloroform	0.390	2.00	0.168	µg/L	1	J	624.1	3/23/22	3/23/22 16:14	LBD
Chloromethane	<0.522	2.00	0.522	µg/L	1		624.1	3/23/22	3/23/22 16:14	LBD
1,2-Dichlorobenzene	<0.122	2.00	0.122	µg/L	1		624.1	3/23/22	3/23/22 16:14	LBD
1,3-Dichlorobenzene	<0.118	2.00	0.118	µg/L	1		624.1	3/23/22	3/23/22 16:14	LBD
1,4-Dichlorobenzene	<0.130	2.00	0.130	µg/L	1		624.1	3/23/22	3/23/22 16:14	LBD
1,2-Dichloroethane	<0.308	2.00	0.308	µg/L	1		624.1	3/23/22	3/23/22 16:14	LBD
1,1-Dichloroethane	<0.142	2.00	0.142	µg/L	1		624.1	3/23/22	3/23/22 16:14	LBD
1,1-Dichloroethylene	<0.141	2.00	0.141	µg/L	1		624.1	3/23/22	3/23/22 16:14	LBD
trans-1,2-Dichloroethylene	<0.169	2.00	0.169	µg/L	1		624.1	3/23/22	3/23/22 16:14	LBD
1,2-Dichloropropane	<0.181	2.00	0.181	µg/L	1		624.1	3/23/22	3/23/22 16:14	LBD
cis-1,3-Dichloropropene	<0.158	2.00	0.158	µg/L	1		624.1	3/23/22	3/23/22 16:14	LBD
trans-1,3-Dichloropropene	<0.168	2.00	0.168	µg/L	1		624.1	3/23/22	3/23/22 16:14	LBD
Ethylbenzene	<0.215	2.00	0.215	µg/L	1		624.1	3/23/22	3/23/22 16:14	LBD
Methyl tert-Butyl Ether (MTBE)	<0.172	2.00	0.172	µg/L	1		624.1	3/23/22	3/23/22 16:14	LBD
Methylene Chloride	<0.235	5.00	0.235	µg/L	1		624.1	3/23/22	3/23/22 16:14	LBD
1,1,2,2-Tetrachloroethane	<0.127	2.00	0.127	µg/L	1		624.1	3/23/22	3/23/22 16:14	LBD
Tetrachloroethylene	2.29	2.00	0.187	µg/L	1		624.1	3/23/22	3/23/22 16:14	LBD
Toluene	<0.224	1.00	0.224	µg/L	1		624.1	3/23/22	3/23/22 16:14	LBD
1,1,1-Trichloroethane	<0.169	2.00	0.169	µg/L	1		624.1	3/23/22	3/23/22 16:14	LBD
1,1,2-Trichloroethane	<0.183	2.00	0.183	µg/L	1		624.1	3/23/22	3/23/22 16:14	LBD
Trichloroethylene	1.58	2.00	0.189	µg/L	1	J	624.1	3/23/22	3/23/22 16:14	LBD
Trichlorofluoromethane (Freon 11)	<0.176	2.00	0.176	µg/L	1		624.1	3/23/22	3/23/22 16:14	LBD
Vinyl Chloride	<0.208	2.00	0.208	µg/L	1		624.1	3/23/22	3/23/22 16:14	LBD
m+p Xylene	<0.459	2.00	0.459	µg/L	1		624.1	3/23/22	3/23/22 16:14	LBD
o-Xylene	<0.230	1.00	0.230	µg/L	1		624.1	3/23/22	3/23/22 16:14	LBD

Surrogates	% Recovery	Recovery Limits	Flag/Qual
1,2-Dichloroethane-d4	83.0	70-130	3/23/22 16:14
Toluene-d8	90.5	70-130	3/23/22 16:14
4-Bromofluorobenzene	92.1	70-130	3/23/22 16:14

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

Project Location: NY

Sample Description:

Work Order: 22C1442

Date Received: 3/22/2022

Field Sample #: DUP-01-032122

Sampled: 3/21/2022 00:00

Sample ID: 22C1442-04

Sample Matrix: Ground Water

Sample Flags: PR-09

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Benzene	<0.200	1.00	0.200	µg/L	1		624.1	3/23/22	3/23/22 16:40	LBD
Bromodichloromethane	<0.180	2.00	0.180	µg/L	1		624.1	3/23/22	3/23/22 16:40	LBD
Bromoform	<0.383	2.00	0.383	µg/L	1		624.1	3/23/22	3/23/22 16:40	LBD
Bromomethane	<1.54	5.00	1.54	µg/L	1		624.1	3/23/22	3/23/22 16:40	LBD
Carbon Tetrachloride	<0.165	2.00	0.165	µg/L	1		624.1	3/23/22	3/23/22 16:40	LBD
Chlorobenzene	<0.105	2.00	0.105	µg/L	1		624.1	3/23/22	3/23/22 16:40	LBD
Chlorodibromomethane	<0.222	2.00	0.222	µg/L	1		624.1	3/23/22	3/23/22 16:40	LBD
Chloroethane	<0.320	2.00	0.320	µg/L	1		624.1	3/23/22	3/23/22 16:40	LBD
Chloroform	1.04	2.00	0.168	µg/L	1	J	624.1	3/23/22	3/23/22 16:40	LBD
Chloromethane	<0.522	2.00	0.522	µg/L	1		624.1	3/23/22	3/23/22 16:40	LBD
1,2-Dichlorobenzene	<0.122	2.00	0.122	µg/L	1		624.1	3/23/22	3/23/22 16:40	LBD
1,3-Dichlorobenzene	<0.118	2.00	0.118	µg/L	1		624.1	3/23/22	3/23/22 16:40	LBD
1,4-Dichlorobenzene	<0.130	2.00	0.130	µg/L	1		624.1	3/23/22	3/23/22 16:40	LBD
1,2-Dichloroethane	<0.308	2.00	0.308	µg/L	1		624.1	3/23/22	3/23/22 16:40	LBD
1,1-Dichloroethane	<0.142	2.00	0.142	µg/L	1		624.1	3/23/22	3/23/22 16:40	LBD
1,1-Dichloroethylene	<0.141	2.00	0.141	µg/L	1		624.1	3/23/22	3/23/22 16:40	LBD
trans-1,2-Dichloroethylene	<0.169	2.00	0.169	µg/L	1		624.1	3/23/22	3/23/22 16:40	LBD
1,2-Dichloropropane	<0.181	2.00	0.181	µg/L	1		624.1	3/23/22	3/23/22 16:40	LBD
cis-1,3-Dichloropropene	<0.158	2.00	0.158	µg/L	1		624.1	3/23/22	3/23/22 16:40	LBD
trans-1,3-Dichloropropene	<0.168	2.00	0.168	µg/L	1		624.1	3/23/22	3/23/22 16:40	LBD
Ethylbenzene	<0.215	2.00	0.215	µg/L	1		624.1	3/23/22	3/23/22 16:40	LBD
Methyl tert-Butyl Ether (MTBE)	<0.172	2.00	0.172	µg/L	1		624.1	3/23/22	3/23/22 16:40	LBD
Methylene Chloride	<0.235	5.00	0.235	µg/L	1		624.1	3/23/22	3/23/22 16:40	LBD
1,1,2,2-Tetrachloroethane	<0.127	2.00	0.127	µg/L	1		624.1	3/23/22	3/23/22 16:40	LBD
Tetrachloroethylene	<0.187	2.00	0.187	µg/L	1		624.1	3/23/22	3/23/22 16:40	LBD
Toluene	<0.224	1.00	0.224	µg/L	1		624.1	3/23/22	3/23/22 16:40	LBD
1,1,1-Trichloroethane	<0.169	2.00	0.169	µg/L	1		624.1	3/23/22	3/23/22 16:40	LBD
1,1,2-Trichloroethane	<0.183	2.00	0.183	µg/L	1		624.1	3/23/22	3/23/22 16:40	LBD
Trichloroethylene	<0.189	2.00	0.189	µg/L	1		624.1	3/23/22	3/23/22 16:40	LBD
Trichlorofluoromethane (Freon 11)	<0.176	2.00	0.176	µg/L	1		624.1	3/23/22	3/23/22 16:40	LBD
Vinyl Chloride	<0.208	2.00	0.208	µg/L	1		624.1	3/23/22	3/23/22 16:40	LBD
m+p Xylene	<0.459	2.00	0.459	µg/L	1		624.1	3/23/22	3/23/22 16:40	LBD
o-Xylene	<0.230	1.00	0.230	µg/L	1		624.1	3/23/22	3/23/22 16:40	LBD

Surrogates	% Recovery	Recovery Limits	Flag/Qual
1,2-Dichloroethane-d4	88.5	70-130	3/23/22 16:40
Toluene-d8	82.8	70-130	3/23/22 16:40
4-Bromofluorobenzene	90.7	70-130	3/23/22 16:40

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

Project Location: NY

Sample Description:

Work Order: 22C1442

Date Received: 3/22/2022

Field Sample #: Trip Blank-01-032122

Sampled: 3/21/2022 00:00

Sample ID: 22C1442-05

Sample Matrix: Ground Water

Sample Flags: PR-08

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Benzene	<0.200	1.00	0.200	µg/L	1		624.1	3/23/22	3/23/22 14:55	LBD
Bromodichloromethane	<0.180	2.00	0.180	µg/L	1		624.1	3/23/22	3/23/22 14:55	LBD
Bromoform	<0.383	2.00	0.383	µg/L	1		624.1	3/23/22	3/23/22 14:55	LBD
Bromomethane	<1.54	5.00	1.54	µg/L	1		624.1	3/23/22	3/23/22 14:55	LBD
Carbon Tetrachloride	<0.165	2.00	0.165	µg/L	1		624.1	3/23/22	3/23/22 14:55	LBD
Chlorobenzene	<0.105	2.00	0.105	µg/L	1		624.1	3/23/22	3/23/22 14:55	LBD
Chlorodibromomethane	<0.222	2.00	0.222	µg/L	1		624.1	3/23/22	3/23/22 14:55	LBD
Chloroethane	<0.320	2.00	0.320	µg/L	1		624.1	3/23/22	3/23/22 14:55	LBD
Chloroform	<0.168	2.00	0.168	µg/L	1		624.1	3/23/22	3/23/22 14:55	LBD
Chloromethane	<0.522	2.00	0.522	µg/L	1		624.1	3/23/22	3/23/22 14:55	LBD
1,2-Dichlorobenzene	<0.122	2.00	0.122	µg/L	1		624.1	3/23/22	3/23/22 14:55	LBD
1,3-Dichlorobenzene	<0.118	2.00	0.118	µg/L	1		624.1	3/23/22	3/23/22 14:55	LBD
1,4-Dichlorobenzene	<0.130	2.00	0.130	µg/L	1		624.1	3/23/22	3/23/22 14:55	LBD
1,2-Dichloroethane	<0.308	2.00	0.308	µg/L	1		624.1	3/23/22	3/23/22 14:55	LBD
1,1-Dichloroethane	<0.142	2.00	0.142	µg/L	1		624.1	3/23/22	3/23/22 14:55	LBD
1,1-Dichloroethylene	<0.141	2.00	0.141	µg/L	1		624.1	3/23/22	3/23/22 14:55	LBD
trans-1,2-Dichloroethylene	<0.169	2.00	0.169	µg/L	1		624.1	3/23/22	3/23/22 14:55	LBD
1,2-Dichloropropane	<0.181	2.00	0.181	µg/L	1		624.1	3/23/22	3/23/22 14:55	LBD
cis-1,3-Dichloropropene	<0.158	2.00	0.158	µg/L	1		624.1	3/23/22	3/23/22 14:55	LBD
trans-1,3-Dichloropropene	<0.168	2.00	0.168	µg/L	1		624.1	3/23/22	3/23/22 14:55	LBD
Ethylbenzene	<0.215	2.00	0.215	µg/L	1		624.1	3/23/22	3/23/22 14:55	LBD
Methyl tert-Butyl Ether (MTBE)	<0.172	2.00	0.172	µg/L	1		624.1	3/23/22	3/23/22 14:55	LBD
Methylene Chloride	0.640	5.00	0.235	µg/L	1	J	624.1	3/23/22	3/23/22 14:55	LBD
1,1,2,2-Tetrachloroethane	<0.127	2.00	0.127	µg/L	1		624.1	3/23/22	3/23/22 14:55	LBD
Tetrachloroethylene	<0.187	2.00	0.187	µg/L	1		624.1	3/23/22	3/23/22 14:55	LBD
Toluene	<0.224	1.00	0.224	µg/L	1		624.1	3/23/22	3/23/22 14:55	LBD
1,1,1-Trichloroethane	<0.169	2.00	0.169	µg/L	1		624.1	3/23/22	3/23/22 14:55	LBD
1,1,2-Trichloroethane	<0.183	2.00	0.183	µg/L	1		624.1	3/23/22	3/23/22 14:55	LBD
Trichloroethylene	<0.189	2.00	0.189	µg/L	1		624.1	3/23/22	3/23/22 14:55	LBD
Trichlorofluoromethane (Freon 11)	<0.176	2.00	0.176	µg/L	1		624.1	3/23/22	3/23/22 14:55	LBD
Vinyl Chloride	<0.208	2.00	0.208	µg/L	1		624.1	3/23/22	3/23/22 14:55	LBD
m+p Xylene	<0.459	2.00	0.459	µg/L	1		624.1	3/23/22	3/23/22 14:55	LBD
o-Xylene	<0.230	1.00	0.230	µg/L	1		624.1	3/23/22	3/23/22 14:55	LBD

Surrogates	% Recovery	Recovery Limits	Flag/Qual
1,2-Dichloroethane-d4	85.9	70-130	3/23/22 14:55
Toluene-d8	88.7	70-130	3/23/22 14:55
4-Bromofluorobenzene	92.5	70-130	3/23/22 14:55

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

Sample Extraction Data

Prep Method: SW-846 5030B Analytical Method: 624.1

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
22C1442-01 [GW-4S-032122]	B303894	5	5.00	03/23/22
22C1442-02 [GP-4D-032122]	B303894	5	5.00	03/23/22
22C1442-03 [DW-1-032122]	B303894	5	5.00	03/23/22
22C1442-04 [DUP-01-032122]	B303894	5	5.00	03/23/22
22C1442-05 [Trip Blank-01-032122]	B303894	5	5.00	03/23/22

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 B303894 - SW-846 5030B
Blank (B303894-BLK1)

Prepared & Analyzed: 03/23/22

Benzene	ND	1.00	µg/L							
Bromodichloromethane	ND	2.00	µg/L							
Bromoform	ND	2.00	µg/L							
Bromomethane	ND	2.00	µg/L							
Carbon Tetrachloride	ND	2.00	µg/L							
Chlorobenzene	ND	2.00	µg/L							
Chlorodibromomethane	ND	2.00	µg/L							
Chloroethane	ND	2.00	µg/L							
Chloroform	ND	2.00	µg/L							
Chloromethane	ND	2.00	µg/L							
1,2-Dichlorobenzene	ND	2.00	µg/L							
1,3-Dichlorobenzene	ND	2.00	µg/L							
1,4-Dichlorobenzene	ND	2.00	µg/L							
1,2-Dichloroethane	ND	2.00	µg/L							
1,1-Dichloroethane	ND	2.00	µg/L							
1,1-Dichloroethylene	ND	2.00	µg/L							
trans-1,2-Dichloroethylene	ND	2.00	µg/L							
1,2-Dichloropropane	ND	2.00	µg/L							
cis-1,3-Dichloropropene	ND	2.00	µg/L							
trans-1,3-Dichloropropene	ND	2.00	µg/L							
Ethylbenzene	ND	2.00	µg/L							
Methyl tert-Butyl Ether (MTBE)	ND	2.00	µg/L							
Methylene Chloride	ND	5.00	µg/L							
1,1,2,2-Tetrachloroethane	ND	2.00	µg/L							
Tetrachloroethylene	ND	2.00	µg/L							
Toluene	ND	1.00	µg/L							
1,1,1-Trichloroethane	ND	2.00	µg/L							
1,1,2-Trichloroethane	ND	2.00	µg/L							
Trichloroethylene	ND	2.00	µg/L							
Trichlorofluoromethane (Freon 11)	ND	2.00	µg/L							
Vinyl Chloride	ND	2.00	µg/L							
m+p Xylene	ND	2.00	µg/L							
o-Xylene	ND	1.00	µg/L							
Surrogate: 1,2-Dichloroethane-d4	20.7		µg/L	25.0		82.7	70-130			
Surrogate: Toluene-d8	22.6		µg/L	25.0		90.5	70-130			
Surrogate: 4-Bromofluorobenzene	23.2		µg/L	25.0		92.6	70-130			

LCS (B303894-BS1)

Prepared & Analyzed: 03/23/22

Benzene	19	1.00	µg/L	20.0		92.7	65-135			
Bromodichloromethane	22	2.00	µg/L	20.0		111	65-135			
Bromoform	21	2.00	µg/L	20.0		106	70-130			
Bromomethane	23	2.00	µg/L	20.0		114	15-185			
Carbon Tetrachloride	20	2.00	µg/L	20.0		102	70-130			
Chlorobenzene	20	2.00	µg/L	20.0		101	65-135			
Chlorodibromomethane	23	2.00	µg/L	20.0		116	70-135			
Chloroethane	18	2.00	µg/L	20.0		87.5	40-160			
Chloroform	20	2.00	µg/L	20.0		98.1	70-135			
Chloromethane	6.9	2.00	µg/L	20.0		34.4	20-205			
1,2-Dichlorobenzene	19	2.00	µg/L	20.0		93.5	65-135			
1,3-Dichlorobenzene	19	2.00	µg/L	20.0		96.2	70-130			
1,4-Dichlorobenzene	19	2.00	µg/L	20.0		94.0	65-135			
1,2-Dichloroethane	21	2.00	µg/L	20.0		105	70-130			

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 B303894 - SW-846 5030B										
LCS (B303894-BS1)										
Prepared & Analyzed: 03/23/22										
1,1-Dichloroethane	20	2.00	µg/L	20.0		100	70-130			
1,1-Dichloroethylene	21	2.00	µg/L	20.0		103	50-150			
trans-1,2-Dichloroethylene	20	2.00	µg/L	20.0		98.0	70-130			
1,2-Dichloropropane	20	2.00	µg/L	20.0		101	35-165			
cis-1,3-Dichloropropene	21	2.00	µg/L	20.0		107	25-175			
trans-1,3-Dichloropropene	22	2.00	µg/L	20.0		111	50-150			
Ethylbenzene	20	2.00	µg/L	20.0		97.9	60-140			
Methyl tert-Butyl Ether (MTBE)	19	2.00	µg/L	20.0		96.3	70-130			
Methylene Chloride	19	5.00	µg/L	20.0		95.1	60-140			
1,1,2,2-Tetrachloroethane	19	2.00	µg/L	20.0		95.4	60-140			
Tetrachloroethylene	25	2.00	µg/L	20.0		125	70-130			
Toluene	22	1.00	µg/L	20.0		110	70-130			
1,1,1-Trichloroethane	20	2.00	µg/L	20.0		102	70-130			
1,1,2-Trichloroethane	23	2.00	µg/L	20.0		116	70-130			
Trichloroethylene	21	2.00	µg/L	20.0		104	65-135			
Trichlorofluoromethane (Freon 11)	18	2.00	µg/L	20.0		92.3	50-150			
Vinyl Chloride	16	2.00	µg/L	20.0		79.8	5-195			
m+p Xylene	40	2.00	µg/L	40.0		99.8	70-130			
o-Xylene	20	1.00	µg/L	20.0		98.1	70-130			
Surrogate: 1,2-Dichloroethane-d4	21.7		µg/L	25.0		86.7	70-130			
Surrogate: Toluene-d8	25.6		µg/L	25.0		102	70-130			
Surrogate: 4-Bromofluorobenzene	23.5		µg/L	25.0		93.8	70-130			
LCS Dup (B303894-BSD1)										
Prepared & Analyzed: 03/23/22										
Benzene	18	1.00	µg/L	20.0		89.5	65-135	3.51	20	
Bromodichloromethane	21	2.00	µg/L	20.0		103	65-135	7.65	20	
Bromoform	22	2.00	µg/L	20.0		108	70-130	1.96	20	
Bromomethane	25	2.00	µg/L	20.0		123	15-185	7.36	20	
Carbon Tetrachloride	20	2.00	µg/L	20.0		98.1	70-130	4.09	20	
Chlorobenzene	20	2.00	µg/L	20.0		100	65-135	0.894	20	
Chlorodibromomethane	20	2.00	µg/L	20.0		102	70-135	12.9	20	
Chloroethane	16	2.00	µg/L	20.0		82.1	40-160	6.37	20	
Chloroform	19	2.00	µg/L	20.0		93.8	70-135	4.43	20	
Chloromethane	6.8	2.00	µg/L	20.0		34.2	20-205	0.729	20	
1,2-Dichlorobenzene	19	2.00	µg/L	20.0		94.2	65-135	0.799	20	
1,3-Dichlorobenzene	19	2.00	µg/L	20.0		96.9	70-130	0.777	20	
1,4-Dichlorobenzene	19	2.00	µg/L	20.0		93.6	65-135	0.533	20	
1,2-Dichloroethane	20	2.00	µg/L	20.0		101	70-130	3.88	20	
1,1-Dichloroethane	19	2.00	µg/L	20.0		94.2	70-130	5.92	20	
1,1-Dichloroethylene	19	2.00	µg/L	20.0		92.6	50-150	10.3	20	
trans-1,2-Dichloroethylene	19	2.00	µg/L	20.0		96.0	70-130	2.01	20	
1,2-Dichloropropane	20	2.00	µg/L	20.0		102	35-165	0.543	20	
cis-1,3-Dichloropropene	19	2.00	µg/L	20.0		92.6	25-175	14.2	20	
trans-1,3-Dichloropropene	19	2.00	µg/L	20.0		97.2	50-150	13.0	20	
Ethylbenzene	20	2.00	µg/L	20.0		98.4	60-140	0.560	20	
Methyl tert-Butyl Ether (MTBE)	19	2.00	µg/L	20.0		93.8	70-130	2.58	20	
Methylene Chloride	18	5.00	µg/L	20.0		89.6	60-140	6.01	20	
1,1,2,2-Tetrachloroethane	19	2.00	µg/L	20.0		95.7	60-140	0.314	20	
Tetrachloroethylene	22	2.00	µg/L	20.0		108	70-130	13.9	20	
Toluene	20	1.00	µg/L	20.0		98.0	70-130	11.6	20	
1,1,1-Trichloroethane	19	2.00	µg/L	20.0		95.8	70-130	5.93	20	
1,1,2-Trichloroethane	20	2.00	µg/L	20.0		101	70-130	14.0	20	

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 B303894 - SW-846 5030B										
LCS Dup (B303894-BSD1)										
Prepared & Analyzed: 03/23/22										
Trichloroethylene	21	2.00	µg/L	20.0		105	65-135	0.479	20	
Trichlorofluoromethane (Freon 11)	16	2.00	µg/L	20.0		80.9	50-150	13.2	20	
Vinyl Chloride	15	2.00	µg/L	20.0		75.8	5-195	5.08	20	
m+p Xylene	40	2.00	µg/L	40.0		99.6	70-130	0.251	25	
o-Xylene	20	1.00	µg/L	20.0		99.5	70-130	1.42	20	
Surrogate: 1,2-Dichloroethane-d4	20.1		µg/L	25.0		80.2	70-130			
Surrogate: Toluene-d8	22.7		µg/L	25.0		90.9	70-130			
Surrogate: 4-Bromofluorobenzene	23.6		µg/L	25.0		94.3	70-130			

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FLAG/QUALIFIER SUMMARY

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
ND	Not Detected
RL	Reporting Limit is at the level of quantitation (LOQ)
DL	Detection Limit is the lower limit of detection determined by the MDL study
MCL	Maximum Contaminant Level
	Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
	No results have been blank subtracted unless specified in the case narrative section.
J	Detected but below the Reporting Limit (lowest calibration standard); therefore, result is an estimated concentration (CLP J-Flag).
PR-08	pH of sample (pH 5) is outside of method specified preservation criteria.
PR-09	pH of sample (pH 6) is outside of method specified preservation criteria.

CERTIFICATIONS
Certified Analyses included in this Report

Analyte	Certifications
<i>624.1 in Water</i>	
Benzene	CT,NY,MA,NH,RI,NC,ME,VA
Bromodichloromethane	CT,NY,MA,NH,RI,NC,ME,VA
Bromoform	CT,NY,MA,NH,RI,NC,ME,VA
Bromomethane	CT,NY,MA,NH,RI,NC,ME,VA
Carbon Tetrachloride	CT,NY,MA,NH,RI,NC,ME,VA
Chlorobenzene	CT,NY,MA,NH,RI,NC,ME,VA
Chlorodibromomethane	CT,NY,MA,NH,RI,NC,ME,VA
Chloroethane	CT,NY,MA,NH,RI,NC,ME,VA
Chloroform	CT,NY,MA,NH,RI,NC,ME,VA
Chloromethane	CT,NY,MA,NH,RI,NC,ME,VA
1,2-Dichlorobenzene	CT,NY,MA,NH,RI,NC,ME,VA
1,3-Dichlorobenzene	CT,NY,MA,NH,RI,NC,ME,VA
1,4-Dichlorobenzene	CT,NY,MA,NH,RI,NC,ME,VA
1,2-Dichloroethane	CT,NY,MA,NH,RI,NC,ME,VA
1,1-Dichloroethane	CT,NY,MA,NH,RI,NC,ME,VA
1,1-Dichloroethylene	CT,NY,MA,NH,RI,NC,ME,VA
trans-1,2-Dichloroethylene	CT,NY,MA,NH,RI,NC,ME,VA
1,2-Dichloropropane	CT,NY,MA,NH,RI,NC,ME,VA
cis-1,3-Dichloropropene	CT,NY,MA,NH,RI,NC,ME,VA
trans-1,3-Dichloropropene	CT,NY,MA,NH,RI,NC,ME,VA
Ethylbenzene	CT,NY,MA,NH,RI,NC,ME,VA
Methyl tert-Butyl Ether (MTBE)	NY,MA,NH,NC
Methylene Chloride	CT,NY,MA,NH,RI,NC,ME,VA
1,1,2,2-Tetrachloroethane	CT,NY,MA,NH,RI,NC,ME,VA
Tetrachloroethylene	CT,NY,MA,NH,RI,NC,ME,VA
Toluene	CT,NY,MA,NH,RI,NC,ME,VA
1,1,1-Trichloroethane	CT,NY,MA,NH,RI,NC,ME,VA
1,1,2-Trichloroethane	CT,NY,MA,NH,RI,NC,ME,VA
Trichloroethylene	CT,NY,MA,NH,RI,NC,ME,VA
Trichlorofluoromethane (Freon 11)	CT,NY,MA,NH,RI,NC,ME,VA
Vinyl Chloride	CT,NY,MA,NH,RI,NC,ME,VA
m+p Xylene	CT,NY,MA,NH,RI,NC
o-Xylene	CT,NY,MA,NH,RI,NC

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

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC - ISO17025:2017	100033	03/1/2024
MA	Massachusetts DEP	M-MA100	06/30/2022
CT	Connecticut Department of Public Health	PH-0165	12/31/2022
NY	New York State Department of Health	10899 NELAP	04/1/2023
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2023
RI	Rhode Island Department of Health	LAO00373	12/30/2022
NC	North Carolina Div. of Water Quality	652	12/31/2022
NJ	New Jersey DEP	MA007 NELAP	06/30/2022
FL	Florida Department of Health	E871027 NELAP	06/30/2022
VT	Vermont Department of Health Lead Laboratory	LL720741	07/30/2022
ME	State of Maine	MA00100	06/9/2023
VA	Commonwealth of Virginia	460217	12/14/2022
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2022
VT-DW	Vermont Department of Health Drinking Water	VT-255716	06/12/2022
NC-DW	North Carolina Department of Health	25703	07/31/2022
PA	Commonwealth of Pennsylvania DEP	68-05812	06/30/2022
MI	Dept. of Env, Great Lakes, and Energy	9100	09/6/2022

226/442

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately. Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at <https://info.pacelabs.com/hubs/pas-standard-terms.pdf>.

Section A

Required Client Information:
 Company: Ramboll
 Address: 94 New Karrier Road, Albany, NY 12203
 Email: sarah.travaly@ramboll.com
 Phone: (518)724-7275
 Requested Due Date: []

Required Project Information:
 Report To: Sarah Travaly
 Copy To: Paul.Fallon@ramboll.com
 Address: Paul.Danning@ramboll.com
 Purchase Order #: NYSDEC DIRECT Ball
 Project Name: NYSDEC COSCO Site
 Project #: 1940075217.007

Invoice Information:
 Attention: []
 Company Name: []
 Address: []
 Pace Quote: []
 Pace Project Manager: BS McCarthy + Michael Barrella
 Pace Profile #: []

Regulatory Agency: NYS DEC
State / Location: NY

Section B

Required Project Information:
 Report To: Sarah Travaly
 Copy To: Paul.Fallon@ramboll.com
 Address: Paul.Danning@ramboll.com
 Purchase Order #: NYSDEC DIRECT Ball
 Project Name: NYSDEC COSCO Site
 Project #: 1940075217.007

ITEM #	MATRIX	CODE	COLLECTED		SAMPLE TYPE (G=GRAB C=COMP)	MATRIX CODE (see valid codes to left)	# OF CONTAINERS	PRESERVATIVES	ANALYSES TEST	REQUESTED ANALYSIS FILTERED (Y/N)	RESIDUAL CHLORINE (Y/N)	SAMPLE CONDITIONS							
			START DATE TIME	END DATE TIME								DATE	TIME	RECEIVED ON	ICE (Y/N)	CUSTODY (Y/N)	SEALED COOLER (Y/N)	SAMPLES INTACT (Y/N)	
1	Drinking Water	DW	3/21/22 12:30	NA	NA	WT	3	Unpreserved	X										
2	Waste Water	WT	3/21/22 13:10	NA	NA	WT	3	Unpreserved	X										
3	Water	W	3/21/22 15:25	NA	NA	WT	3	Unpreserved	X										
4	Product	P	3/21/22	NA	NA	WT	3	Unpreserved	X										
5	Soil/Solid	SS	3/21/22	NA	NA	WT	2	Unpreserved	X										
6	Oil	OL																	
7	Wipe	WP																	
8	Air	AR																	
9	Other	OT																	
10	Tissue	TS																	
11																			
12																			

ADDITIONAL COMMENTS:
 FULL VALIDATION PACKAGE

RELINQUISHED BY / AFFILIATION: / Ramboll
 DATE: 3/21/22
 TIME: 3:24 PM

ACCEPTED BY / AFFILIATION: FedEx / FedEx
 DATE: 3/21/22
 TIME: 16:15
 TRACKING #: 8032 5874 9995
 [Signature]

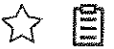
TEMP in C: 5.5
Received on: 3/21/22
Ice (Y/N): Y
Custody (Y/N): Y
Sealed Cooler (Y/N): Y
Samples Intact (Y/N): Y

SAMPLER NAME AND SIGNATURE:
 PRINT Name of SAMPLER: Sarah Travaly / Chris W...
 SIGNATURE of SAMPLER: [Signature]
 DATE Signed: 3/21/22

FedEx® Tracking



803258749995



ADD NICKNAME

Delivered
 Tuesday, March 22, 2022 at 10:54 am

**DELIVERED**

Signed for by: Z.RIOS

GET STATUS UPDATES

OBTAIN PROOF OF DELIVERY

Direct signature required

FROM
 ALBANY, NY US



TO
 East Longmeadow, MA US

MANAGE DELIVERY

Travel History

TIME ZONE
 Local Scan Time



**Tuesday, March 22,
 2022**

10:54 AM	East Longmeadow, MA	Delivered
9:30 AM	WINDSOR LOCKS, CT	On FedEx vehicle for delivery
7:39 AM	WINDSOR LOCKS, CT	At local FedEx facility
5:39 AM	EAST GRANBY, CT	At destination sort facility
3:08 AM	NEWARK, NJ	Departed FedEx hub

**Monday, March 21,
 2022**

11:27 PM	NEWARK, NJ	Arrived at FedEx hub
----------	------------	----------------------

I Have Not Confirmed Sample Container Numbers With Lab Staff Before Relinquishing Over Samples _____



con-test
ANALYTICAL LABORATORY

Doc# 277 Rev 5 2017

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

Client Rumby
 Received By Rumby Date 3/22/22 Time 1054

How were the samples received?
 In Cooler T No Cooler _____ On Ice T No Ice _____
 Direct from Sampling F Ambient _____ Melted Ice _____

Were samples within Temperature? 2-6°C T By Gun # 5 Actual Temp - 3.5
 By Blank # _____ Actual Temp - _____

Was Custody Seal Intact? MA Were Samples Tampered with? F
 Was COC Relinquished? T Does Chain Agree With Samples? T
 Are there broken/leaking/loose caps on any samples? F

Is COC in ink/ Legible? T Were samples received within holding time? T
 Did COC include all pertinent Information? Client T Analysis T Sampler Name T
 Project R ID's R Collection Dates/Times T

Are Sample labels filled out and legible? T
 Are there Lab to Filters? F Who was notified? _____
 Are there Rushes? F Who was notified? _____
 Are there Short Holds? F Who was notified? _____

Is there enough Volume? T
 Is there Headspace where applicable? MA MS/MSD? F
 Proper Media/Containers Used? T Is splitting samples required? F
 Were trip blanks received? F On COC? F
 Do all samples have the proper pH? MA Acid _____ Base _____

Vials	#	Containers:	#	#	#
Unp-		1 Liter Amb.		1 Liter Plastic	16 oz Amb.
HCL-		500 mL Amb.		500 mL Plastic	8oz Amb/Clear
Meoh-		250 mL Amb.		250 mL Plastic	4oz Amb/Clear
Bisulfate-		Flashpoint		Col./Bacteria	2oz Amb/Clear
DI-	14	Other Glass		Other Plastic	Encore
Thiosulfate-		SOC Kit		Plastic Bag	Frozen:
Sulfuric-		Perchlorate		Ziplock	

Unused Media

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

Comments:



May 2022 Analytical Data

May 16, 2022

Sabrina Campbell
NYDEC_Labelle Associates - Ballston Spa, NY
5 McCrea Hill Road
Ballston Spa, NY 12020

Project Location: NY
Client Job Number:
Project Number: 344035
Laboratory Work Order Number: 22E0628

Enclosed are results of analyses for samples as received by the laboratory on May 10, 2022. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Raymond J. McCarthy
Project Manager

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

NYDEC_Labella Associates - Ballston Spa, NY
 5 McCrea Hill Road
 Ballston Spa, NY 12020
 ATTN: Sabrina Campbell

REPORT DATE: 5/16/2022

PURCHASE ORDER NUMBER: 142773

PROJECT NUMBER: 344035

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 22E0628

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

PROJECT LOCATION: NY

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
RW-3D	22E0628-01	Water		624.1 SM21-23 2540C SM21-23 4500 H B	
Effluent	22E0628-02	Water		624.1 SM21-23 2540C SM21-23 4500 H B	

CASE NARRATIVE SUMMARY

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

624.1

Qualifications:

L-01

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

Analyte & Samples(s) Qualified:

Bromoform

B308171-BS1

SM21-23 4500 H B

Qualifications:

H-05

Holding time was exceeded. pH analysis should be performed immediately at time of sampling. Nominal 15 minute holding time was exceeded.

Analyte & Samples(s) Qualified:

pH

22E0628-01[RW-3D], 22E0628-02[Effluent]

The results of analyses reported only relate to samples submitted to Con-Test, a Pace Analytical Laboratory, for testing.

I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.



Tod E. Kopycinski
Laboratory Director

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

Project Location: NY

Sample Description:

Work Order: 22E0628

Date Received: 5/10/2022

Field Sample #: RW-3D

Sampled: 5/9/2022 10:20

Sample ID: 22E0628-01

Sample Matrix: Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Benzene	<0.200	1.00	0.200	µg/L	1		624.1	5/11/22	5/11/22 22:05	MFF
Bromodichloromethane	<0.180	2.00	0.180	µg/L	1		624.1	5/11/22	5/11/22 22:05	MFF
Bromoform	<0.383	2.00	0.383	µg/L	1		624.1	5/11/22	5/11/22 22:05	MFF
Bromomethane	<1.54	2.00	1.54	µg/L	1		624.1	5/11/22	5/11/22 22:05	MFF
Carbon Tetrachloride	<0.165	2.00	0.165	µg/L	1		624.1	5/11/22	5/11/22 22:05	MFF
Chlorobenzene	<0.105	2.00	0.105	µg/L	1		624.1	5/11/22	5/11/22 22:05	MFF
Chlorodibromomethane	<0.222	2.00	0.222	µg/L	1		624.1	5/11/22	5/11/22 22:05	MFF
Chloroethane	<0.320	2.00	0.320	µg/L	1		624.1	5/11/22	5/11/22 22:05	MFF
Chloroform	0.680	2.00	0.168	µg/L	1	J	624.1	5/11/22	5/11/22 22:05	MFF
Chloromethane	<0.522	2.00	0.522	µg/L	1		624.1	5/11/22	5/11/22 22:05	MFF
1,2-Dichlorobenzene	<0.122	2.00	0.122	µg/L	1		624.1	5/11/22	5/11/22 22:05	MFF
1,3-Dichlorobenzene	<0.118	2.00	0.118	µg/L	1		624.1	5/11/22	5/11/22 22:05	MFF
1,4-Dichlorobenzene	<0.130	2.00	0.130	µg/L	1		624.1	5/11/22	5/11/22 22:05	MFF
1,2-Dichloroethane	<0.308	2.00	0.308	µg/L	1		624.1	5/11/22	5/11/22 22:05	MFF
1,1-Dichloroethane	<0.142	2.00	0.142	µg/L	1		624.1	5/11/22	5/11/22 22:05	MFF
1,1-Dichloroethylene	<0.141	2.00	0.141	µg/L	1		624.1	5/11/22	5/11/22 22:05	MFF
trans-1,2-Dichloroethylene	<0.169	2.00	0.169	µg/L	1		624.1	5/11/22	5/11/22 22:05	MFF
1,2-Dichloropropane	<0.181	2.00	0.181	µg/L	1		624.1	5/11/22	5/11/22 22:05	MFF
cis-1,3-Dichloropropene	<0.158	2.00	0.158	µg/L	1		624.1	5/11/22	5/11/22 22:05	MFF
trans-1,3-Dichloropropene	<0.168	2.00	0.168	µg/L	1		624.1	5/11/22	5/11/22 22:05	MFF
Ethylbenzene	<0.215	2.00	0.215	µg/L	1		624.1	5/11/22	5/11/22 22:05	MFF
Methyl tert-Butyl Ether (MTBE)	<0.172	2.00	0.172	µg/L	1		624.1	5/11/22	5/11/22 22:05	MFF
Methylene Chloride	<0.235	5.00	0.235	µg/L	1		624.1	5/11/22	5/11/22 22:05	MFF
1,1,2,2-Tetrachloroethane	<0.127	2.00	0.127	µg/L	1		624.1	5/11/22	5/11/22 22:05	MFF
Tetrachloroethylene	140	2.00	0.187	µg/L	1		624.1	5/11/22	5/11/22 22:05	MFF
Toluene	<0.224	1.00	0.224	µg/L	1		624.1	5/11/22	5/11/22 22:05	MFF
1,1,1-Trichloroethane	<0.169	2.00	0.169	µg/L	1		624.1	5/11/22	5/11/22 22:05	MFF
1,1,2-Trichloroethane	<0.183	2.00	0.183	µg/L	1		624.1	5/11/22	5/11/22 22:05	MFF
Trichloroethylene	121	2.00	0.189	µg/L	1		624.1	5/11/22	5/11/22 22:05	MFF
Trichlorofluoromethane (Freon 11)	<0.176	2.00	0.176	µg/L	1		624.1	5/11/22	5/11/22 22:05	MFF
Vinyl Chloride	<0.208	2.00	0.208	µg/L	1		624.1	5/11/22	5/11/22 22:05	MFF
m+p Xylene	<0.459	2.00	0.459	µg/L	1		624.1	5/11/22	5/11/22 22:05	MFF
o-Xylene	<0.230	1.00	0.230	µg/L	1		624.1	5/11/22	5/11/22 22:05	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual
1,2-Dichloroethane-d4	96.9	70-130	5/11/22 22:05
Toluene-d8	97.6	70-130	5/11/22 22:05
4-Bromofluorobenzene	97.0	70-130	5/11/22 22:05

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

Project Location: NY

Sample Description:

Work Order: 22E0628

Date Received: 5/10/2022

Field Sample #: RW-3D

Sampled: 5/9/2022 10:20

Sample ID: 22E0628-01

Sample Matrix: Water

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
pH @17.8°C	7.2		pH Units	1	H-05	SM21-23 4500 H B	5/10/22	5/10/22 20:20	JEC

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

Project Location: NY

Sample Description:

Work Order: 22E0628

Date Received: 5/10/2022

Field Sample #: RW-3D

Sampled: 5/9/2022 10:20

Sample ID: 22E0628-01

Sample Matrix: Water

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Dissolved)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Total Dissolved Solids	590	10	mg/L	1		SM21-23 2540C	5/12/22	5/12/22 12:23	LL

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

Project Location: NY

Sample Description:

Work Order: 22E0628

Date Received: 5/10/2022

Field Sample #: Effluent

Sampled: 5/9/2022 10:15

Sample ID: 22E0628-02

Sample Matrix: Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Benzene	<0.200	1.00	0.200	µg/L	1		624.1	5/11/22	5/11/22 21:41	MFF
Bromodichloromethane	<0.180	2.00	0.180	µg/L	1		624.1	5/11/22	5/11/22 21:41	MFF
Bromoform	<0.383	2.00	0.383	µg/L	1		624.1	5/11/22	5/11/22 21:41	MFF
Bromomethane	<1.54	2.00	1.54	µg/L	1		624.1	5/11/22	5/11/22 21:41	MFF
Carbon Tetrachloride	<0.165	2.00	0.165	µg/L	1		624.1	5/11/22	5/11/22 21:41	MFF
Chlorobenzene	<0.105	2.00	0.105	µg/L	1		624.1	5/11/22	5/11/22 21:41	MFF
Chlorodibromomethane	<0.222	2.00	0.222	µg/L	1		624.1	5/11/22	5/11/22 21:41	MFF
Chloroethane	<0.320	2.00	0.320	µg/L	1		624.1	5/11/22	5/11/22 21:41	MFF
Chloroform	<0.168	2.00	0.168	µg/L	1		624.1	5/11/22	5/11/22 21:41	MFF
Chloromethane	<0.522	2.00	0.522	µg/L	1		624.1	5/11/22	5/11/22 21:41	MFF
1,2-Dichlorobenzene	<0.122	2.00	0.122	µg/L	1		624.1	5/11/22	5/11/22 21:41	MFF
1,3-Dichlorobenzene	<0.118	2.00	0.118	µg/L	1		624.1	5/11/22	5/11/22 21:41	MFF
1,4-Dichlorobenzene	<0.130	2.00	0.130	µg/L	1		624.1	5/11/22	5/11/22 21:41	MFF
1,2-Dichloroethane	<0.308	2.00	0.308	µg/L	1		624.1	5/11/22	5/11/22 21:41	MFF
1,1-Dichloroethane	<0.142	2.00	0.142	µg/L	1		624.1	5/11/22	5/11/22 21:41	MFF
1,1-Dichloroethylene	<0.141	2.00	0.141	µg/L	1		624.1	5/11/22	5/11/22 21:41	MFF
trans-1,2-Dichloroethylene	<0.169	2.00	0.169	µg/L	1		624.1	5/11/22	5/11/22 21:41	MFF
1,2-Dichloropropane	<0.181	2.00	0.181	µg/L	1		624.1	5/11/22	5/11/22 21:41	MFF
cis-1,3-Dichloropropene	<0.158	2.00	0.158	µg/L	1		624.1	5/11/22	5/11/22 21:41	MFF
trans-1,3-Dichloropropene	<0.168	2.00	0.168	µg/L	1		624.1	5/11/22	5/11/22 21:41	MFF
Ethylbenzene	<0.215	2.00	0.215	µg/L	1		624.1	5/11/22	5/11/22 21:41	MFF
Methyl tert-Butyl Ether (MTBE)	<0.172	2.00	0.172	µg/L	1		624.1	5/11/22	5/11/22 21:41	MFF
Methylene Chloride	<0.235	5.00	0.235	µg/L	1		624.1	5/11/22	5/11/22 21:41	MFF
1,1,2,2-Tetrachloroethane	<0.127	2.00	0.127	µg/L	1		624.1	5/11/22	5/11/22 21:41	MFF
Tetrachloroethylene	0.560	2.00	0.187	µg/L	1	J	624.1	5/11/22	5/11/22 21:41	MFF
Toluene	<0.224	1.00	0.224	µg/L	1		624.1	5/11/22	5/11/22 21:41	MFF
1,1,1-Trichloroethane	<0.169	2.00	0.169	µg/L	1		624.1	5/11/22	5/11/22 21:41	MFF
1,1,2-Trichloroethane	<0.183	2.00	0.183	µg/L	1		624.1	5/11/22	5/11/22 21:41	MFF
Trichloroethylene	0.240	2.00	0.189	µg/L	1	J	624.1	5/11/22	5/11/22 21:41	MFF
Trichlorofluoromethane (Freon 11)	<0.176	2.00	0.176	µg/L	1		624.1	5/11/22	5/11/22 21:41	MFF
Vinyl Chloride	<0.208	2.00	0.208	µg/L	1		624.1	5/11/22	5/11/22 21:41	MFF
m+p Xylene	<0.459	2.00	0.459	µg/L	1		624.1	5/11/22	5/11/22 21:41	MFF
o-Xylene	<0.230	1.00	0.230	µg/L	1		624.1	5/11/22	5/11/22 21:41	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual
1,2-Dichloroethane-d4	98.7	70-130	5/11/22 21:41
Toluene-d8	98.8	70-130	5/11/22 21:41
4-Bromofluorobenzene	98.2	70-130	5/11/22 21:41

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Project Location: NY

Sample Description:

Work Order: 22E0628

Date Received: 5/10/2022

Field Sample #: Effluent

Sampled: 5/9/2022 10:15

Sample ID: 22E0628-02

Sample Matrix: Water

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
pH @18.7°C	8.2		pH Units	1	H-05	SM21-23 4500 H B	5/10/22	5/10/22 20:20	JEC

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Project Location: NY

Sample Description:

Work Order: 22E0628

Date Received: 5/10/2022

Sampled: 5/9/2022 10:15

Field Sample #: Effluent
Sample ID: 22E0628-02

Sample Matrix: Water

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Dissolved)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Total Dissolved Solids	610	10	mg/L	1		SM21-23 2540C	5/12/22	5/12/22 12:23	LL

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Sample Extraction Data
Prep Method: SW-846 5030B Analytical Method: 624.1

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
22E0628-01 [RW-3D]	B308171	5	5.00	05/11/22
22E0628-02 [Effluent]	B308171	5	5.00	05/11/22

SM21-23 2540C

Lab Number [Field ID]	Batch	Initial [mL]	Date
22E0628-01 [RW-3D]	B308224	50.0	05/12/22
22E0628-02 [Effluent]	B308224	50.0	05/12/22

SM21-23 4500 H B

Lab Number [Field ID]	Batch	Initial [mL]	Date
22E0628-01 [RW-3D]	B308111	50.0	05/10/22
22E0628-02 [Effluent]	B308111	50.0	05/10/22

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B308171 - SW-846 5030B										
Blank (B308171-BLK1)										
Prepared & Analyzed: 05/11/22										
Benzene	ND	1.00	µg/L							
Bromodichloromethane	ND	2.00	µg/L							
Bromoform	ND	2.00	µg/L							
Bromomethane	ND	2.00	µg/L							
Carbon Tetrachloride	ND	2.00	µg/L							
Chlorobenzene	ND	2.00	µg/L							
Chlorodibromomethane	ND	2.00	µg/L							
Chloroethane	ND	2.00	µg/L							
Chloroform	ND	2.00	µg/L							
Chloromethane	ND	2.00	µg/L							
1,2-Dichlorobenzene	ND	2.00	µg/L							
1,3-Dichlorobenzene	ND	2.00	µg/L							
1,4-Dichlorobenzene	ND	2.00	µg/L							
1,2-Dichloroethane	ND	2.00	µg/L							
1,1-Dichloroethane	ND	2.00	µg/L							
1,1-Dichloroethylene	ND	2.00	µg/L							
trans-1,2-Dichloroethylene	ND	2.00	µg/L							
1,2-Dichloropropane	ND	2.00	µg/L							
cis-1,3-Dichloropropene	ND	2.00	µg/L							
trans-1,3-Dichloropropene	ND	2.00	µg/L							
Ethylbenzene	ND	2.00	µg/L							
Methyl tert-Butyl Ether (MTBE)	ND	2.00	µg/L							
Methylene Chloride	ND	5.00	µg/L							
1,1,2,2-Tetrachloroethane	ND	2.00	µg/L							
Tetrachloroethylene	ND	2.00	µg/L							
Toluene	ND	1.00	µg/L							
1,1,1-Trichloroethane	ND	2.00	µg/L							
1,1,2-Trichloroethane	ND	2.00	µg/L							
Trichloroethylene	ND	2.00	µg/L							
Trichlorofluoromethane (Freon 11)	ND	2.00	µg/L							
Vinyl Chloride	ND	2.00	µg/L							
m+p Xylene	ND	2.00	µg/L							
o-Xylene	ND	1.00	µg/L							
Surrogate: 1,2-Dichloroethane-d4	25.0		µg/L	25.0		100	70-130			
Surrogate: Toluene-d8	24.5		µg/L	25.0		98.2	70-130			
Surrogate: 4-Bromofluorobenzene	25.2		µg/L	25.0		101	70-130			
LCS (B308171-BS1)										
Prepared & Analyzed: 05/11/22										
Benzene	20	1.00	µg/L	20.0		100	65-135			
Bromodichloromethane	25	2.00	µg/L	20.0		126	65-135			
Bromoform	27	2.00	µg/L	20.0		137 *	70-130			L-01
Bromomethane	15	2.00	µg/L	20.0		74.5	15-185			
Carbon Tetrachloride	25	2.00	µg/L	20.0		124	70-130			
Chlorobenzene	25	2.00	µg/L	20.0		124	65-135			
Chlorodibromomethane	25	2.00	µg/L	20.0		125	70-135			
Chloroethane	21	2.00	µg/L	20.0		103	40-160			
Chloroform	22	2.00	µg/L	20.0		110	70-135			
Chloromethane	11	2.00	µg/L	20.0		56.2	20-205			
1,2-Dichlorobenzene	24	2.00	µg/L	20.0		118	65-135			
1,3-Dichlorobenzene	24	2.00	µg/L	20.0		119	70-130			
1,4-Dichlorobenzene	22	2.00	µg/L	20.0		112	65-135			
1,2-Dichloroethane	23	2.00	µg/L	20.0		116	70-130			

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B308171 - SW-846 5030B										
LCS (B308171-BS1)										
Prepared & Analyzed: 05/11/22										
1,1-Dichloroethane	20	2.00	µg/L	20.0		101	70-130			
1,1-Dichloroethylene	25	2.00	µg/L	20.0		123	50-150			
trans-1,2-Dichloroethylene	19	2.00	µg/L	20.0		96.2	70-130			
1,2-Dichloropropane	21	2.00	µg/L	20.0		106	35-165			
cis-1,3-Dichloropropene	22	2.00	µg/L	20.0		111	25-175			
trans-1,3-Dichloropropene	23	2.00	µg/L	20.0		114	50-150			
Ethylbenzene	24	2.00	µg/L	20.0		121	60-140			
Methyl tert-Butyl Ether (MTBE)	22	2.00	µg/L	20.0		110	70-130			
Methylene Chloride	22	5.00	µg/L	20.0		109	60-140			
1,1,2,2-Tetrachloroethane	24	2.00	µg/L	20.0		119	60-140			
Tetrachloroethylene	26	2.00	µg/L	20.0		128	70-130			
Toluene	23	1.00	µg/L	20.0		116	70-130			
1,1,1-Trichloroethane	24	2.00	µg/L	20.0		122	70-130			
1,1,2-Trichloroethane	24	2.00	µg/L	20.0		119	70-130			
Trichloroethylene	24	2.00	µg/L	20.0		121	65-135			
Trichlorofluoromethane (Freon 11)	25	2.00	µg/L	20.0		126	50-150			
Vinyl Chloride	15	2.00	µg/L	20.0		77.0	5-195			
m+p Xylene	49	2.00	µg/L	40.0		122	70-130			
o-Xylene	25	1.00	µg/L	20.0		125	70-130			
Surrogate: 1,2-Dichloroethane-d4	24.4		µg/L	25.0		97.6	70-130			
Surrogate: Toluene-d8	25.2		µg/L	25.0		101	70-130			
Surrogate: 4-Bromofluorobenzene	25.9		µg/L	25.0		104	70-130			

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QUALITY CONTROL
Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B308111 - SM21-23 4500 H B
LCS (B308111-BS1)

Prepared & Analyzed: 05/10/22

pH	6.00		pH Units	6.00		99.9	90-110			
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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL
Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Dissolved) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B308224 - SM21-23 2540C										
Blank (B308224-BLK1)				Prepared & Analyzed: 05/12/22						
Total Dissolved Solids	ND	10	mg/L							
LCS (B308224-BS1)				Prepared & Analyzed: 05/12/22						
Total Dissolved Solids	260	10	mg/L	293		88.7	64.9-119			

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FLAG/QUALIFIER SUMMARY

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
ND	Not Detected
RL	Reporting Limit is at the level of quantitation (LOQ)
DL	Detection Limit is the lower limit of detection determined by the MDL study
MCL	Maximum Contaminant Level
	Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
	No results have been blank subtracted unless specified in the case narrative section.
H-05	Holding time was exceeded. pH analysis should be performed immediately at time of sampling. Nominal 15 minute holding time was exceeded.
J	Detected but below the Reporting Limit (lowest calibration standard); therefore, result is an estimated concentration (CLP J-Flag).
L-01	Laboratory fortified blank/laboratory control sample recovery outside of control limits. Data validation is not affected since all results are "not detected" for all samples in this batch for this compound and bias is on the high side.

CERTIFICATIONS
Certified Analyses included in this Report

Analyte	Certifications
624.1 in Water	
Benzene	CT,NY,MA,NH,RI,NC,ME,VA
Bromodichloromethane	CT,NY,MA,NH,RI,NC,ME,VA
Bromoform	CT,NY,MA,NH,RI,NC,ME,VA
Bromomethane	CT,NY,MA,NH,RI,NC,ME,VA
Carbon Tetrachloride	CT,NY,MA,NH,RI,NC,ME,VA
Chlorobenzene	CT,NY,MA,NH,RI,NC,ME,VA
Chlorodibromomethane	CT,NY,MA,NH,RI,NC,ME,VA
Chloroethane	CT,NY,MA,NH,RI,NC,ME,VA
Chloroform	CT,NY,MA,NH,RI,NC,ME,VA
Chloromethane	CT,NY,MA,NH,RI,NC,ME,VA
1,2-Dichlorobenzene	CT,NY,MA,NH,RI,NC,ME,VA
1,3-Dichlorobenzene	CT,NY,MA,NH,RI,NC,ME,VA
1,4-Dichlorobenzene	CT,NY,MA,NH,RI,NC,ME,VA
1,2-Dichloroethane	CT,NY,MA,NH,RI,NC,ME,VA
1,1-Dichloroethane	CT,NY,MA,NH,RI,NC,ME,VA
1,1-Dichloroethylene	CT,NY,MA,NH,RI,NC,ME,VA
trans-1,2-Dichloroethylene	CT,NY,MA,NH,RI,NC,ME,VA
1,2-Dichloropropane	CT,NY,MA,NH,RI,NC,ME,VA
cis-1,3-Dichloropropene	CT,NY,MA,NH,RI,NC,ME,VA
trans-1,3-Dichloropropene	CT,NY,MA,NH,RI,NC,ME,VA
Ethylbenzene	CT,NY,MA,NH,RI,NC,ME,VA
Methyl tert-Butyl Ether (MTBE)	NY,MA,NH,NC
Methylene Chloride	CT,NY,MA,NH,RI,NC,ME,VA
1,1,2,2-Tetrachloroethane	CT,NY,MA,NH,RI,NC,ME,VA
Tetrachloroethylene	CT,NY,MA,NH,RI,NC,ME,VA
Toluene	CT,NY,MA,NH,RI,NC,ME,VA
1,1,1-Trichloroethane	CT,NY,MA,NH,RI,NC,ME,VA
1,1,2-Trichloroethane	CT,NY,MA,NH,RI,NC,ME,VA
Trichloroethylene	CT,NY,MA,NH,RI,NC,ME,VA
Trichlorofluoromethane (Freon 11)	CT,NY,MA,NH,RI,NC,ME,VA
Vinyl Chloride	CT,NY,MA,NH,RI,NC,ME,VA
m+p Xylene	CT,NY,MA,NH,RI,NC
o-Xylene	CT,NY,MA,NH,RI,NC
SM21-23 2540C in Water	
Total Dissolved Solids	CT,MA,NH,NY,RI,NC,ME,VA
SM21-23 4500 H B in Water	
pH	CT,MA,RI

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

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC - ISO17025:2017	100033	03/1/2024
MA	Massachusetts DEP	M-MA100	06/30/2022
CT	Connecticut Department of Public Health	PH-0165	12/31/2022
NY	New York State Department of Health	10899 NELAP	04/1/2023
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2023
RI	Rhode Island Department of Health	LAO00373	12/30/2022
NC	North Carolina Div. of Water Quality	652	12/31/2022
NJ	New Jersey DEP	MA007 NELAP	06/30/2022
FL	Florida Department of Health	E871027 NELAP	06/30/2022
VT	Vermont Department of Health Lead Laboratory	LL720741	07/30/2022
ME	State of Maine	MA00100	06/9/2023
VA	Commonwealth of Virginia	460217	12/14/2022
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2022
VT-DW	Vermont Department of Health Drinking Water	VT-255716	06/12/2022
NC-DW	North Carolina Department of Health	25703	07/31/2022
PA	Commonwealth of Pennsylvania DEP	68-05812	06/30/2022
MI	Dept. of Env, Great Lakes, and Energy	9100	09/6/2022

Client Information
 Client Contact: **Sabrina Campfield**
 Company: **LaBella Associates**
 Address: **5 McCrea Hill Rd.**
 City: **Ballston Spa NY**
 State/Zip: **New York**
 Phone: **845 866 1335**
 Email: **scampfield@labellappc.com**
 Project Name/number: **COSCO #344035**
 Site:

Sampler: *Elizy Corby*
Lab PM: *Mike B. H. c. h.*
E-Mail: **scampfield@labellappc.com**

Carrier Tracking No(s):

Analysis Requested

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Preservation Code	Matrix (W=water, S=solid, O=wastefluid, B=Tissue, A=Air)	Field Filtered Sample?	Perform MS/MSD?	2540C - Total Dissolved Solids	9040B - pH	6241_PREC - (MOD) Priority Pollutant Volatile	Total Number of Containers	Special Instructions/Note:
RW-3D	5/9/22	1020	G	Water	Water	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	4	1
Effluent	5/9/22	1015	G	Water	Water	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	4	2

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab Archive For _____ Months

Special Instructions/QC Requirements: please send copy to

Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Poison Unknown Radiological

Deliverable Requested: I, II, III, IV, Other (specify)

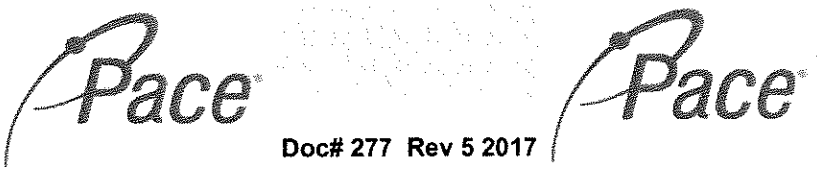
Relinquished by: *Elizy Corby* Date/Time: **5/9/22 1300** Company: **LaBella**

Received by: *Mike B. H. c. h.* Date/Time: **5-10-22 10:55** Company: **LaBella**

Received by: *Mike B. H. c. h.* Date/Time: **5-10-22 1545** Company: **LaBella**

Cooler Temperature: °C and Other Remarks: **3.1 5/10/22 1715**

I Have Not Confirmed Sample Container Numbers With Lab Staff Before Relinquishing Over Samples _____



Doc# 277 Rev 5 2017

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

Client Labella
 Received By DK Date 5/10/22 Time 1715
 How were the samples received? In Cooler 7 No Cooler _____ On Ice 7 No Ice _____
 Direct from Sampling _____ Ambient _____ Melted Ice _____
 Were samples within Temperature? 2-6°C 7 By Gun # 3 Actual Temp - 3.1
 By Blank # _____ Actual Temp - _____
 Was Custody Seal Intact? NA Were Samples Tampered with? NA
 Was COC Relinquished? 7 Does Chain Agree With Samples? 7
 Are there broken/leaking/loose caps on any samples? F
 Is COC in ink/ Legible? 7 Were samples received within holding time? F
 Did COC include all pertinent Information? Client 7 Analysis 7 Sampler Name 7
 Project 7 ID's 7 Collection Dates/Times 7
 Are Sample labels filled out and legible? 7
 Are there Lab to Filters? F Who was notified? _____
 Are there Rushes? F Who was notified? _____
 Are there Short Holds? 7 Who was notified? Fabiola
 Is there enough Volume? T
 Is there Headspace where applicable? F MS/MSD? F
 Proper Media/Containers Used? 7 Is splitting samples required? F
 Were trip blanks received? F On COC? F
 Do all samples have the proper pH? NA Acid _____ Base _____

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

Unused Media

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

Comments:



June 2022 Analytical Data

June 17, 2022

Sabrina Campbell
NYDEC_Labelle Associates - Ballston Spa, NY
5 McCrea Hill Road
Ballston Spa, NY 12020

Project Location: 15 West St., Spring Valley, NY
Client Job Number:
Project Number: 344035
Laboratory Work Order Number: 22F0542

Enclosed are results of analyses for samples as received by the laboratory on June 8, 2022. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Raymond J. McCarthy
Project Manager

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

 NYDEC_Labelle Associates - Ballston Spa, NY
 5 McCrea Hill Road
 Ballston Spa, NY 12020
 ATTN: Sabrina Campbell

REPORT DATE: 6/17/2022

PURCHASE ORDER NUMBER: 142773

PROJECT NUMBER: 344035

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 22F0542

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

PROJECT LOCATION: 15 West St., Spring Valley, NY

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
RW-3D	22F0542-01	Water		624.1 SM21-23 2540C SM21-23 4500 H B	
Effluent	22F0542-02	Water		624.1 SM21-23 2540C SM21-23 4500 H B	

CASE NARRATIVE SUMMARY

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

624.1

Qualifications:

R-05
Laboratory fortified blank duplicate RPD is outside of control limits. Reduced precision is anticipated for any reported value for this compound.

Analyte & Samples(s) Qualified:

Bromomethane
22F0542-01[RW-3D], 22F0542-02[Effluent], B310179-BLK1, B310179-BS1, B310179-BSD1, S072499-CCV1

RL-11
Elevated reporting limit due to high concentration of target compounds.

Analyte & Samples(s) Qualified:

22F0542-01[RW-3D]

SM21-23 4500 H B

Qualifications:

H-05
Holding time was exceeded. pH analysis should be performed immediately at time of sampling. Nominal 15 minute holding time was exceeded.

Analyte & Samples(s) Qualified:

pH
22F0542-01[RW-3D], 22F0542-02[Effluent]

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



Lisa A. Worthington
Technical Representative

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

Project Location: 15 West St., Spring Valley, NY

Sample Description:

Work Order: 22F0542

Date Received: 6/8/2022

Field Sample #: RW-3D

Sampled: 6/8/2022 11:00

Sample ID: 22F0542-01

Sample Matrix: Water

Sample Flags: RL-11

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Benzene	<0.400	2.00	0.400	µg/L	2		624.1	6/9/22	6/9/22 7:42	MFF
Bromodichloromethane	<0.361	4.00	0.361	µg/L	2		624.1	6/9/22	6/9/22 7:42	MFF
Bromoform	<0.766	4.00	0.766	µg/L	2		624.1	6/9/22	6/9/22 7:42	MFF
Bromomethane	<3.08	10.0	3.08	µg/L	2	R-05	624.1	6/9/22	6/9/22 7:42	MFF
Carbon Tetrachloride	<0.330	4.00	0.330	µg/L	2		624.1	6/9/22	6/9/22 7:42	MFF
Chlorobenzene	<0.211	4.00	0.211	µg/L	2		624.1	6/9/22	6/9/22 7:42	MFF
Chlorodibromomethane	<0.445	4.00	0.445	µg/L	2		624.1	6/9/22	6/9/22 7:42	MFF
Chloroethane	<0.641	4.00	0.641	µg/L	2		624.1	6/9/22	6/9/22 7:42	MFF
Chloroform	0.460	4.00	0.335	µg/L	2	J	624.1	6/9/22	6/9/22 7:42	MFF
Chloromethane	<1.04	4.00	1.04	µg/L	2		624.1	6/9/22	6/9/22 7:42	MFF
1,2-Dichlorobenzene	<0.244	4.00	0.244	µg/L	2		624.1	6/9/22	6/9/22 7:42	MFF
1,3-Dichlorobenzene	<0.236	4.00	0.236	µg/L	2		624.1	6/9/22	6/9/22 7:42	MFF
1,4-Dichlorobenzene	<0.261	4.00	0.261	µg/L	2		624.1	6/9/22	6/9/22 7:42	MFF
1,2-Dichloroethane	<0.616	4.00	0.616	µg/L	2		624.1	6/9/22	6/9/22 7:42	MFF
1,1-Dichloroethane	<0.283	4.00	0.283	µg/L	2		624.1	6/9/22	6/9/22 7:42	MFF
1,1-Dichloroethylene	<0.283	4.00	0.283	µg/L	2		624.1	6/9/22	6/9/22 7:42	MFF
trans-1,2-Dichloroethylene	0.720	4.00	0.337	µg/L	2	J	624.1	6/9/22	6/9/22 7:42	MFF
1,2-Dichloropropane	<0.362	4.00	0.362	µg/L	2		624.1	6/9/22	6/9/22 7:42	MFF
cis-1,3-Dichloropropene	<0.316	4.00	0.316	µg/L	2		624.1	6/9/22	6/9/22 7:42	MFF
trans-1,3-Dichloropropene	<0.336	4.00	0.336	µg/L	2		624.1	6/9/22	6/9/22 7:42	MFF
Ethylbenzene	<0.430	4.00	0.430	µg/L	2		624.1	6/9/22	6/9/22 7:42	MFF
Methyl tert-Butyl Ether (MTBE)	<0.344	4.00	0.344	µg/L	2		624.1	6/9/22	6/9/22 7:42	MFF
Methylene Chloride	<0.470	10.0	0.470	µg/L	2		624.1	6/9/22	6/9/22 7:42	MFF
1,1,2,2-Tetrachloroethane	<0.253	4.00	0.253	µg/L	2		624.1	6/9/22	6/9/22 7:42	MFF
Tetrachloroethylene	190	4.00	0.374	µg/L	2		624.1	6/9/22	6/9/22 7:42	MFF
Toluene	<0.448	2.00	0.448	µg/L	2		624.1	6/9/22	6/9/22 7:42	MFF
1,1,1-Trichloroethane	<0.338	4.00	0.338	µg/L	2		624.1	6/9/22	6/9/22 7:42	MFF
1,1,2-Trichloroethane	<0.365	4.00	0.365	µg/L	2		624.1	6/9/22	6/9/22 7:42	MFF
Trichloroethylene	162	4.00	0.379	µg/L	2		624.1	6/9/22	6/9/22 7:42	MFF
Trichlorofluoromethane (Freon 11)	<0.352	4.00	0.352	µg/L	2		624.1	6/9/22	6/9/22 7:42	MFF
Vinyl Chloride	<0.415	4.00	0.415	µg/L	2		624.1	6/9/22	6/9/22 7:42	MFF
m+p Xylene	<0.918	4.00	0.918	µg/L	2		624.1	6/9/22	6/9/22 7:42	MFF
o-Xylene	<0.459	2.00	0.459	µg/L	2		624.1	6/9/22	6/9/22 7:42	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual
1,2-Dichloroethane-d4	76.4	70-130	6/9/22 7:42
Toluene-d8	101	70-130	6/9/22 7:42
4-Bromofluorobenzene	103	70-130	6/9/22 7:42

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

Project Location: 15 West St., Spring Valley, NY

Sample Description:

Work Order: 22F0542

Date Received: 6/8/2022

Field Sample #: RW-3D

Sampled: 6/8/2022 11:00

Sample ID: 22F0542-01

Sample Matrix: Water

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
pH @24.3°C	7.4		pH Units	1	H-05	SM21-23 4500 H B	6/8/22	6/8/22 21:10	JEC

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

Project Location: 15 West St., Spring Valley, NY

Sample Description:

Work Order: 22F0542

Date Received: 6/8/2022

Field Sample #: RW-3D

Sampled: 6/8/2022 11:00

Sample ID: 22F0542-01

Sample Matrix: Water

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Dissolved)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Total Dissolved Solids	610	10	mg/L	1		SM21-23 2540C	6/13/22	6/14/22 12:25	LL

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

Project Location: 15 West St., Spring Valley, NY

Sample Description:

Work Order: 22F0542

Date Received: 6/8/2022

Field Sample #: Effluent

Sampled: 6/8/2022 11:10

Sample ID: 22F0542-02

Sample Matrix: Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Benzene	<0.200	1.00	0.200	µg/L	1		624.1	6/9/22	6/9/22 7:15	MFF
Bromodichloromethane	<0.180	2.00	0.180	µg/L	1		624.1	6/9/22	6/9/22 7:15	MFF
Bromoform	<0.383	2.00	0.383	µg/L	1		624.1	6/9/22	6/9/22 7:15	MFF
Bromomethane	<1.54	5.00	1.54	µg/L	1	R-05	624.1	6/9/22	6/9/22 7:15	MFF
Carbon Tetrachloride	<0.165	2.00	0.165	µg/L	1		624.1	6/9/22	6/9/22 7:15	MFF
Chlorobenzene	<0.105	2.00	0.105	µg/L	1		624.1	6/9/22	6/9/22 7:15	MFF
Chlorodibromomethane	<0.222	2.00	0.222	µg/L	1		624.1	6/9/22	6/9/22 7:15	MFF
Chloroethane	<0.320	2.00	0.320	µg/L	1		624.1	6/9/22	6/9/22 7:15	MFF
Chloroform	<0.168	2.00	0.168	µg/L	1		624.1	6/9/22	6/9/22 7:15	MFF
Chloromethane	<0.522	2.00	0.522	µg/L	1		624.1	6/9/22	6/9/22 7:15	MFF
1,2-Dichlorobenzene	<0.122	2.00	0.122	µg/L	1		624.1	6/9/22	6/9/22 7:15	MFF
1,3-Dichlorobenzene	<0.118	2.00	0.118	µg/L	1		624.1	6/9/22	6/9/22 7:15	MFF
1,4-Dichlorobenzene	<0.130	2.00	0.130	µg/L	1		624.1	6/9/22	6/9/22 7:15	MFF
1,2-Dichloroethane	<0.308	2.00	0.308	µg/L	1		624.1	6/9/22	6/9/22 7:15	MFF
1,1-Dichloroethane	<0.142	2.00	0.142	µg/L	1		624.1	6/9/22	6/9/22 7:15	MFF
1,1-Dichloroethylene	<0.141	2.00	0.141	µg/L	1		624.1	6/9/22	6/9/22 7:15	MFF
trans-1,2-Dichloroethylene	<0.169	2.00	0.169	µg/L	1		624.1	6/9/22	6/9/22 7:15	MFF
1,2-Dichloropropane	<0.181	2.00	0.181	µg/L	1		624.1	6/9/22	6/9/22 7:15	MFF
cis-1,3-Dichloropropene	<0.158	2.00	0.158	µg/L	1		624.1	6/9/22	6/9/22 7:15	MFF
trans-1,3-Dichloropropene	<0.168	2.00	0.168	µg/L	1		624.1	6/9/22	6/9/22 7:15	MFF
Ethylbenzene	<0.215	2.00	0.215	µg/L	1		624.1	6/9/22	6/9/22 7:15	MFF
Methyl tert-Butyl Ether (MTBE)	<0.172	2.00	0.172	µg/L	1		624.1	6/9/22	6/9/22 7:15	MFF
Methylene Chloride	<0.235	5.00	0.235	µg/L	1		624.1	6/9/22	6/9/22 7:15	MFF
1,1,2,2-Tetrachloroethane	<0.127	2.00	0.127	µg/L	1		624.1	6/9/22	6/9/22 7:15	MFF
Tetrachloroethylene	0.410	2.00	0.187	µg/L	1	J	624.1	6/9/22	6/9/22 7:15	MFF
Toluene	<0.224	1.00	0.224	µg/L	1		624.1	6/9/22	6/9/22 7:15	MFF
1,1,1-Trichloroethane	<0.169	2.00	0.169	µg/L	1		624.1	6/9/22	6/9/22 7:15	MFF
1,1,2-Trichloroethane	<0.183	2.00	0.183	µg/L	1		624.1	6/9/22	6/9/22 7:15	MFF
Trichloroethylene	<0.189	2.00	0.189	µg/L	1		624.1	6/9/22	6/9/22 7:15	MFF
Trichlorofluoromethane (Freon 11)	<0.176	2.00	0.176	µg/L	1		624.1	6/9/22	6/9/22 7:15	MFF
Vinyl Chloride	<0.208	2.00	0.208	µg/L	1		624.1	6/9/22	6/9/22 7:15	MFF
m+p Xylene	<0.459	2.00	0.459	µg/L	1		624.1	6/9/22	6/9/22 7:15	MFF
o-Xylene	<0.230	1.00	0.230	µg/L	1		624.1	6/9/22	6/9/22 7:15	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual
1,2-Dichloroethane-d4	76.2	70-130	6/9/22 7:15
Toluene-d8	99.4	70-130	6/9/22 7:15
4-Bromofluorobenzene	102	70-130	6/9/22 7:15

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

Project Location: 15 West St., Spring Valley, NY

Sample Description:

Work Order: 22F0542

Date Received: 6/8/2022

Field Sample #: Effluent

Sampled: 6/8/2022 11:10

Sample ID: 22F0542-02

Sample Matrix: Water

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
pH @24.1°C	8.0		pH Units	1	H-05	SM21-23 4500 H B	6/8/22	6/8/22 21:10	JEC

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

Project Location: 15 West St., Spring Valley, NY

Sample Description:

Work Order: 22F0542

Date Received: 6/8/2022

Field Sample #: Effluent

Sampled: 6/8/2022 11:10

Sample ID: 22F0542-02

Sample Matrix: Water

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Dissolved)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Total Dissolved Solids	550	10	mg/L	1		SM21-23 2540C	6/13/22	6/14/22 12:25	LL

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

Sample Extraction Data
Prep Method: SW-846 5030B Analytical Method: 624.1

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
22F0542-01 [RW-3D]	B310179	2.5	5.00	06/09/22
22F0542-02 [Effluent]	B310179	5	5.00	06/09/22

SM21-23 2540C

Lab Number [Field ID]	Batch	Initial [mL]	Date
22F0542-01 [RW-3D]	B310602	50.0	06/13/22
22F0542-02 [Effluent]	B310602	50.0	06/13/22

SM21-23 4500 H B

Lab Number [Field ID]	Batch	Initial [mL]	Date
22F0542-01 [RW-3D]	B310272	50.0	06/08/22
22F0542-02 [Effluent]	B310272	50.0	06/08/22

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 B310179 - SW-846 5030B
Blank (B310179-BLK1)

Prepared: 06/08/22 Analyzed: 06/09/22

Benzene	ND	1.00	µg/L							
Bromodichloromethane	ND	2.00	µg/L							
Bromoform	ND	2.00	µg/L							
Bromomethane	ND	2.00	µg/L							R-05
Carbon Tetrachloride	ND	2.00	µg/L							
Chlorobenzene	ND	2.00	µg/L							
Chlorodibromomethane	ND	2.00	µg/L							
Chloroethane	ND	2.00	µg/L							
Chloroform	ND	2.00	µg/L							
Chloromethane	ND	2.00	µg/L							
1,2-Dichlorobenzene	ND	2.00	µg/L							
1,3-Dichlorobenzene	ND	2.00	µg/L							
1,4-Dichlorobenzene	ND	2.00	µg/L							
1,2-Dichloroethane	ND	2.00	µg/L							
1,1-Dichloroethane	ND	2.00	µg/L							
1,1-Dichloroethylene	ND	2.00	µg/L							
trans-1,2-Dichloroethylene	ND	2.00	µg/L							
1,2-Dichloropropane	ND	2.00	µg/L							
cis-1,3-Dichloropropene	ND	2.00	µg/L							
trans-1,3-Dichloropropene	ND	2.00	µg/L							
Ethylbenzene	ND	2.00	µg/L							
Methyl tert-Butyl Ether (MTBE)	ND	2.00	µg/L							
Methylene Chloride	ND	5.00	µg/L							
1,1,2,2-Tetrachloroethane	ND	2.00	µg/L							
Tetrachloroethylene	ND	2.00	µg/L							
Toluene	ND	1.00	µg/L							
1,1,1-Trichloroethane	ND	2.00	µg/L							
1,1,2-Trichloroethane	ND	2.00	µg/L							
Trichloroethylene	ND	2.00	µg/L							
Trichlorofluoromethane (Freon 11)	ND	2.00	µg/L							
Vinyl Chloride	ND	2.00	µg/L							
m+p Xylene	ND	2.00	µg/L							
o-Xylene	ND	1.00	µg/L							
Surrogate: 1,2-Dichloroethane-d4	19.1		µg/L	25.0		76.6	70-130			
Surrogate: Toluene-d8	25.2		µg/L	25.0		101	70-130			
Surrogate: 4-Bromofluorobenzene	25.1		µg/L	25.0		101	70-130			

LCS (B310179-BS1)

Prepared: 06/08/22 Analyzed: 06/09/22

Benzene	21	1.00	µg/L	20.0		107	65-135			
Bromodichloromethane	20	2.00	µg/L	20.0		100	65-135			
Bromoform	20	2.00	µg/L	20.0		101	70-130			
Bromomethane	10	2.00	µg/L	20.0		50.7	15-185			R-05
Carbon Tetrachloride	19	2.00	µg/L	20.0		96.8	70-130			
Chlorobenzene	21	2.00	µg/L	20.0		105	65-135			
Chlorodibromomethane	21	2.00	µg/L	20.0		106	70-135			
Chloroethane	18	2.00	µg/L	20.0		87.8	40-160			
Chloroform	19	2.00	µg/L	20.0		96.8	70-135			
Chloromethane	6.9	2.00	µg/L	20.0		34.6	20-205			
1,2-Dichlorobenzene	18	2.00	µg/L	20.0		89.2	65-135			
1,3-Dichlorobenzene	18	2.00	µg/L	20.0		90.9	70-130			
1,4-Dichlorobenzene	18	2.00	µg/L	20.0		88.8	65-135			
1,2-Dichloroethane	20	2.00	µg/L	20.0		98.8	70-130			

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 B310179 - SW-846 5030B										
LCS (B310179-BS1)										
					Prepared: 06/08/22 Analyzed: 06/09/22					
1,1-Dichloroethane	23	2.00	µg/L	20.0		113	70-130			
1,1-Dichloroethylene	20	2.00	µg/L	20.0		99.4	50-150			
trans-1,2-Dichloroethylene	23	2.00	µg/L	20.0		113	70-130			
1,2-Dichloropropane	24	2.00	µg/L	20.0		120	35-165			
cis-1,3-Dichloropropene	19	2.00	µg/L	20.0		97.1	25-175			
trans-1,3-Dichloropropene	19	2.00	µg/L	20.0		96.6	50-150			
Ethylbenzene	21	2.00	µg/L	20.0		104	60-140			
Methyl tert-Butyl Ether (MTBE)	20	2.00	µg/L	20.0		101	70-130			
Methylene Chloride	21	5.00	µg/L	20.0		103	60-140			
1,1,2,2-Tetrachloroethane	20	2.00	µg/L	20.0		101	60-140			
Tetrachloroethylene	24	2.00	µg/L	20.0		118	70-130			
Toluene	22	1.00	µg/L	20.0		108	70-130			
1,1,1-Trichloroethane	20	2.00	µg/L	20.0		99.8	70-130			
1,1,2-Trichloroethane	22	2.00	µg/L	20.0		112	70-130			
Trichloroethylene	22	2.00	µg/L	20.0		108	65-135			
Trichlorofluoromethane (Freon 11)	15	2.00	µg/L	20.0		76.6	50-150			
Vinyl Chloride	18	2.00	µg/L	20.0		88.7	5-195			
m+p Xylene	42	2.00	µg/L	40.0		104	70-130			
o-Xylene	21	1.00	µg/L	20.0		105	70-130			
Surrogate: 1,2-Dichloroethane-d4	18.3		µg/L	25.0		73.1	70-130			
Surrogate: Toluene-d8	25.2		µg/L	25.0		101	70-130			
Surrogate: 4-Bromofluorobenzene	26.3		µg/L	25.0		105	70-130			
LCS Dup (B310179-BSD1)										
					Prepared: 06/08/22 Analyzed: 06/09/22					
Benzene	21	1.00	µg/L	20.0		104	65-135	2.18	20	
Bromodichloromethane	21	2.00	µg/L	20.0		103	65-135	2.22	20	
Bromoform	21	2.00	µg/L	20.0		103	70-130	1.81	20	
Bromomethane	14	2.00	µg/L	20.0		68.0	15-185	29.1 *	20	R-05
Carbon Tetrachloride	20	2.00	µg/L	20.0		97.8	70-130	0.977	20	
Chlorobenzene	22	2.00	µg/L	20.0		109	65-135	3.54	20	
Chlorodibromomethane	21	2.00	µg/L	20.0		107	70-135	1.78	20	
Chloroethane	18	2.00	µg/L	20.0		89.2	40-160	1.52	20	
Chloroform	20	2.00	µg/L	20.0		98.4	70-135	1.54	20	
Chloromethane	7.2	2.00	µg/L	20.0		35.8	20-205	3.69	20	
1,2-Dichlorobenzene	18	2.00	µg/L	20.0		89.8	65-135	0.614	20	
1,3-Dichlorobenzene	19	2.00	µg/L	20.0		93.4	70-130	2.71	20	
1,4-Dichlorobenzene	18	2.00	µg/L	20.0		89.6	65-135	0.897	20	
1,2-Dichloroethane	20	2.00	µg/L	20.0		98.6	70-130	0.203	20	
1,1-Dichloroethane	22	2.00	µg/L	20.0		111	70-130	2.05	20	
1,1-Dichloroethylene	19	2.00	µg/L	20.0		95.8	50-150	3.79	20	
trans-1,2-Dichloroethylene	22	2.00	µg/L	20.0		111	70-130	2.10	20	
1,2-Dichloropropane	24	2.00	µg/L	20.0		119	35-165	1.42	20	
cis-1,3-Dichloropropene	20	2.00	µg/L	20.0		98.4	25-175	1.33	20	
trans-1,3-Dichloropropene	20	2.00	µg/L	20.0		98.2	50-150	1.59	20	
Ethylbenzene	21	2.00	µg/L	20.0		106	60-140	1.38	20	
Methyl tert-Butyl Ether (MTBE)	20	2.00	µg/L	20.0		98.8	70-130	1.86	20	
Methylene Chloride	21	5.00	µg/L	20.0		103	60-140	0.145	20	
1,1,2,2-Tetrachloroethane	20	2.00	µg/L	20.0		101	60-140	0.495	20	
Tetrachloroethylene	23	2.00	µg/L	20.0		116	70-130	1.20	20	
Toluene	22	1.00	µg/L	20.0		110	70-130	1.19	20	
1,1,1-Trichloroethane	20	2.00	µg/L	20.0		99.0	70-130	0.804	20	
1,1,2-Trichloroethane	24	2.00	µg/L	20.0		118	70-130	4.87	20	

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 B310179 - SW-846 5030B										
LCS Dup (B310179-BSD1)										
					Prepared: 06/08/22 Analyzed: 06/09/22					
Trichloroethylene	22	2.00	µg/L	20.0		109	65-135	1.15	20	
Trichlorofluoromethane (Freon 11)	15	2.00	µg/L	20.0		77.4	50-150	1.10	20	
Vinyl Chloride	18	2.00	µg/L	20.0		90.3	5-195	1.79	20	
m+p Xylene	42	2.00	µg/L	40.0		106	70-130	1.81	25	
o-Xylene	21	1.00	µg/L	20.0		107	70-130	2.03	20	
Surrogate: 1,2-Dichloroethane-d4	17.6		µg/L	25.0		70.6	70-130			
Surrogate: Toluene-d8	25.2		µg/L	25.0		101	70-130			
Surrogate: 4-Bromofluorobenzene	25.7		µg/L	25.0		103	70-130			

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QUALITY CONTROL
Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	--------------------	-------	----------------	------------------	------	----------------	-----	--------------	-------

Batch B310272 - SM21-23 4500 H B
LCS (B310272-BS1)

Prepared & Analyzed: 06/08/22

pH	5.99		pH Units	6.00		99.8	90-110			
----	------	--	----------	------	--	------	--------	--	--	--

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

QUALITY CONTROL
Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Dissolved) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B310602 - SM21-23 2540C										
Blank (B310602-BLK1)										
					Prepared: 06/13/22 Analyzed: 06/14/22					
Total Dissolved Solids	ND	10	mg/L							
LCS (B310602-BS1)										
					Prepared: 06/13/22 Analyzed: 06/14/22					
Total Dissolved Solids	280	10	mg/L	293		94.9	64.9-119			

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

FLAG/QUALIFIER SUMMARY

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
ND	Not Detected
RL	Reporting Limit is at the level of quantitation (LOQ)
DL	Detection Limit is the lower limit of detection determined by the MDL study
MCL	Maximum Contaminant Level
	Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
	No results have been blank subtracted unless specified in the case narrative section.
H-05	Holding time was exceeded. pH analysis should be performed immediately at time of sampling. Nominal 15 minute holding time was exceeded.
J	Detected but below the Reporting Limit (lowest calibration standard); therefore, result is an estimated concentration (CLP J-Flag).
R-05	Laboratory fortified blank duplicate RPD is outside of control limits. Reduced precision is anticipated for any reported value for this compound.
RL-11	Elevated reporting limit due to high concentration of target compounds.

CERTIFICATIONS
Certified Analyses included in this Report

Analyte	Certifications
624.1 in Water	
Benzene	CT,NY,MA,NH,RI,NC,ME,VA
Bromodichloromethane	CT,NY,MA,NH,RI,NC,ME,VA
Bromoform	CT,NY,MA,NH,RI,NC,ME,VA
Bromomethane	CT,NY,MA,NH,RI,NC,ME,VA
Carbon Tetrachloride	CT,NY,MA,NH,RI,NC,ME,VA
Chlorobenzene	CT,NY,MA,NH,RI,NC,ME,VA
Chlorodibromomethane	CT,NY,MA,NH,RI,NC,ME,VA
Chloroethane	CT,NY,MA,NH,RI,NC,ME,VA
Chloroform	CT,NY,MA,NH,RI,NC,ME,VA
Chloromethane	CT,NY,MA,NH,RI,NC,ME,VA
1,2-Dichlorobenzene	CT,NY,MA,NH,RI,NC,ME,VA
1,3-Dichlorobenzene	CT,NY,MA,NH,RI,NC,ME,VA
1,4-Dichlorobenzene	CT,NY,MA,NH,RI,NC,ME,VA
1,2-Dichloroethane	CT,NY,MA,NH,RI,NC,ME,VA
1,1-Dichloroethane	CT,NY,MA,NH,RI,NC,ME,VA
1,1-Dichloroethylene	CT,NY,MA,NH,RI,NC,ME,VA
trans-1,2-Dichloroethylene	CT,NY,MA,NH,RI,NC,ME,VA
1,2-Dichloropropane	CT,NY,MA,NH,RI,NC,ME,VA
cis-1,3-Dichloropropene	CT,NY,MA,NH,RI,NC,ME,VA
trans-1,3-Dichloropropene	CT,NY,MA,NH,RI,NC,ME,VA
Ethylbenzene	CT,NY,MA,NH,RI,NC,ME,VA
Methyl tert-Butyl Ether (MTBE)	NY,MA,NH,NC
Methylene Chloride	CT,NY,MA,NH,RI,NC,ME,VA
1,1,2,2-Tetrachloroethane	CT,NY,MA,NH,RI,NC,ME,VA
Tetrachloroethylene	CT,NY,MA,NH,RI,NC,ME,VA
Toluene	CT,NY,MA,NH,RI,NC,ME,VA
1,1,1-Trichloroethane	CT,NY,MA,NH,RI,NC,ME,VA
1,1,2-Trichloroethane	CT,NY,MA,NH,RI,NC,ME,VA
Trichloroethylene	CT,NY,MA,NH,RI,NC,ME,VA
Trichlorofluoromethane (Freon 11)	CT,NY,MA,NH,RI,NC,ME,VA
Vinyl Chloride	CT,NY,MA,NH,RI,NC,ME,VA
m+p Xylene	CT,NY,MA,NH,RI,NC
o-Xylene	CT,NY,MA,NH,RI,NC
SM21-23 2540C in Water	
Total Dissolved Solids	CT,MA,NH,NY,RI,NC,ME,VA
SM21-23 4500 H B in Water	
pH	CT,MA,RI

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

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

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC - ISO17025:2017	100033	03/1/2024
MA	Massachusetts DEP	M-MA100	06/30/2023
CT	Connecticut Department of Public Health	PH-0165	12/31/2022
NY	New York State Department of Health	10899 NELAP	04/1/2023
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2023
RI	Rhode Island Department of Health	LAO00373	12/30/2022
NC	North Carolina Div. of Water Quality	652	12/31/2022
NJ	New Jersey DEP	MA007 NELAP	06/30/2023
FL	Florida Department of Health	E871027 NELAP	06/30/2022
VT	Vermont Department of Health Lead Laboratory	LL720741	07/30/2023
ME	State of Maine	MA00100	06/9/2023
VA	Commonwealth of Virginia	460217	12/14/2022
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2022
VT-DW	Vermont Department of Health Drinking Water	VT-255716	06/12/2023
NC-DW	North Carolina Department of Health	25703	07/31/2022
PA	Commonwealth of Pennsylvania DEP	68-05812	06/30/2023
MI	Dept. of Env, Great Lakes, and Energy	9100	09/6/2022

Phone: 612-607-6400
Fax: 612-607-6344

<https://www.pacelabs.com/>

Doc # 380 Rev 1_03242017

CHAIN OF CUSTODY RECORD (New York)

1800 Elm Street SE
Minneapolis, MN 55414

Page ____ of ____

Contact: <https://www.pacelabs.com/contact-us/contact-environmental-sciences/>
 Company Name: LaBella Associates
 Address: 5 McCrea Hill Road, Ballston Spa, NY 12020
 Phone: 845-866-1335
 Project Name: COSCO #344035
 Project Location: 15 West Street, Spring Valley, NY
 Project Number: COSCO #344035
 Project Manager: Sabrina Campfield
 Pace Analytical Quote Name/Number:

Requested Turnaround Time
 7-Day 10-Day
 Due Date: Standard TOT
 Rush/Approval Required
 1-Day 3-Day
 2-Day 4-Day
 Format: PDF EXCEL
 Other: Data Delivery
 CLP Like Data Pkg Required:
 Email To: scampfield@labellapc.com;
 robert.strang@dec.ny.gov;
 paul.dannibate@ramboll.com;
 christopher.weiman@ramboll.com;
 april.fallon@ramboll.com
 Fax To #:

Invoice Recipient:

Sampled By: Stefan Lemicy

Pace Analytical Work Order #	Client Sample ID / Description	Beginning Date/Time	Ending Date/Time	Composite	Grab	Matrix Code	Conc Code
01	RW-3D	6/8/11 06:18	6/8/11 06:18	X	X	Water	
02	Effluent	6/8/11 06:18	6/8/11 06:18	X	X	Water	

Comments:

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

Relinquished by: (signature) *[Signature]* Date/Time: 6/8/11 13:52
 Received by: (signature) *[Signature]* Date/Time: 6/8/11 13:52
 Relinquished by: (signature) *[Signature]* Date/Time: 6/8/11 16:15
 Relinquished by: (signature) *[Signature]* Date/Time: 6/8/11 17:50
 Relinquished by: (signature) *[Signature]* Date/Time: 6/8/11 17:50

Program B - Regulatory Information
 AWQ STDS
 NYC Sewer Discharge
 Part 360 GW (Landfill)
 NY Restricted Use
 NY Unrestricted Use
 NY Part 375
 Other:
 Project Entity:
 Government
 Federal
 City
 Municipality
 21 J
 Brownfield
 MWRA
 School
 MBTA
 WRTA
 CH2M HILL
 AHA-LAP, LLC

Deliverables
 Enhanced Data Package
 NYSDEC EQUIS EDD
 EQUIS (Standard) EDD
 NY Regulatory EDD
 NY Regs Hits-Only EDD
 Other:
 PCB ONLY
 Soxhlet
 Non Soxhlet

of Containers
 1 Preservation Code
 2 Container Code
 Dissolved Metals Samples
 Field Filtered
 Lab to Filter
 Orthophosphate Samples
 Field Filtered
 Lab to Filter

1 Matrix Codes:
 GW = Ground Water
 WW = Waste Water
 DW = Drinking Water
 A = Air
 S = Soil
 SL = Sludge
 SOL = Solid
 O = Other (please define)
 2 Preservation Codes:
 I = Iced
 H = HCL
 M = Methanol
 N = Nitric Acid
 S = Sulfuric Acid
 B = Sodium Bisulfate
 X = Sodium Hydroxide
 T = Sodium Thiosulfate
 O = Other (please define)
 3 Container Codes:
 A = Amber Glass
 G = Glass
 P = Plastic
 ST = Sterile
 V = Vial
 S = Summa Canister
 T = Tedlar Bag
 O = Other (please define)

ANALYSIS REQUESTED

Sample ID	Concentration	Matrix	Conc Code
2540C - Total Dissolved Solids	X	Water	
9040B - pH	X	Water	
624.1_PREC - (MD) Priority Pollutant	X	Water	
Volatiles	X	Water	

I Have Not Confirmed Sample Container Numbers With Lab Staff Before Relinquishing Over Samples _____



Doc# 277 Rev 5 2017

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

Client La Bella
 Received By RLJ Date 6/8/22 Time 1750
 How were the samples received? In Cooler T No Cooler _____ On Ice T No Ice _____
 Direct from Sampling _____ Ambient _____ Melted Ice _____
 Were samples within Temperature? 2-6°C T By Gun # 3 Actual Temp 4.2°
 By Blank # _____ Actual Temp - _____
 Was Custody Seal Intact? NA Were Samples Tampered with? NA
 Was COC Relinquished? T Does Chain Agree With Samples? T
 Are there broken/leaking/loose caps on any samples? F
 Is COC in ink/ Legible? T Were samples received within holding time? T
 Did COC include all pertinent Information? Client T Analysis T Sampler Name T
 Project T ID's T Collection Dates/Times T
 Are Sample labels filled out and legible? T
 Are there Lab to Filters? F Who was notified? _____
 Are there Rushes? F Who was notified? _____
 Are there Short Holds? T Who was notified? CASSIE
 Is there enough Volume? T
 Is there Headspace where applicable? F MS/MSD? F
 Proper Media/Containers Used? T Is splitting samples required? F
 Were trip blanks received? F On COC? F
 Do all samples have the proper pH? Acid NA Base NA

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

Unused Media

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

Comments:

April 4, 2023

Robert Strang, E.I.T.
New York State Department of Environmental Conservation
Remedial Section D, Bureau E
Division of Environmental Remediation
625 Broadway
Albany, NY 12233-7014

RE: Third and Fourth Quarter 2022 and First Quarter 2023 Operating Summary Report – Cosco Site
Site Number 344035

Mr. Strang,

LaBella Associates (LaBella) has prepared the following correspondence to summarize the operation and maintenance (O&M) activities and laboratory analytical results for the New York State Department of Environmental Conservation (NYSDEC) COSCO site located in Spring Valley, New York. The activities summarized within this report include the third and fourth quarters of 2022 and first quarter of 2023 operation and maintenance O&M, and system sampling events conducted by LaBella. Typical tasks performed during O&M activities include:

- System performance readings (flow, pressure, control settings);
- Well gauging;
- Monthly system sampling and laboratory analysis;
- System maintenance;
- Grounds maintenance.

Non-routing O&M activities include:

- Annual SSDS inspection;
- Semi-annual site-wide sampling

Non-routine O&M activities are reported in separate reports.

Site Background

The site is located in the Village of Spring Valley, Rockland County, New York. The site is bordered by a Conrail right of way to the north, West Central Avenue to the south, West Street to the east. The western end of the site is bounded by the intersection between the Conrail right of way and West Central Avenue (**Figure 1**).

The Consolidated Stamp Company (COSCO) historically used trichloroethylene (TCE) in a vapor degreasing process as part of their operation and also discharged wastewater containing TCE into a drainage feature known as the “Reach B Diversion”.

The remedial objective for groundwater at the COSCO site (as per the August 1999 Amendment to the Record of Decision) is to contain the site related contaminants by extracting groundwater from



overburden and bedrock, treat the groundwater onsite to remove volatile organic compounds (VOC's), and discharge the treated groundwater. The primary contaminants of concern (COCs) are TCE, tetrachloroethylene (PCE) and Cis-1-2-dichloroethene (DCE), and degradation byproducts.

The site includes eight (8) groundwater monitoring and/or recovery wells from which monitoring of groundwater quality can be conducted. Five (5) of these wells are completed within the shallow unconsolidated deposits and three (3) are completed within the bedrock.

The current groundwater extraction and treatment (GWE&T) system became operational at the site in January, 2012. This system has extracted groundwater from the overburden via recovery wells RW-1S and RW-8S, and from the bedrock via well RW-3D. The GWE&T system currently extracts groundwater from the bedrock lift well RW-3D. Extracted groundwater is conveyed via underground piping from the recovery well(s) to the treatment system shed located in the area along the Conrail right of way north of the COSCO building. The extracted groundwater is temporarily held in a 1,500-gallon polyethylene batch tank prior to treatment. Treatment is via two (2) bag filter units (connected in a parallel configuration) followed by air stripping. Once air stripping is completed, the treated water is discharged to the "Reach B Diversion" via underground piping.

Procedures

The GWE&T system O&M is via a combination of daily e-mails from the systems programmable logic controller (PLC), and bi-weekly site visits. The daily emails include specific system performance readings (flows, pressures, etc.) that help to evaluate system performance and anticipate O&M tasks to be performed during the bi-weekly site visits.

- System Performance Readings:
 - System Flow – system flow rate and flow total data is transmitted daily via email. Data includes flow rate from active recovery well(s) (currently RW-3D) and flow total. The emails also include data regarding system operational status and system alarms.
 - System Pressure –Pressure readings are recorded during site inspections. Pressure readings are recorded at: the transfer pump; at each bag filter, and; at the effluent pump. Pressure readings are also monitored via the daily emails at each bag filter and the air stripper.
 - Control Settings – Transfer pump, effluent pump and air stripper blower variable frequency drive (VFD) readings are recorded during bi-weekly site inspections. This data is monitored to ensure that the system motors are operating within prescribed parameters.
- Well Gauging – The eight (8) site wells are gauged during site visits to determine the depth to groundwater using an electronic water level meter graduated in 0.01 foot intervals. Groundwater measurements are taken from the top of well casings. The wells are gauged: while the remedial system is running; immediately after the system is shutdown, and; 30 minutes after the system is shutdown. The system is restarted when gauging is completed.
- Monthly System Sampling and Laboratory Analysis – The system influent and effluent (post-treatment) is sampled monthly for laboratory analysis using EPA Method 624. The samples are also analyzed for total dissolved solids (TDS) and acidity (pH). Influent samples are collected from a sample port located on the RW-3D influent line. No other wells are being utilized for groundwater extraction at this time. Effluent samples are collected from a sample port located after the air stripper discharge pump. The samples are delivered under chain of custody protocols to Test America Laboratories, Inc. Laboratory reports are attached.
- System Maintenance – typical routine system maintenance includes: bag filter changes, valve maintenance/cleaning. Frequent non-routine maintenance typically includes: pump and blower repairs/replacement; valve replacement; air stripper cleaning.



System Flow

During the third and fourth quarters of 2022 and first quarter of 2023, a total of 122,077 gallons were treated at an average flow rate of approximately 24,710 gallons per day. This flow varied due to the system being turned on and off for sampling during the work near RW-3D.

Operation and Maintenance Site Inspections

Compiled below is a summary of significant O&M tasks and events pertaining to the COSCO site. These tasks were completed during site visits completed by Aztech for the time period reported herein.

July 13, 2022 (Sampling)

The system was down upon arrival. The system was restarted. Samples were collected. System left operational on departure.

July 18, 2022 (Non-Sampling)

The system was operational upon arrival. System was shut down and RW-3 pump removed.

October 21, 2022

The system was shut down upon arrival. ProControl Changed out with updated ProControl. and water filled drums pumped through the treatment system.

Summary and Recommendations

Site visits are on hold until further notice. LaBella is continuing to wait on instruction from Ramboll.

LaBella would like to thank you for the opportunity to offer our services for this site.

If you have any questions or comments regarding the information contained herein, please contact our office at 518-885-5383.

Respectfully submitted,

LaBella Associates

Nate Shaw
Staff engineer

ATTACHMENTS:

Laboratory Analytical Reports
Figure 1



July 2023 Analytical Data

July 25, 2022

Sabrina Campfield
Labella Associates - Ballston Spa, NY
5 McCrea Hill Road
Ballston Spa, NY 12020

Project Location: NY
Client Job Number:
Project Number: #344035
Laboratory Work Order Number: 22G0976

Enclosed are results of analyses for samples as received by the laboratory on July 18, 2022. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Scott C. Basal
Project Manager

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

Labella Associates - Ballston Spa, NY
5 McCrea Hill Road
Ballston Spa, NY 12020
ATTN: Sabrina Campfield

REPORT DATE: 7/25/2022

PURCHASE ORDER NUMBER:

PROJECT NUMBER: #344035

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 22G0976

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

PROJECT LOCATION: NY

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
RW-3D	22G0976-01	Water		624.1 SM21-23 2540C SM21-23 4500 H B	
Effluent	22G0976-02	Water		624.1 SM21-23 2540C SM21-23 4500 H B	

CASE NARRATIVE SUMMARY

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

624.1

Qualifications:

R-05

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

Analyte & Samples(s) Qualified:

Trichlorofluoromethane (Freon 11)

22G0976-01[RW-3D], 22G0976-02[Effluent], B313300-BLK1, B313300-BS1, B313300-BSD1

SM21-23 4500 H B

Qualifications:

H-05

Holding time was exceeded. pH analysis should be performed immediately at time of sampling. Nominal 15 minute holding time was exceeded.

Analyte & Samples(s) Qualified:

pH

22G0976-01[RW-3D], 22G0976-02[Effluent], B313225-DUP1

The results of analyses reported only relate to samples submitted to Con-Test, a Pace Analytical Laboratory, for testing.

I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.



Lisa A. Worthington
Technical Representative

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

Project Location: NY

Sample Description:

Work Order: 22G0976

Date Received: 7/18/2022

Field Sample #: RW-3D

Sampled: 7/13/2022 11:15

Sample ID: 22G0976-01

Sample Matrix: Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Benzene	<0.200	1.00	0.200	µg/L	1		624.1	7/19/22	7/19/22 21:14	MFF
Bromodichloromethane	<0.180	2.00	0.180	µg/L	1		624.1	7/19/22	7/19/22 21:14	MFF
Bromoform	<0.383	2.00	0.383	µg/L	1		624.1	7/19/22	7/19/22 21:14	MFF
Bromomethane	<1.54	5.00	1.54	µg/L	1		624.1	7/19/22	7/19/22 21:14	MFF
Carbon Tetrachloride	<0.165	2.00	0.165	µg/L	1		624.1	7/19/22	7/19/22 21:14	MFF
Chlorobenzene	<0.105	2.00	0.105	µg/L	1		624.1	7/19/22	7/19/22 21:14	MFF
Chlorodibromomethane	<0.222	2.00	0.222	µg/L	1		624.1	7/19/22	7/19/22 21:14	MFF
Chloroethane	<0.320	2.00	0.320	µg/L	1		624.1	7/19/22	7/19/22 21:14	MFF
Chloroform	0.670	2.00	0.168	µg/L	1	J	624.1	7/19/22	7/19/22 21:14	MFF
Chloromethane	<0.522	2.00	0.522	µg/L	1		624.1	7/19/22	7/19/22 21:14	MFF
1,2-Dichlorobenzene	<0.122	2.00	0.122	µg/L	1		624.1	7/19/22	7/19/22 21:14	MFF
1,3-Dichlorobenzene	<0.118	2.00	0.118	µg/L	1		624.1	7/19/22	7/19/22 21:14	MFF
1,4-Dichlorobenzene	<0.130	2.00	0.130	µg/L	1		624.1	7/19/22	7/19/22 21:14	MFF
1,2-Dichloroethane	<0.308	2.00	0.308	µg/L	1		624.1	7/19/22	7/19/22 21:14	MFF
1,1-Dichloroethane	<0.142	2.00	0.142	µg/L	1		624.1	7/19/22	7/19/22 21:14	MFF
1,1-Dichloroethylene	<0.141	2.00	0.141	µg/L	1		624.1	7/19/22	7/19/22 21:14	MFF
trans-1,2-Dichloroethylene	0.550	2.00	0.169	µg/L	1	J	624.1	7/19/22	7/19/22 21:14	MFF
1,2-Dichloropropane	<0.181	2.00	0.181	µg/L	1		624.1	7/19/22	7/19/22 21:14	MFF
cis-1,3-Dichloropropene	<0.158	2.00	0.158	µg/L	1		624.1	7/19/22	7/19/22 21:14	MFF
trans-1,3-Dichloropropene	<0.168	2.00	0.168	µg/L	1		624.1	7/19/22	7/19/22 21:14	MFF
Ethylbenzene	<0.215	2.00	0.215	µg/L	1		624.1	7/19/22	7/19/22 21:14	MFF
Methyl tert-Butyl Ether (MTBE)	<0.172	2.00	0.172	µg/L	1		624.1	7/19/22	7/19/22 21:14	MFF
Methylene Chloride	<0.235	5.00	0.235	µg/L	1		624.1	7/19/22	7/19/22 21:14	MFF
1,1,2,2-Tetrachloroethane	<0.127	2.00	0.127	µg/L	1		624.1	7/19/22	7/19/22 21:14	MFF
Tetrachloroethylene	188	2.00	0.187	µg/L	1		624.1	7/19/22	7/19/22 21:14	MFF
Toluene	<0.224	1.00	0.224	µg/L	1		624.1	7/19/22	7/19/22 21:14	MFF
1,1,1-Trichloroethane	<0.169	2.00	0.169	µg/L	1		624.1	7/19/22	7/19/22 21:14	MFF
1,1,2-Trichloroethane	<0.183	2.00	0.183	µg/L	1		624.1	7/19/22	7/19/22 21:14	MFF
Trichloroethylene	167	2.00	0.189	µg/L	1		624.1	7/19/22	7/19/22 21:14	MFF
Trichlorofluoromethane (Freon 11)	<0.176	2.00	0.176	µg/L	1	R-05	624.1	7/19/22	7/19/22 21:14	MFF
Vinyl Chloride	<0.208	2.00	0.208	µg/L	1		624.1	7/19/22	7/19/22 21:14	MFF
m+p Xylene	<0.459	2.00	0.459	µg/L	1		624.1	7/19/22	7/19/22 21:14	MFF
o-Xylene	<0.230	1.00	0.230	µg/L	1		624.1	7/19/22	7/19/22 21:14	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual
1,2-Dichloroethane-d4	89.5	70-130	7/19/22 21:14
Toluene-d8	102	70-130	7/19/22 21:14
4-Bromofluorobenzene	103	70-130	7/19/22 21:14

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

Project Location: NY

Sample Description:

Work Order: 22G0976

Date Received: 7/18/2022

Sampled: 7/13/2022 11:15

 Field Sample #: **RW-3D**

 Sample ID: **22G0976-01**

Sample Matrix: Water

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
pH @20.5°C	7.4		pH Units	1	H-05	SM21-23 4500 H B	7/18/22	7/18/22 18:20	JEC

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

Project Location: NY

Sample Description:

Work Order: 22G0976

Date Received: 7/18/2022

Sampled: 7/13/2022 11:15

Field Sample #: RW-3D
Sample ID: 22G0976-01

Sample Matrix: Water

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Dissolved)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Total Dissolved Solids	590	10	mg/L	1		SM21-23 2540C	7/20/22	7/20/22 11:00	LL

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

Project Location: NY

Sample Description:

Work Order: 22G0976

Date Received: 7/18/2022

Field Sample #: Effluent

Sampled: 7/13/2022 11:10

Sample ID: 22G0976-02

Sample Matrix: Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Benzene	<0.200	1.00	0.200	µg/L	1		624.1	7/19/22	7/19/22 22:33	MFF
Bromodichloromethane	<0.180	2.00	0.180	µg/L	1		624.1	7/19/22	7/19/22 22:33	MFF
Bromoform	<0.383	2.00	0.383	µg/L	1		624.1	7/19/22	7/19/22 22:33	MFF
Bromomethane	<1.54	5.00	1.54	µg/L	1		624.1	7/19/22	7/19/22 22:33	MFF
Carbon Tetrachloride	<0.165	2.00	0.165	µg/L	1		624.1	7/19/22	7/19/22 22:33	MFF
Chlorobenzene	<0.105	2.00	0.105	µg/L	1		624.1	7/19/22	7/19/22 22:33	MFF
Chlorodibromomethane	<0.222	2.00	0.222	µg/L	1		624.1	7/19/22	7/19/22 22:33	MFF
Chloroethane	<0.320	2.00	0.320	µg/L	1		624.1	7/19/22	7/19/22 22:33	MFF
Chloroform	<0.168	2.00	0.168	µg/L	1		624.1	7/19/22	7/19/22 22:33	MFF
Chloromethane	<0.522	2.00	0.522	µg/L	1		624.1	7/19/22	7/19/22 22:33	MFF
1,2-Dichlorobenzene	<0.122	2.00	0.122	µg/L	1		624.1	7/19/22	7/19/22 22:33	MFF
1,3-Dichlorobenzene	<0.118	2.00	0.118	µg/L	1		624.1	7/19/22	7/19/22 22:33	MFF
1,4-Dichlorobenzene	<0.130	2.00	0.130	µg/L	1		624.1	7/19/22	7/19/22 22:33	MFF
1,2-Dichloroethane	<0.308	2.00	0.308	µg/L	1		624.1	7/19/22	7/19/22 22:33	MFF
1,1-Dichloroethane	<0.142	2.00	0.142	µg/L	1		624.1	7/19/22	7/19/22 22:33	MFF
1,1-Dichloroethylene	<0.141	2.00	0.141	µg/L	1		624.1	7/19/22	7/19/22 22:33	MFF
trans-1,2-Dichloroethylene	<0.169	2.00	0.169	µg/L	1		624.1	7/19/22	7/19/22 22:33	MFF
1,2-Dichloropropane	<0.181	2.00	0.181	µg/L	1		624.1	7/19/22	7/19/22 22:33	MFF
cis-1,3-Dichloropropene	<0.158	2.00	0.158	µg/L	1		624.1	7/19/22	7/19/22 22:33	MFF
trans-1,3-Dichloropropene	<0.168	2.00	0.168	µg/L	1		624.1	7/19/22	7/19/22 22:33	MFF
Ethylbenzene	<0.215	2.00	0.215	µg/L	1		624.1	7/19/22	7/19/22 22:33	MFF
Methyl tert-Butyl Ether (MTBE)	<0.172	2.00	0.172	µg/L	1		624.1	7/19/22	7/19/22 22:33	MFF
Methylene Chloride	<0.235	5.00	0.235	µg/L	1		624.1	7/19/22	7/19/22 22:33	MFF
1,1,2,2-Tetrachloroethane	<0.127	2.00	0.127	µg/L	1		624.1	7/19/22	7/19/22 22:33	MFF
Tetrachloroethylene	<0.187	2.00	0.187	µg/L	1		624.1	7/19/22	7/19/22 22:33	MFF
Toluene	<0.224	1.00	0.224	µg/L	1		624.1	7/19/22	7/19/22 22:33	MFF
1,1,1-Trichloroethane	<0.169	2.00	0.169	µg/L	1		624.1	7/19/22	7/19/22 22:33	MFF
1,1,2-Trichloroethane	<0.183	2.00	0.183	µg/L	1		624.1	7/19/22	7/19/22 22:33	MFF
Trichloroethylene	<0.189	2.00	0.189	µg/L	1		624.1	7/19/22	7/19/22 22:33	MFF
Trichlorofluoromethane (Freon 11)	<0.176	2.00	0.176	µg/L	1	R-05	624.1	7/19/22	7/19/22 22:33	MFF
Vinyl Chloride	<0.208	2.00	0.208	µg/L	1		624.1	7/19/22	7/19/22 22:33	MFF
m+p Xylene	<0.459	2.00	0.459	µg/L	1		624.1	7/19/22	7/19/22 22:33	MFF
o-Xylene	<0.230	1.00	0.230	µg/L	1		624.1	7/19/22	7/19/22 22:33	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual
1,2-Dichloroethane-d4	79.1	70-130	7/19/22 22:33
Toluene-d8	103	70-130	7/19/22 22:33
4-Bromofluorobenzene	104	70-130	7/19/22 22:33

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

Project Location: NY

Sample Description:

Work Order: 22G0976

Date Received: 7/18/2022

Field Sample #: Effluent

Sampled: 7/13/2022 11:10

Sample ID: 22G0976-02

Sample Matrix: Water

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
pH @20.6°C	8.3		pH Units	1	H-05	SM21-23 4500 H B	7/18/22	7/18/22 18:20	JEC

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

Project Location: NY

Sample Description:

Work Order: 22G0976

Date Received: 7/18/2022

Field Sample #: Effluent

Sampled: 7/13/2022 11:10

Sample ID: 22G0976-02

Sample Matrix: Water

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Dissolved)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Total Dissolved Solids	630	10	mg/L	1		SM21-23 2540C	7/20/22	7/20/22 11:00	LL

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

Sample Extraction Data
Prep Method: SW-846 5030B Analytical Method: 624.1

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
22G0976-01 [RW-3D]	B313300	5	5.00	07/19/22
22G0976-02 [Effluent]	B313300	5	5.00	07/19/22

SM21-23 2540C

Lab Number [Field ID]	Batch	Initial [mL]	Date
22G0976-01 [RW-3D]	B313351	50.0	07/20/22
22G0976-02 [Effluent]	B313351	50.0	07/20/22

SM21-23 4500 H B

Lab Number [Field ID]	Batch	Initial [mL]	Date
22G0976-01 [RW-3D]	B313225	50.0	07/18/22
22G0976-02 [Effluent]	B313225	50.0	07/18/22

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 B313300 - SW-846 5030B										
Blank (B313300-BLK1)										
Prepared & Analyzed: 07/19/22										
Benzene	ND	1.00	µg/L							
Bromodichloromethane	ND	2.00	µg/L							
Bromoform	ND	2.00	µg/L							
Bromomethane	ND	2.00	µg/L							
Carbon Tetrachloride	ND	2.00	µg/L							
Chlorobenzene	ND	2.00	µg/L							
Chlorodibromomethane	ND	2.00	µg/L							
Chloroethane	ND	2.00	µg/L							
Chloroform	ND	2.00	µg/L							
Chloromethane	ND	2.00	µg/L							
1,2-Dichlorobenzene	ND	2.00	µg/L							
1,3-Dichlorobenzene	ND	2.00	µg/L							
1,4-Dichlorobenzene	ND	2.00	µg/L							
1,2-Dichloroethane	ND	2.00	µg/L							
1,1-Dichloroethane	ND	2.00	µg/L							
1,1-Dichloroethylene	ND	2.00	µg/L							
trans-1,2-Dichloroethylene	ND	2.00	µg/L							
1,2-Dichloropropane	ND	2.00	µg/L							
cis-1,3-Dichloropropene	ND	2.00	µg/L							
trans-1,3-Dichloropropene	ND	2.00	µg/L							
Ethylbenzene	ND	2.00	µg/L							
Methyl tert-Butyl Ether (MTBE)	ND	2.00	µg/L							
Methylene Chloride	ND	5.00	µg/L							
1,1,2,2-Tetrachloroethane	ND	2.00	µg/L							
Tetrachloroethylene	ND	2.00	µg/L							
Toluene	ND	1.00	µg/L							
1,1,1-Trichloroethane	ND	2.00	µg/L							
1,1,2-Trichloroethane	ND	2.00	µg/L							
Trichloroethylene	ND	2.00	µg/L							
Trichlorofluoromethane (Freon 11)	ND	2.00	µg/L							R-05
Vinyl Chloride	ND	2.00	µg/L							
m+p Xylene	ND	2.00	µg/L							
o-Xylene	ND	1.00	µg/L							
Surrogate: 1,2-Dichloroethane-d4	22.4		µg/L	25.0		89.6	70-130			
Surrogate: Toluene-d8	25.5		µg/L	25.0		102	70-130			
Surrogate: 4-Bromofluorobenzene	27.4		µg/L	25.0		110	70-130			
LCS (B313300-BS1)										
Prepared & Analyzed: 07/19/22										
Benzene	23	1.00	µg/L	20.0		114	65-135			
Bromodichloromethane	24	2.00	µg/L	20.0		122	65-135			
Bromoform	23	2.00	µg/L	20.0		113	70-130			
Bromomethane	15	2.00	µg/L	20.0		76.4	15-185			
Carbon Tetrachloride	22	2.00	µg/L	20.0		112	70-130			
Chlorobenzene	22	2.00	µg/L	20.0		108	65-135			
Chlorodibromomethane	24	2.00	µg/L	20.0		122	70-135			
Chloroethane	19	2.00	µg/L	20.0		93.7	40-160			
Chloroform	23	2.00	µg/L	20.0		114	70-135			
Chloromethane	6.0	2.00	µg/L	20.0		29.8	20-205			
1,2-Dichlorobenzene	18	2.00	µg/L	20.0		92.4	65-135			
1,3-Dichlorobenzene	19	2.00	µg/L	20.0		95.2	70-130			
1,4-Dichlorobenzene	19	2.00	µg/L	20.0		93.0	65-135			
1,2-Dichloroethane	25	2.00	µg/L	20.0		123	70-130			

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 B313300 - SW-846 5030B										
LCS (B313300-BS1)										
Prepared & Analyzed: 07/19/22										
1,1-Dichloroethane	25	2.00	µg/L	20.0		124	70-130			
1,1-Dichloroethylene	21	2.00	µg/L	20.0		103	50-150			
trans-1,2-Dichloroethylene	22	2.00	µg/L	20.0		112	70-130			
1,2-Dichloropropane	26	2.00	µg/L	20.0		131	35-165			
cis-1,3-Dichloropropene	24	2.00	µg/L	20.0		122	25-175			
trans-1,3-Dichloropropene	27	2.00	µg/L	20.0		133	50-150			
Ethylbenzene	22	2.00	µg/L	20.0		108	60-140			
Methyl tert-Butyl Ether (MTBE)	24	2.00	µg/L	20.0		122	70-130			
Methylene Chloride	23	5.00	µg/L	20.0		113	60-140			
1,1,2,2-Tetrachloroethane	23	2.00	µg/L	20.0		117	60-140			
Tetrachloroethylene	23	2.00	µg/L	20.0		116	70-130			
Toluene	23	1.00	µg/L	20.0		117	70-130			
1,1,1-Trichloroethane	23	2.00	µg/L	20.0		114	70-130			
1,1,2-Trichloroethane	26	2.00	µg/L	20.0		130	70-130			
Trichloroethylene	23	2.00	µg/L	20.0		117	65-135			
Trichlorofluoromethane (Freon 11)	19	2.00	µg/L	20.0		93.3	50-150			R-05
Vinyl Chloride	16	2.00	µg/L	20.0		78.6	5-195			
m+p Xylene	44	2.00	µg/L	40.0		111	70-130			
o-Xylene	22	1.00	µg/L	20.0		110	70-130			
Surrogate: 1,2-Dichloroethane-d4	22.7		µg/L	25.0		90.9	70-130			
Surrogate: Toluene-d8	25.7		µg/L	25.0		103	70-130			
Surrogate: 4-Bromofluorobenzene	26.7		µg/L	25.0		107	70-130			
LCS Dup (B313300-BSD1)										
Prepared & Analyzed: 07/19/22										
Benzene	21	1.00	µg/L	20.0		104	65-135	9.40	20	
Bromodichloromethane	24	2.00	µg/L	20.0		118	65-135	2.71	20	
Bromoform	21	2.00	µg/L	20.0		106	70-130	6.26	20	
Bromomethane	15	2.00	µg/L	20.0		77.1	15-185	0.978	20	
Carbon Tetrachloride	21	2.00	µg/L	20.0		103	70-130	8.80	20	
Chlorobenzene	20	2.00	µg/L	20.0		102	65-135	5.78	20	
Chlorodibromomethane	24	2.00	µg/L	20.0		120	70-135	1.45	20	
Chloroethane	17	2.00	µg/L	20.0		85.8	40-160	8.74	20	
Chloroform	22	2.00	µg/L	20.0		109	70-135	4.39	20	
Chloromethane	5.3	2.00	µg/L	20.0		26.7	20-205	10.8	20	
1,2-Dichlorobenzene	18	2.00	µg/L	20.0		88.9	65-135	3.92	20	
1,3-Dichlorobenzene	18	2.00	µg/L	20.0		90.1	70-130	5.50	20	
1,4-Dichlorobenzene	18	2.00	µg/L	20.0		89.3	65-135	4.06	20	
1,2-Dichloroethane	24	2.00	µg/L	20.0		119	70-130	3.80	20	
1,1-Dichloroethane	23	2.00	µg/L	20.0		115	70-130	8.28	20	
1,1-Dichloroethylene	19	2.00	µg/L	20.0		93.2	50-150	10.4	20	
trans-1,2-Dichloroethylene	20	2.00	µg/L	20.0		100	70-130	11.2	20	
1,2-Dichloropropane	25	2.00	µg/L	20.0		125	35-165	4.42	20	
cis-1,3-Dichloropropene	23	2.00	µg/L	20.0		117	25-175	4.01	20	
trans-1,3-Dichloropropene	26	2.00	µg/L	20.0		128	50-150	3.79	20	
Ethylbenzene	20	2.00	µg/L	20.0		102	60-140	5.59	20	
Methyl tert-Butyl Ether (MTBE)	23	2.00	µg/L	20.0		116	70-130	5.01	20	
Methylene Chloride	21	5.00	µg/L	20.0		105	60-140	8.03	20	
1,1,2,2-Tetrachloroethane	22	2.00	µg/L	20.0		112	60-140	3.93	20	
Tetrachloroethylene	22	2.00	µg/L	20.0		110	70-130	5.48	20	
Toluene	22	1.00	µg/L	20.0		111	70-130	5.40	20	
1,1,1-Trichloroethane	21	2.00	µg/L	20.0		104	70-130	9.22	20	
1,1,2-Trichloroethane	26	2.00	µg/L	20.0		130	70-130	0.116	20	

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	%REC Limits	RPD	RPD Limit	Notes
Batch B313300 - SW-846 5030B										
LCS Dup (B313300-BSD1)										
Prepared & Analyzed: 07/19/22										
Trichloroethylene	22	2.00	µg/L	20.0		109	65-135	7.66	20	
Trichlorofluoromethane (Freon 11)	15	2.00	µg/L	20.0		75.0	50-150	21.8 *	20	R-05
Vinyl Chloride	14	2.00	µg/L	20.0		68.8	5-195	13.4	20	
m+p Xylene	41	2.00	µg/L	40.0		102	70-130	7.87	25	
o-Xylene	21	1.00	µg/L	20.0		104	70-130	6.04	20	
Surrogate: 1,2-Dichloroethane-d4	22.3		µg/L	25.0		89.3	70-130			
Surrogate: Toluene-d8	25.8		µg/L	25.0		103	70-130			
Surrogate: 4-Bromofluorobenzene	26.3		µg/L	25.0		105	70-130			

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QUALITY CONTROL
Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B313225 - SM21-23 4500 H B
LCS (B313225-BS1)

Prepared & Analyzed: 07/18/22

pH	5.97		pH Units	6.00		99.5	90-110			
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Duplicate (B313225-DUP1)
Source: 22G0976-02

Prepared & Analyzed: 07/18/22

pH	8.3		pH Units		8.3			0.410	5	H-05
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QUALITY CONTROL
Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Dissolved) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B313351 - SM21-23 2540C
Blank (B313351-BLK1)

Prepared & Analyzed: 07/20/22

Total Dissolved Solids	ND	10	mg/L							
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LCS (B313351-BS1)

Prepared & Analyzed: 07/20/22

Total Dissolved Solids	290	10	mg/L	293		98.3	64.9-119			
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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

FLAG/QUALIFIER SUMMARY

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
ND	Not Detected
RL	Reporting Limit is at the level of quantitation (LOQ)
DL	Detection Limit is the lower limit of detection determined by the MDL study
MCL	Maximum Contaminant Level
	Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
	No results have been blank subtracted unless specified in the case narrative section.
H-05	Holding time was exceeded. pH analysis should be performed immediately at time of sampling. Nominal 15 minute holding time was exceeded.
J	Detected but below the Reporting Limit (lowest calibration standard); therefore, result is an estimated concentration (CLP J-Flag).
R-05	Laboratory fortified blank duplicate RPD is outside of control limits. Reduced precision is anticipated for any reported value for this compound.

CERTIFICATIONS
Certified Analyses included in this Report

Analyte	Certifications
624.1 in Water	
Benzene	CT,NY,MA,NH,RI,NC,ME,VA
Bromodichloromethane	CT,NY,MA,NH,RI,NC,ME,VA
Bromoform	CT,NY,MA,NH,RI,NC,ME,VA
Bromomethane	CT,NY,MA,NH,RI,NC,ME,VA
Carbon Tetrachloride	CT,NY,MA,NH,RI,NC,ME,VA
Chlorobenzene	CT,NY,MA,NH,RI,NC,ME,VA
Chlorodibromomethane	CT,NY,MA,NH,RI,NC,ME,VA
Chloroethane	CT,NY,MA,NH,RI,NC,ME,VA
Chloroform	CT,NY,MA,NH,RI,NC,ME,VA
Chloromethane	CT,NY,MA,NH,RI,NC,ME,VA
1,2-Dichlorobenzene	CT,NY,MA,NH,RI,NC,ME,VA
1,3-Dichlorobenzene	CT,NY,MA,NH,RI,NC,ME,VA
1,4-Dichlorobenzene	CT,NY,MA,NH,RI,NC,ME,VA
1,2-Dichloroethane	CT,NY,MA,NH,RI,NC,ME,VA
1,1-Dichloroethane	CT,NY,MA,NH,RI,NC,ME,VA
1,1-Dichloroethylene	CT,NY,MA,NH,RI,NC,ME,VA
trans-1,2-Dichloroethylene	CT,NY,MA,NH,RI,NC,ME,VA
1,2-Dichloropropane	CT,NY,MA,NH,RI,NC,ME,VA
cis-1,3-Dichloropropene	CT,NY,MA,NH,RI,NC,ME,VA
trans-1,3-Dichloropropene	CT,NY,MA,NH,RI,NC,ME,VA
Ethylbenzene	CT,NY,MA,NH,RI,NC,ME,VA
Methyl tert-Butyl Ether (MTBE)	NY,MA,NH,NC
Methylene Chloride	CT,NY,MA,NH,RI,NC,ME,VA
1,1,2,2-Tetrachloroethane	CT,NY,MA,NH,RI,NC,ME,VA
Tetrachloroethylene	CT,NY,MA,NH,RI,NC,ME,VA
Toluene	CT,NY,MA,NH,RI,NC,ME,VA
1,1,1-Trichloroethane	CT,NY,MA,NH,RI,NC,ME,VA
1,1,2-Trichloroethane	CT,NY,MA,NH,RI,NC,ME,VA
Trichloroethylene	CT,NY,MA,NH,RI,NC,ME,VA
Trichlorofluoromethane (Freon 11)	CT,NY,MA,NH,RI,NC,ME,VA
Vinyl Chloride	CT,NY,MA,NH,RI,NC,ME,VA
m+p Xylene	CT,NY,MA,NH,RI,NC
o-Xylene	CT,NY,MA,NH,RI,NC
SM21-23 2540C in Water	
Total Dissolved Solids	CT,MA,NH,NY,RI,NC,ME,VA
SM21-23 4500 H B in Water	
pH	CT,MA,RI

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

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC - ISO17025:2017	100033	03/1/2024
MA	Massachusetts DEP	M-MA100	06/30/2023
CT	Connecticut Department of Public Health	PH-0165	12/31/2022
NY	New York State Department of Health	10899 NELAP	04/1/2023
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2023
RI	Rhode Island Department of Health	LAO00373	12/30/2022
NC	North Carolina Div. of Water Quality	652	12/31/2022
NJ	New Jersey DEP	MA007 NELAP	06/30/2023
FL	Florida Department of Health	E871027 NELAP	06/30/2023
VT	Vermont Department of Health Lead Laboratory	LL720741	07/30/2023
ME	State of Maine	MA00100	06/9/2023
VA	Commonwealth of Virginia	460217	12/14/2022
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2022
VT-DW	Vermont Department of Health Drinking Water	VT-255716	06/12/2023
NC-DW	North Carolina Department of Health	25703	07/31/2022
PA	Commonwealth of Pennsylvania DEP	68-05812	06/30/2023
MI	Dept. of Env, Great Lakes, and Energy	9100	09/6/2022

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately. Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at <https://info.pacelabs.com/hubs/pas-standard-terms.pdf>.

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Pace

Section A

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Section B

Required Client Information:			Required Project Information:			Invoice Information:			
Company:	Labella Associates		Report To:	Sabrina Campfield		Attention:			
Address:	5 McCrea Hill Rd		Copy To:			Company Name:			
E-mail:	scampfield@labellapc.com		Purchase Order #:			Address:			
Phone:	(845)866-1335	Fax:	Project Name:	COSCO #344035		Pace Quote:			
Requested Due Date:			Project #:			Pace Project Manager:			
						Pace Profile #:			

Section C

Requested Analysis Filtered (Y/N)			State / Location			Regulatory Agency		

ITEM #	MATRIX CODE <small>Drinking Water DW Water WT Waste Water WW Product P Soil/Solid SL Oil OL Wipe WP Air AR Other OT Tissue TS</small>	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		DATE		TIME	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
				START	END	DATE	TIME							
1	RW-3D	WT	WT	7-13-22	11:55						[Signature]	7-18-22	11:00	Received on Ice (Y/N) Sealed Cooler (Y/N) Custody (Y/N) Samples Intact (Y/N)
2	Effluent	WT	WT	7-13-22	11:30						[Signature]	7-18-22	15:30	
3											[Signature]	7-18-22	15:30	
4											[Signature]	7-18-22	15:30	
5											[Signature]	7-18-22	15:30	
6											[Signature]	7-18-22	15:30	
7											[Signature]	7-18-22	15:30	
8											[Signature]	7-18-22	15:30	
9											[Signature]	7-18-22	15:30	
10											[Signature]	7-18-22	15:30	
11											[Signature]	7-18-22	15:30	
12											[Signature]	7-18-22	15:30	

ADDITIONAL COMMENTS				RELINQUISHED BY / AFFILIATION				ACCEPTED BY / AFFILIATION				SAMPLE CONDITIONS			
				[Signature]				[Signature]				Received on Ice (Y/N) Sealed Cooler (Y/N) Custody (Y/N) Samples Intact (Y/N)			
SAMPLE NAME AND SIGNATURE				DATE				DATE				DATE			
[Signature]				7-13-22				[Signature]				7-18-22			
PRINT Name of SAMPLER:				DATE Signed:				DATE				DATE			
[Signature]				7-13-22				[Signature]				7-18-22			
SIGNATURE of SAMPLER:				DATE				DATE				DATE			
[Signature]				7-13-22				[Signature]				7-18-22			

39 Spruce St.
 East Longmeadow, MA. 01028
 P: 413-525-2332
 F: 413-525-6405
 www.pacelabs.com



Doc# 277 Rev 6 July 2022

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

Client Labella Asso.
 Received By OW Date 7/18/22 Time 1711
 How were the samples received? In Cooler F No Cooler On Ice T No Ice
 Direct From Sample Ambient Melted Ice
 Were samples within Temperature? Within 2-6°C By Gun # 5 Actual Temp - 40
 By Blank # Actual Temp -
 Was Custody Seal In tact? N/A Were Samples Tampered with? N/A
 Was COC Relinquished? + Does Chain Agree With Samples? T
 Are there broken/leaking/loose caps on any samples? F
 Is COC in ink/ Legible? T Were samples received within holding time? T
 Did COC include all pertinent Information? Client? T Analysis? T Sampler Name?
 Project? T ID's? T Collection Dates/Times? T
 Are Sample labels filled out and legible? FT
 Are there Lab to Filters? F Who was notified?
 Are there Rushes? F Who was notified?
 Are there Short Holds? T Who was notified? CASSIE
 Samples are received within holding time? T Is there enough Volume? T
 Is there Headspace where applicable? FEW MS/MSD? F
 Proper Media/Containers Used? + splitting samples required? F
 Were trip blanks receive? + On COC? F
 Do All Samples Have the proper pH? Acid N/A Base N/A

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

Unused Media

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

Comments: