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PERIODIC REVIEW REPORT APRIL 2020-APRIL 2021 NYSDEC COSCO SITE (ID NO. 3-44-035) SPRING VALLEY, NEW YORK



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EXECUTIVE SUMMARY

In 1978, the Rockland County Department of Health (RCDOH) identified tetrachloroethene (PCE), trichloroethene (TCE), dichloroethene (DCE), and 1,1,1-trichloroethane (1,1,1-TCA) in the well field operated by the Spring Valley Water Company (Aztech, 2020). The Consolidated Stamp Company (COSCO) Site (the Site) and Continental Plastic Company (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 pumping approximately 20 to 30 gallons per minute (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.

From 1987 to 1990, a Remedial Investigation/Feasibility Study was performed to evaluate potential source areas for Site-related constituents of concern, PCE and its associated degradation products TCE, DCE, and vinyl chloride. A Record of Decision (ROD) was issued for the Site in March 1990 and amended in 1999. Remedial actions to address the Site-related constituents of concern were conducted between 1990 and 2010.

In November 2003, the groundwater extraction and treatment system was placed into operation, consisting of two overburden recovery wells (RW-1S and RW-8S) and one bedrock recovery well (RW-3D). The groundwater extraction and treatment system initially included treatment of extracted groundwater via ultraviolet light and peroxide oxidation. In December 2011, the groundwater extraction and treatment system was redesigned, replacing the ultraviolet light and peroxide oxidation treatment with an air stripper. Currently only bedrock recovery well RW-3D is actively recovering groundwater. Overburden recovery wells RW-1S and RW-8S have been offline since the fall of 2015.

The current Institutional Controls governing the Site include the August 1999 ROD amendment and the 2016 Site Management Plan. Adherence to Institutional Controls are discussed within the Site Management Plan prepared by Aztech (Aztech, 2016). The Engineering Controls at the Site consist of the asphalt cap installed over the Tailings Dump Area, a security perimeter fence, the sub-slab depressurization system installed off-Site at 47 Commerce Street, the groundwater extraction and treatment system, and the overburden and bedrock monitoring well network.

Site monitoring and reporting activities are performed by Ramboll Americas Engineering Solutions, Inc, (Ramboll), and Operation and Maintenance activities are performed by LaBella Associates.

1. INTRODUCTION

1.1 Introduction

This Periodic Review Report (PRR) has been prepared by Ramboll Americas Engineering Solutions, Inc. (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 Consolidated Stamp Company (COSCO) Site (the Site) located in Spring Valley, New York, as discussed in the 2016 Site Management Plan (SMP) (Aztech Environmental Technologies [Aztech], 2016). 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, 2020 through April 4, 2021 and summarizes the Site activities performed by Ramboll and Operation and Maintenance (O&M) activities performed by LaBella Associates (LaBella). The results and a general summary of the O&M activities performed by LaBella are also incorporated in this PRR. In addition, a summary of the Remedial System Optimization (RSO) performed during the reporting period is presented in Appendix G.

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 Continental Plastic Company (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 1-1**) 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 Site boundaries as defined by NYSDEC.

1.2 Remedial History

In 1978, the Rockland County Department of Health (RCDOH) identified tetrachloroethene (PCE), trichloroethene (TCE), Dichloroethene (DCE), and 1,1,1-trichloroethane (1,1,1-TCA) in the well field operated by the Spring Valley Water Company (Aztech, 2020). The COSCO Site 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 pumping approximately 20 to 30 gallons per minute (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 re-configuring 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).

From 1987 to 1990, a Remedial Investigation (RI)/Feasibility Study (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 vinyl chloride (VC).

As documented in the RI Report, the former soil source area was located north of the COSCO facility and extends east-west from the east side of bedrock monitoring well GP-4D to east of overburden recovery well RW-1S (Aztech, 2020). 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 area soils were within background values.

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 Record of Decision (ROD) was issued 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 erosion and disturbance.

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 Corporation¹. 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 past and future costs to the Site for remediation.

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.

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

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 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. 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

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 47 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 other properties included in the off-Site supplemental SVI evaluation (35 Commerce Street, 37 Commerce Street, 39 Commerce Street, 41 Commerce Street, 43 Commerce Street, and 45 Commerce Street) 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 47 Commerce Street 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 47 Commerce Street, a sub-slab depressurization system (SSDS) was installed to mitigate the subslab vapor intrusion to the property. The SSDS at 47 Commerce Street 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 41 Commerce Street, 43 Commerce Street, and 45 Commerce Street 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 39 Commerce Street, however, the property owner did not grant access.

A summary of the remedial Site history 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 groundwater extraction and treatment (GWE&T) system was placed into operation (Aztech, 2020) 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.

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 maximize treatment efficiency, minimize cost, and to continue to meet the goals of the 1999 ROD amendment. The GWE&T system redesign was completed in December 2011, replacing the UV light and peroxide oxidation treatment with an air stripper.

Since 2011, extracted groundwater is conveyed via underground piping from the recovery wells to the treatment 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.

Currently only bedrock recovery well RW-3D is actively recovering groundwater. Overburden recovery wells RW-1S and RW-8S have been offline since the fall of 2015.

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 2016 SMP. Adherence to ICs are discussed within the SMP prepared by Aztech (Aztech, 2016). 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);
- All Engineering Controls (ECs), discussed in greater detail below, must be operated or maintained as specified in the SMP;
- All 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 restrictedresidential 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 period 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 security perimeter fence, the SSDS installed off-Site at 47 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.

Security Perimeter Fence

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

Sub-Slab Depressurization System

An SSDS was installed by NYSDEC at a nearby off-Site residence (47 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 four-tray air stripper. Currently only bedrock recovery well RW-3D is actively recovering groundwater. Treated groundwater is 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 groundwater monitoring and/or recovery wells. Five wells (GW-4S, MW-3, MW-18, RW-1S, and RW-8S) are completed within the overburden and three wells (DW-1, GP-4D, and RW-3D) are completed within the bedrock.

3. SITE MONITORING AND SAMPLING

3.1 Annual Site Inspection

The annual Site inspection was completed on March 11, 2021 for this reporting period. The Site inspection included an evaluation of the current condition of the asphalt cap and security fencing at Tailings Dump Area and other Site conditions, including the presence of vegetative growth and inspection of the perimeter fence for breaks in the linkage or loose poles. The inspection also included an evaluation of the current monitoring and recovery well network. In addition, presence of debris, trespassing, and indications of vandalism were also observed during the annual Site inspection. A summary of the Site inspection is provided in **Appendix B**.

As shown in **Appendix B**, the asphalt cap over the Tailings Dump Area was observed to be in good condition with no evidence of wear or cracks in the asphalt. The security perimeter fence surrounding the Tailings Dump Area was also in good condition. Vegetative growth was observed along the security perimeter fencing surrounding the Tailings Dump Area. Debris was also noted along the western edge. Several large holes in the linkage of the security perimeter fence near the current monitoring and recovery well network were observed. Debris and the presence of trespassers were 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 monitoring wells and recovery well network were observed to be in good to fair condition. The recommended maintenance and corrective actions from the annual Site inspection are presented in Section 6.

3.2 Groundwater Monitoring Program

Groundwater level measurements and groundwater quality samples were collected from the Site monitoring and recovery wells (i.e., 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 28 and 29, 2020. The second semi-annual sampling event was completed between March 8 and 10, 2021. 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 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 2020 and March 2021 overburden groundwater contour maps are shown on **Figure 3-1** and **Figure 3-3**, respectively. The July 2020 and March 2021 bedrock groundwater contour maps are shown on **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 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, with localized flow towards active recovery well RW-3D.

3.2.2 Groundwater Quality Sampling

Semi-annual groundwater samples were collected from the five groundwater monitoring wells and three recovery wells at the Site. In July 2020, monitoring wells GW-4S, MW-3, MW-18, DW-1, and GP-4D and inactive recovery wells RW-1S and RW-8S were purged and sampled utilizing dedicated, disposable bailers. A grab groundwater sample was collected from active recovery well RW-3D at the influent sample tap located in the Site GWE&T shed. In March 2021, each monitoring well and recovery well was purged and sampled using low-flow purging and sampling techniques with a submersible pump. During purging, groundwater quality parameters (temperature, pH, specific-conductance, oxidation-reduction potential [ORP], dissolved oxygen [DO] and turbidity) and water level measurements were collected at approximately five-minute intervals.

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. In addition, an equipment blank sample was also collected during the March 2021 semi-annual sampling event from the submersible pump. Groundwater samples were analyzed for VOCs by USEPA Method 624.² by Eurofins TestAmerica of Amherst, New York and Savannah, Georgia. The groundwater sampling field forms are provided in **Appendix C**.

Detected constituents in groundwater from the July 2020 and March 2021 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 shown on **Table 3-3** and illustrated on **Figure 3-5**, Site-related COCs in overburden monitoring wells MW-18 and GW-4S and overburden recovery well RW-8S were detected above the New York State Class GA Standards. Total 1,2-DCE was detected at an estimated concentration of 7.1 ppb.³ in MW-18. VC was also detected at an estimated concentration of 3.3 ppb, above the Class GA Standard of 2 ppb. TCE was detected at overburden monitoring well GW-4S at a concentration of 5.1 ppb, slightly above the Class GA Standard of 5 ppb. Total 1,2-DCE and TCE were detected at concentrations of 10 ppb and 9.5 ppb, respectively, at overburden recovery well RW-8S, which are above the Class GA Standard of 5 ppb for both constituents. The remaining Site-related COCs detected in overburden monitoring and recovery wells were below their Class GA Standards. As shown on **Table 3-3** and illustrated on **Figure 3-6**, in RW-3D, PCE was detected at a concentration of 130 ppb, TCE was detected at a concentration of 120 ppb, and total 1,2-DCE was detected at a concentration of 63 ppb, each above the Class GA Standards for these constituents of 5 ppb.

As shown on **Table 3-4** and **Figure 3-5**, Site-related COCs in overburden monitoring wells MW-18 and GW-4S and overburden recovery wells RW-1S and RW-8S were detected above the Class GA Standards. Total 1,2-DCE was detected at an estimated concentration of 8.4 ppb in MW-18. VC was detected at a concentration of 8.6 ppb. Both concentrations are above the Class GA Standards of 5 ppb and 2 ppb, respectively. TCE was detected at a concentration of 5.8 ppb in GW-4S, slightly above the Class GA Standard of 5 ppb. TCE was also detected at concentrations of 12 ppb and 5.3 ppb in RW-1S and RW-8S, above the Class GA Standard of 5 ppb. Consistent with the July 2020 semi-annual sampling event, Site-related COCs were detected above their Class GA Standards in bedrock recovery well RW-3D. As shown on **Table 3-4** and **Figure 3-6**, PCE was detected at a concentration of 260 ppb, TCE was detected at a concentration of 240 ppb, and total 1,2-DCE was detected at a concentration of 180 ppb.

² Additional groundwater samples were also collected for geochemical parameters during the March 2021 semi-annual groundwater sampling event to aid in the RSO activities at the Site. Discussion of the additional geochemical parameters is provided in Appendix G.

³ For the purposes of this report, the individual Class GA Standard of 5 ppb is used for cis-1,2-dichloroethene and trans-1,2-dichloroethene.

A summary of the laboratory analytical results is provided in **Appendix D**. Data validation was performed for the July 2020 and March 2021 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 E**.

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 F**.

3.3 Groundwater Extraction and Treatment System Operations

Operation, maintenance, and repair activities are routinely performed to maintain the efficiency of the GWE&T system. The system operated for approximately 309 days during the reporting period, with an average flow rate of approximately 8.25 gpm and a maximum flow rate of approximately 21.1 gpm. Approximately 3,680,665 gallons of groundwater were treated and discharged by the GWE&T system during the reporting period. Maintenance and repair activities performed during 2020 were documented in the quarterly system monitoring reports prepared by LaBella. A summary of the routine and non-routine activities performed by LaBella during the reporting period are presented below.

Routine Activities

- Replacement of bag filter.
- Inspection and cleaning of the air stripper.
- Replacement of system components (i.e., gauges, valves).

Non-Routine Activities

• On December 20, 2020, the GWE&T effluent pump failed. On March 23, 2021 a new effluent pump for the GWE&T system was installed.

3.3.1 Groundwater Extraction and Treatment System Performance

Compliance samples were collected each month the GWE&T system was in operation to monitor the effectiveness of the system. 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, TDS by SM 2540C, and pH by USEPA Method 9040C by Eurofins TestAmerica of Amherst, New York and Edison, New Jersey. In addition, in September 2020 samples were collected for analysis of total and dissolved metals by USEPA Method 200.7 and in November 2020 samples were collected for analysis of mercury and total metals by USEPA Method 245.1 and USEPA Method 200.7, respectively. Site-related COCs were detected below the standards and guidance values provided in 6NYCRR Part 703 Surface Water and Groundwater Quality Standards and NYSDEC Division of Water Technical and Operational Guidance Series 1.1.1, Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations (June 1998) during each monthly sampling event, with the exception of April 2020 and December 2020. On April 8, 2020, PCE was detected at an estimated concentration of 1.1 μ g/L, and on December 10, 2020, PCE was again detected at a concentration of 1.1 μ g/L. Each PCE detection was slightly above the guidance value of 1.0 μ g/L. Groundwater treated by the GWE&T system discharges to Reach B Diversion, ultimately discharging into Pascack Brook. which is not a known source of drinking water. Monthly influent and effluent VOC, TDS, mercury, metals, and pH data are presented in Appendix D.

As presented in the 2019-2020 PRR (Aztech, 2020), groundwater samples were collected from each Site monitoring and recovery well (with the exception of monitoring well MW-3) and the GWE&T system effluent for per- and polyfluorinated alkyl substances (PFAS) and 1,4-dioxane analyses. Perfluorooctanesulfonic acid (PFOS) and perfluorooctanoic acid (PFOA) were detected in the GWE&T system effluent at concentrations of 11 parts per trillion (ppt) and 18 ppt, respectively. There are currently no state groundwater or surface water standards for PFAS (including PFOS and PFOA). As detailed in the remedial system optimization (RSO) attached to this PRR, the recommendation of the RSO includes discontinuing the operation of the GWE&T system during a proposed pilot study.

4. SITE COST EVALUATION

The Site cost evaluation summarizes the costs for the period of January 1, 2020 through December 31, 2020. The costs are itemized by NYSDEC subcontractor (Ramboll and LaBella). The approximate costs are presented on **Table 4-1**. Overall, the total estimated cost for Ramboll and LaBella Site activities was \$48,828. Ramboll Site activities included subcontractor coordination, one semi-annual groundwater sampling event, and reporting. LaBella Site activities included the O&M of the GWE&T system, monthly sampling, one semi-annual groundwater sampling event, and reporting.

5. CERTIFICATION OF ENGINEERING AND INSTITUTIONAL CONTROLS

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

6. CONCLUSIONS AND RECOMMENDATIONS

6.1 Conclusions

During this reporting period, the Tailings Dump Area was observed to be in good condition with no evidence of wear or cracks in the asphalt. The security perimeter fence surrounding the Tailings Dump Area was also in good condition, however, several large holes in the linkage of the security perimeter fence near the current monitoring and recovery well network were observed. In addition, vegetative growth and debris were observed along the Tailings Dump Area fence and the near monitoring well network, respectively.

The current hydraulic conditions and semi-annual groundwater sampling results show that the GWE&T system is creating a localized bedrock groundwater capture zone near recovery well RW-3D. Overburden groundwater does not appear to be under the influence of the GWE&T system at this time. The detected concentrations of Site-related COCs during this reporting period are consistent with historical results.

The results of the GWE&T system influent and effluent sampling show that the system was effective in removing Site-related COCs from recovered groundwater during the reporting period.

6.2 Recommendations

Based on a review of the annual Site inspection, the monitoring and hydraulic data collected in 2020, 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 security perimeter fence and debris in the western portion of the Tailings Dump Area be performed.
- Monitoring and Recovery Well Network It is recommended that the monitoring and recovery wells be equipped with new, keyed-alike locks during the next semi-annual sampling event.
- Security Perimeter Fence Based on the large holes in the linkage and historical presence of trespassers observed at the Site, it is recommended that a Site safety protocol be developed for personnel accessing the Site.
- Presence of Debris It is recommended that the debris near RW-1S, RW-3D, MW-18, GW-4S and GP-4D be disposed of and the area be monitored during future Site activities.

In addition, in accordance with NYSDEC's request, an optimization evaluation of the Site remedial system was performed during this reporting period. The recommendations of the RSO evaluation are presented in Appendix G.

7. 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 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.

FIGURES



Adapted From: USGS Topographic Quadrangle Map, Park Ridge, New Jersey.	NYSDEC COSCO SITE 15 West Street			
Modified From: Aztech Environmental Technologies,	Spring Valley, New York	-		
2020.	NYSDEC Site ID No. 3-44-035	Site Location Man		
RAMBOLL	FIGURE 1-1	. idp		





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.

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 an active bedrock recovery well.



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

Well	Coologie Unit	Measuring Point	Ju	ly 2020	March 2021		
		(ft amsl)	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	11.82	86.82	10.99	87.65	
MW-18	Overburden	99.32	12.68	86.64	11.49	87.83	
GW-4S	Overburden	101.49	14.90	86.59	13.27	88.22	
RW-1S	Overburden	101.00	14.90	86.10	13.22	87.78	
RW-8S	Overburden	97.74	11.59	86.15	9.98	87.76	
DW-1	Bedrock	100.12	25.45	74.67	25.80	74.32	
GP-4D	Bedrock	101.01	14.61	86.40	11.52	89.49	
RW-3D	Bedrock	100.54	59.58	40.96	48.95	51.59	

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.



Table 3-3

Summary of Detected Constituents in Groundwater - July 2020

NYSDEC COSCO Site

Spring Valley, New York

Compounds	NYSDEC TOGs (1.1.1), Class GA Standards and Guidance Values ¹	Location ID Sample ID Sample Date	RW-1S RW-1S-072820 7/28/2020	RW-3D RW-3D-072820 7/28/2020	DW-1 DW-1-072820 7/28/2020	MW-18 MW-18-072820 7/28/2020	GW-4S GW-4S-072920 7/29/2020	RW-8S RW-8S-072920 7/29/2020
1,2-Dichloroethene, Total	5 ²		10 U	63	10 U	7.1 J	2.0 U	10
Tetrachloroethene	5		5.0 U	130	3.0 J	0.64 J	1.0 U	0.84 J
Trichloroethene	5		2.3 J	120	2.3 J	1.5 J	5.1	9.5
Vinyl chloride	2		5.0 U	10 U	5.0 U	3.3 J	1.0 U	1.8

Notes:

1. Samples analyzed for volatile organic compounds using United States Environmental Protection Agency Method 624 by Eurofins TestAmerica in Amherst, New York and Savannah, Georgia.

2. Results are reported in micrograms per liter (μ g/L).

3. "NYSDEC" designates New York State Department of Environmental Conservation.

4. "TOGS" designates Technical and Operational Guidance Series.

5. ¹New York State Department of Environmental Conservation, Technical and Operational Guidance Series (1.1.1), Class GA Standards and Guidance Values, June 1998, with all current addendums.

6. ²To be conservative, the individual Class GA Standard is used for cis-1,2-dichloroethene and trans-1,2-dichloroethene.

7. "U" indicates that the compound was not detected at or above the practical quantitation limit shown.

8. "J" indicates that the compound was detected at an estimated concentration.

9. Values that are bold indicate exceedance of criteria.



Table 3-4

Summary of Detected Constituents in Groundwater - March 2021

NYSDEC COSCO Site

Spring Valley, New York

Compounds	NYSDEC TOGs (1.1.1), Class GA Standards and Guidance Values ¹	Location ID Sample ID Sample Date	RW-1S RW-1S-030921 3/9/2021	RW-3D RW-3D-030921 3/9/2021	DW-1 DW-1-030821 3/8/2021	MW-18 MW-18-030921 3/9/2021	GW-4S GW-4S-030821 3/8/2021	RW-8S RW-8S-031021 3/10/2021
1,2-Dichloroethene, Total	5 ²		10 U	180	10 U	8.4 J	10 U	10 U
Tetrachloroethene	5		3.4 J	260	0.58 J	0.58 J	5.0 U	0.45 J
Trichloroethene	5		12	240	5.0 U	1.3 J	5.8	5.3
Vinyl chloride	2		5.0 U	25 U	5.0 U	8.6	5.0 U	5.0 U

Notes:

1. Samples analyzed for volatile organic compounds using United States Environmental Protection Agency Method 624 by Eurofins TestAmerica in Amherst, New York.

2. Results are reported in micrograms per liter (μ g/L).

3. "NYSDEC" designates New York State Department of Environmental Conservation.

4. "TOGS" designates Technical and Operational Guidance Series.

5. ¹New York State Department of Environmental Conservation, Technical and Operational Guidance Series (1.1.1), Class GA Standards and Guidance Values, June 1998, with all current addendums.

6. ²To be conservative, the individual Class GA Standard is used for cis-1,2-dichloroethene and trans-1,2-dichloroethene.

7. "U" indicates that the compound was not detected at or above the practical quantitation limit shown.

8. "J" indicates that the compound was detected at an estimated concentration.

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 (January 1, 2020 through December 31, 2020)	Percent of Total Cost			
Groundwater Extraction and Treatment System Operation and Maintenance, Monitoring, Annual Site Inspection, and Reporting ^a	\$33,364	68%			
Semi-Annual Sampling, Monitoring, and Reporting ^b	\$15,464	32%			

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, annual Site inspection, and reporting activities incurred by LaBella Associates. Reporting costs include the 2019/2020 Periodic Review Report and quarterly system monitoring reports.
- 4. "^b" costs include first semi-annual sampling event, and the semi-annual post groundwater monitoring report incurred by Ramboll. Additional costs associated with subcontractor coordination are also included.



APPENDICES

APPENDIX A SUMMARY OF SITE HISTORY



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>	Description
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:
	 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:
	 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.
- 2020 Ramboll initiates 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.

APPENDIX B ANNUAL SITE INSPECTION AND PHOTOGRAPHIC LOG



NYSDEC COSCO SITE INSPECTION PHOTO LOG

Client name: N	YSDEC	Site location: Spring Valley, NY	Project no.: 1940075217.005.016
Photo no. 1	Date: 3/11/2021		
Description:			
Description: Monitoring well DW-1 with transducer.			

Client name: NYSDEC		Site location: Spring Valley, NY	Project no.: 1940075217.005.016
Photo no. 2	Date: 3/11/2021		
Description:			
Description: Monitoring well GP-4D with transducer.			



Client name: NYSDEC		Site location: Spring Valley, NY	Project no.: 1940075217.005.016
Photo no. 3 Da	ate: 3/11/2021		
Description:			
Monitoring well GW-4S			

Client name: N	YSDEC	Site location: Spring Valley, NY	Project no.: 1940075217.005.016
Photo no. 4	Date: 3/11/2021		
Description:			
Monitoring well MW recovery well RW-3	'-18 (front) and D (back).		



Client name: NYSDEC	Site location: Spring Valley, NY	Project no.: 1940075217.005.016
Photo no. 5 Date: 3/11/	/2021	
Description:	A Contraction	
Recovery well RW-1S.		

Client name: NYSDEC		Site location: Spring Valley, NY	Project no.: 1940075217.005.016
Photo no. 6	Date: 3/11/2021		
Description:			
Monitoring well MW	/-3.		



Client name: NYSDEC		Site location: Spring Valley, NY	Project no.: 1940075217.005.016
Photo no. 7	Date: 3/11/2021		
Description:			
Recovery well RW-8	3S.		

Client name: NYSDEC	Site location: Spring Valley, NY	Project no.: 1940075217.005.016
Photo no. 8 Date: 3/11/2021	K 3	
Description:		
Tailings Dump Area cap facing south.		





Client name: NY	SDEC	Site location: Spring Va	lley, NY	Project no.: 194007	5217.005.016
Photo no. 10	Date: 3/11/2021		大作	112	
Description:		A STRACT	5年44	Star IV	
North side of Tailings	s Dump Area.		THE A	-HILL JORGEN	
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Client name: NYSDEC	Site location: Spring Valley, NY	Project no.: 1940075217.005.016
Photo no. 13 Date: 3/11/2021		
Description:		CHARACTER IN
Site perimeter security fence along northeast edge of the Site.		

Client name: NY	(SDEC	Site location: Spring Valley, NY	Project no.: 1940075217.005.016
Photo no. 14	Date: 3/11/2021	I AL	Lis
Description:			
Description: Site perimeter security fence along north side of COSCO building.			





Client name: NYSDEC	Site location: Spring Valley, NY	Project no.: 1940075217.005.016
Photo no. 16 Date: 3/11/2021		
Description:		
Damaged section of perimeter		
security fence along north side of the Site.		



Client name: NYSDEC Site location: Spring Valley, NY Project no.: 1940075217.005.016 Photo no. 17 Date: 3/11/2021 Description: Description: Damaged section of perimeter security fence adjacent to COSCO building. Description:

Client name: NYSDEC	Site location: Spring Valley, NY	Project no.: 1940075217.005.016
Photo no. 18 Date: 3/11/2021	No.	
Description:		
Damaged section of perimeter		
Dump Area.		
	And the second	

APPENDIX C GROUNDWATER SAMPLING FIELD FORMS

Spring Valley, New York eneral Well No:: RW-3D Field Personnel: Charles Bruce, Christopher Weiman Weather Conditions: Survey - 90+ Out Physical Condition of Well: GOOTE Equipment used: TREATMENT Purging Information Measuring Point Elevation: Purging Time: Start: Stop: Total Depth of Well Installed: Volume to be Purged (3 vol.): gal. Purging Method: Dedicated Dailer CB Purge Water Disposal Method: Containerize, transport to, and treat at the remedial shed on-s rtree Water Characteristics Other: Color: LICC Values of Sample Collection: LIC Sample Identification: \mathcal{L}/LZ Sample Description: $\mathcal{L}ear + nc = older C Method of Sample Collection: \mathcal{L}ear + nc = older C Sample Description: \mathcal{L}ear + nc = older C Type of Preservative if any: none, cool 4°C Analytical Method Requested: VOCs by USEPA Method 624 $	COSCO Site
Americal Well No.: RW-3D Field Personnel: Charles Bruce, Christopher Weiman Weather Conditions: Surver, -90+° out Physical Condition of Well: GOOT Equipment used: IREGUMENT Purging Information Well Diameter: Purging Time: Start: Stop: — Total Depth of Well Installed: — Volume to be Purged (3 vol.): — gal. Purging Method: Dedicated Baiter CB Purge Water Disposal Method: Containerize, transport to, and treat at the remedial shed on-se Image Water Characteristics Presence of NAPL: Color: Licar Odor: Mone Turbidity:	Spring Valley, New York
eneral Well No:: RW-3D Field Personnel: Charles Bruce, Christopher Weiman Weather Conditions: Survey - 90+ out Physical Condition of Well: GOOIZ Equipment used: IRFATMENT Purging Information Measuring Point Elevation: Date: 07/28/2020 Purging Time: Start: Stop: — Total Depth of Well Installed: — Volume to be Purged (3 vol.): — gal. Depth of Well Measured: Volume to be Purged (3 vol.): — gal. Depth of Well Measured: Purging Method: Dedieated Bailer CB 1 Well Volume: X == Purge Water Characteristics Presence of NAPL: Color: Llear Odor: Manuel Mode Other: Turbidity:	
Well No.: RW-3D Field Personnel: Charles Bruce, Christopher Weiman Weather Conditions: Survey - 90+ Out Physical Condition of Well: GOOIZ Equipment used: IRFATMENT Stop: SYSTEM Purging Information Measuring Point Elevation: Date: $07/CB/Cozo$ Purging Time: Start: Stop: Total Depth of Well Installed: Volume to be Purged (3 vol.): gal. Volume Purged: gal. Purging Method: Depth to Water: Purging Method: Dediceted Bailer CB Purge Water Characteristics Other: Color: $LICCC$ Odor: $LICCC$ Presence of NAPL: $nore Method of Sample Collection: IZIZ Sample Identification: RW - 3D - O728 - 20 Method of Sample Collection: GLeV Sample Description: Clear, nos o clev Containers: 3 \times 40m glass voa vials unpreserved Turbidity: none, cool 4*C Analytical Method Requested: VOCs by USEPA Method 624 $	
Field Personnel: Charles Bruce, Christopher Weiman Weather Conditions: \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc Physical Condition of Well: \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc Equipment used: <i>IREATMENT</i> SYSTEM Purging Information Date: \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc Purging Time: Start: Well Diameter: \bigcirc Purging Time: Start: \bigcirc Well Diameter: \bigcirc Volume to be Purged (3 vol.): \bigcirc gal. Total Depth of Well Installed: \bigcirc Volume Purged: gal. Depth to Water: \bigcirc \bigcirc Purging Method: Dedicated Bailer CB 1 Well Volume: $X = =$ Purge Water Characteristics 1 Well Volume: $X = =$ Color: \bigcirc \bigcirc \bigcirc \bigcirc Odor: \square \bigcirc \bigcirc \bigcirc \bigcirc Turbidity: \square \bigcirc \bigcirc \bigcirc Date of Sample Collection: \square \bigcirc \bigcirc \bigcirc Turbidity: \square \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc Sample Identification: \bigcirc \bigcirc	
Weather Conditions: Survey - 90+° Out Physical Condition of Well: $GOOT$ Equipment used: ITREATMENT SYSTEM Jarging Information Measuring Point Elevation:	ce, Christopher Weiman
Physical Condition of Well: $\Box QODT$ Equipment used: $TRFATMENT$ SVSTEM SAMPLE POST urging Information Date: $OT/CB/COZO$ Measuring Point Elevation:	UNARY - 90+ OUT
Equipment used: TREATMENT SYSTEM SAMPLE PORT urging Information Date: 07/10/10020 Measuring Point Elevation:	6007
urging Information Date: 07/08/0020 Purging Time: Start: Stop:	NT SYSTEM SAMPLE PORT
urging Information Date: 07/c8/cozo Purging Time: Start: Stop: - Total Depth of Well Diameter: - Volume to be Purged (3 vol.): - gal. Total Depth of Well Measured: Volume Purged: gal. Purging Method: Dedicated Bailer CB Purge Water Disposal Method: Containerize, transport to, and treat at the remedial shed on-s urge Water Characteristics Presence of NAPL: Color: Clear Odor: Presence of NAPL: Moder: Presence of NAPL: Mater Characteristics Other: Odor: Date Turbidity: Presence of Sample Collection: Image: Sample Information Date of Sample Collection: DIC Sample Identification: Rw - 3D - O728 ZO Method of Sample Collection: Clear (no o ole r) Sample Description: Clear (no o ole r) Sample Description: Sa 40ml glass voa vials unpreserved Type of Preservative if any: none, cool 4°C Analytical Method Requested: VOCs by USEPA	
Date: $07/28/2020$ Measuring Point Elevation: Purging Time: Start:	
Purging Time: Start: Well Diameter: Stop: Total Depth of Well Installed: Total Depth of Well Installed: Volume to be Purged (3 vol.): gal. Total Depth of Well Measured: Purging Method: Dedicated Bailer CB 1 Well Volume: $X - =$ Purge Water Disposal Method: Containerize, transport to, and treat at the remedial shed on-s urge Water Characteristics Presence of NAPL: North Odor: MOR Other: Other: Turbidity: NOR MOR MOR Sample Identification: $RC > 3P - OT2S < O$ Method of Sample Collection: Sample Description: $Clear + ncs o clear + Collog Sample Collection: Sample Description: Clear + ncs o clear + Collog Sample Sole of Collog Yee of Preservative if any: none, cool 4°C YOCs by USEPA Method 624 $	Measuring Point Elevation: ft. ams
Stop:	: - Well Diameter: - in
Volume to be Purged (3 vol.): gal. Total Depth of Well Measured: Volume Purged: gal. Depth to Water: Purging Method: Dedicated Bailer CB 1 Well Volume: $X - =$ Purge Water Disposal Method: Containerize, transport to, and treat at the remedial shed on-s urge Water Characteristics Presence of NAPL: $Nork$ Odor: $Mork$ Other: Other: Turbidity: $Nork$ Other: Image: Containerize of the contai	: - Total Depth of Well Installed: ft. bmp
Volume Purged: gal. Depth to Water: Purging Method: Dedicated Bailer CB 1 Well Volume: $X - =$ Purge Water Disposal Method: Containerize, transport to, and treat at the remedial shed on-s urge Water Characteristics Presence of NAPL: $Norld Odor: More Other: Other: Turbidity: Norld< OTITR/TODO Other: Sample Collection: VITR/TODO VITR/TODO Method of Sample Collection: VITR/TODO VITR/TODO Sample Identification: Rootoolder Other Collection Sample Description: Clear o Cler Collection Type of Preservative if any: None, cool 4^{\circ}C None, cool 4^{\circ}C Analytical Method Requested: VOCs by USEPA Method 624 VOCs by USEPA Method 624 $	gal. Total Depth of Well Measured: ft. bmp
Purging Method: Dedicated Bailer CB 1 Well Volume: $X - =$ Purge Water Disposal Method: Containerize, transport to, and treat at the remedial shed on-s urge Water Characteristics Presence of NAPL: $nonl Odor: Lipce Presence of NAPL: nonl Odor: Lipce Other: nonl Turbidity: nonl 0 1/2/2 Sample formation 0/1/18/12020 1/2/2 Method of Sample Collection: 0/1/18/12020 1/2/2 Sample Identification: R = -3P - 0/28/20 R = -3P - 0/28/20 Method of Sample Collection: R = -3P - 0/28/20 R = -3P - 0/28/20 Sample Description: Lean + no - 0 der R = -3P - 0/28/20 Method of Sample Collection: R = -3P - 0/28/20 R = -3P - 0/28/20 Method of Sample Collection: R = -3P - 0/28/20 R = -3P - 0/28/20 Sample Description: Lean + no - 0 der R = -3P - 0/28/20 Ype of Preservative if any: none, cool 4^{\circ}C none, cool 4^{\circ}C Analytical Method Requested: YOCs by USEPA Method 624 $	 gal. Depth to Water: ft. bmp
Purge Water Disposal Method: Containerize, transport to, and treat at the remedial shed on-s urge Water Characteristics Presence of NAPL: nonl Color: Clear Presence of NAPL: nonl Odor: Wone Other: Other: Turbidity: nonl Other: Image: Collection: Time of Sample Collection: Image: Collection: Image: Collection: Image: Collection: Sample Identification: Rw - 3D - 0728 20 Method of Sample Collection: Collection: Sample Description: Clear, no ocler. Collection: Sample Description: Clear, no ocler. Type of Preservative if any: none, cool 4°C None, cool 4°C VOCs by USEPA Method 624	Bailer CB 1 Well Volume: X — = — gal.
urge Water Characteristics Color: $\bigcirc lecr$ Presence of NAPL: $\neg cnl$ Odor: $\bigcirc lone$ Other: $\bigcirc cnl$ Turbidity: $\neg cnl$ Other: $\bigcirc cnl$ ampling Information $\bigcirc llottore \bigcirc llottore \bigcirc llottore ampling Information \bigcirc llottore \bigcirc llottore \bigcirc llottore Time of Sample Collection: \square llottore \square llottore \square llottore Sample Identification: Rw - 3P - \bigcirc 728 = 20 \bigcirc method of Sample Collection: CB Dedicated Bailer @ nellottore Sample Description: \square llottore \square llottore \square llottore \square llottore Sample Description: \square llottore \square llottore \square llottore \square llottore Sample Description: \square llottore \square llottore \square llottore \square llottore Type of Preservative if any: none, cool 4^{\circ}C \square none, cool 4^{\circ}C \square none, cool 4^{\circ}C Analytical Method Requested: \forall OCs by USEPA Method 624 \square lottore \square lottore $: Containerize, transport to, and treat at the remedial shed on-site.
ampling Information Date of Sample Collection: $07/78/7020$ Time of Sample Collection: 1217 Sample Identification: $RW - 3P - 0728 - 20$ Method of Sample Collection: CB Dedicated Bailer $G ncb$ Sample Description: $Ulear + ncb$ $o clear$ Containers: $3 \times 40ml$ glass voa vials unpreserved Type of Preservative if any: none, cool 4°C Analytical Method Requested: VOCs by USEPA Method 624	Presence of NAPL: <u>nenk</u> Other:
Time of Sample Collection: 1212 Sample Identification: Rw - 3P - 0728-20 Method of Sample Collection: CB Dedicated Bailer G ncler Sample Description: Ulear (no o cler) Containers: 3 x 40ml glass voa vials unpreserved Type of Preservative if any: none, cool 4°C Analytical Method Requested: VOCs by USEPA Method 624	07(78/7222)
Sample Identification: Rw - 3P - 0728-20 Method of Sample Collection: CB Dedicated Bailer 6 ndb Sample Description: Ulean + no o cler Containers: 3 x 40ml glass voa vials unpreserved Type of Preservative if any: none, cool 4°C Analytical Method Requested: VOCs by USEPA Method 624	1212
Method of Sample Collection: CB Dedicated Bailer Code Sample Description: Clear Containers: 3 x 40ml glass voa vials unpreserved Type of Preservative if any: none, cool 4°C Analytical Method Requested: VOCs by USEPA Method 624	N-3P-0728-20
Sample Description: Ulear rob oller Containers: 3 x 40ml glass voa vials unpreserved Type of Preservative if any: none, cool 4°C Analytical Method Requested: VOCs by USEPA Method 624	CB Dedicated Bailer Grab
Containers: 3 x 40ml glass voa vials unpreserved Type of Preservative if any: none, cool 4°C Analytical Method Requested: VOCs by USEPA Method 624	lear , no ocler.
Type of Preservative if any: none, cool 4°C Analytical Method Requested: VOCs by USEPA Method 624	3 x 40ml glass voa vials unpreserved
Analytical Method Requested: VOCs by USEPA Method 624	none, cool 4°C
	VOCs by USEPA Method 624
4" well volume multiplier (gellene per feet) = 0.652 - 0" well volume multiplier (gellene per feet)	po por foot) = 0.652 \cdot 0" well volume multiplier (college per foot) = 0.460
4 wen volume multiplier (gallons per loot) = 0.005 2 wen volume multiplier (gallons per loot) =	This per root $j = 0.055 \ z$ wen volume multiplier (gallons per root) = 0.163
Sample Was latter from Sample PORT	A LAREN TROIN NAMERIC PART

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C	OSCO Site
Spring	Valley, New York
ieneral	
Well No.: DW-1	
Field Personnel: Charles Bruce, Christophe	r Weiman
Weather Conditions: <u>90° - Sun</u>	ing and Clear
Physical Condition of Well:	
Equipment used: <u>Dedicated Baller</u>	Solnist WL METER
urging Information	
Date: 07/28/2020	Measuring Point Elevation: 100,12 ft. ams
Purging Time: Start: //25	Well Diameter: 4 in
Stop: 12 20	Total Depth of Well Installed:66.00 ft. bmp
Volume to be Purged (3 vol.): 72 gal.	. Total Depth of Well Measured: <u>68.61</u> ft. bmp
Volume Purged: 7 a gal	. Depth to Water: <u>Z9.45</u> ft. bmp
Purging Method: Dedicated Bailer	1 Well Volume: $39.16 \times 1.6 = 24$ gal
Water Obernsteiletter	
Color: <u>Clear/Acteristics</u> Odor: <u>Now</u> E	Presence of NAPL: ASCINE
Color: <u>Clear/Acteristics</u> Odor: <u>NowE</u> Turbidity: <u>LON</u>	Presence of NAPL: <u>ASCINE</u> Other:
Color: <u>Clear/Acte white water the contents</u> Odor: <u>NowE</u> Turbidity: <u>LOW</u>	Presence of NAPL: ASCINE Other:
Ourge Water Characteristics Color: Clear/Acta white water water Odor: NowE Turbidity: Low Sampling Information Date of Sample Collection: 07/24	Other:
Ourge Water Characteristics Color: Clear/Pate white water Odor: NowE Turbidity: Low Sampling Information 07/28 Date of Sample Collection: 07/28 Time of Sample Collection: 1230 -	BI 2020
Ourge Water Characteristics Color: Clear/Acteristics Odor: NowE Turbidity: Low Sampling Information O7/22 Time of Sample Collection: 1230 - Sample Identification: DW) - 1 - 072	Presence of NAPL: <u>ASONE</u> Other: <u>S/ 2020</u> <u>/ 1233</u>
Urge Water Characteristics Color: $Clear/Acteristics$ Odor: NOWE Turbidity: LOWE Sampling Information $07/26$ Time of Sample Collection: $1230-726$ Sample Identification: $D(L) - 1 - 072$ Method of Sample Collection: Dedicated E	Presence of NAPL: <u>ASOME</u> Other: <u>6/2020</u> <u>7-1233</u> <u>7-1233</u> <u>7-1233</u>
urge Water Characteristics Color: $Clear/Pate white Odor: NowE Turbidity: Low ampling Information Date of Sample Collection: 07/28 Time of Sample Collection: 1230-728 Sample Identification: Du) - 1 - 072 Method of Sample Collection: Dedicated E Sample Description: Uear, no $	Presence of NAPL: \underline{ASOME} Other: \underline{ASOME} \underline{ASOME} \underline{ASOME} \underline{ASOME} \underline{ASOME} \underline{ASOME} \underline{ASOME} \underline{ASOME} \underline{ASOME}
urge Water Characteristics Color: $C(ecr/Addz + Mather M$	Presence of NAPL: \underline{ASOME} Other: $\underline{S/ZOZO}$ \underline{AZO} Bailer \underline{OCC} ass voa vials unpreserved
urge Water Characteristics Color: $C(ecr/Acteristics)$ Odor: NOWE Turbidity: LOLD Sampling Information $07/26$ Date of Sample Collection: $1230-726$ Sample Identification: $DL) - 1 - 072$ Method of Sample Collection: Dedicated E Sample Description: $Cear, no$ Containers: $3 \times 40ml$ gla Type of Preservative if any: none, cool	Presence of NAPL: \underline{ASOME} Other: $\underline{S/ZOZO}$ \underline{AZO} Bailer \underline{OC} \underline{ACO} \underline
urge Water Characteristics Color: Clear/Actain Matrice Water Super- Odor: Mowle Turbidity: Low Turbidity: Low Sampling Information 07/28 Time of Sample Collection: 1230 - Sample Identification: Dwold - Sample Identification: Dwold - Sample Description: Dedicated E Sample Description: 3 x 40ml gla Type of Preservative if any: none, cool 4 Analytical Method Requested: VOCs by U	Presence of NAPL: \underline{ASONE} Other: \underline{ASONE} ASON
Surge Water Characteristics Surge Water Characteristics Color: $C(ecr/Adde tribuleto tribu$	Presence of NAPL: $\Delta SONE$ Other: 3/2020 4/233 CP 320 Bailer 0 den ass voa vials unpreserved $4^{\circ}C$ SEPA Method 624
Purge Water Characteristics Purge Water Characteristics Color: $Clear/Addeetalistics$ Odor: NOWE Turbidity: LOWE Turbidity: LOWE Date of Sample Collection: $D7/28$ Time of Sample Collection: $D20-72$ Sample Identification: $DU-1-072$ Method of Sample Collection: Dedicated E Sample Description: $Clear, NO$ Containers: $3 \times 40ml$ gla Type of Preservative if any: none, cool Analytical Method Requested: VOCs by U 4" well volume multiplier (gallons per foot) = 0	Presence of NAPL: $\Delta SONE$ Other: Other: 3/2020 4233 2820 Bailer 0.653 2" well volume multiplier (gallons per foot) = 0.163
urge Water Characteristics Color: $Clear/Actar white water water water Odor: Mowe Turbidity: Low Turbidity: Low Sampling Information 07/26 Time of Sample Collection: 1230-7 Sample Identification: DW - 1 - 072 Method of Sample Collection: Dedicated E Sample Description: Uear, NO Containers: 3 \times 40ml gla Type of Preservative if any: none, cool 4 Analytical Method Requested: VOCs by U 4" well volume multiplier (gallons per foot) = 0 Iotes MS/M \le I7 $	Presence of NAPL: $\Delta SONE$ Other: Other: 3/2026 2320 Bailer oclen ass voa vials unpreserved $4^{\circ}C$ SEPA Method 624 2 32'' well volume multiplier (gallons per foot) = 0.163 d Here \bigcirc

CO Spring Va	SCO Site alley, New York
opinig te	
operal	
eneral	
Well No.: MW-18	
Field Personnel: Charles Bruce, Christopher V	Veiman
Weather Conditions: <u>Sunny</u> , 90°	*
Physical Condition of Well: 1 GOOD	
Equipment used: <u>Dedicated Bailer</u>	F, WL Meter
urging Information	
Date: 07/28/20	Measuring Point Elevation: 99.32 ft ams
Purging Time: Start: 1400	Well Diameter: 7 in.
Stop: 1415	Total Depth of Well Installed: 23.00 ftbmp (
Volume to be Purged (3 vol.): 6 gal.	Total Depth of Well Measured: 25.14 ft. bmp
Volume Purged: 65 gal.	Depth to Water: 17.68 ft. bmp
Purging Method: Dedicated Bailer	1 Well Volume: $iZ_{146} \times X_{163} = Z_{03}$ gal.
Purge Water Disposal Method: <u>Containerize</u> ,	1 Well Volume: $i \not z_1 \not 4 g X_{s163} = g_1 g g g a g a g g a g a g a g a g a g a $
Purging Method: <u>Dedicated Bailer</u> Purge Water Disposal Method: <u>Containerize</u> , <u>urge Water Characteristics</u> Color: <u>Rust Yellos</u> BROWN Odor: Weterline	1 Well Volume: $i \ge .46$ $X_{s163} = 2.03$ gal. transport to, and treat at the remedial shed on-site. Presence of NAPL: $n_0 = 2$ Other: $n_0 = 2$
Purge Water Disposal Method: <u>Containerize</u> , <u>urge Water Characteristics</u> <u>Color:</u> <u>Rust Yellow</u> <u>BROWN</u> Odor: <u>Metallic</u> Turbidity: <u>Low BSTART, HKH @ GND</u>	1 Well Volume: $i \ge .46$ $X_{s163} = 2.03$ gal. transport to, and treat at the remedial shed on-site. Presence of NAPL: n_one Other:
Purge Water Disposal Method: <u>Containerize</u> , <u>urge Water Characteristics</u> <u>Color: <u>Rust Yellow</u> BROWN Odor: <u>Metallic</u> Turbidity: <u>Low @START HIGH @ GND</u></u>	1 Well Volume: $i \ge .46$ $X_{s163} = \ge .03$ gal. transport to, and treat at the remedial shed on-site. Presence of NAPL: n_one Other:
Purge Water Disposal Method: <u>Containerize</u> , <u>urge Water Characteristics</u> Color: <u>Rust Yellow</u> BROWN Odor: <u>Metallic</u> Turbidity: <u>Low Ostari High @ GND</u> ampling Information	1 Well Volume: $i \ge .46$ $X_{s163} = \ge .03$ gal. transport to, and treat at the remedial shed on-site. Presence of NAPL: n_one Other:
Purging Method: Dedicated Baller Purge Water Disposal Method: Containerize, urge Water Characteristics Containerize, Color: Rust Kellos -> BROWN Odor: Method: Turbidity: Low BSTART, HIGH @ GND ampling Information Date of Sample Collection: 07/28/2	1 Well Volume: iz.i46 X.i63 = z.o3 gal. transport to, and treat at the remedial shed on-site. Presence of NAPL: none Other:
Purging Method: Dedicated Baller Purge Water Disposal Method: Containerize, urge Water Characteristics Color: Rust Yellow > BROWN Odor: Method: Method: Method: Odor: Method: Method: BROWN Odor: Method: Method: Method: Odor: Method: Method: BROWN Method: BROWN Odor: Method: Method: BROWN Method: BROWN Method: BROWN Method: BROWN Method: BROWN Method: BROWN Method: BROWN <td< td=""><td>1 Well Volume: iz.i46 X.i63 = z.o3 gal. transport to, and treat at the remedial shed on-site. Presence of NAPL: none Other: </td></td<>	1 Well Volume: iz.i46 X.i63 = z.o3 gal. transport to, and treat at the remedial shed on-site. Presence of NAPL: none Other:
Purging Method: Dedicated Bailer Purge Water Disposal Method: Containerize, urge Water Characteristics Color: Containerize, Color: Rust Yellow > BROWN Odor: Method: SROWN Odor: Method: Grade State Turbidity: Low @STAKT, HIGH @ GNO ampling Information G7/Z8/2 Time of Sample Collection: 14.20 Sample Identification: MW - 18-07	1 Well Volume: iz.i46 X.i63 = z.03 gal. transport to, and treat at the remedial shed on-site. Presence of NAPL: none Other:
Purging Method: Dedicated Bailer Purge Water Disposal Method: Containerize, urge Water Characteristics Color: Rust Yellow > BROwn Odor: Method: Odor: Method: Method: Low BROwn Odor: Method: Market Mice Display BROwn Odor: Method: Method of Sample Collection: 17/28/2 Method of Sample Collection: Dedicated Bailer	1 Well Volume: iz.i46 X.i63 = z.03 gal. transport to, and treat at the remedial shed on-site. Presence of NAPL: none Other:
Purging Method: Dedicated Baller Purge Water Disposal Method: Containerize, urge Water Characteristics Color: <u>Rust Yellow BROWN</u> Odor: <u>Methodic</u> Turbidity: <u>Low BSTART HIGH @ CMB</u> ampling Information Date of Sample Collection: <u>07/28/2</u> Time of Sample Collection: <u>14:20</u> Sample Identification: <u>MWD-18-07</u> Method of Sample Collection: <u>Dedicated Baller</u> Sample Description: <u>0 pague</u> bro	1 Well Volume: $i \ge i 46$ $X_{s163} = 2.03$ gal. transport to, and treat at the remedial shed on-site. Presence of NAPL: $none$ Other:
Purging Method: Dedicated Baller Purge Water Disposal Method: Containerize, urge Water Characteristics Color: <u>Rust Yellow</u> BROWN Odor: <u>Method</u> BROWN Odor: <u>Method</u> Collection: <u>O7/28/2</u> Turbidity: <u>Low @start High @ color</u> ampling Information Date of Sample Collection: <u>O7/28/2</u> Time of Sample Collection: <u>14.20</u> Sample Identification: <u>MWD-18-07</u> Method of Sample Collection: <u>Dedicated Baller</u> Sample Description: <u>O 940 vec</u> brown	1 Well Volume: iz.i46 X,i63 = z.03 gal. transport to, and treat at the remedial shed on-site. Presence of NAPL: none Other:
Purging Method: Dedicated Baller Purge Water Disposal Method: Containerize, urge Water Characteristics Color: <u>Rust Yellow BROWN</u> Odor: <u>Method</u> <u>BROWN</u> Odor: <u>Method</u> <u>BROWN</u> <u>Ampling Information</u> Date of Sample Collection: <u>MWD - 18 - 07</u> Method of Sample Collection: <u>Dedicated Ball</u> Sample Identification: <u>MWD - 18 - 07</u> Method of Sample Collection: <u>Dedicated Ball</u> Sample Description: <u>Open we</u> <u>Bro</u> Containers: <u>3 x 40ml glass</u> Type of Preservative if any: <u>none, cool 4°C</u>	1 Well Volume: iz.i46 X.i63 = z.03 gal. transport to, and treat at the remedial shed on-site. Presence of NAPL: nona Other:
Purging Method: Dedicated Baller Purge Water Disposal Method: Containerize, urge Water Characteristics Color: Rust Yellow & BROWN Odor: Method: Odor: Method: Method: Low BROWN Odor: Method: Method: Low Brand Ampling Information Date of Sample Collection: Time of Sample Collection: 14.20 Sample Identification: $MW - 18-07$ Method of Sample Collection: Dedicated Baller Sample Description: $0 pqgwe bre Containers: 3 \times 40ml glass Type of Preservative if any: none, cool 4°C Analytical Method Requested: VOCs by USE $	1 Well Volume: iz.i46 X.i63 = z.03 gal. transport to, and treat at the remedial shed on-site. Presence of NAPL: mail Presence of NAPL: mail Other: ZOZO ZZOZO ZOZO ZZOZO ZZOZO ZOZO ZZOZO ZOZO ZOZO ZOZO ZZOZO ZOZO ZZOZO ZDZO ZZOZO ZDZO ZZOZO ZDZO ZZOZO
Purging Method: Dedicated Baller Purge Water Disposal Method: Containerize, urge Water Characteristics Color: <u>Rust Yellow BROWN</u> Odor: <u>Methodic</u> Turbidity: <u>Low BROWN</u> Odor: <u>Methodic</u> Turbidity: <u>Low BROWN</u> Model and Collection: <u>Methodic</u> Sample Identification: <u>Methodic</u> Sample Identification: <u>Methodicated Baller</u> Method of Sample Collection: <u>Dedicated Baller</u> Sample Description: <u>Operate bro</u> Containers: <u>3 x 40ml glass</u> Type of Preservative if any: <u>none, cool 4°C</u> Analytical Method Requested: <u>VOCs by USE</u>	1 Well Volume: iz.i46 X.i63 = z.03 gal. transport to, and treat at the remedial shed on-site. Presence of NAPL: Presence of NAPL: Other: 2020 72820 iler 5020 2020 </td
Purging Method: Dedicated Baller Purge Water Disposal Method: Containerize, urge Water Characteristics Color: <u>Rust Yellow BROwn</u> Odor: <u>Method</u> <u>BROwn</u> Odor: <u>Method</u> <u>BROwn</u> Odor: <u>Method</u> <u>BROwn</u> Odor: <u>Method</u> <u>BROwn</u> Date of Sample Collection: <u>Method</u> <u>GMETERE</u> Time of Sample Collection: <u>14.20</u> Sample Identification: <u>Mw</u> -18-07 Method of Sample Collection: <u>Dedicated Baller</u> Sample Description: <u>Opuque</u> <u>Bro</u> Containers: <u>3x 40ml glass</u> Type of Preservative if any: <u>none, cool 4°C</u> Analytical Method Requested: <u>VOCs by USE</u> 4" well volume multiplier (gallons per foot) = 0.6	1 Well Volume: iz.i46 X,163 = z.03 gal. transport to, and treat at the remedial shed on-site. Presence of NAPL: Monopole Other: 72820 72820 72820 Reserved Sec A Se
Purging Method: Dedicated Bailer Purge Water Disposal Method: Containerize, urge Water Characteristics Color: <u>Rust Yellow BROWN</u> Odor: <u>Method Requested</u> : Turbidity: <u>Low BSTART HIGH @ GND</u> ampling Information Date of Sample Collection: <u>7/28/2</u> Time of Sample Collection: <u>7/28/2</u> Method of Sample Collection: <u>14.20</u> Sample Identification: <u>MWD-17-07</u> Method of Sample Collection: Dedicated Bailer Sample Description: <u>0 Partice bre</u> Containers: <u>3 x 40ml glass</u> Type of Preservative if any: <u>none, cool 4°C</u> Analytical Method Requested: <u>VOCs by USE</u> 4" well volume multiplier (gallons per foot) = 0.6	1 Well Volume: iz.i46 X.i63 = z.o3 gal. transport to, and treat at the remedial shed on-site. Presence of NAPL: Presence of NAPL: Other: 2020 728zo iler svoa vials unpreserved C EPA Method 624 53 2" well volume multiplier (gallons per foot) = 0.163
Purging Method: Dedicated Bailer Purge Water Disposal Method: Containerize, urge Water Characteristics Color: <u>Rust Yellow BROwn</u> Odor: <u>wetallic</u> Turbidity: <u>Low BSTART HIGH @ and</u> ampling Information Date of Sample Collection: <u>14.20</u> Sample Identification: <u>Mw</u> -18-07 Method of Sample Collection: <u>Dedicated Bail</u> Sample Description: <u>Operate bre</u> Containers: <u>3x 40ml glass</u> Type of Preservative if any: <u>none, cool 4°C</u> Analytical Method Requested: <u>VOCs by USE</u> 4" well volume multiplier (gallons per foot) = 0.6 lotes	1 Well Volume: i2.46 X,163 = 2.03 gal. transport to, and treat at the remedial shed on-site. Presence of NAPL: Other: Other: 72820 72820 iler 9000 8 voa vials unpreserved C EPA Method 624 553 2" well volume multiplier (gallons per foot) = 0.163

со	SCO Site
Spring Va	alley, New York
General	
Well No.: RW-1S	
Field Personnel: Charles Bruce, Christopher V	Veiman
Weather Conditions: 92°, sunny	·
Physical Condition of Well: <u>Good</u>	
Equipment used: Baller, WL Me	iter_
Purging Information	
Date: 7/20/20	Measuring Point Elevation: /// oo ft amel
Purging Time: Start: 14100	Well Diameter: 4.0 in
Stop: 1455 CB	Total Depth of Well Installed: 2.8.00 ft. tmp b
Volume to be Purged (3 vol.): 35.0 gal.	Total Depth of Well Measured: 28,90 ft. bmp
Volume Purged: 25.2 gal.	Depth to Water: 14,9 ft. bmp
Durging Mathad: Dadiastad Bailar	1 Wall Valuma:
Purge Water Disposal Method: Containerize,	transport to, and treat at the remedial shed on-site.
Purge Water Disposal Method: <u>Containerize</u> ,	transport to, and treat at the remedial shed on-site.
Purge Water Characteristics	transport to, and treat at the remedial shed on-site.
Purge Water Disposal Method: <u>Containerize</u> , Purge Water Characteristics	transport to, and treat at the remedial shed on-site. Presence of NAPL:
Purge Water Disposal Method: <u>Containerize</u> , Purge Water Characteristics Color: <u>Ofeque Brown</u> Odor: <u>Slight organic</u>	Presence of NAPL:
Purge Water Disposal Method: <u>Containerize</u> , Purge Water Characteristics Color: <u>Opere Brown</u> Odor: <u>Slight organic</u> Turbidity: <u>Med - high</u>	I Well Volume: 14,0 XD.G = 8,4 gal. transport to, and treat at the remedial shed on-site. Presence of NAPL: Other:
Purge Water Disposal Method: <u>Containerize</u> , Purge Water Characteristics Color: <u>Ofeque Brown</u> Odor: <u>Slight organic</u> Turbidity: <u>Med - high</u>	I Well Volume: 14,0 XD,G = 8,4 gal. transport to, and treat at the remedial shed on-site. Presence of NAPL:
Purge Water Disposal Method: <u>Containerize</u> , Purge Water Characteristics Color: <u>Opene Brown</u> Odor: <u>Slight organic</u> Turbidity: <u>Med - high</u>	I Well Volume: 14,0 XD.G = 8,4 gal. transport to, and treat at the remedial shed on-site. Presence of NAPL:
Purge Water Disposal Method: <u>Containerize</u> , Purge Water Characteristics Color: <u>Opeque Brown</u> Odor: <u>Slight organic</u> Turbidity: <u>Med - high</u>	I Well Volume: 14,0 XD,G = 8,4 gal. transport to, and treat at the remedial shed on-site. Presence of NAPL: Other:
Purge Water Disposal Method: <u>Containerize</u> , Purge Water Characteristics Color: <u>Opene Brown</u> Odor: <u>Slight organic</u> Turbidity: <u>Med - high</u> Sampling Information Date of Sample Collection: <u>O7/cetz</u>	Presence of NAPL: Other:
Purge Water Disposal Method: Containerize, Purge Water Characteristics Color: Opeque Brown Odor: Slight organic Turbidity: Med - high Sampling Information Date of Sample Collection: 07/28/2 Time of Sample Collection: 1500	Presence of NAPL:
Purge Water Disposal Method: Containerize, Purge Water Characteristics Color: Office Brown Odor: Slight organic Turbidity: Med - high Sampling Information Date of Sample Collection: 1500 Sample Identification: Rwd-18-07283	Presence of NAPL: Other:
Purge Water Disposal Method: Containerize, Purge Water Characteristics Color: Office Brann Odor: Slight organic Turbidity: Med - high Sampling Information Date of Sample Collection: 1500 Sample Identification: Rud - 15 - 07283 Method of Sample Collection: Dedicated Bailer	Presence of NAPL: Other:
Purge Water Disposal Method: Containerize, Purge Water Disposal Method: Containerize, Purge Water Characteristics Color: Opene Brown Odor: Slight organic Turbidity: Med - high Sampling Information Date of Sample Collection: $\frac{07/c8/z}{1500}$ Sample Identification: $\frac{000}{1500}$ Sample Identification: $\frac{000}{1500}$ Sample Identification: $\frac{000}{1500}$ Method of Sample Collection: Dedicated Bail Sample Description: $\frac{000}{1500}$	Presence of NAPL: Other:
Purge Water Disposal Method: Containerize, Purge Water Characteristics Color: $\mathcal{O}_{Popular}$ Brown Odor: $Sight$ Brown Date of Sample Collection: $D7/28/2$ Time of Sample Collection: $ISOO$ Sample Identification: $R M - IS - O77287$ Method of Sample Collection: Dedicated Bail Sample Description: $Landred for antice Containers: 3 \times 40ml glass Type of Preservative if any: pone. cool 4°C $	Presence of NAPL: Other:
Purge Water Disposal Method: Containerize, Purge Water Characteristics Color: Openet B rown Odor: Stight organic Turbidity: Med - high Sampling Information Date of Sample Collection: 1500 Sample Identification: $200 - 15 - 0728$ Method of Sample Collection: Dedicated Bailer Sample Identification: $200 - 15 - 0728$ Method of Sample Collection: Dedicated Bailer Sample Description: $2(an - ange n)/a$ Containers: $3 \times 40ml$ glass Type of Preservative if any: none, cool 4°C Analytical Method Requested: VOCs by USE	Presence of NAPL: Other: DZCO
Purge Water Disposal Method: Containerize, Purge Water Characteristics Color: Openet Brown Odor: Slight organic Turbidity: Med - high Sampling Information Date of Sample Collection: 1500 Sample Identification: $200 - 15 - 07287$ Method of Sample Collection: Dedicated Bailer Sample Identification: $200 - 15 - 07287$ Method of Sample Collection: Dedicated Bailer Sample Description: $200 - 15 - 07287$ Method of Sample Collection: Dedicated Bailer Sample Description: $200 - 15 - 07287$ Method of Sample Collection: Dedicated Bailer Sample Description: $200 - 15 - 07287$ Method of Sample Collection: Dedicated Bailer Sample Description: $200 - 15 - 07287$ Method of Sample Collection: Dedicated Bailer Sample Description: $200 - 15 - 07287$ Method of Sample Collection: Dedicated Bailer Sample Description: $200 - 15 - 07287$ Method of Sample Collection: Dedicated Bailer Sample Of Preservative if any:	I well volume: 14,0 transport to, and treat at the remedial shed on-site. Presence of NAPL:
Purge Water Disposal Method: Containerize, Purge Water Characteristics Color: Office Brain Odor: Sight organic Turbidity: Med - high Sampling Information Date of Sample Collection: 1500 Sample Identification: $200 - 15 - 0728$ Method of Sample Collection: Dedicated Bail Sample Identification: $200 - 15 - 0728$ Method of Sample Collection: Dedicated Bail Sample Description: $2(an + ong + n)c$ Containers: $3 \times 40ml$ glass Type of Preservative if any: none, cool 4°C Analytical Method Requested: VOCs by USE 4" well volume multiplier (gallons per foot) = 0.63	Presence of NAPL: Other: Other: DZO ler s voa vials unpreserved C EPA Method 624 53 2" well volume multiplier (gallons per foot) = 0.163
Purge Water Disposal Method: Containerize, Purge Water Characteristics Color: Openet B rown Odor: Slight organic Turbidity: Med - high Sampling Information Date of Sample Collection: 1500 Sample Identification: $200 - 15 - 0728$ Method of Sample Collection: Dedicated Bail Sample Identification: $200 - 15 - 0728$ Method of Sample Collection: Dedicated Bail Sample Description: $200 - 15 - 0728$ Method of Sample Collection: Dedicated Bail Sample Description: $200 - 15 - 0728$ Method of Sample Collection: Dedicated Bail Sample Description: $200 - 15 - 0728$ Method of Sample Collection: Dedicated Bail Sample Description: $200 - 15 - 0728$ Method of Sample Collection: Dedicated Bail Sample Description: $200 - 15 - 0728$ Method Requested: $3 \times 40ml$ glass Type of Preservative if any: none, cool 4°C Analytical Method Requested: VOCs by USE 4" well volume multiplier (gallons per foot) = 0.63 </td <td>Twell volume: $TQ_{,0}$ $x D, G = g, q$ gal. transport to, and treat at the remedial shed on-site. Presence of NAPL: </td>	Twell volume: $TQ_{,0}$ $x D, G = g, q$ gal. transport to, and treat at the remedial shed on-site. Presence of NAPL:
Purge Water Disposal Method: Containerize, Purge Water Characteristics Color: Office Brain Odor: Slight organic Turbidity: Med - high Sampling Information Date of Sample Collection: 1500 Sample Identification: $200 - 15 - 0728$ Method of Sample Collection: Dedicated Bail Sample Identification: $200 - 15 - 0728$ Method of Sample Collection: Dedicated Bail Sample Description: $2(\alpha r + 0 r \alpha + n)/c$ Containers: $3 \times 40ml$ glass Type of Preservative if any: none, cool 4°C Analytical Method Requested: VOCs by USE 4" well volume multiplier (gallons per foot) = 0.63	Presence of NAPL: Other: Other: DZCO ler s voa vials unpreserved C PA Method 624 53 2" well volume multiplier (gallons per foot) = 0.163
Purge Water Disposal Method: Containerize, Purge Water Characteristics Color: Openet B rown Odor: St. yht organic Turbidity: Med - high Sampling Information Date of Sample Collection: $D7/28/2$ Time of Sample Collection: $J500$ Sample Identification: $E \omega - 15 - 07728$ Method of Sample Collection: Dedicated Bail Sample Description: $\Delta (an + organ)/a$ Containers: $3 \times 40ml$ glass Type of Preservative if any: none, cool 4°C Analytical Method Requested: VOCs by USE 4" well volume multiplier (gallons per foot) = 0.63	Twell volume: $T_{4,0}$ $x D.G = 8.4$ gal. transport to, and treat at the remedial shed on-site. Presence of NAPL:

Groundwater Monit	oring Purging and Sampling Form
	COSCO Site
Sprin	ng Valley, New York
eneral	
Well No.: RW-8S	
Field Personnel: Charles Bruce, Christo	pher Weiman
Weather Conditions: 90° 50	inny and Clear
Physical Condition of Well:	>
Equipment used: Water feire	and Dedicated Baiter
rging Information CB	
Date: 7/20/20 7/29/20	Measuring Point Elevation: 97,74 ft. amsl
Purging Time: Start: //45	Well Diameter: 4/ in.
Stop: 17.05	Total Depth of Well Installed: 25.00 -7.8 ft. bmp [
Volume to be Purged (3 vol.): 2/	gal. Total Depth of Well Measured: <u>73,64</u> ft. bmp
Volume Purged: 22	gal. Depth to Water: 11.59 ft. bmp
Purging Method: Dedicated Bailer	1 Well Volume: $12,05$ X $_{66} = 77,23$ gal.
Purge water Disposal Method: Contain	enze, transport to, and treat at the remedial shed on-site.
rge Water Characteristics	
Color: Source/	Presence of NAPI . home
Odor: Orsonic	Other:
Turbidity: Alch	
mpling Information	
Date of Sample Collection:	29/20
Comple Identification: 1210	<u> </u>
Mathad of Sample Collection: Dodicat	ad Bailar
Sample Description:	
Containers: 3 x 40m	I dass voa vials unpreserved
Type of Preservative if any: none, co	ool 4°C
Analytical Method Requested: VOCs b	y USEPA Method 624
4" well volume multiplier (gallons per foot) = 0.653 2" well volume multiplier (gallons per foot) = 0.163
otes	
1	

aroundwater monitoring	g Purging and Sampling Form
CO	SCO Site
Spring Va	alley, New York
neral	
CBGG	
Well No.: G8-4S	
Field Personnel: Charles Bruce, Christopher V	Veiman
Neather Conditions:	<u>N</u>
Equipment used: 72 dia	et il moter
-quipment used. <u>Deutcane</u> Daine	
ging Information	
Date: 7/7×12020 CB	Measuring Point Elevation: 101,49 ft. amsl
Purging Time: 9 Start: 1035-1410	Well Diameter: <u>E4,0</u> in.
Stop: 1455	Total Depth of Well Installed: <u>25.00</u> ftbmp
Volume to be Purged (3 vol.): 23,2 gal.	Total Depth of Well Measured: 27.8 ft. bmp
Volume Purged: <u>~23.2 gal.</u>	Depth to Water: 19.9 ft. bmp
Purging Method: Dedicated Bailer	1 Well Volume: $1,74$ $X/2,6 = 33,4$ gal.
ge Water Characteristics	
Color: BROWN	Presence of NAPL: None
Odor: SWEAGE	Other:
Turbidity: HIGH	
npling Information	
Date of Sample Collection: 01/29/	20
Time of Sample Collection: CB /300	7020 GW-48-072920
Mothed of Sample Collection: Dedicated Ba	ilor
Sample Description:	no alidas adagass saell
Containers: 3x 40ml class	s voa vials unpreserved
Type of Preservative if any: none, cool 4°	C
Analytical Method Requested: VOCs by USE	EPA Method 624
4" well volume multiplier (gallons per foot) = 0.6	53 2" well volume multiplier (gallons per foot) = 0.163
tes	

×.	COSCO Site Spring Valley, New York
New 200	
eneral	
Well No.: MW-3	
Field Personnel: Charles E	Bruce, Christopher Weiman
Weather Conditions:	to, Sunny/Clear
Equipment used:	ated Reider () 245 (0, m) 400 KC
	The veries / ware rever month
urging Information	
Date: 07/29/2020	2 Measuring Point Elevation: <u>78-69</u> ft. amsl
Purging Time: St	art: <u>///0</u> Well Diameter: <u>Z</u> in.
Stume to be Burged (2 vel	op: $\frac{1055}{1000}$ Total Depth of Well Installed: $1000000000000000000000000000000000000$
Volume Purged	2.25 gal Depth to Water: $1/25$ ft bmp
Purging Method: Dedicated	d Bailer 1 Well Volume: $4/53$ $\times 1633 = 0.74$ gal.
Purge Water Disposal Metho	od: Containerize, transport to, and treat at the remedial shed on-site. CB
r.	Stage in remedial shed in sealed 5-gallon pail. Treat at remedial shed pending
	analytical results and approval from NYSDEC.
Color Provide Valer	LICS
Odor CBARRA Rodeal	Other: Concert ins lare Baled
Turbidity: AIGH	
ampling Information	
Date of Sample Collection:	07/28/20
Sample Identification:	<u></u>
Method of Sample Collection	n: Dedicated Bailer
Sample Description:	Slight Sheep
Containers:	3 x 40ml glass voa vials unpreserved
Type of Preservative if any:	none, cool 4°C
Analytical Method Requeste	d: VOCs by USEPA Method 624
4" well volume multiplier (as	$ a_{1}a_{2}a_{3}a_{4}a_{4}a_{5}a_{4}a_{4}a_{4}a_{4}a_{4}a_{4}a_{4}a_{4$
4 weil volume multiplier (ga	$\frac{1}{1000} = 0.0000 = 0.0000 = 0.0000 = 0.0000 = 0.0000 = 0.0000 = 0.0000 = 0.0000 = 0.0000 = 0.0000 = 0.0000 = 0.0000 = 0.0000 = 0.0000 = 0$
latar ()	

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	00000 01
	COSCO Site
	Spring valley, New York
eneral	
Well No.: GP-4D	
Field Personnel: Charles Bruce	e, Christopher Weiman
Weather Conditions:	5°+, SUNNY
Physical Condition of Well:	GOOD, Needs new Uplug
Equipment used: <u>Dearcon</u>	col Ogilei, WL Meter
urging Information	
Date: 7/7 %/7 @? 1)	Measuring Point Elevation: 101,01 ft. amsl
Purging Time: 9 Start:	1030-1410 Well Diameter: 2 in.
Stop:	1456-1600 Total Depth of Well Installed: 99.00 ft. bmp
Volume to be Purged (3 vol.):	LZ gal. Total Depth of Well Measured: 99.5% ft. bmp
Volume Purged: 42	gal. Depth to Water: 19.61 ft. bmp
Purging Method: Dedicated Ba	ailer 1 Well Volume: $\underline{84,97}$ X <u>163 = 13,85</u> gal.
Purge Water Disposal Method:	<u>ailer</u> 1 Well Volume: $\underline{&4.97}$ X <u>.163 = 13.85</u> gal. Containerize, transport to, and treat at the remedial shed on-site.
Purge Water Disposal Method: urge Water Characteristics Color:	ailer 1 Well Volume: $\underline{\&4,97}$ X .163 = 13,85 gal. Containerize, transport to, and treat at the remedial shed on-site. Presence of NAPL: NONE
Purge Water Disposal Method: urge Water Characteristics Color: <u>Clean</u> Odor: <u>None</u>	<u>ailer</u> 1 Well Volume: <u>S4,97</u> X .163 = 13,85 gal. Containerize, transport to, and treat at the remedial shed on-site. <u>B</u> Presence of NAPL: NOPP Other: Other:
Purge Water Disposal Method: urge Water Disposal Method: Urge Water Characteristics Color: <u>Clear</u> Odor: <u>Low</u> Turbidity: <u>Jow</u>	<u>ailer</u> 1 Well Volume: <u>S4,97</u> X .163 = 13,85 gal. <u>Containerize</u> , transport to, and treat at the remedial shed on-site. <u>Presence of NAPL:</u> <u>MONE</u> Other:
Purging Method: <u>Dedicated Ba</u> Purge Water Disposal Method: urge Water Characteristics Color: <u>Clear</u> Odor: <u>None</u> Turbidity: <u>1000</u>	<u>ailer</u> 1 Well Volume: <u>S4,97</u> X .163 = 13,85 gal. <u>Containerize</u> , transport to, and treat at the remedial shed on-site. <u>Presence of NAPL:</u> <u>MON</u> Other:
Purge Water Disposal Method: urge Water Disposal Method: Urge Water Characteristics Color: Clear Odor: Monte Turbidity: 1000 Ampling Information Date of Sample Collection:	<u>ailer</u> 1 Well Volume: <u>S4,97</u> X .163 = 13,85 gal. <u>Containerize, transport to, and treat at the remedial shed on-site.</u> Presence of NAPL: NON Other:
Purge Water Disposal Method: urge Water Disposal Method: Urge Water Characteristics Color: Clean Odor: None Turbidity: 1000 ampling Information Date of Sample Collection: Time of Sample Collection:	<u>ailer</u> 1 Well Volume: <u>S4,97</u> X .163 = 13,85 gal. <u>Containerize</u> , transport to, and treat at the remedial shed on-site. <u>Presence of NAPL:</u> <u>NOP</u> Other:
Purging Method: <u>Dedicated Ba</u> Purge Water Disposal Method: <u>urge Water Characteristics</u> Color: <u>Clean</u> Odor: <u>None</u> Turbidity: <u>1000</u> <u>ampling Information</u> Date of Sample Collection: Time of Sample Collection: Sample Identification:	ailer 1 Well Volume: $\leq 4, q \rightarrow X$ $163 = 13, gs$ gal. Containerize, transport to, and treat at the remedial shed on-site. Presence of NAPL: NON Other: Other: Other: Other: Other: $4500, 1605, GP-4D$ CB CB CB $4500, 1605, GP-4D$ GP-4W 072920 (GMP-072920 - X) CB
Purging Method: <u>Dedicated Ba</u> Purge Water Disposal Method: <u>urge Water Characteristics</u> Color: <u>Clean</u> Odor: <u>Monte</u> Turbidity: <u>Jow</u> <u>ampling Information</u> Date of Sample Collection: Time of Sample Collection: Sample Identification: Method of Sample Collection:	ailer 1 Well Volume: \$4,97 X 163 = 13,85 gal. Containerize, transport to, and treat at the remedial shed on-site. Presence of NAPL: NON Other: Other: O7/29/20 4500 605 GP-4D- CB CB
Purging Method: <u>Dedicated Ba</u> Purge Water Disposal Method: <u>urge Water Characteristics</u> Color: <u>Clean</u> Odor: <u>Method</u> Date of Sample Collection: Time of Sample Collection: Sample Identification: <u>Clean</u> Method of Sample Collection: Sample Description: <u>Clean</u>	ailer 1 Well Volume: $\underline{\$4,97}$ $\underline{\$163} = \underline{13,85}$ gal. Containerize, transport to, and treat at the remedial shed on-site. Presence of NAPL: $\underline{NON^2}$ Other: Other: $\underline{1000}$ $\underline{605}$ $\underline{6P-4D}$ \underline{CB} \underline{CB} $\underline{4500}$ $\underline{605}$ $\underline{6P-4D}$ \underline{CB} \underline{CB} \underline{CB} \underline{CB} \underline{CB} \underline{CB}
Purging Method: <u>Dedicated Ba</u> Purge Water Disposal Method: <u>urge Water Characteristics</u> Color: <u>Clean</u> Odor: <u>Mont</u> Turbidity: <u>Jow</u> <u>ampling Information</u> Date of Sample Collection: Time of Sample Collection: Sample Identification: <u>Clean</u> Method of Sample Collection: Sample Description: <u>Clean</u> Containers:	ailer 1 Well Volume: $\underline{\&4,97}$ \underline{X} $\underline{163} = \underline{13,85}$ gal. Containerize, transport to, and treat at the remedial shed on-site. Presence of NAPL: $\underline{MDN2}$ Other: Other: Other: Other $\underline{4500}$ $\underline{605}$ $\underline{GP-4D}$ \underline{CB} $\underline{600}$ $\underline{600}$ $\underline{600}$ $\underline{600}$ $\underline{600}$ $\underline{500}$ $\underline{600}$ $\underline{600}$ $\underline{600}$ $\underline{600}$ $\underline{600}$
Purging Method: <u>Dedicated Ba</u> Purge Water Disposal Method: <u>urge Water Characteristics</u> Color: <u>Clean</u> Odor: <u>Method</u> Turbidity: <u>Jow</u> <u>ampling Information</u> Date of Sample Collection: Time of Sample Collection: Sample Identification: <u>Clean</u> Method of Sample Collection: Sample Description: <u>Clean</u> Containers: Type of Preservative if any: Apalytical Method Bequested:	ailer 1 Well Volume: $\underline{& 4, 9, 7}$ X $\underline{163} = \underline{13, 85}$ gal. Containerize, transport to, and treat at the remedial shed on-site. Presence of NAPL: NONE Other: Other: Other: CB $\underline{4500}$ $\underline{605}$ GP-4D- CB $\underline{4500}$ $\underline{605}$ GP-4D- CB $\underline{4500}$ $\underline{605}$ GP-4D- CB $\underline{605}$ GP-4D- CB $\underline{4500}$ $\underline{6005}$ $\underline{600}$ $\underline{800}$ $\underline{800}$ $\underline{500}$ $\underline{6005}$ $\underline{600}$ $\underline{800}$ $\underline{800}$ $\underline{800}$ $\underline{600}$ $\underline{600}$ $\underline{600}$ $\underline{600}$ $\underline{600}$ $\underline{700}$ $\underline{700}$ $\underline{700}$ $\underline{700}$ $\underline{700}$ $\underline{700}$ $\underline{700}$ </td
Purging Method: <u>Dedicated Ba</u> Purge Water Disposal Method: <u>urge Water Characteristics</u> Color: <u>Clean</u> Odor: <u>Manual</u> Turbidity: <u>Jow</u> <u>ampling Information</u> Date of Sample Collection: Time of Sample Collection: Sample Identification: Method of Sample Collection: Sample Description: <u>Clean</u> Containers: Type of Preservative if any: Analytical Method Requested:	ailer 1 Well Volume: $\underline{\&4,95}$ X $\underline{163} = \underline{13,85}$ gal. Containerize, transport to, and treat at the remedial shed on-site. Presence of NAPL: \underline{NONP} Other: Other: $\underline{4500}$ $\underline{KO5}$ $\underline{GP-4D}$ CB $\underline{GP-4D}$ CB $\underline{4500}$ $\underline{KO5}$ $\underline{GP-4D}$ CB $\underline{4500}$ $\underline{KO5}$ $\underline{GP-4D}$ CB $\underline{4500}$ $\underline{KO5}$ $\underline{GP-4D}$ CB $\underline{4500}$ $\underline{KO5}$ $\underline{GP-4D}$ \underline{CB} $\underline{4500}$ $\underline{KO5}$ $\underline{GP-4D}$ \underline{CB} $\underline{4500}$ $\underline{KO5}$ $\underline{GP-4D}$ \underline{CB} $\underline{4500}$ $\underline{KO5}$ $\underline{GP-4D}$ \underline{CB} $\underline{4500}$ $\underline{KO5}$ $\underline{CP-4D}$ \underline{CB} $\underline{4500}$ $\underline{CD05}$ \underline{CB} $\underline{CP-5}$ $\underline{4500}$ $\underline{CD0}$ \underline{CB} $\underline{CP-5}$ \underline{CP} \underline{CB} \underline{CP} $\underline{CD0}$ \underline{CP} \underline{CP} $\underline{CD0}$ $\underline{CD0}$ $\underline{CD0}$ $\underline{CD0}$ $\underline{CD0}$
Purging Method: <u>Dedicated Ba</u> Purge Water Disposal Method: <u>urge Water Characteristics</u> Color: <u>Clean</u> Odor: <u>Method</u> Date of Sample Collection: Time of Sample Collection: Sample Identification: <u>Clean</u> Method of Sample Collection: Sample Description: <u>Clean</u> Containers: Type of Preservative if any: Analytical Method Requested: 4" well volume multiplier (gallon	ailer 1 Well Volume: $\underline{&4,97}$ X .163 = 13.85 gal. Containerize, transport to, and treat at the remedial shed on-site. Presence of NAPL: <u>NON-</u> Other: Other: <u>07/29/20</u> <u>1500</u> <u>1605</u> <u>GP-4D-</u> <u>050</u> <u>1605</u> <u>GP-4D-</u> <u>08</u> <u>1500</u> <u>1605</u> <u>GP-4D-</u> <u>1500</u> <u>1605</u>
Purging Method: <u>Dedicated Ba</u> Purge Water Disposal Method: <u>urge Water Characteristics</u> Color: <u>Clean</u> Odor: <u>Method</u> Date of Sample Collection: Time of Sample Collection: Sample Identification: Method of Sample Collection: Sample Description: <u>Clean</u> Containers: Type of Preservative if any: Analytical Method Requested: 4" well volume multiplier (gallon <u>otes</u> <u>Collection</u>	ailer 1 Well Volume: $\underline{ & 4, q \neg}$ X $\underline{163} = \underline{13, gs}$ gal. Containerize, transport to, and treat at the remedial shed on-site. Presence of NAPL: \underline{NONP} Other: Other: Other: Containerize $\underline{100}$ $\underline{100}$ $\underline{163} = \underline{13, gs}$ gal. $\underline{000}$ $\underline{160}$ $\underline{163}$ $\underline{163} = \underline{13, gs}$ gal. $\underline{000}$ $\underline{100}$ $\underline{100}$ $\underline{163}$ $\underline{163}$ $\underline{163}$ $\underline{163}$ $\underline{163}$ $\underline{163}$ $\underline{163}$ $\underline{130}$ $\underline{100}$ \underline

RAME	BOLL		Low	Flow Groun	dwater Sar	mpling Log	Well I	D: DW-1	
Site Na Site Locat Projec	me: <u>DEC CO</u> tion: <u>Sp</u> ct #: 19	SCO site pring Valley 940075217 1st SA samp	Samp Monitoring Equ	oling Method: g Equipment: ipment ID#s:	YSI & Lam 17000465	bk Rane notte 2020	Field Person	ther: $3-3-20$	21 21 UN1.74
Sampling F		TSt SA samp	ing event			rear zin	Shund	united for	
Vell inform	ation: Depth o Depth to gth of Water o Well D	of Well*: 66 Water*: <u>76</u> Column: <u>40</u> iameter: 4	.00 ft. b 5.30 ft. b .20 ft. 00 in.	Well Vc mp. 1 mp. 1. 2 2 2 4	b lume Multipi in. = 0.041 ga 5 in. = 0.092 ç in. = 0.163 ga in. = 0.653 ga	l iers: I/ft gal/ft I/ft I/ft	Measurement Point: Well Casing Protective Casing Other: Screen Interval: 51'-61' ft. 1		
	Well	Volume: 26	.25 gal.			Pi	ump Intake Dep	th*:	π. bmp
Start F Initial Ob	Purge Time: oservations:	<u>PID:</u>			E Pro	epth to Produ oduct Thickne	ct: na ss: na	ft. bmp. ft.	
Elapsed Time (minutes)	Elapsed Depth Time to Water			Specific Conductivity	ORP (mV)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	Flow Rate (mL/min)	Other
(minutes)	7580	13.7	6.07	D 967	277 2	\$ 57	371	670	
5	25 96	13.3	676	0,986	312 2	77/1	3.12	200	
10	2593	12.8	7.03	0.966	309.1	7.47	2.15	200	
15	25.93	13-1	7.7.3	0.954	203.7	7.71	1.34	200	
2.0	2595	13.2	7.33	0.951	296.3	7.46	0.51	200	
25	25.95	13.3	7.47	0,950	292.8	7.58	1.00	200	
30	25.95	13.3	7.44	0.955	291.8	7.95	1.71	200	
35	25.93	13-3	7.47	0.952	289.4	7.82	1.69	200	
40	25.93	13.3	7.48	0.954	287.7	7.81	1.70	200	
Stabilization	<u>∆</u> ≤ 0.3'	± 3%	± 0.1	± 3%	± 10 mV	± 10%	± 10%	200 ≤ X ≤ 500	
End I Tot Final Ob	Purge Time: tal volume of oservations:	1130 groundwater pur Color	ged: <u>5</u>	gal. Odor <u>Nove</u>	She	en/Free Prod	uct <u>NON</u>		
Sample	ID: DW-1-	030821				Sample Tim	ie: 1140		
nalytical P	arameters: E	Eurofins							1.
Container 40 m	Size C	Glass VOA	# Colle	cted Fi	eld Filtered? No	Pr	HCH 1004-	Analys	S
125 ~		PLUSTIC	1		No		Nore	Total Alka	alinity
250 m	1Ĺ	Plastic	1		Yes	-	HNO3	Dissolved Iron/I	Manganes
40 m	<u>L</u>	GLASS VOA	3		No	Na	H ZnAC	Methane, Ethane	, and Ethe
250 m 40 m	L	Amber VOA	2		No	ALI	H3PO4	Total Organi	c Carbon
2500	nL .	plastic	1		NO	£10.00	HNO3	Major Cations (n sodium, calcium, a and Anions (chlo	nagnesium, nd potassiu ride, sulfate
1. 1									

-					_					
RAME	ÖLL		Low	Flow G	round	lwater Sar	mpling Lo	g Well I	D: GP-4[C
Sito Na	mo: DEC CC		Same	ling Metho	d	C. huna a	The Qay	Eield Perso	nnel: Ct-T	
Site Loopt	ion: Sec CC	pring Vallov	Monitoring		u. nt·	VSI & Larr	notte 2020		Date: 2-9-7	1
Sile Local	.ion. <u> </u>	0/0075217	Fou	inment ID#	n.	ACONTO	1 EADIUL	u Wea	ther: = 3 5 F	ing y
Sampling F		1et SA samp	ling event	pment io#	Loca	And a Gra	S.F.	CAMANCAL	Iley AV	
Sampling F		Tat on samp	ing event	_	Local	ion. <u>Cerce</u>	one	Aundin		
Well inform	ation:			W	/ell Vo	lume Multipl	liers:	* N	leasurement Point:	
	Depth	of Well*: 99	.00 ft. b	mp. L	_ 1∥ ⊐ 4⊄	n. = 0.041 ga	I/Π 		Well Casing	
	Depth to	Water*:	52 ft. b	mp. I	1.5 	5 in. = 0.092 g	jai/n		Protective Casing	1
Len	gth of Water	Column:	<u>ну</u> п.	l	_¥ ∠∥ ⊐ 4:	n. = 0.163 ga	I/π 1/π		Other: 41' 00'	ft hmo
	Well D	Diameter: 2.	<u></u> in.	l	_ 41	n. = 0.653 ga	ι/π. Γ	Screen Inter	Val. 41-55	ft bmp
	vven	Volume: 14	<u>, s</u> gai.					rump make bep		
Start P	urge Time:	1340				D	Depth to Prod	uct: NA	ft. bmp.	
Initial Ob	servations:	PID: N	A			Pro	oduct Thickne	ess: NA	ft.	
				-	indicat	e units			· · · · · · · · · · · · · · · · · · ·	
Elapsed	Depth	Temperature	nH	Specif	fic	ORP	Dissolved	Turbidity	Flow	Other
Time	to Water	remperature		Conduc	tivity	6.10	Oxygen	(1)	Rate	
(minutes)	(ft bmp)	(Celsius)	(SU)	(mS/c	m)	(mV)	(mg/L)	(NIU)	(mL/min)	
0	11.52	130	7.00	1.144	1	283 8	70.30	6.92	500	
5	11.60	13.2	6.94	1.14	2	280.6	9.49	4.18	500	
10	11.62	13.3	6.89	1.14	2	279 3	8.56	2.35	400	
15	1151	17.10	6 80	1.14	1	275.3	7.86	109	400	
20	11.01	12.5	6.29	114	1	270.8	7.74	109	HM	
20	11.24	16-5	1.70		2	015 7	765	11/0	400	
25	11.56	12.7	6.78	1.19	3	205. +	7.00	1.10	400	
30	11.52	12.7	674	1.14	0	258.9	+.65	1.10	900	
35	11.52	12.8	677	1.14		256.8	7.59	- UI	400	
40	11.52	12.7	i.77	1.14	2	255.6	7.52	1.13	400	
		1				1			1	
	1		-	1.		1				
		1								
	·	1								
	1									
	1									1.00
	11	1								
		-								
					-					
						1 40 -V	1 109/	+ 109/	200 < X < 500	-
Stabilization	∆ ≤ 0.3'	± 3%	± 0.1	± 39	0	± 10 mV	± 10%	± 10%	200 5 X 5 500	•
End	Purge Time	1420	-							
То	tal volume o	f groundwater pur	ged: 5	gal.						
Einel Ok	convotions:	Color Dian		dor		She	en/Free Pro	duct (MA)		
Final OL	servations.		<u> </u>						-	
Sample	ID: GP-4D	030321		_			Sample Tir	me: <u>143</u>	0	
Analytical P	arameters:	Eurofins	G	2318174						
Containe	r Size	Container Type	# Colle	cted	Fie	eld Filtered?	P	reservative	Analys	sis
40 m	Ĺ	Glass VOA	3	6	_	No		Helnore	PP VOC	s
125	ml	flashic	1	2		NC		hove	Total Alka	alinity
250 m	nĹ	Plastic	X	2		Yes		HNO3	Dissolved Iron/	wanganese
40n	12	Glass VUR	\$	6		NC	-	HCI OH ZAAC	Methane, Ethane	e, and Ethen
250 m		Glass VOA	7	4	_	NO		H3PO4-HCI	Total Organi	c Carbon
40 11	- unics	Clashie	Y Y	2.	-	N		HALDO	Major Cations (r	nagnesium,
250.	nu	A INTOL				NO	-	111903	sodium, calcium, a	nd potassium
GOML /1	25mL PK	HAR / OKSHIC	24/	74	NO	/ NO	have	/ your	nitrate ni	ride, sulfate, trite)
- /.		/1			-				The design of the	
Notes:										

RAME	SOLL		Low	/ Flow Groun	dwater Sar	mpling Lo	g Well II): GW-45	5
Site Na	ame: DEC CC)SCO site	Sam	pling Method:	low F	10~	Field Persor	nnel: CDW	
Site Loca	tion: Sr	pring Valley	Monitorin	g Equipment:	oment: YSI & Lamotte 2020 Date: S/≤/2.c.				
Proje	ct #:	940075217	Equ	ipment ID#s:	2111 / 1	058	Wear	ther: 45 -56	ny
ampling H	'rogram:	1st SA samp	ling event	LUU	ition: COS	CD	K Sta	<u>alle</u>) / · · ·	
all inform	ation:			Well Vr	olume Multip	liers:		easurement Point:	
	Deptn Depth to	of Well*: 20	.00 π.υ	ידים, אידיים, א אידיים, אידיים,	in. = 0.041 ya	il/ft col/ft	×	Protective Casing	-
Ler	Depunio orth of Water	Column: 11 73	-/i ft.	µmp. □ □ 2	in. = 0.163 gr	al/ft		Other:	1
,	Well C	Diameter: 2	.00 in.	¥ 4	in. = 0.653 ga	al/ft	Screen Inter	val: 10'-25'	ft. brr
	Well	Volume: <u>7 (</u>	6 gal			F	^o ump Intake Dep ^r	th*:	ft. brr
Start I	Purge Time:	1350			. 1	Depth to Proc	Juct:	ft. bmp.	
Initial Of	oservations:	PID:			Pr	oduct Thickn	ess:	ft.	
				indica	ate units	1	-	T. 51aur 1	
Elapsed	Depth to Water	Temperature	pН	Specific	ORP	Dissolvea	Turbidity	Rate	Other
ninutes)	(ft bmp)	(Celsius)	(SU)	(mS/cm)	(mV)	(mg/L)	(NTU)	(mL/min)	(
0	13.27	12.4	7.25	0,96	149,9	8.17	41.8	500	
S	14.12	11.7	7.11	0,95	129.1	250	53.6	400	
10	14.08	11.9	7.12	0.96	105.3	.05	621	400	
15	14,05	17.0	7.14	0.97	9196	013	61.1	460	
7.87	ILL DE	17.1	7.14	6.97	24.6	018	.58.3	450	
75	14.05	12.1	7,15	0.96	80.0	Oi	44.7	450	
20	14.04	12.1	7.15	0 %6	75.1	.02	430	4/50	
25	141 15-1		1.15	0.47	71.9		42.5	4150	
22	1-1,01	11.0	1115					T	
								1	
								1 1	
			-			7		1 1	
					1 1		1	1	
								1	
					-			+ ,	
					1				
hilization	1 ^ < 0.3'	+ 3%	+ 0,1	+ 3%	1 + 10 mV	1 + 10%	1 ± 10%	200 ≤ X ≤ 500	-
	<u> </u>	1010			<u></u>	1	10		<u>h</u>
Ena : To	Purge Lime:	1425	- 7	nal		C - 37			
	Iai voiume e.	groundwater par	geu.	yu.	illioissical	Fran Drr	· 10 10		
Final Or	oservations:	Color Clea	s/gar	Odor Marte	5/10	een/Free Fru	duct nonce		
Sample	ID: GW-4S	030821		4. Et		Sample Ti	me: <u>1430</u>		
alytical F	Parameters:	Eurofins	S 24	4					
Containe	r Size	Container Type	# Colle	cted F	ield Filtered?	- Р	reservative	Analys VOC	sis
40 m	<u>"</u>	OLACKU	- ř				IN DAL.	Total Alkr	alinity
250 r		Plastic	1		Yes		HNO3	Dissolved Iron/	Mangan
40	OML C	blass voa	3	5	No		HU	Methane, Ethane	e, and Et
250 n	nĹ	Glass VOA	1		No	N	aOH, ZnAC	Total Organi	le Carbo
40 m		Amber VUA			NO	-	MD- ML	Major Cations (r	magnesiu
2110	,bm I	Blashe	+		NO.	HN03		sodium, calcium, a	ind potas
								t -ises (chlo	

RAME	BÖLL		Low	Flow Groun	dwater Sa	mpling Lo	g Well II): RW-3[C
Site Na Site Loca Proje Sampling F	ame: <u>DEC CC</u> ition: <u>S</u> ict #: <u>1</u> Program:	OSCO site pring Valley 940075217 1st SA samp	Samp Monitoring Equ ling event	Iling Method: 3 Equipment: ipment ID#s: Loca	Low Fl YSI & Lan FA00468/ ation: <u>DEC</u>	notte 2020 FAD 105 COELO	Field Person D Weat	inel: <u>()W SF</u> late: <u>03/09/20</u> ther: <u>55 sw</u> <u>Wille: M</u>	7 7
Well inform Len	i ation: Depth Depth to igth of Water Well E Well	of Well*: 102 5 Water*: <u>48</u> Column: <u>53</u> Diameter: <u>4</u> I Volume: <u>341</u>	2.50 ft. b ,95 ft. b 55 ft. 00 in. 16 gal.	Well Vo mp. 1 mp. 1. 2 ∠ ∠ 4	5lume Multipl in. = 0.041 ga 5 in. = 0.092 g in. = 0.163 ga in. = 0.653 ga	l iers: Il/ft gal/ft Il/ft Il/ft	• Me	Protective Casing Other: /al: 41'-102.5') Spla ft. bmp. ft. bmp.
Start F Initial Ot	[•]urge Time: oservations:	PID:		indica	D Pro ate units	Depth to Prod oduct Thickne	uct: ess:	ft. bmp. ft.	
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	48.95	13.1 13.2 13.3	7.14 7.38 7.43	1309 1311 1310	272.9 265.3 753.6	31.94 4,41 3,62	78.8 63.8 47.7	400	
15 20	49.05	13.3	7.46	1316 1309	238.7 216.9	3.44 3.37	38,5 75,4	350 350	
25 30 25	49.02	13.4 13.3	7,50	1313	203.7	3.31	20.2	350	
40	49.62	13.2	7.51	1316	191.1	3.33	15.9	350	
Stabilization	∆ ≤ 0.3'	± 3%	± 0.1	± 3%	± 10 mV	± 10%	± 10%	200 ≤ X ≤ 500	
End To Final O	Purge Time: otal volume of bservations:	f groundwater pur	ged: <u>5</u>	gal.	She	een/Free Pro	duct now		
Sample	ID: RW-3D	-030921				Sample Ti	me: <u>1135</u>		
Analytical F	Parameters:	Eurofins						Aret	
Containe 40 m	n Size	Container Type Glass VOA	# Coller	cted Fi	No	(S) 39	MHCL note	VOC:	S S
1250	me	Plastic	1		N O Ves		HNO3	Total Alka Dissolved Iron/f	linity Manganese
<u>401</u>	nL (SIGSSVOA	3		NO		HCI	Methane, Ethane	, and Ethen
250 n 40 m	nL IL	Glass VOA Amber VOA	1 2		No No	N	H3PO4- HCL	Total Organic	carbon
250; Wime /	ML da	Plastic Str Blastic	1	7 Ni	NO V NO	NpA	HNO3	Major Cations (m sodium, calcium, an and Anions (chlou nitrate, ni	nagnesium, nd potassium ride, sulfate, trite)
Notes:	(Dank P	o Musico			1 40				

RAME	OLL		LOW	Flow Groun	QWater en.	Inhima re-	9		
Site Nar	me: DEC CO	SCO site	Sam	pling Method	low flor	2	Field Person	nel: CPW	_
Site Locati	ion: Sp	oring Valley	Monitoring	g Equipment:	YSI & Larr	notte 2020	- Da	ate: 03/69/21	
Projec	.t #:19	340075217	. Equ	ipment ID#s:	2111	464	Weatr	ner: <u>JSAS</u>	mm
ampling Pr	rogram:	1st SA sample	ing event	Loca	ation: Dec u	HIC WICON	- Spang ver	ILEY, NY	- 1
ell informa	ation:			Well Vr	olume Multip!	liers:	* Me	easurement Point:	
	Depth c	of Well*: 23.	.00 ft. b)mp. 🗆 1	in. = 0.041 ga	ll/ft	P	Well Casing	
	Depth to	Water*: 11.47	ft. D	ymp. ⊔ າ. ເ≃2	_5 in. = ປ.ປອ∠ ູ : 0 163 ດະ	jal/tt		Other:	1
Leng	th of Water v	Column: 1) Ol	00 in.	~ ∠ □ 4	in = 0.653 gc	.l/π ∍l/ft	Screen Interv	val: 11'-23'	ft. br
	Well	Volume: 1.8	7 gal		1, = 0,000 g.	F	Pump Intake Dept	دh*: /۲	ft. br
		volumo				Dth to Proc	-lunt:	ft_bmp,	-
Start P	servations:	PID:			Pre	oduct Thickne	ess:	ft.	
	Denth			indica	ite units	Dissolved	1	Flow	
Elapseo	Depin to Water	Temperature	pН	Conductivity	ORP	Oxygen	Turbidity	Rate	Other
minutes)	(ft bmp)	(Celsius)	(SU)	(mS/cm)	(mV)	(mg/L)	(NTU)	(mL/min)	6
0	11.49	12.7	6.56	0.82	-45.6	.06	our roge	500	
5	10 59	17.8	6.73	0.88	-65.8	0.00	aver rage	400	
1.6	1757	13.0	6.76	0.90	-77.4	0.00	3205	300	
15	12.61	179	6.74	090	-80.8	0.00	887	200	
2.0	12.6	14.0	6.73	0.91	- 815	0.00	128	300	
-15	1246	17.9	6.73	GRI	-82.7	000	97.3	300	
23	14100	179	6.74	6.92	- 83.5	6.00	92.4	300	
20	14.61	16.1	6.17	.91	- 83.5	6.00	565	,750	
35	16.12	12.7	0.10	61	\$3.7	C.N.	26%	200	-
40	12.73	12.7	6.10	11	- 822	0.00	30.0	300	-
45	12.73	12.7	6-14	91	-020	0.00	11.6	2010	
50	12.64	12.9	6.7-1	. 11	- 01.2	0.00	16.1	200	
55	12.70	12.9	6.17	• 71	-07.2	0.00	13.6		
							1		
				1 30/	+ 10 mV	+ 10%	+ 10%	200 < X ≤ 500	
tabilization	∆ ≤ 0.3'	± 3%	± 0.1	± 3%	± 10 mv	± 10%	± 1070	200 5 A = 000	
End F To Final OI	³ urge Time: tal volume of oservations:	1435 f groundwater pur Color <u>clear</u>	ged: <u>7.5</u>	gal. Odor <u>And Ret</u> i	<u>col/chun</u> Sh	ieen/Free Pro	oduct nore		
Sample	ID: MW-18	030921				Sample II	ime: <u> 440</u>		
nalytical P	'arameters:	Eurofins	# Coll		The Elitored?		Descaruative	Analy	reis
Container 40 m	r Size	Glass VOA	# Cone T 3	acted .	No		Het nove	T PP VOC	S
17.5	~1.	OLASTIC	1		No		none	Total Alk	alinity
250 n	nL	Plastic	1		Yes		HNO3	Dissolved Iron/	Mangan
40.	ML	GLOSS VOA		5	NO		HLI TOH ZOAC	Methane, Ethane Sulfi	e, and E
250 m		Glass VOA	2		No		H3P04 1101	Total Organ	lic Carbo
	2001-	Plastic	1 1	1	No	1	HNO3 -	Major Cations (sodium, calcium,	magnesit
250	1.10	5100	(-				tanlane (chl	oult

R

V. N

RAMB	K LL		Low	Flow Groun	dwater Sa	mpling Log	g Well IC): RW-1	S
Site Na Site Locat Projec Sampling P	me: <u>DEC CO</u> tion: <u>S</u> f ct #: 19 Program:	SCO site pring Valley 940075217 1st SA sampl	Samp Monitoring Equ ing event	oling Method: g Equipment: ipment ID#s: Loca	Submers YSI & Lan PAD 6468 tion: DEC (st ble pur notte 2020 3 FAO 105	PField Person D S Weat	$\begin{array}{c c} \text{nel:} & \underline{\text{SET}} \\ \text{ate:} & \underline{\text{S-9-}} \\ \text{her:} & \underline{\text{+56^{\circ}}} \\ \underline{\text{Hey}} & \underline{\text{N}} \\ \end{array}$	ZI ZI ZSMA-(
Well inform: Leng	ation: Depth Depth to gth of Water Well D Well	of Well*: 28 Water*: 13. Column: [4]. iameter: 4. Volume: 9	.00 ft. b <u>22</u> ft. b <u>78</u> ft. 00 in. <u>65</u> gal.	Well Vo mp. □ mp. □ 1. □ 2 27 4	blume Multip in. = 0.041 ga 5 in. = 0.092 g in. = 0.163 ga in. = 0.653 ga	l iers: I/ft gal/ft I/ft I/ft	* Me	easurement Point Well Casing Protective Casing Other: al: 10'-25' h*: 70'	: ft. bmp ft. bmp
Start P Initial Ob	Purge Time: oservations:	1340_N	A		E Pro	Depth to Product Thickne	uct: NA	ft. bmp. ft.	
				indica	te units			F laws	
Elapsed	Depth	Temperature	рH	Specific	ORP	Dissolved	Turbidity	Flow	Other
Time	to Water	remperature		Conductivity		Oxygen		Rate	· ·
(minutes)	(ft bmp)	(Celsius)	(SU)	(mS/cm)	(mV)	(mg/L)	(NTU)	(mL/min)	()
0	13 27	:7 8	728	1.282	100 7	5 06	50	AD	
	13.00	10.0	1.50	1.607	100.7	5.00		200	
5	13:30	12.7	7.04	1.270	58,9	0.67	45.1	800	
10	12 42	17.10	r 97	1777	72.8	0.56	237	800	
	0.17	10.0	8 97	1 215	(211	000	155	Com.	
15	13.96	16.6	0.1.5	1.015	66.7	0.00	15.0	200	
20	13.42	17.7	6.90	1.196	61.3	0.64	14.8	800	J
25	12 112	17 7	1.95	1157	(it fo	Q.65	146	800	
65	13.96	16.4	0.65	1.157	64.0	0.00	17.0	000	
30	13.42	12.7	6.85	141	70.1	0.61	14.1	XUO	
26	12117	122	6.81	1122	224	0 69	12.8	Scool	
- 55	13.96	16.1	Q .01	1.122	13-1		25	000	
40	13.42	12.7	6.80	1.10	75. L	DTI	13.5	800	
U.S.	12 112	12 10	1.22	1,00	RIL	672	121	602	
10	15.46	16.0	0.11	1.100	01.1	0.10	10.0	Geo	
50	13.42	12.0	6-15	1.082	85.1	073	12.7	800	
55	12 117	127	6 710	1071	891	0.72	17.7	800	
~	1. 3. 416	16 1	0.10	1.0.1	0				
					-				
Nabilization	A < 0.3'	+ 3%	+01	+ 3%	+ 10 mV	+ 10%	± 10%	200 ≤ X ≤ 500	720
End I To Final Ob Sample	Purge Time: tal volume of oservations: ID: <u>RW-1S</u>	<u>1435</u> f groundwater pur Color <u>(190</u> 030921/	ged: 10 2 C RN-15-1	gal. Odor <u>NON</u> NS-0 3092 (Shew-15-	een/Free Proc	duct <u>NOU</u> me: <u>i44</u> ;		
Analytical P	Parameters:	Eurofins			MOL	0301	01		
Container	r Size (Container Type	# Colle	cted F	ield Filtered?	P	reservative	Analy	SIS
40 m	Ĺ	Glass VOA	CSU B	9	No		-HEF AND	PT VOC	/S
17.5	mL	Plashic	319/21 1	12	No		none	Total Alk	alinity
250 m		Plastic	1		Yes		HNO3	Dissolved Iron/	/Manganes
un	mi	GLAGE WAR	3		No		MUS	Methane, Ethane	e, and Ethe
250~		Glass VOA	1		No	N	aOH, ZnAC	Sulfic	de
250 fr		Giass VUA			No		HOPCAMU	Total Organ	ic Carbon
40 m		Amber VUA	2			_	10.01110	Major Cations (magnesium
10	Jack	Plastic	1		NO		HNO3 4	sodium, calcium	and potassiu
- 250	IMC	1000-						and Anions (chl	oride. sulfate
laDal 1	16 81	agi &/ ALONT	2.1	2 No	No No	D NON	- / NAR	nitrate. r	nitrite)
word /	WML "	· / HAYAU	0			11			
Notes: fun	np was	s pumpr	ng soi	my min	or b	oning			
700	That	a nacle	1 Dave	· Ling	O VA				

MO/MSD Collected Nere for IP VUCS amsyrfile01\Projects\Wys-Dec.10653\75217.Cosco-75217\N-D\Field Forms\Blank Field Forms\Low Flow Forms (COSCO).xlsx

 \square

RAME	BOLL		Low	Flow Groun	dwater Sa	mpling Log	g Well I	D: MW-3	3
Site Na Site Locat Project	tion: <u>S</u> ct #: <u>1</u>	OSCO site pring Valley 940075217	Samp Monitoring Equ	bling Method: g Equipment: ipment ID#s:	Sumusi YSI & Lan	ole amp notte 2020 / FAOLOS	Field Persor D Weat	ther: $\frac{445^{\circ}F_{1}}{2}$	DW (Sunny
Sampling F	rogram:	1st SA samp	ing event	Loca		LOSCO SHO	+ spingvo	rue of the .	
Well inform	ation: Depth	of Well*: 16	.75 ft. b	Well Vo	in. = 0.041 ga	liers:	* M	easurement Point Well Casing	
	Depth to	Water*:	. <u>.</u>	mp. ⊔ 1. ¤∕2	5 IN. = 0.092 (gai/n		Othor:	9
Len	gth of Water	Column: 5.	<u>76</u> π.		$\ln = 0.653$ ga	11/TL 51/ TI		Val: 2-16 75'	ft hmn
	Well	Volume: 0	이 네. 이년 gal.	□ 4	in. – 0.055 ga	P	ump Intake Dept	th*: 15'	ft. bmp.
Start F	Purge Time:	1035				Depth to Produ	ict: NF	A ft. bmp.	
Initial Ob	servations:	PID:	A		Pro	oduct Thickne	ss: N	A ft.	
Flansed	Denth			indica Specific	te units	Dissolved		Flow	
Time	to Water	Temperature	рН	Conductivity	ORP	Oxygen	Turbidity	Rate	Other
(minutes)	(ft bmp)	(Celsius)	(SU)	(mS/cm)	(mV)	(mg/L)	(NTU)	(mL/min)	()
0	10.99	(1.3	6.42	1.994	89.7	4.93	784	400 B	3/10/21
5	11.85	11-3	6.22	2.217	41.0	2.19	42.1	400 25	2
G	12,00	11.2	6.16	2.439	50.5	2.25	18.0	400-25	σ
15	11.95	11.2	6.0	2 483	550	2.19	17.5	250	
20	17.05	112	6.09	1570	597	700	8.06	250	
25	12 09	11.3	607	2 1006	67.6	203	504	250	
20	12.01	<u>u.s</u>	6.01	2122	671	209	507	750	
20	12.06	11.9	6.00	2.067	OT.I	2.01	5.01	250	
Stabilization	٨ < 0.3'	+ 3%	+ 0 1	+ 3%	± 10 mV	± 10%	± 10%	200 ≤ X ≤ 500	
Stabilization		1110	_ 0.1		1				
End To Final Ot	tal volume of oservations:	f groundwater pur Color CIEQ	ged: <u>2.5</u>	gal. Odor 10.12	She	een/Free Prod	uct ACAL	121 Jes indes	cent
Sample	ID: MW-3-	031021				Sample Tin	ne: 1115		sheen
Analytical P	arameters:	Furofins							
Containe	r Size	Container Type	# Collec	cted Fi	ield Filtered?	Pr	eservative	Analys	sis
40 m	L	Glass VOA	3		No	Klintz .	Het me	VOC	S
125	mL	Plastic	1		NO	-1.101	HNO3	Total Alka	Mangapese
250 m			2		NA	-	HU	Methane Ethane	and Ethen
250 m	nL	Glass VOA	5		No	Na	OH, ZnAC	Sulfic	
40 m	L	Amber VOA	2	1. Sec. 1. Sec. 1.	No		Hapod- HCI	Total Organi	c Carbon
250	mc pl	Plastic Acol / Plastic	1	Z NO	NO	Nore	HNOZ "	Major Cations (r sodium, calcium, a and Anions (chlo	nagnesium, nd potassium ride, sulfate,
Notes: NP	1 Wer	H dry o	wing	Samplina	but	all bot	Hrs wer	c Riled	unte)
		J	9						<.

RAMB	GLL		Low	r Flow Gro	ound	water Sa	mpling Lo	g Well I	D: RW-8	S
Site Na	me: DEC CC	OSCO site	Sam	pling Method	:	las for	out.	Field Perso	nnel: CDU	
Site Locat	ion: S	pring Valley	Monitoring	g Equipment	- 2	YSI & Lar	notte 2020		Date: 3/10/21	
Projec	ct #: 1	940075217	Equ	ipment ID#s	FLO_	2111	1464	Wea	ther: 50°, Sun	14
Sampling P	rogram:	1st SA samp	ling event		Locatio	on: Del (bico Su	K String	Jaller , NY	
Vell informa	ation:			We	ell Volu	ume Multip	liers:	N	leasurement Point:	
	Depth	of Well*: 25	.00 ft. b	omp. 🗆	1 in	. = 0.041 ga	al/ft	X	Well Casing	
	Depth to	Water*: 9,70	ft. t	omp. L	1.5	in. = 0.092	gal/tt		Other:	3
Leng	gth of Water	Column: (S	$\frac{02}{10}$ in		í∠in í 4in	= 0.163 gas = 0.653 gas	al/ft	⊔ Screen Inter	val: 10'-25'	ft. bmp
	Well	Volume: 9.8		. A	11	. 0.000 ge	F	Pump Intake Dep	oth*: 2.6	ft. bmp
04	Time						Donth to Prod	luct:	ft hmn	-
Initial Ob	servations:	PID:		i.e.	adiaata	Pr	oduct Thickne	ess: Mare	ft.	
Elapsed	Depth	1		Specifi	c	units	Dissolved	Turkida	Flow	Othor
Time	to Water	Temperature	рн	Conducti	ivity	URP	Oxygen	Turbialty	Rate	Other
(minutes)	(ft bmp)	(Celsius)	(SU)	(mS/crr	n)	(mV)	(mg/L)	(NTU)	(mL/min)	
0	9,98	13,8	6.73	6.88		127.0	7.18	51.5	800	
5	10.28	7.0	6.83	5.11	/	12.8	6.03	43.3	700	-
10	10.4)	6.9	6.77	4.73	-	101.0	6181	1811	325	
15	10.67	7.0	6.75	4.01	-	12.7	6.77	35.1	500	1
20	10.8)	6.9	6.77	10.14		82.7	6.52	33.6	306	
25	10.88	6.9	6.82	16,11	_	79.9	6.51	32.0	500	
30	16.89	6.9	6.82	10.11		77.2	6.07	31.6	200	
					_					
			-	-		128		1		
tabilization	Λ≤0.3'	± 3%	± 0.1	± 3%		± 10 mV	± 10%	± 10%	200 ≤ X ≤ 500	1.1.1
End F Tot Final Ob	Purge Time tal volume o oservations:	f groundwater pur Color <u>clear</u>		gal. Odor <u>metal</u>	lhe	Sh	een/Free Pro	duct no		1
Sample	ID: <u>RW-85</u>	- 031021					Sample II	<u>1150</u>		
nalytical P	arameters:	Eurofins	# 0-11-	ato d	Field	d Ciltored?	P	reconvetive	Analys	sie
Container 40 m	r Size	Glass VOA	# Colle	ected	Fiel	No	150	HCI ND	VOC	S
125	ML	Plastic	1			No	12015	nore	Total Alka	alinity
250 m	ıL	Plastic	1			Yes	The second	HNO3	Dissolved Iron/	Manganes
400	16	glass voa	3			No		<u>H4</u>	Methane, Ethane	e, and Ethe
	1L	Glass VOA	1 2			No	N	Hapo4-HC	Total Organi	c Carbon
250 m		Milliour VOIT			_		-	MALAS	Major Cations (r	naonesium.
250 m 40 m 25	imL	PLASHC	L.			ho		111403	sodium, calcium, a	nd potassiur
250 m 40 m 25 60m / 1	UML 25ml Plu	PLASTIC PLASTIC	121	2	No	/ NO	none	-/ nore	sodium, calcium, a and Anjons (chlo nitrate, n	nd potassiu ride, sulfate itrite)

3/4/2021

APPENDIX D SUMMARY OF LABORATORY ANALYTICAL RESULTS

Client Sample ID: RW-3D-072820 Date Collected: 07/28/20 12:12 Date Received: 07/29/20 10:30

Method: 624.1 - Volatile Or	ganic Compou	inds (GC/N	IS)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		10	0.77	ug/L			07/29/20 20:54	2
1,1,2,2-Tetrachloroethane	ND		10	0.52	ug/L			07/29/20 20:54	2
1,1,2-Trichloroethane	ND		10	0.96	ug/L			07/29/20 20:54	2
1,1-Dichloroethane	ND		10	1.2	ug/L			07/29/20 20:54	2
1,1-Dichloroethene	ND		10	1.7	ug/L			07/29/20 20:54	2
1,2-Dichlorobenzene	ND		10	0.89	ug/L			07/29/20 20:54	2
1,2-Dichloroethane	ND		10	1.2	ug/L			07/29/20 20:54	2
1,2-Dichloroethene, Total	63		20	6.4	ug/L			07/29/20 20:54	2
1,2-Dichloropropane	ND		10	1.2	ug/L			07/29/20 20:54	2
1,3-Dichlorobenzene	ND		10	1.1	ug/L			07/29/20 20:54	2
1,4-Dichlorobenzene	ND		10	1.0	ug/L			07/29/20 20:54	2
2-Chloroethyl vinyl ether	ND		50	3.7	ug/L			07/29/20 20:54	2
Acrolein	ND		200	35	ug/L			07/29/20 20:54	2
Acrylonitrile	ND		100	3.8	ug/L			07/29/20 20:54	2
Benzene	ND		10	1.2	ug/L			07/29/20 20:54	2
Bromodichloromethane	ND		10	1.1	ug/L			07/29/20 20:54	2
Bromoform	ND		10	0.94	ug/L			07/29/20 20:54	2
Bromomethane	ND		10	2.4	ug/L			07/29/20 20:54	2
Carbon tetrachloride	ND		10	1.0	ug/L			07/29/20 20:54	2
Chlorobenzene	ND		10	0.95	ug/L			07/29/20 20:54	2
Chlorodibromomethane	ND		10	0.83	ug/L			07/29/20 20:54	2
Chloroethane	ND		10	1.7	ug/L			07/29/20 20:54	2
Chloroform	ND		10	1.1	ug/L			07/29/20 20:54	2
Chloromethane	ND		10	1.3	ug/L			07/29/20 20:54	2
cis-1,3-Dichloropropene	ND		10	0.66	ug/L			07/29/20 20:54	2
Ethylbenzene	ND		10	0.93	ug/L			07/29/20 20:54	2
Methylene Chloride	ND		10	1.6	ug/L			07/29/20 20:54	2
Tetrachloroethene	130		10	0.68	ug/L			07/29/20 20:54	2
Toluene	ND		10	0.91	ug/L			07/29/20 20:54	2
trans-1,2-Dichloroethene	ND		10	1.2	ug/L			07/29/20 20:54	2
trans-1,3-Dichloropropene	ND		10	0.88	ug/L			07/29/20 20:54	2
Trichloroethene	120		10	1.2	ug/L			07/29/20 20:54	2
Vinyl chloride	ND		10	1.5	ug/L			07/29/20 20:54	2
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		68 - 130			-		07/29/20 20:54	2
4-Bromofluorobenzene (Surr)	98		76 - 123					07/29/20 20:54	2
Dibromofluoromethane (Surr)	106		75 - 123					07/29/20 20:54	2
Toluene-d8 (Surr)	101		77 - 120					07/29/20 20:54	2

Lab Sample ID: 480-173063-1

Matrix: Water

5

6

Eurofins TestAmerica, Buffalo

Client Sample ID: DW-1-072820 Date Collected: 07/28/20 12:30 Date Received: 07/29/20 10:30

Method: 624.1 - Volatile Or	ganic Compou	inds (GC/M	IS)	MDI	11		Duran and	Anaburad	
Analyte		Quaimer				<u>D</u>	Prepared	Analyzeu	
			5.0	0.39	ug/L			07/20/20 21.19	1
1, 1, 2, 2-1 ett actiloroethane			5.0	0.20	ug/L			07/20/20 21.19	1
			5.0	0.40	ug/L			07/20/20 21.19	
1, 1-Dichloroethane			5.0	0.59	ug/L			07/29/20 21.19	1
			5.0	0.05	ug/∟ α/l			07/29/20 21.19	1
1,2-Dichloropenzene			5.0	0.44	ug/L			07/29/20 21.19	· · · · · · · · · · · · · · · · · · ·
1,2-Dichloroethane	ND		5.0	0.60	ug/L			07/29/20 21.19	1
1,2-Dichloroetnene, Total	ND		10	3.2	ug/L			07/29/20 21:19	1
1,2-Dichloropropane	ND		5.0	0.61	ug/L			07/29/20 21:19	1
1,3-Dichlorobenzene	ND		5.0	0.54	ug/L			07/29/20 21:19	1
1,4-Dichlorobenzene	ND		5.0	0.51	ug/L			07/29/20 21:19	1
2-Chloroethyl vinyl ether	ND		25	1.9	ug/L			07/29/20 21:19	1
Acrolein	ND		100	17	ug/L			07/29/20 21:19	1
Acrylonitrile	ND		50	1.9	ug/L			07/29/20 21:19	1
Benzene	ND		5.0	0.60	ug/L			07/29/20 21:19	1
Bromodichloromethane	ND		5.0	0.54	ug/L			07/29/20 21:19	1
Bromoform	ND		5.0	0.47	ug/L			07/29/20 21:19	1
Bromomethane	ND		5.0	1.2	ug/L			07/29/20 21:19	1
Carbon tetrachloride	ND		5.0	0.51	ug/L			07/29/20 21:19	1
Chlorobenzene	ND		5.0	0.48	ug/L			07/29/20 21:19	1
Chlorodibromomethane	ND		5.0	0.41	ug/L			07/29/20 21:19	1
Chloroethane	ND		5.0	0.87	ug/L			07/29/20 21:19	1
Chloroform	ND		5.0	0.54	ug/L			07/29/20 21:19	1
Chloromethane	ND		5.0	0.64	ug/L			07/29/20 21:19	1
cis-1,3-Dichloropropene	ND		5.0	0.33	ug/L			07/29/20 21:19	1
Ethylbenzene	ND		5.0	0.46	ug/L			07/29/20 21:19	1
Methylene Chloride	ND		5.0	0.81	ug/L			07/29/20 21:19	1
Tetrachloroethene	3.0	J	5.0	0.34	ug/L			07/29/20 21:19	1
Toluene	ND		5.0	0.45	ug/L			07/29/20 21:19	1
trans-1,2-Dichloroethene	ND		5.0	0.59	ug/L			07/29/20 21:19	1
trans-1,3-Dichloropropene	ND		5.0	0.44	ug/L			07/29/20 21:19	1
Trichloroethene	2.3	J	5.0	0.60	ug/L			07/29/20 21:19	1
Vinyl chloride	ND		5.0	0.75	ug/L			07/29/20 21:19	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	94		68 - 130			-		07/29/20 21:19	1
4-Bromofluorobenzene (Surr)	97		76 - 123					07/29/20 21:19	1
Dibromofluoromethane (Surr)	105		75 - 123					07/29/20 21:19	1
Toluene-d8 (Surr)	103		77 - 120					07/29/20 21:19	1

Lab Sample ID: 480-173063-2

Matrix: Water

5

Client Sample ID: MW-18-072820 Date Collected: 07/28/20 14:20 Date Received: 07/29/20 10:30

Method: 624.1 - Volatile Or	ganic Compou	inds (GC/N	IS)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	0.39	ug/L			07/29/20 21:42	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.26	ug/L			07/29/20 21:42	1
1,1,2-Trichloroethane	ND		5.0	0.48	ug/L			07/29/20 21:42	1
1,1-Dichloroethane	ND		5.0	0.59	ug/L			07/29/20 21:42	1
1,1-Dichloroethene	ND		5.0	0.85	ug/L			07/29/20 21:42	1
1,2-Dichlorobenzene	ND		5.0	0.44	ug/L			07/29/20 21:42	1
1,2-Dichloroethane	ND		5.0	0.60	ug/L			07/29/20 21:42	1
1,2-Dichloroethene, Total	7.1	J	10	3.2	ug/L			07/29/20 21:42	1
1,2-Dichloropropane	ND		5.0	0.61	ug/L			07/29/20 21:42	1
1,3-Dichlorobenzene	ND		5.0	0.54	ug/L			07/29/20 21:42	1
1,4-Dichlorobenzene	ND		5.0	0.51	ug/L			07/29/20 21:42	1
2-Chloroethyl vinyl ether	ND		25	1.9	ug/L			07/29/20 21:42	1
Acrolein	ND		100	17	ug/L			07/29/20 21:42	1
Acrylonitrile	ND		50	1.9	ug/L			07/29/20 21:42	1
Benzene	ND		5.0	0.60	ug/L			07/29/20 21:42	1
Bromodichloromethane	ND		5.0	0.54	ug/L			07/29/20 21:42	1
Bromoform	ND		5.0	0.47	ug/L			07/29/20 21:42	1
Bromomethane	ND		5.0	1.2	ug/L			07/29/20 21:42	1
Carbon tetrachloride	ND		5.0	0.51	ug/L			07/29/20 21:42	1
Chlorobenzene	ND		5.0	0.48	ug/L			07/29/20 21:42	1
Chlorodibromomethane	ND		5.0	0.41	ug/L			07/29/20 21:42	1
Chloroethane	ND		5.0	0.87	ug/L			07/29/20 21:42	1
Chloroform	ND		5.0	0.54	ug/L			07/29/20 21:42	1
Chloromethane	ND		5.0	0.64	ug/L			07/29/20 21:42	1
cis-1,3-Dichloropropene	ND		5.0	0.33	ug/L			07/29/20 21:42	1
Ethylbenzene	ND		5.0	0.46	ug/L			07/29/20 21:42	1
Methylene Chloride	ND		5.0	0.81	ug/L			07/29/20 21:42	1
Tetrachloroethene	0.64	J	5.0	0.34	ug/L			07/29/20 21:42	1
Toluene	ND		5.0	0.45	ug/L			07/29/20 21:42	1
trans-1,2-Dichloroethene	ND		5.0	0.59	ug/L			07/29/20 21:42	1
trans-1,3-Dichloropropene	ND		5.0	0.44	ug/L			07/29/20 21:42	1
Trichloroethene	1.5	J	5.0	0.60	ug/L			07/29/20 21:42	1
Vinyl chloride	3.3	J	5.0	0.75	ug/L			07/29/20 21:42	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	92		68 - 130			-		07/29/20 21:42	1
4-Bromofluorobenzene (Surr)	96		76 - 123					07/29/20 21:42	1
Dibromofluoromethane (Surr)	104		75 - 123					07/29/20 21:42	1
Toluene-d8 (Surr)	102		77 - 120					07/29/20 21:42	1

Lab Sample ID: 480-173063-3

Matrix: Water

5

Client Sample ID: RW-1S-072820 Date Collected: 07/28/20 15:00 Date Received: 07/29/20 10:30

Method: 624.1 - Volatile Or	ganic Compou	inds (GC/N	NS)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	0.39	ug/L			07/29/20 22:31	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.26	ug/L			07/29/20 22:31	1
1,1,2-Trichloroethane	ND		5.0	0.48	ug/L			07/29/20 22:31	1
1,1-Dichloroethane	ND		5.0	0.59	ug/L			07/29/20 22:31	1
1,1-Dichloroethene	ND		5.0	0.85	ug/L			07/29/20 22:31	1
1,2-Dichlorobenzene	ND		5.0	0.44	ug/L			07/29/20 22:31	1
1,2-Dichloroethane	ND		5.0	0.60	ug/L			07/29/20 22:31	1
1,2-Dichloroethene, Total	ND		10	3.2	ug/L			07/29/20 22:31	1
1,2-Dichloropropane	ND		5.0	0.61	ug/L			07/29/20 22:31	1
1,3-Dichlorobenzene	ND		5.0	0.54	ug/L			07/29/20 22:31	1
1,4-Dichlorobenzene	ND		5.0	0.51	ug/L			07/29/20 22:31	1
2-Chloroethyl vinyl ether	ND		25	1.9	ug/L			07/29/20 22:31	1
Acrolein	ND		100	17	ug/L			07/29/20 22:31	1
Acrylonitrile	ND		50	1.9	ug/L			07/29/20 22:31	1
Benzene	ND		5.0	0.60	ug/L			07/29/20 22:31	1
Bromodichloromethane	ND		5.0	0.54	ug/L			07/29/20 22:31	1
Bromoform	ND		5.0	0.47	ug/L			07/29/20 22:31	1
Bromomethane	ND		5.0	1.2	ug/L			07/29/20 22:31	1
Carbon tetrachloride	ND		5.0	0.51	ug/L			07/29/20 22:31	1
Chlorobenzene	ND		5.0	0.48	ug/L			07/29/20 22:31	1
Chlorodibromomethane	ND		5.0	0.41	ug/L			07/29/20 22:31	1
Chloroethane	ND		5.0	0.87	ug/L			07/29/20 22:31	1
Chloroform	ND		5.0	0.54	ug/L			07/29/20 22:31	1
Chloromethane	ND		5.0	0.64	ug/L			07/29/20 22:31	1
cis-1,3-Dichloropropene	ND		5.0	0.33	ug/L			07/29/20 22:31	1
Ethylbenzene	ND		5.0	0.46	ug/L			07/29/20 22:31	1
Methylene Chloride	ND		5.0	0.81	ug/L			07/29/20 22:31	1
Tetrachloroethene	ND		5.0	0.34	ug/L			07/29/20 22:31	1
Toluene	ND		5.0	0.45	ug/L			07/29/20 22:31	1
trans-1,2-Dichloroethene	ND		5.0	0.59	ug/L			07/29/20 22:31	1
trans-1,3-Dichloropropene	ND		5.0	0.44	ug/L			07/29/20 22:31	1
Trichloroethene	2.3	J	5.0	0.60	ug/L			07/29/20 22:31	1
Vinyl chloride	ND		5.0	0.75	ug/L			07/29/20 22:31	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	93		68 - 130			-		07/29/20 22:31	1
4-Bromofluorobenzene (Surr)	97		76 - 123					07/29/20 22:31	1
Dibromofluoromethane (Surr)	107		75 - 123					07/29/20 22:31	1
Toluene-d8 (Surr)	102		77 - 120					07/29/20 22:31	1

Lab Sample ID: 480-173063-5

Matrix: Water

5

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Eurofins TestAmerica, Buffalo

Client Sample ID: RW-8S-072920 Date Collected: 07/29/20 12:10

Date Received: 07/30/20 10:30

Method: 624.1 - Volatile Organ	nic Compounds (GC/MS)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.37	ug/L			08/05/20 14:02	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.62	ug/L			08/05/20 14:02	1
1,1,2-Trichloroethane	ND	UJ	1.0	0.33	ug/L			08/05/20 14:02	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			08/05/20 14:02	1
1,1-Dichloroethene	ND		1.0	0.36	ug/L			08/05/20 14:02	1
1,2-Dichlorobenzene	ND		1.0	0.37	ug/L			08/05/20 14:02	1
1,2-Dichloroethane	ND	*	1.0	0.50	ug/L			08/05/20 14:02	1
1,2-Dichloroethene, Total	10		2.0	0.74	ug/L			08/05/20 14:02	1
1,2-Dichloropropane	ND		1.0	0.67	ug/L			08/05/20 14:02	1
1,3-Dichlorobenzene	ND		1.0	0.43	ug/L			08/05/20 14:02	1
1,4-Dichlorobenzene	ND		1.0	0.46	ug/L			08/05/20 14:02	1
2-Chloroethyl vinyl ether	ND	Н	10	5.0	ug/L			08/05/20 14:02	1
Acrolein	ND	Н	20	8.7	ug/L			08/05/20 14:02	1
Acrylonitrile	ND	Н	20	4.6	ug/L			08/05/20 14:02	1
Benzene	ND		1.0	0.43	ug/L			08/05/20 14:02	1
Bromoform	ND		1.0	0.43	ug/L			08/05/20 14:02	1
Bromomethane	ND	▲ UJ	5.0	2.5	ug/L			08/05/20 14:02	1
Carbon tetrachloride	ND		1.0	0.33	ug/L			08/05/20 14:02	1
Chlorobenzene	ND		1.0	0.26	ug/L			08/05/20 14:02	1
Chlorodibromomethane	ND	UJ	1.0	0.32	ug/L			08/05/20 14:02	1
Chloroethane	ND	UJ	5.0	2.5	ug/L			08/05/20 14:02	1
Chloroform	ND		1.0	0.50	ug/L			08/05/20 14:02	1
Chloromethane	ND		1.0	0.40	ug/L			08/05/20 14:02	1
cis-1,3-Dichloropropene	ND		1.0	0.40	ug/L			08/05/20 14:02	1
Bromodichloromethane	ND		1.0	0.44	ug/L			08/05/20 14:02	1
Ethylbenzene	ND		1.0	0.33	ug/L			08/05/20 14:02	1
Methylene Chloride	ND		5.0	2.5	ug/L			08/05/20 14:02	1
Tetrachloroethene	0.84	J	1.0	0.74	ug/L			08/05/20 14:02	1
Toluene	ND		1.0	0.48	ug/L			08/05/20 14:02	1
trans-1,2-Dichloroethene	ND		1.0	0.37	ug/L			08/05/20 14:02	1
trans-1,3-Dichloropropene	ND		1.0	0.42	ug/L			08/05/20 14:02	1
Trichloroethene	9.5		1.0	0.48	ug/L			08/05/20 14:02	1
Vinyl chloride	1.8		1.0	0.50	ug/L			08/05/20 14:02	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	116		60 - 140			-		08/05/20 14:02	1
4-Bromofluorobenzene (Surr)	101		60 - 140					08/05/20 14:02	1
Toluene-d8 (Surr)	112		60 - 140					08/05/20 14:02	1
Dibromofluoromethane (Surr)	114		60 - 140					08/05/20 14:02	1

ARF 05/04/2021

Lab Sample ID: 480-173177-1 Matrix: Water

Job ID: 480-173177-1

Eurofins TestAmerica, Buffalo

Client Sample ID: GW-4S-072920 Date Collected: 07/29/20 15:00

Date Received: 07/30/20 10:30

Method: 624.1 - Volatile Organ	ic Compounds (GC/MS)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.37	ug/L			08/05/20 14:25	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.62	ug/L			08/05/20 14:25	1
1,1,2-Trichloroethane	ND	UJ	1.0	0.33	ug/L			08/05/20 14:25	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			08/05/20 14:25	1
1,1-Dichloroethene	ND		1.0	0.36	ug/L			08/05/20 14:25	1
1,2-Dichlorobenzene	ND		1.0	0.37	ug/L			08/05/20 14:25	1
1,2-Dichloroethane	ND	*	1.0	0.50	ug/L			08/05/20 14:25	1
1,2-Dichloroethene, Total	ND		2.0	0.74	ug/L			08/05/20 14:25	1
1,2-Dichloropropane	ND		1.0	0.67	ug/L			08/05/20 14:25	1
1,3-Dichlorobenzene	ND		1.0	0.43	ug/L			08/05/20 14:25	1
1,4-Dichlorobenzene	ND		1.0	0.46	ug/L			08/05/20 14:25	1
2-Chloroethyl vinyl ether	ND	Н	10	5.0	ug/L			08/05/20 14:25	1
Acrolein	ND	Н	20	8.7	ug/L			08/05/20 14:25	1
Acrylonitrile	ND	Н	20	4.6	ug/L			08/05/20 14:25	1
Benzene	ND		1.0	0.43	ug/L			08/05/20 14:25	1
Bromoform	ND		1.0	0.43	ug/L			08/05/20 14:25	1
Bromomethane	ND	→ UJ	5.0	2.5	ug/L			08/05/20 14:25	1
Carbon tetrachloride	ND		1.0	0.33	ug/L			08/05/20 14:25	1
Chlorobenzene	ND		1.0	0.26	ug/L			08/05/20 14:25	1
Chlorodibromomethane	ND	UJ	1.0	0.32	ug/L			08/05/20 14:25	1
Chloroethane	ND	UJ	5.0	2.5	ug/L			08/05/20 14:25	1
Chloroform	ND		1.0	0.50	ug/L			08/05/20 14:25	1
Chloromethane	ND		1.0	0.40	ug/L			08/05/20 14:25	1
cis-1,3-Dichloropropene	ND		1.0	0.40	ug/L			08/05/20 14:25	1
Bromodichloromethane	ND		1.0	0.44	ug/L			08/05/20 14:25	1
Ethylbenzene	ND		1.0	0.33	ug/L			08/05/20 14:25	1
Methylene Chloride	ND		5.0	2.5	ug/L			08/05/20 14:25	1
Tetrachloroethene	ND		1.0	0.74	ug/L			08/05/20 14:25	1
Toluene	ND		1.0	0.48	ug/L			08/05/20 14:25	1
trans-1,2-Dichloroethene	ND		1.0	0.37	ug/L			08/05/20 14:25	1
trans-1,3-Dichloropropene	ND		1.0	0.42	ug/L			08/05/20 14:25	1
Trichloroethene	5.1		1.0	0.48	ug/L			08/05/20 14:25	1
Vinyl chloride	ND		1.0	0.50	ug/L			08/05/20 14:25	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	114		60 - 140			_		08/05/20 14:25	1
4-Bromofluorobenzene (Surr)	100		60 - 140					08/05/20 14:25	1
Toluene-d8 (Surr)	112		60 - 140					08/05/20 14:25	1
Dibromofluoromethane (Surr)	112		60 - 140					08/05/20 14:25	1

8/7/2020 (Rev. 1)

Lab Sample ID: 480-173177-2

Matrix: Water

5

Client Sample ID: MW-3-072920 Date Collected: 07/29/20 15:45

	Date	Received:	07/30/20	10:30	
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Method: 624.1 - Volatile Organic Compounds (GC/MS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	1.9	ug/L			08/05/20 16:45	5
1,1,2,2-Tetrachloroethane	ND		5.0	3.1	ug/L			08/05/20 16:45	5
1,1,2-Trichloroethane	ND	UJ	5.0	1.7	ug/L			08/05/20 16:45	5
1,1-Dichloroethane	ND		5.0	1.9	ug/L			08/05/20 16:45	5
1,1-Dichloroethene	ND		5.0	1.8	ug/L			08/05/20 16:45	5
1,2-Dichlorobenzene	ND		5.0	1.9	ug/L			08/05/20 16:45	5
1,2-Dichloroethane	ND	*	5.0	2.5	ug/L			08/05/20 16:45	5
1,2-Dichloroethene, Total	ND		10	3.7	ug/L			08/05/20 16:45	5
1,2-Dichloropropane	ND		5.0	3.4	ug/L			08/05/20 16:45	5
1,3-Dichlorobenzene	ND		5.0	2.2	ug/L			08/05/20 16:45	5
1,4-Dichlorobenzene	ND		5.0	2.3	ug/L			08/05/20 16:45	5
2-Chloroethyl vinyl ether	ND	н	50	25	ug/L			08/05/20 16:45	5
Acrolein	ND	Н	100	44	ug/L			08/05/20 16:45	5
Acrylonitrile	ND	н	100	23	ug/L			08/05/20 16:45	5
Benzene	ND		5.0	2.2	ug/L			08/05/20 16:45	5
Bromoform	ND		5.0	2.2	ug/L			08/05/20 16:45	5
Bromomethane	ND	≁ UJ	25	13	ug/L			08/05/20 16:45	5
Carbon tetrachloride	ND		5.0	1.7	ug/L			08/05/20 16:45	5
Chlorobenzene	ND		5.0	1.3	ug/L			08/05/20 16:45	5
Chlorodibromomethane	ND	UJ	5.0	1.6	ug/L			08/05/20 16:45	5
Chloroethane	ND	UJ	25	13	ug/L			08/05/20 16:45	5
Chloroform	ND		5.0	2.5	ug/L			08/05/20 16:45	5
Chloromethane	ND		5.0	2.0	ug/L			08/05/20 16:45	5
cis-1,3-Dichloropropene	ND		5.0	2.0	ug/L			08/05/20 16:45	5
Bromodichloromethane	ND		5.0	2.2	ug/L			08/05/20 16:45	5
Ethylbenzene	ND		5.0	1.7	ug/L			08/05/20 16:45	5
Methylene Chloride	ND		25	13	ug/L			08/05/20 16:45	5
Tetrachloroethene	ND		5.0	3.7	ug/L			08/05/20 16:45	5
Toluene	ND		5.0	2.4	ug/L			08/05/20 16:45	5
trans-1,2-Dichloroethene	ND		5.0	1.9	ug/L			08/05/20 16:45	5
trans-1,3-Dichloropropene	ND		5.0	2.1	ug/L			08/05/20 16:45	5
Trichloroethene	ND		5.0	2.4	ug/L			08/05/20 16:45	5
Vinyl chloride	ND		5.0	2.5	ug/L			08/05/20 16:45	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)			60 - 140			-		08/05/20 16:45	5
4-Bromofluorobenzene (Surr)	101		60 - 140					08/05/20 16:45	5
Toluene-d8 (Surr)	111		60 - 140					08/05/20 16:45	5
Dibromofluoromethane (Surr)	113		60 - 140					08/05/20 16:45	5

Lab Sample ID: 480-173177-3

Matrix: Water

5
Client Sample ID: GP-4D-072920 Date Collected: 07/29/20 16:06 Date Received: 07/30/20 10:30

Lab Sample ID: 480-173177-4

Matrix: Water

5

Method: 624.1 - Volatile Organ	nic Compounds (GC/MS)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.37	ug/L			08/05/20 14:48	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.62	ug/L			08/05/20 14:48	1
1,1,2-Trichloroethane	ND	UJ	1.0	0.33	ug/L			08/05/20 14:48	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			08/05/20 14:48	1
1,1-Dichloroethene	ND		1.0	0.36	ug/L			08/05/20 14:48	1
1,2-Dichlorobenzene	ND		1.0	0.37	ug/L			08/05/20 14:48	1
1,2-Dichloroethane	ND	*	1.0	0.50	ug/L			08/05/20 14:48	1
1,2-Dichloroethene, Total	ND		2.0	0.74	ug/L			08/05/20 14:48	1
1,2-Dichloropropane	ND		1.0	0.67	ug/L			08/05/20 14:48	1
1,3-Dichlorobenzene	ND		1.0	0.43	ug/L			08/05/20 14:48	1
1,4-Dichlorobenzene	ND		1.0	0.46	ug/L			08/05/20 14:48	1
2-Chloroethyl vinyl ether	ND	н	10	5.0	ug/L			08/05/20 14:48	1
Acrolein	ND	Н	20	8.7	ug/L			08/05/20 14:48	1
Acrylonitrile	ND	н	20	4.6	ug/L			08/05/20 14:48	1
Benzene	ND		1.0	0.43	ug/L			08/05/20 14:48	1
Bromoform	ND		1.0	0.43	ug/L			08/05/20 14:48	1
Bromomethane	ND	≁ UJ	5.0	2.5	ug/L			08/05/20 14:48	1
Carbon tetrachloride	ND		1.0	0.33	ug/L			08/05/20 14:48	1
Chlorobenzene	ND		1.0	0.26	ug/L			08/05/20 14:48	1
Chlorodibromomethane	ND	UJ	1.0	0.32	ug/L			08/05/20 14:48	1
Chloroethane	ND	UJ	5.0	2.5	ug/L			08/05/20 14:48	1
Chloroform	ND		1.0	0.50	ug/L			08/05/20 14:48	1
Chloromethane	ND		1.0	0.40	ug/L			08/05/20 14:48	1
cis-1,3-Dichloropropene	ND		1.0	0.40	ug/L			08/05/20 14:48	1
Bromodichloromethane	ND		1.0	0.44	ug/L			08/05/20 14:48	1
Ethylbenzene	ND		1.0	0.33	ug/L			08/05/20 14:48	1
Methylene Chloride	ND		5.0	2.5	ug/L			08/05/20 14:48	1
Tetrachloroethene	ND		1.0	0.74	ug/L			08/05/20 14:48	1
Toluene	ND		1.0	0.48	ug/L			08/05/20 14:48	1
trans-1,2-Dichloroethene	ND		1.0	0.37	ug/L			08/05/20 14:48	1
trans-1.3-Dichloropropene	ND		1.0	0.42	ua/L			08/05/20 14:48	1
Trichloroethene	ND		1.0	0.48	ua/L			08/05/20 14:48	1
Vinyl chloride	ND		1.0	0.50	ug/L			08/05/20 14:48	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	116		60 - 140			-		08/05/20 14:48	1
4-Bromofluorobenzene (Surr)	101		60 - 140					08/05/20 14:48	1
Toluene-d8 (Surr)	113		60 - 140					08/05/20 14:48	1
Dibromofluoromethane (Surr)	113		60 - 140					08/05/20 14:48	1

Client Sample ID: Trip-Blank-01-072820 Date Collected: 07/28/20 00:00 Date Received: 07/29/20 10:30

Method: 624.1 - Volatile Or	ganic Compounds (GC/M	AS)		11	_	Deserved	A start start of	D'I 5	5
Analyte		RL		Unit	D	Prepared			Э
		5.0	0.39	ug/L			07/29/20 22:06	1	
1,1,2,2-1 etrachioroethane	ND	5.0	0.26	ug/L			07/29/20 22:06	1	6
	ND	5.0	0.48	ug/L			07/29/20 22:06		
1,1-Dichloroethane	ND	5.0	0.59	ug/L			07/29/20 22:06	1	
1,1-Dichloroethene	ND	5.0	0.85	ug/L			07/29/20 22:06	1	
1,2-Dichlorobenzene	ND	5.0	0.44	ug/L			07/29/20 22:06	1	8
1,2-Dichloroethane	ND	5.0	0.60	ug/L			07/29/20 22:06	1	
1,2-Dichloroethene, Total	ND	10	3.2	ug/L			07/29/20 22:06	1	9
1,2-Dichloropropane	ND	5.0	0.61	ug/L			07/29/20 22:06	1	
1,3-Dichlorobenzene	ND	5.0	0.54	ug/L			07/29/20 22:06	1	
1,4-Dichlorobenzene	ND	5.0	0.51	ug/L			07/29/20 22:06	1	
2-Chloroethyl vinyl ether	ND	25	1.9	ug/L			07/29/20 22:06	1	
Acrolein	ND	100	17	ug/L			07/29/20 22:06	1	
Acrylonitrile	ND	50	1.9	ug/L			07/29/20 22:06	1	
Benzene	ND	5.0	0.60	ug/L			07/29/20 22:06	1	
Bromodichloromethane	ND	5.0	0.54	ug/L			07/29/20 22:06	1	
Bromoform	ND	5.0	0.47	ug/L			07/29/20 22:06	1	
Bromomethane	ND	5.0	1.2	ug/L			07/29/20 22:06	1	
Carbon tetrachloride	ND	5.0	0.51	ug/L			07/29/20 22:06	1	
Chlorobenzene	ND	5.0	0.48	ug/L			07/29/20 22:06	1	
Chlorodibromomethane	ND	5.0	0.41	ug/L			07/29/20 22:06	1	
Chloroethane	ND	5.0	0.87	ug/L			07/29/20 22:06	1	
Chloroform	ND	5.0	0.54	ug/L			07/29/20 22:06	1	
Chloromethane	ND	5.0	0.64	ug/L			07/29/20 22:06	1	
cis-1,3-Dichloropropene	ND	5.0	0.33	ug/L			07/29/20 22:06	1	
Ethylbenzene	ND	5.0	0.46	uq/L			07/29/20 22:06	1	
Methylene Chloride	ND	5.0	0.81	uq/L			07/29/20 22:06	1	
Tetrachloroethene	ND	5.0	0.34	uq/L			07/29/20 22:06	1	
Toluene	ND	5.0	0.45	ug/L			07/29/20 22:06	1	
trans-1,2-Dichloroethene	ND	5.0	0.59	ug/L			07/29/20 22:06	1	
trans-1,3-Dichloropropene	ND	5.0	0.44	uq/L			07/29/20 22:06	1	
Trichloroethene	ND	5.0	0.60	ua/L			07/29/20 22:06	1	
Vinyl chloride	ND	5.0	0.75	ug/L			07/29/20 22:06	1	
Surrogate	%Recovery Qualifier	Limits				Prepared	Analyzed	Dil Fac	
1,2-Dichloroethane-d4 (Surr)	95	68 - 130					07/29/20 22:06	1	
4-Bromofluorobenzene (Surr)	95	76 - 123					07/29/20 22:06	1	
Dibromofluoromethane (Surr)	107	75 - 123					07/29/20 22:06	1	
Toluene-d8 (Surr)	100	77 - 120					07/29/20 22:06	1	

Lab Sample ID: 480-173063-4

Matrix: Water

Client: New York State D.E.C. Project/Site: COSCO #344035

Client Sample ID: Trip-Blank-02-072920 Date Collected: 07/29/20 00:00 Date Received: 07/30/20 10:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.37	ug/L			08/05/20 13:15	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.62	ug/L			08/05/20 13:15	1
1,1,2-Trichloroethane	ND	UJ	1.0	0.33	ug/L			08/05/20 13:15	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			08/05/20 13:15	1
1,1-Dichloroethene	ND		1.0	0.36	ug/L			08/05/20 13:15	1
1,2-Dichlorobenzene	ND		1.0	0.37	ug/L			08/05/20 13:15	1
1,2-Dichloroethane	ND	*	1.0	0.50	ug/L			08/05/20 13:15	1
1,2-Dichloroethene, Total	ND		2.0	0.74	ug/L			08/05/20 13:15	1
1,2-Dichloropropane	ND		1.0	0.67	ug/L			08/05/20 13:15	1
1,3-Dichlorobenzene	ND		1.0	0.43	ug/L			08/05/20 13:15	1
1,4-Dichlorobenzene	ND		1.0	0.46	ug/L			08/05/20 13:15	1
2-Chloroethyl vinyl ether	ND	н	10	5.0	ug/L			08/05/20 13:15	1
Acrolein	ND	Н	20	8.7	ug/L			08/05/20 13:15	1
Acrylonitrile	ND	н	20	4.6	ug/L			08/05/20 13:15	1
Benzene	ND		1.0	0.43	ug/L			08/05/20 13:15	1
Bromoform	ND		1.0	0.43	ug/L			08/05/20 13:15	1
Bromomethane	ND	≁ UJ	5.0	2.5	ug/L			08/05/20 13:15	1
Carbon tetrachloride	ND		1.0	0.33	ug/L			08/05/20 13:15	1
Chlorobenzene	ND		1.0	0.26	ug/L			08/05/20 13:15	1
Chlorodibromomethane	ND	UJ	1.0	0.32	ug/L			08/05/20 13:15	1
Chloroethane	ND	UJ	5.0	2.5	ug/L			08/05/20 13:15	1
Chloroform	ND		1.0	0.50	ug/L			08/05/20 13:15	1
Chloromethane	ND		1.0	0.40	ug/L			08/05/20 13:15	1
cis-1,3-Dichloropropene	ND		1.0	0.40	ug/L			08/05/20 13:15	1
Bromodichloromethane	ND		1.0	0.44	ug/L			08/05/20 13:15	1
Ethylbenzene	ND		1.0	0.33	ug/L			08/05/20 13:15	1
Methylene Chloride	ND		5.0	2.5	ug/L			08/05/20 13:15	1
Tetrachloroethene	ND		1.0	0.74	ug/L			08/05/20 13:15	1
Toluene	ND		1.0	0.48	ug/L			08/05/20 13:15	1
trans-1,2-Dichloroethene	ND		1.0	0.37	ug/L			08/05/20 13:15	1
trans-1,3-Dichloropropene	ND		1.0	0.42	ug/L			08/05/20 13:15	1
Trichloroethene	ND		1.0	0.48	ug/L			08/05/20 13:15	1
Vinyl chloride	ND		1.0	0.50	ug/L			08/05/20 13:15	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	116		60 - 140			-		08/05/20 13:15	1
4-Bromofluorobenzene (Surr)	98		60 - 140					08/05/20 13:15	1
Toluene-d8 (Surr)	112		60 - 140					08/05/20 13:15	1
Dibromofluoromethane (Surr)	115		60 - 140					08/05/20 13:15	1

8/7/2020 (Rev. 1)

ARF 05/04/2021

Lab Sample ID: 480-173177-5

Matrix: Water

Client Sample ID: DUP-072920 Date Collected: 07/29/20 00:00 Date Received: 07/30/20 10:30

Lab Sample ID: 480-173177-6

Matrix: Water

Method: 624.1 - Volatile Organ	ic Compounds (GC/MS)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.37	ug/L			08/05/20 15:12	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.62	ug/L			08/05/20 15:12	1
1,1,2-Trichloroethane	ND	UJ	1.0	0.33	ug/L			08/05/20 15:12	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			08/05/20 15:12	1
1,1-Dichloroethene	ND		1.0	0.36	ug/L			08/05/20 15:12	1
1,2-Dichlorobenzene	ND		1.0	0.37	ug/L			08/05/20 15:12	1
1,2-Dichloroethane	ND	*	1.0	0.50	ug/L			08/05/20 15:12	1
1,2-Dichloroethene, Total	ND		2.0	0.74	ug/L			08/05/20 15:12	1
1,2-Dichloropropane	ND		1.0	0.67	ug/L			08/05/20 15:12	1
1,3-Dichlorobenzene	ND		1.0	0.43	ug/L			08/05/20 15:12	1
1,4-Dichlorobenzene	ND		1.0	0.46	ug/L			08/05/20 15:12	1
2-Chloroethyl vinyl ether	ND	н	10	5.0	ug/L			08/05/20 15:12	1
Acrolein	ND	Н	20	8.7	ug/L			08/05/20 15:12	1
Acrylonitrile	ND	н	20	4.6	ug/L			08/05/20 15:12	1
Benzene	ND		1.0	0.43	ug/L			08/05/20 15:12	1
Bromoform	ND		1.0	0.43	ug/L			08/05/20 15:12	1
Bromomethane	ND	← UJ	5.0	2.5	ug/L			08/05/20 15:12	1
Carbon tetrachloride	ND		1.0	0.33	ug/L			08/05/20 15:12	1
Chlorobenzene	ND		1.0	0.26	ug/L			08/05/20 15:12	1
Chlorodibromomethane	ND	UJ	1.0	0.32	ug/L			08/05/20 15:12	1
Chloroethane	ND	UJ	5.0	2.5	ug/L			08/05/20 15:12	1
Chloroform	ND		1.0	0.50	ug/L			08/05/20 15:12	1
Chloromethane	ND		1.0	0.40	ug/L			08/05/20 15:12	1
cis-1,3-Dichloropropene	ND		1.0	0.40	ug/L			08/05/20 15:12	1
Bromodichloromethane	ND		1.0	0.44	ug/L			08/05/20 15:12	1
Ethylbenzene	ND		1.0	0.33	ug/L			08/05/20 15:12	1
Methylene Chloride	ND		5.0	2.5	ug/L			08/05/20 15:12	1
Tetrachloroethene	ND		1.0	0.74	ug/L			08/05/20 15:12	1
Toluene	ND		1.0	0.48	ug/L			08/05/20 15:12	1
trans-1,2-Dichloroethene	ND		1.0	0.37	ug/L			08/05/20 15:12	1
trans-1,3-Dichloropropene	ND		1.0	0.42	ug/L			08/05/20 15:12	1
Trichloroethene	ND		1.0	0.48	ug/L			08/05/20 15:12	1
Vinyl chloride	ND		1.0	0.50	ug/L			08/05/20 15:12	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)			60 - 140			-		08/05/20 15:12	1
4-Bromofluorobenzene (Surr)	100		60 - 140					08/05/20 15:12	1
Toluene-d8 (Surr)	112		60 - 140					08/05/20 15:12	1
Dibromofluoromethane (Surr)	113		60 - 140					08/05/20 15:12	1

Client Sample ID: MW-3-031021 Date Collected: 03/10/21 11:15 Date Received: 03/11/21 09:30

Job	ID: 480	-18193	1-1

Lab Sample ID: 480-181931-1

Matrix: Water

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Method: 624.1 - Volatile Organ	nic Compou	nds (GC/MS	i)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		10	0.77	ug/L			03/11/21 13:03	2
1,1,2,2-Tetrachloroethane	ND		10	0.52	ug/L			03/11/21 13:03	2
1,1,2-Trichloroethane	ND		10	0.96	ug/L			03/11/21 13:03	2
1,1-Dichloroethane	ND		10	1.2	ug/L			03/11/21 13:03	2
1,1-Dichloroethene	ND		10	1.7	ug/L			03/11/21 13:03	2
1,2-Dichlorobenzene	ND		10	0.89	ug/L			03/11/21 13:03	2
1,2-Dichloroethane	ND		10	1.2	ug/L			03/11/21 13:03	2
1,2-Dichloroethene, Total	ND		20	6.4	ug/L			03/11/21 13:03	2
1,2-Dichloropropane	ND		10	1.2	ug/L			03/11/21 13:03	2
1,3-Dichlorobenzene	ND		10	1.1	ug/L			03/11/21 13:03	2
1.4-Dichlorobenzene	ND		10	1.0	ua/L			03/11/21 13:03	2
2-Chloroethyl vinyl ether	ND		50	3.7	ua/L			03/11/21 13:03	2
Acrolein	ND		200	35	ua/L			03/11/21 13:03	2
Acrylonitrile	ND		100	3.8	ua/L			03/11/21 13:03	2
Benzene	ND		10	1.2	ua/L			03/11/21 13:03	2
Bromodichloromethane	ND		10	11	ua/l			03/11/21 13.03	2
Bromoform	ND		10	0.94	ua/l			03/11/21 13:03	2
Bromomethane	ND		10	2.4	ua/L			03/11/21 13:03	2
Carbon tetrachloride	ND		10	10	ua/l			03/11/21 13:03	2
Chlorobenzene	ND		10	0.95	ug/L			03/11/21 13:03	2
Chlorodibromomethane	ND		10	0.83	ug/L			03/11/21 13:03	2
Chloroethane	ND		10	1 7	ug/L			03/11/21 13:03	2
Chloroform			10	1.7	ug/L			03/11/21 13:03	2
Chloromethane			10	1.1	ug/L			03/11/21 13:03	2
cis-1 3-Dichloropropene	ND		10	0.66	ug/L			03/11/21 13:03	2
Ethylbenzene			10	0.00	ug/L			03/11/21 13:03	2
Methylene Chloride			10	1.6	ug/L			03/11/21 13:03	2
Tetrachloroethene			10	89.0	ug/L			03/11/21 13:03	2
Toluene			10	0.00	ug/L			03/11/21 13:03	2
trans-1 2-Dichloroethene			10	1.2	ug/L			03/11/21 13:03	2
trans 1.2 Dichloropropopo			10	0.99	ug/L			03/11/21 13:03	· · · · · · · · · · · · · · · · · · ·
Trichloroothono			10	0.00	ug/L			03/11/21 13:03	2
Vipul oblorido			10	1.2	ug/L			03/11/21 13:03	2
Viriyi chionde	ND		10	1.5	ug/L			03/11/21 13.03	2
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	85		68 - 130					03/11/21 13:03	2
4-Bromofluorobenzene (Surr)	107		76 - 123					03/11/21 13:03	2
Dibromofluoromethane (Surr)	94		75 - 123					03/11/21 13:03	2
Toluene-d8 (Surr)	103		77 - 120					03/11/21 13:03	2
- Method: RSK-175 - Dissolved	Gases (GC))							
Analyte	Result	, Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	25		4.0	1.0	ug/L			03/16/21 15:22	1
Ethane	ND		7.5	1.5	ug/L			03/16/21 15:22	1
Ethene	ND		7.0	1.5	ug/L			03/16/21 15:22	1
Mothod: 6010C Motole (ICD)									
Analyto	Baault	Qualifier	ы	моч	Unit	-	Droporod	Analyzed	
			<u>ril</u>		ma/l	U	03/12/21 00.56	03/16/21 17:12	
Potassium	43.1		0.50	0.10	mg/L		03/12/21 09.30	03/16/21 17.13	1
r otassium	1.7	U	0.50	0.10	my/∟		00/12/21 09.00	00/10/21 17.13	1

Client: New York State D.E.C. Project/Site: COSCO #344035

Client Sample ID: MW-3-031021 Date Collected: 03/10/21 11:15 Date Received: 03/11/21 09:30

Method: 6010C - Metals (ICP)	(Continued))							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Magnesium	11.6		0.20	0.043	mg/L		03/12/21 09:56	03/16/21 17:13	1
Sodium	379		1.0	0.32	mg/L		03/12/21 09:56	03/16/21 17:13	1
Method: 6010C - Metals (ICP)	- Dissolved								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	8.3	- <mark>~2</mark> JH	0.050	0.019	mg/L		03/15/21 10:40	03/18/21 22:48	1
Manganese	2.1	B JH	0.0030	0.00040	mg/L		03/15/21 10:40	03/18/21 22:48	1
General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	641		10.0	5.6	mg/L			03/15/21 20:24	20
Sulfate	ND		40.0	7.0	mg/L			03/15/21 20:24	20
Nitrite as N	0.039	 0.050 U	0.050	0.020	mg/L			03/11/21 20:22	1
Nitrate as N	0.29		0.050	0.020	mg/L			03/11/21 20:22	1
Alkalinity, Total	53.4		5.0	0.79	mg/L			03/15/21 14:15	1
Sulfide	ND		1.0	0.67	mg/L			03/14/21 13:50	1
Total Organic Carbon	7.9		1.0	0.43	mg/L			03/14/21 03:40	1

Job ID: 480-181931-1

ARF 05/04/2021

3/25/2021

Client Sample ID: RW-8S-031021 Date Collected: 03/10/21 11:50 Date Received: 03/11/21 09:30

Lab Sample ID: 480-181931-2

Matrix: Water

Method: 624.1 - Volatile Orga	nic Compou	nds (GC/N	IS)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	5
1,1,1-Trichloroethane	ND		5.0	0.39	ug/L			03/11/21 13:27	1	
1,1,2,2-Tetrachloroethane	ND		5.0	0.26	ug/L			03/11/21 13:27	1	6
1,1,2-Trichloroethane	ND		5.0	0.48	ug/L			03/11/21 13:27	1	
1,1-Dichloroethane	ND		5.0	0.59	ug/L			03/11/21 13:27	1	
1,1-Dichloroethene	ND		5.0	0.85	ug/L			03/11/21 13:27	1	
1,2-Dichlorobenzene	ND		5.0	0.44	ug/L			03/11/21 13:27	1	8
1,2-Dichloroethane	ND		5.0	0.60	ug/L			03/11/21 13:27	1	
1,2-Dichloroethene, Total	ND		10	3.2	ug/L			03/11/21 13:27	1	0
1,2-Dichloropropane	ND		5.0	0.61	ug/L			03/11/21 13:27	1	
1,3-Dichlorobenzene	ND		5.0	0.54	ug/L			03/11/21 13:27	1	
1,4-Dichlorobenzene	ND		5.0	0.51	ug/L			03/11/21 13:27	1	
2-Chloroethyl vinyl ether	ND		25	1.9	ug/L			03/11/21 13:27	1	
Acrolein	ND		100	17	ug/L			03/11/21 13:27	1	
Acrylonitrile	ND		50	1.9	ug/L			03/11/21 13:27	1	
Benzene	ND		5.0	0.60	ug/L			03/11/21 13:27	1	
Bromodichloromethane	ND		5.0	0.54	ug/L			03/11/21 13:27	1	
Bromoform	ND		5.0	0.47	ug/L			03/11/21 13:27	1	
Bromomethane	ND		5.0	1.2	ug/L			03/11/21 13:27	1	
Carbon tetrachloride	ND		5.0	0.51	ug/L			03/11/21 13:27	1	
Chlorobenzene	ND		5.0	0.48	ug/L			03/11/21 13:27	1	
Chlorodibromomethane	ND		5.0	0.41	ug/L			03/11/21 13:27	1	
Chloroethane	ND		5.0	0.87	ug/L			03/11/21 13:27	1	
Chloroform	ND		5.0	0.54	ug/L			03/11/21 13:27	1	
Chloromethane	ND		5.0	0.64	ug/L			03/11/21 13:27	1	
cis-1,3-Dichloropropene	ND		5.0	0.33	ug/L			03/11/21 13:27	1	
Ethylbenzene	ND		5.0	0.46	ug/L			03/11/21 13:27	1	
Methylene Chloride	ND		5.0	0.81	ua/L			03/11/21 13:27	1	
Tetrachloroethene	0.45	J	5.0	0.34	ua/L			03/11/21 13:27		
Toluene	ND		5.0	0.45	ua/L			03/11/21 13:27	1	
trans-1.2-Dichloroethene	ND		5.0	0.59	ua/L			03/11/21 13:27	1	
trans-1.3-Dichloropropene	ND		5.0	0.44	ua/L			03/11/21 13:27		
Trichloroethene	5.3		5.0	0.60	ua/L			03/11/21 13:27	1	
Vinyl chloride			5.0	0.75	ua/l			03/11/21 13:27	1	
			0.0	0.1.0	<u>9</u> / =				·	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac	
1,2-Dichloroethane-d4 (Surr)	92		68 - 130					03/11/21 13:27	1	
4-Bromofluorobenzene (Surr)	102		76 - 123					03/11/21 13:27	1	
Dibromofluoromethane (Surr)	104		75 - 123					03/11/21 13:27	1	
Toluene-d8 (Surr)	98		77 - 120					03/11/21 13:27	1	
Method: RSK-175 - Dissolved	d Gases (GC))								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Methane	1.6	J	4.0	1.0	ug/L	_		03/16/21 15:41	1	
Ethane	ND		7.5	1.5	ug/L			03/16/21 15:41	1	
Ethene	ND		7.0	1.5	ug/L			03/16/21 15:41	1	
Method: 6010C - Metals (ICP))									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Calcium	325		0.50	0.10	mg/L		03/12/21 09:56	03/16/21 17:43	1	
Potassium	17.6	J	0.50	0.10	mg/L		03/12/21 09:56	03/16/21 17:43	1	

Client: New York State D.E.C. Project/Site: COSCO #344035

Client Sample ID: RW-8S-031021 Date Collected: 03/10/21 11:50 Date Received: 03/11/21 09:30

Method: 6010C - Metals (ICP)	(Continued))							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Magnesium	37.1		0.20	0.043	mg/L		03/12/21 09:56	03/16/21 17:43	1
Sodium	1700		5.0	1.6	mg/L		03/12/21 09:56	03/16/21 17:47	5
Method: 6010C - Metals (ICP)	- Dissolved								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	0.30	J	0.050	0.019	mg/L		03/15/21 10:40	03/19/21 13:30	1
Manganese	0.12	<mark>-B</mark> - JH	0.0030	0.00040	mg/L		03/15/21 10:40	03/18/21 22:52	1
General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3110		25.0	14.1	mg/L			03/15/21 20:38	50
Sulfate	31.9	J	100	17.5	mg/L			03/15/21 20:38	50
Nitrite as N	0.020	 0.050 U	0.050	0.020	mg/L			03/11/21 20:23	1
Nitrate as N	1.4		0.050	0.020	mg/L			03/11/21 20:23	1
Alkalinity, Total	151		5.0	0.79	mg/L			03/15/21 14:21	1
Sulfide	ND		1.0	0.67	mg/L			03/14/21 13:50	1
Total Organic Carbon	6.4		1.0	0.43	mg/L			03/14/21 03:57	1

Job ID: 480-181931-1

Matrix: Water

ARF 05/04/2021

3/25/2021

Client Sample ID: RW-3D-030921 Date Collected: 03/09/21 11:35 Date Received: 03/10/21 09:30

Lab Sample ID: 480-181846-1

Matrix: Water

5

6

Method: 624.1 - Volatile Orgar	nic Compou	nds (GC/N	IS)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		25	1.9	ug/L			03/10/21 11:36	5
1,1,2,2-Tetrachloroethane	ND		25	1.3	ug/L			03/10/21 11:36	5
1,1,2-Trichloroethane	ND		25	2.4	ug/L			03/10/21 11:36	5
1,1-Dichloroethane	ND		25	2.9	ug/L			03/10/21 11:36	5
1,1-Dichloroethene	ND		25	4.3	ug/L			03/10/21 11:36	5
1,2-Dichlorobenzene	ND		25	2.2	ug/L			03/10/21 11:36	5
1,2-Dichloroethane	ND		25	3.0	ug/L			03/10/21 11:36	5
1,2-Dichloroethene, Total	180		50	16	ug/L			03/10/21 11:36	5
1,2-Dichloropropane	ND		25	3.1	ug/L			03/10/21 11:36	5
1,3-Dichlorobenzene	ND		25	2.7	ug/L			03/10/21 11:36	5
1,4-Dichlorobenzene	ND		25	2.5	ug/L			03/10/21 11:36	5
2-Chloroethyl vinyl ether	ND		130	9.3	ug/L			03/10/21 11:36	5
Acrolein	ND		500	87	ug/L			03/10/21 11:36	5
Acrylonitrile	ND		250	9.5	ug/L			03/10/21 11:36	5
Benzene	ND		25	3.0	ug/L			03/10/21 11:36	5
Bromodichloromethane	ND		25	2.7	ug/L			03/10/21 11:36	5
Bromoform	ND		25	2.3	ug/L			03/10/21 11:36	5
Bromomethane	ND		25	6.0	ug/L			03/10/21 11:36	5
Carbon tetrachloride	ND		25	2.6	ug/L			03/10/21 11:36	5
Chlorobenzene	ND		25	2.4	ug/L			03/10/21 11:36	5
Chlorodibromomethane	ND		25	2.1	ug/L			03/10/21 11:36	5
Chloroethane	ND		25	4.4	ug/L			03/10/21 11:36	5
Chloroform	ND		25	2.7	ug/L			03/10/21 11:36	5
Chloromethane	ND		25	3.2	ug/L			03/10/21 11:36	5
cis-1,3-Dichloropropene	ND		25	1.7	ug/L			03/10/21 11:36	5
Ethylbenzene	ND		25	2.3	ug/L			03/10/21 11:36	5
Methylene Chloride	ND		25	4.1	ug/L			03/10/21 11:36	5
Tetrachloroethene	260		25	1.7	ug/L			03/10/21 11:36	5
Toluene	ND		25	2.3	ug/L			03/10/21 11:36	5
trans-1,2-Dichloroethene	ND		25	2.9	ug/L			03/10/21 11:36	5
trans-1,3-Dichloropropene	ND		25	2.2	ug/L			03/10/21 11:36	5
Trichloroethene	240		25	3.0	ug/L			03/10/21 11:36	5
Vinvl chloride	ND		25	3.7	ua/L			03/10/21 11:36	5
					0				
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	89		68 - 130					03/10/21 11:36	5
4-Bromofluorobenzene (Surr)	102		76 - 123					03/10/21 11:36	5
Dibromofluoromethane (Surr)	96		75 - 123					03/10/21 11:36	5
Toluene-d8 (Surr)	93		77 - 120					03/10/21 11:36	5
wethod: KSK-1/5 - Dissolved	Gases (GC)	Owelliffer	_ .		11	_	Due 10 - 11 - 1	A	
Analyte	Result	Qualifier	RL	MDL	Unit	<u>D</u>	Prepared	Analyzed	DIIFac
	ND		4.0	1.0	ug/L			03/11/21 19:07	1
Ethono	ND		7.5	1.5	ug/L			03/11/21 19:07	1
	ND		7.0	1.5	ug/L			03/11/21 19:07	1
Method: 6010C - Metals (ICP)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	68.9		0.50	0.10	mg/L		03/11/21 09:08	03/12/21 16:36	1
Potassium	2.0		0.50	0.10	mg/L		03/11/21 09:08	03/12/21 16:36	1

Client: New York State D.E.C. Project/Site: COSCO #344035

Sulfide

Total Organic Carbon

Client Sample ID: RW-3D-030921 Date Collected: 03/09/21 11:35 Date Received: 03/10/21 09:30

Method: 6010C - Metals (ICP) (Co	ntinued)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Magnesium	21.2		0.20	0.043	mg/L		03/11/21 09:08	03/12/21 16:36	1
Sodium	163		1.0	0.32	mg/L		03/11/21 09:08	03/12/21 16:36	1
Method: 6010C - Metals (ICP) - Di	ssolved								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND		0.050	0.019	mg/L		03/11/21 09:11	03/17/21 05:02	1
Manganese	ND		0.0030	0.00040	mg/L		03/11/21 09:11	03/17/21 05:02	1
General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	272		2.5	1.4	mg/L			03/12/21 06:07	5
Sulfate	19.9		10.0	1.7	mg/L			03/12/21 06:07	5
Nitrite as N	ND		0.050	0.020	mg/L			03/10/21 20:33	1
Nitrate as N	2.3		0.050	0.020	mg/L			03/10/21 20:33	1
Alkalinity, Total	206		5.0	0.79	mg/L			03/15/21 13:52	1

1.0

1.0

0.67 mg/L

0.43 mg/L

ND

0.72 J

Job ID: 480-181846-1

Lab Sample ID: 480-181846-1

Matrix: Water

1

1

03/14/21 13:50

03/13/21 09:42

6

Potassium

Client Sample ID: MW-18-030921 Date Collected: 03/09/21 14:40 Date Received: 03/10/21 09:30

.lob	ID	480 - 100	181	846-	1

Lab Sample ID: 480-181846-3

Matrix: Water

5

6

Method: 624.1 - Volatile Ord	nanic Compou	nds (GC/N	IS)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	0.39	ug/L			03/10/21 12:24	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.26	ug/L			03/10/21 12:24	1
1,1,2-Trichloroethane	ND		5.0	0.48	ug/L			03/10/21 12:24	1
1,1-Dichloroethane	ND		5.0	0.59	ug/L			03/10/21 12:24	1
1,1-Dichloroethene	ND		5.0	0.85	ug/L			03/10/21 12:24	1
1,2-Dichlorobenzene	ND		5.0	0.44	ug/L			03/10/21 12:24	1
1,2-Dichloroethane	ND		5.0	0.60	ug/L			03/10/21 12:24	1
1.2-Dichloroethene. Total	8.4	J	10	3.2	ug/L			03/10/21 12:24	1
1,2-Dichloropropane	ND		5.0	0.61	ug/L			03/10/21 12:24	1
1,3-Dichlorobenzene	ND		5.0	0.54	ug/L			03/10/21 12:24	1
1,4-Dichlorobenzene	ND		5.0	0.51	ug/L			03/10/21 12:24	1
2-Chloroethyl vinyl ether	ND		25	1.9	ug/L			03/10/21 12:24	1
Acrolein	ND		100	17	ua/L			03/10/21 12:24	
Acrylonitrile	ND		50	1.9	ua/L			03/10/21 12:24	1
Benzene	ND		5.0	0.60	ug/L			03/10/21 12:24	1
Bromodichloromethane	ND		5.0	0.54	ua/l			03/10/21 12.24	
Bromoform	ND		5.0	0.47	ua/l			03/10/21 12:24	1
Bromomethane	ND		5.0	12	ua/l			03/10/21 12:24	1
Carbon tetrachloride	ND		5.0	0.51	ua/l			03/10/21 12.24	
Chlorobenzene	ND		5.0	0.48	ua/l			03/10/21 12:24	1
Chlorodibromomethane	ND		5.0	0.41	ua/l			03/10/21 12:24	1
Chloroethane	ND		5.0	0.87	ug/L			03/10/21 12:24	
Chloroform			5.0	0.54	ug/L			03/10/21 12:24	1
Chloromethane	ND		5.0	0.64	ug/L			03/10/21 12:24	1
cis-1 3-Dichloropropene	ND		5.0	0.33	ug/L			03/10/21 12:24	
Ethylbenzene	ND		5.0	0.46	ua/l			03/10/21 12:24	1
Methylene Chloride	ND		5.0	0.10	ug/L			03/10/21 12:24	1
Tetrachloroethene	0.58		5.0	0.34	ug/l			03/10/21 12:24	· · · · · · · · · · 1
Toluene		•	5.0	0.04	ug/L			03/10/21 12:24	1
trans-1 2-Dichloroethene			5.0	0.40	ug/L			03/10/21 12:24	1
trans-1 3-Dichloropropene			5.0	0.00	ug/L			03/10/21 12:24	
Trichleroothono	1 2		5.0	0.60	ug/L			03/10/21 12:24	1
Vinyl chloride	1.5	5	5.0	0.00	ug/L			03/10/21 12:24	1
Viriyi chionde	0.0		0.0	0.75	ug/L			00/10/21 12.24	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	92		68 - 130					03/10/21 12:24	1
4-Bromofluorobenzene (Surr)	104		76 - 123					03/10/21 12:24	1
Dibromofluoromethane (Surr)	97		75 - 123					03/10/21 12:24	1
Toluene-d8 (Surr)	99		77 - 120					03/10/21 12:24	1
Method: RSK-175 - Dissolve	ed Gases (GC) Overlifier	ы	MDI	11	-	Duo no no ni	Amelumed	
	Kesult	Qualifier	KL			U	Prepared		
	520		44	11 • •	ug/L			03/11/21 19:26	11
	ND		83	1/	ug/L			03/11/21 19:26	11
	ND		((17	ug/L			03/11/21 19:26	11
Method: 6010C - Metals (IC	P)								
Analyte	, Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	41.5		0.50	0.10	mg/L		03/11/21 09:08	03/12/21 16:39	1

Eurofins TestAmerica, Buffalo

03/11/21 09:08 03/12/21 16:39

0.50

0.10 mg/L

2.4

Client: New York State D.E.C. Project/Site: COSCO #344035

Nitrite as N

Sulfide

Nitrate as N

Alkalinity, Total

Total Organic Carbon

Client Sample ID: MW-18-030921 Date Collected: 03/09/21 14:40 Date Received: 03/10/21 09:30

Method: 6010C - Metals (I	CP) (Continued)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Magnesium	7.4		0.20	0.043	mg/L		03/11/21 09:08	03/12/21 16:39	1
Sodium	135		1.0	0.32	mg/L		03/11/21 09:08	03/12/21 16:39	1
- Method: 6010C - Metals (I	CP) - Dissolved								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	7.6		0.050	0.019	mg/L		03/11/21 09:11	03/17/21 05:20	1
Manganese	2.4		0.0030	0.00040	mg/L		03/11/21 09:11	03/17/21 05:20	1
General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	146		2.5	1.4	mg/L			03/12/21 02:07	5
Sulfate	11.2		10.0	1.7	mg/L			03/12/21 02:07	5

5.0

1.0

1.0

0.79 mg/L

0.67 mg/L

0.43 mg/L

Result	Qualifier	RL	MDL	Unit
 146		2.5	1.4	mg/L
11.2		10.0	1.7	mg/L
ND		0.050	0.020	mg/L
0.16		0.050	0.020	mg/L

198

ND

5.0

Job ID: 480-181846-1

Lab Sample ID: 480-181846-3

03/10/21 20:34

03/10/21 20:34

03/15/21 13:59

03/14/21 13:50

03/13/21 09:58

Matrix: Water

5

1

1

1

1

1

6

RL

MDL Unit

D

Prepared

Analyte

Ethene

Client Sample ID: RW-1S-030921 Date Collected: 03/09/21 14:45 Date Received: 03/10/21 09:30

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Result Qualifier

1,1,1-Trichloroethane	ND		5.0	0.39	ug/L			03/10/21 12:48	1	
1,1,2,2-Tetrachloroethane	ND	F2 UJ	5.0	0.26	ug/L			03/10/21 12:48	1	6
1,1,2-Trichloroethane	ND		5.0	0.48	ug/L			03/10/21 12:48	1	
1,1-Dichloroethane	ND		5.0	0.59	ug/L			03/10/21 12:48	1	
1,1-Dichloroethene	ND		5.0	0.85	ug/L			03/10/21 12:48	1	
1,2-Dichlorobenzene	ND		5.0	0.44	ug/L			03/10/21 12:48	1	8
1,2-Dichloroethane	ND		5.0	0.60	ug/L			03/10/21 12:48	1	
1,2-Dichloroethene, Total	ND		10	3.2	ug/L			03/10/21 12:48	1	Q
1,2-Dichloropropane	ND		5.0	0.61	ug/L			03/10/21 12:48	1	9
1,3-Dichlorobenzene	ND		5.0	0.54	ug/L			03/10/21 12:48	1	
1,4-Dichlorobenzene	ND		5.0	0.51	ug/L			03/10/21 12:48	1	
2-Chloroethyl vinyl ether	ND		25	1.9	ug/L			03/10/21 12:48	1	
Acrolein	ND		100	17	ug/L			03/10/21 12:48	1	
Acrylonitrile	ND		50	1.9	ug/L			03/10/21 12:48	1	
Benzene	ND		5.0	0.60	ug/L			03/10/21 12:48	1	
Bromodichloromethane	ND		5.0	0.54	ug/L			03/10/21 12:48	1	
Bromoform	ND		5.0	0.47	ug/L			03/10/21 12:48	1	13
Bromomethane	ND		5.0	1.2	ug/L			03/10/21 12:48	1	
Carbon tetrachloride	ND		5.0	0.51	ug/L			03/10/21 12:48	1	
Chlorobenzene	ND		5.0	0.48	ug/L			03/10/21 12:48	1	
Chlorodibromomethane	ND		5.0	0.41	ug/L			03/10/21 12:48	1	
Chloroethane	ND		5.0	0.87	ug/L			03/10/21 12:48	1	
Chloroform	ND		5.0	0.54	ug/L			03/10/21 12:48	1	
Chloromethane	ND		5.0	0.64	ug/L			03/10/21 12:48	1	
cis-1,3-Dichloropropene	ND		5.0	0.33	ug/L			03/10/21 12:48	1	
Ethylbenzene	ND		5.0	0.46	ug/L			03/10/21 12:48	1	
Methylene Chloride	ND		5.0	0.81	ug/L			03/10/21 12:48	1	
Tetrachloroethene	3.4	J	5.0	0.34	ug/L			03/10/21 12:48	1	
Toluene	ND		5.0	0.45	ug/L			03/10/21 12:48	1	
trans-1,2-Dichloroethene	ND		5.0	0.59	ug/L			03/10/21 12:48	1	
trans-1,3-Dichloropropene	ND		5.0	0.44	ug/L			03/10/21 12:48	1	
Trichloroethene	12		5.0	0.60	ug/L			03/10/21 12:48	1	
Vinyl chloride	ND		5.0	0.75	ug/L			03/10/21 12:48	1	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac	
1,2-Dichloroethane-d4 (Surr)	90		68 - 130			-		03/10/21 12:48	1	
4-Bromofluorobenzene (Surr)	99		76 - 123					03/10/21 12:48	1	
Dibromofluoromethane (Surr)	99		75 - 123					03/10/21 12:48	1	
Toluene-d8 (Surr)	97		77 - 120					03/10/21 12:48	1	
Method: RSK-175 - Dissolv	ved Gases (GC))								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Methane	ND		4.0	1.0	ug/L			03/11/21 19:45	1	
Ethane	ND		7.5	1.5	ug/L			03/11/21 19:45	1	

- Method: 6010C - Metals (ICP)										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Calcium	47.9		0.50	0.10	mg/L		03/11/21 09:08	03/12/21 16:43	1	
Potassium	2.0		0.50	0.10	mg/L		03/11/21 09:08	03/12/21 16:43	1	

7.0

ND

Eurofins TestAmerica, Buffalo

03/11/21 19:45

1

Job ID: 480-181846-1

Lab Sample ID: 480-181846-4

Analyzed

Matrix: Water

Dil Fac

1.5 ug/L

of 34

Client: New York State D.E.C. Project/Site: COSCO #344035

Client Sample ID: RW-1S-030921 Date Collected: 03/09/21 14:45 Date Received: 03/10/21 09:30

Method: 6010C - Metal	s (ICP) (Continued)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed
Magnesium	7.7		0.20	0.043	mg/L		03/11/21 09:08	03/12/21 16:43
Sodium	158		1.0	0.32	mg/L		03/11/21 09:08	03/12/21 16:43
Method: 6010C - Metal	s (ICP) - Dissolved							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed
Iron	0.067		0.050	0.019	mg/L		03/11/21 09:11	03/17/21 05:24
Manganese	0.13		0.0030	0.00040	mg/L		03/11/21 09:11	03/17/21 05:24

Manganese	0.13		0.0030	0.00040	mg/L		03/11/21 09:11	03/17/21 05:24	1
- General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	199		2.5	1.4	mg/L			03/12/21 02:35	5
Sulfate	19.6		10.0	1.7	mg/L			03/12/21 02:35	5
Nitrite as N	0.021	J	0.050	0.020	mg/L			03/10/21 20:35	1
Nitrate as N	2.2		0.050	0.020	mg/L			03/10/21 20:35	1
Alkalinity, Total	168		5.0	0.79	mg/L			03/15/21 14:08	1
Sulfide	ND		1.0	0.67	mg/L			03/14/21 13:50	1
Total Organic Carbon	2.0		1.0	0.43	mg/L			03/13/21 10:14	1

3/19/2021

Lab Sample ID: 480-181846-4 Matrix: Water

6

Dil Fac

Dil Fac

1

1

Client Sample ID: DW-1-030821 Date Collected: 03/08/21 11:40 Date Received: 03/09/21 10:00

Lab Sample ID: 480-181811-1

Matrix: Water

Method: 624.1 - Volatile Organ	ic Compou	nds (GC/N	IS)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	5
1,1,1-Trichloroethane	ND		5.0	0.39	ug/L			03/09/21 13:51	1	
1,1,2,2-Tetrachloroethane	ND		5.0	0.26	ug/L			03/09/21 13:51	1	6
1,1,2-Trichloroethane	ND		5.0	0.48	ug/L			03/09/21 13:51	1	
1,1-Dichloroethane	ND		5.0	0.59	ug/L			03/09/21 13:51	1	
1,1-Dichloroethene	ND		5.0	0.85	ug/L			03/09/21 13:51	1	
1,2-Dichlorobenzene	ND		5.0	0.44	ug/L			03/09/21 13:51	1	8
1,2-Dichloroethane	ND		5.0	0.60	ug/L			03/09/21 13:51	1	
1,2-Dichloroethene, Total	ND		10	3.2	ug/L			03/09/21 13:51	1	a
1,2-Dichloropropane	ND		5.0	0.61	ug/L			03/09/21 13:51	1	9
1,3-Dichlorobenzene	ND		5.0	0.54	ug/L			03/09/21 13:51	1	
1,4-Dichlorobenzene	ND		5.0	0.51	ug/L			03/09/21 13:51	1	
2-Chloroethyl vinyl ether	ND		25	1.9	ug/L			03/09/21 13:51	1	
Acrolein	ND		100	17	ug/L			03/09/21 13:51	1	
Acrylonitrile	ND		50	1.9	ug/L			03/09/21 13:51	1	
Benzene	ND		5.0	0.60	ug/L			03/09/21 13:51	1	
Bromodichloromethane	ND		5.0	0.54	ug/L			03/09/21 13:51	1	
Bromoform	ND		5.0	0.47	ug/L			03/09/21 13:51	1	13
Bromomethane	ND		5.0	1.2	ug/L			03/09/21 13:51	1	
Carbon tetrachloride	ND		5.0	0.51	ug/L			03/09/21 13:51	1	
Chlorobenzene	ND		5.0	0.48	ug/L			03/09/21 13:51	1	
Chlorodibromomethane	ND		5.0	0.41	ug/L			03/09/21 13:51	1	
Chloroethane	ND		5.0	0.87	ug/L			03/09/21 13:51	1	
Chloroform	ND		5.0	0.54	ug/L			03/09/21 13:51	1	
Chloromethane	ND		5.0	0.64	ug/L			03/09/21 13:51	1	
cis-1,3-Dichloropropene	ND		5.0	0.33	ug/L			03/09/21 13:51	1	
Ethylbenzene	ND		5.0	0.46	ug/L			03/09/21 13:51	1	
Methylene Chloride	ND		5.0	0.81	ug/L			03/09/21 13:51	1	
Tetrachloroethene	0.58	J	5.0	0.34	ug/L			03/09/21 13:51	1	
Toluene	ND		5.0	0.45	ug/L			03/09/21 13:51	1	
trans-1,2-Dichloroethene	ND		5.0	0.59	ug/L			03/09/21 13:51	1	
trans-1,3-Dichloropropene	ND		5.0	0.44	ug/L			03/09/21 13:51	1	
Trichloroethene	ND		5.0	0.60	ug/L			03/09/21 13:51	1	
Vinyl chloride	ND		5.0	0.75	ug/L			03/09/21 13:51	1	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac	
1,2-Dichloroethane-d4 (Surr)	99		68 - 130					03/09/21 13:51	1	
4-Bromofluorobenzene (Surr)	99		76 - 123					03/09/21 13:51	1	
Dibromofluoromethane (Surr)	98		75 - 123					03/09/21 13:51	1	
Toluene-d8 (Surr)	105		77 - 120					03/09/21 13:51	1	
Method: RSK-175 - Dissolved	Gases (GC))								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Methane	ND		4.0	1.0	ug/L			03/10/21 18:46	1	
Ethane	ND		7.5	1.5	ug/L			03/10/21 18:46	1	
Ethene	ND		7.0	1.5	ug/L			03/10/21 18:46	1	
Method: 6010C - Metals (ICP)										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Calcium	36.4		0.50	0.10	mg/L	_	03/10/21 09:47	03/11/21 01:19	1	
Potassium	1.3		0.50	0.10	mg/L		03/10/21 09:47	03/11/21 01:19	1	

Client: New York State D.E.C. Project/Site: COSCO #344035

Client Sample ID: DW-1-030821 Date Collected: 03/08/21 11:40 Date Received: 03/09/21 10:00

Method: 6010C - Metals (ICP) (C	ontinued)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Magnesium	7.4		0.20	0.043	mg/L		03/10/21 09:47	03/11/21 01:19	1
Sodium	140		1.0	0.32	mg/L		03/10/21 09:47	03/11/21 01:19	1
Method: 6010C - Metals (ICP) - D	issolved								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	0.065	JH	0.050	0.019	mg/L		03/10/21 09:47	03/10/21 23:28	1
Manganese	0.0031	<mark>-</mark> ₿- JH	0.0030	0.00040	mg/L		03/10/21 09:47	03/10/21 23:28	1
General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	211		2.5	1.4	mg/L			03/11/21 17:43	5
Sulfate	10.4		10.0	1.7	mg/L			03/11/21 17:43	5
Nitrite as N	ND		0.050	0.020	mg/L			03/09/21 18:50	1
Nitrate as N	1.1		0.050	0.020	mg/L			03/09/21 18:50	1
Alkalinity, Total	122		5.0	0.79	mg/L			03/09/21 19:54	1
Sulfide	ND		1.0	0.67	mg/L			03/14/21 13:50	1
Total Organic Carbon	0.49	J	1.0	0.43	mg/L			03/10/21 08:14	1

Lab Sample ID: 480-181811-1 Matrix: Water

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Client Sample ID: GW-4S-030821 Date Collected: 03/08/21 14:30 Date Received: 03/09/21 10:00

Method: 624.1 - Volatile Org	anic Compou	nds (GC/N	IS)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	0.39	ug/L			03/09/21 14:15	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.26	ug/L			03/09/21 14:15	1
1,1,2-Trichloroethane	ND		5.0	0.48	ug/L			03/09/21 14:15	1
1,1-Dichloroethane	ND		5.0	0.59	ug/L			03/09/21 14:15	1
1,1-Dichloroethene	ND		5.0	0.85	ug/L			03/09/21 14:15	1
1,2-Dichlorobenzene	ND		5.0	0.44	ug/L			03/09/21 14:15	1
1,2-Dichloroethane	ND		5.0	0.60	ug/L			03/09/21 14:15	1
1,2-Dichloroethene, Total	ND		10	3.2	ug/L			03/09/21 14:15	1
1,2-Dichloropropane	ND		5.0	0.61	ug/L			03/09/21 14:15	1
1,3-Dichlorobenzene	ND		5.0	0.54	ug/L			03/09/21 14:15	1
1.4-Dichlorobenzene	ND		5.0	0.51	ua/L			03/09/21 14:15	1
2-Chloroethyl vinyl ether	ND		25	1.9	ua/L			03/09/21 14:15	1
Acrolein	ND		100	17	ua/L			03/09/21 14:15	
Acrylonitrile	ND		50	1.9	ua/L			03/09/21 14:15	1
Benzene	ND		5.0	0.60	ua/L			03/09/21 14:15	1
Bromodichloromethane	ND		5.0	0.54	ug/l			03/09/21 14:15	
Bromoform	ND		5.0	0.04	ug/L			03/09/21 14:15	1
Bromomethane	ND		5.0	12	ug/L			03/09/21 14:15	1
Carbon tetrachloride	ND		5.0	0.51	ug/L			03/09/21 14:15	
Chlorobenzene			5.0	0.01	ug/L			03/09/21 14:15	1
Chlorodibromomothano			5.0	0.40	ug/L			03/00/21 14:15	1
Chloroothana			5.0	0.41	ug/L			03/09/21 14:15	· · · · · · · · · · · · · · · · · · ·
Chloroform			5.0	0.07	ug/L			03/09/21 14.15	1
Chloromothana	ND		5.0	0.54	ug/L			03/09/21 14:15	1
	ND		5.0	0.04	ug/L			03/09/21 14:15	ا ۲
	ND		5.0	0.33	ug/∟ ug/l			03/09/21 14.15	1
Etnyibenzene Mathulara Oblarida	ND		5.0	0.46	ug/L			03/09/21 14:15	1
	ND		5.0	0.81	ug/L			03/09/21 14:15	·····
	ND		5.0	0.34	ug/L			03/09/21 14:15	1
Ioluene	ND		5.0	0.45	ug/L			03/09/21 14:15	1
trans-1,2-Dichloroethene	ND		5.0	0.59	ug/L			03/09/21 14:15	1
trans-1,3-Dichloropropene	ND		5.0	0.44	ug/L			03/09/21 14:15	1
Trichloroethene	5.8		5.0	0.60	ug/L			03/09/21 14:15	1
Vinyl chloride	ND		5.0	0.75	ug/L			03/09/21 14:15	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	92		68 - 130					03/09/21 14:15	1
4-Bromofluorobenzene (Surr)	112		76 - 123					03/09/21 14:15	1
Dibromofluoromethane (Surr)	99		75 - 123					03/09/21 14:15	1
Toluene-d8 (Surr)	103		77 - 120					03/09/21 14:15	1
Method: RSK-175 - Dissolve	d Gases (GC)							
Analyte	Result	, Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	ND		4.0	1.0	ug/L		-	03/10/21 19:05	1
Ethane	ND		7.5	1.5	ug/L			03/10/21 19:05	1
Ethene	ND		7.0	1.5	ug/L			03/10/21 19:05	1
					č				

Method: 6010C - Metals (ICP)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	49.0		0.50	0.10	mg/L		03/10/21 09:47	03/11/21 01:37	1
Potassium	1.7		0.50	0.10	mg/L		03/10/21 09:47	03/11/21 01:37	1

Eurofins TestAmerica, Buffalo

Job ID: 480-181811-1

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Lab Sample ID: 480-181811-2 Matrix: Water

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Client: New York State D.E.C. Project/Site: COSCO #344035

Client Sample ID: GW-4S-030821 Date Collected: 03/08/21 14:30 Date Received: 03/09/21 10:00

Method: 6010C - Metals (ICP)	(Continued)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Magnesium	10.1		0.20	0.043	mg/L		03/10/21 09:47	03/11/21 01:37	1
Sodium	121		1.0	0.32	mg/L		03/10/21 09:47	03/11/21 01:37	1
- Method: 6010C - Metals (ICP)	- Dissolved								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	0.15	JH	0.050	0.019	mg/L		03/10/21 09:47	03/10/21 23:32	1
Manganese	0.54	- B - JH	0.0030	0.00040	mg/L		03/10/21 09:47	03/10/21 23:32	1
- General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	184		2.5	1.4	mg/L			03/11/21 17:58	5
Sulfate	17.3		10.0	1.7	mg/L			03/11/21 17:58	5
Nitrite as N	ND		0.050	0.020	mg/L			03/09/21 18:51	1
Nitrate as N	0.45		0.050	0.020	mg/L			03/09/21 18:51	1
Alkalinity, Total	170		5.0	0.79	mg/L			03/09/21 20:09	1
Sulfide	ND		1.0	0.67	mg/L			03/14/21 13:50	1
Total Organic Carbon	1.6		1.0	0.43	mg/L			03/10/21 08:31	1

Job ID: 480-181811-1

Lab Sample ID: 480-181811-2

Matrix: Water

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ARF 05/04/2021

Client Sample ID: GP-4D-030821 Date Collected: 03/08/21 14:30 Date Received: 03/09/21 10:00

Method: 624.1 - Volatile Or	ganic Compou	nds (GC/N	IS)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	0.39	ug/L			03/09/21 14:39	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.26	ug/L			03/09/21 14:39	1
1,1,2-Trichloroethane	ND		5.0	0.48	ug/L			03/09/21 14:39	1
1,1-Dichloroethane	ND		5.0	0.59	ug/L			03/09/21 14:39	1
1,1-Dichloroethene	ND		5.0	0.85	ug/L			03/09/21 14:39	1
1,2-Dichlorobenzene	ND		5.0	0.44	ug/L			03/09/21 14:39	1
1,2-Dichloroethane	ND		5.0	0.60	ug/L			03/09/21 14:39	1
1,2-Dichloroethene, Total	ND		10	3.2	ug/L			03/09/21 14:39	1
1,2-Dichloropropane	ND		5.0	0.61	ug/L			03/09/21 14:39	1
1,3-Dichlorobenzene	ND		5.0	0.54	ug/L			03/09/21 14:39	1
1,4-Dichlorobenzene	ND		5.0	0.51	ug/L			03/09/21 14:39	1
2-Chloroethyl vinyl ether	ND		25	1.9	ug/L			03/09/21 14:39	1
Acrolein	ND		100	17	ug/L			03/09/21 14:39	1
Acrylonitrile	ND		50	1.9	ug/L			03/09/21 14:39	1
Benzene	ND		5.0	0.60	ug/L			03/09/21 14:39	1
Bromodichloromethane	ND		5.0	0.54	ug/L			03/09/21 14:39	1
Bromoform	ND		5.0	0.47	ug/L			03/09/21 14:39	1
Bromomethane	ND		5.0	1.2	ug/L			03/09/21 14:39	1
Carbon tetrachloride	ND		5.0	0.51	ug/L			03/09/21 14:39	1
Chlorobenzene	ND		5.0	0.48	ug/L			03/09/21 14:39	1
Chlorodibromomethane	ND		5.0	0.41	ug/L			03/09/21 14:39	1
Chloroethane	ND		5.0	0.87	ug/L			03/09/21 14:39	1
Chloroform	ND		5.0	0.54	ug/L			03/09/21 14:39	1
Chloromethane	ND		5.0	0.64	ug/L			03/09/21 14:39	1
cis-1,3-Dichloropropene	ND		5.0	0.33	ug/L			03/09/21 14:39	1
Ethylbenzene	ND		5.0	0.46	ug/L			03/09/21 14:39	1
Methylene Chloride	ND		5.0	0.81	ug/L			03/09/21 14:39	1
Tetrachloroethene	ND		5.0	0.34	ug/L			03/09/21 14:39	1
Toluene	ND		5.0	0.45	ug/L			03/09/21 14:39	1
trans-1,2-Dichloroethene	ND		5.0	0.59	ug/L			03/09/21 14:39	1
trans-1,3-Dichloropropene	ND		5.0	0.44	ug/L			03/09/21 14:39	1
Trichloroethene	ND		5.0	0.60	ug/L			03/09/21 14:39	1
Vinyl chloride	ND		5.0	0.75	ug/L			03/09/21 14:39	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	88		68 - 130			-		03/09/21 14:39	1
4-Bromofluorobenzene (Surr)	94		76 - 123					03/09/21 14:39	1
Dibromofluoromethane (Surr)	96		75 - 123					03/09/21 14:39	1
Toluene-d8 (Surr)	95		77 - 120					03/09/21 14:39	1
Method: RSK-175 - Dissolv	ved Gases (GC)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	ND		4.0	1.0	ug/L			03/10/21 19:43	1
Ethane	ND		7.5	1.5	ug/L			03/10/21 19:43	1
Ethene	ND		7.0	1.5	ug/L			03/10/21 19:43	1

Method: 6010C - Metals (ICP)										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Calcium	47.8		0.50	0.10	mg/L		03/10/21 09:47	03/11/21 01:41	1	
Potassium	1.2		0.50	0.10	mg/L		03/10/21 09:47	03/11/21 01:41	1	

Job ID: 480-181811-1 Lab Sample ID: 480-181811-3 Matrix: Water

Client: New York State D.E.C. Project/Site: COSCO #344035

Client Sample ID: GP-4D-030821 Date Collected: 03/08/21 14:30 Date Received: 03/09/21 10:00

Method: 6010C - Metals (ICP)	(Continued)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Magnesium	8.4		0.20	0.043	mg/L		03/10/21 09:47	03/11/21 01:41	1
Sodium	173		1.0	0.32	mg/L		03/10/21 09:47	03/11/21 01:41	1
Method: 6010C - Metals (ICP)	- Dissolved								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	0.046	-J- JH	0.050	0.019	mg/L		03/10/21 09:47	03/11/21 00:01	1
Manganese	0.0023	JB 0.0030 U	0.0030	0.00040	mg/L		03/10/21 09:47	03/11/21 00:01	1
General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	243		2.5	1.4	mg/L			03/11/21 19:25	5
Sulfate	19.7		10.0	1.7	mg/L			03/11/21 19:25	5
Nitrite as N	ND		0.050	0.020	mg/L			03/09/21 18:53	1
Nitrate as N	3.4		0.050	0.020	mg/L			03/09/21 18:53	1
Alkalinity, Total	147		5.0	0.79	mg/L			03/09/21 20:22	1
Sulfide	ND		1.0	0.67	mg/L			03/14/21 13:50	1
Total Organic Carbon	0.71	J	1.0	0.43	mg/L			03/10/21 08:47	1

Lab Sample ID: 480-181811-3 Matrix: Water

ARF 05/04/2021

Client Sample ID: DUP-001-030821 Date Collected: 03/08/21 00:00 Date Received: 03/09/21 10:00

Method: 624.1 - Volatile Or	ganic Compou	nds (GC/N	IS)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	0.39	ug/L			03/09/21 15:02	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.26	ug/L			03/09/21 15:02	1
1,1,2-Trichloroethane	ND		5.0	0.48	ug/L			03/09/21 15:02	1
1,1-Dichloroethane	ND		5.0	0.59	ug/L			03/09/21 15:02	1
1,1-Dichloroethene	ND		5.0	0.85	ug/L			03/09/21 15:02	1
1,2-Dichlorobenzene	ND		5.0	0.44	ug/L			03/09/21 15:02	1
1,2-Dichloroethane	ND		5.0	0.60	ug/L			03/09/21 15:02	1
1,2-Dichloroethene, Total	ND		10	3.2	ug/L			03/09/21 15:02	1
1,2-Dichloropropane	ND		5.0	0.61	ug/L			03/09/21 15:02	1
1,3-Dichlorobenzene	ND		5.0	0.54	ug/L			03/09/21 15:02	1
1,4-Dichlorobenzene	ND		5.0	0.51	ug/L			03/09/21 15:02	1
2-Chloroethyl vinyl ether	ND		25	1.9	ug/L			03/09/21 15:02	1
Acrolein	ND		100	17	ug/L			03/09/21 15:02	1
Acrylonitrile	ND		50	1.9	ug/L			03/09/21 15:02	1
Benzene	ND		5.0	0.60	ug/L			03/09/21 15:02	1
Bromodichloromethane	ND		5.0	0.54	ug/L			03/09/21 15:02	1
Bromoform	ND		5.0	0.47	ug/L			03/09/21 15:02	1
Bromomethane	ND		5.0	1.2	ug/L			03/09/21 15:02	1
Carbon tetrachloride	ND		5.0	0.51	ug/L			03/09/21 15:02	1
Chlorobenzene	ND		5.0	0.48	ug/L			03/09/21 15:02	1
Chlorodibromomethane	ND		5.0	0.41	ug/L			03/09/21 15:02	1
Chloroethane	ND		5.0	0.87	ug/L			03/09/21 15:02	1
Chloroform	ND		5.0	0.54	ug/L			03/09/21 15:02	1
Chloromethane	ND		5.0	0.64	ug/L			03/09/21 15:02	1
cis-1,3-Dichloropropene	ND		5.0	0.33	ug/L			03/09/21 15:02	1
Ethylbenzene	ND		5.0	0.46	ug/L			03/09/21 15:02	1
Methylene Chloride	ND		5.0	0.81	ug/L			03/09/21 15:02	1
Tetrachloroethene	ND		5.0	0.34	ug/L			03/09/21 15:02	1
Toluene	ND		5.0	0.45	ug/L			03/09/21 15:02	1
trans-1,2-Dichloroethene	ND		5.0	0.59	ug/L			03/09/21 15:02	1
trans-1,3-Dichloropropene	ND		5.0	0.44	ug/L			03/09/21 15:02	1
Trichloroethene	ND		5.0	0.60	ug/L			03/09/21 15:02	1
Vinyl chloride	ND		5.0	0.75	ug/L			03/09/21 15:02	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	82		68 - 130			-		03/09/21 15:02	1
4-Bromofluorobenzene (Surr)	104		76 - 123					03/09/21 15:02	1
Dibromofluoromethane (Surr)	95		75 - 123					03/09/21 15:02	1
Toluene-d8 (Surr)	97		77 - 120					03/09/21 15:02	1
Method: RSK-175 - Dissolv	ved Gases (GC))							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	ND		4.0	1.0	ug/L			03/10/21 20:01	1
Ethane	ND		7.5	1.5	ug/L			03/10/21 20:01	1
Ethene	ND		7.0	1.5	ug/L			03/10/21 20:01	1

Method: 6010C - Metals (ICP)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	47.6		0.50	0.10	mg/L		03/10/21 09:47	03/11/21 01:45	1
Potassium	1.3		0.50	0.10	mg/L		03/10/21 09:47	03/11/21 01:45	1

Eurofins TestAmerica, Buffalo

Matrix: Water

Lab Sample ID: 480-181811-4

Client: New York State D.E.C. Project/Site: COSCO #344035

Client Sample ID: DUP-001-030821 Date Collected: 03/08/21 00:00 Date Received: 03/09/21 10:00

Method: 6010C - Metals (IC	P) (Continued))							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Magnesium	8.3		0.20	0.043	mg/L		03/10/21 09:47	03/11/21 01:45	1
Sodium	171		1.0	0.32	mg/L		03/10/21 09:47	03/11/21 01:45	1
- Method: 6010C - Metals (IC	P) - Dissolved								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	0.26	JH	0.050	0.019	mg/L		03/10/21 09:47	03/11/21 00:05	1
Manganese	0.012	<mark>-B</mark> - JH	0.0030	0.00040	mg/L		03/10/21 09:47	03/11/21 00:05	1
General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	243		2.5	1.4	mg/L			03/11/21 19:40	5
Sulfate	19.6		10.0	1.7	mg/L			03/11/21 19:40	5
Nitrite as N	ND		0.050	0.020	mg/L			03/09/21 18:54	1
Nitrate as N	3.4		0.050	0.020	mg/L			03/09/21 18:54	1
Alkalinity, Total	146		5.0	0.79	mg/L			03/09/21 20:28	1
Sulfide	ND		1.0	0.67	mg/L			03/14/21 13:50	1
Total Organic Carbon	0.75	J	1.0	0.43	mg/L			03/10/21 09:02	1

Lab Sample ID: 480-181811-4

Matrix: Water

5

6

ARF 05/04/2021

Client: New York State D.E.C. Project/Site: COSCO #344035

Client Sample ID: TRIPBLANK-030821 Date Collected: 03/08/21 00:00 Date Received: 03/09/21 10:00

Method: 624.1 - Volatile Org	janic Compou	nds (GC/N	IS)							
Analyte	Result	Qualifier	RL	MDL	Unit	<u>D</u>	Prepared	Analyzed	Dil Fac	
1,1,1-Trichloroethane	ND		5.0	0.39	ug/L			03/09/21 15:26	1	
1,1,2,2-Tetrachloroethane	ND		5.0	0.26	ug/L			03/09/21 15:26	1	
1,1,2-Trichloroethane	ND		5.0	0.48	ug/L			03/09/21 15:26	1	
1,1-Dichloroethane	ND		5.0	0.59	ug/L			03/09/21 15:26	1	
1,1-Dichloroethene	ND		5.0	0.85	ug/L			03/09/21 15:26	1	
1,2-Dichlorobenzene	ND		5.0	0.44	ug/L			03/09/21 15:26	1	8
1,2-Dichloroethane	ND		5.0	0.60	ug/L			03/09/21 15:26	1	
1,2-Dichloroethene, Total	ND		10	3.2	ug/L			03/09/21 15:26	1	
1,2-Dichloropropane	ND		5.0	0.61	ug/L			03/09/21 15:26	1	
1,3-Dichlorobenzene	ND		5.0	0.54	ug/L			03/09/21 15:26	1	
1,4-Dichlorobenzene	ND		5.0	0.51	ug/L			03/09/21 15:26	1	
2-Chloroethyl vinyl ether	ND		25	1.9	ug/L			03/09/21 15:26	1	
Acrolein	ND		100	17	ug/L			03/09/21 15:26	1	
Acrylonitrile	ND		50	1.9	ug/L			03/09/21 15:26	1	
Benzene	ND		5.0	0.60	ug/L			03/09/21 15:26	1	
Bromodichloromethane	ND		5.0	0.54	ug/L			03/09/21 15:26	1	
Bromoform	ND		5.0	0.47	ug/L			03/09/21 15:26	1	
Bromomethane	ND		5.0	1.2	ug/L			03/09/21 15:26	1	
Carbon tetrachloride	ND		5.0	0.51	ug/L			03/09/21 15:26	1	
Chlorobenzene	ND		5.0	0.48	ug/L			03/09/21 15:26	1	
Chlorodibromomethane	ND		5.0	0.41	ug/L			03/09/21 15:26	1	
Chloroethane	ND		5.0	0.87	ug/L			03/09/21 15:26	1	
Chloroform	ND		5.0	0.54	ug/L			03/09/21 15:26	1	
Chloromethane	ND		5.0	0.64	ug/L			03/09/21 15:26	1	
cis-1,3-Dichloropropene	ND		5.0	0.33	ug/L			03/09/21 15:26	1	
Ethylbenzene	ND		5.0	0.46	ug/L			03/09/21 15:26	1	
Methylene Chloride	ND		5.0	0.81	ug/L			03/09/21 15:26	1	
Tetrachloroethene	ND		5.0	0.34	ug/L			03/09/21 15:26	1	
Toluene	ND		5.0	0.45	ug/L			03/09/21 15:26	1	
trans-1,2-Dichloroethene	ND		5.0	0.59	ug/L			03/09/21 15:26	1	
trans-1,3-Dichloropropene	ND		5.0	0.44	ug/L			03/09/21 15:26	1	
Trichloroethene	ND		5.0	0.60	ug/L			03/09/21 15:26	1	
Vinyl chloride	ND		5.0	0.75	ug/L			03/09/21 15:26	1	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac	
1,2-Dichloroethane-d4 (Surr)	99		68 - 130			-		03/09/21 15:26	1	
4-Bromofluorobenzene (Surr)	100		76 - 123					03/09/21 15:26	1	
Dibromofluoromethane (Surr)	103		75 - 123					03/09/21 15:26	1	
Toluene-d8 (Surr)	93		77 - 120					03/09/21 15:26	1	

Lab Sample ID: 480-181811-5

Matrix: Water

Client Sample ID: TripBlank-030921 Date Collected: 03/09/21 00:00 Date Received: 03/10/21 09:30

Method: 624.1 - Volatile Or	ganic Compounds (GC/M	IS)						
Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND	5.0	0.39	ug/L			03/10/21 13:12	1
1,1,2,2-Tetrachloroethane	ND	5.0	0.26	ug/L			03/10/21 13:12	1
1,1,2-Trichloroethane	ND	5.0	0.48	ug/L			03/10/21 13:12	1
1,1-Dichloroethane	ND	5.0	0.59	ug/L			03/10/21 13:12	1
1,1-Dichloroethene	ND	5.0	0.85	ug/L			03/10/21 13:12	1
1,2-Dichlorobenzene	ND	5.0	0.44	ug/L			03/10/21 13:12	1
1,2-Dichloroethane	ND	5.0	0.60	ug/L			03/10/21 13:12	1
1,2-Dichloroethene, Total	ND	10	3.2	ug/L			03/10/21 13:12	1
1,2-Dichloropropane	ND	5.0	0.61	ug/L			03/10/21 13:12	1
1,3-Dichlorobenzene	ND	5.0	0.54	ug/L			03/10/21 13:12	1
1,4-Dichlorobenzene	ND	5.0	0.51	ug/L			03/10/21 13:12	1
2-Chloroethyl vinyl ether	ND	25	1.9	ug/L			03/10/21 13:12	1
Acrolein	ND	100	17	ug/L			03/10/21 13:12	1
Acrylonitrile	ND	50	1.9	ug/L			03/10/21 13:12	1
Benzene	ND	5.0	0.60	ug/L			03/10/21 13:12	1
Bromodichloromethane	ND	5.0	0.54	ug/L			03/10/21 13:12	1
Bromoform	ND	5.0	0.47	ug/L			03/10/21 13:12	1
Bromomethane	ND	5.0	1.2	ug/L			03/10/21 13:12	1
Carbon tetrachloride	ND	5.0	0.51	ug/L			03/10/21 13:12	1
Chlorobenzene	ND	5.0	0.48	ug/L			03/10/21 13:12	1
Chlorodibromomethane	ND	5.0	0.41	ug/L			03/10/21 13:12	1
Chloroethane	ND	5.0	0.87	ug/L			03/10/21 13:12	1
Chloroform	ND	5.0	0.54	ug/L			03/10/21 13:12	1
Chloromethane	ND	5.0	0.64	ug/L			03/10/21 13:12	1
cis-1,3-Dichloropropene	ND	5.0	0.33	ug/L			03/10/21 13:12	1
Ethylbenzene	ND	5.0	0.46	ug/L			03/10/21 13:12	1
Methylene Chloride	ND	5.0	0.81	ug/L			03/10/21 13:12	1
Tetrachloroethene	ND	5.0	0.34	ug/L			03/10/21 13:12	1
Toluene	ND	5.0	0.45	ug/L			03/10/21 13:12	1
trans-1,2-Dichloroethene	ND	5.0	0.59	ug/L			03/10/21 13:12	1
trans-1,3-Dichloropropene	ND	5.0	0.44	ug/L			03/10/21 13:12	1
Trichloroethene	ND	5.0	0.60	ug/L			03/10/21 13:12	1
Vinyl chloride	ND	5.0	0.75	ug/L			03/10/21 13:12	1
Surrogate	%Recovery Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97	68 - 130					03/10/21 13:12	1
4-Bromofluorobenzene (Surr)	100	76 - 123					03/10/21 13:12	1
Dibromofluoromethane (Surr)	96	75 - 123					03/10/21 13:12	1
Toluene-d8 (Surr)	97	77 - 120					03/10/21 13:12	1

Lab Sample ID: 480-181846-5

Matrix: Water

Client Sample ID: EquipmentBlank-030921 Date Collected: 03/09/21 13:10 Date Received: 03/10/21 09:30

Lab Sample ID: 480-181846-2

Matrix: Water

Method: 624.1 - Volatile Or	ganic Compounds (GC/I	NS)			_			
Analyte	Result Qualifier		MDL	Unit	<u> </u>	Prepared	Analyzed	Dil Fac
	ND	5.0	0.39	ug/L			03/10/21 12:00	1
1,1,2,2- letrachloroethane	ND	5.0	0.26	ug/L			03/10/21 12:00	1
1,1,2-Irichloroethane	ND	5.0	0.48	ug/L			03/10/21 12:00	1
1,1-Dichloroethane	ND	5.0	0.59	ug/L			03/10/21 12:00	1
1,1-Dichloroethene	ND	5.0	0.85	ug/L			03/10/21 12:00	1
1,2-Dichlorobenzene	ND	5.0	0.44	ug/L			03/10/21 12:00	1
1,2-Dichloroethane	ND	5.0	0.60	ug/L			03/10/21 12:00	1
1,2-Dichloroethene, Total	ND	10	3.2	ug/L			03/10/21 12:00	1
1,2-Dichloropropane	ND	5.0	0.61	ug/L			03/10/21 12:00	1
1,3-Dichlorobenzene	ND	5.0	0.54	ug/L			03/10/21 12:00	1
1,4-Dichlorobenzene	ND	5.0	0.51	ug/L			03/10/21 12:00	1
2-Chloroethyl vinyl ether	ND	25	1.9	ug/L			03/10/21 12:00	1
Acrolein	ND	100	17	ug/L			03/10/21 12:00	1
Acrylonitrile	ND	50	1.9	ug/L			03/10/21 12:00	1
Benzene	ND	5.0	0.60	ug/L			03/10/21 12:00	1
Bromodichloromethane	ND	5.0	0.54	ug/L			03/10/21 12:00	1
Bromoform	ND	5.0	0.47	ug/L			03/10/21 12:00	1
Bromomethane	ND	5.0	1.2	ug/L			03/10/21 12:00	1
Carbon tetrachloride	ND	5.0	0.51	ug/L			03/10/21 12:00	1
Chlorobenzene	ND	5.0	0.48	ug/L			03/10/21 12:00	1
Chlorodibromomethane	ND	5.0	0.41	ug/L			03/10/21 12:00	1
Chloroethane	ND	5.0	0.87	ug/L			03/10/21 12:00	1
Chloroform	ND	5.0	0.54	ug/L			03/10/21 12:00	1
Chloromethane	ND	5.0	0.64	ug/L			03/10/21 12:00	1
cis-1,3-Dichloropropene	ND	5.0	0.33	ug/L			03/10/21 12:00	1
Ethvlbenzene	ND	5.0	0.46	ua/L			03/10/21 12:00	1
Vethvlene Chloride	ND	5.0	0.81	ua/L			03/10/21 12:00	1
Tetrachloroethene	ND	5.0	0.34	ua/L			03/10/21 12:00	
Toluene	ND	5.0	0.45	ua/L			03/10/21 12:00	1
rans-1.2-Dichloroethene	ND	5.0	0.59	ua/L			03/10/21 12:00	1
rans-1.3-Dichloropropene	ND	5.0	0 44	ua/L			03/10/21 12:00	· · · · · · · · · · · · · · · · · · ·
Trichloroethene	ND	5.0	0.60	ua/l			03/10/21 12:00	1
Vinyl chloride	ND	5.0	0.75	9,- ua/l			03/10/21 12:00	1
		0.0	0.70	ч <u>у</u> , г			56,10,21 12.00	1
Surrogate	%Recovery Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	83	68 - 130					03/10/21 12:00	1
4-Bromofluorobenzene (Surr)	101	76 - 123					03/10/21 12:00	1
Dibromofluoromethane (Surr)	90	75 - 123					03/10/21 12:00	1
Toluene-d8 (Surr)	93	77 - 120					03/10/21 12:00	1

Client Sample ID: TripBlank-031021 Date Collected: 03/10/21 00:00 Date Received: 03/11/21 09:30

Method: 624.1 - Volatile Or	ganic Compounds (GC/N	IS)							
Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
1,1,1-Trichloroethane	ND	5.0	0.39	ug/L			03/11/21 13:51	1	
1,1,2,2-Tetrachloroethane	ND	5.0	0.26	ug/L			03/11/21 13:51	1	
1,1,2-Trichloroethane	ND	5.0	0.48	ug/L			03/11/21 13:51	1	-
1,1-Dichloroethane	ND	5.0	0.59	ug/L			03/11/21 13:51	1	
1,1-Dichloroethene	ND	5.0	0.85	ug/L			03/11/21 13:51	1	
1,2-Dichlorobenzene	ND	5.0	0.44	ug/L			03/11/21 13:51	1	
1,2-Dichloroethane	ND	5.0	0.60	ug/L			03/11/21 13:51	1	
1,2-Dichloroethene, Total	ND	10	3.2	ug/L			03/11/21 13:51	1	
1,2-Dichloropropane	ND	5.0	0.61	ug/L			03/11/21 13:51	1	
1,3-Dichlorobenzene	ND	5.0	0.54	ug/L			03/11/21 13:51	1	
1,4-Dichlorobenzene	ND	5.0	0.51	ug/L			03/11/21 13:51	1	
2-Chloroethyl vinyl ether	ND	25	1.9	ug/L			03/11/21 13:51	1	
Acrolein	ND	100	17	ug/L			03/11/21 13:51	1	
Acrylonitrile	ND	50	1.9	ug/L			03/11/21 13:51	1	
Benzene	ND	5.0	0.60	ug/L			03/11/21 13:51	1	
Bromodichloromethane	ND	5.0	0.54	ug/L			03/11/21 13:51	1	
Bromoform	ND	5.0	0.47	ug/L			03/11/21 13:51	1	
Bromomethane	ND	5.0	1.2	ug/L			03/11/21 13:51	1	
Carbon tetrachloride	ND	5.0	0.51	ug/L			03/11/21 13:51	1	
Chlorobenzene	ND	5.0	0.48	ug/L			03/11/21 13:51	1	
Chlorodibromomethane	ND	5.0	0.41	ug/L			03/11/21 13:51	1	
Chloroethane	ND	5.0	0.87	ug/L			03/11/21 13:51	1	
Chloroform	ND	5.0	0.54	ug/L			03/11/21 13:51	1	
Chloromethane	ND	5.0	0.64	ug/L			03/11/21 13:51	1	
cis-1,3-Dichloropropene	ND	5.0	0.33	ug/L			03/11/21 13:51	1	
Ethylbenzene	ND	5.0	0.46	ug/L			03/11/21 13:51	1	
Methylene Chloride	ND	5.0	0.81	ug/L			03/11/21 13:51	1	
Tetrachloroethene	ND	5.0	0.34	ug/L			03/11/21 13:51	1	
Toluene	ND	5.0	0.45	ug/L			03/11/21 13:51	1	
trans-1,2-Dichloroethene	ND	5.0	0.59	ug/L			03/11/21 13:51	1	
trans-1,3-Dichloropropene	ND	5.0	0.44	ug/L			03/11/21 13:51	1	
Trichloroethene	ND	5.0	0.60	ug/L			03/11/21 13:51	1	
Vinyl chloride	ND	5.0	0.75	ug/L			03/11/21 13:51	1	
Surrogate	%Recovery Qualifier	Limits				Prepared	Analyzed	Dil Fac	
1,2-Dichloroethane-d4 (Surr)	89	68 - 130					03/11/21 13:51	1	
4-Bromofluorobenzene (Surr)	103	76 - 123					03/11/21 13:51	1	
Dibromofluoromethane (Surr)	97	75 - 123					03/11/21 13:51	1	
Toluene-d8 (Surr)	99	77 - 120					03/11/21 13:51	1	

Lab Sample ID: 480-181931-3

Matrix: Water

APPENDIX D-1 SUMMARY OF LABORATORY ANALYTICAL RESULTS IN MONTHLY SAMPLES COLLECTED AT RW-3D Client: New York State D.E.C. Project/Site: COSCO #344035

Client Sample ID: RW-3D Date Collected: 04/08/20 10:30 Date Received: 04/10/20 08:00

Lab Sample ID: 480-168454-1

Matrix: Water

- Method: 624 1 - Volatile Organ	nic Compounds ((SC/MS)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		10	0.77	ug/L			04/10/20 12:49	2
1,1,2,2-Tetrachloroethane	ND		10	0.52	ug/L			04/10/20 12:49	2
1,1,2-Trichloroethane	ND		10	0.96	ug/L			04/10/20 12:49	2
1,1-Dichloroethane	ND		10	1.2	ug/L			04/10/20 12:49	2
1,1-Dichloroethene	ND		10	1.7	ug/L			04/10/20 12:49	2
1,2-Dichlorobenzene	ND		10	0.89	ug/L			04/10/20 12:49	2
1,2-Dichloroethane	ND		10	1.2	ug/L			04/10/20 12:49	2
1,2-Dichloroethene, Total	31		20	6.4	ug/L			04/10/20 12:49	2
1,2-Dichloropropane	ND		10	1.2	ug/L			04/10/20 12:49	2
1,3-Dichlorobenzene	ND		10	1.1	ug/L			04/10/20 12:49	2
1,4-Dichlorobenzene	ND		10	1.0	ug/L			04/10/20 12:49	2
2-Chloroethyl vinyl ether	ND		50	3.7	ug/L			04/10/20 12:49	2
Acrolein	ND		200	35	ua/L			04/10/20 12:49	2
Acrylonitrile	ND		100	3.8	ua/L			04/10/20 12:49	2
Benzene	ND		10	1.2	ua/L			04/10/20 12:49	2
Bromodichloromethane	ND		10	11	ua/l			04/10/20 12:49	2
Bromoform	ND		10	0.94	ug/l			04/10/20 12:49	2
Bromomethane	ND		10	24	ug/l			04/10/20 12:49	- 2
Carbon tetrachloride			10	1.1				04/10/20 12:49	
Chlorobenzene			10	0.95	ug/L			04/10/20 12:49	2
Chlorodibromomethane			10	0.00	ug/L			04/10/20 12:49	2
Chloroethane			10	1 7	ug/L			04/10/20 12:49	· · · · · · · · · · · · · · · · · · ·
Chloroform	12		10	1.7	ug/L			04/10/20 12:49	2
Chloromothano	1.3	3	10	1.1	ug/L			04/10/20 12:49	2
cis 1.3 Dichloropropopo			10	0.66	ug/L			04/10/20 12:49	~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~
Ethylhonzono			10	0.00	ug/L			04/10/20 12:49	2
Euryidenzene Mathylana Chlorida			10	0.93	ug/L			04/10/20 12:49	2
			10	0.0	uy/L			04/10/20 12:49	· · · · · · · · · · · · · · · · · · ·
Tetrachioroethene	64 ND		10	0.00	ug/L			04/10/20 12:49	2
Toluene	ND		10	0.91	ug/L			04/10/20 12:49	2
trans-1,2-Dichloroethene	ND		10	1.2	ug/L			04/10/20 12:49	
trans-1,3-Dicnioropropene	ND		10	0.88	ug/L			04/10/20 12:49	2
Trichloroethene	67		10	1.2	ug/L			04/10/20 12:49	2
Vinyl chloride	ND		10	1.5	ug/L			04/10/20 12:49	2
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	82		68 - 130			-		04/10/20 12:49	2
4-Bromofluorobenzene (Surr)	107		76 - 123					04/10/20 12:49	2
Dibromofluoromethane (Surr)	84		75 - 123					04/10/20 12:49	2
Toluene-d8 (Surr)	87		77 - 120					04/10/20 12:49	2
- General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analvzed	Dil Fac
Total Dissolved Solids	689		10.0	4.0	mg/L			04/13/20 19:42	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.52	HF	0.100	0.100	SU			04/13/20 11:40	1
Temperature	17.8	HF	0.00100	0.00100	Degrees C			04/13/20 11:40	1
- 7					-				

Client Sample ID: EFFLUENT Date Collected: 04/08/20 10:35 Date Received: 04/10/20 08:00

Lab Sample ID: 480-168454-2

Matrix: Water

5	5
8	
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Method: 624.1 - Volatile Organic Com	oounds (GC/MS)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	0.39	ug/L			04/10/20 13:14	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.26	ug/L			04/10/20 13:14	1
1,1,2-Trichloroethane	ND		5.0	0.48	ug/L			04/10/20 13:14	1
1,1-Dichloroethane	ND		5.0	0.59	ug/L			04/10/20 13:14	1
1,1-Dichloroethene	ND		5.0	0.85	ug/L			04/10/20 13:14	1
1,2-Dichlorobenzene	ND		5.0	0.44	ug/L			04/10/20 13:14	1
1,2-Dichloroethane	ND		5.0	0.60	ug/L			04/10/20 13:14	1
1,2-Dichloroethene, Total	ND		10	3.2	ug/L			04/10/20 13:14	1
1,2-Dichloropropane	ND		5.0	0.61	ug/L			04/10/20 13:14	1
1,3-Dichlorobenzene	ND		5.0	0.54	ug/L			04/10/20 13:14	1
1,4-Dichlorobenzene	ND		5.0	0.51	ug/L			04/10/20 13:14	1
2-Chloroethyl vinyl ether	ND		25	1.9	ug/L			04/10/20 13:14	1
Acrolein	ND		100	17	ug/L			04/10/20 13:14	1
Acrylonitrile	ND		50	1.9	ug/L			04/10/20 13:14	1
Benzene	ND		5.0	0.60	ua/L			04/10/20 13:14	1
Bromodichloromethane	ND		5.0	0.54	ua/L			04/10/20 13:14	1
Bromoform	ND		5.0	0.47	ua/L			04/10/20 13:14	1
Bromomethane	ND		5.0	12	ug/l			04/10/20 13.14	1
Carbon tetrachloride	ND		5.0	0.51	ug/l			04/10/20 13.14	
Chlorobenzene	ND		5.0	0.48	ug/L			04/10/20 13:14	1
Chlorodibromomethane	ND		5.0	0.41	ug/L			04/10/20 13:14	1
Chloroethane	ND		5.0	0.11	ug/L			04/10/20 13:14	
Chloroform	ND		5.0	0.54	ug/L			04/10/20 13:14	1
Chloromethane	ND		5.0	0.64	ug/L			04/10/20 13:14	1
cis-1 3-Dichloropropene	ND		5.0	0.33	ug/L			04/10/20 13:14	
Ethylbenzene	ND		5.0	0.00	ug/L			04/10/20 13:14	1
			5.0	0.40	ug/L			04/10/20 13:14	1
Tetrachloroothono	1 1		5.0	0.01				04/10/20 13:14	
		5	5.0	0.04	ug/L			04/10/20 13:14	1
trans_1 2-Dichloroethene			5.0	0.40	ug/L			04/10/20 13:14	1
trans-1.3-Dichloropropene			5.0	0.00				04/10/20 13:14	
	1 2		5.0	0.60	ug/L			04/10/20 13:14	1
Vinyl chloride	1.3	3	5.0	0.00	ug/L			04/10/20 13:14	1
Virgi cilonde	ND		5.0	0.75	ug/L			04/10/20 13.14	i
Surrogate	&Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	83		68 - 130			-		04/10/20 13:14	1
4-Bromofluorobenzene (Surr)	107		76 - 123					04/10/20 13:14	1
Dibromofluoromethane (Surr)	87		75 - 123					04/10/20 13:14	1
Toluene-d8 (Surr)	86		77 _ 120					04/10/20 13:14	1
General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	748		10.0	4.0	mg/L			04/13/20 19:42	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.14	HF	0.100	0.100	SU			04/13/20 11:43	1
Temperature	17.5	HF	0.00100	0.00100	Degrees C			04/13/20 11:43	1

Client: New York State D.E.C. Project/Site: COSCO #344035

Client Sample ID: RW-3D Date Collected: 06/10/20 11:05 Date Received: 06/12/20 08:00

Lab Sample ID: 480-171100-1

Matrix: Water

- Method: 624 1 - Volatile Organic	Compounds (GC/MS)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		10	0.77	ug/L			06/12/20 11:52	2
1,1,2,2-Tetrachloroethane	ND		10	0.52	ug/L			06/12/20 11:52	2
1,1,2-Trichloroethane	ND		10	0.96	ug/L			06/12/20 11:52	2
1,1-Dichloroethane	ND		10	1.2	ug/L			06/12/20 11:52	2
1,1-Dichloroethene	ND		10	1.7	ug/L			06/12/20 11:52	2
1,2-Dichlorobenzene	ND		10	0.89	ug/L			06/12/20 11:52	2
1,2-Dichloroethane	ND		10	1.2	ug/L			06/12/20 11:52	2
1,2-Dichloroethene, Total	56		20	6.4	ug/L			06/12/20 11:52	2
1,2-Dichloropropane	ND		10	1.2	ug/L			06/12/20 11:52	2
1,3-Dichlorobenzene	ND		10	1.1	ug/L			06/12/20 11:52	2
1,4-Dichlorobenzene	ND		10	1.0	ug/L			06/12/20 11:52	2
2-Chloroethyl vinyl ether	ND		50	3.7	ug/L			06/12/20 11:52	2
Acrolein	ND		200	35	ug/L			06/12/20 11:52	2
Acrylonitrile	ND		100	3.8	ug/L			06/12/20 11:52	2
Benzene	ND		10	1.2	ug/L			06/12/20 11:52	2
Bromodichloromethane	ND		10	1.1	ug/L			06/12/20 11:52	2
Bromoform	ND		10	0.94	ug/L			06/12/20 11:52	2
Bromomethane	ND		10	2.4	ug/L			06/12/20 11:52	2
Carbon tetrachloride	ND		10	1.0	ug/L			06/12/20 11:52	2
Chlorobenzene	ND		10	0.95	ug/L			06/12/20 11:52	2
Chlorodibromomethane	ND		10	0.83	ug/L			06/12/20 11:52	2
Chloroethane	ND		10	1.7	ug/L			06/12/20 11:52	2
Chloroform	ND		10	1.1	ug/L			06/12/20 11:52	2
Chloromethane	ND		10	1.3	ug/L			06/12/20 11:52	2
cis-1,3-Dichloropropene	ND		10	0.66	ug/L			06/12/20 11:52	2
Ethylbenzene	ND		10	0.93	ug/L			06/12/20 11:52	2
Methylene Chloride	ND		10	1.6	ug/L			06/12/20 11:52	2
Tetrachloroethene	110		10	0.68	ug/L			06/12/20 11:52	2
Toluene	ND		10	0.91	ug/L			06/12/20 11:52	2
trans-1,2-Dichloroethene	ND		10	1.2	ug/L			06/12/20 11:52	2
trans-1,3-Dichloropropene	ND		10	0.88	ug/L			06/12/20 11:52	2
Trichloroethene	110		10	1.2	ug/L			06/12/20 11:52	2
Vinyl chloride	ND		10	1.5	ug/L			06/12/20 11:52	2
Surrogate	%Recoverv	Qualifier	Limits				Prepared	Analvzed	Dil Fac
1.2-Dichloroethane-d4 (Surr)	106		68 - 130			-		06/12/20 11:52	2
4-Bromofluorobenzene (Surr)	103		76 - 123					06/12/20 11:52	2
Dibromofluoromethane (Surr)	110		75 - 123					06/12/20 11:52	- 2
Toluene-d8 (Surr)	98		77 - 120					06/12/20 11:52	2
General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analvzed	Dil Fac
Total Dissolved Solids	729		10.0	4.0	mg/L			06/12/20 17:46	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
H		HF	0.100	0.100	SU			06/15/20 12:55	1
Temperature	17.9	HE	0.00100	0.00100	Degrees C			06/15/20 12:55	1
-	11.5		0.00100	0.00100	209.0000			00,10,20 12.00	,

Client Sample ID: EFFLUENT Date Collected: 06/10/20 11:00 Date Received: 06/12/20 08:00

Lab Sample ID: 480-171100-2

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	0.39	ug/L			06/12/20 12:16	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.26	ug/L			06/12/20 12:16	1
1,1,2-Trichloroethane	ND		5.0	0.48	ug/L			06/12/20 12:16	1
1,1-Dichloroethane	ND		5.0	0.59	ug/L			06/12/20 12:16	1
1,1-Dichloroethene	ND		5.0	0.85	ug/L			06/12/20 12:16	1
1,2-Dichlorobenzene	ND		5.0	0.44	ug/L			06/12/20 12:16	1
1,2-Dichloroethane	ND		5.0	0.60	ug/L			06/12/20 12:16	1
1.2-Dichloroethene. Total	ND		10	3.2	ua/L			06/12/20 12:16	1
1.2-Dichloropropane	ND		5.0	0.61	ua/L			06/12/20 12:16	1
1.3-Dichlorobenzene	ND		5.0	0.54	ua/L			06/12/20 12:16	
1 4-Dichlorobenzene	ND		5.0	0.51	ug/l			06/12/20 12:16	1
2-Chloroethyl vinyl ether	ND		25	1.9	ug/L			06/12/20 12:16	1
Acrolein	ND		100	17	ug/l			06/12/20 12:16	
Acrylonitrile			50	19	ua/L			06/12/20 12:16	1
Benzene			5.0	0.60	ua/L			06/12/20 12:16	1
Bromodichloromethane	ND		5.0	0.54	ug/L			06/12/20 12:16	
Bromoform	ND		5.0	0.01	ug/L			06/12/20 12:16	1
Bromomethane			5.0	12	ug/L			06/12/20 12:16	1
Carbon tetrachloride			5.0	0.51	ug/L			06/12/20 12:16	· · · · · · · · · · · · 1
Chlorobenzene			5.0	0.01	ug/L			06/12/20 12:16	1
Chlorodibromomethane			5.0	0.40	ug/L			06/12/20 12:16	1
Chloroethane			5.0	0.41	ug/L			06/12/20 12:16	· · · · · · · · · · 1
Chloroform			5.0	0.54	ug/L			06/12/20 12:16	1
Chloromethane			5.0	0.54	ug/L			06/12/20 12:10	1
cis-1 3-Dichloropropene			5.0	0.04	ug/L			06/12/20 12:16	י 1
Ethylbenzene			5.0	0.00	ug/L			06/12/20 12:16	1
Methylene Chloride			5.0	0.40	ug/L			06/12/20 12:16	1
Totrachloroothono	0.46		5.0	0.01				06/12/20 12:16	י 1
Toluono	0.40	3	5.0	0.34	ug/L			06/12/20 12:10	1
trans_1 2-Dichloroethene			5.0	0.40	ug/L			06/12/20 12:10	1
trans 1.2 Dichloropropopo			5.0	0.59	ug/L			06/12/20 12:10	ا ۱
			5.0	0.44	ug/L			06/12/20 12:10	1
			5.0	0.00	ug/L			06/12/20 12:10	1
Viriyi chioride	ND		5.0	0.75	ug/L			00/12/20 12.10	I
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		68 - 130			-	-	06/12/20 12:16	1
4-Bromofluorobenzene (Surr)	104		76 - 123					06/12/20 12:16	1
Dibromofluoromethane (Surr)	111		75 - 123					06/12/20 12:16	1
Toluene-d8 (Surr)	99		77 _ 120					06/12/20 12:16	1
Conoral Chomistry									
	Docult	Qualifier	ы	МОЧ	Unit	п	Proparad	Analyzod	
Total Dissolved Solida		Juanner					Frepareu	06/12/20 17:46	
I Utai DISSOIVEO SOIIOS	/64		10.0	4.0	my/L			00/12/20 17.40	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
рН	7.69	HF	0.100	0.100	SU			06/15/20 12:58	1
Temperature	18.5	HE	0.00100	0.00100	Degrees C			06/15/20 12:58	1

Client: New York State D.E.C. Project/Site: COSCO #344035

Client Sample ID: RW-3D Date Collected: 07/01/20 11:30 Date Received: 07/03/20 08:00

Lab Sample ID: 480-171977-1

Matrix: Water

Method: 624.1 - Volatile Orgar	nic Compounds ((GC/MS)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		10	0.77	ug/L			07/06/20 13:07	2
1,1,2,2-Tetrachloroethane	ND		10	0.52	ug/L			07/06/20 13:07	2
1,1,2-Trichloroethane	ND		10	0.96	ug/L			07/06/20 13:07	2
1,1-Dichloroethane	ND		10	1.2	ug/L			07/06/20 13:07	2
1,1-Dichloroethene	ND		10	1.7	ug/L			07/06/20 13:07	2
1,2-Dichlorobenzene	ND		10	0.89	ug/L			07/06/20 13:07	2
1,2-Dichloroethane	ND		10	1.2	ug/L			07/06/20 13:07	2
1,2-Dichloroethene, Total	93		20	6.4	ug/L			07/06/20 13:07	2
1,2-Dichloropropane	ND		10	1.2	ug/L			07/06/20 13:07	2
1,3-Dichlorobenzene	ND		10	1.1	ug/L			07/06/20 13:07	2
1,4-Dichlorobenzene	ND		10	1.0	ug/L			07/06/20 13:07	2
2-Chloroethyl vinyl ether	ND		50	3.7	ug/L			07/06/20 13:07	2
Acrolein	ND	Н	200	35	ug/L			07/06/20 13:07	2
Acrylonitrile	ND		100	3.8	ug/L			07/06/20 13:07	2
Benzene	ND		10	1.2	ug/L			07/06/20 13:07	2
Bromodichloromethane	ND		10	1.1	ug/L			07/06/20 13:07	2
Bromoform	ND		10	0.94	ug/L			07/06/20 13:07	2
Bromomethane	ND		10	2.4	ug/L			07/06/20 13:07	2
Carbon tetrachloride	ND		10	1.0	ug/L			07/06/20 13:07	2
Chlorobenzene	ND		10	0.95	ug/L			07/06/20 13:07	2
Chlorodibromomethane	ND		10	0.83	ug/L			07/06/20 13:07	2
Chloroethane	ND		10	1.7	ug/L			07/06/20 13:07	2
Chloroform	ND		10	1.1	ug/L			07/06/20 13:07	2
Chloromethane	ND		10	1.3	ug/L			07/06/20 13:07	2
cis-1,3-Dichloropropene	ND		10	0.66	ug/L			07/06/20 13:07	2
Ethylbenzene	ND		10	0.93	ug/L			07/06/20 13:07	2
Methylene Chloride	ND		10	1.6	ug/L			07/06/20 13:07	2
Tetrachloroethene	170		10	0.68	ug/L			07/06/20 13:07	2
Toluene	ND		10	0.91	ug/L			07/06/20 13:07	2
trans-1,2-Dichloroethene	ND		10	1.2	ug/L			07/06/20 13:07	2
trans-1,3-Dichloropropene	ND		10	0.88	ug/L			07/06/20 13:07	2
Trichloroethene	180		10	1.2	ug/L			07/06/20 13:07	2
Vinyl chloride	ND		10	1.5	ug/L			07/06/20 13:07	2
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		68 - 130			-		07/06/20 13:07	2
4-Bromofluorobenzene (Surr)	101		76 - 123					07/06/20 13:07	2
Dibromofluoromethane (Surr)	107		75 - 123					07/06/20 13:07	2
Toluene-d8 (Surr)	97		77 - 120					07/06/20 13:07	2
General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	757		10.0	4.0	mg/L			07/06/20 16:49	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
рН	7.44	HF	0.100	0.100	SU			07/06/20 16:01	1
Temperature	11.8	HF	0.00100	0.00100	Degrees C			07/06/20 16:01	1

Client Sample ID: EFFLUENT Date Collected: 07/01/20 11:30

Date Received: 07/03/20 08:00

рΗ

Temperature

Method: 624.1 - Volatile Organ	nic Compounds (GC/MS)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	0.39	ug/L			07/06/20 13:32	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.26	ug/L			07/06/20 13:32	1
1,1,2-Trichloroethane	ND		5.0	0.48	ug/L			07/06/20 13:32	1
1,1-Dichloroethane	ND		5.0	0.59	ug/L			07/06/20 13:32	1
1,1-Dichloroethene	ND		5.0	0.85	ug/L			07/06/20 13:32	1
1,2-Dichlorobenzene	ND		5.0	0.44	ug/L			07/06/20 13:32	1
1,2-Dichloroethane	ND		5.0	0.60	ug/L			07/06/20 13:32	1
1,2-Dichloroethene, Total	ND		10	3.2	ug/L			07/06/20 13:32	1
1,2-Dichloropropane	ND		5.0	0.61	ug/L			07/06/20 13:32	1
1,3-Dichlorobenzene	ND		5.0	0.54	ug/L			07/06/20 13:32	1
1,4-Dichlorobenzene	ND		5.0	0.51	ug/L			07/06/20 13:32	1
2-Chloroethyl vinyl ether	ND		25	1.9	ug/L			07/06/20 13:32	1
Acrolein	ND	Н	100	17	ug/L			07/06/20 13:32	1
Acrylonitrile	ND		50	1.9	ug/L			07/06/20 13:32	1
Benzene	ND		5.0	0.60	ug/L			07/06/20 13:32	1
Bromodichloromethane	ND		5.0	0.54	ug/L			07/06/20 13:32	1
Bromoform	ND		5.0	0.47	ug/L			07/06/20 13:32	1
Bromomethane	ND		5.0	1.2	ug/L			07/06/20 13:32	1
Carbon tetrachloride	ND		5.0	0.51	ug/L			07/06/20 13:32	1
Chlorobenzene	ND		5.0	0.48	ug/L			07/06/20 13:32	1
Chlorodibromomethane	ND		5.0	0.41	ug/L			07/06/20 13:32	1
Chloroethane	ND		5.0	0.87	ug/L			07/06/20 13:32	1
Chloroform	ND		5.0	0.54	ug/L			07/06/20 13:32	1
Chloromethane	ND		5.0	0.64	ug/L			07/06/20 13:32	1
cis-1,3-Dichloropropene	ND		5.0	0.33	ug/L			07/06/20 13:32	1
Ethylbenzene	ND		5.0	0.46	ug/L			07/06/20 13:32	1
Methylene Chloride	ND		5.0	0.81	ug/L			07/06/20 13:32	1
Tetrachloroethene	0.83	J	5.0	0.34	ug/L			07/06/20 13:32	1
Toluene	ND		5.0	0.45	ug/L			07/06/20 13:32	1
trans-1,2-Dichloroethene	ND		5.0	0.59	ug/L			07/06/20 13:32	1
trans-1,3-Dichloropropene	ND		5.0	0.44	ug/L			07/06/20 13:32	1
Trichloroethene	0.73	J	5.0	0.60	ug/L			07/06/20 13:32	1
Vinyl chloride	ND		5.0	0.75	ug/L			07/06/20 13:32	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103		68 - 130			-		07/06/20 13:32	1
4-Bromofluorobenzene (Surr)	101		76 - 123					07/06/20 13:32	1
Dibromofluoromethane (Surr)	109		75 - 123					07/06/20 13:32	1
Toluene-d8 (Surr)	97		77 _ 120					07/06/20 13:32	1
General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	792		10.0	4.0	mg/L			07/06/20 16:49	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac

07/06/20 16:04

07/06/20 16:04

0.100

0.00100

8.22 HF

12.1 HF

0.100 SU

0.00100 Degrees C

1

1

Lab Sample ID: 480-171977-2

Matrix: Water

Client Sample ID: TRIP BLANK Date Collected: 07/01/20 00:00

Date Received: 07/03/20 08:00

Method: 624.1 - Volatile Organ	nic Compounds (GC/MS)						
Analyte	Result	Qualifier	RL	MDL	Unit	D Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	0.39	ug/L		07/06/20 13:56	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.26	ug/L		07/06/20 13:56	1
1,1,2-Trichloroethane	ND		5.0	0.48	ug/L		07/06/20 13:56	1
1,1-Dichloroethane	ND		5.0	0.59	ug/L		07/06/20 13:56	1
1,1-Dichloroethene	ND		5.0	0.85	ug/L		07/06/20 13:56	1
1,2-Dichlorobenzene	ND		5.0	0.44	ug/L		07/06/20 13:56	1
1,2-Dichloroethane	ND		5.0	0.60	ug/L		07/06/20 13:56	1
1,2-Dichloroethene, Total	ND		10	3.2	ug/L		07/06/20 13:56	1
1,2-Dichloropropane	ND		5.0	0.61	ug/L		07/06/20 13:56	1
1,3-Dichlorobenzene	ND		5.0	0.54	ug/L		07/06/20 13:56	1
1,4-Dichlorobenzene	ND		5.0	0.51	ug/L		07/06/20 13:56	1
2-Chloroethyl vinyl ether	ND		25	1.9	ug/L		07/06/20 13:56	1
Acrolein	ND	Н	100	17	ug/L		07/06/20 13:56	1
Acrylonitrile	ND		50	1.9	ug/L		07/06/20 13:56	1
Benzene	ND		5.0	0.60	ug/L		07/06/20 13:56	1
Bromodichloromethane	ND		5.0	0.54	ug/L		07/06/20 13:56	1
Bromoform	ND		5.0	0.47	ug/L		07/06/20 13:56	1
Bromomethane	ND		5.0	1.2	ug/L		07/06/20 13:56	1
Carbon tetrachloride	ND		5.0	0.51	ug/L		07/06/20 13:56	1
Chlorobenzene	ND		5.0	0.48	ug/L		07/06/20 13:56	1
Chlorodibromomethane	ND		5.0	0.41	ug/L		07/06/20 13:56	1
Chloroethane	ND		5.0	0.87	ug/L		07/06/20 13:56	1
Chloroform	ND		5.0	0.54	ug/L		07/06/20 13:56	1
Chloromethane	ND		5.0	0.64	ug/L		07/06/20 13:56	1
cis-1,3-Dichloropropene	ND		5.0	0.33	ug/L		07/06/20 13:56	1
Ethylbenzene	ND		5.0	0.46	ug/L		07/06/20 13:56	1
Methylene Chloride	ND		5.0	0.81	ug/L		07/06/20 13:56	1
Tetrachloroethene	ND		5.0	0.34	ug/L		07/06/20 13:56	1
Toluene	ND		5.0	0.45	ug/L		07/06/20 13:56	1
trans-1,2-Dichloroethene	ND		5.0	0.59	ug/L		07/06/20 13:56	1
trans-1,3-Dichloropropene	ND		5.0	0.44	ug/L		07/06/20 13:56	1
Trichloroethene	ND		5.0	0.60	ug/L		07/06/20 13:56	1
Vinyl chloride	ND		5.0	0.75	ug/L		07/06/20 13:56	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		68 - 130				07/06/20 13:56	1
4-Bromofluorobenzene (Surr)	102		76 - 123				07/06/20 13:56	1
Dibromofluoromethane (Surr)	104		75 - 123				07/06/20 13:56	1
Toluene-d8 (Surr)	96		77 - 120				07/06/20 13:56	1

Lab Sample ID: 480-171977-3

Matrix: Water

5

Client: New York State D.E.C. Project/Site: COSCO #344035

Client Sample ID: RW-3D Date Collected: 08/03/20 11:25 Date Received: 08/04/20 08:00

Lab Sample ID: 480-173273-1

Matrix: Water

5

Analyte		Ouglifier	DI	MD	Unit	~	Bronered	Anolized	
Analyte	Result	Qualifier	RL -	MDL	Unit		Prepared	Analyzed	
1,1,1-I richloroethane	ND		1.0	0.37	ug/L			08/06/20 17:11	1
1,1,2,2- I etrachioroethane	ND		1.0	0.62	ug/L			08/06/20 17:11	1
1,1,2- I richioroethane	ND		1.0	0.33	ug/L			08/06/20 17:11	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			08/06/20 17:11	1
1,1-Dichloroethene	ND		1.0	0.36	ug/L			08/06/20 17:11	1
1,2-Dichlorobenzene	ND		1.0	0.37	ug/L			08/06/20 17:11	1
1,2-Dichloroethane	ND		1.0	0.50	ug/L			08/06/20 17:11	1
1,2-Dichloroethene, Total	45		2.0	0.74	ug/L			08/06/20 17:11	1
1,2-Dichloropropane	ND		1.0	0.67	ug/L			08/06/20 17:11	1
1,3-Dichlorobenzene	ND		1.0	0.43	ug/L			08/06/20 17:11	1
1,4-Dichlorobenzene	ND		1.0	0.46	ug/L			08/06/20 17:11	1
2-Chloroethyl vinyl ether	ND		10	5.0	ug/L			08/06/20 17:11	1
Acrolein	ND		20	8.7	ug/L			08/06/20 17:11	1
Acrylonitrile	ND		20	4.6	ug/L			08/06/20 17:11	1
Benzene	ND		1.0	0.43	ug/L			08/06/20 17:11	1
Bromoform	ND		1.0	0.43	ug/L			08/06/20 17:11	1
Bromomethane	ND		5.0	2.5	ug/L			08/06/20 17:11	1
Carbon tetrachloride	ND		1.0	0.33	ug/L			08/06/20 17:11	1
Chlorobenzene	ND		1.0	0.26	ug/L			08/06/20 17:11	1
Chlorodibromomethane	ND		1.0	0.32	ug/L			08/06/20 17:11	1
Chloroethane	ND		5.0	2.5	ug/L			08/06/20 17:11	1
Chloroform	0.62	J	1.0	0.50	ug/L			08/06/20 17:11	1
Chloromethane	ND		1.0	0.40	ug/L			08/06/20 17:11	1
cis-1,3-Dichloropropene	ND		1.0	0.40	ug/L			08/06/20 17:11	1
Bromodichloromethane	ND		1.0	0.44	ug/L			08/06/20 17:11	1
Ethylbenzene	ND		1.0	0.33	ug/L			08/06/20 17:11	1
Methylene Chloride	ND		5.0	2.5	ug/L			08/06/20 17:11	1
Tetrachloroethene	94		1.0	0.74	ug/L			08/06/20 17:11	1
Toluene	ND		1.0	0.48	ug/L			08/06/20 17:11	1
trans-1,2-Dichloroethene	ND		1.0	0.37	ug/L			08/06/20 17:11	1
trans-1,3-Dichloropropene	ND		1.0	0.42	ug/L			08/06/20 17:11	1
Trichloroethene	89		1.0	0.48	ug/L			08/06/20 17:11	1
Vinyl chloride	ND		1.0	0.50	ug/L			08/06/20 17:11	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	93		60 - 140					08/06/20 17:11	1
4-Bromofluorobenzene (Surr)	101		60 - 140					08/06/20 17:11	1
Toluene-d8 (Surr)	102		60 - 140					08/06/20 17:11	1
Dibromofluoromethane (Surr)	107		60 - 140					08/06/20 17:11	1
General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	761		10.0	4.0	mg/L			08/04/20 17:16	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
рН	7.36	HF	0.100	0.100	SU			08/07/20 12:53	1
Temperature	9.86	HF	0.00100	0.00100	Degrees C			08/07/20 12:53	1

Client Sample ID: EFFLUENT Date Collected: 08/03/20 11:20

Date Received: 08/04/20 08:00

Method: 624.1 - Volatile Orgai	nic Compounds (GC/MS)						
Analyte	Result	Qualifier	RL	MDL	Unit	D Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.37	ug/L		08/06/20 17:37	
1,1,2,2-Tetrachloroethane	ND		1.0	0.62	ug/L		08/06/20 17:37	
1,1,2-Trichloroethane	ND		1.0	0.33	ug/L		08/06/20 17:37	
1,1-Dichloroethane	ND		1.0	0.38	ug/L		08/06/20 17:37	
1,1-Dichloroethene	ND		1.0	0.36	ug/L		08/06/20 17:37	
1,2-Dichlorobenzene	ND		1.0	0.37	ug/L		08/06/20 17:37	
I,2-Dichloroethane	ND		1.0	0.50	ug/L		08/06/20 17:37	
I,2-Dichloroethene, Total	ND		2.0	0.74	ug/L		08/06/20 17:37	
1,2-Dichloropropane	ND		1.0	0.67	ug/L		08/06/20 17:37	
I,3-Dichlorobenzene	ND		1.0	0.43	ug/L		08/06/20 17:37	
I,4-Dichlorobenzene	ND		1.0	0.46	ug/L		08/06/20 17:37	
2-Chloroethyl vinyl ether	ND		10	5.0	ug/L		08/06/20 17:37	
Acrolein	ND		20	8.7	ug/L		08/06/20 17:37	• • • • • •
Acrylonitrile	ND		20	4.6	ug/L		08/06/20 17:37	
Benzene	ND		1.0	0.43	ug/L		08/06/20 17:37	
Bromoform	ND		1.0	0.43	ug/L		08/06/20 17:37	
Bromomethane	ND		5.0	2.5	ug/L		08/06/20 17:37	
Carbon tetrachloride	ND		1.0	0.33	ug/L		08/06/20 17:37	
Chlorobenzene	ND		1.0	0.26	ug/L		08/06/20 17:37	
Chlorodibromomethane	ND		1.0	0.32	ug/L		08/06/20 17:37	
Chloroethane	ND		5.0	2.5	ug/L		08/06/20 17:37	
Chloroform	ND		1.0	0.50	ug/L		08/06/20 17:37	
Chloromethane	ND		1.0	0.40	ug/L		08/06/20 17:37	
cis-1,3-Dichloropropene	ND		1.0	0.40	ug/L		08/06/20 17:37	
Bromodichloromethane	ND		1.0	0.44	ug/L		08/06/20 17:37	
Ethylbenzene	ND		1.0	0.33	ug/L		08/06/20 17:37	
Methylene Chloride	ND		5.0	2.5	ug/L		08/06/20 17:37	
Fetrachloroethene	ND		1.0	0.74	ug/L		08/06/20 17:37	
Foluene	ND		1.0	0.48	ug/L		08/06/20 17:37	
rans-1,2-Dichloroethene	ND		1.0	0.37	ug/L		08/06/20 17:37	
rans-1,3-Dichloropropene	ND		1.0	0.42	ug/L		08/06/20 17:37	
Frichloroethene	ND		1.0	0.48	ug/L		08/06/20 17:37	
/inyl chloride	ND		1.0	0.50	ug/L		08/06/20 17:37	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fa
1,2-Dichloroethane-d4 (Surr)	94		60 - 140				08/06/20 17:37	
l-Bromofluorobenzene (Surr)	100		60 - 140				08/06/20 17:37	-
Foluene-d8 (Surr)	104		60 - 140				08/06/20 17:37	-
Dibromofluoromethane (Surr)	110		60 - 140				08/06/20 17:37	
General Chemistry								
Analyte	Result	Qualifier	RL	MDL	Unit	D Prepared	Analyzed	Dil Fac
Total Dissolved Solids	778		10.0	4.0	mg/L		08/04/20 17:16	

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	778		10.0	4.0	mg/L			08/04/20 17:16	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.20	HF	0.100	0.100	SU			08/07/20 12:56	1
Temperature	10.1	HF	0.00100	0.00100	Degrees C			08/07/20 12:56	1

Job ID: 480-173273-1

Lab Sample ID: 480-173273-2

Matrix: Water

5 6
Client Sample Results

Client: New York State D.E.C. Project/Site: COSCO #344035

Client Sample ID: Effluent Date Collected: 09/02/20 11:00 Date Received: 09/04/20 16:09

Lab Sample ID: 460-217537-1 Matrix: Water

Method: 200.7 Rev 4.4 -	Metals (ICP) - Tot	al Recovera	able						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		200	20.7	ug/L		09/05/20 12:40	09/09/20 17:32	1
Arsenic	ND		15.0	3.6	ug/L		09/05/20 12:40	09/09/20 17:32	1
Barium	241		200	7.9	ug/L		09/05/20 12:40	09/09/20 17:32	1
Copper	5.6	J	25.0	5.5	ug/L		09/05/20 12:40	09/09/20 17:32	1
Iron	ND		150	76.8	ug/L		09/05/20 12:40	09/09/20 17:32	1
Lead	ND		5.0	3.1	ug/L		09/05/20 12:40	09/09/20 17:32	1
Manganese	ND		15.0	0.66	ug/L		09/05/20 12:40	09/09/20 17:32	1
Vanadium	ND		50.0	3.9	ug/L		09/05/20 12:40	09/09/20 17:32	1
Zinc	12.0	J	30.0	2.6	ug/L		09/05/20 12:40	09/09/20 17:32	1
Method: 200.7 Rev 4.4 -	Metals (ICP) - Dis	solved							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic, Dissolved	ND		0.015	0.0036	mg/L		09/11/20 10:56	09/13/20 00:56	1
0 D: I I			0.005						

Client Sample ID: RW-3D				Lab Sample	ID: 460-217	541-1
Zinc, Dissolved	0.012 J	0.030	0.0026 mg/L	09/11/20 10:56	09/13/20 00:56	1
Lead, Dissolved	ND	0.0050	0.0031 mg/L	09/11/20 10:56	09/13/20 00:56	1
Copper, Dissolved	ND	0.025	0.0055 mg/L	09/11/20 10:56	09/13/20 00:56	1
Arsenic, Dissolved	ND	0.015	0.0036 mg/L	09/11/20 10:56	09/13/20 00:56	1

Client Sample ID: RW-3D Date Collected: 09/02/20 11:00

Date Received: 09/03/20 10:00

Method: 624.1 - Volatile Orga	anic Compound	Is (GC/MS)	МП	Unit	Р	Proparad	Analyzod	Dil Eac
Analyte 1.1.1 Trichloroothano						Prepareu	- Allalyzeu	
		1.0	0.24	ug/L			09/04/20 23:50	1
		1.0	0.37	ug/L			09/04/20 23:50	1
		1.0	0.15	ug/L			09/04/20 23.56	
	ND	1.0	0.26	ug/L			09/04/20 23:58	1
1,1-Dichloroethene	ND	1.0	0.12	ug/L			09/04/20 23:58	1
1,2-Dichlorobenzene	ND	1.0	0.19	ug/L			09/04/20 23:58	1
1,2-Dichloroethane	ND	1.0	0.84	ug/L			09/04/20 23:58	1
1,2-Dichloroethene, Total	53	2.0	0.44	ug/L			09/04/20 23:58	1
1,2-Dichloropropane	ND	1.0	0.35	ug/L			09/04/20 23:58	1
1,3-Dichlorobenzene	ND	1.0	0.13	ug/L			09/04/20 23:58	1
1,4-Dichlorobenzene	ND	1.0	0.18	ug/L			09/04/20 23:58	1
2-Chloroethyl vinyl ether	ND	1.0	0.91	ug/L			09/04/20 23:58	1
Acrolein	ND	4.0	1.1	ug/L			09/04/20 23:58	1
Acrylonitrile	ND *	2.0	0.77	ug/L			09/04/20 23:58	1
Benzene	ND	1.0	0.43	ug/L			09/04/20 23:58	1
Bromoform	ND	1.0	0.54	ug/L			09/04/20 23:58	1
Bromomethane	ND	1.0	0.45	ug/L			09/04/20 23:58	1
Carbon tetrachloride	ND	1.0	0.21	ug/L			09/04/20 23:58	1
Chlorobenzene	ND	1.0	0.38	ug/L			09/04/20 23:58	1
Chlorodibromomethane	ND	1.0	0.13	ug/L			09/04/20 23:58	1
Chloroethane	ND	1.0	0.32	ug/L			09/04/20 23:58	1
Chloroform	0.66 J	1.0	0.33	ug/L			09/04/20 23:58	1
Chloromethane	ND	1.0	0.43	ug/L			09/04/20 23:58	1
cis-1,3-Dichloropropene	ND	1.0	0.46	ug/L			09/04/20 23:58	1
Bromodichloromethane	ND	1.0	0.34	ug/L			09/04/20 23:58	1
Ethylbenzene	ND	1.0	0.30	ug/L			09/04/20 23:58	1
Methylene Chloride	ND	1.0	0.32	ug/L			09/04/20 23:58	1

Eurofins TestAmerica, Edison

Matrix: Water

5

6

Client Sample Results

RL

1.0

1.0

1.0

1.0

1.0

1.0

Limits

60 - 140

60 - 140

60 - 140

60 - 140

NONE

RL

20.0

MDL Unit

0.25 ug/L

0.38 ug/L

0.24 ug/L

0.22 ug/L

0.31 ug/L

0.34 ug/L

NONE Unit

รบ

RL Unit

20.0 mg/L

D

D

D

Prepared

Prepared

Prepared

Prepared

Client Sample ID: RW-3D Date Collected: 09/02/20 11:00

Analyte

Toluene

Tetrachloroethene

Trichloroethene

Vinyl chloride

Surrogate

Analyte

Analyte

pН

trans-1,2-Dichloroethene

1,2-Dichloroethane-d4 (Surr)

Dibromofluoromethane (Surr)

General Chemistry

Total Dissolved Solids

4-Bromofluorobenzene

Toluene-d8 (Surr)

trans-1,3-Dichloropropene

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Result Qualifier

Qualifier

99

ND

ND

110 ND

87

79

99

88

8.10 HF

728

Result Qualifier

Result Qualifier

%Recovery

0.28 J

Lab Sample ID: 460-217541-1 Matrix: Water

Analyzed

09/04/20 23:58

09/04/20 23:58

09/04/20 23:58

09/04/20 23:58

09/04/20 23:58

09/04/20 23:58

Analyzed

09/04/20 23:58

09/04/20 23:58

09/04/20 23:58

09/04/20 23:58

Analyzed

09/11/20 14:24

Analyzed

6

Dil Fac

1

1

1

1

1

1

1

1

1

1

1

1

Dil Fac

Dil Fac

Dil Fac

3

09/08/20 10:38

Client Sample ID: Effluent Date Collected: 09/02/20 11:00 Date Received: 09/03/20 10:00

Lab Sample ID: 460-217541-2

Matrix: Water

Method: 624.1 - Volatile Org	Besult Qualifier) RI	мы	Unit	П	Prenared	Analyzed	Dil Fa
1 1 1-Trichloroethane		1.0	0.24			Tiepuleu	09/05/20 11:36	Birru
1 1 2 2-Tetrachloroethane	ND	1.0	0.21	ug/L			09/05/20 11:36	
1.1.2-Trichloroethane	ND	1.0	0.15	ua/L			09/05/20 11:36	
1.1-Dichloroethane	ND	1.0	0.26	ua/L			09/05/20 11:36	•••••••
1,1-Dichloroethene	ND	1.0	0.12	ug/L			09/05/20 11:36	
1,2-Dichlorobenzene	ND	1.0	0.19	ug/L			09/05/20 11:36	
1,2-Dichloroethane	ND	1.0	0.84	ug/L			09/05/20 11:36	
1,2-Dichloroethene, Total	ND	2.0	0.44	ug/L			09/05/20 11:36	
1,2-Dichloropropane	ND	1.0	0.35	ug/L			09/05/20 11:36	
1,3-Dichlorobenzene	ND	1.0	0.13	ug/L			09/05/20 11:36	• • • •
1,4-Dichlorobenzene	ND	1.0	0.18	ug/L			09/05/20 11:36	
2-Chloroethyl vinyl ether	ND	1.0	0.91	ug/L			09/05/20 11:36	
Acrolein	ND	4.0	1.1	ug/L			09/05/20 11:36	•
Acrylonitrile	ND *	2.0	0.77	ug/L			09/05/20 11:36	
Benzene	ND	1.0	0.43	ug/L			09/05/20 11:36	
Bromoform	ND	1.0	0.54	ug/L			09/05/20 11:36	
Bromomethane	ND	1.0	0.45	ug/L			09/05/20 11:36	
Carbon tetrachloride	ND	1.0	0.21	ug/L			09/05/20 11:36	
Chlorobenzene	ND	1.0	0.38	ug/L			09/05/20 11:36	
Chlorodibromomethane	ND	1.0	0.13	ug/L			09/05/20 11:36	
Chloroethane	ND	1.0	0.32	ug/L			09/05/20 11:36	
Chloroform	ND	1.0	0.33	ug/L			09/05/20 11:36	
Chloromethane	ND	1.0	0.43	ug/L			09/05/20 11:36	
cis-1,3-Dichloropropene	ND	1.0	0.46	ug/L			09/05/20 11:36	
Bromodichloromethane	ND	1.0	0.34	ug/L			09/05/20 11:36	• • • • • •

Eurofins TestAmerica, Edison

Client Sample Results

RL

1.0

1.0

1.0

1.0

1.0

1.0

1.0

1.0

Limits

60 - 140

60 - 140

60 - 140

60 - 140

NONE

RL

20.0

MDL Unit

0.32 ug/L

0.25 ug/L

0.38 ug/L

0.24 ug/L

0.22 ug/L

0.31 ug/L

0.34 ug/L

NONE Unit

20.0 mg/L

SU

RL Unit

0.30 ug/L

D

D

D

Prepared

Prepared

Prepared

Prepared

Client Sample ID: Effluent Date Collected: 09/02/20 11:00 Date Received: 09/03/20 10:00

Analyte

Toluene

Ethylbenzene

Methylene Chloride

Tetrachloroethene

Trichloroethene

Vinyl chloride

Surrogate

Analyte

Analyte

pH

trans-1.2-Dichloroethene

trans-1,3-Dichloropropene

1,2-Dichloroethane-d4 (Surr)

Dibromofluoromethane (Surr)

4-Bromofluorobenzene

General Chemistry

Total Dissolved Solids

Toluene-d8 (Surr)

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Result Qualifier

ND

ND

ND

ND

ND

ND

ND

ND

91

81

103

90

8.37

898

Result Qualifier

Result Qualifier

HF

Qualifier

%Recovery

Lab Sample ID: 460-217541-2 Matrix: Water

Analyzed

09/05/20 11:36

09/05/20 11:36

09/05/20 11:36

09/05/20 11:36

09/05/20 11:36

09/05/20 11:36

09/05/20 11:36

09/05/20 11:36

Analyzed

09/05/20 11:36

09/05/20 11:36

09/05/20 11:36

09/05/20 11:36

Analyzed

09/11/20 14:26

Analyzed

09/08/20 10:38

Dil Fac

1

1

1

1

1

1

1

1

1

1

1

1

1

Dil Fac

Dil Fac

Dil Fac

1: 1:

Client Sample ID: Trip Blank Date Collected: 09/02/20 00:00 Date Received: 09/03/20 10:00

Lab Sample ID: 460-217541-3 Matrix: Water

Method: 624.1 - Volatile Organic Compounds (GC/MS) Analyte **Result Qualifier** RL MDL Unit D Prepared Analyzed Dil Fac 1,1,1-Trichloroethane ND 1.0 0.24 ug/L 09/04/20 22:28 1 ND 1.0 0.37 ug/L 09/04/20 22:28 1.1.2.2-Tetrachloroethane 1 1,1,2-Trichloroethane ND 1.0 0.15 ug/L 09/04/20 22:28 1 1.1-Dichloroethane ND 1.0 0.26 ug/L 09/04/20 22:28 1 1,1-Dichloroethene ND 1.0 0.12 ug/L 09/04/20 22:28 1 ND 1.0 09/04/20 22:28 1.2-Dichlorobenzene 0.19 ug/L 1 1,2-Dichloroethane ND 1.0 0.84 ug/L 09/04/20 22:28 1,2-Dichloroethene, Total ND 2.0 0 4 4 ug/L 09/04/20 22:28 1 1,2-Dichloropropane ND 1.0 0.35 ug/L 09/04/20 22:28 1 ND 1.0 09/04/20 22:28 1,3-Dichlorobenzene 0.13 ug/L 1 1,4-Dichlorobenzene ND 1.0 0.18 ug/L 09/04/20 22:28 1 2-Chloroethyl vinyl ether ND 10 0.91 ug/L 09/04/20 22:28 1 ND Acrolein 4.0 1.1 ug/L 09/04/20 22:28 1 Acrylonitrile ND 2.0 0.77 ug/L 09/04/20 22:28 1 Benzene ND 1.0 0.43 ug/L 09/04/20 22:28 Bromoform ND 1.0 0.54 ug/L 09/04/20 22:28 Bromomethane ND 0.45 ug/L 09/04/20 22:28 1.0 1 Carbon tetrachloride ND 1.0 0.21 ug/L 09/04/20 22:28 1 Chlorobenzene ND 1.0 0.38 ug/L 09/04/20 22:28 1 Chlorodibromomethane ND 0.13 ug/L 09/04/20 22:28 1.0 1 Chloroethane ND 1.0 0.32 ug/L 09/04/20 22:28 1 Chloroform ND 1.0 0.33 ug/L 09/04/20 22:28 1 Chloromethane ND 1.0 0.43 ug/L 09/04/20 22:28 1

Eurofins TestAmerica, Edison

Client Sample ID: RW-3D Date Collected: 10/13/20 10:35 Date Received: 10/15/20 08:00

Lab Sample ID: 480-176522-1

Matrix: Water

5 6

Method: 624.1 - Volatile Organ	nic Compounds (O	GC/MS)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	0.39	ug/L			10/15/20 17:26	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.26	ug/L			10/15/20 17:26	1
1,1,2-Trichloroethane	ND		5.0	0.48	ug/L			10/15/20 17:26	1
1,1-Dichloroethane	ND		5.0	0.59	ug/L			10/15/20 17:26	1
1,1-Dichloroethene	ND		5.0	0.85	ug/L			10/15/20 17:26	1
1,2-Dichlorobenzene	ND		5.0	0.44	ug/L			10/15/20 17:26	1
1,2-Dichloroethane	ND		5.0	0.60	ug/L			10/15/20 17:26	1
1,2-Dichloroethene, Total	30		10	3.2	ug/L			10/15/20 17:26	1
1,2-Dichloropropane	ND		5.0	0.61	ug/L			10/15/20 17:26	1
1,3-Dichlorobenzene	ND		5.0	0.54	ug/L			10/15/20 17:26	1
1,4-Dichlorobenzene	ND		5.0	0.51	ug/L			10/15/20 17:26	1
2-Chloroethyl vinyl ether	ND		25	1.9	ug/L			10/15/20 17:26	1
Acrolein	ND		100	17	ug/L			10/15/20 17:26	1
Acrylonitrile	ND		50	1.9	ug/L			10/15/20 17:26	1
Benzene	ND		5.0	0.60	ug/L			10/15/20 17:26	1
Bromodichloromethane	ND		5.0	0.54	ug/L			10/15/20 17:26	1
Bromoform	ND		5.0	0.47	uq/L			10/15/20 17:26	1
Bromomethane	ND		5.0	1.2	ua/L			10/15/20 17:26	1
Carbon tetrachloride	ND		5.0	0.51	ua/L			10/15/20 17:26	1
Chlorobenzene	ND		5.0	0.48	ua/L			10/15/20 17:26	1
Chlorodibromomethane	ND		5.0	0.41				10/15/20 17:26	1
Chloroethane	ND		5.0	0.87	ua/l			10/15/20 17:26	· · · · · · · 1
Chloroform	0.61	л	5.0	0.54	ug/l			10/15/20 17:26	. 1
Chloromethane		•	5.0	0.04	ug/L			10/15/20 17:26	1
cis-1 3-Dichloropropene			5.0	0.04	ug/L			10/15/20 17:26	
Ethylbenzene			5.0	0.00	ug/L			10/15/20 17:26	1
Methylene Chloride			5.0	0.40	ug/L			10/15/20 17:26	1
	74		5.0	0.01	ug/L			10/15/20 17:26	· · · · · · · · · · · · · · · · · · ·
			5.0	0.34	ug/L			10/15/20 17:20	1
trans 1.2 Dichloroothono			5.0	0.40	ug/L			10/15/20 17:20	1
			5.0	0.59	ug/L			10/15/20 17:20	
trans-1,3-Dichloropropene			5.0	0.44	ug/L			10/15/20 17.20	1
Irichloroethene	66		5.0	0.60	ug/L			10/15/20 17:26	1
Vinyl chloride	ND		5.0	0.75	ug/L			10/15/20 17:26	1
Surrogate	%Recoverv	Qualifier	Limits				Prepared	Analvzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		68 - 130			-		10/15/20 17:26	1
4-Bromofluorobenzene (Surr)	98		76 - 123					10/15/20 17:26	1
Dibromofluoromethane (Surr)	101		75 - 123					10/15/20 17:26	1
Toluene-d8 (Surr)	98		77 _ 120					10/15/20 17:26	1
General Chemistry	_	0			11	-	Dura 1	A	D# 5
Analyte	Kesult	Quaimer		MDL		<u> </u>	Prepared	Analyzed	
IOIAI DISSOIVED SOIIDS	662	0	10.0	4.0	nig/L	_	Dava i	10/15/20 17:04	1
Anaiyte	Result	Qualifier		RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.22	HF	0.100	0.100	50			10/19/20 10:54	1
Temperature	15.0	HF	0.00100	0.00100	Degrees C			10/19/20 10:54	1

Client Sample ID: Effluent Date Collected: 10/13/20 10:30 Date Received: 10/15/20 08:00

Lab Sample ID: 480-176522-2

Matrix: Water

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- Method: 624.1 - Volatile Organ	ic Compounds (0	GC/MS)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	0.39	ug/L			10/15/20 17:49	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.26	ug/L			10/15/20 17:49	1
1,1,2-Trichloroethane	ND		5.0	0.48	ug/L			10/15/20 17:49	1
1,1-Dichloroethane	ND		5.0	0.59	ug/L			10/15/20 17:49	1
1,1-Dichloroethene	ND		5.0	0.85	ug/L			10/15/20 17:49	1
1,2-Dichlorobenzene	ND		5.0	0.44	ug/L			10/15/20 17:49	1
1,2-Dichloroethane	ND		5.0	0.60	ug/L			10/15/20 17:49	1
1,2-Dichloroethene, Total	ND		10	3.2	ug/L			10/15/20 17:49	1
1,2-Dichloropropane	ND		5.0	0.61	ug/L			10/15/20 17:49	1
1,3-Dichlorobenzene	ND		5.0	0.54	uq/L			10/15/20 17:49	1
1,4-Dichlorobenzene	ND		5.0	0.51	ug/L			10/15/20 17:49	1
2-Chloroethyl vinyl ether	ND		25	1.9	ua/L			10/15/20 17:49	1
Acrolein	ND		100	17	ua/L			10/15/20 17:49	
Acrylonitrile	ND		50	1.9	ua/L			10/15/20 17:49	1
Benzene	ND		5.0	0.60	ua/L			10/15/20 17:49	1
Bromodichloromethane	ND		5.0	0.54	ug/l			10/15/20 17:49	· · · · · · · · · 1
Bromoform	ND		5.0	0.01	ug/L			10/15/20 17:49	1
Bromomethane			5.0	1.2	ug/L			10/15/20 17:49	1
Carbon tetrachloride			5.0	0.51				10/15/20 17:49	
Chlorobenzene			5.0	0.01	ug/L			10/15/20 17:49	1
Chlorodibromomethane			5.0	0.40	ug/L			10/15/20 17:49	1
Chloroothano			5.0	0.41	ug/L			10/15/20 17:49	· · · · · · · · · · · · · · · · · · ·
Chloroform			5.0	0.07	ug/L			10/15/20 17:49	1
Chloromothana			5.0	0.04	ug/L			10/15/20 17:49	1
			5.0	0.04	ug/L			10/15/20 17:49	
	ND		5.0	0.33	ug/L			10/15/20 17.49	1
Euryibenzene	ND		5.0	0.40	ug/L			10/15/20 17.49	1
	ND		5.0	0.81	ug/L			10/15/20 17:49	
	ND		5.0	0.34	ug/L			10/15/20 17:49	1
Ioluene	ND		5.0	0.45	ug/L			10/15/20 17:49	1
trans-1,2-Dichloroethene	ND		5.0	0.59	ug/L			10/15/20 17:49	
trans-1,3-Dichloropropene	ND		5.0	0.44	ug/L			10/15/20 17:49	1
Irichloroethene	ND		5.0	0.60	ug/L			10/15/20 17:49	1
Vinyl chloride	ND		5.0	0.75	ug/L			10/15/20 17:49	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	96		68 - 130			-		10/15/20 17:49	1
4-Bromofluorobenzene (Surr)	97		76 - 123					10/15/20 17:49	1
Dibromofluoromethane (Surr)	102		75 - 123					10/15/20 17:49	1
Toluene-d8 (Surr)	97		77 _ 120					10/15/20 17:49	1
- General Chemistry									
Analyte	Recult	Qualifier	RI	мы	Unit	п	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	741		10.0	4.0	mg/L		. ropurou	10/15/20 17:04	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.99	HF	0.100	0.100	SU			10/19/20 10:56	1
Temperature	15.2	HF	0.00100	0.00100	Degrees C			10/19/20 10:56	1
	.0.2		2.00.00	2.50.00					

Client Sample ID: RW-3D Date Collected: 11/11/20 10:00 Date Received: 11/13/20 08:00

Lab Sample ID: 480-178108-1

Matrix: Water

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Method: 624.1 - Volatile Organic	c Compounds (C	GC/MS)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.24	ug/L			11/14/20 13:53	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.37	ug/L			11/14/20 13:53	1
1,1,2-Trichloroethane	ND		1.0	0.15	ug/L			11/14/20 13:53	1
1,1-Dichloroethane	ND		1.0	0.26	ug/L			11/14/20 13:53	1
1,1-Dichloroethene	ND		1.0	0.12	ug/L			11/14/20 13:53	1
1,2-Dichlorobenzene	ND		1.0	0.19	ug/L			11/14/20 13:53	1
1,2-Dichloroethane	ND		1.0	0.84	ug/L			11/14/20 13:53	1
1,2-Dichloroethene, Total	28		2.0	0.44	ug/L			11/14/20 13:53	1
1,2-Dichloropropane	ND		1.0	0.35	ug/L			11/14/20 13:53	1
1,3-Dichlorobenzene	ND		1.0	0.13	ug/L			11/14/20 13:53	1
1,4-Dichlorobenzene	ND		1.0	0.18	ug/L			11/14/20 13:53	1
2-Chloroethyl vinyl ether	ND		1.0	0.91	ug/L			11/14/20 13:53	1
Acrolein	ND		4.0	1.1	ug/L			11/14/20 13:53	1
Acrylonitrile	ND		2.0	0.77	ug/L			11/14/20 13:53	1
Benzene	ND		1.0	0.43	ug/L			11/14/20 13:53	1
Bromoform	ND		1.0	0.54	ug/L			11/14/20 13:53	1
Bromomethane	ND		1.0	0.45	ug/L			11/14/20 13:53	1
Carbon tetrachloride	ND		1.0	0.21	ug/L			11/14/20 13:53	1
Chlorobenzene	ND		1.0	0.38	ug/L			11/14/20 13:53	1
Chlorodibromomethane	ND		1.0	0.13	ug/L			11/14/20 13:53	1
Chloroethane	ND		1.0	0.32	ug/L			11/14/20 13:53	1
Chloroform	0.52	J	1.0	0.33	ug/L			11/14/20 13:53	1
Chloromethane	ND		1.0	0.43	ug/L			11/14/20 13:53	1
cis-1,3-Dichloropropene	ND		1.0	0.46	ug/L			11/14/20 13:53	1
Bromodichloromethane	ND		1.0	0.34	ug/L			11/14/20 13:53	1
Ethylbenzene	ND		1.0	0.30	ug/L			11/14/20 13:53	1
Methylene Chloride	ND		1.0	0.32	ug/L			11/14/20 13:53	1
Tetrachloroethene	63		1.0	0.25	ug/L			11/14/20 13:53	1
Toluene	ND		1.0	0.38	ug/L			11/14/20 13:53	1
trans-1,2-Dichloroethene	ND		1.0	0.24	ug/L			11/14/20 13:53	1
trans-1,3-Dichloropropene	ND		1.0	0.22	ug/L			11/14/20 13:53	1
Trichloroethene	59		1.0	0.31	ug/L			11/14/20 13:53	1
Vinyl chloride	ND		1.0	0.34	ug/L			11/14/20 13:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		60 - 140		11/14/20 13:53	1
4-Bromofluorobenzene	108		60 - 140		11/14/20 13:53	1
Toluene-d8 (Surr)	110		60 - 140		11/14/20 13:53	1
Dibromofluoromethane (Surr)	107		60 - 140		11/14/20 13:53	1

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		0.20	0.060	mg/L		11/23/20 11:05	11/23/20 21:00	1
Arsenic	ND		0.015	0.0056	mg/L		11/23/20 11:05	11/23/20 21:00	1
Barium	0.26	^	0.0020	0.00070	mg/L		11/23/20 11:05	11/23/20 21:00	1
Copper	ND		0.010	0.0016	mg/L		11/23/20 11:05	11/23/20 21:00	1
Iron	ND		0.050	0.019	mg/L		11/23/20 11:05	11/23/20 21:00	1
Lead	ND		0.010	0.0030	mg/L		11/23/20 11:05	11/23/20 21:00	1
Manganese	ND		0.0030	0.00040	mg/L		11/23/20 11:05	11/23/20 21:00	1
Vanadium	ND		0.0050	0.0015	mg/L		11/23/20 11:05	11/23/20 21:00	1

Client Sample ID: RW-3D Date Collected: 11/11/20 10:00

Date Received: 11/13/20 08:00

Job ID: 480-178108-1

Lab Sample ID: 480-178108-1 Matrix: Water

Method: 200.7 Rev 4.4 - Metals (ICP)	(Continue	d)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	0.054		0.010	0.0015	mg/L		11/23/20 11:05	11/23/20 21:00	1
Method: 245.1 - Mercury (CVAA)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		11/20/20 13:27	11/20/20 17:56	1
General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	785		10.0	4.0	mg/L			11/18/20 22:39	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.32	HF	0.100	0.100	SU			12/08/20 15:17	1
Temperature	16.0	HF	0.00100	0.00100	Degrees C			12/08/20 15:17	1

Client Sample ID: Effluent Date Collected: 11/11/20 10:10 Date Received: 11/13/20 08:00

Lab Sample ID: 480-178108-2

Matrix: Water

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Method: 624.1 - Volatile Organic Compounds (GC/MS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.24	ug/L			11/14/20 18:51	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.37	ug/L			11/14/20 18:51	1
1,1,2-Trichloroethane	ND		1.0	0.15	ug/L			11/14/20 18:51	1
1,1-Dichloroethane	ND		1.0	0.26	ug/L			11/14/20 18:51	1
1,1-Dichloroethene	ND		1.0	0.12	ug/L			11/14/20 18:51	1
1,2-Dichlorobenzene	ND		1.0	0.19	ug/L			11/14/20 18:51	1
1,2-Dichloroethane	ND		1.0	0.84	ug/L			11/14/20 18:51	1
1,2-Dichloroethene, Total	0.97	J	2.0	0.44	ug/L			11/14/20 18:51	1
1,2-Dichloropropane	ND		1.0	0.35	ug/L			11/14/20 18:51	1
1,3-Dichlorobenzene	ND		1.0	0.13	ug/L			11/14/20 18:51	1
1,4-Dichlorobenzene	ND		1.0	0.18	ug/L			11/14/20 18:51	1
2-Chloroethyl vinyl ether	ND		1.0	0.91	ug/L			11/14/20 18:51	1
Acrolein	ND		4.0	1.1	ug/L			11/14/20 18:51	1
Acrylonitrile	ND		2.0	0.77	ug/L			11/14/20 18:51	1
Benzene	ND		1.0	0.43	ug/L			11/14/20 18:51	1
Bromoform	ND		1.0	0.54	ug/L			11/14/20 18:51	1
Bromomethane	ND		1.0	0.45	ug/L			11/14/20 18:51	1
Carbon tetrachloride	ND		1.0	0.21	ug/L			11/14/20 18:51	1
Chlorobenzene	ND		1.0	0.38	ug/L			11/14/20 18:51	1
Chlorodibromomethane	ND		1.0	0.13	ug/L			11/14/20 18:51	1
Chloroethane	ND		1.0	0.32	ug/L			11/14/20 18:51	1
Chloroform	ND		1.0	0.33	ug/L			11/14/20 18:51	1
Chloromethane	ND		1.0	0.43	ug/L			11/14/20 18:51	1
cis-1,3-Dichloropropene	ND		1.0	0.46	ug/L			11/14/20 18:51	1
Bromodichloromethane	ND		1.0	0.34	ug/L			11/14/20 18:51	1
Ethylbenzene	ND		1.0	0.30	ug/L			11/14/20 18:51	1
Methylene Chloride	ND		1.0	0.32	ug/L			11/14/20 18:51	1
Tetrachloroethene	0.58	J	1.0	0.25	ug/L			11/14/20 18:51	1
Toluene	ND		1.0	0.38	ug/L			11/14/20 18:51	1
trans-1,2-Dichloroethene	ND		1.0	0.24	ug/L			11/14/20 18:51	1
trans-1,3-Dichloropropene	ND		1.0	0.22	ug/L			11/14/20 18:51	1
Trichloroethene	0.92	J	1.0	0.31	ug/L			11/14/20 18:51	1
Vinyl chloride	ND		1.0	0.34	ug/L			11/14/20 18:51	1

Surrogate	%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		60 - 140	-		11/14/20 18:51	1
4-Bromofluorobenzene	110		60 - 140			11/14/20 18:51	1
Toluene-d8 (Surr)	112		60 - 140			11/14/20 18:51	1
Dibromofluoromethane (Surr)	106		60 - 140			11/14/20 18:51	1

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		0.20	0.060	mg/L		11/23/20 11:05	11/23/20 21:18	1
Arsenic	ND		0.015	0.0056	mg/L		11/23/20 11:05	11/23/20 21:18	1
Barium	0.26	^	0.0020	0.00070	mg/L		11/23/20 11:05	11/23/20 21:18	1
Copper	0.22		0.010	0.0016	mg/L		11/23/20 11:05	11/23/20 21:18	1
Iron	0.041	J	0.050	0.019	mg/L		11/23/20 11:05	11/23/20 21:18	1
Lead	0.020		0.010	0.0030	mg/L		11/23/20 11:05	11/23/20 21:18	1
Manganese	0.00092	J	0.0030	0.00040	mg/L		11/23/20 11:05	11/23/20 21:18	1
Vanadium	ND		0.0050	0.0015	mg/L		11/23/20 11:05	11/23/20 21:18	1

RL

RL

RL

10.0

RL

0.100

0.00100

0.00020

0.010

MDL Unit

MDL Unit

MDL Unit

RL Unit

0.00100 Degrees C

4.0 mg/L

0.100 SU

0.00012 mg/L

0.0015 mg/L

D

D

D

D

Prepared

11/23/20 11:05

Prepared

11/20/20 13:27

Prepared

Prepared

Result Qualifier

Result Qualifier

Result Qualifier

0.59

ND

733 Result Qualifier

8.05 HF

15.6 HF

Client Sample ID: Effluent Date Collected: 11/11/20 10:10

Date Received: 11/13/20 08:00

Method: 245.1 - Mercury (CVAA)

Analyte

Analyte

Mercury

Analyte

Analyte

Temperature

pН

General Chemistry

Total Dissolved Solids

Zinc

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Lab Sample ID: 480-178108-2 Matrix: Water

Analyzed

11/23/20 21:18

Analyzed

11/20/20 17:57

Analyzed

11/18/20 22:39

Analyzed

12/08/20 15:19

12/08/20 15:19

Dil Fac

Dil Fac

Dil Fac

Dil Fac

1

1

1

1

1

Client Sample ID: RW-3D Date Collected: 12/10/20 12:10 Date Received: 12/12/20 08:00

рΗ

Temperature

Lab Sample ID: 480-179323-1

Matrix: Water

5 6 7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analvzed	Dil Fac
1.1.1-Trichloroethane	ND		1.0	0.24	ua/L			12/16/20 14:16	1
1.1.2.2-Tetrachloroethane	ND		1.0	0.37	ua/L			12/16/20 14:16	1
1.1.2-Trichloroethane	ND		1.0	0.15	ua/L			12/16/20 14:16	1
1.1-Dichloroethane	ND		1.0	0.26	ua/L			12/16/20 14:16	
1.1-Dichloroethene	ND		1.0	0.12	ua/L			12/16/20 14:16	1
1,2-Dichlorobenzene	ND		1.0	0.19	ug/L			12/16/20 14:16	1
1,2-Dichloroethane	ND		1.0	0.84	ug/L			12/16/20 14:16	1
1,2-Dichloroethene, Total	34		2.0	0.44	ug/L			12/16/20 14:16	1
1,2-Dichloropropane	ND		1.0	0.35	ug/L			12/16/20 14:16	1
1,3-Dichlorobenzene	ND		1.0	0.13	ug/L			12/16/20 14:16	1
1,4-Dichlorobenzene	ND		1.0	0.18	ug/L			12/16/20 14:16	1
2-Chloroethyl vinyl ether	ND		1.0	0.91	ug/L			12/16/20 14:16	1
Acrolein	ND	Н	4.0	1.1	ug/L			12/16/20 14:16	1
Acrylonitrile	ND		2.0	0.77	ug/L			12/16/20 14:16	1
Benzene	ND		1.0	0.43	ug/L			12/16/20 14:16	1
Bromoform	ND		1.0	0.54	ug/L			12/16/20 14:16	1
Bromomethane	ND		1.0	0.45	ug/L			12/16/20 14:16	1
Carbon tetrachloride	ND		1.0	0.21	ug/L			12/16/20 14:16	1
Chlorobenzene	ND		1.0	0.38	ug/L			12/16/20 14:16	1
Chlorodibromomethane	ND		1.0	0.13	ug/L			12/16/20 14:16	1
Chloroethane	ND		1.0	0.32	ug/L			12/16/20 14:16	1
Chloroform	0.55	J	1.0	0.33	ug/L			12/16/20 14:16	1
Chloromethane	ND		1.0	0.43	ug/L			12/16/20 14:16	1
cis-1,3-Dichloropropene	ND		1.0	0.46	ug/L			12/16/20 14:16	1
Bromodichloromethane	ND		1.0	0.34	ug/L			12/16/20 14:16	1
Ethylbenzene	ND		1.0	0.30	ug/L			12/16/20 14:16	1
Methylene Chloride	ND		1.0	0.32	ug/L			12/16/20 14:16	1
Tetrachloroethene	73		1.0	0.25	ug/L			12/16/20 14:16	1
Toluene	ND		1.0	0.38	ug/L			12/16/20 14:16	1
trans-1,2-Dichloroethene	ND		1.0	0.24	ug/L			12/16/20 14:16	1
trans-1,3-Dichloropropene	ND		1.0	0.22	ug/L			12/16/20 14:16	1
Trichloroethene	70		1.0	0.31	ug/L			12/16/20 14:16	1
Vinyl chloride	ND		1.0	0.34	ug/L			12/16/20 14:16	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	108		60 - 140			-		12/16/20 14:16	1
4-Bromofluorobenzene	102		60 - 140					12/16/20 14:16	1
Toluene-d8 (Surr)	102		60 - 140					12/16/20 14:16	1
Dibromofluoromethane (Surr)	102		60 - 140					12/16/20 14:16	1
General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	754		10.0	4.0	mg/L			12/12/20 14:16	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac

12/15/20 20:25

12/15/20 20:25

0.100

0.00100

0.100 SU

0.00100 Degrees C

7.35 HF

17.5 HF

1

1

Client Sample ID: EFFLUENT

Date Collected: 12/10/20 12:00 Date Received: 12/12/20 08:00

Method: 624.1 - Volatile Organ	nic Compounds (GC/MS)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.24	ug/L			12/16/20 13:54	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.37	ug/L			12/16/20 13:54	1
1,1,2-Trichloroethane	ND		1.0	0.15	ug/L			12/16/20 13:54	1
1,1-Dichloroethane	ND		1.0	0.26	ug/L			12/16/20 13:54	1
1,1-Dichloroethene	ND		1.0	0.12	ug/L			12/16/20 13:54	1
1,2-Dichlorobenzene	ND		1.0	0.19	ug/L			12/16/20 13:54	1
1,2-Dichloroethane	ND		1.0	0.84	ug/L			12/16/20 13:54	1
1,2-Dichloroethene, Total	2.0		2.0	0.44	ug/L			12/16/20 13:54	1
1,2-Dichloropropane	ND		1.0	0.35	ug/L			12/16/20 13:54	1
1,3-Dichlorobenzene	ND		1.0	0.13	ug/L			12/16/20 13:54	1
1,4-Dichlorobenzene	ND		1.0	0.18	ug/L			12/16/20 13:54	1
2-Chloroethyl vinyl ether	ND		1.0	0.91	ug/L			12/16/20 13:54	1
Acrolein	ND	Н	4.0	1.1	ug/L			12/16/20 13:54	1
Acrylonitrile	ND		2.0	0.77	ug/L			12/16/20 13:54	1
Benzene	ND		1.0	0.43	ug/L			12/16/20 13:54	1
Bromoform	ND		1.0	0.54	ug/L			12/16/20 13:54	1
Bromomethane	ND		1.0	0.45	ug/L			12/16/20 13:54	1
Carbon tetrachloride	ND		1.0	0.21	ug/L			12/16/20 13:54	1
Chlorobenzene	ND		1.0	0.38	ug/L			12/16/20 13:54	1
Chlorodibromomethane	ND		1.0	0.13	ug/L			12/16/20 13:54	1
Chloroethane	ND		1.0	0.32	ug/L			12/16/20 13:54	1
Chloroform	ND		1.0	0.33	ug/L			12/16/20 13:54	1
Chloromethane	ND		1.0	0.43	ug/L			12/16/20 13:54	1
cis-1,3-Dichloropropene	ND		1.0	0.46	ug/L			12/16/20 13:54	1
Bromodichloromethane	ND		1.0	0.34	ug/L			12/16/20 13:54	1
Ethylbenzene	ND		1.0	0.30	ug/L			12/16/20 13:54	1
Methylene Chloride	ND		1.0	0.32	ug/L			12/16/20 13:54	1
Tetrachloroethene	1.1		1.0	0.25	ug/L			12/16/20 13:54	1
Toluene	ND		1.0	0.38	ug/L			12/16/20 13:54	1
trans-1,2-Dichloroethene	ND		1.0	0.24	ug/L			12/16/20 13:54	1
trans-1,3-Dichloropropene	ND		1.0	0.22	ug/L			12/16/20 13:54	1
Trichloroethene	1.6		1.0	0.31	ug/L			12/16/20 13:54	1
Vinyl chloride	ND		1.0	0.34	ug/L			12/16/20 13:54	1
Surrogate	%Recovery	Qualifier	Limits			_	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	107		60 - 140					12/16/20 13:54	1
1 Promofluorobonzono	100		60 140					10/16/00 10:51	1

Surroyale	%Recovery	Quanner	LIIIIIIS	Prepareu	Analyzeu	DIIFac
1,2-Dichloroethane-d4 (Surr)	107		60 - 140		12/16/20 13:54	1
4-Bromofluorobenzene	103		60 - 140		12/16/20 13:54	1
Toluene-d8 (Surr)	104		60 - 140		12/16/20 13:54	1
Dibromofluoromethane (Surr)	103		60 - 140		12/16/20 13:54	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	779		10.0	4.0	mg/L			12/12/20 14:16	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.23	HF	0.100	0.100	SU			12/15/20 20:26	1
Temperature	17.2	HF	0.00100	0.00100	Degrees C			12/15/20 20:26	1

Eurofins TestAmerica, Buffalo

Job ID: 480-179323-1

Lab Sample ID: 480-179323-2

Matrix: Water

5

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APPENDIX E DATA USABILITY SUMMARY REPORTS

Data Usability Summary Report

Vali-Data of WNY, LLC 1514 Davis Rd. West Falls, NY 14170

COSCO #344035 Eurofins SDG#480-173063-1 August 13, 2020 Sampling date: 7/28/2020

Prepared by: Jodi Zimmerman Vali-Data of WNY, LLC 1514 Davis Rd. West Falls, NY 14170

DELIVERABLES

This Data Usability Summary Report (DUSR) was prepared by evaluating the analytical data package for Ramboll, project located at COSCO #344035, Eurofins #480-173063-1 submitted to Vali-Data of WNY, LLC on August 12, 2020. This DUSR has been prepared in general compliance with USEPA National Functional Guidelines(NFG) and NYSDEC Analytical Services Protocols. The laboratory performed the analysis using USEPA method Volatile Organics (624.1).

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
- 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.

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 for the sample were met.

COSCO #344035 SDG# 480-173063-1 **INTERNAL STANDARD (IS)** All criteria were met.

SURROGATE SPIKE RECOVERIES All criteria were met.

METHOD BLANK All the criteria were met.

FIELD DUPLICATE SAMPLE PRECISION No field duplicate was acquired.

LABORATORY CONTROL SAMPLES All criteria were met.

MS/MSD All criteria were met.

COMPOUND QUANTITATION All criteria were met.

INITIAL CALIBRATION All criteria were met.

CONTINUING CALIBRATION All criteria were met.

GC/MS PERFORMANCE CHECK

All criteria were met.

COSCO #344035 SDG# 480-173063-1

Data Usability Summary Report

Vali-Data of WNY, LLC 1514 Davis Rd. West Falls, NY 14170

COSCO #344035 Eurofins SDG#480-173177-1 August 20, 2020 Reissued: 8/22/2020 Sampling date: 7/29/2020

Prepared by: Jodi Zimmerman Vali-Data of WNY, LLC 1514 Davis Rd. West Falls, NY 14170

DELIVERABLES

This Data Usability Summary Report (DUSR) was prepared by evaluating the analytical data package(reissued, August 22, 2020) for Ramboll, project located at COSCO #344035, Eurofins #480-173177-1 submitted to Vali-Data of WNY, LLC on August 19, 2020. This DUSR has been prepared in general compliance with USEPA National Functional Guidelines(NFG) and NYSDEC Analytical Services Protocols. The laboratory performed the analysis using USEPA method Volatile Organics (624.1).

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
- 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, 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.

COSCO #344035 SDG# 480-173177-1

HOLDING TIMES

All holding times for the samples were met except the pH of the samples was outside QC limits. The samples were run within 7 days from the date of collection, so no further action is required.

INTERNAL STANDARD (IS)

All criteria were met.

SURROGATE SPIKE RECOVERIES

All criteria were met.

METHOD BLANK

All the criteria were met.

FIELD DUPLICATE SAMPLE PRECISION

All the criteria were met.

LABORATORY CONTROL SAMPLES

All criteria were met except the %Rec of 1,2-Dichloroethane was outside QC limits, high in LCS/SD 680-629061/4, 5 and should be qualified as estimated. This target analyte should be qualified as estimated high in the associated samples in which it was detected.

The %Rec of Bromomethane was outside QC limits, high in LCS 680-629061/4 and should be qualified as estimated.

The concentration of Chloroethane was outside calibration range in LCS/SD 680-629061/4, 5 and is qualified with an 'E'.

MS/MSD

No MS/MSD was acquired.

COMPOUND QUANTITATION

All criteria were met.

INITIAL CALIBRATION

All criteria were met except the RRF of 1,1,2-Trichloroethane was outside QC limits in the initial calibration. The %Rec of Bromomethane and Chloroethane was outside QC limits in ICV 680-627901/15. These target analytes should be qualified as estimated in the samples, blank and spikes.

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

CONTINUING CALIBRATION

All criteria were met except the %Rec of Bromomethane and Chlorodibromomethane were outside QC limits in CCVIS 680-629016/3. These target analytes should be qualified as estimated in the samples, blank and spikes.

COSCO #344035 SDG# 480-173177-1

GC/MS PERFORMANCE CHECK

All criteria were met.

COSCO #344035 SDG# 480-173177-1

Data Usability Summary Report

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

COSCO #344035 Eurofins SDG#480-181811-1 April 23, 2021 Reissued; April 26, 2021 Sampling date: 3/8/2021

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

DELIVERABLES

This Data Usability Summary Report (DUSR) was prepared by evaluating the analytical data package(reissued; April 26, 2021) for Ramboll, Eurofins SDG#480-181811-1, submitted to Vali-Data of WNY, LLC on April 6, 2021. This DUSR has been prepared in general compliance with USEPA National Functional Guidelines(NFG) and NYSDEC Analytical Services Protocols. The laboratory performed the analyses using USEPA method Volatile Organics (624.1, RSK-175), Inorganic (6010C) and in accordance with wet chemistry methods.

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.

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

Data was not reported to 3 significant figures. This does not affect the usability of the data.

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.

MS/MSD No MS/MSD was acquired for these analyses.

COMPOUND QUANTITATION All criteria were met.

INITIAL CALIBRATION

All criteria were met. Alternate forms of regression were used on all target analytes in the RSK-175 analysis, with acceptable results.

CONTINUING CALIBRATION All criteria were met.

GC/MS PERFORMANCE CHECK All criteria were met.

METALS

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 -Blanks -Laboratory Control Sample -MS/MSD/Duplicate -Field Duplicate -Serial Dilution -Compound Quantitation -Calibration

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.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use but are qualified below in Blanks and 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.

BLANKS

All criteria were met except Mn was detected above the MDL, below the reporting limit and is qualified as estimated in MB 480-571925/1-A. This target analyte should be qualified as undetected at the reporting limit in associated samples in which it was detected below the reporting limit. This target analyte should be qualified as estimated high in associated samples in which it was detected above the reporting limit.

LABORATORY CONTROL SAMPLE

All criteria were met.

MS/MSD/DUPLICATE

All criteria were met.

FIELD DUPLICATE

All criteria were met.

SERIAL DILUTION

All criteria were met.

COMPOUND QUANTITATION

All criteria were met.

CALIBRATION

All criteria were met except the %Rec of Fe was outside QC limits, high in CCVL 480-572128/27. This target analyte should be qualified as estimated high in the associated blanks, samples and spikes in which it was detected.

GENERAL CHEMISTRY

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

- Chloride/Sulfate
- Nitrogen, Nitrate-Nitrite
- Alkalinity
- Sulfide
- TOC

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

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use except where qualified below.

ALKALINITY

All criteria were met.

CHORIDE/SULFATE

All criteria were met. All of the samples were diluted due to high target analyte concentration.

NITROGEN, NITRATE-NITRITE

All criteria were met.

SULFIDE

All criteria were met.

тос

All criteria were met.

Data Usability Summary Report

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

COSCO #344035 Eurofins SDG#480-181846-1 April 23, 2021 Sampling date: 3/9/2021

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

DELIVERABLES

This Data Usability Summary Report (DUSR) was prepared by evaluating the analytical data package for Ramboll, Eurofins SDG#480-181846-1, submitted to Vali-Data of WNY, LLC on April 6, 2021. This DUSR has been prepared in general compliance with USEPA National Functional Guidelines(NFG) and NYSDEC Analytical Services Protocols. The laboratory performed the analyses using USEPA method Volatile Organics (624.1, RSK-175), Inorganic (6010C) and in accordance with wet chemistry methods.

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 MS/MSD.

Sample: RW-3C-030921 was diluted in method 624.1 due to high concentration of target analytes.

Sample: MW-18-030921 was diluted in method RSK-175 due to high concentration of target analytes.

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS

All criteria were met. Data was not reported to 3 significant figures. This does not affect the usability of the data.

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.

MS/MSD

All criteria were met except the %RPD of 1,1,2,2-Tetrachloroethane was outside QC limits between RW-1S-030921MS and RW-1S-030921MSD and should be qualified as estimated. This target analyte should be qualified as estimated in RW-1S-030921.

COMPOUND QUANTITATION

All criteria were met.

INITIAL CALIBRATION

All criteria were met. Alternate forms of regression were used on all target analytes in the RSK-175 analysis, with acceptable results.

CONTINUING CALIBRATION

All criteria were met.

GC/MS PERFORMANCE CHECK

All criteria were met.

METALS

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 -Blanks -Laboratory Control Sample -MS/MSD/Duplicate -Field Duplicate -Serial Dilution -Compound Quantitation -Calibration

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.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use.

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.

BLANKS

All criteria were met.

LABORATORY CONTROL SAMPLE

All criteria were met.

MS/MSD/DUPLICATE

All criteria were met.

FIELD DUPLICATE

No field duplicate was acquired.

SERIAL DILUTION

All criteria were met.

COMPOUND QUANTITATION

All criteria were met.

CALIBRATION

All criteria were met.

GENERAL CHEMISTRY

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

- Chloride/Sulfate
- Nitrogen, Nitrate-Nitrite
- Alkalinity
- Sulfide
- тос

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

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use except where qualified below.

ALKALINITY All criteria were met.

CHORIDE/SULFATE

All criteria were met. All of the samples were diluted due to high target analyte concentrations.

NITROGEN, NITRATE-NITRITE All criteria were met.

SULFIDE All criteria were met.

TOC All criteria were met.

Data Usability Summary Report

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

COSCO #344035 Eurofins SDG#480-181931-1 April 23, 2021 Sampling date: 3/10/2021

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

DELIVERABLES

This Data Usability Summary Report (DUSR) was prepared by evaluating the analytical data package for Ramboll, Eurofins SDG#480-181931-1, submitted to Vali-Data of WNY, LLC on April 6, 2021. This DUSR has been prepared in general compliance with USEPA National Functional Guidelines(NFG) and NYSDEC Analytical Services Protocols. The laboratory performed the analyses using USEPA method Volatile Organics (624.1, RSK-175), Inorganic (6010C) and in accordance with wet chemistry methods.

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.

Sample: MW-3-031021 was diluted in method 624.1 due to foaming.

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

Data was not reported to 3 significant figures. This does not affect the usability of the data.

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.

MS/MSD No MS/MSD was acquired for this analysis.

COMPOUND QUANTITATION All criteria were met.

INITIAL CALIBRATION

All criteria were met. Alternate forms of regression were used on all target analytes in the RSK-175 analysis, with acceptable results.

CONTINUING CALIBRATION All criteria were met.

GC/MS PERFORMANCE CHECK All criteria were met.

METALS

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 -Blanks -Laboratory Control Sample -MS/MSD/Duplicate -Field Duplicate -Serial Dilution -Compound Quantitation -Calibration

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.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use except where qualified below in Blanks and 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.

BLANKS

All criteria were met except K was detected above the MDL, below the reporting limit and is qualified as estimated in ICB 480-572666/6 and CCB 480-572666/48, 55. Fe was detected above the MDL, below the reporting limit and is qualified as estimated in ICB 480-573120/6 and CCB 480-573120/56. Mn was detected above the MDL, below the reporting limit and is qualified as estimated in MB 480-572302/1-A and CCB 480-573120/47, 56. These target analytes should be qualified as undetected at the reporting limit in associated samples in which they were detected below the reporting limit. These target analytes should be qualified as estimated in which they were detected samples in which they were detected samples in which they were detected above the reporting limit.

Fe was detected above the reporting limit in CCB 480-573120/47. This target analyte should be qualified as undetected at the reporting limit in associated samples in which it was detected below the reporting limit. This target analyte should be qualified as undetected in associated samples in which it was detected above the reporting limit but below the blank concentration. This target analyte should be qualified as estimated high in associated samples in which it was detected.

LABORATORY CONTROL SAMPLE

All criteria were met.

MS/MSD/DUPLICATE

All criteria were met.

FIELD DUPLICATE No field duplicate was acquired.

SERIAL DILUTION

All criteria were met.

COMPOUND QUANTITATION

All criteria were met.

CALIBRATION

All criteria were met except the %Rec of K was outside QC limits, low in CCVL 480-572805/19, 27. The %Rec of Fe was outside QC limit, low in ICVL 480-573263/7 and CCVL 480-573263/19, 24. These target analytes should be qualified as estimated in the associated blanks, spikes and samples.

The %Rec of K was outside QC limits, high in CCVL 480-572666/19, 49. This target analyte should be qualified as estimated high in the associated samples in which it was detected.

GENERAL CHEMISTRY

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

- Chloride/Sulfate
- Nitrogen, Nitrate-Nitrite
- Alkalinity
- Sulfide
- TOC

The items listed above were technically in compliance with the method and SOP criteria with any exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above.
OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use except where qualified below.

ALKALINITY

All criteria were met.

CHORIDE/SULFATE

All criteria were met. All of the samples were diluted due to high target analyte concentrations.

NITROGEN, NITRATE-NITRITE

All criteria were met except Nitrite was detected above the MDL, below the reporting limit and is qualified as estimated in CCB2 from batch#572250. This target analyte should be qualified as undetected at the reporting limit in associated samples in which it was detected below the reporting limit. This target analyte should be qualified as estimated high in associated samples in which it was detected above the reporting limit.

SULFIDE

All criteria were met.

TOC All criteria were met.

COSCO #344035 #480-181931-1 APPENDIX F CONCENTRATION TREND PLOTS OF SITE CONSTITUENTS OF CONCERN



The sum of cis-1,2-dichloroethene and trans-1,2-dichloroethene is plotted.
 The Class GA Standard of 2 micrograms per liter (ug/L) for vinyl chloride is shown.

- →
 Trichloroethene

 →
 Dichloroethene

 →
 Vinyl Chloride
 - The Class GA Standard of 5 ug/L for tetrachloroethene and trichloroethene is shown.
 To be conservative, the individual Class GA Standard is plotted for cis-1,2-dichloroethene and trans-1,2-dichloroethene, 5 ug/L.
 For clarity, none detects are not 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, none detects are not shown.

Dichloroethene

Vinyl Chloride



The sum of cis-1,2-dichloroethene and trans-1,2-dichloroethene is plotted.
 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.

- Trichloroethene
 Dichloroethene
 Vinyl Chloride
- To be conservative, the individual Class GA Standard is plotted for cis-1,2-dichloroethene and trans-1,2-dichloroethene, 5 ug/L.
 For clarity, none detects are not shown.



Concentrations of PCE, TCE, DCE, and VC at Monitoring Well GW-4S NYSDEC COSCO Site Spring Valley, New York



- 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, none detects are not shown.

Dichloroethene

- Vinyl Chloride

Concentrations of PCE, TCE, DCE, and VC at Monitoring Well MW-18 NYSDEC COSCO Site Spring Valley, New York



Trichloroethene Dichloroethene - Vinyl Chloride

- 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, none detects are not shown.

Spring Valley, New York 1,000.0 RW-1S, RW-3D, RW-8S Pump On RW-1S and RW-8S Pump Off 100.0 Concentration (µg/L) 0.0 5 µg/L 2 µg/L 1.0 እ 0.1 2012 2013 2016 2011 2014 2015 2017 2018 2019 2020 2021 Year

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



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, none detects are not shown.



APPENDIX G REMEDIAL SYSTEM OPTIMIZATION PHASE 1 SUMMARY NYSDEC COSCO SITE (ID NO. 3-44-035), SPRING VALLEY, NEW YORK

NYSDEC COSCO Site
Robert Strang, E.I.T.
Division of Environmental Remediation
New York State Department of Environmental Conservation
Final Report
[1]
May 4, 2021
Robert Hornung, P.G.
Paul D'Annibale, P.G.
Paul Hare, P.G., C.P.G.

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- Appendix G-4 Groundwater Sampling Field Forms
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1. Introduction

Ramboll Americas Engineering Solutions, Inc. (Ramboll) has prepared the following summary of the results of the first phase of the Remedial System Optimization (RSO) activities completed at the Consolidated Stamp Company (COSCO) Site (the Site) located at 15 West Street, Spring Valley, New York as part of an optimization of the existing remedial system. As discussed in the Scope of Work (SOW) submitted to the New York State Department of Environmental Conservation (NYSDEC) on December 18, 2020, the RSO activities will be conducted in a phased approach to allow the additional information that is collected to be used to guide subsequent portions of the evaluation.

As discussed in the SOW, the objective of this phase of the RSO was to evaluate the effectiveness of continued operation of the groundwater extraction and treatment (GWE&T) system contrasted with potential cost-effective remedial alternatives to address the remaining volatile organic compound (VOC) impacts at the Site. The results of this phase of the RSO will be used to support the remainder of the RSO and also revision of the Site Management Plan (SMP).

The GWE&T system consists of two overburden recovery wells (RW-1S and RW-8S) and one bedrock recovery well (RW-3D). Currently only bedrock recovery well RW-3D is actively recovering groundwater. Overburden recovery wells RW-1S and RW-8S have been offline since the fall of 2015. The treatment system consists of a low-profile air stripper, and the treated groundwater is discharged to the surface drainage, Reach B Diversion.

The first phase of RSO included the following activities, each of which is discussed in subsequent sections of this report:

- Review of historic data for the Site, specifically, individual volatile organic compounds (VOCs) at the Site with detectable concentrations, primarily tetrachloroethene (PCE), trichloroethene (TCE), and 1,2-dichloroethene (1,2-DCE), and VOC mass removal from RW-3D (the only recovery well in the bedrock) to evaluate current VOC degradation and effectiveness of the GWE&T system;
- Evaluation of the vertical distribution of VOCs in RW-3D using passive diffusion bag samplers (PDBs);
- Performing a 72-hour constant-rate pumping test using RW-3D to evaluate the hydraulic properties of the bedrock immediately surrounding RW-3D; and
- Collection of the second semi-annual 2021 groundwater quality samples using low-flow purging and sampling techniques to obtain field parameters and collect samples for certain inorganic analyses in addition to VOC analyses.¹.

2. Review of Historic Site Data

Historic data consisting of concentration trend plots of the Site-related VOCs were reviewed to evaluate current groundwater chemistry and concentration trends at the Site (**Appendix G-1**). In general, concentrations of Site-related VOCs in overburden recovery well RW-1S have decreased since the

¹ The first semi-annual sampling event was performed in July 2020 and was limited to the collection of groundwater samples for VOC analyses. The second semi-annual sampling event was performed in March 2021.

recovery well was placed into operation in 2012, with current PCE concentrations below Class GA Standards and TCE concentration at or above Class GA Standards. In overburden recovery well RW-8S, concentrations of TCE and 1,2-DCE have remained relatively consistent at or above Class GA Standards, and concentrations of PCE have remained below Class GA Standards. In addition, concentrations of vinyl chloride (VC) have decreased below Class GA Standards since 2012.

Concentrations of Site-related VOCs in bedrock recovery well RW-3D have remained consistent, above Class GA Standards, since 2012. Concentrations have also remained consistent in the three monitoring wells that still have detections (GW-4S and MW-18, and DW-1).

VOC mass removal was evaluated for the currently active recovery well (RW-3D) using the monthly influent sample concentrations and groundwater extraction volumes from 2017.² As shown on **Figure G-1**, approximately 37 pounds of VOCs were removed from the bedrock and treated by the GWE&T system in 2017. TCE accounts for the highest percentage (approximately 42%) of mass removed by recovery well RW-3D, followed very closely by PCE (approximately 41%); 1,2-DCE³ accounted for the remaining 17% of 37 pounds of mass that were removed. Although the datasets for 2018, 2019 and 2020 are not complete, the annual amount of mass removal and the percentages of each Site-related VOC in 2017 appear to be representative based on our review of the more recent data.

3. Vertical Distribution of VOCs in Bedrock Recovery Well RW-3D

Ramboll collected groundwater samples using PDBs at multiple intervals within bedrock recovery well RW-3D to evaluate the vertical distribution of VOCs within the screened interval. The PDBs were installed on February 18, 2021 at five of the six intervals in the SOW (55-57 feet below grade [ft bg], 65-67 ft bg, 75-77 ft bg, 85-87 ft bg, and 95-97 ft bg). The static depth to water in RW-3D was below the uppermost sampling interval (45-47 ft bg), so a PDB was not installed at that interval. Prior to installing the PDBs at each interval in recovery well RW-3D, the submersible pump was shut-off and the recovery well pump and discharge piping was removed from the well. The PDBs were deployed for 15 days to allow for equilibration between the PDBs and the surrounding formation water. The PDBs were retrieved and the Groundwater samples were collected on March 5, 2021. The samples were submitted for VOC analysis by United States Environmental Protection Agency (USEPA) Method 624. Quality control (QC) samples collected during the sampling event included a blind duplicate, a matrix spike/matrix spike duplicate (MS/MSD) sample pair, and a trip blank. The PDB sample analytical results are provided in **Appendix G-**2. Data validation was performed for the PDB sample results by Vali-Data of WNY, LLC, located in Fulton, New York. The data usability summary report (DUSR) are provided in **Appendix G-3**.

The results of the PDB sampling event in RW-3D are summarized on **Table 3-1** and **Figure G-2**. PCE ranged from 340 micrograms per liter (μ g/L) in the 95-97 ft bg interval to 390 μ g/L in the 55-57 ft bg interval. TCE ranged from 300 μ g/L in the 65-67 and 75-77 ft bg intervals to 330 μ g/L in the 55-57 ft bg interval. 1,2-DCE ranged from 190 μ g/L in the 75-77 ft bg interval to 230 μ g/L in the 55-57 ft bg interval. The highest concentration of total VOCs (950 μ g/L) was in the shallowest interval (55-57 ft bg). The lowest concentration of total VOCs (840 μ g/L) was in the 75-77 ft bg interval.

² Mass removal data for 2017 was used in the evaluation because the treatment system influent results and/or groundwater extraction volume datasets were incomplete for the 2018, 2019, and 2020 calendar years.

³ 1,2-Dichloroethene represents the sum of cis-1,2-dichloroethene and trans-1,2-dichloroethene. Note that the cis isomer is dominant at the Site.

The results of the PDB samples indicate that VOC concentrations in RW-3D are relatively uniform throughout the length of the screened interval and therefore are likely consistent between the shallow and deep bedrock intervals.

4. Results of 72-Hour Constant-Rate Pumping Test

A constant-rate pumping test was performed to evaluate the hydraulic response to pumping within the bedrock aquifer. Bedrock recovery well RW-3D was shut down for approximately one month before performing the constant-rate pumping test. RW-3D was placed back into operation on March 23, 2021 at a constant pumping rate of approximately 10 gallons per minute (gpm). Groundwater level responses were measured in RW-3D using the pressure transducer and associated datalogger installed as part of the GWE&T system and in bedrock monitoring wells GP-4D and DW-1 using pressure transducers with associated dataloggers. The dataloggers were deployed in DW-1 and GP-4D from March 11, 2021 to March 26, 2021 to collect background static data and pump test data. The hydraulic monitoring data for GP-4D, DW-1, and RW-3D are presented on **Figure G-3**.

The drawdown data for RW-3D was evaluated using the Cooper-Jacob method (modified from the Theis method) for a confined aquifer (see **Figure G-4**). The evaluation resulted in an estimated transmissivity of approximately 1,940 square feet/day. Storage parameters of the aquifer could not be estimated using data from the pumping well. Drawdown observed in RW-3D for approximately the first two days of the pump test matches conditions of radial flow (linear drawdown on a semi-log chart). The drawdown at RW-3D was approximately 6 feet after two days of the test, with relatively stable drawdown. Based on the drawdown of 6 feet and the 10 gpm pumping rate, a specific capacity of 1.67 gallons per minute per foot (gpm/ft) is calculated for RW-3D. Using the estimated transmissivity and assuming an aquifer thickness of 53.5 feet (the saturated interval of the RW-3D well screen), the estimated hydraulic conductivity of the bedrock aquifer is 36.2 feet per day (ft/day).

The evaluation of the drawdown in monitoring wells DW-1 and GP-4D yielded similar estimated transmissivities to that presented above for RW-3D. However, the transmissivities are not presented due to uncertainty related to the flow regime at the Site and negative correlation between drawdown in the monitoring wells with distance from the pumping well.

5. Groundwater Geochemistry

To assess groundwater geochemistry in support of the historical data review and assessment of costeffective remedial alternatives other than continued pump-and-treat, groundwater samples were collected from Site wells during the second semi-annual 2021 sampling event using low-flow methods for collection of field parameter measurements and groundwater samples for laboratory analyses. The sampling was conducted from March 8 to 10, 2021. The field measurements included pH, dissolved oxygen [DO]), oxidation-reduction potential [ORP], temperature, specific-conductance, and turbidity. The groundwater sampling field forms are provided in **Appendix G-4**. The groundwater samples were analyzed for VOCs by USEPA Method 624, for dissolved hydrocarbon gases (DHGs, specifically, methane, ethane, ethene) by USEPA Method RSK-175, and also for major cations (calcium, potassium, magnesium, and sodium), major anions (chloride, sulfate, nitrate, and nitrite), sulfide, total organic carbon (TOC), total alkalinity, dissolved iron, and dissolved manganese.

QC samples were collected for VOCs and consisted of a blind duplicate sample, an MS/MSD sample pair, and an equipment blank. A trip blanks was included in each sample cooler shipped to the laboratory containing VOC samples. A blind duplicate sample was collected for the inorganic analyses. A summary of the laboratory analytical results is provided in **Appendix G-5**.

Prior to collection of groundwater samples, water levels were measured to the nearest 0.01 foot in each well using a water level probe. Each well was purged and sampled using low-flow purging and sampling techniques with a submersible pump. During purging, groundwater quality parameters (pH, DO, ORP, temperature, specific-conductance, and turbidity) and water level measurements were collected at approximately 5-minute intervals.

5.1 pH, DO, and ORP

The groundwater quality parameters measured in the field (specifically, pH, DO and ORP) are evaluated to assess the general geochemistry of the overburden and bedrock groundwater at the Site as it relates to Site-related VOC degradation processes. The inorganic data are used to corroborate conclusions based on the pH, DO and ORP measurements. The geochemical conditions can often help explain the VOC and DHG results. In addition, the molar ratio of chloride to sodium, if significantly greater than unity (i.e., road salt) can often result from the degradation of chlorinated VOCs.

The pH measurements for the overburden and bedrock groundwater ranged from 6.1 to 7.5 standard units (SU), which is within the 6 to 8 SU range deemed optimal for biotic activity. The mean pH for overburden groundwater was 6.7 SU, slightly below neutral. The mean pH for the bedrock groundwater was 7.3 SU, slightly above neutral.

DO measurements in the overburden ranged from 0.00 to 6.07 milligrams per liter (mg/L), with a mean of 1.8 mg/L. The low DO of 0.00 mg/L was obtained from monitoring well MW-18 (adjacent to bedrock recovery well RW-3D). The DO measurements in the bedrock ranged from 3.33 to 7.81 mg/L, with a mean of 6.22 mg/L. The DO measurements suggest that the groundwater in the overburden and bedrock is aerobic under ambient conditions. The low DO at MW-18 is indicative of anaerobic conditions and may be due to the presence of naturally occurring organic matter and/or more degradable contaminants at that location, the degradation of which would act to lower the DO.

ORP measurements in the overburden ranged from -84.4 millivolts (mV) to +89.1 mV. The low ORP of -84.4 mV was obtained from monitoring well MW-18 ; the second lowest ORP measurement was considerably higher, at 70 mV. ORP measurements in the bedrock ranged from +191.1 mV to +287.7 mV. The mean ORP for overburden groundwater was +44.8 mV, and the mean ORP for bedrock groundwater was +244.8 mV. The ORP measurements suggest that the groundwater in the overburden and bedrock is only mildly reducing; the ORP measurements are not sufficiently negative to indicate sulfate reducing or methanogenic conditions, even at monitoring well MW-18.

Collectively, the DO and ORP data suggest that the overburden and bedrock groundwater geochemistry at the Site is generally aerobic and mildly reducing. The geochemical conditions at exception of overburden monitoring well MW-18 are different; the DO and ORP measurements for MW-18 suggest the groundwater is anaerobic and slightly more reducing (i.e., the oxidation-reduction state is iron- and nitrate-reducing).

Although some of the ORP measurements were below 0 mV, none were sufficiently negative to indicate sulfate-reducing or methanogenic conditions. Overall, the pH data for the Site are favorable for biotic activity. The current conditions are not suitable for *Dehalococcoides* (DHC) bacteria, which are capable of degrading PCE and TCE through 1,2-DCE and VC to non-toxic ethene, However, several bacteria are capable of degrading PCE and TCE under the redox conditions present at the Site, and the redox conditions are also suitable for the metabolic and/or co-metabolic degradation of any 1,2-DCE or VC that is produced from the degradation of PCE and TCE.

5.2 Redox Pairs

As shown on **Table G-2**, nitrate was detected in each of the wells, at concentrations ranging from 0.16 to 3.4 mg/L, with a mean concentration of approximately 1.41 mg/L. In contrast, nitrite was only detected at one well location (RW-1S), at an estimated concentration of 0.021 mg/L. Nitrate concentrations are generally higher in the bedrock groundwater (DW-1 at 1.1 mg/L, RW-3D at 2.3 mg/L, and GP-4D at 3.4 mg/L) than the overburden groundwater (MW-18 at 0.16 mg/L, MW-3 at 0.29 mg/L, GW-4S at 0.45 mg/L, RW-8S at 1.4 mg/L, and RW-1S at 2.2 mg/L). The detection of nitrate in all of the wells, and the detection of nitrate at a very low, estimated concentration in just one well, are consistent with the redox conditions based on the ORP data.

With the exception of overburden monitoring well MW-3, sulfate was detected in each of the wells. Detected sulfate concentrations ranged from 10.4 mg/L in bedrock monitoring well DW-1 to an estimated 31.9 mg/L in overburden recovery well RW-8S. The detected sulfate concentrations were generally consistent with no discernable trends based on location at the Site or unit. Sulfide was not detected in any of the overburden or bedrock groundwater samples. The sulfate and sulfide data are consistent with the redox conditions, as none of the ORP data are sufficiently negative to suggest sulfate reduction.

As shown on **Table G-2**, dissolved iron was detected in each of the wells, with the exception of bedrock recovery well RW-3D. The dissolved iron concentrations ranged from an estimated 0.046 mg/L in GP-4D to an estimated 8.3 mg/L in monitoring well MW-3. Dissolved iron concentrations were significantly higher in the overburden groundwater (mean 2.6 mg/L than in the bedrock groundwater (mean 0.06 mg/L, excluding the non-detect result for RW-3D). However, this difference appears to be caused by the elevated concentration of dissolved iron in two of the overburden monitoring wells, specifically, 7.6 mg/L in MW-18 and 8.3 mg/L in MW-3, both of which suggest the presence of anaerobic conditions because iron precipitates under aerobic conditions. MW-18 had a DO reading of 0.00 mg/L, which is consistent with an elevated concentration of dissolved iron. MW-3 had a DO reading of 2.08 mg/L, slightly above the DO range (0 to 2 mg/L) where iron dissolves more readily in groundwater.

5.3 Other Parameters

TOC was detected in each of the wells. As shown on **Table G-2**, the TOC results ranged from 0.49 mg/L, estimated, in bedrock monitoring well DW-1 to 7.9 mg/L at overburden monitoring well MW-3, with an average of concentration of 3.10 mg/L. TOC concentrations are generally an order of magnitude higher in the overburden groundwater than the bedrock. Naturally occurring TOC promotes biological degradation of Site-related COCs in groundwater.

As shown on **Table G-2**, methane was detected in three overburden wells at concentrations ranging from 1.6 μ g/L, estimated, in RW-8S to 520 μ g/L in MW-18. The methane results suggest that while the

subsurface is mildly reducing overall, more deeply reducing conditions may exist in the overburden that could support methanogenic bacteria and limited methane production.

Ethane and ethene were not detected in any of the wells. Ethane and ethene are labile under aerobic and microaerophilic conditions. Thus, the lack of ethane and ethene detections suggests that either ethane and ethene were not produced or that ethane and ethene were produced but were rapidly degraded by co-metabolic bacteria and did not accumulate.

The degradation of chlorinated VOCs results in the production of chloride. The use of road salt in locations with cold winters can also result in elevated chloride. However, it is often possible to "see through" road salt impacts by evaluating the molar ratio of chloride to sodium. Ramboll generally considers a chloride/sodium molar ratio of 1.25 moles or greater as possibly suggesting the production of chloride from the degradation of chlorinated VOCs. As shown on **Table G-3**, the chloride/sodium molar ratio for the Site ranges from approximately 0.70 in overburden monitoring well MW-18 to approximately 1.19 in inactive overburden recovery well RW-8S and are not sufficiently elevated to suggest significant degradation of chlorinated VOCs. This is to be expected given the relatively low concentrations of VOCs that remain in groundwater at the Site.

5.4 VOCs

As shown on **Table G-4**, VOCs were detected four overburden wells (GW-4S, MW-18, RW-1S, and RW-8S) and two bedrock wells (DW-1 and RW-3D). The highest total VOC concentration in the overburden was 18.88 μ g/L in MW-18 (adjacent to RW-3D), and the highest total VOC concentration in the bedrock was 680 μ g/L in recovery well RW-3D.

PCE and TCE are the dominant Site-related VOCs in the overburden and bedrock. PCE was detected at concentrations ranging from 0.45 ug/L, estimated, to 260 ug/L. TCE was detected at concentrations ranging from 1.3 ug/L, estimated, to 240 ug/L. In general, TCE was detected at higher concentrations than PCE, with the exception of recovery well RW-3D. 1,2-DCE was detected in two wells at concentrations of 8.4 ug/L, estimated, in MW-18 and 180 ug/L in recovery well RW-3D, and VC was detected in MW-18 at a concentration of 8.6 ug/L.

6. Degradation Pathways for Chlorinated VOCs

Degradation of chlorinated VOCs can occur in multiple ways, depending upon the subsurface conditions and the remedial technology applied. The predominant biological pathway that is exploited for the Siterelated VOCs is reductive dechlorination, expressed below.

This pathway takes place under anaerobic conditions and results in the sequential removal of chlorine from the parent compounds (i.e., PCE and/or TCE through 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

⁴ The cis isomer is the dominant 1,2-DCE produced via biotic degradation from PCE and TCE.

energy) and electron acceptor (e.g., iron, sulfate, carbon dioxide). Several different bacteria can mediate the reduction of PCE and/or TCE to 1,2-DCE. DHC has been identified as the major class of bacteria that are capable of mediating the reduction of 1,2-DCE to VC to ethene. These bacteria typically use hydrogen generated by the fermentation of other electron donors (e.g., oils, fatty acids, simple sugars) as their primary source of energy. Deeply reducing conditions are generally required for complete reductive dechlorination of PCE and TCE to ethene. Anaerobic conditions already occur at the Site at/near overburden monitoring well MW-18. The groundwater from MW-18 is also more reducing than at other wells, but not sufficiently reducing for DHC to be active.

1,2-DCE and VC can also be biodegraded via a direct oxidative pathway under both aerobic and anaerobic conditions (Bradley, 2003; Mattes, et al., 2010). Aerobic biodegradation may occur either directly or via a co-metabolic pathway if there are other substrates available to support microbial growth, such as phenol, toluene, propane, methane, ethane, or ethene (Fogel, et al., 1996; Semprini, 2001). TCE can also be biodegraded via a co-metabolic pathway using some of these substrates. Direct aerobic oxidation is most commonly observed with VC, but it has also been observed with 1,2-DCE (Bradley and Chapelle, 1998a; Bradley and Chapelle, 2000). Direct anaerobic oxidation of 1,2-DCE and VC has also been demonstrated under a number of different oxidation-reduction states, including iron-reducing, sulfate-reducing and methanogenic conditions (Bradley and Chapelle, 1998b; Bradley, 2003).

Various amendments including electron donors (e.g., lactate, emulsified vegetable oil [EVO], or EHC[®]), sulfate, and nutrients, can be injected into the subsurface to promote microbial growth (i.e., biostimulation) and evaluate the efficacy for biodegradation of the Site-related VOCs through time. It is recommended that a pilot study of reductive dechlorination via biodegradation be developed for the Site. The pilot study would include baseline monitoring for initial microbial population(s) and VOCs of interest to support design of the study, followed by implementation of the pilot study, and subsequent performance monitoring to evaluate biodegradation.

7. Recommendations

Based on the above, the conditions at the Site appear favorable for implementing enhanced in-situ bioremediation (EISB) or a combination of EISB and in-situ chemical reduction (ISCR).⁵ with performance monitoring to address residual VOCs.

Advantages for a reductive dechlorination via biodegradation pilot study at the Site include:

- Reductive dechlorination via biodegradation works in concert with the natural oxidation-reduction conditions in the subsurface to degrade Site-related VOCs in place.
- The amendments are much longer-lived (e.g., one to four years), in sharp contrast to the oxidants used for in-situ chemical oxidation (ISCO). Studies show 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.

⁵ EHC[®] is a solid amendment that combined a carbon substrate to promote EISB and zero valent iron (ZVI) to promote ISCR.

- Injection of amendments may be possible through the existing site wells.
- During the pilot study, the GWE&T system would not be in operation; therefore, costs associated with the operation, monitoring, and maintenance of the GWE&T system could then be applied to the labor and direct costs associated with the pilot study and performance monitoring.

8. References

Bradley, P.M. and Chapelle, F.H., 1998a. Effect of Contaminant Concentration on Aerobic Microbial Mineralization of DCE and VC in Stream-Bed Sediments. Environmental Science & Technology. January 15, 1998, 32, 553–557.

Bradley, P.M. and Chapelle, F.H., 1998b. Microbial Mineralization of VC and DCE Under Different Terminal Electron Accepting Conditions. Anaerobe. April 1998, 4, 81–87.

Bradley, P.M. and Chapelle, F.H., 2000. Aerobic Microbial Mineralization of Dichloroethene as Sole Carbon Substrate. Environmental Science & Technology. January 2000, 34, 221–223.

Bradley, P.M., 2003. History and Ecology of Chloroethene Biodegradation: a Review. Bioremediation Journal. 2003, 7, 81–109.

Fogel, M.M.; Taddeo, A.R.; Fogel, S., 1986. Biodegradation of chlorinated ethenes by a methane-utilizing mixed culture. Applied and Environmental Microbiology. April 1986, 51, 720-724.

Interstate Technology & Regulatory Council, 2008. In Situ Bioremediation of Chlorinated Ethene: DNAPL Source Zones. Prepared by The Interstate Technology & Regulatory Council Bioremediation of DNAPLs Team. June 2008.

Leeson, A.; Becvar, E.; Henry, B.; Fortenberry, J.; Coyle, C., 2004. Principles and Practices of Enhanced Anaerobic Bioremediation of Chlorinated Solvents. Naval Facilities Engineering Command (NAVFAC). Technical Report TR-2250-ENV. September 2004.

Mattes, T.E.; Alexander, A.K.; Coleman, N.V., 2010. Aerobic biodegradation of the chloro-ethenes: pathways, enzymes, ecology, and evolution. FEMS Microbiology Review. July, 2010, 34, 4, 445-475.

Marks, C. and Acheson, C., 2018. Chlorinated Solvent Bioremediation: Fundamentals and Practical Application for Remedial Project Managers. United States Environmental Protection Agency Office of Research and Development National Risk Management Research Laboratory CLU-IN Webinar. November 14, 2018.

Semprini L., 2001. Editorial. Biodegradation, 2001, 12, 79-80.

FIGURES



FIGURE G-2 SUMMARY OF PASSIVE DIFFUSION BAG SAMPLING RESULTS IN RW-3D

NYSDEC COSCO Site Spring Valley, New York









TABLES

Table G-1

Summary of Detected Constituents in Passive Diffusion Bags in RW-3D

NYSDEC COSCO Site

Spring Valley, New York

	Location ID	RW-3D	RW-3D	RW-3D	RW-3D	RW-3D	RW-3D
Compounds	Sample ID	RW-3D-PDB-55-57-030521	RW-3D-PDB-65-67-030521	RW-3D-PDB-75-77-030521	RW-3D-PDB-85-87-030521	RW-3D-PDB-95-97-030521	DUP-001-030521
compounds	Sample Date	3/5/2021	3/5/2021	3/5/2021	3/5/2021	3/5/2021	3/5/2021
1,2-Dichloroethene, Tota	I	230	210	190	200	220	190
Tetrachloroethene		390	380	350	350	350	350
Trichloroethene		330	300	300	310	310	310

Notes:

1. Samples analyzed for volatile organic compounds using United States Environmental Protection Agency Method 624 by Eurofins TestAmerica in Amherst, New York.

2. Results are reported in micrograms per liter (μ g/L).



Table G-2 Summary of Additional Geochemical Parameter Data - March 2021 NYSDEC COSCO Site Spring Valley, New York

	Location ID	GP-4D	GP-4D	DW-1	GW-4S	RW-1S	RW-3D	MW-18	RW-8S	MW-3
Compounds	Sample ID	GP-4D-030821	DUP-001-030821	DW-1-030821	GW-4S-030821	RW-1S-030921	RW-3D-030921	MW-18-030921	RW-8S-031021	MW-3-031021
compounds	Sample Date	3/8/2021	3/8/2021	3/8/2021	3/8/2021	3/9/2021	3/9/2021	3/9/2021	3/10/2021	3/10/2021
Calcium		47.8	47.6	36.4	49.0	47.9	68.9	41.5	325	49.1
Iron		0.046 JH	0.26 JH	0.065 JH	0.15 JH	0.067	0.050 U	7.6	0.30 J	8.3 JH
Magnesium		8.4	8.3	7.4	10.1	7.7	21.2	7.4	37.1	11.6
Manganese		0.003 U	0.012 JH	0.0031 JH	0.54 JH	0.13	0.0030 U	2.4	0.12 JH	2.1 JH
Potassium		1.2	1.3	1.3	1.7	2.0	2.0	2.4	17.6 J	1.7 J
Sodium		173	171	140	121	158	163	135	1,700	379
Total Organic Carbon	(TOC)	0.71 J	0.75 J	0.49 J	1.6	2.0	0.72 J	5.0	6.4	7.9
Methane		4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	520	1.6 J	25
Nitrate		3.4	3.4	1.1	0.45	2.2	2.3	0.16	1.4	0.29
Nitrite		0.050 U	0.050 U	0.050 U	0.050 U	0.021 J	0.050 U	0.050 U	0.050 U	0.050 U
Chloride		243	243	211	184	199	272	146	3,110	641
Sulfate		19.7	19.6	10.4	17.3	19.6	19.9	11.2	31.9 J	40.0 U
Total Alkalinity*		147	146	122	170	168	206	198	151	53.4

Notes:

1. Samples analyzed for total and dissolved (field filtered for Fe and Mn only) metals by United States Environmental Protection Agency (USEPA) Method 6010C, total organic carbon by standard method (SM) 5310D,

dissolved gases (methane, ethane, ethene) by method RSK-175, anions by USEPA method 300.0, nitrate and nitrite by USEPA method 353.2, alkalinity (total as calcium carbonate) by SM 2320B,

and sulfide by SM 4500 S2-F by Eurofins TestAmerica in Amherst, New York.

2. Results are reported as detects only in micrograms per liter (µg/L) for dissolved gases. The remaining analyses are reported as detects only in milligrams per liter (mg/L).

3. "NYSDEC" designates New York State Department of Environmental Conservation.

4. "J" indicates that the compound was detected at an estimated concentration.

5. "JH" indicates that the compound was detected at an estimated concentration, biased high.

6. "U" indicates that the compound was not detected at or above the practical quantitation limit shown.

7. "*" designates total alkalinity reported as total of calcium carbonate.



Table G-3 Chloride and Sodium Molar Ratio Summary NYSDEC COSCO Site Spring Valley, New York

Well	Geologic Unit	Chloride Sodium Concentration (mg/L) (mg/L)		Chloride/Sodium Molar Ratio (moles)
MW-3	Overburden	641	379	1.10
MW-18	Overburden	146	135	0.70
GW-4S	Overburden	184	121	0.99
RW-1S	Overburden	199	158	0.82
RW-8S	Overburden	3,110	1,700	1.19
DW-1	Bedrock	211	140	0.98
GP-4D	Bedrock	243	173	0.91
RW-3D	Bedrock	272	163	1.08

Notes:

- 1. "NYSDEC" designates New York State Department of Environmental Conservation.
- 2. "mg/L" designates concentrations are presented in milligrams per liter.



Table G-4

Summary of Detected Constituents in Groundwater - March 2021

NYSDEC COSCO Site

Spring Valley, New York

Compounds	NYSDEC TOGs (1.1.1), Class GA Standards and Guidance Values ¹	Location ID Sample ID Sample Date	RW-1S RW-1S-030921 3/9/2021	RW-3D RW-3D-030921 3/9/2021	DW-1 DW-1-030821 3/8/2021	MW-18 MW-18-030921 3/9/2021	GW-4S GW-4S-030821 3/8/2021	RW-8S RW-8S-031021 3/10/2021
1,2-Dichloroethene, Total	5 ²		10 U	180	10 U	8.4 J	10 U	10 U
Tetrachloroethene	5		3.4 J	260	0.58 J	0.58 J	5.0 U	0.45 J
Trichloroethene	5		12	240	5.0 U	1.3 J	5.8	5.3
Vinyl chloride	2		5.0 U	25 U	5.0 U	8.6	5.0 U	5.0 U

Notes:

1. Samples analyzed for volatile organic compounds using United States Environmental Protection Agency Method 624 by Eurofins TestAmerica in Amherst, New York.

2. Results are reported in micrograms per liter (µg/L).

3. "NYSDEC" designates New York State Department of Environmental Conservation.

4. "TOGS" designates Technical and Operational Guidance Series.

5. ¹New York State Department of Environmental Conservation, Technical and Operational Guidance Series (1.1.1), Class GA Standards and Guidance Values, June 1998, with all current addendums.

6. ²To be conservative, the individual Class GA Standard is used for cis-1,2-dichloroethene and trans-1,2-dichloroethene.

7. "U" indicates that the compound was not detected at or above the practical quantitation limit shown.

8. "J" indicates that the compound was detected at an estimated concentration.

9. Values that are bold indicate exceedance of criteria.



APPENDIX G-1 CONCENTRATION TREND PLOTS OF SITE CONSTITUENTS OF CONCERN



The sum of cis-1,2-dichloroethene and trans-1,2-dichloroethene is plotted.
 The Class GA Standard of 2 micrograms per liter (ug/L) for vinyl chloride is shown.

- →
 Trichloroethene

 →
 Dichloroethene

 →
 Vinyl Chloride
 - The Class GA Standard of 5 ug/L for tetrachloroethene and trichloroethene is shown.
 To be conservative, the individual Class GA Standard is plotted for cis-1,2-dichloroethene and trans-1,2-dichloroethene, 5 ug/L.
 For clarity, none detects are not 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, none detects are not shown.

Dichloroethene

Vinyl Chloride



The sum of cis-1,2-dichloroethene and trans-1,2-dichloroethene is plotted. The Class GA Standard of 2 micrograms per liter (ug/L) for vinyl chloride is shown.



 The Class GA Standard of 5 ug/L for tetrachloroethene and trichloroethene is shown.
 To be conservative, the individual Class GA Standard is plotted for cis-1,2-dichloroethene and trans-1,2-dichloroethene, 5 ug/L.
 For clarity, none detects are not shown.



Concentrations of PCE, TCE, DCE, and VC at Monitoring Well GW-4S NYSDEC COSCO Site Spring Valley, New York



- The class GA Standard of 2 micrograms per mer (ug/L) for virgi chlorders shown.
 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, none detects are not shown.

Dichloroethene

- Vinyl Chloride



Concentrations of PCE, TCE, DCE, and VC at Monitoring Well MW-18 NYSDEC COSCO Site Spring Valley, New York



Tetrachloroethene
 Trichloroethene
 Dichloroethene
 Vinyl Chloride

 The Class GA Standard of 2 micrograms per liter (ug/L) for vinyl chloride is shown.
 The Class GA Standard of 5 ug/L for tetrachloroethene and trichloroethene is shown.
 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, none detects are not shown.


Spring Valley, New York 1,000.0 RW-1S, RW-3D, RW-8S Pump On RW-1S and RW-8S Pump Off 100.0 Concentration (µg/L) 0.0 5 µg/L 2 µg/L 1.0 እ 0.1 2012 2013 2016 2011 2014 2015 2017 2018 2019 2020 2021 Year

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



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, none detects are not shown.

APPENDIX G-2 PASSIVE DIFFUSION BAG SAMPLE ANALYTICAL RESULTS

Client Sample ID: RW-3D-PDB-55-57-030521 Date Collected: 03/05/21 11:15

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Date Received: 03/06/21 10:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		40	3.1	ug/L			03/08/21 14:09	8
1,1,2,2-Tetrachloroethane	ND		40	2.1	ug/L			03/08/21 14:09	8
1,1,2-Trichloroethane	ND		40	3.9	ug/L			03/08/21 14:09	8
1,1-Dichloroethane	ND		40	4.7	ug/L			03/08/21 14:09	8
1,1-Dichloroethene	ND		40	6.8	ug/L			03/08/21 14:09	8
1,2-Dichlorobenzene	ND		40	3.6	ug/L			03/08/21 14:09	8
1,2-Dichloroethane	ND		40	4.8	ug/L			03/08/21 14:09	8
1,2-Dichloroethene, Total	230		80	26	ug/L			03/08/21 14:09	8
1,2-Dichloropropane	ND		40	4.9	ug/L			03/08/21 14:09	8
1,3-Dichlorobenzene	ND		40	4.3	ug/L			03/08/21 14:09	8
1,4-Dichlorobenzene	ND		40	4.1	ug/L			03/08/21 14:09	8
2-Chloroethyl vinyl ether	ND		200	15	ug/L			03/08/21 14:09	8
Acrolein	ND		800	140	ug/L			03/08/21 14:09	8
Acrylonitrile	ND		400	15	ug/L			03/08/21 14:09	8
Benzene	ND		40	4.8	ug/L			03/08/21 14:09	8
Bromodichloromethane	ND		40	4.3	ug/L			03/08/21 14:09	8
Bromoform	ND		40	3.7	ug/L			03/08/21 14:09	8
Bromomethane	ND		40	9.5	ug/L			03/08/21 14:09	8
Carbon tetrachloride	ND		40	4.1	ug/L			03/08/21 14:09	8
Chlorobenzene	ND		40	3.8	ug/L			03/08/21 14:09	8
Chlorodibromomethane	ND		40	3.3	ug/L			03/08/21 14:09	8
Chloroethane	ND		40	7.0	ug/L			03/08/21 14:09	8
Chloroform	ND		40	4.3	ug/L			03/08/21 14:09	8
Chloromethane	ND		40	5.1	ug/L			03/08/21 14:09	8
cis-1,3-Dichloropropene	ND		40	2.6	ug/L			03/08/21 14:09	8
Ethylbenzene	ND		40	3.7	ug/L			03/08/21 14:09	8
Methylene Chloride	ND		40	6.5	ug/L			03/08/21 14:09	8
Tetrachloroethene	390		40	2.7	ug/L			03/08/21 14:09	8
Toluene	ND		40	3.6	ug/L			03/08/21 14:09	8
trans-1,2-Dichloroethene	ND		40	4.7	ug/L			03/08/21 14:09	8
trans-1,3-Dichloropropene	ND		40	3.5	ug/L			03/08/21 14:09	8
Trichloroethene	330		40	4.8	ug/L			03/08/21 14:09	8
Vinyl chloride	ND		40	6.0	ug/L			03/08/21 14:09	8
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	92		68 - 130					03/08/21 14:09	8
4-Bromofluorobenzene (Surr)	108		76 - 123					03/08/21 14:09	8
Dibromofluoromethane (Surr)	101		75 - 123					03/08/21 14:09	8
Toluene-d8 (Surr)	92		77 - 120					03/08/21 14:09	8

Client Sample ID: RW-3D-PDB-65-67-030521 Date Collected: 03/05/21 11:25 Date Received: 03/06/21 10:30

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND	40	3.1	ug/L			03/08/21 14:34	8
1,1,2,2-Tetrachloroethane	ND	40	2.1	ug/L			03/08/21 14:34	8
1,1,2-Trichloroethane	ND	40	3.9	ug/L			03/08/21 14:34	8
1,1-Dichloroethane	ND	40	4.7	ug/L			03/08/21 14:34	8

Matrix: Water

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Lab Sample ID: 480-181764-2

Lab Sample ID: 480-181764-1 Matrix: Water

Client Sample ID: RW-3D-PDB-65-67-030521 Date Collected: 03/05/21 11:25 Date Received: 03/06/21 10:30

Lab Sample ID: 480-181764-2 Matrix: Water

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		40	6.8	ug/L			03/08/21 14:34	8
1,2-Dichlorobenzene	ND		40	3.6	ug/L			03/08/21 14:34	8
1,2-Dichloroethane	ND		40	4.8	ug/L			03/08/21 14:34	8
1,2-Dichloroethene, Total	210		80	26	ug/L			03/08/21 14:34	8
1,2-Dichloropropane	ND		40	4.9	ug/L			03/08/21 14:34	8
1,3-Dichlorobenzene	ND		40	4.3	ug/L			03/08/21 14:34	8
1,4-Dichlorobenzene	ND		40	4.1	ug/L			03/08/21 14:34	8
2-Chloroethyl vinyl ether	ND		200	15	ug/L			03/08/21 14:34	8
Acrolein	ND		800	140	ug/L			03/08/21 14:34	8
Acrylonitrile	ND		400	15	ug/L			03/08/21 14:34	8
Benzene	ND		40	4.8	ug/L			03/08/21 14:34	8
Bromodichloromethane	ND		40	4.3	ug/L			03/08/21 14:34	8
Bromoform	ND		40	3.7	ug/L			03/08/21 14:34	8
Bromomethane	ND		40	9.5	ug/L			03/08/21 14:34	8
Carbon tetrachloride	ND		40	4.1	ug/L			03/08/21 14:34	8
Chlorobenzene	ND		40	3.8	ug/L			03/08/21 14:34	8
Chlorodibromomethane	ND		40	3.3	ug/L			03/08/21 14:34	8
Chloroethane	ND		40	7.0	ug/L			03/08/21 14:34	8
Chloroform	ND		40	4.3	ug/L			03/08/21 14:34	8
Chloromethane	ND		40	5.1	ug/L			03/08/21 14:34	8
cis-1,3-Dichloropropene	ND		40	2.6	ug/L			03/08/21 14:34	8
Ethylbenzene	ND		40	3.7	ug/L			03/08/21 14:34	8
Methylene Chloride	ND		40	6.5	ug/L			03/08/21 14:34	8
Tetrachloroethene	380		40	2.7	ug/L			03/08/21 14:34	8
Toluene	ND		40	3.6	ug/L			03/08/21 14:34	8
trans-1,2-Dichloroethene	ND		40	4.7	ug/L			03/08/21 14:34	8
trans-1,3-Dichloropropene	ND		40	3.5	ug/L			03/08/21 14:34	8
Trichloroethene	300		40	4.8	ug/L			03/08/21 14:34	8
Vinyl chloride	ND		40	6.0	ug/L			03/08/21 14:34	8
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	95		68 - 130					03/08/21 14:34	8
4-Bromofluorobenzene (Surr)	113		76 - 123					03/08/21 14:34	8
Dibromofluoromethane (Surr)	96		75 - 123					03/08/21 14:34	8

Client Sample ID: RW-3D-PDB-75-77-030521 Date Collected: 03/05/21 11:30 Date Received: 03/06/21 10:30

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Toluene-d8 (Surr)

Method: 624.1 - Volatile Organic Compounds (GC/MS)									
Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
1,1,1-Trichloroethane	ND	40	3.1	ug/L			03/08/21 14:57	8	
1,1,2,2-Tetrachloroethane	ND	40	2.1	ug/L			03/08/21 14:57	8	
1,1,2-Trichloroethane	ND	40	3.9	ug/L			03/08/21 14:57	8	
1,1-Dichloroethane	ND	40	4.7	ug/L			03/08/21 14:57	8	
1,1-Dichloroethene	ND	40	6.8	ug/L			03/08/21 14:57	8	
1,2-Dichlorobenzene	ND	40	3.6	ug/L			03/08/21 14:57	8	
1,2-Dichloroethane	ND	40	4.8	ug/L			03/08/21 14:57	8	
1,2-Dichloroethene, Total	190	80	26	ug/L			03/08/21 14:57	8	

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Eurofins TestAmerica, Buffalo

03/08/21 14:34

Lab Sample ID: 480-181764-3

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Matrix: Water

Job ID: 480-181764-1

Client Sample ID: RW-3D-PDB-75-77-030521 Date Collected: 03/05/21 11:30 Date Received: 03/06/21 10:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloropropane	ND		40	4.9	ug/L			03/08/21 14:57	8
1,3-Dichlorobenzene	ND		40	4.3	ug/L			03/08/21 14:57	8
1,4-Dichlorobenzene	ND		40	4.1	ug/L			03/08/21 14:57	8
2-Chloroethyl vinyl ether	ND		200	15	ug/L			03/08/21 14:57	8
Acrolein	ND		800	140	ug/L			03/08/21 14:57	8
Acrylonitrile	ND		400	15	ug/L			03/08/21 14:57	8
Benzene	ND		40	4.8	ug/L			03/08/21 14:57	8
Bromodichloromethane	ND		40	4.3	ug/L			03/08/21 14:57	8
Bromoform	ND		40	3.7	ug/L			03/08/21 14:57	8
Bromomethane	ND		40	9.5	ug/L			03/08/21 14:57	8
Carbon tetrachloride	ND		40	4.1	ug/L			03/08/21 14:57	8
Chlorobenzene	ND		40	3.8	ug/L			03/08/21 14:57	8
Chlorodibromomethane	ND		40	3.3	ug/L			03/08/21 14:57	8
Chloroethane	ND		40	7.0	ug/L			03/08/21 14:57	8
Chloroform	ND		40	4.3	ug/L			03/08/21 14:57	8
Chloromethane	ND		40	5.1	ug/L			03/08/21 14:57	8
cis-1,3-Dichloropropene	ND		40	2.6	ug/L			03/08/21 14:57	8
Ethylbenzene	ND		40	3.7	ug/L			03/08/21 14:57	8
Methylene Chloride	ND		40	6.5	ug/L			03/08/21 14:57	8
Tetrachloroethene	350		40	2.7	ug/L			03/08/21 14:57	8
Toluene	ND		40	3.6	ug/L			03/08/21 14:57	8
trans-1,2-Dichloroethene	ND		40	4.7	ug/L			03/08/21 14:57	8
trans-1,3-Dichloropropene	ND		40	3.5	ug/L			03/08/21 14:57	8
Trichloroethene	300		40	4.8	ug/L			03/08/21 14:57	8
Vinyl chloride	ND		40	6.0	ug/L			03/08/21 14:57	8

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	94		68 - 130		03/08/21 14:57	8
4-Bromofluorobenzene (Surr)	107		76 - 123		03/08/21 14:57	8
Dibromofluoromethane (Surr)	102		75 - 123		03/08/21 14:57	8
Toluene-d8 (Surr)	100		77 - 120		03/08/21 14:57	8

Client Sample ID: RW-3D-PDB-85-87-030521 Date Collected: 03/05/21 11:35 Date Received: 03/06/21 10:30

Method: 624.1 - Volatile Organic Compounds (GC/MS)									
Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
1,1,1-Trichloroethane	ND	40	3.1	ug/L			03/08/21 15:21	8	
1,1,2,2-Tetrachloroethane	ND	40	2.1	ug/L			03/08/21 15:21	8	
1,1,2-Trichloroethane	ND	40	3.9	ug/L			03/08/21 15:21	8	
1,1-Dichloroethane	ND	40	4.7	ug/L			03/08/21 15:21	8	
1,1-Dichloroethene	ND	40	6.8	ug/L			03/08/21 15:21	8	
1,2-Dichlorobenzene	ND	40	3.6	ug/L			03/08/21 15:21	8	
1,2-Dichloroethane	ND	40	4.8	ug/L			03/08/21 15:21	8	
1,2-Dichloroethene, Total	200	80	26	ug/L			03/08/21 15:21	8	
1,2-Dichloropropane	ND	40	4.9	ug/L			03/08/21 15:21	8	
1,3-Dichlorobenzene	ND	40	4.3	ug/L			03/08/21 15:21	8	
1,4-Dichlorobenzene	ND	40	4.1	ug/L			03/08/21 15:21	8	
2-Chloroethyl vinyl ether	ND	200	15	ug/L			03/08/21 15:21	8	

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Lab Sample ID: 480-181764-3 Matrix: Water

Job ID: 480-181764-1

	Matrix	: Water

Lab Sample ID: 480-181764-4

Client Sample ID: RW-3D-PDB-85-87-030521 Date Collected: 03/05/21 11:35 Date Received: 03/06/21 10:30

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acrolein	ND		800	140	ug/L			03/08/21 15:21	8
Acrylonitrile	ND		400	15	ug/L			03/08/21 15:21	8
Benzene	ND		40	4.8	ug/L			03/08/21 15:21	8
Bromodichloromethane	ND		40	4.3	ug/L			03/08/21 15:21	8
Bromoform	ND		40	3.7	ug/L			03/08/21 15:21	8
Bromomethane	ND		40	9.5	ug/L			03/08/21 15:21	8
Carbon tetrachloride	ND		40	4.1	ug/L			03/08/21 15:21	8
Chlorobenzene	ND		40	3.8	ug/L			03/08/21 15:21	8
Chlorodibromomethane	ND		40	3.3	ug/L			03/08/21 15:21	8
Chloroethane	ND		40	7.0	ug/L			03/08/21 15:21	8
Chloroform	ND		40	4.3	ug/L			03/08/21 15:21	8
Chloromethane	ND		40	5.1	ug/L			03/08/21 15:21	8
cis-1,3-Dichloropropene	ND		40	2.6	ug/L			03/08/21 15:21	8
Ethylbenzene	ND		40	3.7	ug/L			03/08/21 15:21	8
Methylene Chloride	ND		40	6.5	ug/L			03/08/21 15:21	8
Tetrachloroethene	350		40	2.7	ug/L			03/08/21 15:21	8
Toluene	ND		40	3.6	ug/L			03/08/21 15:21	8
trans-1,2-Dichloroethene	ND		40	4.7	ug/L			03/08/21 15:21	8
trans-1,3-Dichloropropene	ND		40	3.5	ug/L			03/08/21 15:21	8
Trichloroethene	310		40	4.8	ug/L			03/08/21 15:21	8
Vinyl chloride	ND		40	6.0	ug/L			03/08/21 15:21	8
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	98		68 - 130					03/08/21 15:21	8
4-Bromofluorobenzene (Surr)	101		76 - 123					03/08/21 15:21	8
Dibromofluoromethane (Surr)	98		75 - 123					03/08/21 15:21	8
Toluene-d8 (Surr)	93		77 - 120					03/08/21 15:21	8

Client Sample ID: RW-3D-PDB-95-97-030521 Date Collected: 03/05/21 11:45 Date Received: 03/06/21 10:30

Method: 624.1 - Volatile Organic Compounds (GC/MS) Analyte **Result Qualifier** RL MDL Unit Analyzed Dil Fac D Prepared 1,1,1-Trichloroethane ND 40 03/08/21 15:45 8 3.1 ug/L 1,1,2,2-Tetrachloroethane ND 40 2.1 ug/L 03/08/21 15:45 8 ND 40 3.9 ug/L 8 1,1,2-Trichloroethane 03/08/21 15:45 1,1-Dichloroethane ND 40 4.7 ug/L 03/08/21 15:45 8 ND 1,1-Dichloroethene 40 6.8 ug/L 03/08/21 15:45 8 1,2-Dichlorobenzene ND 40 3.6 ug/L 03/08/21 15:45 8 1,2-Dichloroethane ND 40 4.8 ug/L 03/08/21 15:45 8 220 80 26 ug/L 8 1,2-Dichloroethene, Total 03/08/21 15:45 ND 40 4.9 ug/L 8 1,2-Dichloropropane 03/08/21 15:45 8 ND 40 1,3-Dichlorobenzene 4.3 ug/L 03/08/21 15:45 1,4-Dichlorobenzene ND 40 4.1 ug/L 03/08/21 15:45 8 2-Chloroethyl vinyl ether ND 200 15 ug/L 8 03/08/21 15:45 ND 800 8 Acrolein 140 ug/L 03/08/21 15:45 Acrylonitrile ND 400 15 ug/L 8 03/08/21 15:45 Benzene ND 40 4.8 ug/L 03/08/21 15:45 8 Bromodichloromethane ND 40 4.3 ug/L 03/08/21 15:45 8

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Lab Sample ID: 480-181764-5

Matrix: Water

Lab Sample ID: 480-181764-4 Matrix: Water

Client Sample ID: RW-3D-PDB-95-97-030521 Date Collected: 03/05/21 11:45 Date Received: 03/06/21 10:30

Dil Fac

8 8

8

8

8 8

8

8 8

8

8

8

8

8

8

8

8

Lab Sample ID: 480-181764-5 Matrix: Water

Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed
Bromoform	ND	40	3.7	ug/L			03/08/21 15:45
Bromomethane	ND	40	9.5	ug/L			03/08/21 15:45
Carbon tetrachloride	ND	40	4.1	ug/L			03/08/21 15:45
Chlorobenzene	ND	40	3.8	ug/L			03/08/21 15:45
Chlorodibromomethane	ND	40	3.3	ug/L			03/08/21 15:45
Chloroethane	ND	40	7.0	ug/L			03/08/21 15:45
Chloroform	ND	40	4.3	ug/L			03/08/21 15:45
Chloromethane	ND	40	5.1	ug/L			03/08/21 15:45
cis-1,3-Dichloropropene	ND	40	2.6	ug/L			03/08/21 15:45
Ethylbenzene	ND	40	3.7	ug/L			03/08/21 15:45
Methylene Chloride	ND	40	6.5	ug/L			03/08/21 15:45
Tetrachloroethene	340	40	2.7	ug/L			03/08/21 15:45
Toluene	ND	40	3.6	ug/L			03/08/21 15:45
trans-1,2-Dichloroethene	ND	40	4.7	ug/L			03/08/21 15:45
trans-1,3-Dichloropropene	ND	40	3.5	ug/L			03/08/21 15:45
Trichloroethene	310	40	4.8	ug/L			03/08/21 15:45
Vinyl chloride	ND	40	6.0	ug/L			03/08/21 15:45

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		68 - 130		03/08/21 15:45	8
4-Bromofluorobenzene (Surr)	100		76 - 123		03/08/21 15:45	8
Dibromofluoromethane (Surr)	107		75 - 123		03/08/21 15:45	8
Toluene-d8 (Surr)	92		77 - 120		03/08/21 15:45	8

Client Sample ID: DUP-001-030521 Date Collected: 03/05/21 00:00 Date Received: 03/06/21 10:30

Method: 624.1 - Volatil	e Organic Compour	nds (GC/MS)
Amaluta	Desult	Overlifien

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		40	3.1	ug/L			03/08/21 16:09	8
1,1,2,2-Tetrachloroethane	ND		40	2.1	ug/L			03/08/21 16:09	8
1,1,2-Trichloroethane	ND		40	3.9	ug/L			03/08/21 16:09	8
1,1-Dichloroethane	ND		40	4.7	ug/L			03/08/21 16:09	8
1,1-Dichloroethene	ND		40	6.8	ug/L			03/08/21 16:09	8
1,2-Dichlorobenzene	ND		40	3.6	ug/L			03/08/21 16:09	8
1,2-Dichloroethane	ND		40	4.8	ug/L			03/08/21 16:09	8
1,2-Dichloroethene, Total	190		80	26	ug/L			03/08/21 16:09	8
1,2-Dichloropropane	ND		40	4.9	ug/L			03/08/21 16:09	8
1,3-Dichlorobenzene	ND		40	4.3	ug/L			03/08/21 16:09	8
1,4-Dichlorobenzene	ND		40	4.1	ug/L			03/08/21 16:09	8
2-Chloroethyl vinyl ether	ND		200	15	ug/L			03/08/21 16:09	8
Acrolein	ND		800	140	ug/L			03/08/21 16:09	8
Acrylonitrile	ND		400	15	ug/L			03/08/21 16:09	8
Benzene	ND		40	4.8	ug/L			03/08/21 16:09	8
Bromodichloromethane	ND		40	4.3	ug/L			03/08/21 16:09	8
Bromoform	ND		40	3.7	ug/L			03/08/21 16:09	8
Bromomethane	ND		40	9.5	ug/L			03/08/21 16:09	8
Carbon tetrachloride	ND		40	4.1	ug/L			03/08/21 16:09	8
Chlorobenzene	ND		40	3.8	ug/L			03/08/21 16:09	8

Lab Sample ID: 480-181764-6

Matrix: Water

Client Sample ID: DUP-001-030521

Date Collected: 03/05/21 00:00

Date Received: 03/06/21 10:30

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorodibromomethane	ND		40	3.3	ug/L			03/08/21 16:09	8
Chloroethane	ND		40	7.0	ug/L			03/08/21 16:09	8
Chloroform	ND		40	4.3	ug/L			03/08/21 16:09	8
Chloromethane	ND		40	5.1	ug/L			03/08/21 16:09	8
cis-1,3-Dichloropropene	ND		40	2.6	ug/L			03/08/21 16:09	8
Ethylbenzene	ND		40	3.7	ug/L			03/08/21 16:09	8
Methylene Chloride	ND		40	6.5	ug/L			03/08/21 16:09	8
Tetrachloroethene	350		40	2.7	ug/L			03/08/21 16:09	8
Toluene	ND		40	3.6	ug/L			03/08/21 16:09	8
trans-1,2-Dichloroethene	ND		40	4.7	ug/L			03/08/21 16:09	8
trans-1,3-Dichloropropene	ND		40	3.5	ug/L			03/08/21 16:09	8
Trichloroethene	310		40	4.8	ug/L			03/08/21 16:09	8
Vinyl chloride	ND		40	6.0	ug/L			03/08/21 16:09	8
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	94		68 - 130			-		03/08/21 16:09	8
4-Bromofluorobenzene (Surr)	99		76 - 123					03/08/21 16:09	8
Dibromofluoromethane (Surr)	94		75 - 123					03/08/21 16:09	8
Toluene-d8 (Surr)	98		77 - 120					03/08/21 16:09	8

Client Sample ID: TRIPBLANK- 01-030521 Date Collected: 03/05/21 00:00 Date Received: 03/06/21 10:30

Chloromethane

Lab Sample ID: 480-181764-7

Matrix: Water

Method: 624.1 - Volatile Organic Compounds (GC/MS) **Result Qualifier** RL MDL Unit Analyte D Prepared Analyzed Dil Fac 1,1,1-Trichloroethane ND 5.0 0.39 ug/L 03/08/21 16:33 1 1,1,2,2-Tetrachloroethane ND 5.0 0.26 ug/L 03/08/21 16:33 1 1.1.2-Trichloroethane ND 5.0 0.48 ug/L 03/08/21 16:33 1 1,1-Dichloroethane ND 5.0 0.59 ug/L 03/08/21 16:33 1 1.1-Dichloroethene ND 5.0 0.85 ug/L 03/08/21 16:33 1 1,2-Dichlorobenzene ND 5.0 0.44 ug/L 03/08/21 16:33 1 1,2-Dichloroethane ND 5.0 03/08/21 16:33 0.60 ug/L 1 1,2-Dichloroethene, Total ND 10 3.2 ug/L 03/08/21 16:33 1 1,2-Dichloropropane ND 5.0 0.61 ug/L 03/08/21 16:33 1 1,3-Dichlorobenzene ND 5.0 0.54 ug/L 03/08/21 16:33 1 ND 5.0 1,4-Dichlorobenzene 0.51 ug/L 03/08/21 16:33 1 ND 25 2-Chloroethyl vinyl ether 1.9 ug/L 03/08/21 16:33 1 Acrolein ND 100 17 ug/L 03/08/21 16:33 1 Acrylonitrile ND 50 1.9 ug/L 03/08/21 16:33 1 ND 5.0 0.60 ug/L 03/08/21 16:33 Benzene 1 Bromodichloromethane ND 5.0 1 0.54 ug/L 03/08/21 16:33 ND 5.0 Bromoform 0.47 ug/L 03/08/21 16:33 1 Bromomethane ND 5.0 1.2 ug/L 03/08/21 16:33 1 Carbon tetrachloride ND 5.0 0.51 ug/L 03/08/21 16:33 1 Chlorobenzene ND 5.0 0.48 ug/L 03/08/21 16:33 1 Chlorodibromomethane ND 5.0 0.41 ug/L 03/08/21 16:33 1 ND Chloroethane 5.0 0.87 ug/L 03/08/21 16:33 1 03/08/21 16:33 Chloroform ND 5.0 0.54 ug/L 1

Eurofins TestAmerica. Buffalo

1

03/08/21 16:33

ample Results

Lab Sample ID: 480-181764-6 Matrix: Water

Job ID: 480-181764-1

5.0

0.64 ug/L

ND

Client Sample ID: TRIPBLANK- 01-030521 Date Collected: 03/05/21 00:00

Date Received: 03/06/21 10:30

Job ID: 480-181764-1

Lab Sample ID: 480-181764-7 Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,3-Dichloropropene	ND		5.0	0.33	ug/L			03/08/21 16:33	1
Ethylbenzene	ND		5.0	0.46	ug/L			03/08/21 16:33	1
Methylene Chloride	ND		5.0	0.81	ug/L			03/08/21 16:33	1
Tetrachloroethene	ND		5.0	0.34	ug/L			03/08/21 16:33	1
Toluene	ND		5.0	0.45	ug/L			03/08/21 16:33	1
trans-1,2-Dichloroethene	ND		5.0	0.59	ug/L			03/08/21 16:33	1
trans-1,3-Dichloropropene	ND		5.0	0.44	ug/L			03/08/21 16:33	1
Trichloroethene	ND		5.0	0.60	ug/L			03/08/21 16:33	1
Vinyl chloride	ND		5.0	0.75	ug/L			03/08/21 16:33	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		68 - 130			-		03/08/21 16:33	1
4-Bromofluorobenzene (Surr)	102		76 - 123					03/08/21 16:33	1
Dibromofluoromethane (Surr)	100		75 - 123					03/08/21 16:33	1
Toluene-d8 (Surr)	103		77 - 120					03/08/21 16:33	1

APPENDIX G-3 DATA USABILITY SUMMARY REPORT FOR PASSIVE DIFFUSION BAG SAMPLE ANALYTICAL RESULTS

Data Usability Summary Report

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

COSCO #344035 Eurofins SDG#480-181764-1 April 23, 2021 Sampling date: 3/5/2021

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

> COSCO #344035 #480-181764-1

DELIVERABLES

This Data Usability Summary Report (DUSR) was prepared by evaluating the analytical data package for Ramboll, Eurofins SDG#480-181764-1, submitted to Vali-Data of WNY, LLC on April 6, 2021. This DUSR has been prepared in general compliance with USEPA National Functional Guidelines(NFG) and NYSDEC Analytical Services Protocols. The laboratory performed the analysis using USEPA method Volatile Organics (624.1).

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.

All of the samples and the matrix spike/matrix spike duplicate was diluted due to high target analyte concentration, except TRIPBLANK-01-030521.

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS

All criteria were met. Data was not reported to 3 significant figures. This does not affect the usability of the data.

> COSCO #344035 #480-181764-1

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.

MS/MSD All criteria were met.

COMPOUND QUANTITATION All criteria were met.

INITIAL CALIBRATION All criteria were met.

CONTINUING CALIBRATION All criteria were met.

GC/MS PERFORMANCE CHECK

All criteria were met.

COSCO #344035 #480-181764-1 APPENDIX G-4 GROUNDWATER SAMPLING FIELD FORMS

Site Na									
Site Locat Projec Sampling F	me: <u>DEC CO</u> ion: <u>Sp</u> ct #: <u>19</u> Program:	SCO site ring Valley 40075217 1st SA samp	Samp Monitoring Equ ing event	ling Method: g Equipment: ipment ID#s; Loca	YSI & Lan PAD 0468 tion: DEC	bk Rmp notte 2020 TFAD Casco STR	Field Persor D Weat	$\frac{3}{3} + \frac{3}{5} + \frac{3}$	21 21 1114
Vell inform: Len	ation: Depth o Depth to gth of Water (Well Di	of Well*: 66 Water*: <u>76</u> Column: <u>46</u>	.00 ft. b 	Well Vo mp. □ 1 i mp. □ 1.3 □ 2 i 2 i □ 2 i 4 i	Nume Multipl in. = 0.041 ga 5 in. = 0.092 g in. = 0.163 ga in. = 0.653 ga	l iers: J/ft Jal/ft J/ft I/ft	M D Screen Inter	easurement Point Well Casing Protective Casing Other: val: 51'-61'	ft. bm
	Well	Volume: 26	.25 gal.			Р	ump Intake Dept	th*: 50	ft. bm
Start P Initial Ot	Purge Time:	10:50 PID: 014		i	E Pro	Depth to Produ Doduct Thickne	ict: na ss: na	ft. bmp. ft.	
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	25.80	13.7	6.07	0,962	322-3	8.52	3 71	500	
5	25.96	13.3	6.76	0.986	313.2	7.76	3.12	200	
10	25.93	12.8	7.03	0.966	309.1	7.47	2.15	200	
15	25.95	13 1	7.23	0.954	303.7	7.1	1.34	200	·
20	25.95	18.2	7.30	0.951	296.5	7.96	0.51	200	
20	25.75	13.2	7.47	0,950	276.0	7.35	171	200	
35	25.15	13.3	7.47	0.955	289 4	7.13	69	700	
40	1593	13.3	7.48	0.454	2877	7.81	1.70	700	
Stabilization	∆ ≤ 0.3'	± 3%	± 0.1	± 3%	± 10 mV	± 10%	± 10%	200 ≤ X ≤ 500	
End F Tot Final Ob	Purge Time: tal volume of servations:	1130 groundwater purg Color	ged: <u>5</u>	gal. OdorNo.~e	She	en/Free Proo	luct <u>DONE</u>		
Sample	UVV-1-	050821				Sample 11			
Container	arameters: E Size C	ontainer Type	# Collec	cted Fie	eld Filtered?	Pr	eservative	Analys	sis
40 m		Glass VOA	3		No		HEF none	PP VOC	s
250 m		Plastic	1		Yes		HNO3	Total Alka Dissolved Iron/	alinity Manganes
40 m	L	GLASS VOA	3		No		44	Methane, Ethane	, and Ethe
250 m	Ĺ	Glass VOA	1		No	Na Na	OH, ZnAC	Sulfic Total Organi	e c Carbon
40 m		plastic	1		ND	7101	HN03	Major Cations (r sodium, calcium, a	nagnesium, nd potassiu

					_					
RAME	SOLL		Low	Flow (Ground	dwater Sar	npling Lo	g Well I	D: GP-4	D
Site Na		OSCO site	Samo	lina Meth	nod:	S. maria	THE Que	2 Field Person	inel: Ct-T	
Site Locat	tion:	oring Valley	Monitoring	Equinm	ent:	YSL&Lan	notte 2020	D	ate: 3-8-7	1
Brojer	-t #· 1	940075217	Fou	nment IF)#s 🔽	ADDIES	/ TADIULO	ч Weat	her: = 350F	sung y
Sampling P	rooram:	1st SA samp	ing event	prinoritie	Loca	ion age	Sik	COMOANCI	ley NY	
Gamping		Tat Or touring	ing overn	_		dure		truction		
Well inform	ation:		~ ~ .		Well Vo	olume Multipl	Iers:	" Mi	Well Casing	:
	Depth	of Well*: 99	.00 tt. b	mp.		n. = 0.041 ga	1/1L		Protoctive Casing	-
	Depth to	Water*:	<u>5</u> ζ π. D	mp.		5 IN. = 0.092 (jai/it i/#		Othor:	J
Lene	gth of Water		- <u>48</u> π.			n. – 0.103 ga	1/1L 1/#		(al: 41'-99'	ft bmo
	Well L	Diameter: 2.	<u> </u>		LI 41	n. – 0.005 ga		Screen men		ft bmp
	wei	volume: 14	<u></u> gai.				F			n. bhip.
Start P	urge Time:	1340				D	epth to Prod	uct: NA	ft. bmp.	
Initial Ob	servations:	PID: N	A			Pro	oduct Thickne	ess: <u>NA</u>	ft.	
			.)		indicat	te units				
Elapsed	Depth	Temperature	ΒH	Spec	cific	ORP	Dissolved	Turbidity	Flow	Other
Time	to Water		(OLD)	Condu	ictivity	(Oxygen		Kate (min)	7 5
(minutes)	(ft bmp)	(Celsius)	(SU)	(mS	(cm)	(mV)	(mg/L)			
0	11.52	130	7.00	1.14	14	283 8	10.30	6.92	500	
5	11.60	13.2	6.94	1.1	42	280.6	9.49	4.18	500	
10	11.62	13.3	6.89	1.0	42	279.3	8.56	7.35	400	
15	1151	17.10	6.80	1.14	11	275.3	7.86	109	400	
20	1.01	12.5	6.29	1.1	ш	220.8	7.74	109	UM	
20	11-24	10-5	1.70	1.1	12	0157	765	1.110	400	
25	11.56	12.7	6.70	1.1.	13	205. +	7.03	1.10	400	
30	11.52	12.7	67+	1.14	10	258.7	+.65	1.10	400	
35	11.52	12.8	677	1.14	1	256.8	7.59	i. (400	
40	11.52	12.7	6.77	1.1	42	255.6	7.52	1.13	400	
										2.05
								. 100/		
Stabilization	∆ ≤ 0.3'	± 3%	± 0.1	±3	3%	± 10 mV	± 10%	± 10%	200 ≤ X ≤ 500	÷
End I	Purge Time	1420	-							
To	tal volume o	f groundwater pur	ged: 5	gal						
E I O		Outer Alan		dor		She	on/Eree Drov			
Final Ob	servations:	Color <u>dea</u>	<u>د</u> ل							
Sample	ID: GP-4D	030321			_	V	Sample Tir	ne: <u>1430</u>	5	
Analytical P	arameters:	Eurofins	G	Dalsin	,					
Container	r Size	Container Type	# Collec	cted	Fi	eld Filtered?	P	reservative	Analys	sis
40 m	L I	Glass VOA	3	6		No		HEINGAL	PP VOC	S
125	ML	Plastic	1	2		NC		hore	Total Alka	alinity
250 m	nL	Plastic	X	2		Yes	_	HNO3	Dissolved Iron/	Manganese
400	16	blass vor	4	6		NC		HCI	Methane, Ethane	e, and Ethen
250 m		Glass VOA	7	L		No	Na	Hapod H()	Total Organi	c Carbon
40 m	- (p)((5	Class	- 	-1				LALDO	Major Cations (r	nagnesium,
250,	ml	* 10.21 C		<i>u</i>	-	NO		UM03	sodium, calcium, a	ind potassium)
GOML /	25mL PK	XST / OKSTIC	24/	74	NO	/ NO	hove	/ your	and Anions (chlo	ride, sulfate,
/ (- /1-0-0				1 19-	1.10	/ .	initiate, n	
Notes:										

ĸ

RAME	3 ČLL		Low	Flow Grou	ndwater Sar	mpling Lo	g Well II	GW-4	S
Site Na Site Loca Proje Sampling F	Ime: DEC CO tion:	SCO site pring Valley 940075217 1st SA samp	Samp Monitoring Equ ling event	iling Method: J Equipment: ipment ID#s: Lo	<u>/0</u> YSI & Larr ZIII /1 Incation: <u>Cos</u>	/と	Field Persor D Weat	ther: $\frac{CV(z)}{45^{\circ}-50^{\circ}}$	<u></u>
Well inform	ation: Depth Depth to Igth of Water Well C Well	of Well*: 25 Water*: 12, 2 Column: 11, 73 Diameter: 2. Volume: 72, 6	.00 ft. b -7 ft. b .00 ín. 6 gal.	mp	Volume Multipl 1 in. = 0.041 ga 1.5 in. = 0.092 ç 2 in. = 0.163 ga 4 in. = 0.653 ga	iers: /ft gal/ft /ft 1/ft F	Screen Inter	easurement Point: Well Casing Protective Casing Other: /al: 10'-25' th*:) ft. bmp. ft. bmp.
Start P Initial Ot	Purge Time: bservations:	135() PID:		indi	D Pro	Depth to Prod oduct Thickne	luct:	ft. bmp. ft.	
Elapsed Time (minutes)	Depth to Water (ft bmp)	Temperature (Celsius)	pH (SU)	Specific Conductivity (mS/cm	y ORP) (mV)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	Flow Rate (mL/min)	Other
0 5 (0	13.27 14.12 14.08	12.4 11.7 11.9	7.25 7.11 7.12	0,90	179,9 129,1 108-3	847 335 465	41.8 53.6 621	400 400	
15 720 725	14,05	12.0	7.14 7.14 7.15	0.97 6.97 0.96	9196~ 86.6 80.0	~13 018 ~0i	61.1 58.3 44.7	460 450 4 80	
30	14,04 141,0-1	12.1	7.15 7.15	0 46 0 297	75.1 71.1	• 02 • 01	42.5	4/50 14/50	
							4		
		+ 39/	+01	1 + 3%	+ 10 mV	+ 10%	T + 10%	200 < X ≤ 500	
End To Final Of Sample	Purge Time: tal volume of bservations: D: GW-4S	<u> 425</u> f groundwater pur Color <u>(20</u> - 030921	ged: 7	gal.	i /کردندیردا Shر	een/Free Pro Sample Ti	duct <u>Noise</u> me: <u>1430</u>	* . 	*
Analytical F Containe	Parameters: er Size	Eurofins Container Type	# Colle	cted	Field Filtered?	F	reservative	Analys	sis
40 m		Plass VOA	3		No No Yes		Her Nove Nove HNO3	Total Alka	s alinity Manganese
250 r 250 r 40 r	nL C	Glass VOA Amber VOA	3 1 2		No No	N	HCI aOH, ZnAC HaPO4- HCI	Methane, Ethane Sulfic Total Organi	e, and Ethen le c Carbon
25	DML OIL	Plastic active lateration	1	1	NO	15.40	HNO3	Major Cations (r sodium, calcium, a and Anions (chlo	nagnesium, and potassium pride, sulfate,
Notes:	TOANT					1,000	/ 110 0	initiate, fi	

RAME	BOLL		Low	Flow Groun	dwater Sai	mpling Lo	g Well IC): RW-3	D
Site Na Site Locat Proje Sampling F	Ime: DEC CO tion: Sp ict #: 19 Program:	SCO site pring Valley 940075217 1st SA samp	Samp Monitoring Equ ling event	Iling Method: 3 Equipment: ipment ID#s: Loca	Low Fl. YSI & Lan A00468/ ation: DEC	000 notte 2020 (FAD 105 (25x0)	Field Person	nel: <u>())) Sp</u> ate: <u>03/09/20</u> her: <u>55° ska</u>	7 <u>7</u> 21 77
Well inform Len	ation: Depth of Depth to Igth of Water Well D Well	of Well*: 102 Water*: 48 Column: 53 Diameter: 4. Volume: 34,	2.50 ft. b <u>75</u> ft. b <u>55</u> ft. 00 in. 1 6 gal.	Well Vc mp. 1 mp. 1. 2 ∠ ∠ 4	Slume Multipl in. = 0.041 ga 5 in. = 0.092 g in. = 0.163 ga in. = 0.653 ga	liers: /ft gal/ft /ft /ft	* Me	Assurement Point: Well Casing C Protective Casing Other: /al: 41'-102.5 h*: 921) 3/1/01] [ft. bmp. ft. bmp.
Start P Initial Ot	'urge Time: oservations:	PID:		indica	D Pro nte units	Depth to Prod oduct Thickne	luct:	ft. bmp. ft.	
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 5 10	48.95 49.04 49.04	13,1 13,2 13,3	7.14 7.38 7.43	1309 1311 1310	272.9 265.3 253.6	31.94 4,41 3,62	78.8 63.8 47.2	400 400 350	
15 20 75	48,05	13.3	7.46	1316 1309 1313	238.7 216.9 203.7	3.44 3.37 2.31	38,5 75,4 76,2	350 350 350	
30	49.02	13.3	7.50	13 15	198.5	3.35 3.33 7.33	16.1	350 350	
40	49,04	13.0	7.51	1316		5.00	15.1	330	
Stabilization	 ∧ < 0.3'	+ 3%	+ 0,1	+ 3%	± 10 mV	± 10%	± 10%	200 ≤ X ≤ 500	-
End I To	Purge Time:	1130 f groundwater pur	ged: 5	gal.	<u></u>	en/Free Pro	duct à pla		
Sample	ID: RW-3D	-030921	<u></u>			Sample Ti	me: <u>1135</u>		
Analytical P	arameters:	Eurofins	# Colle	cted F	ield Filtered?	. F	reservative	Analy	sis
40 m	nL	Glass VOA Plashic	3		No No	দ্র্যি শ্বিণ	More none	Total Alka	s alinity
250 m 40 r 250 m	nL NL NL	Plastic nlassVOA Glass VOA	1 3 1		Yes NO No	N	HNO3 HCI aOH, ZnAC	Methane, Ethane Sulfic	Manganese a, and Ethen ie
40 m 250;	mL	Amber VOA Plastic	2		No NO		HAPO4- IICI	Major Cations (r sodium, calcium, a and Anions (chlc	agnesium, nagnesium, and potassium pride, sulfate,
binL / Notes:	125mL plas	she plastic	2/	ZN	J/ NO	Nova	- Nore	nitrate, n	itrite)

RAMB	GLL		Low	Flow Ground	awater Sa	mpling Lo	g Well ID	. Mvv-18	
Site Nar	me: DEC CC	OSCO site	Samp	ling Method:	low flow	2	Field Person	nel: CDW	
Site Locati	ion: S	pring Valley	Monitoring	Equipment:	YSI & Lan	notte 2020	Da	ate: 03/09/21	
Projec	:t #:1	940075217	Equ	ipment ID#s:	4111 tion: DE/ 1	ACCOSTO	Comp Val		T
Sampling P	rogram:	TSI SA sampi	ing event		LION. <u>VEC</u>	JUDUO SIR	- spiner ou	CTINI	
Vell informa	ation:	-6144-11*- 22	00 8 6	Well Vo ma □ 1 i	lume Multipi n = 0.041 ga	liers:	- Me	Well Casing	
	Depth Depth tr	of Well*: 23	.00 II. D	mp. ⊔ ⊓ mn. □ 1!	5 in. = 0.092 (n/ft	4	Protective Casing	
Leno	of Water	Column: 1.51	ft.	2i	n. = 0.163 ga	I/ft		Other:	
20.18	Well [Diameter: 2.	00 in.	□ 4i	n. = 0.653 ga	l/ft	Screen Interv	al: 11'-23'	ft. bmp.
	Well	Volume: 1.8	7 gal.			F	ump Intake Depth	ו*: <u> 7</u>	ft. bmp.
Start P	urge Time:	1340			L	Depth to Prod	uct:	ft. bmp.	
Initial Ob	servations:	PID:			Pro	oduct Thickne	ess:	ft.	
				indica	te units			E 1	
Elapsed	Depth	Temperature	рН	Specific	ORP	Dissolved	Turbidity	Flow	Other
(minutes)	(ft hmp)	(Celsius)	(SU)	(mS/cm)	(mV)	(mg/L)	(NTU)	(mL/min)	()
0	11.49	12.7	6.56	0.82	-45.5	.06	our raye	500	
5	10 29	17.54	6.73	0.88	-65.8	0.00	aver rage	400	
1.6	1757	3.0	6.76	0.90	-77.4	0.00	3205	300	
1/S	17 61	129	6.74	690	-808	0.00	887	300	
2.0	12.61	14.0	6.73	0.91	-815	0.00	128	300	
75	12 66	12.9	6.73	GRI	-82.7	000	97.3	300	
30	17 60	17.9	6.74	0.92	- 83.5	6.00	92.4	300	
25	17.77	17.9	673	.91	- 83.5	6.00	55.5	350	
40	12.72	12.1	1.23	.91	- 83.7	6.00	36.0	300	
4 5	12 72	12.1	6:10	-99	-833	0.00	17.7	300	
15	12.13	12.1	6-17	91	- 843	0.00	11.1	300	
50	16.69	17.0	6.74	9,	-941.4	0.00	150	300	
25	12.70	12.7	0.77	0 [[01.4	0.00	1316		
							ж		
			<u> </u>						
- P				1 29/	$1 \pm 10 \text{ m}$	+ 10%	+ 10%	200 ≤ X ≤ 500	
Stabilization	∆ ≤ 0.3'	± 3%	± 0.1	± 3%	1 ± 10 mv	1 1076	11070	200 2 X 2 000	
End	Purge Time	: 1435	100						
То	tal volume o	of groundwater pur	ged: 7.5	gal.					
Final Ob	oservations:	Color clear	· (Odor And Retro	ol/chen Sh	een/Free Pro	duct none		
Sample	ID: MW-18	030921				Sample Ti	me: <u> 440</u>		
Applytical	Parameters	Eurofins							
Containe	r Size	Container Type	# Colle	ected F	ield Filtered?	F	Preservative	Analys	sis
40 m	iL	Glass VOA	3		No		-HET NOVE	PP VOC	S
125	mL	PLASTIC	1		Yes		HNO3	Dissolved Iron/	Manganese
250 n		CALACS VOA	3	,	NO		HLI	Methane, Ethane	, and Ethe
250 n	nL	Glass VOA	1		No	N	laOH, ZnAC	Sulfic	le
40 m	iL	•Amber VOA	2		No		Harod- HCI	Haior Cations (nagnesium
250	OML	Plastic	1		NO		HNO3 <	sodium, calcium, a	ind potassiur
~ ~ ~					1		1.1.0	and Anions (chlo	oride, sulfate,
inal 1	175.10	USEC /OLICHT	1 1	2 1	1 / 11	A INDVU	C NOVE	nitrate n	itrite)

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3/4/2021

RAMB	K LL		Low	Flow Groun	dwater Sa	mpling Log	g Well IC): RW-1	S
Site Na Site Locat Projec Sampling P	me: <u>DEC CO</u> tion: <u>S</u> f ct #: 19 Program:	SCO site pring Valley 940075217 1st SA sampl	Samp Monitoring Equ ing event	oling Method: g Equipment: ipment ID#s: Loca	Submers YSI & Lan PAD 6468 tion: DEC (st ble pur notte 2020 3 FAO 105	PField Person D S Weat	$\begin{array}{c c} \text{nel:} & \underline{\text{SET}} \\ \text{ate:} & \underline{\text{S-9-}} \\ \text{her:} & \underline{\text{+56^{\circ}}} \\ \underline{\text{Hey}} & \underline{\text{N}} \\ \end{array}$	ZI ZI ZSMA-(
Well inform: Leng	ation: Depth Depth to gth of Water Well D Well	of Well*: 28 Water*: 13. Column: [4]. iameter: 4. Volume: 9	.00 ft. b <u>22</u> ft. b <u>78</u> ft. 00 in. <u>65</u> gal.	Well Vo mp. □ mp. □ □ 2 ☑ 2 ☑ 4	blume Multip in. = 0.041 ga 5 in. = 0.092 g in. = 0.163 ga in. = 0.653 ga	l iers: I/ft gal/ft I/ft I/ft	* Me	easurement Point Well Casing Protective Casing Other: al: 10'-25' h*: 70'	: ft. bmp ft. bmp
Start P Initial Ob	Purge Time: oservations:	1340_N	A		E Pro	Depth to Product Thickne	uct: NA	ft. bmp. ft.	
				indica	te units			F laws	
Elapsed	Depth	Temperature	рН	Specific	ORP	Dissolved	Turbidity	Flow	Other
Time	to Water	remperature		Conductivity		Oxygen		Rate	· ·
(minutes)	(ft bmp)	(Celsius)	(SU)	(mS/cm)	(mV)	(mg/L)	(NTU)	(mL/min)	()
0	13 27	:7 8	728	1.282	100 7	5 06	50	AD	
	13.00	10.0	1.50	1.607	100.7	5.00		200	
5	13:30	12.7	7.04	1.270	58,9	0.67	45.1	800	
10	12 42	17.10	r 97	1777	72.8	0.56	237	800	
	0.17	10.0	8 97	1 215	(211	000	155	Com.	
15	13.96	16.6	0.1.5	1.015	66.7	0.00	15.0	200	
20	13.42	17.7	6.90	1.196	61.3	0.64	14.8	800	J
25	12 112	17 7	1.95	1157	(it fo	Q.65	146	800	
65	13.96	16.4	0.65	1.157	64.0	0.00	17.0	000	
30	13.42	12.7	6.85	141	70.1	0.61	14.1	XUO	
26	12117	122	6.81	1122	224	0 69	12.8	Scool	
- 55	13.96	16.1	Q .01	1.122	13-1		25	000	
40	13.42	12.7	6.80	1.10	75. L	DTI	13.5	800	
U.S.	12 112	12 10	1.22	1,00	RIL	672	121	602	
12	15.46	16.0	0.11	1.100	01.1	0.10	10.0	Geo	
50	13.42	12.0	6-15	1.082	85.1	0.75	12.7	800	
55	12 117	127	6 710	1071	891	0.72	17.7	800	
~	1. 3. 416	16 1	0.10	1.0.1	0				
					-				
Nabilization	A < 0.3'	+ 3%	+01	+ 3%	+ 10 mV	+ 10%	± 10%	200 ≤ X ≤ 500	720
End I To Final Ob Sample	Purge Time: tal volume of oservations: ID: <u>RW-1S</u>	<u>1435</u> f groundwater pur Color <u>(190</u> 030921/	ged: 10 2 C RN-15-1	gal. Odor <u>NON</u> NS-0 3092 (Shew-15-	een/Free Proc	duct <u>NOU</u> me: <u>i44</u> ;		
Analytical P	Parameters:	Eurofins			MOL	0301	01		
Container	r Size (Container Type	# Colle	cted F	ield Filtered?	P	reservative	Analy	SIS
40 m	Ĺ	Glass VOA	CSU B	9	No		-HEF AND	PT VOC	/S
17.5	mL	Plachic	319/21	12	No		none	Total Alk	alinity
250 m		Plastic	1		Yes		HNO3	Dissolved Iron/	/Manganes
un	mi	GLAGE WAR	3		No		MUS	Methane, Ethane	e, and Ethe
250~		Glass VOA	1		No	N	aOH, ZnAC	Sulfic	de
250 fr		Giass VUA			No		HOPCAMU	Total Organ	ic Carbon
40 m		Amber VUA	2			_	10.01 1101	Major Cations (magnesium
10	Jack	Plastic	1		NO		HNO3 4	sodium, calcium	and potassiu
- 250	IMC	1000-						and Anions (chl	oride. sulfate
laDal 1	16 81	agi &/ ALONT	2.1	2 No	No No	D NON	- / NAR	nitrate. r	nitrite)
word /	WML "	· / HAYAU	0			11			
Notes: fun	np was	s pumpr	ng soi	my min	or b	oning			
700	That	a nacle	1 Dave	· Ling	O VA				

MO/MSD Collected Nere for IP VUCS amsyrfile01\Projects\Wys-Dec.10653\75217.Cosco-75217\N-D\Field Forms\Blank Field Forms\Low Flow Forms (COSCO).xlsx

 \square

-										
RAME	CLL		Low	Flow G	round	dwater Sar	mpling Log	g Well I	D: MW-	3
Cito No.	mai DEC CC		Comr	ling Mothe	d.	Same	le anno	Eield Persor	nel CETAC	Dia
Site Na		SCU site	Monitoring		nu.	VSL&Lan	otto 2020		lite: 3//0/2	000
Site Locat	ion: <u> </u>	Dring Valley		inmont IDt	te:	Ampula	I CANDO	Weat	ther: JUECE	Cund
Sampling P		1 st SA sampl	ing overt	ipment iD+	ra. Locat	HOD DCC	marco Cil	sonava	hillen NY	24114
Sampling P		TSL GA Sampi	ing event		LUCA		USCO SIN	TOPUDA		
Well inform:	ation:			v	Vell Vo	lume Multipl	iers:	* M	easurement Point	
	Depth	of Well*:16	.75 ft. b	mp.	□ 1i	n. = 0.041 ga	l/ft	D	Well Casing	
	Depth to	Water*:	. <u>79</u> ft. b	mp.	□ 1.5	5 in. = 0.092 g	gal/ft		Protective Casing	g
Leng	gth of Water	Column: <u>5</u> .	76_ft.		⊠7 2i	n. = 0.163 ga	1/ft		Other:	0.1
1	Well D	iameter: 2.	00 in.		□ 4i	n. = 0.653 ga	l/ft	Screen Interv	val: ?-16.75	π. bmp.
	Well	Volume: 0.	<u>94</u> gal.				Р	ump Intake Dept	th*: [5]	π. bmp.
Start P	urge Time:	1035					Pepth to Produ	uct: NF	Aft. bmp.	
Initial Ob	servations:	PID:	IA			Pro	oduct Thickne	ss: N	Aft.	
		12			indicat	e units		<u></u>		
Elapsed	Depth	Tomporatura	-	Speci	fic	OPP	Dissolved	Turbidity	Flow	Other
Time	to Water	remperature	pii	Conduc	tivity		Oxygen	raibiaity	Rate	
(minutes)	(ft bmp)	(Celsius)	(SU)	(mS/c	:m)	(mV)	(mg/L)	(NTU)	(mL/min)	
0	10.99	(1.3	6.42	1.990	4	89.7	4.93	184	4000	3/10/71
5	11.85	11.3	6.22	22	17	41.0	2.19	42.1	400 25	0
.2	12 00	11.2	616	7 113	29	SOF	725	180	400-7-	0
	10.00	11.2	<u>0.10</u>	12.40	<u>a</u>	50.5	719	17.5	150	
15	11.75	(1-2	0.10	2.4	85	55.0	6.1	11.5	250	
20	12.05	11.3	6.04	2.5	70	59.2	2.00	8.06	250	
25	12.09	4.3	6.07	2.6	06	62.6	2.09	5-04	250	
30	17 01.	11.4	606	2.67	17	671	2.09	5.07	250	
25	12.00	11.2	6.06	215	2	207	208	5.05	250	
55	16.01	11.5	0.00	6.6-	13	10.0	2.00	2.05	2.50	
										_
				_						
Stabilization	A < 0.2'	+ 2%	+01	+ 30	6	+ 10 mV	+ 10%	+ 10%	200 < X < 500	
Stabilization	△ ≥ 0.3	<u> </u>	± v.1	± 37	U		± 10 %	± 10/0	1 200 3 7 3 000	
End F	Purge Time:	1110		-						
Tot	tal volume of	groundwater pur	ged: 2.5) gal.				B310	121	
Final Oh	servations:	Color CIPA	C	dor 🚺	000	She	en/Free Prod	luct OGAR	ios indas	cont
					un				yes, rendes	Claudia
Sample	ID: MW-3-	0510 21					Sample Tin	ne:5		Sileen
Analytical P	arameters:	Eurofins				÷				
Container	r Size	Container Type	# Collec	cted	Fie	eld Filtered?	Pr	eservative	Analy	sis
40 m	Ĺ	Glass VOA	3			No		HEF More	VOC	s
1250	nL	Plastic				No	5/10/21	nore	Total Alka	alinity
250 m	nL	Plastic	1			Yes		HNO3	Dissolved Iron/	wanganese
400	nl 1	HASS VOA	3			ND	_	HU	Methane, Ethane	e, and Ethene
250 m		Glass VOA	1			No	Na	HAPOA HAP	Total Organi	c Carbon
40 m						Alo		HUND TICT	Major Cations (r	nagnesium.
250	ml	PLASTIC	1			NO		4N03	sodium, calcium, a	and potassium)
home /	25-1 01	actil Placini	21	2	No	/ No	None	None	and Anions (chlo	ride, sulfate,
00000/10	11 - 110	O. MINON	1	0	100	1.100	alu	14.00 1.0	Pile I	
Notes: Ne	11 wer	it dry o	wing	Kampl	ing.	but	41 DD	thes wer	र मारित	

Site Na	me: DEC CC	SCO site	Sam	ling Method:	John for	24	Field Person	nel: CDU	
Site Locat	ion: S	pring Valley	Monitoring	g Equipment:	YSI & Lar	notte 2020	D	ate: 3/10/2)	
Projec	ct #:1	940075217	Equ	ipment ID#s: Fig	1 2111	1464	Weat	her: 30°, Sun	07
Sampling P	rogram:	1st SA samp	ling event	Loca	ition: Dec (10560 24	C Strught	ialier, NY	1
Vell inform	ation:	_		Well Vo	olume Multip	liers:	• Me	easurement Point:	
	Depth	of Well*: 25	.00 ft. b	imp. 1	in. = 0.041 ga 5 in. = 0.002	nl/ft apl/ft	×	Well Casing Protective Casing	
Long	Depth to of Water	Column: 15	<u>π.</u> 67 ft	mp, ⊔ 1. □ 2	$\sin = 0.092$	yai/it il/ft		Other:	4
Len	Well C	Diameter: 4.	00 in.	× 4	in. = 0.653 ga	ıl/ft	Screen Interv	/al: 10'-25'	ft. bmp.
	Well	Volume: 9,8	gal.			F	ump Intake Dept	:h*: 20	ft. bmp.
Start P	urge Time:	1/15				Depth to Prod	uct: none	ft. bmp.	
Initial Ob	servations:	PID:			Pr	oduct Thickne	ess: mare	ft.	
				indica	te units				
Elapsed	Depth	Temperature	рН	Specific	ORP	Dissolved	Turbidity	Flow	Other
Time	to Water	(Calaiua)	/610	Conductivity	(m\/)	Oxygen (mg/L)	(NTU)	(ml /min)	1 1
minutes	(ft bmp)		(30)		177.0		51.5	800	
5	111	0.0	6.15	6.00	117.4	110	42.2	700	
2	10.00	10	6.05	5.(1	1010	6103	73.3 78.1	325	
10	10.7)	6.7	6.11	4.15	477	6101	259	500	
12	10.67	1.0	6.10	1.01 Ko 11/	141	6.11	3011	5.04	
20	[0.8]	6.9	6.11	10.14	81.1	6:34	33.6	200	
4	10,88	6.9	6.82	10,11	79,9	6.07	32.0	200	
30	16.81	6.9	6.82	10.1	-17.2	6107	51.6	300	
					ļ				
Stabilization	∆ ≤ 0.3'	± 3%	± 0.1	± 3%	± 10 mV	± 10%	± 10%	200 ≤ X ≤ 500	-
End	Purge Time	1145							
To	tal volume or	groundwater pur	ged: 7	gal.					
Final Of	convotione:	Color al		Ddor t ll.	Sh	een/Free Proc	duct v s		
Final Oc		COID Clear		Metallic		Comple Ti			
Sample	ID: <u>RW-8S</u>	- 031021					ne: <u>//50</u>		
nalytical P	arameters:	Eurofins					and a station	Apple	ale
Containe 40 m	Size	Glass VOA	# Colle	cted F	No	-155	HCI no	VOC	S
125	ML	PLASTIC	1		No	41021	nore	Total Alka	alinity
250 m	iL	Plastic	1		Yes		HNO3	Dissolved Iron/	Manganese
400	L C	blass voa	3		No		14	Methane, Ethane	e, and Ethen
250 m	L	Glass VOA	1		No	N	Hapo4-UL	Sulfic Total Organi	c Carbon
40 m		PLASHO	2		No		HNOS	Major Cations (r	nagnesium,
25	ML	HUSTIC			NU	-	111-5	sodium, calcium, a	ind potassium
Some /1	25m- Pla	STC/ PLSTC	21	2 No	/ NO	nore	-/ nore	nitrate, n	itrite)
				(1		<u> </u>		

3/4/2021

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APPENDIX G-5 SUMMARY OF LABORATORY ANALYTICAL RESULTS

Client Sample ID: MW-3-031021 Date Collected: 03/10/21 11:15 Date Received: 03/11/21 09:30

Job	ID: 480	-181931	-1

Lab Sample ID: 480-181931-1

Matrix: Water

5

6

Method: 624.1 - Volatile Organ	ic Compou	nds (GC/MS	;)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		10	0.77	ug/L			03/11/21 13:03	2
1,1,2,2-Tetrachloroethane	ND		10	0.52	ug/L			03/11/21 13:03	2
1,1,2-Trichloroethane	ND		10	0.96	ug/L			03/11/21 13:03	2
1,1-Dichloroethane	ND		10	1.2	ug/L			03/11/21 13:03	2
1,1-Dichloroethene	ND		10	1.7	ug/L			03/11/21 13:03	2
1,2-Dichlorobenzene	ND		10	0.89	ug/L			03/11/21 13:03	2
1,2-Dichloroethane	ND		10	1.2	ug/L			03/11/21 13:03	2
1,2-Dichloroethene, Total	ND		20	6.4	ug/L			03/11/21 13:03	2
1,2-Dichloropropane	ND		10	1.2	ug/L			03/11/21 13:03	2
1,3-Dichlorobenzene	ND		10	1.1	ug/L			03/11/21 13:03	2
1,4-Dichlorobenzene	ND		10	1.0	ug/L			03/11/21 13:03	2
2-Chloroethyl vinyl ether	ND		50	3.7	ug/L			03/11/21 13:03	2
Acrolein	ND		200	35	ug/L			03/11/21 13:03	2
Acrylonitrile	ND		100	3.8	ug/L			03/11/21 13:03	2
Benzene	ND		10	1.2	ug/L			03/11/21 13:03	2
Bromodichloromethane	ND		10	1.1	ug/L			03/11/21 13:03	2
Bromoform	ND		10	0.94	ug/L			03/11/21 13:03	2
Bromomethane	ND		10	2.4	ug/L			03/11/21 13:03	2
Carbon tetrachloride	ND		10	1.0	ug/L			03/11/21 13:03	2
Chlorobenzene	ND		10	0.95	ug/L			03/11/21 13:03	2
Chlorodibromomethane	ND		10	0.83	ug/L			03/11/21 13:03	2
Chloroethane	ND		10	1.7	ug/L			03/11/21 13:03	2
Chloroform	ND		10	1.1	ug/L			03/11/21 13:03	2
Chloromethane	ND		10	1.3	ug/L			03/11/21 13:03	2
cis-1,3-Dichloropropene	ND		10	0.66	ug/L			03/11/21 13:03	2
Ethylbenzene	ND		10	0.93	ug/L			03/11/21 13:03	2
Methylene Chloride	ND		10	1.6	ug/L			03/11/21 13:03	2
Tetrachloroethene	ND		10	0.68	ug/L			03/11/21 13:03	2
Toluene	ND		10	0.91	ug/L			03/11/21 13:03	2
trans-1,2-Dichloroethene	ND		10	1.2	ug/L			03/11/21 13:03	2
trans-1,3-Dichloropropene	ND		10	0.88	ug/L			03/11/21 13:03	2
Trichloroethene	ND		10	1.2	ug/L			03/11/21 13:03	2
Vinyl chloride	ND		10	1.5	ug/L			03/11/21 13:03	2
-					-				
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	85		68 - 130					03/11/21 13:03	2
4-Bromofluorobenzene (Surr)	107		76 - 123					03/11/21 13:03	2
Dibromofluoromethane (Surr)	94		75 - 123					03/11/21 13:03	2
Toluene-d8 (Surr)	103		77 - 120					03/11/21 13:03	2
 Method: RSK-175 - Dissolved	Gases (GC))							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	25		4.0	1.0	ug/L			03/16/21 15:22	1
Ethane	ND		7.5	1.5	ug/L			03/16/21 15:22	1
Ethene	ND		7.0	1.5	ug/L			03/16/21 15:22	1
Method: 60100 - Metals (ICP)	De!*	Qualifier			11-14	-	Dremerad		
	Result	Qualifier	KL				-repared		
Calcium	49.1		0.50	0.10	mg/L		03/12/21 09:56	03/10/21 17:13	T A
rotassium	1.7	J	0.50	0.10	mg/L		03/12/21 09:56	03/10/21 17:13	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: New York State D.E.C. Project/Site: COSCO #344035

Client Sample ID: MW-3-031021 Date Collected: 03/10/21 11:15 Date Received: 03/11/21 09:30

Method: 6010C - Metals (ICP)	(Continued))							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Magnesium	11.6		0.20	0.043	mg/L		03/12/21 09:56	03/16/21 17:13	1
Sodium	379		1.0	0.32	mg/L		03/12/21 09:56	03/16/21 17:13	1
Method: 6010C - Metals (ICP)	- Dissolved								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	8.3	- <mark>~2</mark> JH	0.050	0.019	mg/L		03/15/21 10:40	03/18/21 22:48	1
Manganese	2.1	B JH	0.0030	0.00040	mg/L		03/15/21 10:40	03/18/21 22:48	1
General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	641		10.0	5.6	mg/L			03/15/21 20:24	20
Sulfate	ND		40.0	7.0	mg/L			03/15/21 20:24	20
Nitrite as N	0.039	 0.050 U	0.050	0.020	mg/L			03/11/21 20:22	1
Nitrate as N	0.29		0.050	0.020	mg/L			03/11/21 20:22	1
Alkalinity, Total	53.4		5.0	0.79	mg/L			03/15/21 14:15	1
Sulfide	ND		1.0	0.67	mg/L			03/14/21 13:50	1
Total Organic Carbon	7.9		1.0	0.43	mg/L			03/14/21 03:40	1

Job ID: 480-181931-1

ARF 05/04/2021

Client Sample ID: RW-8S-031021 Date Collected: 03/10/21 11:50 Date Received: 03/11/21 09:30

Lab Sample ID: 480-181931-2

Matrix: Water

Method: 624.1 - Volatile Orga	nic Compou	nds (GC/N	IS)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	5
1,1,1-Trichloroethane	ND		5.0	0.39	ug/L			03/11/21 13:27	1	
1,1,2,2-Tetrachloroethane	ND		5.0	0.26	ug/L			03/11/21 13:27	1	6
1,1,2-Trichloroethane	ND		5.0	0.48	ug/L			03/11/21 13:27	1	
1,1-Dichloroethane	ND		5.0	0.59	ug/L			03/11/21 13:27	1	
1,1-Dichloroethene	ND		5.0	0.85	ug/L			03/11/21 13:27	1	
1,2-Dichlorobenzene	ND		5.0	0.44	ug/L			03/11/21 13:27	1	8
1,2-Dichloroethane	ND		5.0	0.60	ug/L			03/11/21 13:27	1	
1,2-Dichloroethene, Total	ND		10	3.2	ug/L			03/11/21 13:27	1	0
1,2-Dichloropropane	ND		5.0	0.61	ug/L			03/11/21 13:27	1	
1,3-Dichlorobenzene	ND		5.0	0.54	ug/L			03/11/21 13:27	1	
1,4-Dichlorobenzene	ND		5.0	0.51	ug/L			03/11/21 13:27	1	
2-Chloroethyl vinyl ether	ND		25	1.9	ug/L			03/11/21 13:27	1	
Acrolein	ND		100	17	ug/L			03/11/21 13:27	1	
Acrylonitrile	ND		50	1.9	ug/L			03/11/21 13:27	1	
Benzene	ND		5.0	0.60	ug/L			03/11/21 13:27	1	
Bromodichloromethane	ND		5.0	0.54	ug/L			03/11/21 13:27	1	
Bromoform	ND		5.0	0.47	ug/L			03/11/21 13:27	1	
Bromomethane	ND		5.0	1.2	ug/L			03/11/21 13:27	1	
Carbon tetrachloride	ND		5.0	0.51	ug/L			03/11/21 13:27	1	
Chlorobenzene	ND		5.0	0.48	ug/L			03/11/21 13:27	1	
Chlorodibromomethane	ND		5.0	0.41	ug/L			03/11/21 13:27	1	
Chloroethane	ND		5.0	0.87	ug/L			03/11/21 13:27	1	
Chloroform	ND		5.0	0.54	ug/L			03/11/21 13:27	1	
Chloromethane	ND		5.0	0.64	ug/L			03/11/21 13:27	1	
cis-1,3-Dichloropropene	ND		5.0	0.33	ug/L			03/11/21 13:27	1	
Ethylbenzene	ND		5.0	0.46	ug/L			03/11/21 13:27	1	
Methylene Chloride	ND		5.0	0.81	ua/L			03/11/21 13:27	1	
Tetrachloroethene	0.45	J	5.0	0.34	ua/L			03/11/21 13:27		
Toluene	ND		5.0	0.45	ua/L			03/11/21 13:27	1	
trans-1.2-Dichloroethene	ND		5.0	0.59	ua/L			03/11/21 13:27	1	
trans-1.3-Dichloropropene	ND		5.0	0.44	ua/L			03/11/21 13:27		
Trichloroethene	5.3		5.0	0.60	ua/L			03/11/21 13:27	1	
Vinyl chloride			5.0	0.75	ua/l			03/11/21 13:27	1	
			0.0	0.1.0	<u>9</u> / =				·	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac	
1,2-Dichloroethane-d4 (Surr)	92		68 - 130					03/11/21 13:27	1	
4-Bromofluorobenzene (Surr)	102		76 - 123					03/11/21 13:27	1	
Dibromofluoromethane (Surr)	104		75 - 123					03/11/21 13:27	1	
Toluene-d8 (Surr)	98		77 - 120					03/11/21 13:27	1	
Method: RSK-175 - Dissolved	d Gases (GC))								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Methane	1.6	J	4.0	1.0	ug/L	_		03/16/21 15:41	1	
Ethane	ND		7.5	1.5	ug/L			03/16/21 15:41	1	
Ethene	ND		7.0	1.5	ug/L			03/16/21 15:41	1	
Method: 6010C - Metals (ICP))									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Calcium	325		0.50	0.10	mg/L		03/12/21 09:56	03/16/21 17:43	1	
Potassium	17.6	J	0.50	0.10	mg/L		03/12/21 09:56	03/16/21 17:43	1	

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: New York State D.E.C. Project/Site: COSCO #344035

Client Sample ID: RW-8S-031021 Date Collected: 03/10/21 11:50 Date Received: 03/11/21 09:30

Method: 6010C - Metals (ICP)	(Continued)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Magnesium	37.1		0.20	0.043	mg/L		03/12/21 09:56	03/16/21 17:43	1
Sodium	1700		5.0	1.6	mg/L		03/12/21 09:56	03/16/21 17:47	5
Method: 6010C - Metals (ICP)	- Dissolved								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	0.30	J	0.050	0.019	mg/L		03/15/21 10:40	03/19/21 13:30	1
Manganese	0.12	- B - JH	0.0030	0.00040	mg/L		03/15/21 10:40	03/18/21 22:52	1
General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3110		25.0	14.1	mg/L			03/15/21 20:38	50
Sulfate	31.9	J	100	17.5	mg/L			03/15/21 20:38	50
Nitrite as N	0.020	 0.050 U	0.050	0.020	mg/L			03/11/21 20:23	1
Nitrate as N	1.4		0.050	0.020	mg/L			03/11/21 20:23	1
Alkalinity, Total	151		5.0	0.79	mg/L			03/15/21 14:21	1
Sulfide	ND		1.0	0.67	mg/L			03/14/21 13:50	1
Total Organic Carbon	6.4		1.0	0.43	mg/L			03/14/21 03:57	1

Job ID: 480-181931-1

Matrix: Water

ARF 05/04/2021

3/25/2021

Client Sample ID: RW-3D-030921 Date Collected: 03/09/21 11:35 Date Received: 03/10/21 09:30

Lab Sample ID: 480-181846-1

Matrix: Water

5

6

	nic Compou	nds (GC/M	S)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		25	1.9	ug/L			03/10/21 11:36	5
1,1,2,2-Tetrachloroethane	ND		25	1.3	ug/L			03/10/21 11:36	5
1,1,2-Trichloroethane	ND		25	2.4	ug/L			03/10/21 11:36	5
1,1-Dichloroethane	ND		25	2.9	ug/L			03/10/21 11:36	5
1,1-Dichloroethene	ND		25	4.3	ug/L			03/10/21 11:36	5
1,2-Dichlorobenzene	ND		25	2.2	ug/L			03/10/21 11:36	5
1,2-Dichloroethane	ND		25	3.0	ug/L			03/10/21 11:36	5
1,2-Dichloroethene, Total	180		50	16	ug/L			03/10/21 11:36	5
1,2-Dichloropropane	ND		25	3.1	ug/L			03/10/21 11:36	5
1,3-Dichlorobenzene	ND		25	2.7	ug/L			03/10/21 11:36	5
1,4-Dichlorobenzene	ND		25	2.5	ug/L			03/10/21 11:36	5
2-Chloroethyl vinyl ether	ND		130	9.3	ug/L			03/10/21 11:36	5
Acrolein	ND		500	87	ug/L			03/10/21 11:36	5
Acrylonitrile	ND		250	9.5	ug/L			03/10/21 11:36	5
Benzene	ND		25	3.0	ug/L			03/10/21 11:36	5
Bromodichloromethane	ND		25	2.7	ug/L			03/10/21 11:36	5
Bromoform	ND		25	2.3	ug/L			03/10/21 11:36	5
Bromomethane	ND		25	6.0	ug/L			03/10/21 11:36	5
Carbon tetrachloride	ND		25	2.6	ug/L			03/10/21 11:36	5
Chlorobenzene	ND		25	2.4	ug/L			03/10/21 11:36	5
Chlorodibromomethane	ND		25	2.1	ug/L			03/10/21 11:36	5
Chloroethane	ND		25	4.4	ug/L			03/10/21 11:36	5
Chloroform	ND		25	2.7	ug/L			03/10/21 11:36	5
Chloromethane	ND		25	3.2	ug/L			03/10/21 11:36	5
cis-1,3-Dichloropropene	ND		25	1.7	ug/L			03/10/21 11:36	5
Ethylbenzene	ND		25	2.3	ug/L			03/10/21 11:36	5
Methylene Chloride	ND		25	4.1	ug/L			03/10/21 11:36	5
Tetrachloroethene	260		25	1.7	ug/L			03/10/21 11:36	5
Toluene	ND		25	2.3	ug/L			03/10/21 11:36	5
trans-1,2-Dichloroethene	ND		25	2.9	ug/L			03/10/21 11:36	5
trans-1,3-Dichloropropene	ND		25	2.2	ug/L			03/10/21 11:36	5
Trichloroethene	240		25	3.0	ug/L			03/10/21 11:36	5
Vinyl chloride	ND		25	3.7	ug/L			03/10/21 11:36	5
					0				
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	89		68 - 130					03/10/21 11:36	5
4-Bromofluorobenzene (Surr)	102		76 - 123					03/10/21 11:36	5
Dibromofluoromethane (Surr)	96		75 - 123					03/10/21 11:36	5
Toluene-d8 (Surr)	93		77 - 120					03/10/21 11:36	5
	0								
Wethod: RSK-1/5 - Dissolved	Gases (GC)			MDI	11.14	-	Description	A	D !! F
	Result	Qualifier	RL	MDL	Unit	<u>D</u>	Prepared	Analyzed	
	ND		4.0	1.0	ug/L			03/11/21 19:07	1
Ethane			7.5	1.5	ug/L			03/11/21 19:07	1
	ND		7.0	1.5	ug/L			03/11/21 19:07	1
Method: 6010C - Metals (ICP)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analvzed	Dil Fac
Calcium	68.9		0.50	0.10	mg/L		03/11/21 09:08	03/12/21 16:36	1
Potassium	2.0		0.50	0.10	ma/L		03/11/21 09:08	03/12/21 16:36	1
					5/-				-

Eurofins TestAmerica, Buffalo

Client Sample Results

Alkalinity, Total

Total Organic Carbon

Sulfide

Client Sample ID: RW-3D-030921 Date Collected: 03/09/21 11:35 Date Received: 03/10/21 09:30

Method: 6010C - Metals (IC	P) (Continued)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Magnesium	21.2		0.20	0.043	mg/L		03/11/21 09:08	03/12/21 16:36	1
Sodium	163		1.0	0.32	mg/L		03/11/21 09:08	03/12/21 16:36	1
- Method: 6010C - Metals (IC	P) - Dissolved								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND		0.050	0.019	mg/L		03/11/21 09:11	03/17/21 05:02	1
Manganese	ND		0.0030	0.00040	mg/L		03/11/21 09:11	03/17/21 05:02	1
General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	272		2.5	1.4	mg/L			03/12/21 06:07	5
Sulfate	19.9		10.0	1.7	mg/L			03/12/21 06:07	5
Nitrite as N	ND		0.050	0.020	mg/L			03/10/21 20:33	1
Nitrate as N	2.3		0.050	0.020	mg/L			03/10/21 20:33	1

5.0

1.0

1.0

0.79 mg/L

0.67 mg/L

0.43 mg/L

206

ND

0.72 J

Job ID: 480-181846-1

03/15/21 13:52

03/14/21 13:50

03/13/21 09:42

Lab Sample ID: 480-181846-1

Matrix: Water

5 5

1

1

1

6

Client Sample ID: MW-18-030921 Date Collected: 03/09/21 14:40 Date Received: 03/10/21 09:30

.lob	ID	480 - 3	181	846-	1

Lab Sample ID: 480-181846-3

Matrix: Water

Method: 624.1 - Volatile Organ	nic Compou	nds (GC/N	IS)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	5
1,1,1-Trichloroethane	ND		5.0	0.39	ug/L			03/10/21 12:24	1	
1,1,2,2-Tetrachloroethane	ND		5.0	0.26	ug/L			03/10/21 12:24	1	6
1,1,2-Trichloroethane	ND		5.0	0.48	ug/L			03/10/21 12:24	1	-
1,1-Dichloroethane	ND		5.0	0.59	ug/L			03/10/21 12:24	1	
1,1-Dichloroethene	ND		5.0	0.85	ug/L			03/10/21 12:24	1	
1,2-Dichlorobenzene	ND		5.0	0.44	ug/L			03/10/21 12:24	1	8
1,2-Dichloroethane	ND		5.0	0.60	ug/L			03/10/21 12:24	1	
1,2-Dichloroethene, Total	8.4	J	10	3.2	ug/L			03/10/21 12:24	1	
1,2-Dichloropropane	ND		5.0	0.61	ug/L			03/10/21 12:24	1	Ž
1,3-Dichlorobenzene	ND		5.0	0.54	ug/L			03/10/21 12:24	1	
1,4-Dichlorobenzene	ND		5.0	0.51	ug/L			03/10/21 12:24	1	
2-Chloroethyl vinyl ether	ND		25	1.9	ug/L			03/10/21 12:24	1	
Acrolein	ND		100	17	ug/L			03/10/21 12:24	1	
Acrylonitrile	ND		50	1.9	ug/L			03/10/21 12:24	1	
Benzene	ND		5.0	0.60	ug/L			03/10/21 12:24	1	
Bromodichloromethane	ND		5.0	0.54	ug/L			03/10/21 12:24	1	
Bromoform	ND		5.0	0.47	ug/L			03/10/21 12:24	1	
Bromomethane	ND		5.0	1.2	ug/L			03/10/21 12:24	1	
Carbon tetrachloride	ND		5.0	0.51	ua/L			03/10/21 12:24		
Chlorobenzene	ND		5.0	0.48	ua/L			03/10/21 12:24	1	
Chlorodibromomethane	ND		5.0	0.41	ua/l			03/10/21 12:24	1	
Chloroethane	ND		5.0	0.87	ua/l			03/10/21 12:24		
Chloroform	ND		5.0	0.54				03/10/21 12:24	1	
Chloromethane	ND		5.0	0.64	ua/l			03/10/21 12:24	1	
cis-1 3-Dichloropropene	ND		5.0	0.33	ua/l			03/10/21 12:24		
Ethylbenzene	ND		5.0	0.46				03/10/21 12:24	1	
Methylene Chloride	ND		5.0	0.10	ua/l			03/10/21 12:24	1	
Tetrachloroethene	0.58		5.0	0.34	ua/l			03/10/21 12:24		
Toluene		•	5.0	0.45	ua/l			03/10/21 12:24	1	
trans-1 2-Dichloroethene	ND		5.0	0.59	ua/l			03/10/21 12:24	1	
trans-1 3-Dichloropropene	ND		5.0	0.00	ua/l			03/10/21 12:24		
Trichloroethene	1 3		5.0	0.60	ug/L			03/10/21 12:24	1	
Vinyl chloride	8.6	•	5.0	0.00	ug/L			03/10/21 12:24	1	
Villyr chloride	0.0		5.0	0.75	ug/L			00/10/21 12:24		
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac	
1,2-Dichloroethane-d4 (Surr)	92		68 - 130					03/10/21 12:24	1	
4-Bromofluorobenzene (Surr)	104		76 - 123					03/10/21 12:24	1	
Dibromofluoromethane (Surr)	97		75 - 123					03/10/21 12:24	1	
Toluene-d8 (Surr)	99		77 - 120					03/10/21 12:24	1	
Method: RSK-175 - Dissolved	Gases (GC))								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Methane	520		44	11	ug/L			03/11/21 19:26	11	
Ethane	ND		83	17	ug/L			03/11/21 19:26	11	
Ethene	ND		77	17	ug/L			03/11/21 19:26	11	
_ Method: 6010C - Metals (ICP)										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
	41.5		0.50	0.10	mg/L		03/11/21 09:08	03/12/21 16:39	1	
Potassium	24		0.50	0.10	ma/l		03/11/21 09:08	03/12/21 16:39	1	
- Cussium	2.4		0.00	0.10			00.00	50/12/21 10.09		

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: New York State D.E.C. Project/Site: COSCO #344035

Total Organic Carbon

Client Sample ID: MW-18-030921 Date Collected: 03/09/21 14:40 Date Received: 03/10/21 09:30

Method: 6010C - Metals (I	CP) (Continued)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Magnesium	7.4		0.20	0.043	mg/L		03/11/21 09:08	03/12/21 16:39	1
Sodium	135		1.0	0.32	mg/L		03/11/21 09:08	03/12/21 16:39	1
- Method: 6010C - Metals (I	CP) - Dissolved								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	7.6		0.050	0.019	mg/L		03/11/21 09:11	03/17/21 05:20	1
Manganese	2.4		0.0030	0.00040	mg/L		03/11/21 09:11	03/17/21 05:20	1
General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	146		2.5	1.4	mg/L			03/12/21 02:07	5
Sulfate	11.2		10.0	1.7	mg/L			03/12/21 02:07	5

1.0

0.43 mg/L

Analyte	Result	Qualifier	RL	MDL	Unit	
Chloride	146		2.5	1.4	mg/L	
Sulfate	11.2		10.0	1.7	mg/L	
Nitrite as N	ND		0.050	0.020	mg/L	
Nitrate as N	0.16		0.050	0.020	mg/L	
Alkalinity, Total	198		5.0	0.79	mg/L	
Sulfide	ND		1.0	0.67	mg/L	

5.0

Job ID: 480-181846-1

Lab Sample ID: 480-181846-3

03/10/21 20:34

03/10/21 20:34

03/15/21 13:59

03/14/21 13:50

03/13/21 09:58

Matrix: Water

5

1

1

1

1

1

RL

MDL Unit

D

Prepared

Analyte

Ethene

Client Sample ID: RW-1S-030921 Date Collected: 03/09/21 14:45 Date Received: 03/10/21 09:30

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Result Qualifier

1,1,1-Trichloroethane	ND		5.0	0.39	ug/L			03/10/21 12:48	1	
1,1,2,2-Tetrachloroethane	ND	F2 UJ	5.0	0.26	ug/L			03/10/21 12:48	1	6
1,1,2-Trichloroethane	ND		5.0	0.48	ug/L			03/10/21 12:48	1	
1,1-Dichloroethane	ND		5.0	0.59	ug/L			03/10/21 12:48	1	
1,1-Dichloroethene	ND		5.0	0.85	ug/L			03/10/21 12:48	1	
1,2-Dichlorobenzene	ND		5.0	0.44	ug/L			03/10/21 12:48	1	8
1,2-Dichloroethane	ND		5.0	0.60	ug/L			03/10/21 12:48	1	
1,2-Dichloroethene, Total	ND		10	3.2	ug/L			03/10/21 12:48	1	Q
1,2-Dichloropropane	ND		5.0	0.61	ug/L			03/10/21 12:48	1	9
1,3-Dichlorobenzene	ND		5.0	0.54	ug/L			03/10/21 12:48	1	
1,4-Dichlorobenzene	ND		5.0	0.51	ug/L			03/10/21 12:48	1	
2-Chloroethyl vinyl ether	ND		25	1.9	ug/L			03/10/21 12:48	1	
Acrolein	ND		100	17	ug/L			03/10/21 12:48	1	
Acrylonitrile	ND		50	1.9	ug/L			03/10/21 12:48	1	
Benzene	ND		5.0	0.60	ug/L			03/10/21 12:48	1	
Bromodichloromethane	ND		5.0	0.54	ug/L			03/10/21 12:48	1	
Bromoform	ND		5.0	0.47	ug/L			03/10/21 12:48	1	13
Bromomethane	ND		5.0	1.2	ug/L			03/10/21 12:48	1	
Carbon tetrachloride	ND		5.0	0.51	ug/L			03/10/21 12:48	1	
Chlorobenzene	ND		5.0	0.48	ug/L			03/10/21 12:48	1	
Chlorodibromomethane	ND		5.0	0.41	ug/L			03/10/21 12:48	1	
Chloroethane	ND		5.0	0.87	ug/L			03/10/21 12:48	1	
Chloroform	ND		5.0	0.54	ug/L			03/10/21 12:48	1	
Chloromethane	ND		5.0	0.64	ug/L			03/10/21 12:48	1	
cis-1,3-Dichloropropene	ND		5.0	0.33	ug/L			03/10/21 12:48	1	
Ethylbenzene	ND		5.0	0.46	ug/L			03/10/21 12:48	1	
Methylene Chloride	ND		5.0	0.81	ug/L			03/10/21 12:48	1	
Tetrachloroethene	3.4	J	5.0	0.34	ug/L			03/10/21 12:48	1	
Toluene	ND		5.0	0.45	ug/L			03/10/21 12:48	1	
trans-1,2-Dichloroethene	ND		5.0	0.59	ug/L			03/10/21 12:48	1	
trans-1,3-Dichloropropene	ND		5.0	0.44	ug/L			03/10/21 12:48	1	
Trichloroethene	12		5.0	0.60	ug/L			03/10/21 12:48	1	
Vinyl chloride	ND		5.0	0.75	ug/L			03/10/21 12:48	1	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac	
1,2-Dichloroethane-d4 (Surr)	90		68 - 130			-		03/10/21 12:48	1	
4-Bromofluorobenzene (Surr)	99		76 - 123					03/10/21 12:48	1	
Dibromofluoromethane (Surr)	99		75 - 123					03/10/21 12:48	1	
Toluene-d8 (Surr)	97		77 - 120					03/10/21 12:48	1	
Method: RSK-175 - Dissolv	ved Gases (GC))								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Methane	ND		4.0	1.0	ug/L			03/11/21 19:45	1	
Ethane	ND		7.5	1.5	ug/L			03/11/21 19:45	1	

Method: 6010C - Metals (ICP)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	47.9		0.50	0.10	mg/L		03/11/21 09:08	03/12/21 16:43	1
Potassium	2.0		0.50	0.10	mg/L		03/11/21 09:08	03/12/21 16:43	1

7.0

ND

Eurofins TestAmerica, Buffalo

03/11/21 19:45

1

Job ID: 480-181846-1

Lab Sample ID: 480-181846-4

Analyzed

Matrix: Water

Dil Fac

1.5 ug/L

of 34

Client Sample Results

Client: New York State D.E.C. Project/Site: COSCO #344035

Client Sample ID: RW-1S-030921 Date Collected: 03/09/21 14:45 Date Received: 03/10/21 09:30

Method: 6010C - Metal	s (ICP) (Continued)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed
Magnesium	7.7		0.20	0.043	mg/L		03/11/21 09:08	03/12/21 16:43
Sodium	158		1.0	0.32	mg/L		03/11/21 09:08	03/12/21 16:43
Method: 6010C - Metal	s (ICP) - Dissolved							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed
Iron	0.067		0.050	0.019	mg/L		03/11/21 09:11	03/17/21 05:24
Manganese	0.13		0.0030	0.00040	mg/L		03/11/21 09:11	03/17/21 05:24

Manganese	0.13		0.0030	0.00040	mg/L		03/11/21 09:11	03/17/21 05:24	1
General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	199		2.5	1.4	mg/L			03/12/21 02:35	5
Sulfate	19.6		10.0	1.7	mg/L			03/12/21 02:35	5
Nitrite as N	0.021	J	0.050	0.020	mg/L			03/10/21 20:35	1
Nitrate as N	2.2		0.050	0.020	mg/L			03/10/21 20:35	1
Alkalinity, Total	168		5.0	0.79	mg/L			03/15/21 14:08	1
Sulfide	ND		1.0	0.67	mg/L			03/14/21 13:50	1
Total Organic Carbon	2.0		1.0	0.43	mg/L			03/13/21 10:14	1

3/19/2021

Lab Sample ID: 480-181846-4 Matrix: Water

6

Dil Fac

Dil Fac

1

1

1

Client Sample ID: DW-1-030821 Date Collected: 03/08/21 11:40 Date Received: 03/09/21 10:00

Joh	ın	480-	181	811	_ '
000	ID.	400-	101	011	-

Lab Sample ID: 480-181811-1

Matrix: Water

Analyte Result Qualifier RL MDL Unit D Prepared Analyzed Dil Fac 5 1,1,1-Trichloroethane ND 5.0 0.39 ug/L 03/09/21 13.51 1 1,1,2-Trichloroethane ND 5.0 0.48 ug/L 03/09/21 13.51 1 1,1,2-Trichloroethane ND 5.0 0.48 ug/L 03/09/21 13.51 1 1,1-Dichloroethane ND 5.0 0.48 ug/L 03/09/21 13.51 1 1,1-Dichloroethane ND 5.0 0.48 ug/L 03/09/21 13.51 1 1,2-Dichloroethane ND 5.0 0.44 ug/L 03/09/21 13.51 1 1,2-Dichloroethane ND 5.0 0.60 ug/L 03/09/21 13.51 1 1,2-Dichloroethane ND 5.0 0.61 ug/L 03/09/21 13.51 1 1,2-Dichloroethane ND 5.0 0.51 ug/L 03/09/21 13.51 1 1,4-Dichlorobenzene <th>Method: 624.1 - Volatile Organ</th> <th>ic Compou</th> <th>nds (GC/N</th> <th>IS)</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th>	Method: 624.1 - Volatile Organ	ic Compou	nds (GC/N	IS)							
1,1,1-Trichloroethane ND 5.0 0.39 ug/L 03/09/21 13:51 1 1,1,2-Trichloroethane ND 5.0 0.26 ug/L 03/09/21 13:51 1 1,1,2-Trichloroethane ND 5.0 0.48 ug/L 03/09/21 13:51 1 1,1-Dichloroethane ND 5.0 0.48 ug/L 03/09/21 13:51 1 1,1-Dichloroethane ND 5.0 0.85 ug/L 03/09/21 13:51 1 1,2-Dichloroethane ND 5.0 0.85 ug/L 03/09/21 13:51 1 1,2-Dichloroethane ND 5.0 0.61 ug/L 03/09/21 13:51 1 1,2-Dichloroethane ND 5.0 0.61 ug/L 03/09/21 13:51 1 1,2-Dichloroethane ND 5.0 0.51 ug/L 03/09/21 13:51 1 1,4-Dichloroethane ND 5.0 0.51 ug/L 03/09/21	Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	5
1,1,2,2-Tetrachloroethane ND 5.0 0.26 ug/L 03/09/21 13:51 1 1,1,2-Trichloroethane ND 5.0 0.48 ug/L 03/09/21 13:51 1 1,1-Dichloroethane ND 5.0 0.59 ug/L 03/09/21 13:51 1 1,1-Dichloroethane ND 5.0 0.85 ug/L 03/09/21 13:51 1 1,2-Dichloroethane ND 5.0 0.60 ug/L 03/09/21 13:51 1 1,2-Dichloroethane ND 5.0 0.60 ug/L 03/09/21 13:51 1 1,2-Dichloroethane, Total ND 10 3.2 ug/L 03/09/21 13:51 1 1,2-Dichloroethane ND 5.0 0.61 ug/L 03/09/21 13:51 1 1,3-Dichlorobenzene ND 5.0 0.51 ug/L 03/09/21 13:51 1 1,4-Dichlorobenzene ND 5.0 0.51 ug/L 03/09/21 13:51 1 1,4-Dichlorobenzene ND 5.0 0.54 ug/L 03/09/21 13:51 1 4-crylontrile ND 5.0	1,1,1-Trichloroethane	ND		5.0	0.39	ug/L			03/09/21 13:51	1	
1,1.2-Trichloroethane ND 5.0 0.48 ug/L 03/09/21 13:51 1 1,1-Dichloroethane ND 5.0 0.59 ug/L 03/09/21 13:51 1 1,1-Dichloroethane ND 5.0 0.48 ug/L 03/09/21 13:51 1 1,2-Dichloroethane ND 5.0 0.44 ug/L 03/09/21 13:51 1 1,2-Dichloroethane ND 5.0 0.60 ug/L 03/09/21 13:51 1 1,2-Dichloroethane ND 5.0 0.61 ug/L 03/09/21 13:51 1 1,2-Dichloroptopane ND 5.0 0.64 ug/L 03/09/21 13:51 1 1,2-Dichlorobenzene ND 5.0 0.54 ug/L 03/09/21 13:51 1 1,4-Dichlorobenzene ND 5.0 0.51 ug/L 03/09/21 13:51 1 1,4-Dichlorobenzene ND 5.0 0.51 ug/L 03/09/21 13:51 1 1,4-Dichlorobenzene ND 5.0 0.60 ug/L 03/09/21 13:51 1 4-Acrolein ND 5.0 <	1,1,2,2-Tetrachloroethane	ND		5.0	0.26	ug/L			03/09/21 13:51	1	6
1,1-Dichloroethane ND 5.0 0.59 ug/L 03/09/21 13:51 1 1,1-Dichloroethene ND 5.0 0.85 ug/L 03/09/21 13:51 1 1,2-Dichloroethene ND 5.0 0.44 ug/L 03/09/21 13:51 1 1,2-Dichloroethene, Total ND 10 3.2 ug/L 03/09/21 13:51 1 1,2-Dichloroethene, Total ND 10 3.2 ug/L 03/09/21 13:51 1 1,2-Dichloroethene, Total ND 10 3.2 ug/L 03/09/21 13:51 1 1,2-Dichloroethene, Total ND 5.0 0.61 ug/L 03/09/21 13:51 1 1,4-Dichlorobenzene ND 5.0 0.51 ug/L 03/09/21 13:51 1 1,4-Dichloroethy inyl ether ND 25 1.9 ug/L 03/09/21 13:51 1 Acrolein ND 5.0 0.50 ug/L 03/09/21 13:51 1 Acrolein ND 5.0 0.50 0.54	1,1,2-Trichloroethane	ND		5.0	0.48	ug/L			03/09/21 13:51	1	
1,1-Dichloroethene ND 5.0 0.85 ug/L 03/09/21 13:51 1 1,2-Dichlorobenzene ND 5.0 0.44 ug/L 03/09/21 13:51 1 1,2-Dichloroethane ND 5.0 0.60 ug/L 03/09/21 13:51 1 1,2-Dichloroethane, Total ND 10 3.2 ug/L 03/09/21 13:51 1 1,2-Dichloroptane ND 5.0 0.61 ug/L 03/09/21 13:51 1 1,3-Dichlorobenzene ND 5.0 0.51 ug/L 03/09/21 13:51 1 1,4-Dichlorobenzene ND 5.0 0.51 ug/L 03/09/21 13:51 1 1,4-Dichlorobenzene ND 25 1.9 ug/L 03/09/21 13:51 1 1,4-Dichlorobenzene ND 5.0 0.60 ug/L 03/09/21 13:51 1 4-Crolein ND 5.0 0.60 ug/L 03/09/21 13:51 1 Bromodichloromethane ND 5.0 0.64 ug/L 03/09/21 13:51 1 Bromodorm ND 5.0 0.54 </td <td>1,1-Dichloroethane</td> <td>ND</td> <td></td> <td>5.0</td> <td>0.59</td> <td>ug/L</td> <td></td> <td></td> <td>03/09/21 13:51</td> <td>1</td> <td></td>	1,1-Dichloroethane	ND		5.0	0.59	ug/L			03/09/21 13:51	1	
1,2-Dichlorobenzene ND 5.0 0.44 ug/L 03/09/21 13:51 1 1,2-Dichloroethane ND 5.0 0.60 ug/L 03/09/21 13:51 1 1,2-Dichloroethane, Total ND 10 3.2 ug/L 03/09/21 13:51 1 1,2-Dichloroptopane ND 5.0 0.61 ug/L 03/09/21 13:51 1 1,3-Dichlorobenzene ND 5.0 0.54 ug/L 03/09/21 13:51 1 1,4-Dichlorobenzene ND 5.0 0.51 ug/L 03/09/21 13:51 1 1,4-Dichlorobenzene ND 5.0 0.51 ug/L 03/09/21 13:51 1 2-Chloroethyl vinyl ether ND 25 1.9 ug/L 03/09/21 13:51 1 Acrylonitrile ND 50 0.50 ug/L 03/09/21 13:51 1 Bromoform ND 5.0 0.54 ug/L 03/09/21 13:51 1 Grobo tetrachloride ND 5.0 0.54 ug/	1,1-Dichloroethene	ND		5.0	0.85	ug/L			03/09/21 13:51	1	
1,2-Dichloroethane ND 5.0 0.60 ug/L 03/09/21 13:51 1 1,2-Dichloroethene, Total ND 10 3.2 ug/L 03/09/21 13:51 1 1,2-Dichloropropane ND 5.0 0.61 ug/L 03/09/21 13:51 1 1,3-Dichlorobenzene ND 5.0 0.54 ug/L 03/09/21 13:51 1 1,4-Dichlorobenzene ND 5.0 0.51 ug/L 03/09/21 13:51 1 2-Chloroethyl vinyl ether ND 25 1.9 ug/L 03/09/21 13:51 1 Acrolein ND 100 17 ug/L 03/09/21 13:51 1 Acrylonitrile ND 50 0.54 ug/L 03/09/21 13:51 1 Benzene ND 5.0 0.60 ug/L 03/09/21 13:51 1 Bromodichloromethane ND 5.0 0.54 ug/L 03/09/21 13:51 1 Bromodichloromethane ND 5.0 0.54 ug/L 03/09/21 13:51 1 Chloroethane ND 5.0 0.51	1,2-Dichlorobenzene	ND		5.0	0.44	ug/L			03/09/21 13:51	1	8
1,2-Dichloroethene, Total ND 10 3.2 ug/L 03/09/21 13:51 1 1,2-Dichloropropane ND 5.0 0.61 ug/L 03/09/21 13:51 1 1,3-Dichlorobenzene ND 5.0 0.54 ug/L 03/09/21 13:51 1 1,4-Dichlorobenzene ND 5.0 0.51 ug/L 03/09/21 13:51 1 2-Chloroethyl vinyl ether ND 25 1.9 ug/L 03/09/21 13:51 1 Acrolein ND 100 17 ug/L 03/09/21 13:51 1 Acrolein ND 50 0.54 ug/L 03/09/21 13:51 1 Benzene ND 50 1.9 ug/L 03/09/21 13:51 1 Bromodichloromethane ND 5.0 0.54 ug/L 03/09/21 13:51 1 Bromoform ND 5.0 0.54 ug/L 03/09/21 13:51 1 Chloroethane ND 5.0 0.51 ug/L 03/09/21 13:51 1 Chloroethane ND 5.0 0.51 ug/L <td< td=""><td>1,2-Dichloroethane</td><td>ND</td><td></td><td>5.0</td><td>0.60</td><td>ug/L</td><td></td><td></td><td>03/09/21 13:51</td><td>1</td><td>U</td></td<>	1,2-Dichloroethane	ND		5.0	0.60	ug/L			03/09/21 13:51	1	U
1,2-Dichloropropane ND 5.0 0.61 ug/L 03/09/21 13:51 1 1,3-Dichlorobenzene ND 5.0 0.54 ug/L 03/09/21 13:51 1 1,4-Dichlorobenzene ND 5.0 0.51 ug/L 03/09/21 13:51 1 2-Chloroethyl vinyl ether ND 25 1.9 ug/L 03/09/21 13:51 1 Acrolein ND 100 17 ug/L 03/09/21 13:51 1 Acrylonitrile ND 50 1.9 ug/L 03/09/21 13:51 1 Benzene ND 50 0.60 ug/L 03/09/21 13:51 1 Bromodichloromethane ND 5.0 0.64 ug/L 03/09/21 13:51 1 Bromoform ND 5.0 0.47 ug/L 03/09/21 13:51 1 Carbon tetrachloride ND 5.0 0.47 ug/L 03/09/21 13:51 1 Chlorobenzene ND 5.0 0.41 ug/L 03/09/21	1,2-Dichloroethene, Total	ND		10	3.2	ug/L			03/09/21 13:51	1	0
1,3-Dichlorobenzene ND 5.0 0.54 ug/L 03/09/21 13:51 1 1,4-Dichlorobenzene ND 5.0 0.51 ug/L 03/09/21 13:51 1 2-Chloroethyl vinyl ether ND 25 1.9 ug/L 03/09/21 13:51 1 Acrolein ND 100 17 ug/L 03/09/21 13:51 1 Acrylonitrile ND 50 1.9 ug/L 03/09/21 13:51 1 Benzene ND 50 1.9 ug/L 03/09/21 13:51 1 Bromodichloromethane ND 5.0 0.60 ug/L 03/09/21 13:51 1 Bromodichloromethane ND 5.0 0.54 ug/L 03/09/21 13:51 1 Bromomethane ND 5.0 0.47 ug/L 03/09/21 13:51 1 Carbon tetrachloride ND 5.0 0.51 ug/L 03/09/21 13:51 1 Chlorobenzene ND 5.0 0.51 ug/L 03/09/21	1,2-Dichloropropane	ND		5.0	0.61	ug/L			03/09/21 13:51	1	3
1,4-Dichlorobenzene ND 5.0 0.51 ug/L 03/09/21 13:51 1 2-Chloroethyl vinyl ether ND 25 1.9 ug/L 03/09/21 13:51 1 Acrolein ND 100 17 ug/L 03/09/21 13:51 1 Acrolein ND 50 1.9 ug/L 03/09/21 13:51 1 Acrylonitrile ND 50 1.9 ug/L 03/09/21 13:51 1 Benzene ND 5.0 0.60 ug/L 03/09/21 13:51 1 Bromodichloromethane ND 5.0 0.54 ug/L 03/09/21 13:51 1 Bromomethane ND 5.0 0.54 ug/L 03/09/21 13:51 1 Carbon tetrachloride ND 5.0 0.47 ug/L 03/09/21 13:51 1 Chlorodibromomethane ND 5.0 0.51 ug/L 03/09/21 13:51 1 Chlorodibromomethane ND 5.0 0.48 ug/L 03/09/21	1,3-Dichlorobenzene	ND		5.0	0.54	ug/L			03/09/21 13:51	1	
2-Chloroethyl vinyl ether ND 25 1.9 ug/L 03/09/21 13:51 1 Acrolein ND 100 17 ug/L 03/09/21 13:51 1 Acrolein ND 50 1.9 ug/L 03/09/21 13:51 1 Acrylonitrile ND 50 1.9 ug/L 03/09/21 13:51 1 Benzene ND 5.0 0.60 ug/L 03/09/21 13:51 1 Bromodichloromethane ND 5.0 0.54 ug/L 03/09/21 13:51 1 Bromoform ND 5.0 0.47 ug/L 03/09/21 13:51 1 Bromomethane ND 5.0 0.47 ug/L 03/09/21 13:51 1 Carbon tetrachloride ND 5.0 0.51 ug/L 03/09/21 13:51 1 Chlorobenzene ND 5.0 0.48 ug/L 03/09/21 13:51 1 Chloroethane ND 5.0 0.44 ug/L 03/09/21 13:51 1	1,4-Dichlorobenzene	ND		5.0	0.51	ug/L			03/09/21 13:51	1	
Acrolein ND 100 17 ug/L 03/09/21 13:51 1 Acrylonitrile ND 50 1.9 ug/L 03/09/21 13:51 1 Benzene ND 5.0 0.60 ug/L 03/09/21 13:51 1 Bromodichloromethane ND 5.0 0.54 ug/L 03/09/21 13:51 1 Bromodichloromethane ND 5.0 0.47 ug/L 03/09/21 13:51 1 Bromodichloromethane ND 5.0 0.47 ug/L 03/09/21 13:51 1 Bromomethane ND 5.0 0.47 ug/L 03/09/21 13:51 1 Carbon tetrachloride ND 5.0 0.51 ug/L 03/09/21 13:51 1 Chlorobenzene ND 5.0 0.48 ug/L 03/09/21 13:51 1 Chlorodibromomethane ND 5.0 0.54 ug/L 03/09/21 13:51 1 <	2-Chloroethyl vinyl ether	ND		25	1.9	ug/L			03/09/21 13:51	1	
Acrylonitrile ND 50 1.9 ug/L 03/09/21 13:51 1 Benzene ND 5.0 0.60 ug/L 03/09/21 13:51 1 Bromodichloromethane ND 5.0 0.54 ug/L 03/09/21 13:51 1 Bromodichloromethane ND 5.0 0.47 ug/L 03/09/21 13:51 1 Bromomethane ND 5.0 0.47 ug/L 03/09/21 13:51 1 Bromomethane ND 5.0 0.51 ug/L 03/09/21 13:51 1 Carbon tetrachloride ND 5.0 0.51 ug/L 03/09/21 13:51 1 Chlorobenzene ND 5.0 0.48 ug/L 03/09/21 13:51 1 Chlorodibromomethane ND 5.0 0.41 ug/L 03/09/21 13:51 1 Chlorodibromomethane ND 5.0 0.87 ug/L 03/09/21 13:51 1 Chloroform ND 5.0 0.64 ug/L 03/09/21 13:51 1 Chloromethane ND 5.0 0.64 ug/L	Acrolein	ND		100	17	ug/L			03/09/21 13:51	1	
Benzene ND 5.0 0.60 ug/L 03/09/21 13:51 1 Bromodichloromethane ND 5.0 0.54 ug/L 03/09/21 13:51 1 Bromoform ND 5.0 0.47 ug/L 03/09/21 13:51 1 Bromomethane ND 5.0 0.47 ug/L 03/09/21 13:51 1 Bromomethane ND 5.0 0.51 ug/L 03/09/21 13:51 1 Carbon tetrachloride ND 5.0 0.51 ug/L 03/09/21 13:51 1 Chlorobenzene ND 5.0 0.41 ug/L 03/09/21 13:51 1 Chlorodibromomethane ND 5.0 0.41 ug/L 03/09/21 13:51 1 Chlorodibromomethane ND 5.0 0.87 ug/L 03/09/21 13:51 1 Chloroform ND 5.0 0.54 ug/L 03/09/21 13:51 1 Chloroform ND 5.0 0.64 ug/L 03/09/21 13:51 1 <td>Acrylonitrile</td> <td>ND</td> <td></td> <td>50</td> <td>1.9</td> <td>ug/L</td> <td></td> <td></td> <td>03/09/21 13:51</td> <td>1</td> <td></td>	Acrylonitrile	ND		50	1.9	ug/L			03/09/21 13:51	1	
Bromodichloromethane ND 5.0 0.54 ug/L 03/09/21 13:51 1 Bromoform ND 5.0 0.47 ug/L 03/09/21 13:51 1 Bromomethane ND 5.0 0.47 ug/L 03/09/21 13:51 1 Bromomethane ND 5.0 0.51 ug/L 03/09/21 13:51 1 Carbon tetrachloride ND 5.0 0.51 ug/L 03/09/21 13:51 1 Chlorobenzene ND 5.0 0.48 ug/L 03/09/21 13:51 1 Chlorodibromomethane ND 5.0 0.41 ug/L 03/09/21 13:51 1 Chlorodibromomethane ND 5.0 0.87 ug/L 03/09/21 13:51 1 Chlorodethane ND 5.0 0.87 ug/L 03/09/21 13:51 1 Chloroform ND 5.0 0.54 ug/L 03/09/21 13:51 1 Chloromethane ND 5.0 0.64 ug/L 03/09/21 13:51 1 cis-1,3-Dichloropropene ND 5.0 0.33 ug/L 03/09/21 13:51 1 <td>Benzene</td> <td>ND</td> <td></td> <td>5.0</td> <td>0.60</td> <td>ug/L</td> <td></td> <td></td> <td>03/09/21 13:51</td> <td>1</td> <td></td>	Benzene	ND		5.0	0.60	ug/L			03/09/21 13:51	1	
Bromoform ND 5.0 0.47 ug/L 03/09/21 13:51 1 Bromomethane ND 5.0 1.2 ug/L 03/09/21 13:51 1 Carbon tetrachloride ND 5.0 0.51 ug/L 03/09/21 13:51 1 Chlorobenzene ND 5.0 0.51 ug/L 03/09/21 13:51 1 Chlorodibromomethane ND 5.0 0.44 ug/L 03/09/21 13:51 1 Chlorodibromomethane ND 5.0 0.41 ug/L 03/09/21 13:51 1 Chlorodibromomethane ND 5.0 0.87 ug/L 03/09/21 13:51 1 Chloroform ND 5.0 0.54 ug/L 03/09/21 13:51 1 Chloromethane ND 5.0 0.54 ug/L 03/09/21 13:51 1 Chloromethane ND 5.0 0.64 ug/L 03/09/21 13:51 1 cis-1,3-Dichloropropene ND 5.0 0.33 ug/L 03/09/21 13:51 <td>Bromodichloromethane</td> <td>ND</td> <td></td> <td>5.0</td> <td>0.54</td> <td>ug/L</td> <td></td> <td></td> <td>03/09/21 13:51</td> <td>1</td> <td></td>	Bromodichloromethane	ND		5.0	0.54	ug/L			03/09/21 13:51	1	
Bromomethane ND 5.0 1.2 ug/L 03/09/21 13:51 1 Carbon tetrachloride ND 5.0 0.51 ug/L 03/09/21 13:51 1 Chlorobenzene ND 5.0 0.48 ug/L 03/09/21 13:51 1 Chlorodibromomethane ND 5.0 0.41 ug/L 03/09/21 13:51 1 Chlorodibromomethane ND 5.0 0.41 ug/L 03/09/21 13:51 1 Chloroethane ND 5.0 0.87 ug/L 03/09/21 13:51 1 Chloroform ND 5.0 0.54 ug/L 03/09/21 13:51 1 Chloromethane ND 5.0 0.54 ug/L 03/09/21 13:51 1 Chloromethane ND 5.0 0.64 ug/L 03/09/21 13:51 1 cis-1,3-Dichloropropene ND 5.0 0.33 ug/L 03/09/21 13:51 1 Ethylbenzene ND 5.0 0.46 ug/L 03/09/21 13:51 1	Bromoform	ND		5.0	0.47	ug/L			03/09/21 13:51	1	13
Carbon tetrachloride ND 5.0 0.51 ug/L 03/09/21 13:51 1 Chlorobenzene ND 5.0 0.48 ug/L 03/09/21 13:51 1 Chlorodibromomethane ND 5.0 0.44 ug/L 03/09/21 13:51 1 Chlorodibromomethane ND 5.0 0.41 ug/L 03/09/21 13:51 1 Chloroethane ND 5.0 0.87 ug/L 03/09/21 13:51 1 Chloroform ND 5.0 0.54 ug/L 03/09/21 13:51 1 Chloromethane ND 5.0 0.54 ug/L 03/09/21 13:51 1 Chloromethane ND 5.0 0.64 ug/L 03/09/21 13:51 1 cis-1,3-Dichloropropene ND 5.0 0.33 ug/L 03/09/21 13:51 1 Ethylbenzene ND 5.0 0.46 ug/L 03/09/21 13:51 1 <td>Bromomethane</td> <td>ND</td> <td></td> <td>5.0</td> <td>1.2</td> <td>ug/L</td> <td></td> <td></td> <td>03/09/21 13:51</td> <td>1</td> <td></td>	Bromomethane	ND		5.0	1.2	ug/L			03/09/21 13:51	1	
Chlorobenzene ND 5.0 0.48 ug/L 03/09/21 13:51 1 Chlorodibromomethane ND 5.0 0.41 ug/L 03/09/21 13:51 1 Chlorodibromomethane ND 5.0 0.41 ug/L 03/09/21 13:51 1 Chlorodibromomethane ND 5.0 0.87 ug/L 03/09/21 13:51 1 Chlorodibromomethane ND 5.0 0.54 ug/L 03/09/21 13:51 1 Chlorodethane ND 5.0 0.64 ug/L 03/09/21 13:51 1 Chloromethane ND 5.0 0.64 ug/L 03/09/21 13:51 1 cis-1,3-Dichloropropene ND 5.0 0.33 ug/L 03/09/21 13:51 1 Ethylbenzene ND 5.0 0.46 ug/L 03/09/21 13:51 1	Carbon tetrachloride	ND		5.0	0.51	ug/L			03/09/21 13:51	1	
Chlorodibromomethane ND 5.0 0.41 ug/L 03/09/21 13:51 1 15 Chloroethane ND 5.0 0.87 ug/L 03/09/21 13:51 1 1 Chloroform ND 5.0 0.54 ug/L 03/09/21 13:51 1 1 Chloromethane ND 5.0 0.54 ug/L 03/09/21 13:51 1 1 Chloromethane ND 5.0 0.64 ug/L 03/09/21 13:51 1 1 cis-1,3-Dichloropropene ND 5.0 0.33 ug/L 03/09/21 13:51 1 Ethylbenzene ND 5.0 0.46 ug/L 03/09/21 13:51 1	Chlorobenzene	ND		5.0	0.48	ug/L			03/09/21 13:51	1	
Chloroethane ND 5.0 0.87 ug/L 03/09/21 13:51 1 Chloroform ND 5.0 0.54 ug/L 03/09/21 13:51 1 Chloromethane ND 5.0 0.64 ug/L 03/09/21 13:51 1 cis-1,3-Dichloropropene ND 5.0 0.33 ug/L 03/09/21 13:51 1 Ethylbenzene ND 5.0 0.46 ug/L 03/09/21 13:51 1	Chlorodibromomethane	ND		5.0	0.41	ug/L			03/09/21 13:51	1	
Chloroform ND 5.0 0.54 ug/L 03/09/21 13:51 1 Chloromethane ND 5.0 0.64 ug/L 03/09/21 13:51 1 cis-1,3-Dichloropropene ND 5.0 0.33 ug/L 03/09/21 13:51 1 Ethylbenzene ND 5.0 0.46 ug/L 03/09/21 13:51 1	Chloroethane	ND		5.0	0.87	ug/L			03/09/21 13:51	1	
Chloromethane ND 5.0 0.64 ug/L 03/09/21 13:51 1 cis-1,3-Dichloropropene ND 5.0 0.33 ug/L 03/09/21 13:51 1 Ethylbenzene ND 5.0 0.46 ug/L 03/09/21 13:51 1	Chloroform	ND		5.0	0.54	ug/L			03/09/21 13:51	1	
cis-1,3-Dichloropropene ND 5.0 0.33 ug/L 03/09/21 13:51 1 Ethylbenzene ND 5.0 0.46 ug/L 03/09/21 13:51 1	Chloromethane	ND		5.0	0.64	ug/L			03/09/21 13:51	1	
Ethylhenzene ND 5.0 0.46 ug/l 03/09/21.13:51 1	cis-1,3-Dichloropropene	ND		5.0	0.33	ug/L			03/09/21 13:51	1	
	Ethylbenzene	ND		5.0	0.46	ug/L			03/09/21 13:51	1	
Methylene Chloride ND 5.0 0.81 ug/L 03/09/21 13:51 1	Methylene Chloride	ND		5.0	0.81	ug/L			03/09/21 13:51	1	
Tetrachloroethene 0.58 J 5.0 0.34 ug/L 03/09/21 13:51 1	Tetrachloroethene	0.58	J	5.0	0.34	ug/L			03/09/21 13:51	1	
Toluene ND 5.0 0.45 ug/L 03/09/21 13:51 1	Toluene	ND		5.0	0.45	ug/L			03/09/21 13:51	1	
trans-1,2-Dichloroethene ND 5.0 0.59 ug/L 03/09/21 13:51 1	trans-1,2-Dichloroethene	ND		5.0	0.59	ug/L			03/09/21 13:51	1	
trans-1,3-Dichloropropene ND 5.0 0.44 ug/L 03/09/21 13:51 1	trans-1,3-Dichloropropene	ND		5.0	0.44	ug/L			03/09/21 13:51	1	
Trichloroethene ND 5.0 0.60 ug/L 03/09/21 13:51 1	Trichloroethene	ND		5.0	0.60	ug/L			03/09/21 13:51	1	
Vinyl chloride ND 5.0 0.75 ug/L 03/09/21 13:51 1	Vinyl chloride	ND		5.0	0.75	ug/L			03/09/21 13:51	1	
	2					0					
Surrogate %Recovery Qualifier Limits Prepared Analyzed Dil Fac	Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac	
1,2-Dichloroethane-d4 (Surr) 99 68 - 130 03/09/21 13:51 1	1,2-Dichloroethane-d4 (Surr)	99		68 - 130					03/09/21 13:51	1	
4-Bromofluorobenzene (Surr) 99 76 - 123 03/09/21 13:51 1	4-Bromofluorobenzene (Surr)	99		76 - 123					03/09/21 13:51	1	
Dibromofluoromethane (Surr) 98 75 - 123 03/09/21 13:51 1	Dibromofluoromethane (Surr)	98		75 - 123					03/09/21 13:51	1	
Toluene-d8 (Surr) 105 77 - 120 03/09/21 13:51 1	Toluene-d8 (Surr)	105		77 - 120					03/09/21 13:51	1	
 Method: RSK-175 - Dissolved Gases (GC)	Method: RSK-175 - Dissolved	Gases (GC)									
Analyte Result Qualifier RL MDL Unit D Prepared Analyzed Dil Fac	Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Methane ND 4.0 1.0 ug/L 03/10/21 18:46 1	Methane	ND		4.0	1.0	ug/L			03/10/21 18:46	1	
Ethane ND 7.5 1.5 ug/L 03/10/21 18:46 1	Ethane	ND		7.5	1.5	ug/L			03/10/21 18:46	1	
Ethene ND 7.0 1.5 ug/L 03/10/21 18:46 1	Ethene	ND		7.0	1.5	ug/L			03/10/21 18:46	1	
_ Method: 6010C - Metals (ICP)	_ Method: 6010C - Metals (ICP)										
Analyte Result Qualifier RL MDL Unit D Prepared Analyzed Dil Fac	Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Calcium 36.4 0.50 0.10 mg/L 03/10/21 09:47 03/11/21 01:19 1	Calcium	36.4		0.50	0.10	mg/L		03/10/21 09:47	03/11/21 01:19	1	
Potassium 1.3 0.50 0.10 mg/L 03/10/21 09:47 03/11/21 01:19 1	Potassium	1.3		0.50	0.10	mg/L		03/10/21 09:47	03/11/21 01:19	1	

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: New York State D.E.C. Project/Site: COSCO #344035

Client Sample ID: DW-1-030821 Date Collected: 03/08/21 11:40 Date Received: 03/09/21 10:00

Method: 6010C - Metals (ICP)	(Continued))							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Magnesium	7.4		0.20	0.043	mg/L		03/10/21 09:47	03/11/21 01:19	1
Sodium	140		1.0	0.32	mg/L		03/10/21 09:47	03/11/21 01:19	1
- Method: 6010C - Metals (ICP) ·	- Dissolved								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	0.065	JH	0.050	0.019	mg/L		03/10/21 09:47	03/10/21 23:28	1
Manganese	0.0031	<mark>-</mark> ₿- JH	0.0030	0.00040	mg/L		03/10/21 09:47	03/10/21 23:28	1
General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	211		2.5	1.4	mg/L			03/11/21 17:43	5
Sulfate	10.4		10.0	1.7	mg/L			03/11/21 17:43	5
Nitrite as N	ND		0.050	0.020	mg/L			03/09/21 18:50	1
Nitrate as N	1.1		0.050	0.020	mg/L			03/09/21 18:50	1
Alkalinity, Total	122		5.0	0.79	mg/L			03/09/21 19:54	1
Sulfide	ND		1.0	0.67	mg/L			03/14/21 13:50	1
Total Organic Carbon	0.49	J	1.0	0.43	mg/L			03/10/21 08:14	1

Lab Sample ID: 480-181811-1 Matrix: Water

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ARF 05/04/2021

Client Sample ID: GW-4S-030821 Date Collected: 03/08/21 14:30 Date Received: 03/09/21 10:00

Method: 624.1 - Volatile Orga	anic Compou	nds (GC/N	IS)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	0.39	ug/L			03/09/21 14:15	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.26	ug/L			03/09/21 14:15	1
1,1,2-Trichloroethane	ND		5.0	0.48	ug/L			03/09/21 14:15	1
1,1-Dichloroethane	ND		5.0	0.59	ug/L			03/09/21 14:15	1
1,1-Dichloroethene	ND		5.0	0.85	ug/L			03/09/21 14:15	1
1,2-Dichlorobenzene	ND		5.0	0.44	ug/L			03/09/21 14:15	1
1,2-Dichloroethane	ND		5.0	0.60	ug/L			03/09/21 14:15	1
1,2-Dichloroethene, Total	ND		10	3.2	ug/L			03/09/21 14:15	1
1,2-Dichloropropane	ND		5.0	0.61	uq/L			03/09/21 14:15	1
1,3-Dichlorobenzene	ND		5.0	0.54	uq/L			03/09/21 14:15	1
1.4-Dichlorobenzene	ND		5.0	0.51	ua/L			03/09/21 14:15	1
2-Chloroethyl vinyl ether	ND		25	1.9	ua/L			03/09/21 14:15	1
Acrolein	ND		100	17	ua/L			03/09/21 14:15	
Acrylonitrile	ND		50	1.9	ua/L			03/09/21 14:15	1
Benzene	ND		5.0	0.60	ua/L			03/09/21 14:15	1
Bromodichloromethane	ND		5.0	0.54	ua/l			03/09/21 14:15	
Bromoform	ND		5.0	0.01	ug/L			03/09/21 14:15	1
Bromomethane	ND		5.0	12	ug/L			03/09/21 14:15	1
Carbon tetrachloride	ND		5.0	0.51	ug/L			03/09/21 14:15	
Chlorobenzene			5.0	0.01	ug/L			03/09/21 14:15	1
Chlorodibromomothano			5.0	0.40	ug/L			03/00/21 14:15	1
Chloroothana			5.0	0.41	ug/L			03/09/21 14:15	· · · · · · · · · · · · · · · · · · ·
Chloroform			5.0	0.07	ug/L			03/09/21 14.15	1
Chloromothana	ND		5.0	0.54	ug/L			03/09/21 14:15	1
			5.0	0.04	ug/L			03/09/21 14:15	ا ۲
	ND		5.0	0.33	ug/∟ 			03/09/21 14.15	1
Etnyibenzene Mathulana Oblanida	ND		5.0	0.46	ug/L			03/09/21 14:15	1
	ND		5.0	0.81	ug/L			03/09/21 14:15	·····
Tetrachloroethene	ND		5.0	0.34	ug/L			03/09/21 14:15	1
Ioluene	ND		5.0	0.45	ug/L			03/09/21 14:15	1
trans-1,2-Dichloroethene	ND		5.0	0.59	ug/L			03/09/21 14:15	1
trans-1,3-Dichloropropene	ND		5.0	0.44	ug/L			03/09/21 14:15	1
Trichloroethene	5.8		5.0	0.60	ug/L			03/09/21 14:15	1
Vinyl chloride	ND		5.0	0.75	ug/L			03/09/21 14:15	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	92		68 - 130					03/09/21 14:15	1
4-Bromofluorobenzene (Surr)	112		76 - 123					03/09/21 14:15	1
Dibromofluoromethane (Surr)	99		75 - 123					03/09/21 14:15	1
Toluene-d8 (Surr)	103		77 - 120					03/09/21 14:15	1
Method: RSK-175 - Dissolve	d Gases (GC)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	ND		4.0	1.0	ug/L		-	03/10/21 19:05	1
Ethane	ND		7.5	1.5	ug/L			03/10/21 19:05	1
Ethene	ND		7.0	1.5	ug/L			03/10/21 19:05	1
					-				

Method: 6010C - Metals (ICP)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	49.0		0.50	0.10	mg/L		03/10/21 09:47	03/11/21 01:37	1
Potassium	1.7		0.50	0.10	mg/L		03/10/21 09:47	03/11/21 01:37	1

Eurofins TestAmerica, Buffalo

Job ID: 480-181811-1

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Lab Sample ID: 480-181811-2 Matrix: Water

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Client Sample Results

Client: New York State D.E.C. Project/Site: COSCO #344035

Client Sample ID: GW-4S-030821 Date Collected: 03/08/21 14:30 Date Received: 03/09/21 10:00

Method: 6010C - Metals (ICP)	(Continued)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Magnesium	10.1		0.20	0.043	mg/L		03/10/21 09:47	03/11/21 01:37	1
Sodium	121		1.0	0.32	mg/L		03/10/21 09:47	03/11/21 01:37	1
- Method: 6010C - Metals (ICP)	- Dissolved								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	0.15	JH	0.050	0.019	mg/L		03/10/21 09:47	03/10/21 23:32	1
Manganese	0.54	- B - JH	0.0030	0.00040	mg/L		03/10/21 09:47	03/10/21 23:32	1
- General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	184		2.5	1.4	mg/L			03/11/21 17:58	5
Sulfate	17.3		10.0	1.7	mg/L			03/11/21 17:58	5
Nitrite as N	ND		0.050	0.020	mg/L			03/09/21 18:51	1
Nitrate as N	0.45		0.050	0.020	mg/L			03/09/21 18:51	1
Alkalinity, Total	170		5.0	0.79	mg/L			03/09/21 20:09	1
Sulfide	ND		1.0	0.67	mg/L			03/14/21 13:50	1
Total Organic Carbon	1.6		1.0	0.43	mg/L			03/10/21 08:31	1

Job ID: 480-181811-1

Lab Sample ID: 480-181811-2

Matrix: Water

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ARF 05/04/2021

Client Sample ID: GP-4D-030821 Date Collected: 03/08/21 14:30 Date Received: 03/09/21 10:00

Method: 624.1 - Volatile Or	ganic Compou	nds (GC/N	IS)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	0.39	ug/L			03/09/21 14:39	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.26	ug/L			03/09/21 14:39	1
1,1,2-Trichloroethane	ND		5.0	0.48	ug/L			03/09/21 14:39	1
1,1-Dichloroethane	ND		5.0	0.59	ug/L			03/09/21 14:39	1
1,1-Dichloroethene	ND		5.0	0.85	ug/L			03/09/21 14:39	1
1,2-Dichlorobenzene	ND		5.0	0.44	ug/L			03/09/21 14:39	1
1,2-Dichloroethane	ND		5.0	0.60	ug/L			03/09/21 14:39	1
1,2-Dichloroethene, Total	ND		10	3.2	ug/L			03/09/21 14:39	1
1,2-Dichloropropane	ND		5.0	0.61	ug/L			03/09/21 14:39	1
1,3-Dichlorobenzene	ND		5.0	0.54	ug/L			03/09/21 14:39	1
1,4-Dichlorobenzene	ND		5.0	0.51	ug/L			03/09/21 14:39	1
2-Chloroethyl vinyl ether	ND		25	1.9	ug/L			03/09/21 14:39	1
Acrolein	ND		100	17	ug/L			03/09/21 14:39	1
Acrylonitrile	ND		50	1.9	ug/L			03/09/21 14:39	1
Benzene	ND		5.0	0.60	ug/L			03/09/21 14:39	1
Bromodichloromethane	ND		5.0	0.54	ug/L			03/09/21 14:39	1
Bromoform	ND		5.0	0.47	ug/L			03/09/21 14:39	1
Bromomethane	ND		5.0	1.2	ug/L			03/09/21 14:39	1
Carbon tetrachloride	ND		5.0	0.51	ug/L			03/09/21 14:39	1
Chlorobenzene	ND		5.0	0.48	ug/L			03/09/21 14:39	1
Chlorodibromomethane	ND		5.0	0.41	ug/L			03/09/21 14:39	1
Chloroethane	ND		5.0	0.87	ug/L			03/09/21 14:39	1
Chloroform	ND		5.0	0.54	ug/L			03/09/21 14:39	1
Chloromethane	ND		5.0	0.64	ug/L			03/09/21 14:39	1
cis-1,3-Dichloropropene	ND		5.0	0.33	ug/L			03/09/21 14:39	1
Ethylbenzene	ND		5.0	0.46	ug/L			03/09/21 14:39	1
Methylene Chloride	ND		5.0	0.81	ug/L			03/09/21 14:39	1
Tetrachloroethene	ND		5.0	0.34	ug/L			03/09/21 14:39	1
Toluene	ND		5.0	0.45	ug/L			03/09/21 14:39	1
trans-1,2-Dichloroethene	ND		5.0	0.59	ug/L			03/09/21 14:39	1
trans-1,3-Dichloropropene	ND		5.0	0.44	ug/L			03/09/21 14:39	1
Trichloroethene	ND		5.0	0.60	ug/L			03/09/21 14:39	1
Vinyl chloride	ND		5.0	0.75	ug/L			03/09/21 14:39	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	88		68 - 130			-		03/09/21 14:39	1
4-Bromofluorobenzene (Surr)	94		76 - 123					03/09/21 14:39	1
Dibromofluoromethane (Surr)	96		75 - 123					03/09/21 14:39	1
Toluene-d8 (Surr)	95		77 - 120					03/09/21 14:39	1
Method: RSK-175 - Dissolv	ved Gases (GC)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	ND		4.0	1.0	ug/L			03/10/21 19:43	1
Ethane	ND		7.5	1.5	ug/L			03/10/21 19:43	1
Ethene	ND		7.0	1.5	ug/L			03/10/21 19:43	1

Method: 6010C - Metals (ICP)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	47.8		0.50	0.10	mg/L		03/10/21 09:47	03/11/21 01:41	1
Potassium	1.2		0.50	0.10	mg/L		03/10/21 09:47	03/11/21 01:41	1

Job ID: 480-181811-1 Lab Sample ID: 480-181811-3 Matrix: Water

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: New York State D.E.C. Project/Site: COSCO #344035

Client Sample ID: GP-4D-030821 Date Collected: 03/08/21 14:30 Date Received: 03/09/21 10:00

Method: 6010C - Metals (ICP)	(Continued)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Magnesium	8.4		0.20	0.043	mg/L		03/10/21 09:47	03/11/21 01:41	1
Sodium	173		1.0	0.32	mg/L		03/10/21 09:47	03/11/21 01:41	1
Method: 6010C - Metals (ICP)	- Dissolved								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	0.046	-J- JH	0.050	0.019	mg/L		03/10/21 09:47	03/11/21 00:01	1
Manganese	0.0023	JB 0.0030 U	0.0030	0.00040	mg/L		03/10/21 09:47	03/11/21 00:01	1
General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	243		2.5	1.4	mg/L			03/11/21 19:25	5
Sulfate	19.7		10.0	1.7	mg/L			03/11/21 19:25	5
Nitrite as N	ND		0.050	0.020	mg/L			03/09/21 18:53	1
Nitrate as N	3.4		0.050	0.020	mg/L			03/09/21 18:53	1
Alkalinity, Total	147		5.0	0.79	mg/L			03/09/21 20:22	1
Sulfide	ND		1.0	0.67	mg/L			03/14/21 13:50	1
Total Organic Carbon	0.71	J	1.0	0.43	mg/L			03/10/21 08:47	1

Lab Sample ID: 480-181811-3 Matrix: Water

ARF 05/04/2021

Client Sample ID: DUP-001-030821 Date Collected: 03/08/21 00:00 Date Received: 03/09/21 10:00

Method: 624.1 - Volatile Or	ganic Compou	nds (GC/N	IS)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	0.39	ug/L			03/09/21 15:02	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.26	ug/L			03/09/21 15:02	1
1,1,2-Trichloroethane	ND		5.0	0.48	ug/L			03/09/21 15:02	1
1,1-Dichloroethane	ND		5.0	0.59	ug/L			03/09/21 15:02	1
1,1-Dichloroethene	ND		5.0	0.85	ug/L			03/09/21 15:02	1
1,2-Dichlorobenzene	ND		5.0	0.44	ug/L			03/09/21 15:02	1
1,2-Dichloroethane	ND		5.0	0.60	ug/L			03/09/21 15:02	1
1,2-Dichloroethene, Total	ND		10	3.2	ug/L			03/09/21 15:02	1
1,2-Dichloropropane	ND		5.0	0.61	ug/L			03/09/21 15:02	1
1,3-Dichlorobenzene	ND		5.0	0.54	ug/L			03/09/21 15:02	1
1,4-Dichlorobenzene	ND		5.0	0.51	ug/L			03/09/21 15:02	1
2-Chloroethyl vinyl ether	ND		25	1.9	ug/L			03/09/21 15:02	1
Acrolein	ND		100	17	ug/L			03/09/21 15:02	1
Acrylonitrile	ND		50	1.9	ug/L			03/09/21 15:02	1
Benzene	ND		5.0	0.60	ug/L			03/09/21 15:02	1
Bromodichloromethane	ND		5.0	0.54	ug/L			03/09/21 15:02	1
Bromoform	ND		5.0	0.47	ug/L			03/09/21 15:02	1
Bromomethane	ND		5.0	1.2	ug/L			03/09/21 15:02	1
Carbon tetrachloride	ND		5.0	0.51	ug/L			03/09/21 15:02	1
Chlorobenzene	ND		5.0	0.48	ug/L			03/09/21 15:02	1
Chlorodibromomethane	ND		5.0	0.41	ug/L			03/09/21 15:02	1
Chloroethane	ND		5.0	0.87	ug/L			03/09/21 15:02	1
Chloroform	ND		5.0	0.54	ug/L			03/09/21 15:02	1
Chloromethane	ND		5.0	0.64	ug/L			03/09/21 15:02	1
cis-1,3-Dichloropropene	ND		5.0	0.33	ug/L			03/09/21 15:02	1
Ethylbenzene	ND		5.0	0.46	ug/L			03/09/21 15:02	1
Methylene Chloride	ND		5.0	0.81	ug/L			03/09/21 15:02	1
Tetrachloroethene	ND		5.0	0.34	ug/L			03/09/21 15:02	1
Toluene	ND		5.0	0.45	ug/L			03/09/21 15:02	1
trans-1,2-Dichloroethene	ND		5.0	0.59	ug/L			03/09/21 15:02	1
trans-1,3-Dichloropropene	ND		5.0	0.44	ug/L			03/09/21 15:02	1
Trichloroethene	ND		5.0	0.60	ug/L			03/09/21 15:02	1
Vinyl chloride	ND		5.0	0.75	ug/L			03/09/21 15:02	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	82		68 - 130			-		03/09/21 15:02	1
4-Bromofluorobenzene (Surr)	104		76 - 123					03/09/21 15:02	1
Dibromofluoromethane (Surr)	95		75 - 123					03/09/21 15:02	1
Toluene-d8 (Surr)	97		77 - 120					03/09/21 15:02	1
Method: RSK-175 - Dissolv	ved Gases (GC))							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	ND		4.0	1.0	ug/L			03/10/21 20:01	1
Ethane	ND		7.5	1.5	ug/L			03/10/21 20:01	1
Ethene	ND		7.0	1.5	ug/L			03/10/21 20:01	1

Method: 6010C - Metals (ICP)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	47.6		0.50	0.10	mg/L		03/10/21 09:47	03/11/21 01:45	1
Potassium	1.3		0.50	0.10	mg/L		03/10/21 09:47	03/11/21 01:45	1

Eurofins TestAmerica, Buffalo

Matrix: Water

Lab Sample ID: 480-181811-4

Client Sample Results

Client: New York State D.E.C. Project/Site: COSCO #344035

Client Sample ID: DUP-001-030821 Date Collected: 03/08/21 00:00 Date Received: 03/09/21 10:00

Method: 6010C - Metals (IC	P) (Continued))							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Magnesium	8.3		0.20	0.043	mg/L		03/10/21 09:47	03/11/21 01:45	1
Sodium	171		1.0	0.32	mg/L		03/10/21 09:47	03/11/21 01:45	1
- Method: 6010C - Metals (IC	P) - Dissolved								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	0.26	JH	0.050	0.019	mg/L		03/10/21 09:47	03/11/21 00:05	1
Manganese	0.012	<mark>-B</mark> - JH	0.0030	0.00040	mg/L		03/10/21 09:47	03/11/21 00:05	1
General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	243		2.5	1.4	mg/L			03/11/21 19:40	5
Sulfate	19.6		10.0	1.7	mg/L			03/11/21 19:40	5
Nitrite as N	ND		0.050	0.020	mg/L			03/09/21 18:54	1
Nitrate as N	3.4		0.050	0.020	mg/L			03/09/21 18:54	1
Alkalinity, Total	146		5.0	0.79	mg/L			03/09/21 20:28	1
Sulfide	ND		1.0	0.67	mg/L			03/14/21 13:50	1
Total Organic Carbon	0.75	J	1.0	0.43	mg/L			03/10/21 09:02	1

Lab Sample ID: 480-181811-4

Matrix: Water

5

6

ARF 05/04/2021

Client: New York State D.E.C. Project/Site: COSCO #344035

Client Sample ID: TRIPBLANK-030821 Date Collected: 03/08/21 00:00 Date Received: 03/09/21 10:00

Method: 624.1 - Volatile Org	janic Compou	nds (GC/N	IS)							
Analyte	Result	Qualifier	RL	MDL	Unit	<u>D</u>	Prepared	Analyzed	Dil Fac	
1,1,1-Trichloroethane	ND		5.0	0.39	ug/L			03/09/21 15:26	1	
1,1,2,2-Tetrachloroethane	ND		5.0	0.26	ug/L			03/09/21 15:26	1	
1,1,2-Trichloroethane	ND		5.0	0.48	ug/L			03/09/21 15:26	1	
1,1-Dichloroethane	ND		5.0	0.59	ug/L			03/09/21 15:26	1	
1,1-Dichloroethene	ND		5.0	0.85	ug/L			03/09/21 15:26	1	
1,2-Dichlorobenzene	ND		5.0	0.44	ug/L			03/09/21 15:26	1	8
1,2-Dichloroethane	ND		5.0	0.60	ug/L			03/09/21 15:26	1	
1,2-Dichloroethene, Total	ND		10	3.2	ug/L			03/09/21 15:26	1	
1,2-Dichloropropane	ND		5.0	0.61	ug/L			03/09/21 15:26	1	
1,3-Dichlorobenzene	ND		5.0	0.54	ug/L			03/09/21 15:26	1	
1,4-Dichlorobenzene	ND		5.0	0.51	ug/L			03/09/21 15:26	1	
2-Chloroethyl vinyl ether	ND		25	1.9	ug/L			03/09/21 15:26	1	
Acrolein	ND		100	17	ug/L			03/09/21 15:26	1	
Acrylonitrile	ND		50	1.9	ug/L			03/09/21 15:26	1	
Benzene	ND		5.0	0.60	ug/L			03/09/21 15:26	1	
Bromodichloromethane	ND		5.0	0.54	ug/L			03/09/21 15:26	1	
Bromoform	ND		5.0	0.47	ug/L			03/09/21 15:26	1	
Bromomethane	ND		5.0	1.2	ug/L			03/09/21 15:26	1	
Carbon tetrachloride	ND		5.0	0.51	ug/L			03/09/21 15:26	1	
Chlorobenzene	ND		5.0	0.48	ug/L			03/09/21 15:26	1	
Chlorodibromomethane	ND		5.0	0.41	ug/L			03/09/21 15:26	1	
Chloroethane	ND		5.0	0.87	ug/L			03/09/21 15:26	1	
Chloroform	ND		5.0	0.54	ug/L			03/09/21 15:26	1	
Chloromethane	ND		5.0	0.64	ug/L			03/09/21 15:26	1	
cis-1,3-Dichloropropene	ND		5.0	0.33	ug/L			03/09/21 15:26	1	
Ethylbenzene	ND		5.0	0.46	ug/L			03/09/21 15:26	1	
Methylene Chloride	ND		5.0	0.81	ug/L			03/09/21 15:26	1	
Tetrachloroethene	ND		5.0	0.34	ug/L			03/09/21 15:26	1	
Toluene	ND		5.0	0.45	ug/L			03/09/21 15:26	1	
trans-1,2-Dichloroethene	ND		5.0	0.59	ug/L			03/09/21 15:26	1	
trans-1,3-Dichloropropene	ND		5.0	0.44	ug/L			03/09/21 15:26	1	
Trichloroethene	ND		5.0	0.60	ug/L			03/09/21 15:26	1	
Vinyl chloride	ND		5.0	0.75	ug/L			03/09/21 15:26	1	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac	
1,2-Dichloroethane-d4 (Surr)	99		68 - 130			-		03/09/21 15:26	1	
4-Bromofluorobenzene (Surr)	100		76 - 123					03/09/21 15:26	1	
Dibromofluoromethane (Surr)	103		75 - 123					03/09/21 15:26	1	
Toluene-d8 (Surr)	93		77 - 120					03/09/21 15:26	1	

Lab Sample ID: 480-181811-5

Matrix: Water

Client Sample ID: TripBlank-030921 Date Collected: 03/09/21 00:00 Date Received: 03/10/21 09:30

Method: 624.1 - Volatile Or	ganic Compounds (GC/M	IS)						
Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND	5.0	0.39	ug/L			03/10/21 13:12	1
1,1,2,2-Tetrachloroethane	ND	5.0	0.26	ug/L			03/10/21 13:12	1
1,1,2-Trichloroethane	ND	5.0	0.48	ug/L			03/10/21 13:12	1
1,1-Dichloroethane	ND	5.0	0.59	ug/L			03/10/21 13:12	1
1,1-Dichloroethene	ND	5.0	0.85	ug/L			03/10/21 13:12	1
1,2-Dichlorobenzene	ND	5.0	0.44	ug/L			03/10/21 13:12	1
1,2-Dichloroethane	ND	5.0	0.60	ug/L			03/10/21 13:12	1
1,2-Dichloroethene, Total	ND	10	3.2	ug/L			03/10/21 13:12	1
1,2-Dichloropropane	ND	5.0	0.61	ug/L			03/10/21 13:12	1
1,3-Dichlorobenzene	ND	5.0	0.54	ug/L			03/10/21 13:12	1
1,4-Dichlorobenzene	ND	5.0	0.51	ug/L			03/10/21 13:12	1
2-Chloroethyl vinyl ether	ND	25	1.9	ug/L			03/10/21 13:12	1
Acrolein	ND	100	17	ug/L			03/10/21 13:12	1
Acrylonitrile	ND	50	1.9	ug/L			03/10/21 13:12	1
Benzene	ND	5.0	0.60	ug/L			03/10/21 13:12	1
Bromodichloromethane	ND	5.0	0.54	ug/L			03/10/21 13:12	1
Bromoform	ND	5.0	0.47	ug/L			03/10/21 13:12	1
Bromomethane	ND	5.0	1.2	ug/L			03/10/21 13:12	1
Carbon tetrachloride	ND	5.0	0.51	ug/L			03/10/21 13:12	1
Chlorobenzene	ND	5.0	0.48	ug/L			03/10/21 13:12	1
Chlorodibromomethane	ND	5.0	0.41	ug/L			03/10/21 13:12	1
Chloroethane	ND	5.0	0.87	ug/L			03/10/21 13:12	1
Chloroform	ND	5.0	0.54	ug/L			03/10/21 13:12	1
Chloromethane	ND	5.0	0.64	ug/L			03/10/21 13:12	1
cis-1,3-Dichloropropene	ND	5.0	0.33	ug/L			03/10/21 13:12	1
Ethylbenzene	ND	5.0	0.46	ug/L			03/10/21 13:12	1
Methylene Chloride	ND	5.0	0.81	ug/L			03/10/21 13:12	1
Tetrachloroethene	ND	5.0	0.34	ug/L			03/10/21 13:12	1
Toluene	ND	5.0	0.45	ug/L			03/10/21 13:12	1
trans-1,2-Dichloroethene	ND	5.0	0.59	ug/L			03/10/21 13:12	1
trans-1,3-Dichloropropene	ND	5.0	0.44	ug/L			03/10/21 13:12	1
Trichloroethene	ND	5.0	0.60	ug/L			03/10/21 13:12	1
Vinyl chloride	ND	5.0	0.75	ug/L			03/10/21 13:12	1
Surrogate	%Recovery Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97	68 - 130					03/10/21 13:12	1
4-Bromofluorobenzene (Surr)	100	76 - 123					03/10/21 13:12	1
Dibromofluoromethane (Surr)	96	75 - 123					03/10/21 13:12	1
Toluene-d8 (Surr)	97	77 - 120					03/10/21 13:12	1

Lab Sample ID: 480-181846-5

Matrix: Water

Client Sample ID: EquipmentBlank-030921 Date Collected: 03/09/21 13:10 Date Received: 03/10/21 09:30

Lab Sample ID: 480-181846-2

Matrix: Water

Method: 624.1 - Volatile Or	ganic Compounds (GC/I	NS)			_			
Analyte	Result Qualifier		MDL	Unit	<u> </u>	Prepared	Analyzed	Dil Fac
	ND	5.0	0.39	ug/L			03/10/21 12:00	1
1,1,2,2- letrachloroethane	ND	5.0	0.26	ug/L			03/10/21 12:00	1
1,1,2-Irichloroethane	ND	5.0	0.48	ug/L			03/10/21 12:00	1
1,1-Dichloroethane	ND	5.0	0.59	ug/L			03/10/21 12:00	1
1,1-Dichloroethene	ND	5.0	0.85	ug/L			03/10/21 12:00	1
1,2-Dichlorobenzene	ND	5.0	0.44	ug/L			03/10/21 12:00	1
1,2-Dichloroethane	ND	5.0	0.60	ug/L			03/10/21 12:00	1
1,2-Dichloroethene, Total	ND	10	3.2	ug/L			03/10/21 12:00	1
1,2-Dichloropropane	ND	5.0	0.61	ug/L			03/10/21 12:00	1
1,3-Dichlorobenzene	ND	5.0	0.54	ug/L			03/10/21 12:00	1
1,4-Dichlorobenzene	ND	5.0	0.51	ug/L			03/10/21 12:00	1
2-Chloroethyl vinyl ether	ND	25	1.9	ug/L			03/10/21 12:00	1
Acrolein	ND	100	17	ug/L			03/10/21 12:00	1
Acrylonitrile	ND	50	1.9	ug/L			03/10/21 12:00	1
Benzene	ND	5.0	0.60	ug/L			03/10/21 12:00	1
Bromodichloromethane	ND	5.0	0.54	ug/L			03/10/21 12:00	1
Bromoform	ND	5.0	0.47	ug/L			03/10/21 12:00	1
Bromomethane	ND	5.0	1.2	ug/L			03/10/21 12:00	1
Carbon tetrachloride	ND	5.0	0.51	ug/L			03/10/21 12:00	1
Chlorobenzene	ND	5.0	0.48	ug/L			03/10/21 12:00	1
Chlorodibromomethane	ND	5.0	0.41	ug/L			03/10/21 12:00	1
Chloroethane	ND	5.0	0.87	ug/L			03/10/21 12:00	1
Chloroform	ND	5.0	0.54	ug/L			03/10/21 12:00	1
Chloromethane	ND	5.0	0.64	ug/L			03/10/21 12:00	1
cis-1,3-Dichloropropene	ND	5.0	0.33	ug/L			03/10/21 12:00	1
Ethvlbenzene	ND	5.0	0.46	ua/L			03/10/21 12:00	1
Vethvlene Chloride	ND	5.0	0.81	ua/L			03/10/21 12:00	1
Tetrachloroethene	ND	5.0	0.34	ua/L			03/10/21 12:00	
Toluene	ND	5.0	0.45	ua/L			03/10/21 12:00	1
rans-1.2-Dichloroethene	ND	5.0	0.59	ua/L			03/10/21 12:00	1
rans-1.3-Dichloropropene	ND	5.0	0 44	ua/L			03/10/21 12:00	· · · · · · · · · · · · · · · · · · ·
Trichloroethene	ND	5.0	0.60	ua/l			03/10/21 12:00	1
Vinyl chloride	ND	5.0	0.75	9,- ua/l			03/10/21 12:00	1
		0.0	0.75	ч <u>у</u> , г			56,10,21 12.00	1
Surrogate	%Recovery Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	83	68 - 130					03/10/21 12:00	1
4-Bromofluorobenzene (Surr)	101	76 - 123					03/10/21 12:00	1
Dibromofluoromethane (Surr)	90	75 - 123					03/10/21 12:00	1
Toluene-d8 (Surr)	93	77 - 120					03/10/21 12:00	1

Client Sample ID: TripBlank-031021 Date Collected: 03/10/21 00:00 Date Received: 03/11/21 09:30

Method: 624.1 - Volatile Or	ganic Compounds (GC/N	IS)							
Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
1,1,1-Trichloroethane	ND	5.0	0.39	ug/L			03/11/21 13:51	1	
1,1,2,2-Tetrachloroethane	ND	5.0	0.26	ug/L			03/11/21 13:51	1	
1,1,2-Trichloroethane	ND	5.0	0.48	ug/L			03/11/21 13:51	1	-
1,1-Dichloroethane	ND	5.0	0.59	ug/L			03/11/21 13:51	1	
1,1-Dichloroethene	ND	5.0	0.85	ug/L			03/11/21 13:51	1	
1,2-Dichlorobenzene	ND	5.0	0.44	ug/L			03/11/21 13:51	1	
1,2-Dichloroethane	ND	5.0	0.60	ug/L			03/11/21 13:51	1	
1,2-Dichloroethene, Total	ND	10	3.2	ug/L			03/11/21 13:51	1	
1,2-Dichloropropane	ND	5.0	0.61	ug/L			03/11/21 13:51	1	
1,3-Dichlorobenzene	ND	5.0	0.54	ug/L			03/11/21 13:51	1	
1,4-Dichlorobenzene	ND	5.0	0.51	ug/L			03/11/21 13:51	1	
2-Chloroethyl vinyl ether	ND	25	1.9	ug/L			03/11/21 13:51	1	
Acrolein	ND	100	17	ug/L			03/11/21 13:51	1	
Acrylonitrile	ND	50	1.9	ug/L			03/11/21 13:51	1	
Benzene	ND	5.0	0.60	ug/L			03/11/21 13:51	1	
Bromodichloromethane	ND	5.0	0.54	ug/L			03/11/21 13:51	1	
Bromoform	ND	5.0	0.47	ug/L			03/11/21 13:51	1	
Bromomethane	ND	5.0	1.2	ug/L			03/11/21 13:51	1	
Carbon tetrachloride	ND	5.0	0.51	ug/L			03/11/21 13:51	1	
Chlorobenzene	ND	5.0	0.48	ug/L			03/11/21 13:51	1	
Chlorodibromomethane	ND	5.0	0.41	ug/L			03/11/21 13:51	1	
Chloroethane	ND	5.0	0.87	ug/L			03/11/21 13:51	1	
Chloroform	ND	5.0	0.54	ug/L			03/11/21 13:51	1	
Chloromethane	ND	5.0	0.64	ug/L			03/11/21 13:51	1	
cis-1,3-Dichloropropene	ND	5.0	0.33	ug/L			03/11/21 13:51	1	
Ethylbenzene	ND	5.0	0.46	ug/L			03/11/21 13:51	1	
Methylene Chloride	ND	5.0	0.81	ug/L			03/11/21 13:51	1	
Tetrachloroethene	ND	5.0	0.34	ug/L			03/11/21 13:51	1	
Toluene	ND	5.0	0.45	ug/L			03/11/21 13:51	1	
trans-1,2-Dichloroethene	ND	5.0	0.59	ug/L			03/11/21 13:51	1	
trans-1,3-Dichloropropene	ND	5.0	0.44	ug/L			03/11/21 13:51	1	
Trichloroethene	ND	5.0	0.60	ug/L			03/11/21 13:51	1	
Vinyl chloride	ND	5.0	0.75	ug/L			03/11/21 13:51	1	
Surrogate	%Recovery Qualifier	Limits				Prepared	Analyzed	Dil Fac	
1,2-Dichloroethane-d4 (Surr)	89	68 - 130					03/11/21 13:51	1	
4-Bromofluorobenzene (Surr)	103	76 - 123					03/11/21 13:51	1	
Dibromofluoromethane (Surr)	97	75 - 123					03/11/21 13:51	1	
Toluene-d8 (Surr)	99	77 - 120					03/11/21 13:51	1	

Lab Sample ID: 480-181931-3

Matrix: Water

ATTACHMENTS

ATTACHMENT 1 ENGINEERING CONTROLS – STANDBY CONSULTANT/CONTRACTOR CERTIFICATION FORM

Enclosure 1 حر Engineering Controls - Standby Consultant/Contractor Certification Form



6.20			
Sit	Site Details		Box 1
U.			
Sit	e Name COSCO		
Sit Cit Co Sit	e Address: 15 West Street Zip Code: 10977 y/Town: Spring Valley unty: Rockland e Acreage: 0.3		
Re	porting Period: April 04, 2020 to April 04, 2021		
		YES	NO
1.	Is the information above correct?	X	
	If NO, include handwritten above or on a separate sheet.		
2.	To your knowledge has some or all of the site property been sold, subdivided, merged, or undergone a tax map amendment during this Reporting Period?		X
3.	To your knowledge has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))?		X
4.	To your knowledge have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period?		X
	If you answered YES to questions 2 thru 4, include documentation or evidenc that documentation has been previously submitted with this certification form	e 1.	
5.	To your knowledge is the site currently undergoing development?		X
			Box 2
		YES	NO
6.	Is the current site use consistent with the use(s) listed below? Commercial and Industrial	X	
7.	Are all ICs/ECs in place and functioning as designed?	X	
IF ⁻ DE	THE ANSWER TO EITHER QUESTION 6 OR 7 IS NO, sign and date below and conta C PM regarding the development of a Corrective Measures Work Plan to address t	ct the hese issr	ues.
Sig	nature of Standby Consultant/Contractor Date		

NEW YORK STATE

SITE NO. 344035		Box 3		
Description of Institutional Controls				
Parcel 57.46-1-1	Owner WEST CENTRAL ASSOCIATES L P	Institutional Control		
1999 Record of Decision		Monitoring Plan O&M Plan		
		Box 4		
Description of Engine	ering Controls			
Parcel	Engineering Control			
57.46-1-1 A cover system consisting of the site; A SSDS at an off-site structu Air stripper groundwater ext	Groundwater Treatment S Vapor Mitigation Cover System asphalt to prevent human exposure to ure to prevent potential exposure to soil raction and treatment system	ystem remaining contaminated soil/fill remaining at vapor intrusion;		

		Box 5		
Periodic Review Report (PRR) Certification Statements				
1. I certify by checking "YES" below that:				
 a) the Periodic Review report and all attachments were prepared under the direction of, and reviewed by, the party making the certification, including data and material prepared by previous contractors for the current certifying period, if any; 				
b) to the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted				
engineering practices; and the information presented is accurate and compete.	YES	NO		
	X			
 If this site has an IC/EC Plan (or equivalent as required in the Decision Document), for each Institutional or Engineering control listed in Boxes 3 and/or 4, I certify by checking "YES" below that all of the following statements are true: 				
(a) the Institutional Control and/or Engineering Control(s) employed at this site is unchanged since the date that the Control was put in-place, or was last approved by the Department;				
(b) nothing has occurred that would impair the ability of such Control, to prote the environment;	ect public h	ealth and		
(c) nothing has occurred that would constitute a failure to comply with the Site Management Plan,				
or equivalent if no Site Management Plan exists.	YES	NO		
	X			
IF THE ANSWER TO QUESTION 2 IS NO, sign and date below and contact the DEC PM regarding the development of a Corrective Measures Work Plan to address these issues.				
Signature of Standby Consultant/Contractor Date				

Γ

IC/EC CERTIFICATIONS

Qualified Environmental Professional Signature

I certify that all information in Boxes 2 through 5 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I <u>Douglas M. Crawford</u> at print name

<u>Ramboll</u> <u>94 New Karner Road, Suite 106</u> <u>Albany, New York 12203</u>,

(print business address)

am certifying as a Qualified Environmental Professional.

Signature of Qualified Environmental Professional

Daugles M. amy l

Stamp (Required for PE)

Date



05/04/2021