# Revised Periodic Review Report

5801 Amboy Road
Staten Island, New York

August 8, 2023

Prepared for:

**Shore to Shore Foster, LLC**
15 Page Avenue
Staten Island, New York 10309

Prepared by:

**Roux Environmental Engineering and Geology, D.P.C.**
209 Shafter Street
Islandia, New York 11749

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# 1. Introduction

This document is required as an element of the remedial program at 5801 Amboy Road, Staten Island, New York (Site; Figure 1) under the New York State Department of Environmental Conservation (NYSDEC or "the Department") Brownfield Cleanup Program (BCP). The Site was remediated in accordance with Brownfield Cleanup Agreement (BCA) Index # C243041-03-15, Site Number C243041, between NYSDEC and Shore to Shore Foster LLC (Volunteer) which was executed on April 9, 2015. This revised Periodic Review Report (PRR) documents post-remediation activities performed from April 19, 2022 to April 18, 2023 at the Site and addresses comments on the original May 17, 2023 submittal contained in a letter from NYSDEC dated July 27, 2023. The BCP Site is known as Former CJ's Service Center Property.

The Site consists of the following: a retail coffee shop with drive-through, paved parking lot, concrete walkways/sidewalks and limited landscaped areas. The NYSDEC and NYS Department of Health (NYSDOH) determined this Site did not pose a significant threat to human health and the environment prior to remediation.

A remedial program was implemented between 2016 and 2020 before entering the Site Management phase of the project. The Site Management Plan (SMP), dated December 2020, was approved by NYSDEC on December 10, 2020 and the Certificate of Completion (COC) for the Site was received on December 18, 2020. The property was remediated to meet the NYSDEC title 6 of the Official Compilation of New York Codes, Rules, and Regulations (6 NYCRR) Part 375 Restricted Residential Use Soil Cleanup Objectives (RRSCOs).

The Site Management activities, reporting, and Institutional Control (IC)/ Engineering Control (EC) certifications are scheduled on a certification period basis. This certification is based on the submission of a PRR, submitted to the NYSDEC every year beginning sixteen months after the COC was issued and once per year thereafter. These PRRs will identify and asses all of the IC/ECs required by the remedy for the Site, any environmental monitoring data and/or information generated during the reporting period, and a complete Site evaluation which discusses the overall performance and effectiveness of the completed remedy.

It should be noted that measures to improve runtime of the sub-slab depressurization system (SSDS) were implemented since the last PRR was issued and the average runtime was increased from an average of 59 percent during the first reporting period to 81 percent during the second reporting period (97 percent from September 2022 through April 2023).

# 2. Site Overview

## 2.1 Site Description and History

The Site is located in Prince's Bay, Staten Island, New York and is identified as Section 28, Block 6896 and Lot 53 (formerly Lots 52 and 53 that were merged) on the New York City Tax Map (Figure 1). The Site is situated on an approximately 0.3756-acre area bounded by a residence to the north, Amboy Road and residential/commercial buildings to the south, Foster Road to the east, and by the Freshwater Wetland (AR-37-Scudder-Amboy), Odell Place, and residential properties to the west (Figure 2). The Site consists of the following: a retail coffee shop with drive-through, paved parking lot, concrete walkways/sidewalks and limited landscaping areas. The Site was formerly operated as a gasoline/service station with a service building, underground storage tanks (USTs) and gasoline dispensers, which were demolished/removed in 2015. The Site is zoned residential. However, the Volunteer received a variance from the New York City Board of Standards and Appeals in 2017 to allow commercial use as a retail coffee shop, which is consistent with previous commercial use as a retail gasoline and service station for approximately 86 years from 1928 to August 2014, when the Volunteer purchased the property.

## 2.2 Summary of Remedial Action

The Remedial Action for the Site was completed in several phases, including an initial Interim Remedial Measure (IRM) in 2015/2016, along with additional Remedial Actions performed in accordance with the Remedial Action Work Plan (RAWP) between 2017 and 2020, as described in the December 2020 Final Engineering Report (FER) and below.

Following the BCP Remedial Investigation (RI), and NYSDEC approval of the Remedial Investigation Report (RIR) and RAWP, Volunteer implemented the Remedial Action between 2015 and 2020. The Volunteer fully implemented and completed the approved remedial program. All remedial work was done with oversight, understanding, and direction from NYSDEC.

1. Remedial Design

   A remedial design program was implemented to provide the details necessary for the construction, operation, optimization, maintenance, and monitoring of the remedial program. Green remediation principles and techniques were implemented to the extent feasible in the design, implementation, and Site management of the remedy as per DER-31. The major green remediation components are as follows:

   - Considering the environmental impacts of treatment technologies and remedy stewardship over the long term;
   - Reducing direct and indirect greenhouse gases and other emissions;
   - Increasing energy efficiency and minimizing use of non-renewable energy;
   - Conserving and efficiently managing resources and materials;
   - Reducing waste, increasing recycling and increasing reuse of materials which would otherwise be considered a waste;
   - Maximizing habitat value and creating habitat when possible;
   - Fostering green and healthy communities and working landscapes which balance ecological, economic and social goals; and
   - Integrating the remedy with the end use where possible and encouraging green and sustainable re-development.

2. Groundwater Containment System

The glacial till present at the Site has a low permeability which limits the effectiveness of any in situ groundwater treatment. As a result, containment of remaining groundwater contamination was required to prevent it from migrating off-Site. This was accomplished by the installation of a sheet pile containment wall that isolates/contains the groundwater contamination remaining after the soil removal IRM. Perimeter sheet piling was installed around the on-Site petroleum source area (area of soil removal IRM) and included properly sealed joints to make the sheet pile joints water tight. The sheet piles were driven approximately 25 feet below current grade (lowest historic depth to water on Site was 10.41 feet below ground surface). The top of the sheet piling was left at current grade, approximately one foot below proposed final grade. As-built details of the sealed sheet pile containment system are included in Plates 1 and 2.

3. Cover System

A Site Cover was required to allow for Restricted Residential (or less restrictive uses such as commercial) use of the Site. The cover consists either of the structures such as buildings, pavement, sidewalks comprising the Site development or a soil cover in areas where the upper two feet of exposed surface soil exceeded the applicable Soil Cleanup Objectives (SCOs). Where the soil cover was required, it was a minimum of two feet of soil placed over a demarcation layer, with the upper six inches of soil of sufficient quality to maintain a vegetative layer. Soil cover material, including any fill material brought to the Site, met the SCOs for cover material as set forth in 6 NYCRR Part 375- 6.7(d). As-built details of the Site Cover System are included in Plate 1.

4. Vapor Mitigation

The on-Site building has an SSDS, to mitigate the migration of vapors into the building from soil and/or groundwater. Any future buildings will be required to have a similar mitigation system. As-built details of the SSDS are included in Plate 2.

5. Institutional Control

Imposition of an institutional control in the form of an environmental easement (dated June 23, 2016 and recorded on July 22, 2016 with the Office of the Richmond County Clerk), for the controlled property that:

- requires the remedial party or Site owner to complete and submit to the Department a periodic certification of institutional and engineering controls in accordance with Part 375-1.8 (h)(3);
- allows the use and development of the controlled property for Restricted Residential use (or less restrictive uses such as commercial) as defined by Part 375-1.8(g), although land use is subject to local zoning laws;
- restricts the use of groundwater as a source of potable or process water, without necessary water quality treatment as determined by the New York City Department of Health (NYCDOH); and
- requires compliance with this Department approved Site Management Plan.

6. Site Management Plan

A Site Management Plan, which includes the following:

a. an Institutional and Engineering Control Plan that identifies all use restrictions and engineering controls for the Site and details the steps and media-specific requirements necessary to ensure the following institutional and/or engineering controls remain in place and effective:

Institutional Controls: The Environmental Easement discussed in Paragraph 5 above.

Engineering Controls: The sealed sheet pile containment wall around the petroleum source area of concern (AOC) discussed in paragraph 2 above, the cover system discussed in Paragraph 3 above and the sub-slab depressurization system discussed in Paragraph 4 above.

This IC and EC plan includes, but may not be limited to:

- an Excavation Plan which details the provisions for management of future excavations in areas of remaining contamination;
- descriptions of the provisions of the environmental easement including any land use and groundwater use restrictions;
- a provision for future containment or treatment of residual groundwater contamination if remedial element 2 is not effective in preventing off-Site migration of groundwater contamination;
- provisions for the management and inspection of the identified engineering controls;
- maintaining Site access controls and Department notification; and
- the steps necessary for the periodic reviews and certification of the institutional and/or engineering controls.

b. a Monitoring Plan to assess the performance and effectiveness of the remedy. The plan includes, but may not be limited to:

- monitoring of groundwater and soil vapor to assess the performance and effectiveness of the remedy; and
- a schedule of monitoring and frequency of submittals to the Department.

c. an Operation and Maintenance (O&M) Plan to ensure continued operation, maintenance, inspection, and reporting of any mechanical or physical components of the active vapor mitigation system(s).

The plan includes:

- procedures for operating and maintaining the system(s); and
- compliance inspection of the system(s) to ensure proper O&M as well as providing the data for any necessary reporting.

Remedial activities outlined above were completed in four stages of implementation:

- A UST IRM between 2015 and 2016;
- Sealed sheet pile containment wall installation in 2016 around the petroleum source AOC;
- Additional UST removal in 2018; and
- Site Cover System installation, vapor barrier installation and SSDS installation in 2019/2020.

The 2015 UST IRM consisted of waste characterization, soil disposal, UST removal and backfill operations, and community air monitoring program (CAMP) implementation. The sealed sheet pile containment wall around the petroleum source AOC was installed to 25 feet below land surface (ft bls) to contain an area with known petroleum contamination in 2016. In 2018, previously undetected USTs were cleaned and removed from the Site. The Site Cover System, vapor barrier and SSDS installation was completed between 2019 and 2020. Further details of all remedial activities completed are included in the FER prepared by Roux.

At NYSDEC's request, groundwater samples (VOCs only) were collected in May 2017 from off-Site wells MW-19 and MW-20, on a one-time basis after installation to obtain baseline VOC concentrations. The results were submitted to NYSDEC in June 2017, and are included in the FER.

In addition, as required by NYSDEC, the two remaining on-Site wells were sampled for emerging contaminants in July 2019. The results were submitted to NYSDEC in January 2020, and are included in the FER.

## 2.3 Remaining Contamination

The following sections provide a summary of the remaining contamination at the Site.

### 2.3.1 Soil

As described in the SMP, soils exceeding the Part 375 Unrestricted and Restricted Residential SCOs remain in the vicinity of the former pump island and piping alley, as indicated by the "petroleum source area" shown on Figure 2. Limited metals and other polycyclic aromatic hydrocarbons (PAHs) commonly associated with historic fill were detected in various locations across the Site exceeding Unrestricted and Restricted Residential SCOs and are not attributed to a specific source area. There were limited detections of pesticides and polychlorinated biphenyls (PCBs), some of which exceeded the Unrestricted SCOs, but none of which exceeded the Restricted Residential SCOs. Herbicides were not detected in any of the soil samples collected during the RI or IRM.

Exposure to remaining contamination at the Site is prevented by an engineered Site Cover System over the Site. This Site Cover System is comprised of asphalt covered parking areas, concrete covered sidewalks/walkways, concrete building slab and limited landscaped areas (which include a minimum of two feet of cover over existing Site soil). The Site Cover System above the petroleum source AOC is comprised of asphalt or concrete in order to minimize infiltration through the impacted soils in the sealed sheet pile containment wall. Any fill material brought to the Site met the requirements for the identified Site use as set forth in 6 NYCRR Part 375-6.7(d). Utility lines associated with the redevelopment are not located within the petroleum source area. Utility infrastructure is located in the surrounding areas, where significantly less impacted soil was identified. Impacts in these areas include limited metals and PAHs commonly associated with historic fill.

### 2.3.2 Groundwater

As described in the SMP, groundwater sample results indicated detections of several VOCs and semi-volatile organic compounds (SVOCs) in exceedance of the Ambient Water Quality Standards and Guidance Values (AWQSGVs). All of the compounds detected are associated with petroleum [primarily benzene, toluene, ethylbenzene, xylenes (BTEX)] and were primarily detected in and downgradient of the petroleum source area. Groundwater and soil samples collected around the former USTs indicated that the USTs were not a source area. No chlorinated compounds were detected in groundwater samples. Various naturally occurring metals were detected in all groundwater samples. A trace amount of the pesticide 4,4'-DDT was detected in a single groundwater sample well below the AWQSGV. No herbicides or PCBs were detected in groundwater.

### 2.3.3 Soil Vapor

As described in the SMP, soil vapor sample results from samples collected during the RI indicated detections of VOCs (primarily petroleum-related) in soil vapor from various locations across the Site. In total, 27 compounds were detected in the eight soil vapor samples. Total VOC concentrations ranged from 4,527,780 micrograms per cubic meter (ug/$m^3$) to 149 ug/$m^3$. The majority of the elevated detections found in the soil

vapor samples were of petroleum-related VOCs and acetone. Acetone may be present due to naturally occurring biodegradation. The most significant detections are located within the petroleum source area.

It is difficult to determine if the CVOC compounds specified in the NYSDOH Guidance document Matrix tables (1,1,1-trichloroethane; cis-1,2-dichloroethene; carbon tetrachloride; trichloroethene; tetrachloroethene; and vinyl chloride) were present in the soil vapor samples, due to elevated laboratory detection limits. However, these compounds were not detected in soil or groundwater samples collected during the RI and IRM. Since the Site was redeveloped with a slab-on-grade single story commercial building, an active SSDS was installed. The active SSDS includes a network of perforated polyvinyl chloride (PVC) pipes creating a vacuum influence beneath the Site building slab, which are connected to solid PVC piping and a 1.5 horsepower vacuum blower. The discharge from the system is directed through a discharge stack set at 10 feet above ground level. Effluent treatment is not required. In addition to the SSDS, a vapor barrier was installed below the building to mitigate the potential for soil vapor intrusion and the portion of the foundation slab overlying the containment wall was thickened to two feet.

## 2.4 Institutional and Engineering Controls

Since residual contamination remains beneath the Site, ICs/ECs have been incorporated into the Site remedy as part of the NYSDEC-approved SMP, to provide proper management of residual contamination in the future to ensure protection of public health and the environment.

The Site has ECs consisting of:

- Site Cover System;
- Sealed sheet pile containment wall around the petroleum source area; and
- SSDS.

The goal of the Site Cover System is to prevent exposure to remaining contamination in soil/fill at the Site. The goal of the sealed sheet pile containment wall is to isolate and contain petroleum impacted soil, groundwater and limited free-product and prevent off-Site migration. The goal of the SSDS is to mitigate impacts to public health resulting from existing, or the potential for, soil vapor intrusion into buildings at the Site. The Site Cover System and sealed sheet pile containment wall are in place and are effective at meeting their objectives. When operating, the SSDS is effective at inducing vacuum beneath the entire building and mitigating the potential for soil vapor intrusion.

A Site-specific Environmental Easement was recorded with the Richmond County Clerk on July 21, 2016 that provides an enforceable means to manage the remaining contamination at the Site until the Environmental Easement is extinguished in accordance with NYS Environmental Conservation Law (ECL) Article 71, Title 36. The Environmental Easement introduces a series of ICs to: (1) implement, maintain and monitor Engineering Control systems; (2) prevent future exposure to remaining contamination; and (3) limit the use to restricted residential, commercial, or industrial uses as defined by Part 375-1.8(g). Adherence to these ICs on the site is required by the Environmental Easement and are being implemented under the SMP.

# 3. IC/EC Plan Compliance Report

Since remaining contaminated soil, groundwater, and soil vapor exists beneath the Site, ICs and ECs are required to protect human health and the environment. This section details the purpose and elements of the IC/EC Plan of the SMP including the inspection, monitoring, and reporting requirements, IC/ECs, whether the IC/EC requirements were met, and regulatory notification and certification requirements.

## 3.1 General

The IC/EC Plan provides:

- A description of all IC/ECs on the Site;
- The basic implementation and intended role of each IC/EC;
- A description of the key components of the ICs set forth in the Environmental Easement;
- A description of the controls to be evaluated during each required inspection and periodic review;
- A description of plans and procedures to be followed for implementation of IC/ECs, such as the implementation of the Excavation Work Plan (EWP; included in the SMP) for the proper handling of remaining contamination that may be disturbed during maintenance or redevelopment work on the Site; and
- Any other provisions necessary to identify or establish methods for implementing the IC/ECs required by the Site remedy, as determined by the NYSDEC.

The ECs required by the SMP include:

- Site Cover System;
- Sealed sheet pile containment wall around the petroleum source area; and
- SSDS.

The ICs presented in the SMP consist of the following:

- The property may be used for: Restricted Residential; and less restrictive uses, such as Commercial use.
- All ECs must be operated and maintained as specified in the SMP.
- All ECs must be inspected at a frequency and in a manner defined in the SMP.
- The use of groundwater underlying the property is prohibited without necessary water quality treatment as determined by the NYSDOH or the New York City Department of Health to render it safe for use as drinking water or for industrial purposes, and the user must first notify and obtain written approval to do so from the Department.
- Groundwater and other environmental or public health monitoring must be performed as defined in the SMP.
- Data and information pertinent to site management must be reported at the frequency and in a manner as defined in the SMP.
- All future activities that will disturb remaining contaminated material must be conducted in accordance with the SMP.
- Monitoring to assess the performance and effectiveness of the remedy must be performed as defined in the SMP.

- Operation, maintenance, monitoring, inspection, and reporting of any mechanical or physical component of the remedy shall be performed as defined in the SMP.
- Access to the Site must be provided to agents, employees or other representatives of the State of New York with reasonable prior notice to the property owner to assure compliance with the restrictions identified by the Environmental Easement.
- The potential for vapor intrusion must be evaluated for any buildings developed in the area within the IC boundaries noted on the survey included in the Environmental Easement in Appendix A of the SMP, and any potential impacts that are identified must be monitored or mitigated.
- Vegetable gardens and farming on the Site are prohibited, except in raised planters.

## 3.2 IC/EC Plan Notification Requirements

Notifications are required to be submitted by the property owner to the NYSDEC, as needed, in accordance with NYSDEC's DER-10 Technical Guidance for Site Investigation and Remediation (DER-10) for the following reasons:

- 60-day advance notice of any proposed changes in Site use that are required under the terms of the BCA, Part 375, and/or ECL.
- 7-day advance notice of any field activity associated with the remedial program.
- 15-day advance notice of any proposed ground-intrusive activity pursuant to the EWP.
- Notice within 48-hours of any damage or defect to the foundation, structures or EC that reduces or has the potential to reduce the effectiveness of an EC, and likewise, any action to be taken to mitigate the damage or defect.
- Verbal notice by noon of the following day of any emergency, such as a fire; flood; or earthquake that reduces or has the potential to reduce the effectiveness of ECs in place at the Site, with written confirmation within seven (7) days that includes a summary of actions taken, or to be taken, and the potential impact to the environment and the public.
- Follow-up status reports on actions taken to respond to any emergency event requiring ongoing responsive action submitted to the NYSDEC within 45 days describing and documenting actions taken to restore the effectiveness of the ECs.

Any change in the ownership of the Site or the responsibility for implementing the SMP will include the following notifications:

- At least 60 days prior to the change, the NYSDEC will be notified in writing of the proposed change. This will include a certification that the prospective purchaser/Remedial Party has been provided with a copy of the BCA, and all approved work plans and reports, including the SMP.
- Within 15 days after the transfer of all or part of the Site, the new owner's name, contact representative, and contact information will be confirmed in writing to the NYSDEC.

### 3.2.1 Notifications

NYSDEC was notified via email that the SSDS shut down at 1:46 AM on December 26, 2022. A visit to the Site was made later that morning. The cause of the shutdown was a high-water level in the knockout tank, however due to the extremely cold temperatures (19 to 22 degrees Fahrenheit), the knockout tank froze solid and could not be drained. As such, the system could not be immediately restarted. The volunteer kept up efforts to drain the tank and restart the system until Wednesday, December 28, 2022, when the Volunteer successfully thawed the knockout tank and restarted the system. The SSDS was off for approximately 2.5 days. Email correspondence regarding this shutdown/notification is included in Appendix B.

NYSDEC will be alerted if the SSDS is not operating for more than two consecutive days.

## 3.3 Inspections

Inspections of all remedial components installed at the Site are to be conducted at frequencies specified in the SMP. A comprehensive Site-wide inspection will be conducted and documented according to the SMP schedule. The inspections will determine and document the following:

- Whether ECs continue to perform as designed;
- If these controls continue to be protective of human health and the environment;
- Compliance with requirements of this SMP and the Environmental Easement;
- Achievement of remedial performance criteria;
- If Site records are complete and up to date; and
- Reporting requirements outlined in Section 7 of the SMP.

Inspections will also be performed in the event of an emergency. If an emergency, such as a natural disaster or an unforeseen failure of any of the ECs occurs that reduces or has the potential to reduce the effectiveness of ECs in place at the Site, verbal notice to the NYSDEC must be given by noon of the following day. In addition, an inspection of the Site will be conducted within five (5) days of the event to verify the effectiveness of the IC/ECs implemented at the Site by a qualified environmental professional (QEP), as determined by the NYSDEC. Written confirmation must be provided to the NYSDEC within seven (7) days of the event that includes a summary of actions taken, or to be taken, and the potential impact to the environment and the public.

Inspections were conducted at the frequency specified in the schedules provided in the following Monitoring Plan and O&M Plan Reporting sections of this PRR.

## 3.4 IC/EC Plan Certification

The following is the certification language required by the SMP:

- The inspection of the Site to confirm the effectiveness of the ICs/ECs required by the remedial program was performed under my direction;
- The ICs/ECs employed at this Site is unchanged from the date the control was put in place, or last approved by the Department;
- Nothing has occurred that would impair the ability of the control to protect the public health and environment;
- Nothing has occurred that would constitute a violation or failure to comply with any SMP for this control;
- Access to the Site will continue to be provided to the Department to evaluate the remedy, including access to evaluate the continued maintenance of this control;
- Use of the Site is compliant with the environmental easement;
- The EC systems are performing as designed and are effective;
- 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 in this report is accurate and complete.

# 4. Monitoring and Sampling Plan Compliance Report

The various subsections below describe monitoring and sampling required as part of the remedy and also include an evaluation of the remedy performance, effectiveness, and protectivenes.

## 4.1 General

The Monitoring Plan describes the measures for evaluating the performance and effectiveness of the remedy to reduce or mitigate contamination at the Site, the Site Cover System, and all affected Site media identified below. Components of the Monitoring Plan are:

- Sampling and analysis of all appropriate media (e.g., groundwater);
- Assessing compliance with applicable NYSDEC standards, criteria and guidance (SCGs), particularly groundwater standards; and
- Evaluating Site information periodically to confirm that the remedy continues to be effective in protecting public health and the environment.

Monitoring of the performance of the remedy will be conducted for the periods specified for each matrix listed in the table below and are explained in further detail in the following sections.

| Monitoring Program | Frequency | Matrix | Analysis |
|---|---|---|---|
| **Site Cover System and Site-Wide Inspection** | Annually. First inspection no more than 16 months after issuance of the COC. | Soil | Visual inspection of all cover system components |
| **Groundwater** | Semi-Annually for the first two years and annually thereafter | Groundwater | VOCs (USEPA Method 8260) for NYSDEC Target Compound List compounds |
| **Dye Testing for Containment Wall** | Semi-Annually for the first two years and semi-annually thereafter. | Groundwater | Visual inspection of bailed groundwater from onsite and offsite monitoring wells |
| **SSDS Effluent** | At system startup to determine if vapor treatment is necessary. Semi-annually thereafter if vapor treatment is installed in order to evaluate the need for carbon changeout and determine if vapor treatment is no longer needed. Ongoing sampling not required since vapor treatment is not installed. | Soil Vapor | VOCs by EPA TO-15 |
| **SSDS Detailed Operation Inspection (see Section 4.3)** | Quarterly | Soil Vapor | Visual Inspection of System Components, Vacuum, Temperature, and Condensate |
| **SSDS Knockout Tank Inspection/Draining** | Monthly | NA | Visual Inspection and draining of the knockout tank |
| **SSDS System Status** | Remote alarm tied into the SSDS and triggered when SSDS is shut down | Soil Vapor | Inspection of alarm to determine operation status |

NYSDEC will be alerted if the SSDS is not operating for more than two consecutive days.

## 4.2 Site-Wide Inspection

Site-wide inspections are to be performed once per year. Modification to the frequency or duration of the inspections will require approval from the NYSDEC. Site-wide inspections will also be performed after all severe weather conditions that may affect ECs or monitoring devices. During these inspections, a Site Inspection Checklist will be completed as provided in the SMP. The Checklist will compile sufficient information to assess the following:

- Compliance with all ICs, including Site usage;
- An evaluation of the condition and continued effectiveness of all ECs;
- General Site conditions at the time of the inspection;
- The Site management activities being conducted including, where appropriate, confirmation sampling and a health and safety inspection; and
- Confirm that Site records are up to date.

On March 9, 2023, Roux performed a Site-wide inspection to meet the requirements for this reporting period. This inspection determined that all Site Cover System elements described herein were observed to be performing as designed during the reporting period and are protective of human health and the environment. The completed Site Inspection Checklist is provided in Appendix C and photographs taken during the Site-wide inspection are provided in the Photo Log included in Appendix D.

## 4.3 Remedial System Monitoring

Monitoring of the SSDS will be performed on a routine basis, as identified in Table 4.3 – SMP Remedial System Monitoring Requirements and Schedule (see below). Modification to the frequency or sampling requirements will require approval from the NYSDEC. Based on previous sampling results and as outlined in the 2022 PRR, Roux recommended no further sampling of the SSDS effluent and indoor air, which was approved by the NYSDEC on July 21, 2022. A visual inspection of the complete system will be conducted during each monitoring event. Unscheduled inspections may take place when a suspected failure of the SSDS has been reported or an emergency occurs that is deemed likely to affect the operation of the system. If any equipment readings are not within their specified operation range, any equipment is observed to be malfunctioning or the system is not performing within specifications, maintenance and repair will be conducted, as per the O&M Plan discussed in following sections. SSDS components to be monitored include, but are not limited to, the components included in Table 4.3 below.

**Table 4.3 – Remedial System Monitoring Requirements and Schedule**

| Remedial System Component | Monitoring Parameter | Operating Range | Monitoring Schedule |
|---|---|---|---|
| SSDS | Pressure readings at the blower inlet (vacuum side) | -5 to -50 in. w.c. | Quarterly |
| | Pressure readings at the blower outlet (pressure side) | 10 to 30 in. w.c. | Quarterly |
| | Pressure readings at the soil vapor monitoring points | ≤-0.004 in. w.c. | Quarterly |

| Remedial System Component | Monitoring Parameter | Operating Range | Monitoring Schedule |
|---|---|---|---|
| | Visual inspections of the SSDS mechanical and above grade piping components | N/A | Quarterly |
| | SSDS Effluent PID Readings | N/A | Quarterly |
| | Knockout Tank | Check/Drain Tank | Monthly |

SSDS monitoring was performed in June 2022, September 2022, November 2022, and March 2023. A summary of the monitoring performed during the reporting period is included in Section 5. During the period the Sensaphone remote monitoring system on the SSDS continued to operate and the Volunteer was notified of any alarm conditions and indicated they would respond to address the alarms. NYSDEC will be alerted if the SSDS is not operating for more than two consecutive days.

## 4.4 Post-Remediation Groundwater Monitoring and Sampling and Dye Testing

The SMP required that samples shall be collected from the two on-Site (MW-6 and MW-11R) and two off-Site (MW-19 and MW-20) monitoring wells on a routine basis. Additionally, to monitor the effectiveness of the sealed sheet pile containment wall around the petroleum source AOC, dye testing will be performed periodically following installation. Biodegradable dye was introduced into interior wells MW-6 and MW-11R in October 2020. Semi-annually for the first two years and annually thereafter, or until such time as NYSDEC determines such monitoring may be reduced or terminated, the interior wells (MW-6 and MW-11R) will be monitored by removing a sample of water using a clear bailer to confirm that the dye is still present. If dye is no longer present, additional dye will be introduced into the interior wells. Concurrent with the monitoring of the interior wells, the exterior monitoring wells (MW-19 and MW-20) will be monitored by removing a sample of water using a clear bailer to confirm that dye is not present.

Groundwater sampling/dye testing locations, required analytical parameters, and sampling schedule are provided below in Table 4.4 – SMP Post-Remediation Sampling Requirements and Schedule. Modification to the frequency or sampling requirements will require approval from the NYSDEC.

**Table 4.4 – SMP Post-Remediation Sampling Requirements and Schedule**

| Sampling Location | Analytical Parameters | Schedule |
|---|---|---|
| | Visual Observation of Biodegradable Dye and Groundwater Sampling for VOCs | |
| **MW-6, MW-11R, MW-19, MW20** | X | Semi-annually for two years and annually thereafter. If, after ten years of monitoring, no dye is detected and VOC concentrations in groundwater are non-detect or reach asymptotic levels in the on-Site and off-Site monitoring wells, the Volunteer will present the results to NYSDEC and request to discontinue monitoring. |

*Groundwater Sampling Activities*

Table 1 shows the results of historic groundwater samples collected in September 2015 during Roux's RI from MW-6 and MW-11R (pre-remediation), baseline sampling in May 2017 for MW-19 and MW-20, and all post-remediation sampling events to date. The fourth quarter 2022 sampling round concluded the semi-annual sampling phase. Sampling will be completed annually going forward. Plate 3 presents the sample results over time and includes only those parameters with at least one exceedance of AWQSGVs contained in a respective well. Groundwater sampling event reports were submitted to NYSDEC after each sampling event and are included in Appendix E. Data Usability Summary Reports (DUSRs) prepared by a party independent from the laboratory performing analysis for all samples are included as appendices in the monitoring reports in Appendix E.

VOC Trends in On-Site Monitoring Wells

In on-Site groundwater monitoring well MW-6, concentrations of petroleum-related VOCs were higher in November 2022, as compared to March 2022; however, concentrations have significantly decreased since the baseline round in 2015. The number of parameters exceeding AWQSGVs has increased compared to March 2022, though has decreased since the baseline round in 2015.

In on-Site groundwater monitoring well MW-11R, concentrations generally increased in November 2022 compared to March 2022 and the baseline round in 2015. Concentrations have been somewhat variable since 2015. Though the reason for variability in concentrations is not known, MW-11R is closer to the former pump islands, which were identified as the likely sources of the impacts present on-Site. As such, it is not unexpected that concentrations are higher at MW-11R than MW-6.

VOC Trends in Off-Site Monitoring Wells

In off-Site groundwater monitoring well MW-19 (paired with on-Site well MW-6), no VOCs were detected in March 2022 or November 2022.

In off-Site groundwater monitoring well MW-20 (paired with on-Site well MW-11R), no VOCs were detected in November 2022, compared to the March 2022 samples, which had exceedances of AWQSGVs for some parameters. The variability in the offsite concentrations is likely due to residual impacts located outside of the limits of the BCP Site from historical operation of the service station.

*Dye Testing*

Dye Testing – November 11, 2022

On November 11, 2022, groundwater was bailed prior to groundwater sampling from all four monitoring wells using dedicated bailers and was poured into dedicated clear glass jars before and after the introduction of non-toxic dye. Photographs were taken to assess for the presence or absence of dye and are included in the December 21, 2022 monitoring report in Appendix E. Dye was visible in MW-6 and MW-11R (on-Site wells), but not in MW-19 and MW-20 outside the containment. Following groundwater sampling activities, additional dye was added inside the containment. The dye is clearly present in the on-Site wells after the dye was introduced and is clearly not present in the off-Site wells.

Dye was not observed in the off-Site monitoring wells during the post-remediation period. The dye testing completed during the reporting period demonstrates that the groundwater containment system is effective at controlling off-Site migration of groundwater. The fourth quarter 2022 dye testing round concluded the semi-annual sampling phase. Sampling will be completed annually going forward.

## 4.5 Monitoring and Sampling Plan Conclusions and Recommendations

The Volunteer will complete annual groundwater sampling and dye testing during the 2023-2024 reporting period at monitoring wells MW-6, MW-11R, MW-19, and MW-20.

Based on the NYSDEC denial of the Volunteer's request to shut down the SSDS in their comment letter on the original PRR, there is no change to the SSDS monitoring schedule at present.

# 5. Operation and Maintenance Compliance Report

## 5.1 General

The O&M Plan provides a brief description of the measures necessary to operate, monitor and maintain the mechanical components of the remedy selected for the site. The O&M Plan:

- Includes the procedures necessary to allow individuals unfamiliar with the Site to operate and maintain the SSDS; and
- Will be updated periodically to reflect changes in Site conditions or the manner in which the SSDS is operated and maintained.

Routine maintenance activities are required quarterly by the SMP and recorded on the SSDS O&M forms outlined in the SMP. The routine maintenance activities include visual inspections, operating data collection and general maintenance. Visual inspection is the routine part of the SSDS operator's activities. The system operator will note any conditions which present a potential hazard or could cause future system shutdown. Special attention should be given to any unusual or excessive noise or vibrations from the piping and blower. Specific routine maintenance tasks are outlined below:

- Inspect control panel and warning lights/alarms;
- Inspect all above slab blower piping for leaks and confirm operation of appropriate valves (i.e., dilution valve, pressure relief valve);
- Inspect vacuum/pressure gauges for proper operation;
- Check and clean air filter on each moisture knockout tank; and
- Check for the presence of and remove water in each knockout tank.

Non-routine equipment maintenance is likely to occur and consists of maintenance activities that will be performed with less frequency than the routine maintenance (i.e., semi-annually) on several system components. Specific non-routine maintenance tasks are outlined below:

- Inspect and test alarms;
- Check float switch in each knockout tank for proper operation;
- Replacement of vacuum/pressure gauges; and
- Change bearings on blowers after 15,000 hours of operation.

## 5.2 SSDS Inspection, Monitoring and Sampling

The SSDS inspection and startup testing was conducted in the First Quarter 2021 (March 5, 2021). During the previous reporting period the runtime was unacceptable (average 59 percent) and a Corrective Measures Work Plan (CMWP) was implemented to improve runtime. During this reporting period, inspections were completed during the Second Quarter of 2022 (June 6, 2022), the Third Quarter of 2022 (September 30, 2022), the Fourth Quarter of 2022 (November 11, 2022), and the First Quarter of 2023 (March 9, 2023). The runtime was increased to an average of 81 percent during the reporting period.

SSDS downtime primarily occurred between May and September 2022. According to the Volunteer, the downtime was primarily due to utility-related power surges and the knockout tank being full. Starting on

September 2, 2022, the Volunteer proactively visited the Site every two to seven days to confirm system operation and to drain the knockout tank. After September 2, 2023 the runtime was 97 percent.

During much of the reporting period, the Sensaphone remote monitoring system on the SSDS continued to operate and the Volunteer was notified of any alarm conditions, and they responded to address the alarms. The Sensaphone was down from June through November 2022. During this period, it was shipped back to the manufacturer for service and it was back online by November 11, 2022.

Table 2 presents the results of the vacuum monitoring conducted during the reporting period. SSDS monitoring ports are shown on Plate 2.

Second Quarter 2022 Inspection and Sampling – June 9, 2022

The Second Quarter 2022 inspection and sampling round was conducted on June 9, 2022 and included inspecting the system and taking vacuum readings from the three monitoring points.

Vacuum readings at each monitoring port were as follows, which well exceeded the minimum vacuum required (-0.004 inches of water):

- MP-1 (-0.108 inches of water)
- MP-2 (-0.113 inches of water)
- MP-3 (-0.126 inches of water)

Third Quarter 2022 Inspection and Sampling – September 30, 2022

The Third Quarter 2022 inspection and sampling round was conducted on September 30, 2022 and included inspecting the system and taking vacuum readings from the three monitoring points.

Vacuum readings at each monitoring port were as follows, which well exceeded the minimum vacuum required (-0.004 inches of water):

- MP-1 (-0.893 inches of water)
- MP-2 (-0.778 inches of water)
- MP-3 (-0.935 inches of water)

Fourth Quarter 2022 Inspection and Sampling – November 11, 2022

The Fourth Quarter 2022 inspection and sampling round was conducted on November 11, 2022 and included inspecting the system and taking vacuum readings from the three monitoring points.

Vacuum readings at each monitoring port were as follows, which well exceeded the minimum vacuum required (-0.004 inches of water):

- MP-1 (-0.436 inches of water)
- MP-2 (-0.368 inches of water)
- MP-3 (-0.435 inches of water)

First Quarter 2023 Inspection and Sampling – March 9, 2023

The First Quarter 2023 inspection and sampling round was conducted on March 9, 2023 and included inspecting the system and taking vacuum readings from the three monitoring points.

Vacuum readings at each monitoring port were as follows, which well exceeded the minimum vacuum required (-0.004 inches of water):

- MP-1 (-0.434 inches of water)
- MP-2 (-0.374 inches of water)
- MP-3 (-0.432 inches of water)

The readings all indicate that the SSDS induces adequate vacuum beneath the building.

## 5.3 SSDS Operation Monitoring

Equipment maintenance and inspections were performed each time Roux visited the Site. Routine maintenance tasks such as emptying the moisture knockout tank were also performed by the Volunteer. The SSDS O&M logs that were completed by Roux during the reporting period are provided in chronological order in Appendix F. The Volunteer has worked to reduce downtime by making more frequent checks on the system and draining the knockout tank.

# 6. Overall PRR Conclusions and Recommendations

Based on the information and data provided herein, the following conclusions and recommendations are provided:

Site Cover System and Sealed Sheet Pile Containment Wall

- The Site Cover System and sealed sheet pile containment wall around the petroleum source area are performing as designed, are effective, and are compliant with the specifications described in the SMP and as described herein.

Groundwater Sampling Frequency Per SMP

- Groundwater sampling and dye testing will be conducted annually in accordance with the SMP.

SSDS Runtime Improvement

- The SSDS operated an average of 81 percent of the time during the reporting period (97 percent from September 2022 through April 2023). The Volunteer made frequent visits to confirm operation and to drain the knockout tank. The Sensaphone alarm was repaired during the reporting period.

- As recommended by NYSDEC in the July 27, 2023 comment letter on the original 2022-2023 PRR submission, the SSDS knockout tank will be insulated prior to the winter 2023-2024 season and will be inspected/drained at least monthly to mitigate problems with freezing.

Indoor Air, Ambient Air and SSDS Effluent Sampling

- Based on comment No. 4 of the July 27, 2023 comment letter on the original 2022-2023 PRR submission, NYSDEC denied the Volunteer's request for shutdown of the SSDS, as they deemed it premature. NYSDEC requested that a sampling round will be conducted during the 2023-2024 heating season (typically November 15 through March 31), consisting of:
  - Indoor air sampling at MP-1 and MP-2;
  - One outdoor ambient sample; and
  - One SSDS effluent sample.
- NYSDEC will be notified seven calendar days prior to the sampling event.
- The Volunteer will document the results and recommendations in a report to NYSDEC/NYSDOH.

Respectfully submitted,

**ROUX ENVIRONMENTAL ENGINEERING AND GEOLOGY, D.P.C**.

Sarah Stern
Project Geologist

Noelle M. Clarke, P.E.
Principal Engineer

# TABLES

1. Summary of Volatile Organic Compounds in Groundwater, 5801 Amboy Road, Staten Island, New York

| Notes Utilized Throughout Tables | |
|---|---|
| **Groundwater Tables** | |
| J - | Estimated Value |
| U - | Compound was analyzed for but not detected |
| UJ - | Analyte was not detected. The associated reported quantitation limit is an estimate |
| J- - | Estimated value, low bias |
| R - | Sample results rejected by validator |
| FD - | Duplicate |
| µg/L - | Micrograms per liter |
| NYSDEC - | New York State Department of Environmental Conservation |
| AWQSGVs - | Ambient Water-Quality Standards and Guidance Values |
| -- | No NYSDEC AWQSGV available |
| Bold data indicates that parameter was detected above the NYSDEC AWQSGVs | |

**Table 1. Summary of Volatile Organic Compounds in Groundwater, 5801 Amboy Road, Staten Island, New York**

| Parameter | NYSDEC Ambient Water Quality Guidance Values | Unit | Sample Designation: | MW-6 | MW-6 | MW-6 | MW-6 | MW_BP-11 | MW-11R | MW-11R |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date: | 09/16/2015 | 01/22/2021 | 03/28/2022 | 11/11/2022 | 09/17/2015 | 01/22/2021 | 03/28/2022 |
| | | | Normal or Field Duplicate: | N | N | N | N | FD | N | N | N |
| 1,1,1,2-Tetrachloroethane | 5 | UG/L | | 50 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 100 U | 12 U | 12 U |
| 1,1,1-Trichloroethane (TCA) | 5 | UG/L | | 50 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 100 U | 12 U | 12 U |
| 1,1,2,2-Tetrachloroethane | 5 | UG/L | | 10 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 20 U | 2.5 U | 2.5 U |
| 1,1,2-Trichloroethane | 1 | UG/L | | 30 U | 1.5 U | 1.5 U | 1.5 U | 1.5 U | 60 U | 7.5 U | 7.5 U |
| 1,1-Dichloroethane | 5 | UG/L | | 50 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 100 U | 12 U | 12 U |
| 1,1-Dichloroethene | 5 | UG/L | | 10 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 20 U | 2.5 U | 2.5 U |
| 1,1-Dichloropropene | 5 | UG/L | | 50 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 100 U | 12 U | 12 U |
| 1,2,3-Trichlorobenzene | 5 | UG/L | | 50 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 100 U | 12 UJ | 12 U |
| 1,2,3-Trichloropropane | 0.04 | UG/L | | 50 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 100 U | 12 U | 12 U |
| 1,2,4,5-Tetramethylbenzene | **5** | UG/L | | **31 J** | 2 | 2 U | **5.7** | **5.3** | 80 U | **100** | **150 J** |
| 1,2,4-Trichlorobenzene | 5 | UG/L | | 50 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 100 U | 12 UJ | 12 U |
| 1,2,4-Trimethylbenzene | **5** | UG/L | | **200** | 4.8 | **7.3** | 4.8 | 4.6 | 100 U | **660** | **390** |
| 1,2-Dibromo-3-Chloropropane | 0.04 | UG/L | | 50 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 100 U | 12 U | 12 U |
| 1,2-Dibromoethane (Ethylene Dibromide) | -- | UG/L | | 40 U | 2 U | 2 U | 2 U | 2 U | 80 U | 10 U | 10 U |
| 1,2-Dichlorobenzene | 3 | UG/L | | 50 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 100 U | 12 U | 12 U |
| 1,2-Dichloroethane | **0.6** | UG/L | | 10 U | 0.5 U | 0.5 U | 0.43 J | 0.41 J | 20 U | 2.5 U | 2.5 U |
| 1,2-Dichloropropane | 1 | UG/L | | 20 U | 1 U | 1 U | 1 U | 1 U | 40 U | 5 U | 5 U |
| 1,3,5-Trimethylbenzene (Mesitylene) | **5** | UG/L | | **36 J** | 2 J | 4.2 | 0.71 J | 2.5 U | 100 U | **140** | **220** |
| 1,3-Dichlorobenzene | 3 | UG/L | | 50 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 100 U | 12 U | 12 U |
| 1,3-Dichloropropane | 5 | UG/L | | 50 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 100 U | 12 U | 12 U |
| 1,4-Dichlorobenzene | 3 | UG/L | | 50 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 100 U | 12 U | 12 U |
| 1,4-Diethyl Benzene | -- | UG/L | | 17 J | 2.1 | 5.2 | 5.4 | 5.1 | 49 J | 91 | 200 J |
| 1,4-Dioxane (P-Dioxane) | -- | UG/L | | 5000 U | 250 U | 250 R | 250 R | 250 R | 10000 U | 1200 U | 1200 R |
| 2,2-Dichloropropane | 5 | UG/L | | 50 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 100 U | 12 U | 12 U |
| 2-Chlorotoluene | 5 | UG/L | | 50 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 100 U | 12 U | 12 U |
| 2-Hexanone | 50 | UG/L | | 100 U | 5 U | 5 U | 5 U | 5 U | 200 U | 25 U | 25 U |
| 4-Chlorotoluene | 5 | UG/L | | 50 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 100 U | 12 U | 12 U |
| 4-Ethyltoluene | -- | UG/L | | 29 J | 2.7 | 5.4 | 2 | 1.7 J | 80 U | 280 | 240 |
| Acetone | 50 | UG/L | | 100 U | 5 U | 3.4 J | 9.2 U | 8.6 U | 200 U | 44 | 46 |
| Acrylonitrile | 5 | UG/L | | 100 U | 5 U | 5 U | 5 U | 5 U | 200 U | 25 U | 25 U |
| Benzene | **1** | UG/L | | **2700** | **26** | **6.4** | **86** | **89** | **1800** | **640** | **590** |
| Bromobenzene | 5 | UG/L | | 50 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 100 U | 12 U | 12 U |
| Bromochloromethane | 5 | UG/L | | 50 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 100 U | 12 U | 12 U |
| Bromodichloromethane | 50 | UG/L | | 10 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 20 U | 2.5 U | 2.5 U |

**Table 1. Summary of Volatile Organic Compounds in Groundwater, 5801 Amboy Road, Staten Island, New York**

| Parameter | NYSDEC Ambient Water Quality Guidance Values | Unit | Sample Designation: | MW-6 | MW-6 | MW-6 | MW-6 | MW_BP-11 | MW-11R | MW-11R |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date: | 09/16/2015 | 01/22/2021 | 03/28/2022 | 11/11/2022 | 09/17/2015 | 01/22/2021 | 03/28/2022 |
| | | | Normal or Field Duplicate: | N | N | N | N | FD | N | N | N |
| Bromoform | 50 | UG/L | | 40 U | 2 U | 2 U | 2 U | 2 U | 80 U | 10 U | 10 U |
| Bromomethane | 5 | UG/L | | 50 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 100 U | 12 U | 12 UJ |
| Carbon Disulfide | 60 | UG/L | | 100 U | 5 U | 5 U | 5 U | 5 U | 200 U | 25 U | 25 U |
| Carbon Tetrachloride | 5 | UG/L | | 10 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 20 U | 2.5 U | 2.5 U |
| Chlorobenzene | 5 | UG/L | | 50 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 100 U | 12 U | 12 U |
| Chloroethane | 5 | UG/L | | 50 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 100 U | 12 U | 12 U |
| Chloroform | 7 | UG/L | | 50 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 100 U | 12 U | 12 U |
| Chloromethane | -- | UG/L | | 50 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 100 U | 12 U | 12 U |
| Cis-1,2-Dichloroethylene | 5 | UG/L | | 50 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 100 U | 12 U | 12 U |
| Cis-1,3-Dichloropropene | 5 | UG/L | | 10 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 20 U | 2.5 U | 2.5 U |
| Cymene | **5** | UG/L | | 50 U | 2.5 U | 2.5 U | 1.3 J | 1.3 J | 100 U | **6.9 J** | **9.8 J** |
| Dibromochloromethane | 50 | UG/L | | 10 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 20 U | 2.5 U | 2.5 U |
| Dibromomethane | 5 | UG/L | | 100 U | 5 U | 5 U | 5 U | 5 U | 200 U | 25 U | 25 U |
| Dichlorodifluoromethane | 5 | UG/L | | 100 U | 5 U | 5 U | 5 U | 5 U | 200 U | 25 U | 25 U |
| Dichloroethylenes | 5 | UG/L | | 50 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 100 U | 12 U | 12 U |
| Diethyl Ether (Ethyl Ether) | -- | UG/L | | 50 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 100 U | 12 U | 12 U |
| Ethylbenzene | **5** | UG/L | | **540** | **5.9** | 3.6 | **25** | **23** | **32 J** | **670** | **280** |
| Hexachlorobutadiene | 0.5 | UG/L | | 50 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 100 U | 12 U | 12 U |
| Isopropylbenzene (Cumene) | **5** | UG/L | | **27 J** | 1.5 J | 2.8 | **23** | **22** | **56 J** | **110** | **70** |
| m,p-Xylene | **5** | UG/L | | **500** | **12** | 4.7 | **5.1** | 4.5 | **67 J** | **660** | **350** |
| Methyl Ethyl Ketone (2-Butanone) | 50 | UG/L | | 100 U | 5 U | 5 U | 5 U | 5 U | 200 U | 25 U | 25 U |
| Methyl Isobutyl Ketone (4-Methyl-2-Pentanone) | -- | UG/L | | 100 U | 5 U | 5 U | 5 U | 5 U | 200 U | 25 U | 25 U |
| Methylene Chloride | 5 | UG/L | | 50 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 100 U | 12 U | 12 U |
| Naphthalene | **10** | UG/L | | **190** | 1.1 J | 6.1 | 3.5 | 3.2 | 100 U | **210 J-** | **280** |
| N-Butylbenzene | **5** | UG/L | | 50 U | 2.5 U | 2.5 U | 2.4 J | 2.4 J | 100 U | **33** | **17** |
| N-Propylbenzene | **5** | UG/L | | **64** | 2.5 | **6.7** | **45** | **44** | **130** | **260** | **150 J** |
| O-Xylene (1,2-Dimethylbenzene) | **5** | UG/L | | **20 J** | 2.3 J | 2.5 U | **16** | **19** | 100 U | **13** | **14** |
| Sec-Butylbenzene | **5** | UG/L | | 50 U | 2.5 U | 2.5 U | 2.5 | 2.4 J | 100 U | **15** | **13** |
| Styrene | 5 | UG/L | | 50 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 100 U | 12 U | 12 U |
| T-Butylbenzene | 5 | UG/L | | 50 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 100 U | 12 U | 12 U |
| Tert-Butyl Methyl Ether | **10** | UG/L | | **97** | 0.97 J | 2.5 U | 4.4 | 4 | **120** | **51** | **34 J** |
| Tetrachloroethylene (PCE) | 5 | UG/L | | 10 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 20 U | 2.5 U | 2.5 U |
| Toluene | **5** | UG/L | | **55** | 1.2 J | 2.5 U | 3.1 | 3.1 | 100 U | **15** | **20** |
| Total, 1,3-Dichloropropene (Cis And Trans) | 0.4 | UG/L | | 10 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 20 U | 2.5 U | 2.5 U |

**Table 1. Summary of Volatile Organic Compounds in Groundwater, 5801 Amboy Road, Staten Island, New York**

| Parameter | NYSDEC Ambient Water Quality Guidance Values | Unit | Sample Designation: | MW-6 | MW-6 | MW-6 | MW-6 | MW_BP-11 | MW-11R | MW-11R |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date: | 09/16/2015 | 01/22/2021 | 03/28/2022 | 11/11/2022 | 09/17/2015 | 01/22/2021 | 03/28/2022 |
| | | | Normal or Field Duplicate: | N | N | N | N | FD | N | N | N |
| Trans-1,2-Dichloroethene | 5 | UG/L | | 50 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 100 U | 12 U | 12 UJ |
| Trans-1,3-Dichloropropene | -- | UG/L | | 10 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 20 U | 2.5 U | 2.5 U |
| Trans-1,4-Dichloro-2-Butene | -- | UG/L | | 50 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 100 U | 12 U | 12 U |
| Trichloroethylene (TCE) | 5 | UG/L | | 10 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 20 U | 2.5 U | 2.5 U |
| Trichlorofluoromethane | 5 | UG/L | | 50 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 100 U | 12 U | 12 U |
| Vinyl Acetate | -- | UG/L | | 100 U | 5 U | 5 U | 5 U | 5 U | 200 U | 25 U | 25 U |
| Vinyl Chloride | 2 | UG/L | | 20 U | 1 U | 1 U | 1 U | 1 U | 40 U | 5 U | 5 U |
| Xylenes | **5** | UG/L | | **520 J** | **14 J** | 4.7 | **21** | **24** | **67 J** | **670** | **360** |

**Table 1. Summary of Volatile Organic Compounds in Groundwater, 5801 Amboy Road, Staten Island, New York**

| Parameter | NYSDEC Ambient Water Quality Guidance Values | Unit | Sample Designation: | MW-11R | MW-19 | MW-19 | MW-19 | MW-19 | MW-19 | MW-20 | MW-20 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date: | 11/11/2022 | 05/11/2017 | 05/11/2017 | 01/22/2021 | 03/28/2022 | 11/11/2022 | 05/11/2017 | 01/22/2021 |
| | | | Normal or Field Duplicate: | N | N | FD | N | N | N | N | N |
| 1,1,1,2-Tetrachloroethane | 5 | UG/L | | 50 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 5 U | 2.5 U |
| 1,1,1-Trichloroethane (TCA) | 5 | UG/L | | 50 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 5 U | 2.5 U |
| 1,1,2,2-Tetrachloroethane | 5 | UG/L | | 10 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 1 U | 0.5 U |
| 1,1,2-Trichloroethane | 1 | UG/L | | 30 U | 1.5 U | 1.5 U | 1.5 U | 1.5 U | 1.5 U | 3 U | 1.5 U |
| 1,1-Dichloroethane | 5 | UG/L | | 50 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 5 U | 2.5 U |
| 1,1-Dichloroethene | 5 | UG/L | | 10 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 1 U | 0.5 U |
| 1,1-Dichloropropene | 5 | UG/L | | 50 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 5 U | 2.5 U |
| 1,2,3-Trichlorobenzene | 5 | UG/L | | 50 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 5 U | 2.5 U |
| 1,2,3-Trichloropropane | 0.04 | UG/L | | 50 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 5 U | 2.5 U |
| 1,2,4,5-Tetramethylbenzene | **5** | UG/L | | **140** | 0.72 J | 0.79 J | 2 U | 2 U | 2 U | **8** | 2 U |
| 1,2,4-Trichlorobenzene | 5 | UG/L | | 50 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 5 U | 2.5 U |
| 1,2,4-Trimethylbenzene | **5** | UG/L | | **700** | 3.1 | 3.1 | 2.5 U | 2.5 U | 2.5 U | **110** | 1.2 J |
| 1,2-Dibromo-3-Chloropropane | 0.04 | UG/L | | 50 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 5 U | 2.5 U |
| 1,2-Dibromoethane (Ethylene Dibromide) | -- | UG/L | | 40 U | 2 U | 2 U | 2 U | 2 U | 2 U | 4 U | 2 U |
| 1,2-Dichlorobenzene | 3 | UG/L | | 50 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 5 U | 2.5 U |
| 1,2-Dichloroethane | **0.6** | UG/L | | 10 U | 0.59 | **0.62** | 0.5 U | 0.5 U | 0.5 U | 1 U | 0.5 U |
| 1,2-Dichloropropane | 1 | UG/L | | 20 U | 1 U | 1 U | 1 U | 1 U | 1 U | 2 U | 1 U |
| 1,3,5-Trimethylbenzene (Mesitylene) | **5** | UG/L | | **180** | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | **27** | 2.5 U |
| 1,3-Dichlorobenzene | 3 | UG/L | | 50 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 5 U | 2.5 U |
| 1,3-Dichloropropane | 5 | UG/L | | 50 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 5 U | 2.5 U |
| 1,4-Dichlorobenzene | 3 | UG/L | | 50 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 5 U | 2.5 U |
| 1,4-Diethyl Benzene | -- | UG/L | | 120 | 2 U | 2 U | 2 U | 2 U | 2 U | 17 | 2 U |
| 1,4-Dioxane (P-Dioxane) | -- | UG/L | | 5000 R | 250 U | 250 U | 250 U | 250 R | 250 R | 500 U | 250 U |
| 2,2-Dichloropropane | 5 | UG/L | | 50 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 5 U | 2.5 U |
| 2-Chlorotoluene | 5 | UG/L | | 50 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 5 U | 2.5 U |
| 2-Hexanone | 50 | UG/L | | 100 U | 5 U | 5 U | 5 U | 5 U | 5 U | 10 U | 5 U |
| 4-Chlorotoluene | 5 | UG/L | | 50 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 5 U | 2.5 U |
| 4-Ethyltoluene | -- | UG/L | | 340 | 1.5 J | 1.6 J | 2 U | 2 U | 2 U | 50 | 2 U |
| Acetone | 50 | UG/L | | 100 U | 3.8 J | 3.7 J | 5 U | 5 U | 5 U | 30 | 5 U |
| Acrylonitrile | 5 | UG/L | | 100 U | 5 U | 5 U | 5 U | 5 U | 5 U | 10 U | 5 U |
| Benzene | **1** | UG/L | | **2100** | **3.5** | **3.5** | 0.5 U | 0.5 U | 0.5 U | **100** | **3.1** |
| Bromobenzene | 5 | UG/L | | 50 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 5 U | 2.5 U |
| Bromochloromethane | 5 | UG/L | | 50 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 5 U | 2.5 U |
| Bromodichloromethane | 50 | UG/L | | 10 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 1 U | 0.5 U |

**Table 1. Summary of Volatile Organic Compounds in Groundwater, 5801 Amboy Road, Staten Island, New York**

| Parameter | NYSDEC Ambient Water Quality Guidance Values | Unit | Sample Designation: | MW-11R | MW-19 | MW-19 | MW-19 | MW-19 | MW-19 | MW-20 | MW-20 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date: | 11/11/2022 | 05/11/2017 | 05/11/2017 | 01/22/2021 | 03/28/2022 | 11/11/2022 | 05/11/2017 | 01/22/2021 |
| | | | Normal or Field Duplicate: | N | N | FD | N | N | N | N | N |
| Bromoform | 50 | UG/L | | 40 U | 2 U | 2 U | 2 U | 2 U | 2 U | 4 U | 2 U |
| Bromomethane | 5 | UG/L | | 50 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 1.4 J | 2.5 U |
| Carbon Disulfide | 60 | UG/L | | 100 U | 5 U | 5 U | 5 U | 5 U | 5 U | 10 U | 5 U |
| Carbon Tetrachloride | 5 | UG/L | | 10 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 1 U | 0.5 U |
| Chlorobenzene | 5 | UG/L | | 50 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 5 U | 2.5 U |
| Chloroethane | 5 | UG/L | | 50 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 5 U | 2.5 U |
| Chloroform | 7 | UG/L | | 50 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 5 U | 2.5 U |
| Chloromethane | -- | UG/L | | 50 U | 2.5 U | 2.5 U | 2.6 | 2.5 U | 2.5 U | 5 U | 2.5 U |
| Cis-1,2-Dichloroethylene | 5 | UG/L | | 50 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 5 U | 2.5 U |
| Cis-1,3-Dichloropropene | 5 | UG/L | | 10 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 1 U | 0.5 U |
| Cymene | **5** | UG/L | | **16 J** | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 5 U | 2.5 U |
| Dibromochloromethane | 50 | UG/L | | 10 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 1 U | 0.5 U |
| Dibromomethane | 5 | UG/L | | 100 U | 5 U | 5 U | 5 U | 5 U | 5 U | 10 U | 5 U |
| Dichlorodifluoromethane | 5 | UG/L | | 100 U | 5 U | 5 U | 5 U | 5 U | 5 U | 10 U | 5 U |
| Dichloroethylenes | 5 | UG/L | | 50 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 5 U | 2.5 U |
| Diethyl Ether (Ethyl Ether) | -- | UG/L | | 50 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 5 U | 2.5 U |
| Ethylbenzene | **5** | UG/L | | **720** | 2 J | 2 J | 2.5 U | 2.5 U | 2.5 U | **74** | 1.9 J |
| Hexachlorobutadiene | 0.5 | UG/L | | 50 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 5 U | 2.5 U |
| Isopropylbenzene (Cumene) | **5** | UG/L | | **110** | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | **6.3** | 0.71 J |
| m,p-Xylene | **5** | UG/L | | **860** | 2.5 | 2.3 J | 2.5 U | 2.5 U | 2.5 U | **160** | 2.5 U |
| Methyl Ethyl Ketone (2-Butanone) | 50 | UG/L | | 100 U | 5 U | 5 U | 5 U | 5 U | 5 U | 10 U | 5 U |
| Methyl Isobutyl Ketone (4-Methyl-2-Pentanone) | -- | UG/L | | 100 U | 5 U | 5 U | 5 U | 5 U | 5 U | 10 U | 5 U |
| Methylene Chloride | 5 | UG/L | | 50 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 5 U | 2.5 U |
| Naphthalene | **10** | UG/L | | **410** | 2.1 J | 1.4 J | 2.5 U | 2.5 U | 2.5 U | **25** | 2.5 U |
| N-Butylbenzene | **5** | UG/L | | **30 J** | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 3.5 J | 2.5 U |
| N-Propylbenzene | **5** | UG/L | | **290** | 0.84 J | 0.86 J | 2.5 U | 2.5 U | 2.5 U | **14** | 1.2 J |
| O-Xylene (1,2-Dimethylbenzene) | **5** | UG/L | | **36 J** | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | **18** | 2.5 U |
| Sec-Butylbenzene | **5** | UG/L | | **22 J** | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 5 U | 2.5 U |
| Styrene | 5 | UG/L | | 50 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 5 U | 2.5 U |
| T-Butylbenzene | 5 | UG/L | | 50 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 5 U | 2.5 U |
| Tert-Butyl Methyl Ether | **10** | UG/L | | **190** | 3.4 | 3.4 | 2.5 U | 2.5 U | 2.5 U | **33** | 2.5 U |
| Tetrachloroethylene (PCE) | 5 | UG/L | | 10 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 1 U | 0.5 U |
| Toluene | **5** | UG/L | | **94** | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | **9.9** | 2.5 U |
| Total, 1,3-Dichloropropene (Cis And Trans) | 0.4 | UG/L | | 10 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 1 U | 0.5 U |

**Table 1. Summary of Volatile Organic Compounds in Groundwater, 5801 Amboy Road, Staten Island, New York**

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Sample Designation: | MW-11R | MW-19 | MW-19 | MW-19 | MW-19 | MW-19 | MW-20 | MW-20 |
| | | Sample Date: | 11/11/2022 | 05/11/2017 | 05/11/2017 | 01/22/2021 | 03/28/2022 | 11/11/2022 | 05/11/2017 | 01/22/2021 |
| | | Normal or Field Duplicate: | N | N | FD | N | N | N | N | N |
| Parameter | NYSDEC Ambient Water Quality Guidance Values | Unit | | | | | | | | |
| Trans-1,2-Dichloroethene | 5 | UG/L | 50 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 5 U | 2.5 U |
| Trans-1,3-Dichloropropene | -- | UG/L | 10 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 1 U | 0.5 U |
| Trans-1,4-Dichloro-2-Butene | -- | UG/L | 50 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 5 U | 2.5 U |
| Trichloroethylene (TCE) | 5 | UG/L | 10 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 1 U | 0.5 U |
| Trichlorofluoromethane | 5 | UG/L | 50 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 5 U | 2.5 U |
| Vinyl Acetate | -- | UG/L | 100 U | 5 U | 5 U | 5 U | 5 U | 5 U | 10 U | 5 U |
| Vinyl Chloride | 2 | UG/L | 20 U | 1 U | 1 U | 1 U | 1 U | 1 U | 2 U | 1 U |
| Xylenes | **5** | UG/L | **900 J** | 2.5 | 2.3 J | 2.5 U | 2.5 U | 2.5 U | **180** | 2.5 U |

**Table 1. Summary of Volatile Organic Compounds in Groundwater, 5801 Amboy Road, Staten Island, New York**

| Parameter | NYSDEC Ambient Water Quality Guidance Values | Unit | Sample Designation: MW-20 | MW-20 | MW-20 | MW-20 |
|---|---|---|---|---|---|---|
| | | | Sample Date: 01/22/2021 | 03/28/2022 | 03/28/2022 | 11/11/2022 |
| | | | Normal or Field Duplicate: FD | N | FD | N |
| 1,1,1,2-Tetrachloroethane | 5 | UG/L | 2.5 U | 2.5 U | 2.5 U | 2.5 U |
| 1,1,1-Trichloroethane (TCA) | 5 | UG/L | 2.5 U | 2.5 U | 2.5 U | 2.5 U |
| 1,1,2,2-Tetrachloroethane | 5 | UG/L | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| 1,1,2-Trichloroethane | 1 | UG/L | 1.5 U | 1.5 U | 1.5 U | 1.5 U |
| 1,1-Dichloroethane | 5 | UG/L | 2.5 U | 2.5 U | 2.5 U | 2.5 U |
| 1,1-Dichloroethene | 5 | UG/L | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| 1,1-Dichloropropene | 5 | UG/L | 2.5 U | 2.5 U | 2.5 U | 2.5 U |
| 1,2,3-Trichlorobenzene | 5 | UG/L | 2.5 U | 2.5 U | 2.5 U | 2.5 U |
| 1,2,3-Trichloropropane | 0.04 | UG/L | 2.5 U | 2.5 U | 2.5 U | 2.5 U |
| 1,2,4,5-Tetramethylbenzene | **5** | UG/L | 2 U | **5.1** | 2 U | 1.1 J |
| 1,2,4-Trichlorobenzene | 5 | UG/L | 2.5 U | 2.5 U | 2.5 U | 2.5 U |
| 1,2,4-Trimethylbenzene | **5** | UG/L | 1 J | **13** | **12** | 2.5 U |
| 1,2-Dibromo-3-Chloropropane | 0.04 | UG/L | 2.5 U | 2.5 U | 2.5 U | 2.5 U |
| 1,2-Dibromoethane (Ethylene Dibromide) | -- | UG/L | 2 U | 2 U | 2 U | 2 U |
| 1,2-Dichlorobenzene | 3 | UG/L | 2.5 U | 2.5 U | 2.5 U | 2.5 U |
| 1,2-Dichloroethane | **0.6** | UG/L | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| 1,2-Dichloropropane | 1 | UG/L | 1 U | 1 U | 1 U | 1 U |
| 1,3,5-Trimethylbenzene (Mesitylene) | **5** | UG/L | 2.5 U | **7.4** | **6.6** | 2.5 U |
| 1,3-Dichlorobenzene | 3 | UG/L | 2.5 U | 2.5 U | 2.5 U | 2.5 U |
| 1,3-Dichloropropane | 5 | UG/L | 2.5 U | 2.5 U | 2.5 U | 2.5 U |
| 1,4-Dichlorobenzene | 3 | UG/L | 2.5 U | 2.5 U | 2.5 U | 2.5 U |
| 1,4-Diethyl Benzene | -- | UG/L | 2 U | 6 | 5.4 | 2 U |
| 1,4-Dioxane (P-Dioxane) | -- | UG/L | 250 U | 250 R | 250 R | 250 R |
| 2,2-Dichloropropane | 5 | UG/L | 2.5 U | 2.5 U | 2.5 U | 2.5 U |
| 2-Chlorotoluene | 5 | UG/L | 2.5 U | 2.5 U | 2.5 U | 2.5 U |
| 2-Hexanone | 50 | UG/L | 5 U | 5 U | 5 U | 5 U |
| 4-Chlorotoluene | 5 | UG/L | 2.5 U | 2.5 U | 2.5 U | 2.5 U |
| 4-Ethyltoluene | -- | UG/L | 2 U | 8.7 | 7.8 | 2 U |
| Acetone | 50 | UG/L | 5 U | 5 U | 5 U | 5 U |
| Acrylonitrile | 5 | UG/L | 5 U | 5 U | 5 U | 5 U |
| Benzene | **1** | UG/L | **2.5** | **4.5** | **4.3** | 0.4 J |
| Bromobenzene | 5 | UG/L | 2.5 U | 2.5 U | 2.5 U | 2.5 U |
| Bromochloromethane | 5 | UG/L | 2.5 U | 2.5 U | 2.5 U | 2.5 U |
| Bromodichloromethane | 50 | UG/L | 0.5 U | 0.5 U | 0.5 U | 0.5 U |

**Table 1. Summary of Volatile Organic Compounds in Groundwater, 5801 Amboy Road, Staten Island, New York**

| Parameter | NYSDEC Ambient Water Quality Guidance Values | Unit | MW-20 01/22/2021 FD | MW-20 03/28/2022 N | MW-20 03/28/2022 FD | MW-20 11/11/2022 N |
|---|---|---|---|---|---|---|
| Bromoform | 50 | UG/L | 2 U | 2 U | 2 U | 2 U |
| Bromomethane | 5 | UG/L | 2.5 U | 2.5 U | 2.5 U | 2.5 U |
| Carbon Disulfide | 60 | UG/L | 5 U | 5 U | 5 U | 5 U |
| Carbon Tetrachloride | 5 | UG/L | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| Chlorobenzene | 5 | UG/L | 2.5 U | 2.5 U | 2.5 U | 2.5 U |
| Chloroethane | 5 | UG/L | 2.5 U | 2.5 U | 2.5 U | 2.5 U |
| Chloroform | 7 | UG/L | 2.5 U | 2.5 U | 2.5 U | 2.5 U |
| Chloromethane | -- | UG/L | 2.5 U | 2.5 U | 2.5 U | 2.5 U |
| Cis-1,2-Dichloroethylene | 5 | UG/L | 2.5 U | 2.5 U | 2.5 U | 2.5 U |
| Cis-1,3-Dichloropropene | 5 | UG/L | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| Cymene | **5** | UG/L | 2.5 U | 2.5 U | 2.5 U | 2.5 U |
| Dibromochloromethane | 50 | UG/L | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| Dibromomethane | 5 | UG/L | 5 U | 5 U | 5 U | 5 U |
| Dichlorodifluoromethane | 5 | UG/L | 5 U | 5 U | 5 U | 5 U |
| Dichloroethylenes | 5 | UG/L | 2.5 U | 2.5 U | 2.5 U | 2.5 U |
| Diethyl Ether (Ethyl Ether) | -- | UG/L | 2.5 U | 2.5 U | 2.5 U | 2.5 U |
| Ethylbenzene | **5** | UG/L | 1.6 J | **6.5** | **6.3** | 2.5 U |
| Hexachlorobutadiene | 0.5 | UG/L | 2.5 U | 2.5 U | 2.5 U | 2.5 U |
| Isopropylbenzene (Cumene) | **5** | UG/L | 2.5 U | 2.3 J | 2 J | 2.5 U |
| m,p-Xylene | **5** | UG/L | 2.5 U | **9.4** | **9** | 2.5 U |
| Methyl Ethyl Ketone (2-Butanone) | 50 | UG/L | 5 U | 5 U | 5 U | 5 U |
| Methyl Isobutyl Ketone (4-Methyl-2-Pentanone) | -- | UG/L | 5 U | 5 U | 5 U | 5 U |
| Methylene Chloride | 5 | UG/L | 2.5 U | 2.5 U | 2.5 U | 2.5 U |
| Naphthalene | **10** | UG/L | 2.5 U | 10 | 9.2 | 2.5 U |
| N-Butylbenzene | **5** | UG/L | 2.5 U | 2.5 U | 2.5 U | 2.5 U |
| N-Propylbenzene | **5** | UG/L | 0.95 J | **5.7** | **5.1** | 2.5 U |
| O-Xylene (1,2-Dimethylbenzene) | **5** | UG/L | 2.5 U | 2.5 U | 2.5 U | 2.5 U |
| Sec-Butylbenzene | **5** | UG/L | 2.5 U | 2.5 U | 2.5 U | 2.5 U |
| Styrene | 5 | UG/L | 2.5 U | 2.5 U | 2.5 U | 2.5 U |
| T-Butylbenzene | 5 | UG/L | 2.5 U | 2.5 U | 2.5 U | 2.5 U |
| Tert-Butyl Methyl Ether | **10** | UG/L | 2.5 U | 2.5 U | 2.5 U | 2.5 U |
| Tetrachloroethylene (PCE) | 5 | UG/L | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| Toluene | **5** | UG/L | 2.5 U | 2.5 U | 2.5 U | 2.5 U |
| Total, 1,3-Dichloropropene (Cis And Trans) | 0.4 | UG/L | 0.5 U | 0.5 U | 0.5 U | 0.5 U |

**Table 1. Summary of Volatile Organic Compounds in Groundwater, 5801 Amboy Road, Staten Island, New York**

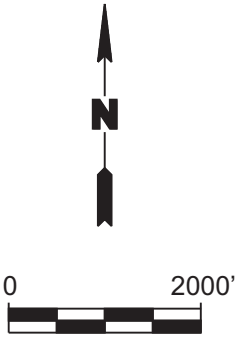
| | Sample Designation: | | MW-20 | MW-20 | MW-20 | MW-20 |
|---|---|---|---|---|---|---|
| | Sample Date: | | 01/22/2021 | 03/28/2022 | 03/28/2022 | 11/11/2022 |
| | Normal or Field Duplicate: | | FD | N | FD | N |
| Parameter | NYSDEC Ambient Water Quality Guidance Values | Unit | | | | |
| Trans-1,2-Dichloroethene | 5 | UG/L | 2.5 U | 2.5 U | 2.5 U | 2.5 U |
| Trans-1,3-Dichloropropene | -- | UG/L | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| Trans-1,4-Dichloro-2-Butene | -- | UG/L | 2.5 U | 2.5 U | 2.5 U | 2.5 U |
| Trichloroethylene (TCE) | 5 | UG/L | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| Trichlorofluoromethane | 5 | UG/L | 2.5 U | 2.5 U | 2.5 U | 2.5 U |
| Vinyl Acetate | -- | UG/L | 5 U | 5 U | 5 U | 5 U |
| Vinyl Chloride | 2 | UG/L | 1 U | 1 U | 1 U | 1 U |
| Xylenes | **5** | UG/L | 2.5 U | **9.4** | **9** | 2.5 U |

# FIGURES

1. Site Location
2. Site Plan


QUADRANGLE LOCATION


SOURCE:
USGS; 2013, Arthur Kill, NY-NJ
7.5 Minute Topographic Quadrangle




Title:

# SITE LOCATION MAP

5801 AMBOY ROAD
STATEN ISLAND, NEW YORK

Prepared for:

SHORE TO SHORE FOSTER LLC

ROUX

| | | | |
|---|---|---|---|
| Compiled by: W.S. | Date: 09MAY23 | FIGURE |
| Prepared by: G.M. | Scale: AS SHOWN | 1 |
| Project Mgr: N.C. | Project: 2508.0001Y003 | |
| File: 2508.0001Y174.01.CDR | | |

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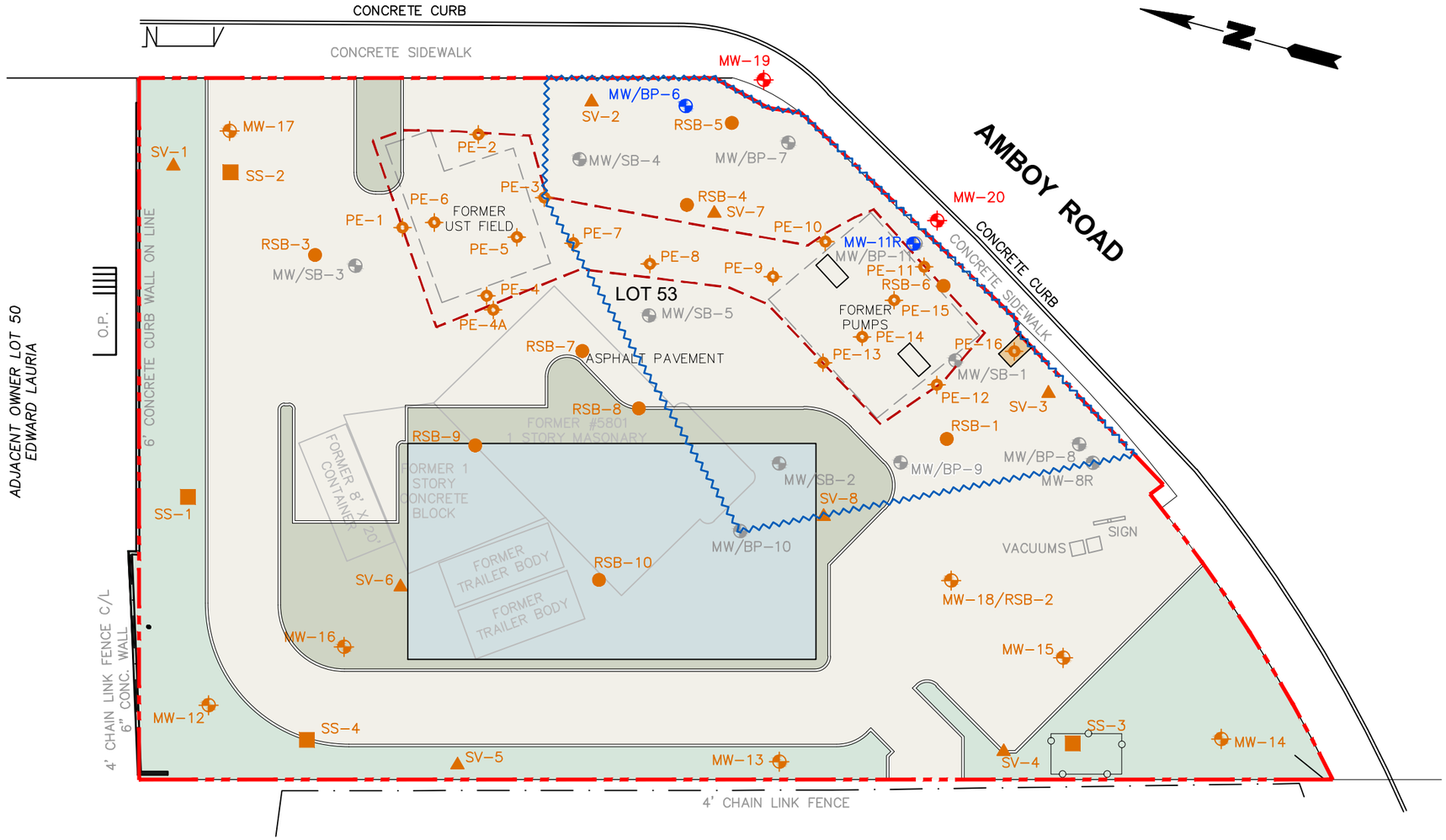


*ADJACENT OWNER LOT 39*
*LAND OF THE CITY OF NEW YORK N.Y.C.D.E.P.*
*A.K.A. FRESHWATER WETLAND (AR-37 SCUDDER AMBOY)*

LEGEND

- BOUNDARY OF BROWNFIELD CLEANUP SITE
- MW/SB-1 — LOCATION AND DESIGNATION OF MONITORING WELL/SOIL BORING (INSTALLED BY TYREE BROTHERS) – ABANDONED
- MW-12 — LOCATION AND DESIGNATION OF MONITORING WELL INSTALLED BY ROUX ASSOCIATES (2015) – ABANDONED
- SV-5 — LOCATION AND DESIGNATION OF SOIL VAPOR SAMPLE POINT INSTALLED BY ROUX ASSOCIATES (2015)
- RSB-3 — LOCATION AND DESIGNATION OF SOIL BORING INSTALLED BY ROUX ASSOCIATES (2015)
- SS-1 — LOCATION AND DESIGNATION OF SHALLOW SOIL SAMPLE (0–2 INCHES) INSTALLED BY ROUX ASSOCIATES (2015)
- PE-1 — LOCATION AND DESIGNATION OF POST-EXCAVATION SAMPLE COLLECTED BY ROUX ASSOCIATES (2015 AND 2018)
- MW/BP-6 — LOCATION AND DESIGNATION OF EXISTING MONITORING WELL MAINTAINED AND USED FOR INTRODUCTION OF DYE
- MW-19 — LOCATION AND DESIGNATION OF OFF-SITE MONITORING WELL
- EXTENT OF 2015 IRM EXCAVATION AREA
- SEALED SHEET PILE CONTAINMENT WALL TO 25 FT BLS FOR PETROLEUM SOURCE AREA (SEE DETAIL 5 AND NOTE 5 ON PLATE 2)
- SITE COVER SYSTEM: CONCRETE BUILDING FOUNDATION (SEE DETAIL 1 ON PLATE 2)
- SITE COVER SYSTEM: CONCRETE WALKWAYS AND SIDEWALKS (SEE DETAIL 2 ON PLATE 2)
- SITE COVER SYSTEM: ASPHALT PARKING AREAS (SEE DETAIL 3 ON PLATE 2)
- SITE COVER SYSTEM: LANDSCAPED AREAS (SEE DETAIL 4 AND NOTE 2 ON PLATE 2)
- SSDS EQUIPMENT ENCLOSURE WITH CHAINLINK PRIVACY FENCE (SEE NOTE 3 ON PLATE 2)
- SITE REDEVELOPMENT FEATURES
- 2018 UST REMOVAL AREA

POST – EXCAVATION SAMPLE KEY

| Location ID | Sample ID |
|---|---|
| PE-1 | Tank North Wall |
| PE-2 | Tank East Wall |
| PE-3 | Tank South Wall |
| PE-4 | Tank West Wall |
| PE-4A | West Wall |
| PE-5 | Tank Bottom South |
| PE-6 | Tank Bottom North |
| PE-7 | Piping @ Tank Pit / Piping at Tank |
| PE-8 | Piping @ 15 Tank Pit |
| PE-9 | Piping @ Pump Pit |
| PE-10 | Pump East Wall |
| PE-11 | Pump South Wall |
| PE-12 | Pump West Wall |
| PE-13 | Pump North Wall |
| PE-14 | Pump Bottom North |
| PE-15 | Pump Bottom South |
| PE-16 | UST_Bottom |

20' 0 20'

NOTES

1. BASE MAP ADAPTED FROM MAP SURVEY OF PROPERTY IN THE BOROUGH OF STATEN ISLAND, CITY OF NEW YORK GENERATED BY RAJAKARUNA & ETTLINGER P.C. CONSULTING ENGINEERS AND CITY SURVEYORS JANUARY 1, 2015).
2. MW/BP-11 WAS DESTROYED AND REPLACED WITH MW-11R.

IRM – INTERIM REMEDIAL MEASURE
UST – UNDERGROUND STORAGE TANK
SSDS – SUB-SLAB DEPRESSURIZATION SYSTEM
FT BLS – FEET BELOW LAND SURFACE (PRE-REMEDIATION/ PRE-CONSTRUCTION)

Title:

# SITE PLAN

5801 AMBOY ROAD
STATEN ISLAND, NEW YORK

Prepared for:
SHORE TO SHORE FOSTER LLC

ROUX

| | | |
|---|---|---|
| Compiled by: N.C. | Date: 09MAY23 | FIGURE |
| Prepared by: G.M. | Scale: AS SHOWN | 2 |
| Project Mgr: N.C. | Project: 2508.0001Y003 | |
| File: 2508.0001Y174.02.DWG | | |

V:\CAD\PROJECTS\2508Y\0001Y\174\2508.0001Y174.02.DWG

# APPENDICES

A. IC and EC Certification Form
B. SSDS Shutdown Notification
C. Annual Site Inspection Checklist
D. Annual Inspection Photograph Log
E. Groundwater Sampling Reports and DUSRs
F. SSDS O&M Logs

# APPENDIX A

IC and EC Certification Form

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

**Site Details** **Box 1**

**Site No.** **C243041**

**Site Name Former CJ's Service Center Property**

Site Address: 5801 Amboy Road Zip Code: 10309
City/Town: Staten Island
County: Richmond
Site Acreage: 0.375

Reporting Period: April 18, 2022 to April 18, 2023

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

**Box 2**

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

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

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

May 17th, 2023

Signature of Owner, Remedial Party or Designated Representative

**Box 2A**

| | YES | NO |
|---|---|---|
| 8. Has any new information revealed that assumptions made in the Qualitative Exposure Assessment regarding offsite contamination are no longer valid? | ☐ | X |

**If you answered YES to question 8, include documentation or evidence that documentation has been previously submitted with this certification form.**

| | | |
|---|---|---|
| 9. Are the assumptions in the Qualitative Exposure Assessment still valid? (The Qualitative Exposure Assessment must be certified every five years) | X | ☐ |

**If you answered NO to question 9, the Periodic Review Report must include an updated Qualitative Exposure Assessment based on the new assumptions.**

**SITE NO. C243041** **Box 3**

**Description of Institutional Controls**

| Parcel | Owner | Institutional Control |
|---|---|---|
| **28-6896-53** | Shore to Shore Foster LLC | Ground Water Use Restriction<br>Landuse Restriction<br>Site Management Plan<br>IC/EC Plan |

The property may be used for: Restricted Residential; and less restrictive uses, such as Commercial use. All ECs must be operated, maintained and inspected at a frequency and in a manner defined in the SMP. The use of groundwater underlying the property is prohibited without necessary water quality treatment. Groundwater and other environmental or public health monitoring must be performed as defined in this SMP.

Data and information pertinent to site management must be reported at the frequency and in a manner as defined in this SMP. All future activities that will disturb remaining contaminated material must be conducted in accordance with this SMP. Monitoring to assess the performance and effectiveness of the remedy must be performed as defined in this SMP. Operation, maintenance, monitoring, inspection, and reporting of any mechanical or physical component of the remedy shall be performed as defined in this SMP. Access to the Site must be provided to agents, employees or other representatives of the State of New York with reasonable prior notice to the property owner to assure compliance with the restrictions identified by the Environmental Easement. The potential for vapor intrusion must be evaluated for any buildings developed in the area within the IC boundaries noted on the survey included in the Environmental Easement. Any potential impacts that are identified must be monitored or mitigated. Vegetable gardens and farming on the Site are prohibited, except in raised planters.

**Box 4**

**Description of Engineering Controls**

| Parcel | Engineering Control |
|---|---|
| **28-6896-53** | Vapor Mitigation<br>Cover System<br>Groundwater Containment<br>Monitoring Wells |

Site Cover (or Cap) Exposure to remaining contamination at the Site is prevented by a cover system placed over the Site. This cover system is comprised of a minimum of 24 inches of clean soil in landscaped areas, asphalt pavement, concrete-covered sidewalks, and concrete building slabs

Sealed Sheet Pile Containment Wall Around the Petroleum Source Area: A sealed sheet pile containment wall was installed around the petroleum source area of concern.

| Parcel | Engineering Control |
|---|---|
| Sub-slab Depressurization System (SSDS): The active SSDS includes a network of perforated PVC pipes creating a vacuum influence beneath the Site building slab, which are connected to solid PVC piping and a 1.5 horsepower vacuum blower. A 20-mil vapor barrier was installed below the building foundation slab as a protective measure against soil 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 Engineering Control certification;

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

| YES | NO |
|---|---|
| X | ☐ |

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

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

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

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

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

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

| YES | NO |
|---|---|
| X | ☐ |

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

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

Signature of Owner, Remedial Party or Designated Representative

May 17th, 2023
Date

**IC CERTIFICATIONS**
**SITE NO. C243041**

**Box 6**

**SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE**

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

I _____Guy Pennisi_____ at _____15 Page Avenue, Staten Island, New York ,10309_____,
print name print business address

am certifying as _____Guy Pennisi_____(Owner or Remedial Party)

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

_____ ___May 17th, 2023_____
Signature of Owner, Remedial Party, or Designated Representative Date
Rendering Certification

## EC CERTIFICATIONS

**Box 7**

### Professional Engineer Signature

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

I Noelle Clarke at 209 Shafter St, Islandia, NY
print name print business address

am certifying as a Professional Engineer for the Owner
(Owner or Remedial Party)


Signature of Professional Engineer, for the Owner or Remedial Party, Rendering Certification

Stamp (Required for PE)

8/8/2023
Date

# APPENDIX B

SSDS Shutdown Notification

**From:** Noelle Clarke
**Sent:** Tuesday, December 27, 2022 10:17 AM
**To:** Ahmed, Sadique (DEC)
**Cc:** Sarah Stern
**Subject:** Former CJs Service Station (C243041) - SSDS Shutdown Notification

Hello Sadique,

I hope you enjoyed some time off. This email is to notify you that the SSDS at the above site shut down at 1:46 AM on December 26. A visit to the site was made later that morning. The cause of the shutdown was a high level in the knockout tank, however due to the extremely cold temperatures (19 to 22 degrees), the knockout tank froze solid and could not be drained. As such, the system could not be restarted. The temperatures are forecast to remain below or near freezing until Thursday this week. The volunteer will periodically visit the site and attempt to drain the tank and restart the system. I will notify you once it is restarted.

Thanks

Noelle

**Noelle M. Clarke, P.E. – NY | Principal Engineer**
209 Shafter Street, Islandia, New York 11749
Main: 631-232-2600 | Direct: 631-630-2341| Mobile: 631-807-6523
Email: nclarke@rouxinc.com | Website: www.rouxinc.com

ROUX

**California | Illinois | Massachusetts | New Jersey | New York | Texas | Virginia**

**From:** Noelle Clarke
**Sent:** Wednesday, December 28, 2022 1:45 PM
**To:** Ahmed, Sadique (DEC)
**Cc:** Sarah Stern
**Subject:** RE: Former CJs Service Station (C243041) - SSDS Startup Notification

Hi Sadique,

The volunteer was able to thaw the knockout tank and restart the system this afternoon. It was down for 2.5 days.

Thanks

**Noelle M. Clarke, P.E. – NY | Principal Engineer**
209 Shafter Street, Islandia, New York 11749
Main: 631-232-2600 | Direct: 631-630-2341| Mobile: 631-807-6523
Email: nclarke@rouxinc.com | Website: www.rouxinc.com

ROUX

**California | Illinois | Massachusetts | New Jersey | New York | Texas | Virginia**



---

**From:** Noelle Clarke
**Sent:** Tuesday, December 27, 2022 10:17 AM
**To:** Ahmed, Sadique (DEC) <sadique.ahmed@dec.ny.gov>
**Cc:** Sarah Stern <sstern@rouxinc.com>
**Subject:** Former CJs Service Station (C243041) - SSDS Shutdown Notification

Hello Sadique,

I hope you enjoyed some time off. This email is to notify you that the SSDS at the above site shut down at 1:46 AM on December 26. A visit to the site was made later that morning. The cause of the shutdown was a high level in the knockout tank, however due to the extremely cold temperatures (19 to 22 degrees), the knockout tank froze solid and could not be drained. As such, the system could not be restarted. The temperatures are forecast to remain below or near freezing until Thursday this week. The volunteer will periodically visit the site and attempt to drain the tank and restart the system. I will notify you once it is restarted.

Thanks

Noelle

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Main: 631-232-2600 | Direct: 631-630-2341| Mobile: 631-807-6523
Email: nclarke@rouxinc.com | Website: www.rouxinc.com

ROUX

**California | Illinois | Massachusetts | New Jersey | New York | Texas | Virginia**

Please consider the environment before printing this email.

# APPENDIX C

Annual Site Inspection Checklist

Site Inspection Checklist, Former CJs Service Center, 5801 Amboy Road, Staten Island, NY

Date: 3-9-23

Completed By: ALFREDO FERNANDEZ

| Description | Status: Ok | Status: Action Req. | Status: N/A | Actions Taken / Comments |
|---|---|---|---|---|
| **Site Cover System** | | | | |
| 1 Inspect site cover system for cracks and leaks. | ✓ | | | |
| **Sub-Slab Depressurization System Blower** | | | | |
| **A. Aboveground Piping** | | | | |
| 1 Inspect aboveground piping for cracks, leaks and support issues. | ✓ | | | |
| 2 Inspect vacuum/pressure gauges and flowmeters for proper operation. | ✓ | | | |
| **B. Electrical** | | | | |
| 1 Check that the electrical control panel is closed/secured. | ✓ | | | |
| 2 Confirm that the alarm light is functioning properly. | ✓ | | | |
| **C. Blower Enclosure** | | | | |
| 1 Inspect condition of exhaust fan, thermostat and louver. | ✓ | | | |
| **D. Moisture Knock-out Tank** | | | | |
| 1 Check condition of vacuum filter. | ✓ | | | |
| 2 Check dilution valve for noises or leaks. | ✓ | | | |
| 4 Check for presence of water in knockout tank. | ✓ | | | DRAINED APPROX. 2 GAL OF WATER |
| **E. Vapor Phase Granular Activated Carbon Units (If Installed)** | | | ✓ | NO GACs INSTALLED |
| 1 Inspect and check pressure gauges. | | | | |
| 2 Check for any leaks on piping, fittings, etc. | | | ✓ | |
| **Institutional Controls** | | | | |
| 1 Confirm that the site usage is in compliance with the institutional controls. | ✓ | | | |
| **Site Records** | | | | |
| 1 Inspect site records and confirm that they are up to date (e.g., Site Inspection Checklists and Sub-Slab Depressurization System Operations Logs, sampling logs, etc.) | ✓ | | | |

# APPENDIX D

Annual Inspection Photograph Log


**Photograph 1:** Cleaning Supplies.

**Photograph 2:** View of Site Cover System looking south.


**Photograph 3:** View of Site building and asphalt cover looking north.

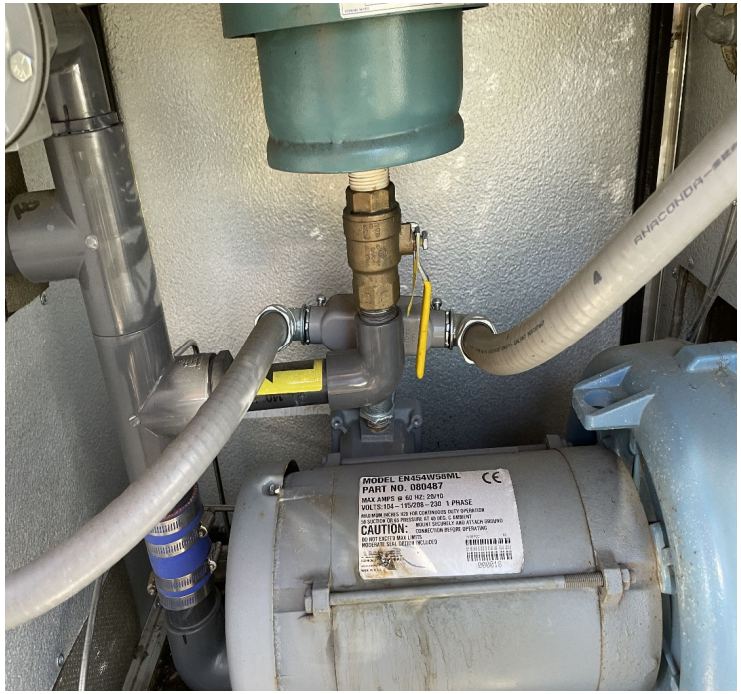

**Photograph 4:** View of Site Cover System and concrete sidewalk with off-Site monitoring wells looking northeast.

**Photograph 5:** View of Site building and concrete/asphalt cover looking south.

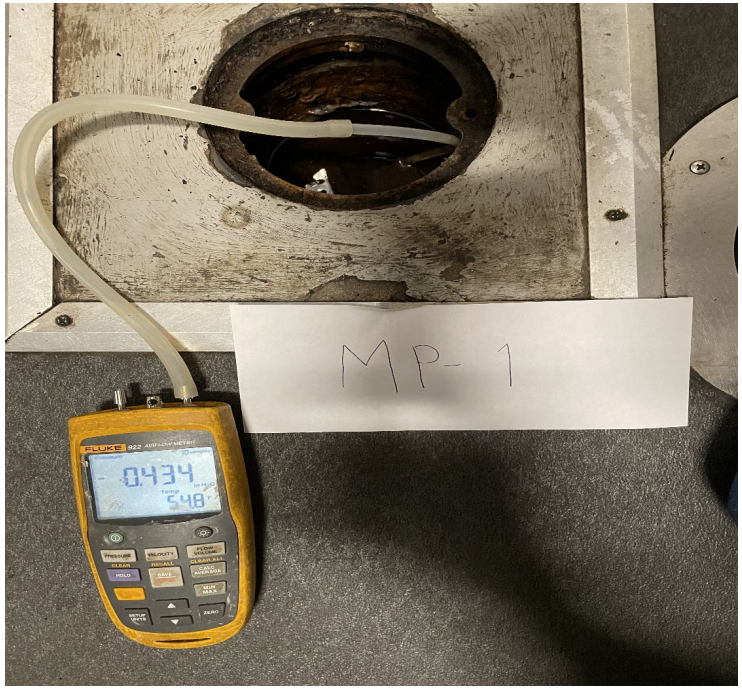

**Photograph 6:** View of Site Cover Looking Northwest and MW-6 (on-Site well) and MW-19 (off-Site well).


**Photograph 7:** View of SSDS runtime meter and running light.

**Photograph 8:** View of SSDS.




**Photograph 9:** View of SSDS blower.




**Photograph 10:** Vacuum reading at MP-1 during the March 9, 2023 inspection.


**Photograph 11:** Vacuum reading at MP-2 during the March 9, 2023 inspection.


**Photograph 12:** Vacuum reading at MP-3 during the March 9, 2023 inspection.

# APPENDIX E

Groundwater Sampling Reports and DUSRs

December 21, 2022

Sadique Ahmed, P.E.
Project Manager
New York State Department of Environmental Conservation
Division of Environmental Remediation
Remedial Bureau B, Section B
625 Broadway, 12th Floor
Albany, New York 12233-7016

Re: Groundwater Sampling and Dye Testing Event Summary
Site Management Plan Groundwater Monitoring Program and SSDS Monitoring
Former CJs Service Center Property
Site Number C243041
5801 Amboy Road, Staten Island, New York

Dear Mr. Ahmed:

This letter is to summarize the semi-annual groundwater sampling and dye testing activities at the site known as Former CJs Service Center Property located at 5801 Amboy Road, Staten Island, New York (Site). Shore to Shore Foster, LLC entered into a Brownfield Cleanup Agreement (BCA) with the New York State Department of Environmental Conservation (NYSDEC) on April 9, 2015 as a Volunteer (Site Number C243041). In accordance with the Site Management Plan (SMP) for the Site dated December 2020, Roux Environmental Engineering and Geology, D.P.C. (Roux) conducted groundwater sampling and dye testing in November 2022 on behalf of Shore to Shore Foster, LLC after the Certificate of Completion (COC) was issued by NYSDEC in December 2020. The first round of semi-annual groundwater sampling and dye testing was completed in March 2022, with a report issued in May 2022.

As described in the SMP, the constituents of concern for the Site in groundwater and soil vapor are petroleum related volatile organic compounds (VOCs). The remedy for the Site included the removal of separate phase product and source material soil as part of Interim Remedial Measures, installation of a groundwater containment system consisting of sealed sheet piles, a Site Cover System to prevent direct contact with remaining contamination and a sub-slab depressurization system (SSDS) to mitigate the potential for soil vapor intrusion into the Site building.

As per the SMP, the Site monitoring and sampling plan required groundwater sampling for VOCs and dye testing semi-annually for the first two years and annually thereafter. If, after ten years of monitoring, VOC concentration in groundwater is non-detect or reach asymptotic levels in the on-Site and off-Site wells, the Volunteer will request to discontinue monitoring. If, after ten years of dye testing, no dye is detected in the off-Site monitoring wells, the Volunteer will request to discontinue monitoring.

The network of monitoring wells includes two wells on-Site inside the groundwater containment (MW-6 and MW-11R) paired with two wells off-Site (MW-19 and MW-20), as shown on Plate 1.

2508.0001Y173/LR

***Dye Testing***

On November 11, 2022, groundwater was bailed prior to groundwater sampling from all four monitoring wells using dedicated bailers and was poured into dedicated clear glass jars before and after the introduction of non-toxic dye. Dye safety data sheets are included in Attachment 1. Photographs were taken (refer to Attachment 2) to assess for the presence or absence of dye. Dye was visible in MW-6

and MW-11R (on-Site wells), but not in MW-19 and MW-20 outside the containment. Following groundwater sampling activities, additional dye was added inside the containment. The dye is clearly present in the on-Site wells after the dye was introduced and is clearly not present in the off-Site wells.

The dye testing completed in November 2022 demonstrates that the groundwater containment system is effective at controlling off-Site migration of groundwater.

***Groundwater Sampling***

Semi-Annual Groundwater Sampling – November 11, 2022

On November 11, 2022, all four groundwater monitoring wells were sampled using a low-flow, peristaltic pump sampling technique and analyzed for VOCs by Alpha Analytical Laboratories in Westborough, Massachusetts.

The laboratory analytical report (including the chain-of-custody) and field sampling sheets are included as Attachments 3 and 4, respectively. A data usability summary report (DUSR) is provided in Attachment 5. Table 1 and Plate 1 show the results of the Remedial Investigation groundwater samples collected from the on-Site wells in September 2015, baseline groundwater samples collected from the off-Site wells in May 2017, and all post-COC sampling rounds from both on-Site and off-Site wells. Plate 1 includes only those parameters with at least one exceedance of NYSDEC Division of Water Technical and Operational Guidance Series 1.1.1 (TOGS 1.1.1.) Ambient Water Quality Standards and Guidance Values (AWQSGVs) at a particular well.

VOC Trends in On-Site Monitoring Wells

In On-Site groundwater monitoring well MW-6, concentrations of petroleum-related VOCs were higher in November 2022, as compared to March 2022; however, concentrations have significantly decreased since the baseline round in 2015. The number of parameters exceeding AWQSGVs has increased compared to March 2022, though has decreased since the baseline round in 2015.

In On-Site groundwater monitoring well MW-11R, concentrations generally increased in November 2022 compared to March 2022 and the baseline round in 2015. Concentrations have been somewhat variable since 2015. Though the reason for variability in concentrations is not known, MW-11R is closer to former pump islands, which were identified as the likely sources of the impacts present on-Site. As such, it is expected that concentrations are higher at MW-11R than MW-6.

VOC Trends in Off-Site Monitoring Wells

In Off-Site groundwater monitoring well MW-19 (paired with on-Site well MW-6), no VOCs were detected in March 2022 or November 2022.

In Off-Site groundwater monitoring well MW-20 (paired with on-Site well MW-11R), no VOCs were detected in November 2022, compared to the March 2022 samples, which had exceedances of AWQSGVs for some parameters. The variability in the offsite concentrations is likely due to residual impacts located outside of the BCP sites from historical operation of the service station.

The data from the off-Site monitoring wells indicates that the groundwater containment system is effective in controlling off-Site migration of petroleum-related contaminants.

***Continued Monitoring and Sampling***

As required by the SMP, dye testing and groundwater sampling will be changed to annually and will continue for at least ten years after issuance of the COC. The effectiveness of the groundwater remedy will be evaluated through the long-term groundwater sampling program. The next round of annual dye testing and groundwater sampling will be conducted in the Fourth Quarter of 2023.

Please do not hesitate to contact Noelle Clarke, P.E. or Sarah Stern at (631) 232-2600 if you have questions or require additional information.

Sincerely,

**ROUX ENVIRONMENTAL ENGINEERING AND GEOLOGY, D.P.C.**

Sarah Stern
Project Manager

Noelle M. Clarke, P.E.
Principal Engineer

Attachments

# TABLES

1. Summary of Volatile Organic Compounds in Groundwater

| Notes Utilized Throughout Tables | |
|---|---|
| **Groundwater Tables** | |
| J - | Estimated Value |
| U - | Compound was analyzed for but not detected |
| UJ - | Analyte was not detected. The associated reported quantitation limit is an estimate |
| J- - | Estimated value, low bias |
| R - | Sample results rejected by validator |
| FD - | Duplicate |
| µg/L - | Micrograms per liter |
| NYSDEC - | New York State Department of Environmental Conservation |
| AWQSGVs - | Ambient Water-Quality Standards and Guidance Values |
| -- | No NYSDEC AWQSGV available |
| Bold data indicates that parameter was detected above the NYSDEC AWQSGVs | |

**Table 1. Summary of Volatile Organic Compounds in Groundwater, 5801 Amboy Road, Staten Island, New York**

| Parameter | NYSDEC Ambient Water Quality Guidance Values | Unit | MW-6 09/16/2015 N | MW-6 01/22/2021 N | MW-6 03/28/2022 N | MW-6 11/11/2022 N | MW-6 11/11/2022 FD | MW_BP-11 09/17/2015 N | MW-11R 01/22/2021 N | MW-11R 03/28/2022 N |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | 5 | UG/L | 50 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 100 U | 12 U | 12 U |
| 1,1,1-Trichloroethane (TCA) | 5 | UG/L | 50 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 100 U | 12 U | 12 U |
| 1,1,2,2-Tetrachloroethane | 5 | UG/L | 10 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 20 U | 2.5 U | 2.5 U |
| 1,1,2-Trichloroethane | 1 | UG/L | 30 U | 1.5 U | 1.5 U | 1.5 U | 1.5 U | 60 U | 7.5 U | 7.5 U |
| 1,1-Dichloroethane | 5 | UG/L | 50 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 100 U | 12 U | 12 U |
| 1,1-Dichloroethene | 5 | UG/L | 10 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 20 U | 2.5 U | 2.5 U |
| 1,1-Dichloropropene | 5 | UG/L | 50 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 100 U | 12 U | 12 U |
| 1,2,3-Trichlorobenzene | 5 | UG/L | 50 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 100 U | 12 UJ | 12 U |
| 1,2,3-Trichloropropane | 0.04 | UG/L | 50 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 100 U | 12 U | 12 U |
| 1,2,4,5-Tetramethylbenzene | **5** | UG/L | **31 J** | 2 | 2 U | **5.7** | **5.3** | 80 U | **100** | **150 J** |
| 1,2,4-Trichlorobenzene | 5 | UG/L | 50 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 100 U | 12 UJ | 12 U |
| 1,2,4-Trimethylbenzene | **5** | UG/L | **200** | 4.8 | **7.3** | 4.8 | 4.6 | 100 U | **660** | **390** |
| 1,2-Dibromo-3-Chloropropane | 0.04 | UG/L | 50 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 100 U | 12 U | 12 U |
| 1,2-Dibromoethane (Ethylene Dibromide) | -- | UG/L | 40 U | 2 U | 2 U | 2 U | 2 U | 80 U | 10 U | 10 U |
| 1,2-Dichlorobenzene | 3 | UG/L | 50 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 100 U | 12 U | 12 U |
| 1,2-Dichloroethane | **0.6** | UG/L | 10 U | 0.5 U | 0.5 U | 0.43 J | 0.41 J | 20 U | 2.5 U | 2.5 U |
| 1,2-Dichloropropane | 1 | UG/L | 20 U | 1 U | 1 U | 1 U | 1 U | 40 U | 5 U | 5 U |
| 1,3,5-Trimethylbenzene (Mesitylene) | **5** | UG/L | **36 J** | 2 J | 4.2 | 0.71 J | 2.5 U | 100 U | **140** | **220** |
| 1,3-Dichlorobenzene | 3 | UG/L | 50 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 100 U | 12 U | 12 U |
| 1,3-Dichloropropane | 5 | UG/L | 50 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 100 U | 12 U | 12 U |
| 1,4-Dichlorobenzene | 3 | UG/L | 50 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 100 U | 12 U | 12 U |
| 1,4-Diethyl Benzene | -- | UG/L | 17 J | 2.1 | 5.2 | 5.4 | 5.1 | 49 J | 91 | 200 J |
| 1,4-Dioxane (P-Dioxane) | -- | UG/L | 5000 U | 250 U | 250 R | 250 R | 250 R | 10000 U | 1200 U | 1200 R |
| 2,2-Dichloropropane | 5 | UG/L | 50 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 100 U | 12 U | 12 U |
| 2-Chlorotoluene | 5 | UG/L | 50 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 100 U | 12 U | 12 U |
| 2-Hexanone | 50 | UG/L | 100 U | 5 U | 5 U | 5 U | 5 U | 200 U | 25 U | 25 U |
| 4-Chlorotoluene | 5 | UG/L | 50 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 100 U | 12 U | 12 U |
| 4-Ethyltoluene | -- | UG/L | 29 J | 2.7 | 5.4 | 2 | 1.7 J | 80 U | 280 | 240 |
| Acetone | 50 | UG/L | 100 U | 5 U | 3.4 J | 9.2 U | 8.6 U | 200 U | 44 | 46 |
| Acrylonitrile | 5 | UG/L | 100 U | 5 U | 5 U | 5 U | 5 U | 200 U | 25 U | 25 U |
| Benzene | **1** | UG/L | **2700** | **26** | **6.4** | **86** | **89** | **1800** | **640** | **590** |
| Bromobenzene | 5 | UG/L | 50 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 100 U | 12 U | 12 U |
| Bromochloromethane | 5 | UG/L | 50 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 100 U | 12 U | 12 U |
| Bromodichloromethane | 50 | UG/L | 10 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 20 U | 2.5 U | 2.5 U |

**Table 1. Summary of Volatile Organic Compounds in Groundwater, 5801 Amboy Road, Staten Island, New York**

| Parameter | NYSDEC Ambient Water Quality Guidance Values | Unit | Sample Designation: | MW-6 | MW-6 | MW-6 | MW-6 | MW_BP-11 | MW-11R | MW-11R |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date: | 09/16/2015 | 01/22/2021 | 03/28/2022 | 11/11/2022 | 09/17/2015 | 01/22/2021 | 03/28/2022 |
| | | | Normal or Field Duplicate: | N | N | N | N | FD | N | N | N |
| Bromoform | 50 | UG/L | | 40 U | 2 U | 2 U | 2 U | 2 U | 80 U | 10 U | 10 U |
| Bromomethane | 5 | UG/L | | 50 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 100 U | 12 U | 12 UJ |
| Carbon Disulfide | 60 | UG/L | | 100 U | 5 U | 5 U | 5 U | 5 U | 200 U | 25 U | 25 U |
| Carbon Tetrachloride | 5 | UG/L | | 10 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 20 U | 2.5 U | 2.5 U |
| Chlorobenzene | 5 | UG/L | | 50 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 100 U | 12 U | 12 U |
| Chloroethane | 5 | UG/L | | 50 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 100 U | 12 U | 12 U |
| Chloroform | 7 | UG/L | | 50 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 100 U | 12 U | 12 U |
| Chloromethane | -- | UG/L | | 50 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 100 U | 12 U | 12 U |
| Cis-1,2-Dichloroethylene | 5 | UG/L | | 50 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 100 U | 12 U | 12 U |
| Cis-1,3-Dichloropropene | 5 | UG/L | | 10 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 20 U | 2.5 U | 2.5 U |
| Cymene | **5** | UG/L | | 50 U | 2.5 U | 2.5 U | 1.3 J | 1.3 J | 100 U | **6.9 J** | **9.8 J** |
| Dibromochloromethane | 50 | UG/L | | 10 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 20 U | 2.5 U | 2.5 U |
| Dibromomethane | 5 | UG/L | | 100 U | 5 U | 5 U | 5 U | 5 U | 200 U | 25 U | 25 U |
| Dichlorodifluoromethane | 5 | UG/L | | 100 U | 5 U | 5 U | 5 U | 5 U | 200 U | 25 U | 25 U |
| Dichloroethylenes | 5 | UG/L | | 50 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 100 U | 12 U | 12 U |
| Diethyl Ether (Ethyl Ether) | -- | UG/L | | 50 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 100 U | 12 U | 12 U |
| Ethylbenzene | **5** | UG/L | | **540** | **5.9** | 3.6 | **25** | **23** | **32 J** | **670** | **280** |
| Hexachlorobutadiene | 0.5 | UG/L | | 50 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 100 U | 12 U | 12 U |
| Isopropylbenzene (Cumene) | **5** | UG/L | | **27 J** | 1.5 J | 2.8 | **23** | **22** | **56 J** | **110** | **70** |
| m,p-Xylene | **5** | UG/L | | **500** | **12** | 4.7 | **5.1** | 4.5 | **67 J** | **660** | **350** |
| Methyl Ethyl Ketone (2-Butanone) | 50 | UG/L | | 100 U | 5 U | 5 U | 5 U | 5 U | 200 U | 25 U | 25 U |
| Methyl Isobutyl Ketone (4-Methyl-2-Pentanone) | -- | UG/L | | 100 U | 5 U | 5 U | 5 U | 5 U | 200 U | 25 U | 25 U |
| Methylene Chloride | 5 | UG/L | | 50 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 100 U | 12 U | 12 U |
| Naphthalene | **10** | UG/L | | **190** | 1.1 J | 6.1 | 3.5 | 3.2 | 100 U | **210 J-** | **280** |
| N-Butylbenzene | **5** | UG/L | | 50 U | 2.5 U | 2.5 U | 2.4 J | 2.4 J | 100 U | **33** | **17** |
| N-Propylbenzene | **5** | UG/L | | **64** | 2.5 | **6.7** | **45** | **44** | **130** | **260** | **150 J** |
| O-Xylene (1,2-Dimethylbenzene) | **5** | UG/L | | **20 J** | 2.3 J | 2.5 U | **16** | **19** | 100 U | **13** | **14** |
| Sec-Butylbenzene | **5** | UG/L | | 50 U | 2.5 U | 2.5 U | 2.5 | 2.4 J | 100 U | **15** | **13** |
| Styrene | 5 | UG/L | | 50 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 100 U | 12 U | 12 U |
| T-Butylbenzene | 5 | UG/L | | 50 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 100 U | 12 U | 12 U |
| Tert-Butyl Methyl Ether | **10** | UG/L | | **97** | 0.97 J | 2.5 U | 4.4 | 4 | **120** | **51** | **34 J** |
| Tetrachloroethylene (PCE) | 5 | UG/L | | 10 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 20 U | 2.5 U | 2.5 U |
| Toluene | **5** | UG/L | | **55** | 1.2 J | 2.5 U | 3.1 | 3.1 | 100 U | **15** | **20** |
| Total, 1,3-Dichloropropene (Cis And Trans) | 0.4 | UG/L | | 10 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 20 U | 2.5 U | 2.5 U |

**Table 1. Summary of Volatile Organic Compounds in Groundwater, 5801 Amboy Road, Staten Island, New York**

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Sample Designation: | | MW-6 | MW-6 | MW-6 | MW-6 | MW-6 | MW_BP-11 | MW-11R | MW-11R |
| | Sample Date: | | 09/16/2015 | 01/22/2021 | 03/28/2022 | 11/11/2022 | 11/11/2022 | 09/17/2015 | 01/22/2021 | 03/28/2022 |
| | Normal or Field Duplicate: | | N | N | N | N | FD | N | N | N |
| Parameter | NYSDEC Ambient Water Quality Guidance Values | Unit | | | | | | | | |
| Trans-1,2-Dichloroethene | 5 | UG/L | 50 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 100 U | 12 U | 12 UJ |
| Trans-1,3-Dichloropropene | -- | UG/L | 10 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 20 U | 2.5 U | 2.5 U |
| Trans-1,4-Dichloro-2-Butene | -- | UG/L | 50 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 100 U | 12 U | 12 U |
| Trichloroethylene (TCE) | 5 | UG/L | 10 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 20 U | 2.5 U | 2.5 U |
| Trichlorofluoromethane | 5 | UG/L | 50 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 100 U | 12 U | 12 U |
| Vinyl Acetate | -- | UG/L | 100 U | 5 U | 5 U | 5 U | 5 U | 200 U | 25 U | 25 U |
| Vinyl Chloride | 2 | UG/L | 20 U | 1 U | 1 U | 1 U | 1 U | 40 U | 5 U | 5 U |
| Xylenes | **5** | UG/L | **520 J** | **14 J** | 4.7 | **21** | **24** | **67 J** | **670** | **360** |

**Table 1. Summary of Volatile Organic Compounds in Groundwater, 5801 Amboy Road, Staten Island, New York**

| Parameter | NYSDEC Ambient Water Quality Guidance Values | Unit | Sample Designation: | MW-11R | MW-19 | MW-19 | MW-19 | MW-19 | MW-20 | MW-20 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date: | 11/11/2022 | 05/11/2017 | 05/11/2017 | 01/22/2021 | 03/28/2022 | 11/11/2022 | 05/11/2017 | 01/22/2021 |
| | | | Normal or Field Duplicate: | N | N | FD | N | N | N | N | N |
| 1,1,1,2-Tetrachloroethane | 5 | UG/L | | 50 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 5 U | 2.5 U |
| 1,1,1-Trichloroethane (TCA) | 5 | UG/L | | 50 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 5 U | 2.5 U |
| 1,1,2,2-Tetrachloroethane | 5 | UG/L | | 10 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 1 U | 0.5 U |
| 1,1,2-Trichloroethane | 1 | UG/L | | 30 U | 1.5 U | 1.5 U | 1.5 U | 1.5 U | 1.5 U | 3 U | 1.5 U |
| 1,1-Dichloroethane | 5 | UG/L | | 50 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 5 U | 2.5 U |
| 1,1-Dichloroethene | 5 | UG/L | | 10 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 1 U | 0.5 U |
| 1,1-Dichloropropene | 5 | UG/L | | 50 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 5 U | 2.5 U |
| 1,2,3-Trichlorobenzene | 5 | UG/L | | 50 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 5 U | 2.5 U |
| 1,2,3-Trichloropropane | 0.04 | UG/L | | 50 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 5 U | 2.5 U |
| 1,2,4,5-Tetramethylbenzene | **5** | UG/L | | **140** | 0.72 J | 0.79 J | 2 U | 2 U | 2 U | **8** | 2 U |
| 1,2,4-Trichlorobenzene | 5 | UG/L | | 50 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 5 U | 2.5 U |
| 1,2,4-Trimethylbenzene | **5** | UG/L | | **700** | 3.1 | 3.1 | 2.5 U | 2.5 U | 2.5 U | **110** | 1.2 J |
| 1,2-Dibromo-3-Chloropropane | 0.04 | UG/L | | 50 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 5 U | 2.5 U |
| 1,2-Dibromoethane (Ethylene Dibromide) | -- | UG/L | | 40 U | 2 U | 2 U | 2 U | 2 U | 2 U | 4 U | 2 U |
| 1,2-Dichlorobenzene | 3 | UG/L | | 50 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 5 U | 2.5 U |
| 1,2-Dichloroethane | **0.6** | UG/L | | 10 U | 0.59 | **0.62** | 0.5 U | 0.5 U | 0.5 U | 1 U | 0.5 U |
| 1,2-Dichloropropane | 1 | UG/L | | 20 U | 1 U | 1 U | 1 U | 1 U | 1 U | 2 U | 1 U |
| 1,3,5-Trimethylbenzene (Mesitylene) | **5** | UG/L | | **180** | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | **27** | 2.5 U |
| 1,3-Dichlorobenzene | 3 | UG/L | | 50 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 5 U | 2.5 U |
| 1,3-Dichloropropane | 5 | UG/L | | 50 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 5 U | 2.5 U |
| 1,4-Dichlorobenzene | 3 | UG/L | | 50 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 5 U | 2.5 U |
| 1,4-Diethyl Benzene | -- | UG/L | | 120 | 2 U | 2 U | 2 U | 2 U | 2 U | 17 | 2 U |
| 1,4-Dioxane (P-Dioxane) | -- | UG/L | | 5000 R | 250 U | 250 U | 250 U | 250 R | 250 R | 500 U | 250 U |
| 2,2-Dichloropropane | 5 | UG/L | | 50 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 5 U | 2.5 U |
| 2-Chlorotoluene | 5 | UG/L | | 50 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 5 U | 2.5 U |
| 2-Hexanone | 50 | UG/L | | 100 U | 5 U | 5 U | 5 U | 5 U | 5 U | 10 U | 5 U |
| 4-Chlorotoluene | 5 | UG/L | | 50 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 5 U | 2.5 U |
| 4-Ethyltoluene | -- | UG/L | | 340 | 1.5 J | 1.6 J | 2 U | 2 U | 2 U | 50 | 2 U |
| Acetone | 50 | UG/L | | 100 U | 3.8 J | 3.7 J | 5 U | 5 U | 5 U | 30 | 5 U |
| Acrylonitrile | 5 | UG/L | | 100 U | 5 U | 5 U | 5 U | 5 U | 5 U | 10 U | 5 U |
| Benzene | **1** | UG/L | | **2100** | **3.5** | **3.5** | 0.5 U | 0.5 U | 0.5 U | **100** | **3.1** |
| Bromobenzene | 5 | UG/L | | 50 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 5 U | 2.5 U |
| Bromochloromethane | 5 | UG/L | | 50 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 5 U | 2.5 U |
| Bromodichloromethane | 50 | UG/L | | 10 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 1 U | 0.5 U |

**Table 1. Summary of Volatile Organic Compounds in Groundwater, 5801 Amboy Road, Staten Island, New York**

| Parameter | NYSDEC Ambient Water Quality Guidance Values | Unit | Sample Designation: | MW-11R | MW-19 | MW-19 | MW-19 | MW-19 | MW-19 | MW-20 | MW-20 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date: | 11/11/2022 | 05/11/2017 | 05/11/2017 | 01/22/2021 | 03/28/2022 | 11/11/2022 | 05/11/2017 | 01/22/2021 |
| | | | Normal or Field Duplicate: | N | N | FD | N | N | N | N | N |
| Bromoform | 50 | UG/L | | 40 U | 2 U | 2 U | 2 U | 2 U | 2 U | 4 U | 2 U |
| Bromomethane | 5 | UG/L | | 50 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 1.4 J | 2.5 U |
| Carbon Disulfide | 60 | UG/L | | 100 U | 5 U | 5 U | 5 U | 5 U | 5 U | 10 U | 5 U |
| Carbon Tetrachloride | 5 | UG/L | | 10 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 1 U | 0.5 U |
| Chlorobenzene | 5 | UG/L | | 50 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 5 U | 2.5 U |
| Chloroethane | 5 | UG/L | | 50 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 5 U | 2.5 U |
| Chloroform | 7 | UG/L | | 50 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 5 U | 2.5 U |
| Chloromethane | -- | UG/L | | 50 U | 2.5 U | 2.5 U | 2.6 | 2.5 U | 2.5 U | 5 U | 2.5 U |
| Cis-1,2-Dichloroethylene | 5 | UG/L | | 50 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 5 U | 2.5 U |
| Cis-1,3-Dichloropropene | 5 | UG/L | | 10 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 1 U | 0.5 U |
| Cymene | **5** | UG/L | | **16 J** | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 5 U | 2.5 U |
| Dibromochloromethane | 50 | UG/L | | 10 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 1 U | 0.5 U |
| Dibromomethane | 5 | UG/L | | 100 U | 5 U | 5 U | 5 U | 5 U | 5 U | 10 U | 5 U |
| Dichlorodifluoromethane | 5 | UG/L | | 100 U | 5 U | 5 U | 5 U | 5 U | 5 U | 10 U | 5 U |
| Dichloroethylenes | 5 | UG/L | | 50 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 5 U | 2.5 U |
| Diethyl Ether (Ethyl Ether) | -- | UG/L | | 50 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 5 U | 2.5 U |
| Ethylbenzene | **5** | UG/L | | **720** | 2 J | 2 J | 2.5 U | 2.5 U | 2.5 U | **74** | 1.9 J |
| Hexachlorobutadiene | 0.5 | UG/L | | 50 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 5 U | 2.5 U |
| Isopropylbenzene (Cumene) | **5** | UG/L | | **110** | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | **6.3** | 0.71 J |
| m,p-Xylene | **5** | UG/L | | **860** | 2.5 | 2.3 J | 2.5 U | 2.5 U | 2.5 U | **160** | 2.5 U |
| Methyl Ethyl Ketone (2-Butanone) | 50 | UG/L | | 100 U | 5 U | 5 U | 5 U | 5 U | 5 U | 10 U | 5 U |
| Methyl Isobutyl Ketone (4-Methyl-2-Pentanone) | -- | UG/L | | 100 U | 5 U | 5 U | 5 U | 5 U | 5 U | 10 U | 5 U |
| Methylene Chloride | 5 | UG/L | | 50 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 5 U | 2.5 U |
| Naphthalene | **10** | UG/L | | **410** | 2.1 J | 1.4 J | 2.5 U | 2.5 U | 2.5 U | **25** | 2.5 U |
| N-Butylbenzene | **5** | UG/L | | **30 J** | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 3.5 J | 2.5 U |
| N-Propylbenzene | **5** | UG/L | | **290** | 0.84 J | 0.86 J | 2.5 U | 2.5 U | 2.5 U | **14** | 1.2 J |
| O-Xylene (1,2-Dimethylbenzene) | **5** | UG/L | | **36 J** | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | **18** | 2.5 U |
| Sec-Butylbenzene | **5** | UG/L | | **22 J** | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 5 U | 2.5 U |
| Styrene | 5 | UG/L | | 50 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 5 U | 2.5 U |
| T-Butylbenzene | 5 | UG/L | | 50 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 5 U | 2.5 U |
| Tert-Butyl Methyl Ether | **10** | UG/L | | **190** | 3.4 | 3.4 | 2.5 U | 2.5 U | 2.5 U | **33** | 2.5 U |
| Tetrachloroethylene (PCE) | 5 | UG/L | | 10 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 1 U | 0.5 U |
| Toluene | **5** | UG/L | | **94** | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | **9.9** | 2.5 U |
| Total, 1,3-Dichloropropene (Cis And Trans) | 0.4 | UG/L | | 10 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 1 U | 0.5 U |

**Table 1. Summary of Volatile Organic Compounds in Groundwater, 5801 Amboy Road, Staten Island, New York**

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Sample Designation: | MW-11R | MW-19 | MW-19 | MW-19 | MW-19 | MW-19 | MW-20 | MW-20 |
| | | Sample Date: | 11/11/2022 | 05/11/2017 | 05/11/2017 | 01/22/2021 | 03/28/2022 | 11/11/2022 | 05/11/2017 | 01/22/2021 |
| | | Normal or Field Duplicate: | N | N | FD | N | N | N | N | N |
| Parameter | NYSDEC Ambient Water Quality Guidance Values | Unit | | | | | | | | |
| Trans-1,2-Dichloroethene | 5 | UG/L | 50 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 5 U | 2.5 U |
| Trans-1,3-Dichloropropene | -- | UG/L | 10 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 1 U | 0.5 U |
| Trans-1,4-Dichloro-2-Butene | -- | UG/L | 50 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 5 U | 2.5 U |
| Trichloroethylene (TCE) | 5 | UG/L | 10 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 1 U | 0.5 U |
| Trichlorofluoromethane | 5 | UG/L | 50 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 5 U | 2.5 U |
| Vinyl Acetate | -- | UG/L | 100 U | 5 U | 5 U | 5 U | 5 U | 5 U | 10 U | 5 U |
| Vinyl Chloride | 2 | UG/L | 20 U | 1 U | 1 U | 1 U | 1 U | 1 U | 2 U | 1 U |
| Xylenes | **5** | UG/L | **900 J** | 2.5 | 2.3 J | 2.5 U | 2.5 U | 2.5 U | **180** | 2.5 U |

**Table 1. Summary of Volatile Organic Compounds in Groundwater, 5801 Amboy Road, Staten Island, New York**

| Parameter | NYSDEC Ambient Water Quality Guidance Values | Unit | Sample Designation: MW-20 | MW-20 | MW-20 | MW-20 |
|---|---|---|---|---|---|---|
| | | | Sample Date: 01/22/2021 | 03/28/2022 | 03/28/2022 | 11/11/2022 |
| | | | Normal or Field Duplicate: FD | N | FD | N |
| 1,1,1,2-Tetrachloroethane | 5 | UG/L | 2.5 U | 2.5 U | 2.5 U | 2.5 U |
| 1,1,1-Trichloroethane (TCA) | 5 | UG/L | 2.5 U | 2.5 U | 2.5 U | 2.5 U |
| 1,1,2,2-Tetrachloroethane | 5 | UG/L | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| 1,1,2-Trichloroethane | 1 | UG/L | 1.5 U | 1.5 U | 1.5 U | 1.5 U |
| 1,1-Dichloroethane | 5 | UG/L | 2.5 U | 2.5 U | 2.5 U | 2.5 U |
| 1,1-Dichloroethene | 5 | UG/L | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| 1,1-Dichloropropene | 5 | UG/L | 2.5 U | 2.5 U | 2.5 U | 2.5 U |
| 1,2,3-Trichlorobenzene | 5 | UG/L | 2.5 U | 2.5 U | 2.5 U | 2.5 U |
| 1,2,3-Trichloropropane | 0.04 | UG/L | 2.5 U | 2.5 U | 2.5 U | 2.5 U |
| 1,2,4,5-Tetramethylbenzene | **5** | UG/L | 2 U | **5.1** | 2 U | 1.1 J |
| 1,2,4-Trichlorobenzene | 5 | UG/L | 2.5 U | 2.5 U | 2.5 U | 2.5 U |
| 1,2,4-Trimethylbenzene | **5** | UG/L | 1 J | **13** | **12** | 2.5 U |
| 1,2-Dibromo-3-Chloropropane | 0.04 | UG/L | 2.5 U | 2.5 U | 2.5 U | 2.5 U |
| 1,2-Dibromoethane (Ethylene Dibromide) | -- | UG/L | 2 U | 2 U | 2 U | 2 U |
| 1,2-Dichlorobenzene | 3 | UG/L | 2.5 U | 2.5 U | 2.5 U | 2.5 U |
| 1,2-Dichloroethane | **0.6** | UG/L | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| 1,2-Dichloropropane | 1 | UG/L | 1 U | 1 U | 1 U | 1 U |
| 1,3,5-Trimethylbenzene (Mesitylene) | **5** | UG/L | 2.5 U | **7.4** | **6.6** | 2.5 U |
| 1,3-Dichlorobenzene | 3 | UG/L | 2.5 U | 2.5 U | 2.5 U | 2.5 U |
| 1,3-Dichloropropane | 5 | UG/L | 2.5 U | 2.5 U | 2.5 U | 2.5 U |
| 1,4-Dichlorobenzene | 3 | UG/L | 2.5 U | 2.5 U | 2.5 U | 2.5 U |
| 1,4-Diethyl Benzene | -- | UG/L | 2 U | 6 | 5.4 | 2 U |
| 1,4-Dioxane (P-Dioxane) | -- | UG/L | 250 U | 250 R | 250 R | 250 R |
| 2,2-Dichloropropane | 5 | UG/L | 2.5 U | 2.5 U | 2.5 U | 2.5 U |
| 2-Chlorotoluene | 5 | UG/L | 2.5 U | 2.5 U | 2.5 U | 2.5 U |
| 2-Hexanone | 50 | UG/L | 5 U | 5 U | 5 U | 5 U |
| 4-Chlorotoluene | 5 | UG/L | 2.5 U | 2.5 U | 2.5 U | 2.5 U |
| 4-Ethyltoluene | -- | UG/L | 2 U | 8.7 | 7.8 | 2 U |
| Acetone | 50 | UG/L | 5 U | 5 U | 5 U | 5 U |
| Acrylonitrile | 5 | UG/L | 5 U | 5 U | 5 U | 5 U |
| Benzene | **1** | UG/L | **2.5** | **4.5** | **4.3** | 0.4 J |
| Bromobenzene | 5 | UG/L | 2.5 U | 2.5 U | 2.5 U | 2.5 U |
| Bromochloromethane | 5 | UG/L | 2.5 U | 2.5 U | 2.5 U | 2.5 U |
| Bromodichloromethane | 50 | UG/L | 0.5 U | 0.5 U | 0.5 U | 0.5 U |

**Table 1. Summary of Volatile Organic Compounds in Groundwater, 5801 Amboy Road, Staten Island, New York**

| Parameter | NYSDEC Ambient Water Quality Guidance Values | Unit | Sample Designation: MW-20 | MW-20 | MW-20 | MW-20 |
|---|---|---|---|---|---|---|
| | | | Sample Date: 01/22/2021 | 03/28/2022 | 03/28/2022 | 11/11/2022 |
| | | | Normal or Field Duplicate: FD | N | FD | N |
| Bromoform | 50 | UG/L | 2 U | 2 U | 2 U | 2 U |
| Bromomethane | 5 | UG/L | 2.5 U | 2.5 U | 2.5 U | 2.5 U |
| Carbon Disulfide | 60 | UG/L | 5 U | 5 U | 5 U | 5 U |
| Carbon Tetrachloride | 5 | UG/L | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| Chlorobenzene | 5 | UG/L | 2.5 U | 2.5 U | 2.5 U | 2.5 U |
| Chloroethane | 5 | UG/L | 2.5 U | 2.5 U | 2.5 U | 2.5 U |
| Chloroform | 7 | UG/L | 2.5 U | 2.5 U | 2.5 U | 2.5 U |
| Chloromethane | -- | UG/L | 2.5 U | 2.5 U | 2.5 U | 2.5 U |
| Cis-1,2-Dichloroethylene | 5 | UG/L | 2.5 U | 2.5 U | 2.5 U | 2.5 U |
| Cis-1,3-Dichloropropene | 5 | UG/L | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| Cymene | **5** | UG/L | 2.5 U | 2.5 U | 2.5 U | 2.5 U |
| Dibromochloromethane | 50 | UG/L | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| Dibromomethane | 5 | UG/L | 5 U | 5 U | 5 U | 5 U |
| Dichlorodifluoromethane | 5 | UG/L | 5 U | 5 U | 5 U | 5 U |
| Dichloroethylenes | 5 | UG/L | 2.5 U | 2.5 U | 2.5 U | 2.5 U |
| Diethyl Ether (Ethyl Ether) | -- | UG/L | 2.5 U | 2.5 U | 2.5 U | 2.5 U |
| Ethylbenzene | **5** | UG/L | 1.6 J | **6.5** | **6.3** | 2.5 U |
| Hexachlorobutadiene | 0.5 | UG/L | 2.5 U | 2.5 U | 2.5 U | 2.5 U |
| Isopropylbenzene (Cumene) | **5** | UG/L | 2.5 U | 2.3 J | 2 J | 2.5 U |
| m,p-Xylene | **5** | UG/L | 2.5 U | **9.4** | **9** | 2.5 U |
| Methyl Ethyl Ketone (2-Butanone) | 50 | UG/L | 5 U | 5 U | 5 U | 5 U |
| Methyl Isobutyl Ketone (4-Methyl-2-Pentanone) | -- | UG/L | 5 U | 5 U | 5 U | 5 U |
| Methylene Chloride | 5 | UG/L | 2.5 U | 2.5 U | 2.5 U | 2.5 U |
| Naphthalene | **10** | UG/L | 2.5 U | 10 | 9.2 | 2.5 U |
| N-Butylbenzene | **5** | UG/L | 2.5 U | 2.5 U | 2.5 U | 2.5 U |
| N-Propylbenzene | **5** | UG/L | 0.95 J | **5.7** | **5.1** | 2.5 U |
| O-Xylene (1,2-Dimethylbenzene) | **5** | UG/L | 2.5 U | 2.5 U | 2.5 U | 2.5 U |
| Sec-Butylbenzene | **5** | UG/L | 2.5 U | 2.5 U | 2.5 U | 2.5 U |
| Styrene | 5 | UG/L | 2.5 U | 2.5 U | 2.5 U | 2.5 U |
| T-Butylbenzene | 5 | UG/L | 2.5 U | 2.5 U | 2.5 U | 2.5 U |
| Tert-Butyl Methyl Ether | **10** | UG/L | 2.5 U | 2.5 U | 2.5 U | 2.5 U |
| Tetrachloroethylene (PCE) | 5 | UG/L | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| Toluene | **5** | UG/L | 2.5 U | 2.5 U | 2.5 U | 2.5 U |
| Total, 1,3-Dichloropropene (Cis And Trans) | 0.4 | UG/L | 0.5 U | 0.5 U | 0.5 U | 0.5 U |

**Table 1. Summary of Volatile Organic Compounds in Groundwater, 5801 Amboy Road, Staten Island, New York**

| | | | | | | |
|---|---|---|---|---|---|---|
| | | Sample Designation: | MW-20 | MW-20 | MW-20 | MW-20 |
| | | Sample Date: | 01/22/2021 | 03/28/2022 | 03/28/2022 | 11/11/2022 |
| | | Normal or Field Duplicate: | FD | N | FD | N |
| Parameter | NYSDEC Ambient Water Quality Guidance Values | Unit | | | | |
| Trans-1,2-Dichloroethene | 5 | UG/L | 2.5 U | 2.5 U | 2.5 U | 2.5 U |
| Trans-1,3-Dichloropropene | -- | UG/L | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| Trans-1,4-Dichloro-2-Butene | -- | UG/L | 2.5 U | 2.5 U | 2.5 U | 2.5 U |
| Trichloroethylene (TCE) | 5 | UG/L | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| Trichlorofluoromethane | 5 | UG/L | 2.5 U | 2.5 U | 2.5 U | 2.5 U |
| Vinyl Acetate | -- | UG/L | 5 U | 5 U | 5 U | 5 U |
| Vinyl Chloride | 2 | UG/L | 1 U | 1 U | 1 U | 1 U |
| Xylenes | **5** | UG/L | 2.5 U | **9.4** | **9** | 2.5 U |

# ATTACHMENTS

1. Dye Information
2. November 11, 2022 Baseline Dye Testing Photographs
3. Analytical Laboratory Reports
4. Groundwater Sampling Forms
5. DUSR for November 2022 Samples

# ATTACHMENT 1

Dye Information

# Sewer Tracing Dye
Safety Data Sheet

## SECTION 1: Identification

**1.1 Product identifier**

| | |
|---|---|
| Product name | Sewer Tracing Dye |
| Product number | Sewer Tracing Dye |
| Brand | FDC |

**1.3 Recommended use of the chemical and restrictions on use**
Dyestuff/Pigments

**1.4 Supplier's details**

| | |
|---|---|
| Name | Ecoclean Solutions |
| Address | 570 Oak St<br>Copiague, NY 11726, US |
| Telephone | (877) 416-6880 |

**1.5 Emergency phone number(s)**

Infotrac 800-535-5053

## SECTION 2: Hazard identification

**2.1 Classification of the substance or mixture**

**GHS classification in accordance with: (US) OSHA (29 CFR 1910.1200)**

Not a hazardous substance or mixture.

**2.2 GHS label elements, including precautionary statements**

Not a hazardous substance or mixture.

**2.3 Other hazards which do not result in classification**

Not a hazardous substance or mixture.

## SECTION 3: Composition/information on ingredients

**3.2 Mixtures**
Contains no hazardous ingredients.

**Trade secret statement (OSHA 1910.1200(i))**
*The specific chemical identities and/or actual concentrations or actual concentration ranges for one or more listed components are being withheld as trade secrets under the US regulation 29 CFR 1910.1200(i).

## SECTION 4: First-aid measures

**4.1 Description of necessary first-aid measures**

| | |
|---|---|
| General advice | Consult a physician. Show this safety data sheet to the doctor in attendance. |
| If inhaled | If breathed in, move person into fresh air. If not breathing, give artificial respiration. |

| | |
|---|---|
| In case of skin contact | Rinse with plenty of water. Get medical attention if irritation develops and persists. |
| In case of eye contact | Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a poison center or doctor if you feel unwell. |
| If swallowed | DO NOT INDUCE VOMITING. If the victim is conscious and not convulsing, give 1 or 2 glasses of water to dilute the chemical and IMMEDIATELY call a hospital or poison control center. |

**4.2 Most important symptoms/effects, acute and delayed**
The most important known symptoms and effects are described in the labeling (see section 2.2) and/or in section 11

**4.3 Indication of immediate medical attention and special treatment needed, if necessary**
No data available

## SECTION 5: Fire-fighting measures

**5.1 Suitable extinguishing media**
Use extinguishing media appropriate for surrounding fire.

**5.2 Specific hazards arising from the chemical**
Carbon oxides.

**5.3 Special protective actions for fire-fighters**
Do not enter fire area without proper protective equipment, including reparatory protection.

**Further information**
Exercise caution when firing any chemical fire. Use water spray to cool unopened containers.

## SECTION 6: Accidental release measures

**6.1 Personal precautions, protective equipment and emergency procedures**
**Non Emergency Personnel:**
Protective Equipment: Protective goggles. Gloves. Protective clothing.
Emergency procedures: Evacuate unnecessary personnel. Avoid contact with skin, eyes, and clothing. ventilate spillage area.

**Emergency Personnel:**
Protective Equipment: Equip cleanup crew with proper protection.
Emergency procedures: Stop leak if safe to do so. Stop release. Ventilate area.

**6.2 Environmental precautions**
Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

**6.3 Methods and materials for containment and cleaning up**
Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

**Reference to other sections**
For disposal see section 13.

## SECTION 7: Handling and storage

**7.1 Precautions for safe handling**
Avoid prolonged exposure. Observe good industrial hygiene practices.

**7.2 Conditions for safe storage, including any incompatibilities**
Keep container tightly closed in a dry and well-ventilated place. Store away from incompatible materials (see Section 10 of SDS)

**Specific end use(s)**

Apart from the uses mentioned in Section 1.2 no other specific uses are stipulated

## SECTION 8: Exposure controls/personal protection

**8.1 Control parameters**
No data available

**8.2 Appropriate engineering controls**
Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, gas, etc.) below recommended exposure limits.

**8.3 Individual protection measures, such as personal protective equipment (PPE)**

**Eye/face protection**
Eye/Face Protection: None required with normal household use. Industrial Setting: For splash protection, use chemical goggles. Eye wash fountain is recommended.

**Skin protection**
Skin Protection: None required with normal household use. Industrial Setting: Protective gloves (for hands) and protective clothing are required where repeated or prolonged skin contact may occur.

**Body protection**
Skin Protection: None required with normal household use. Industrial Setting: Protective gloves (for hands) and protective clothing are required where repeated or prolonged skin contact may occur.

**Respiratory protection**
Distribution, Workplace and Household Settings: No special protective equipment required. Product Manufacturing Plant (needed at Product-Producing Plant ONLY): In case of insufficient ventilation wear suitable respiratory equipment

**Thermal hazards**
No data available

**Environmental exposure controls**
Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

## SECTION 9: Physical and chemical properties

**Information on basic physical and chemical properties**

| | |
|---|---|
| Appearance/form (physical state, color, etc.) | Florescent Green, Red Liquid |
| Odor | No data available |
| Odor threshold | No data available |
| pH | 8-10 |
| Melting point/freezing point | No data available |
| Initial boiling point and boiling range | > 212°F (>100 °C) |
| Flash point | No data available |
| Evaporation rate | < 1 (Water =1) |
| Flammability (solid, gas) | No data available |
| Upper/lower flammability limits | No data available |
| Upper/lower explosive limits | No data available |
| Vapor pressure | No data available |
| Vapor density | No data available |
| Relative density | 1.02 |
| Solubility(ies) | 50 g/L in water |
| Partition coefficient: n-octanol/water | No data available |
| Auto-ignition temperature | No data available |
| Decomposition temperature | No data available |
| Viscosity | No data available |
| Explosive properties | No data available |

| | |
|---|---|
| Oxidizing properties | No data available |

## SECTION 10: Stability and reactivity

**10.1 Reactivity**
None under normal use conditions.

**10.2 Chemical stability**
Stable under recommended storage conditions.

**10.3 Possibility of hazardous reactions**
None under normal use conditions.

**10.4 Conditions to avoid**
Contact with incompatible materials.

**10.5 Incompatible materials**
None known. Not corrosive to metals.

**10.6 Hazardous decomposition products**
Very toxic carbon monoxide, carbon dioxide; corrosive sulfur oxides; corrosive, oxidizing nitrogen oxides

## SECTION 11: Toxicological information

**Information on toxicological effects**

**Acute toxicity**
Not classified.

**Skin corrosion/irritation**
Not classified.

**Serious eye damage/irritation**
Not classified.

**Respiratory or skin sensitization**
This product is not expected to cause skin sensitization.

**Germ cell mutagenicity**
No components present at greater than 0.1% are mutagenic or genotoxic.

**Carcinogenicity**
Not classified..

**Reproductive toxicity**
This product is not expected to cause reproductive or developmental effects.

**STOT-single exposure**
Not classified.

**STOT-repeated exposure**
Not classified.

**Aspiration hazard**
Not classified.

## SECTION 12: Ecological information

**Toxicity**

No data available on product

**Persistence and degradability**
No data available.

**Bioaccumulative potential**
No data available.

**Mobility in soil**
No data available.

**Other adverse effects**
No data available

## SECTION 13: Disposal considerations

**Disposal of the product**
Collect and reclaim or dispose in sealed containers at licensed waste disposal site.

**Disposal of contaminated packaging**
Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue follow label warnings even after container is emptied.

**Waste treatment**
Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner. (see: Disposal instructions).

**Other disposal recommendations**
Dispose of in accordance with all applicable regulations.

## SECTION 14: Transport information

**DOT (US)**
Not dangerous goods

**IMDG**
Not dangerous goods

**IATA**
Not dangerous goods

## SECTION 15: Regulatory information

**15.1 Safety, health and environmental regulations specific for the product in question**

**Toxic Substances Control Act (TSCA) Section 8(b)**
All ingredients are on the TSCA Inventory or are exempt from TSCA Inventory requirements under 40 CFR 720.

**California Prop. 65 Components**
This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

**Massachusetts Right To Know Components**
No components are subject to the Massachusetts Right to Know Act.

**New Jersey Right To Know Components**
Water
CAS-No. 7732-18-5

**Pennsylvania Right To Know Components**
Water
CAS-No. 7732-18-5

**SARA 302 Components**
No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**SARA 311/312 Hazards**
No SARA Hazards

**SARA 313 Components**
This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

**HMIS Rating**

| Sewer Tracing Dye | |
|---|---|
| HEALTH | 0 |
| FLAMMABILITY | 0 |
| PHYSICAL HAZARD | 0 |
| PERSONAL PROTECTION | |

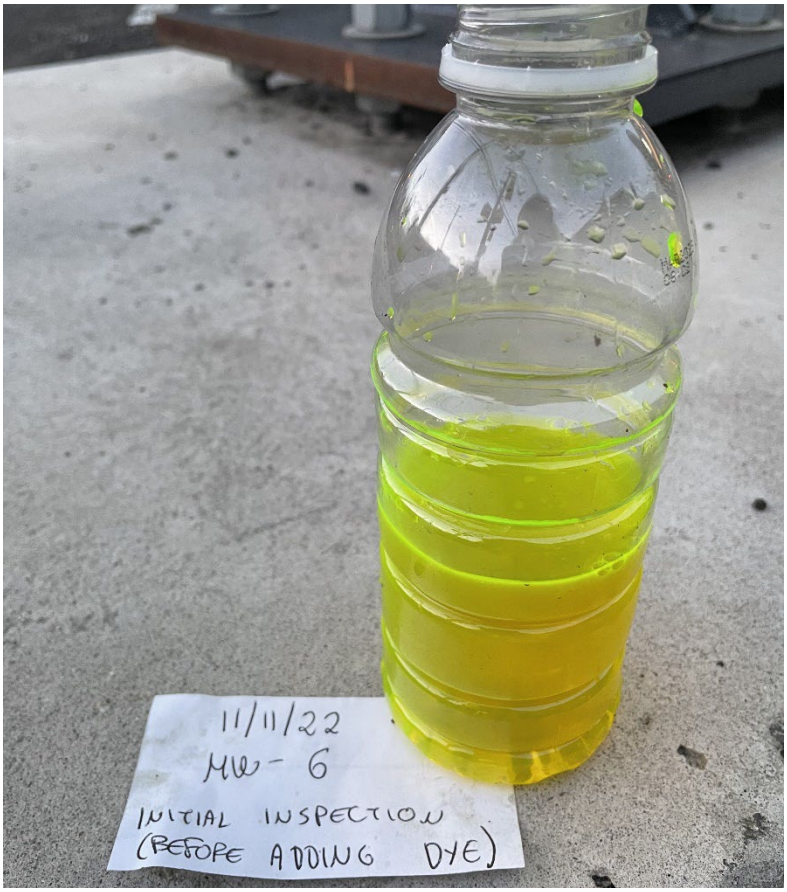
## SECTION 16: Other information

Sewer Tracing Dye, Date: 8-19-2018

**16.1 Further information/disclaimer**
DISCLAIMER: The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigation to determine the suitability of information for their particular purposes. In no event shall Ecoclean Solutions be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, whatsoever arising, even if Ecoclean Solutions has been advised of the possibility of such damages.

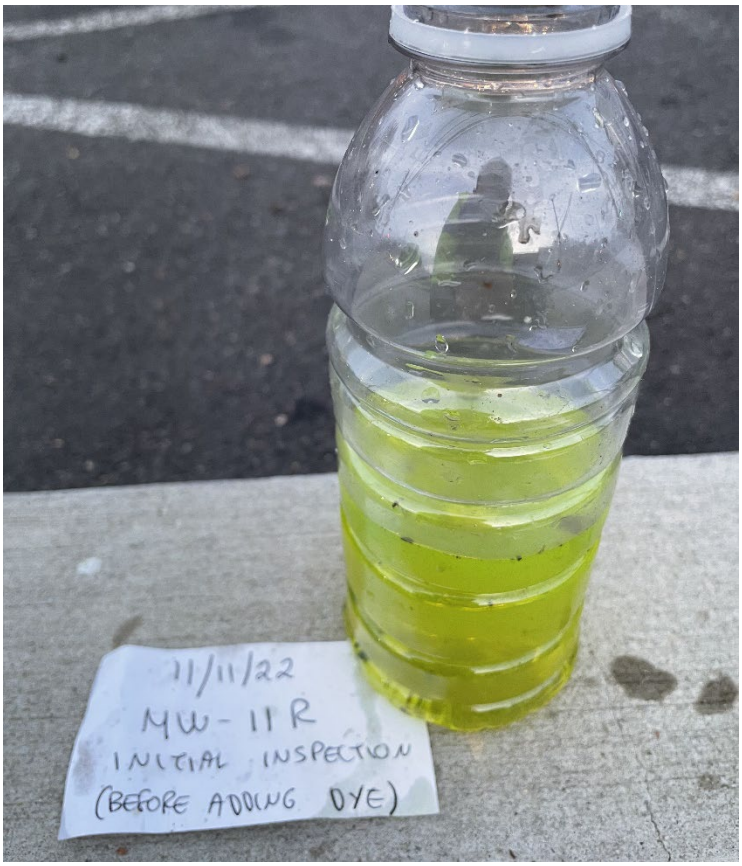
# ATTACHMENT 2

November 11, 2022 Baseline Dye Testing Photographs

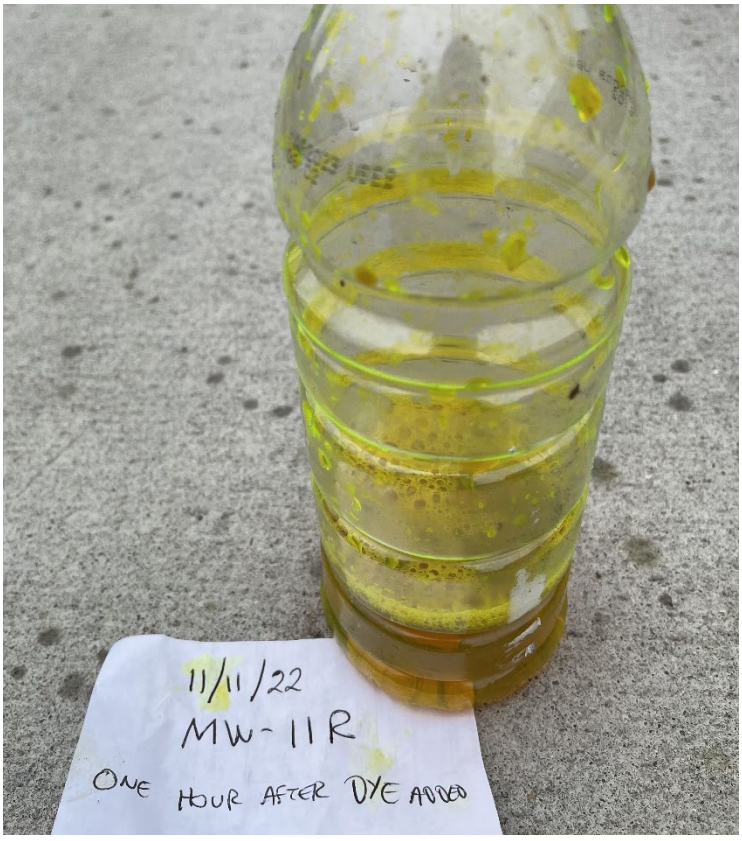



**Photograph 1: 11/11/2022 groundwater dye test before dye was introduced to MW-6 (onsite well)**

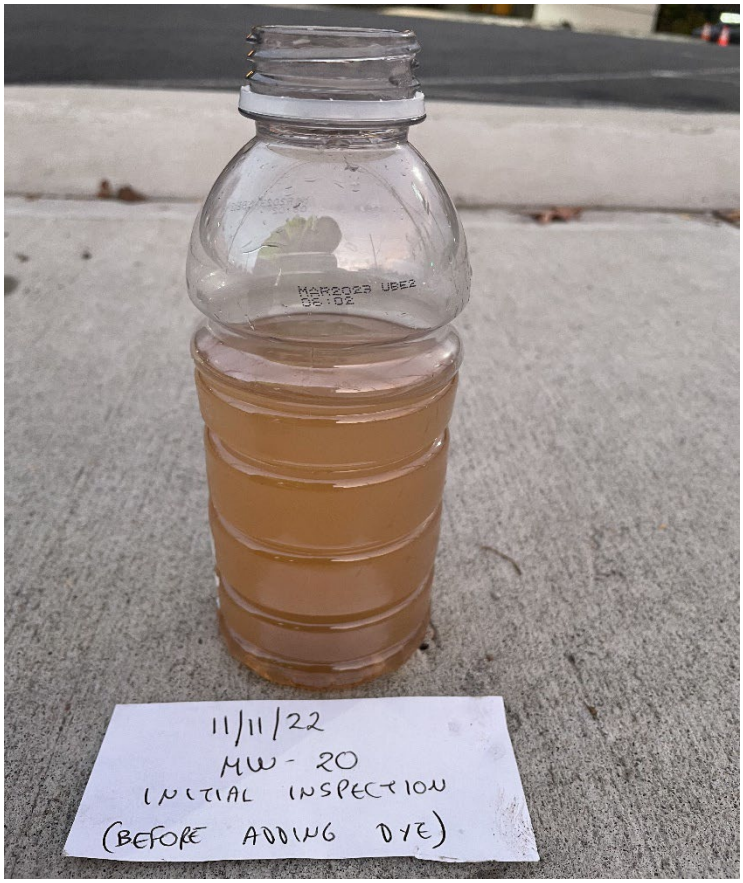

**Photograph 2: 11/11/2022 groundwater dye test after dye was introduced to MW-6 (onsite well)**



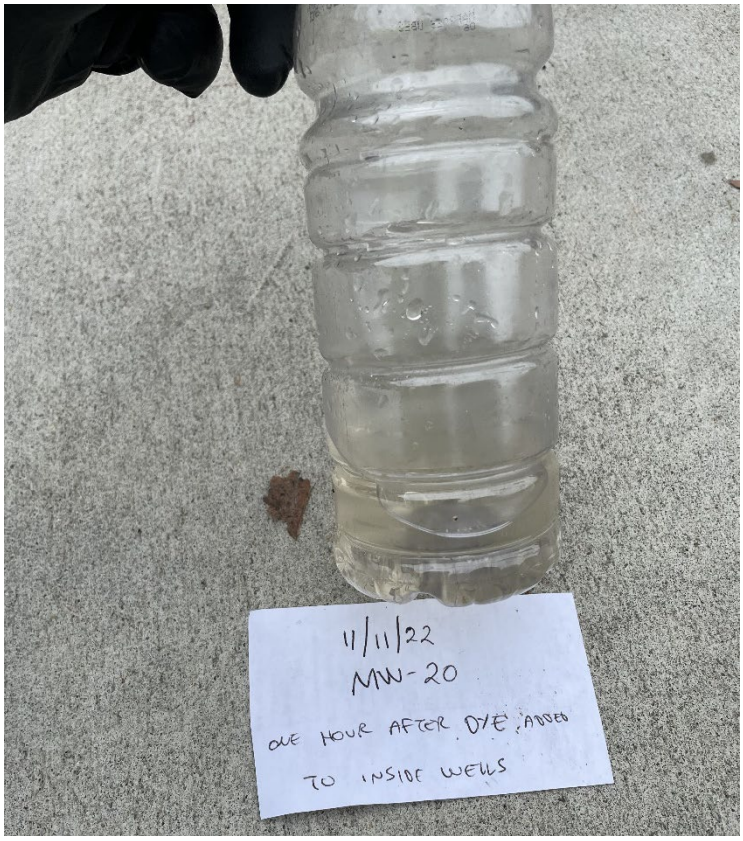

**Photograph 3: 11/11/2022 groundwater dye test before dye was introduced to MW-11R (onsite well)**



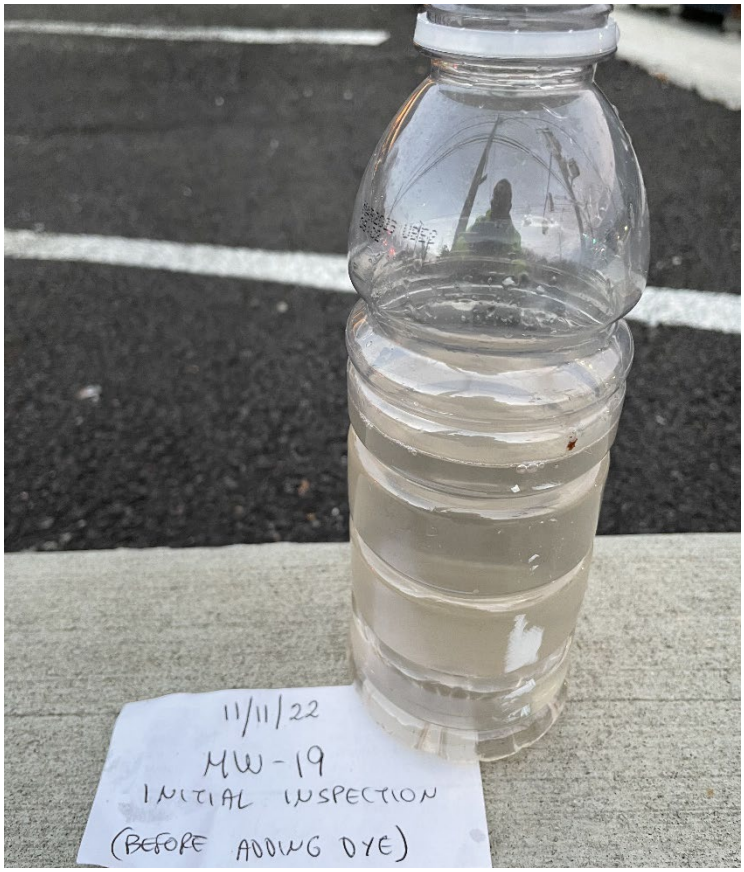

**Photograph 4: 11/11/2022 groundwater dye test after dye was introduced to MW-11R (onsite well)**



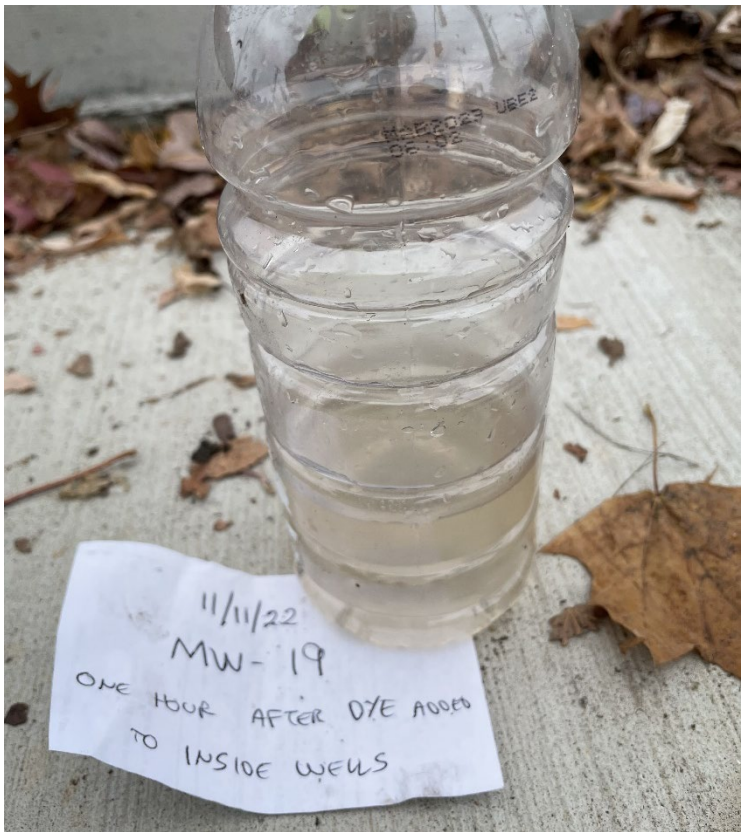

**Photograph 5: 11/11/2022 groundwater dye test showing dye not present in MW-20 (offsite well) before dye was introduced into the on-Site wells**




**Photograph 6: 11/11/2022 groundwater dye test showing dye not present in MW-20 (offsite well) after dye was introduced into the on-Site wells**




**Photograph 7: 11/11/2022 groundwater dye test showing dye not present in MW-19 (offsite well) before dye was introduced into the on-Site wells**




**Photograph 8: 11/11/2022 groundwater dye test showing dye not present in MW-19 (offsite well) after dye was introduced into the on-Site wells**

# Semi-Annual Groundwater Sampling and Dye Testing Event Summary
# Site Management Plan Groundwater Monitoring Program
## *Former CJ's Service Center Property*
## *Site Number C243041*
## *5801 Amboy Road, Staten Island, New York*

**ATTACHMENT 3**

Analytical Laboratory Reports

# ANALYTICAL REPORT

| | |
|---|---|
| Lab Number: | L2263661 |
| Client: | Roux Env. Eng. & Geology, DPC<br>209 Shafter St<br>Islandia, NY 11749 |
| ATTN: | Sarah Stern |
| Phone: | (631) 630-2428 |
| Project Name: | AMBOY ROAD |
| Project Number: | 2508.0001Y003 |
| Report Date: | 11/17/22 |



Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

**Project Name:** AMBOY ROAD
**Project Number:** 2508.0001Y003

**Lab Number:** L2263661
**Report Date:** 11/17/22

| Alpha Sample ID | Client ID | Matrix | Sample Location | Collection Date/Time | Receive Date |
|---|---|---|---|---|---|
| L2263661-01 | MW-11R | WATER | STATEN ISLAND, NY | 11/11/22 07:50 | 11/11/22 |
| L2263661-02 | MW-6 | WATER | STATEN ISLAND, NY | 11/11/22 08:40 | 11/11/22 |
| L2263661-03 | DUP-111122 | WATER | STATEN ISLAND, NY | 11/11/22 08:45 | 11/11/22 |
| L2263661-04 | MW-19 | WATER | STATEN ISLAND, NY | 11/11/22 09:25 | 11/11/22 |
| L2263661-05 | MW-20 | WATER | STATEN ISLAND, NY | 11/11/22 10:05 | 11/11/22 |
| L2263661-06 | FIELDBLANK-111122 | FIELD BLANK | STATEN ISLAND, NY | 11/11/22 09:00 | 11/11/22 |
| L2263661-07 | TRIP BLANK | TRIP BLANK (AQUEOUS) | STATEN ISLAND, NY | 11/09/22 00:00 | 11/11/22 |

| | | | |
|---|---|---|---|
| **Project Name:** | AMBOY ROAD | **Lab Number:** | L2263661 |
| **Project Number:** | 2508.0001Y003 | **Report Date:** | 11/17/22 |

## Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

| | | | |
|---|---|---|---|
| **Project Name:** | AMBOY ROAD | **Lab Number:** | L2263661 |
| **Project Number:** | 2508.0001Y003 | **Report Date:** | 11/17/22 |

**Case Narrative (continued)**

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Volatile Organics

L2263661-07: The Trip Blank has results for acetone present above the reporting limit. The sample was re-analyzed and confirmed the original results. The results of the original analysis are reported.

The WG1712920-6/-7 MS/MSD recoveries, performed on L2263661-01, are outside the acceptance criteria for benzene (50%/0%). The unacceptable percent recoveries are attributed to the elevated concentrations of target compounds present in the native sample.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Cristin Walker

Title: Technical Director/Representative Date: 11/17/22

# ORGANICS

# VOLATILES

**Project Name:** AMBOY ROAD
**Project Number:** 2508.0001Y003
**Lab Number:** L2263661
**Report Date:** 11/17/22

## SAMPLE RESULTS

Lab ID: L2263661-01 D
Client ID: MW-11R
Sample Location: STATEN ISLAND, NY

Date Collected: 11/11/22 07:50
Date Received: 11/11/22
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 11/16/22 13:56
Analyst: PID

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Volatile Organics by GC/MS - Westborough Lab** | | | | | | |
| Methylene chloride | ND | | ug/l | 50 | 14. | 20 |
| 1,1-Dichloroethane | ND | | ug/l | 50 | 14. | 20 |
| Chloroform | ND | | ug/l | 50 | 14. | 20 |
| Carbon tetrachloride | ND | | ug/l | 10 | 2.7 | 20 |
| 1,2-Dichloropropane | ND | | ug/l | 20 | 2.7 | 20 |
| Dibromochloromethane | ND | | ug/l | 10 | 3.0 | 20 |
| 1,1,2-Trichloroethane | ND | | ug/l | 30 | 10. | 20 |
| Tetrachloroethene | ND | | ug/l | 10 | 3.6 | 20 |
| Chlorobenzene | ND | | ug/l | 50 | 14. | 20 |
| Trichlorofluoromethane | ND | | ug/l | 50 | 14. | 20 |
| 1,2-Dichloroethane | ND | | ug/l | 10 | 2.6 | 20 |
| 1,1,1-Trichloroethane | ND | | ug/l | 50 | 14. | 20 |
| Bromodichloromethane | ND | | ug/l | 10 | 3.8 | 20 |
| trans-1,3-Dichloropropene | ND | | ug/l | 10 | 3.3 | 20 |
| cis-1,3-Dichloropropene | ND | | ug/l | 10 | 2.9 | 20 |
| 1,3-Dichloropropene, Total | ND | | ug/l | 10 | 2.9 | 20 |
| 1,1-Dichloropropene | ND | | ug/l | 50 | 14. | 20 |
| Bromoform | ND | | ug/l | 40 | 13. | 20 |
| 1,1,2,2-Tetrachloroethane | ND | | ug/l | 10 | 3.3 | 20 |
| Benzene | 2100 | | ug/l | 10 | 3.2 | 20 |
| Toluene | 94 | | ug/l | 50 | 14. | 20 |
| Ethylbenzene | 720 | | ug/l | 50 | 14. | 20 |
| Chloromethane | ND | | ug/l | 50 | 14. | 20 |
| Bromomethane | ND | | ug/l | 50 | 14. | 20 |
| Vinyl chloride | ND | | ug/l | 20 | 1.4 | 20 |
| Chloroethane | ND | | ug/l | 50 | 14. | 20 |
| 1,1-Dichloroethene | ND | | ug/l | 10 | 3.4 | 20 |
| trans-1,2-Dichloroethene | ND | | ug/l | 50 | 14. | 20 |

**Project Name:** AMBOY ROAD **Lab Number:** L2263661

**Project Number:** 2508.0001Y003 **Report Date:** 11/17/22

## SAMPLE RESULTS

Lab ID: L2263661-01 D
Client ID: MW-11R
Sample Location: STATEN ISLAND, NY

Date Collected: 11/11/22 07:50
Date Received: 11/11/22
Field Prep: Not Specified

Sample Depth:

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Volatile Organics by GC/MS - Westborough Lab** | | | | | | |
| Trichloroethene | ND | | ug/l | 10 | 3.5 | 20 |
| 1,2-Dichlorobenzene | ND | | ug/l | 50 | 14. | 20 |
| 1,3-Dichlorobenzene | ND | | ug/l | 50 | 14. | 20 |
| 1,4-Dichlorobenzene | ND | | ug/l | 50 | 14. | 20 |
| Methyl tert butyl ether | 190 | | ug/l | 50 | 14. | 20 |
| p/m-Xylene | 860 | | ug/l | 50 | 14. | 20 |
| o-Xylene | 36 | J | ug/l | 50 | 14. | 20 |
| Xylenes, Total | 900 | J | ug/l | 50 | 14. | 20 |
| cis-1,2-Dichloroethene | ND | | ug/l | 50 | 14. | 20 |
| 1,2-Dichloroethene, Total | ND | | ug/l | 50 | 14. | 20 |
| Dibromomethane | ND | | ug/l | 100 | 20. | 20 |
| 1,2,3-Trichloropropane | ND | | ug/l | 50 | 14. | 20 |
| Acrylonitrile | ND | | ug/l | 100 | 30. | 20 |
| Styrene | ND | | ug/l | 50 | 14. | 20 |
| Dichlorodifluoromethane | ND | | ug/l | 100 | 20. | 20 |
| Acetone | 31 | J | ug/l | 100 | 29. | 20 |
| Carbon disulfide | ND | | ug/l | 100 | 20. | 20 |
| 2-Butanone | ND | | ug/l | 100 | 39. | 20 |
| Vinyl acetate | ND | | ug/l | 100 | 20. | 20 |
| 4-Methyl-2-pentanone | ND | | ug/l | 100 | 20. | 20 |
| 2-Hexanone | ND | | ug/l | 100 | 20. | 20 |
| Bromochloromethane | ND | | ug/l | 50 | 14. | 20 |
| 2,2-Dichloropropane | ND | | ug/l | 50 | 14. | 20 |
| 1,2-Dibromoethane | ND | | ug/l | 40 | 13. | 20 |
| 1,3-Dichloropropane | ND | | ug/l | 50 | 14. | 20 |
| 1,1,1,2-Tetrachloroethane | ND | | ug/l | 50 | 14. | 20 |
| Bromobenzene | ND | | ug/l | 50 | 14. | 20 |
| n-Butylbenzene | 30 | J | ug/l | 50 | 14. | 20 |
| sec-Butylbenzene | 22 | J | ug/l | 50 | 14. | 20 |
| tert-Butylbenzene | ND | | ug/l | 50 | 14. | 20 |
| o-Chlorotoluene | ND | | ug/l | 50 | 14. | 20 |
| p-Chlorotoluene | ND | | ug/l | 50 | 14. | 20 |
| 1,2-Dibromo-3-chloropropane | ND | | ug/l | 50 | 14. | 20 |
| Hexachlorobutadiene | ND | | ug/l | 50 | 14. | 20 |
| Isopropylbenzene | 110 | | ug/l | 50 | 14. | 20 |
| p-Isopropyltoluene | 16 | J | ug/l | 50 | 14. | 20 |
| Naphthalene | 410 | | ug/l | 50 | 14. | 20 |

**Project Name:** AMBOY ROAD **Lab Number:** L2263661

**Project Number:** 2508.0001Y003 **Report Date:** 11/17/22

## SAMPLE RESULTS

Lab ID: L2263661-01 D Date Collected: 11/11/22 07:50

Client ID: MW-11R Date Received: 11/11/22

Sample Location: STATEN ISLAND, NY Field Prep: Not Specified

Sample Depth:

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Volatile Organics by GC/MS - Westborough Lab** | | | | | | |
| n-Propylbenzene | 290 | | ug/l | 50 | 14. | 20 |
| 1,2,3-Trichlorobenzene | ND | | ug/l | 50 | 14. | 20 |
| 1,2,4-Trichlorobenzene | ND | | ug/l | 50 | 14. | 20 |
| 1,3,5-Trimethylbenzene | 180 | | ug/l | 50 | 14. | 20 |
| 1,2,4-Trimethylbenzene | 700 | | ug/l | 50 | 14. | 20 |
| 1,4-Dioxane | ND | | ug/l | 5000 | 1200 | 20 |
| p-Diethylbenzene | 120 | | ug/l | 40 | 14. | 20 |
| p-Ethyltoluene | 340 | | ug/l | 40 | 14. | 20 |
| 1,2,4,5-Tetramethylbenzene | 140 | | ug/l | 40 | 11. | 20 |
| Ethyl ether | ND | | ug/l | 50 | 14. | 20 |
| trans-1,4-Dichloro-2-butene | ND | | ug/l | 50 | 14. | 20 |
| **Tentatively Identified Compounds** | | | | | | |
| Total TIC Compounds | 2770 | J | ug/l | | | 20 |
| Cyclohexane, methyl- | 188 | NJ | ug/l | | | 20 |
| Indane | 744 | NJ | ug/l | | | 20 |
| Unknown Benzene | 233 | J | ug/l | | | 20 |
| Unknown Aromatic | 309 | J | ug/l | | | 20 |
| Unknown Aromatic | 177 | J | ug/l | | | 20 |
| Cyclopentane, Methyl- | 305 | NJ | ug/l | | | 20 |
| Unknown | 205 | J | ug/l | | | 20 |
| Butane, 2-Methyl- | 294 | NJ | ug/l | | | 20 |
| Unknown | 157 | J | ug/l | | | 20 |
| Unknown Benzene | 159 | J | ug/l | | | 20 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 1,2-Dichloroethane-d4 | 93 | | 70-130 |
| Toluene-d8 | 106 | | 70-130 |
| 4-Bromofluorobenzene | 115 | | 70-130 |
| Dibromofluoromethane | 87 | | 70-130 |

**Project Name:** AMBOY ROAD
**Project Number:** 2508.0001Y003
**Lab Number:** L2263661
**Report Date:** 11/17/22

## SAMPLE RESULTS

Lab ID: L2263661-02
Client ID: MW-6
Sample Location: STATEN ISLAND, NY

Date Collected: 11/11/22 08:40
Date Received: 11/11/22
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 11/16/22 12:38
Analyst: PID

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Volatile Organics by GC/MS - Westborough Lab** | | | | | | |
| Methylene chloride | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,1-Dichloroethane | ND | | ug/l | 2.5 | 0.70 | 1 |
| Chloroform | ND | | ug/l | 2.5 | 0.70 | 1 |
| Carbon tetrachloride | ND | | ug/l | 0.50 | 0.13 | 1 |
| 1,2-Dichloropropane | ND | | ug/l | 1.0 | 0.14 | 1 |
| Dibromochloromethane | ND | | ug/l | 0.50 | 0.15 | 1 |
| 1,1,2-Trichloroethane | ND | | ug/l | 1.5 | 0.50 | 1 |
| Tetrachloroethene | ND | | ug/l | 0.50 | 0.18 | 1 |
| Chlorobenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| Trichlorofluoromethane | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,2-Dichloroethane | 0.43 | J | ug/l | 0.50 | 0.13 | 1 |
| 1,1,1-Trichloroethane | ND | | ug/l | 2.5 | 0.70 | 1 |
| Bromodichloromethane | ND | | ug/l | 0.50 | 0.19 | 1 |
| trans-1,3-Dichloropropene | ND | | ug/l | 0.50 | 0.16 | 1 |
| cis-1,3-Dichloropropene | ND | | ug/l | 0.50 | 0.14 | 1 |
| 1,3-Dichloropropene, Total | ND | | ug/l | 0.50 | 0.14 | 1 |
| 1,1-Dichloropropene | ND | | ug/l | 2.5 | 0.70 | 1 |
| Bromoform | ND | | ug/l | 2.0 | 0.65 | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | ug/l | 0.50 | 0.17 | 1 |
| Benzene | 86 | | ug/l | 0.50 | 0.16 | 1 |
| Toluene | 3.1 | | ug/l | 2.5 | 0.70 | 1 |
| Ethylbenzene | 25 | | ug/l | 2.5 | 0.70 | 1 |
| Chloromethane | ND | | ug/l | 2.5 | 0.70 | 1 |
| Bromomethane | ND | | ug/l | 2.5 | 0.70 | 1 |
| Vinyl chloride | ND | | ug/l | 1.0 | 0.07 | 1 |
| Chloroethane | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,1-Dichloroethene | ND | | ug/l | 0.50 | 0.17 | 1 |
| trans-1,2-Dichloroethene | ND | | ug/l | 2.5 | 0.70 | 1 |

**Project Name:** AMBOY ROAD **Lab Number:** L2263661

**Project Number:** 2508.0001Y003 **Report Date:** 11/17/22

## SAMPLE RESULTS

Lab ID: L2263661-02 Date Collected: 11/11/22 08:40

Client ID: MW-6 Date Received: 11/11/22

Sample Location: STATEN ISLAND, NY Field Prep: Not Specified

Sample Depth:

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Volatile Organics by GC/MS - Westborough Lab** | | | | | | |
| Trichloroethene | ND | | ug/l | 0.50 | 0.18 | 1 |
| 1,2-Dichlorobenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,3-Dichlorobenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,4-Dichlorobenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| Methyl tert butyl ether | 4.4 | | ug/l | 2.5 | 0.70 | 1 |
| p/m-Xylene | 5.1 | | ug/l | 2.5 | 0.70 | 1 |
| o-Xylene | 16 | | ug/l | 2.5 | 0.70 | 1 |
| Xylenes, Total | 21 | | ug/l | 2.5 | 0.70 | 1 |
| cis-1,2-Dichloroethene | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,2-Dichloroethene, Total | ND | | ug/l | 2.5 | 0.70 | 1 |
| Dibromomethane | ND | | ug/l | 5.0 | 1.0 | 1 |
| 1,2,3-Trichloropropane | ND | | ug/l | 2.5 | 0.70 | 1 |
| Acrylonitrile | ND | | ug/l | 5.0 | 1.5 | 1 |
| Styrene | ND | | ug/l | 2.5 | 0.70 | 1 |
| Dichlorodifluoromethane | ND | | ug/l | 5.0 | 1.0 | 1 |
| Acetone | 9.2 | | ug/l | 5.0 | 1.5 | 1 |
| Carbon disulfide | ND | | ug/l | 5.0 | 1.0 | 1 |
| 2-Butanone | ND | | ug/l | 5.0 | 1.9 | 1 |
| Vinyl acetate | ND | | ug/l | 5.0 | 1.0 | 1 |
| 4-Methyl-2-pentanone | ND | | ug/l | 5.0 | 1.0 | 1 |
| 2-Hexanone | ND | | ug/l | 5.0 | 1.0 | 1 |
| Bromochloromethane | ND | | ug/l | 2.5 | 0.70 | 1 |
| 2,2-Dichloropropane | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,2-Dibromoethane | ND | | ug/l | 2.0 | 0.65 | 1 |
| 1,3-Dichloropropane | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,1,1,2-Tetrachloroethane | ND | | ug/l | 2.5 | 0.70 | 1 |
| Bromobenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| n-Butylbenzene | 2.4 | J | ug/l | 2.5 | 0.70 | 1 |
| sec-Butylbenzene | 2.5 | | ug/l | 2.5 | 0.70 | 1 |
| tert-Butylbenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| o-Chlorotoluene | ND | | ug/l | 2.5 | 0.70 | 1 |
| p-Chlorotoluene | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,2-Dibromo-3-chloropropane | ND | | ug/l | 2.5 | 0.70 | 1 |
| Hexachlorobutadiene | ND | | ug/l | 2.5 | 0.70 | 1 |
| Isopropylbenzene | 23 | | ug/l | 2.5 | 0.70 | 1 |
| p-Isopropyltoluene | 1.3 | J | ug/l | 2.5 | 0.70 | 1 |
| Naphthalene | 3.5 | | ug/l | 2.5 | 0.70 | 1 |

**Project Name:** AMBOY ROAD **Lab Number:** L2263661

**Project Number:** 2508.0001Y003 **Report Date:** 11/17/22

## SAMPLE RESULTS

Lab ID: L2263661-02 Date Collected: 11/11/22 08:40

Client ID: MW-6 Date Received: 11/11/22

Sample Location: STATEN ISLAND, NY Field Prep: Not Specified

Sample Depth:

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Volatile Organics by GC/MS - Westborough Lab** | | | | | | |
| n-Propylbenzene | 45 | | ug/l | 2.5 | 0.70 | 1 |
| 1,2,3-Trichlorobenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,2,4-Trichlorobenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,3,5-Trimethylbenzene | 0.71 | J | ug/l | 2.5 | 0.70 | 1 |
| 1,2,4-Trimethylbenzene | 4.8 | | ug/l | 2.5 | 0.70 | 1 |
| 1,4-Dioxane | ND | | ug/l | 250 | 61. | 1 |
| p-Diethylbenzene | 5.4 | | ug/l | 2.0 | 0.70 | 1 |
| p-Ethyltoluene | 2.0 | | ug/l | 2.0 | 0.70 | 1 |
| 1,2,4,5-Tetramethylbenzene | 5.7 | | ug/l | 2.0 | 0.54 | 1 |
| Ethyl ether | ND | | ug/l | 2.5 | 0.70 | 1 |
| trans-1,4-Dichloro-2-butene | ND | | ug/l | 2.5 | 0.70 | 1 |
| **Tentatively Identified Compounds** | | | | | | |
| Total TIC Compounds | 219 | J | ug/l | | | 1 |
| Unknown | 22.0 | J | ug/l | | | 1 |
| Butane, 2-Methyl- | 43.8 | NJ | ug/l | | | 1 |
| Unknown Aromatic | 29.2 | J | ug/l | | | 1 |
| Cyclohexane | 15.6 | NJ | ug/l | | | 1 |
| Unknown | 8.40 | J | ug/l | | | 1 |
| Cyclopentane, Methyl- | 28.8 | NJ | ug/l | | | 1 |
| Pentane | 12.9 | NJ | ug/l | | | 1 |
| Pentane, 3-methyl- | 8.42 | NJ | ug/l | | | 1 |
| Unknown | 10.4 | J | ug/l | | | 1 |
| Unknown | 39.2 | J | ug/l | | | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 1,2-Dichloroethane-d4 | 91 | | 70-130 |
| Toluene-d8 | 109 | | 70-130 |
| 4-Bromofluorobenzene | 123 | | 70-130 |
| Dibromofluoromethane | 83 | | 70-130 |

**Project Name:** AMBOY ROAD
**Project Number:** 2508.0001Y003
**Lab Number:** L2263661
**Report Date:** 11/17/22

## SAMPLE RESULTS

Lab ID: L2263661-03
Client ID: DUP-111122
Sample Location: STATEN ISLAND, NY
Date Collected: 11/11/22 08:45
Date Received: 11/11/22
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 11/16/22 12:58
Analyst: PID

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Volatile Organics by GC/MS - Westborough Lab** | | | | | | |
| Methylene chloride | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,1-Dichloroethane | ND | | ug/l | 2.5 | 0.70 | 1 |
| Chloroform | ND | | ug/l | 2.5 | 0.70 | 1 |
| Carbon tetrachloride | ND | | ug/l | 0.50 | 0.13 | 1 |
| 1,2-Dichloropropane | ND | | ug/l | 1.0 | 0.14 | 1 |
| Dibromochloromethane | ND | | ug/l | 0.50 | 0.15 | 1 |
| 1,1,2-Trichloroethane | ND | | ug/l | 1.5 | 0.50 | 1 |
| Tetrachloroethene | ND | | ug/l | 0.50 | 0.18 | 1 |
| Chlorobenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| Trichlorofluoromethane | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,2-Dichloroethane | 0.41 | J | ug/l | 0.50 | 0.13 | 1 |
| 1,1,1-Trichloroethane | ND | | ug/l | 2.5 | 0.70 | 1 |
| Bromodichloromethane | ND | | ug/l | 0.50 | 0.19 | 1 |
| trans-1,3-Dichloropropene | ND | | ug/l | 0.50 | 0.16 | 1 |
| cis-1,3-Dichloropropene | ND | | ug/l | 0.50 | 0.14 | 1 |
| 1,3-Dichloropropene, Total | ND | | ug/l | 0.50 | 0.14 | 1 |
| 1,1-Dichloropropene | ND | | ug/l | 2.5 | 0.70 | 1 |
| Bromoform | ND | | ug/l | 2.0 | 0.65 | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | ug/l | 0.50 | 0.17 | 1 |
| Benzene | 89 | | ug/l | 0.50 | 0.16 | 1 |
| Toluene | 3.1 | | ug/l | 2.5 | 0.70 | 1 |
| Ethylbenzene | 23 | | ug/l | 2.5 | 0.70 | 1 |
| Chloromethane | ND | | ug/l | 2.5 | 0.70 | 1 |
| Bromomethane | ND | | ug/l | 2.5 | 0.70 | 1 |
| Vinyl chloride | ND | | ug/l | 1.0 | 0.07 | 1 |
| Chloroethane | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,1-Dichloroethene | ND | | ug/l | 0.50 | 0.17 | 1 |
| trans-1,2-Dichloroethene | ND | | ug/l | 2.5 | 0.70 | 1 |

**Project Name:** AMBOY ROAD **Lab Number:** L2263661

**Project Number:** 2508.0001Y003 **Report Date:** 11/17/22

**SAMPLE RESULTS**

Lab ID: L2263661-03 Date Collected: 11/11/22 08:45

Client ID: DUP-111122 Date Received: 11/11/22

Sample Location: STATEN ISLAND, NY Field Prep: Not Specified

Sample Depth:

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Volatile Organics by GC/MS - Westborough Lab** | | | | | | |
| Trichloroethene | ND | | ug/l | 0.50 | 0.18 | 1 |
| 1,2-Dichlorobenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,3-Dichlorobenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,4-Dichlorobenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| Methyl tert butyl ether | 4.0 | | ug/l | 2.5 | 0.70 | 1 |
| p/m-Xylene | 4.5 | | ug/l | 2.5 | 0.70 | 1 |
| o-Xylene | 19 | | ug/l | 2.5 | 0.70 | 1 |
| Xylenes, Total | 24 | | ug/l | 2.5 | 0.70 | 1 |
| cis-1,2-Dichloroethene | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,2-Dichloroethene, Total | ND | | ug/l | 2.5 | 0.70 | 1 |
| Dibromomethane | ND | | ug/l | 5.0 | 1.0 | 1 |
| 1,2,3-Trichloropropane | ND | | ug/l | 2.5 | 0.70 | 1 |
| Acrylonitrile | ND | | ug/l | 5.0 | 1.5 | 1 |
| Styrene | ND | | ug/l | 2.5 | 0.70 | 1 |
| Dichlorodifluoromethane | ND | | ug/l | 5.0 | 1.0 | 1 |
| Acetone | 8.6 | | ug/l | 5.0 | 1.5 | 1 |
| Carbon disulfide | ND | | ug/l | 5.0 | 1.0 | 1 |
| 2-Butanone | ND | | ug/l | 5.0 | 1.9 | 1 |
| Vinyl acetate | ND | | ug/l | 5.0 | 1.0 | 1 |
| 4-Methyl-2-pentanone | ND | | ug/l | 5.0 | 1.0 | 1 |
| 2-Hexanone | ND | | ug/l | 5.0 | 1.0 | 1 |
| Bromochloromethane | ND | | ug/l | 2.5 | 0.70 | 1 |
| 2,2-Dichloropropane | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,2-Dibromoethane | ND | | ug/l | 2.0 | 0.65 | 1 |
| 1,3-Dichloropropane | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,1,1,2-Tetrachloroethane | ND | | ug/l | 2.5 | 0.70 | 1 |
| Bromobenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| n-Butylbenzene | 2.4 | J | ug/l | 2.5 | 0.70 | 1 |
| sec-Butylbenzene | 2.4 | J | ug/l | 2.5 | 0.70 | 1 |
| tert-Butylbenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| o-Chlorotoluene | ND | | ug/l | 2.5 | 0.70 | 1 |
| p-Chlorotoluene | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,2-Dibromo-3-chloropropane | ND | | ug/l | 2.5 | 0.70 | 1 |
| Hexachlorobutadiene | ND | | ug/l | 2.5 | 0.70 | 1 |
| Isopropylbenzene | 22 | | ug/l | 2.5 | 0.70 | 1 |
| p-Isopropyltoluene | 1.3 | J | ug/l | 2.5 | 0.70 | 1 |
| Naphthalene | 3.2 | | ug/l | 2.5 | 0.70 | 1 |

**Project Name:** AMBOY ROAD
**Project Number:** 2508.0001Y003
**Lab Number:** L2263661
**Report Date:** 11/17/22

## SAMPLE RESULTS

Lab ID: L2263661-03
Client ID: DUP-111122
Sample Location: STATEN ISLAND, NY
Date Collected: 11/11/22 08:45
Date Received: 11/11/22
Field Prep: Not Specified

Sample Depth:

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Volatile Organics by GC/MS - Westborough Lab** | | | | | | |
| n-Propylbenzene | 44 | | ug/l | 2.5 | 0.70 | 1 |
| 1,2,3-Trichlorobenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,2,4-Trichlorobenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,3,5-Trimethylbenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,2,4-Trimethylbenzene | 4.6 | | ug/l | 2.5 | 0.70 | 1 |
| 1,4-Dioxane | ND | | ug/l | 250 | 61. | 1 |
| p-Diethylbenzene | 5.1 | | ug/l | 2.0 | 0.70 | 1 |
| p-Ethyltoluene | 1.7 | J | ug/l | 2.0 | 0.70 | 1 |
| 1,2,4,5-Tetramethylbenzene | 5.3 | | ug/l | 2.0 | 0.54 | 1 |
| Ethyl ether | ND | | ug/l | 2.5 | 0.70 | 1 |
| trans-1,4-Dichloro-2-butene | ND | | ug/l | 2.5 | 0.70 | 1 |
| **Tentatively Identified Compounds** | | | | | | |
| Total TIC Compounds | 220 | J | ug/l | | | 1 |
| Unknown | 22.2 | J | ug/l | | | 1 |
| Unknown | 39.2 | J | ug/l | | | 1 |
| Unknown | 7.91 | J | ug/l | | | 1 |
| Cyclohexane, methyl- | 10.9 | NJ | ug/l | | | 1 |
| Butane, 2-Methyl- | 43.8 | NJ | ug/l | | | 1 |
| Pentane, 3-methyl- | 8.45 | NJ | ug/l | | | 1 |
| Cyclohexane | 15.9 | NJ | ug/l | | | 1 |
| Unknown Aromatic | 28.8 | J | ug/l | | | 1 |
| Pentane | 13.4 | NJ | ug/l | | | 1 |
| Cyclopentane, Methyl- | 29.5 | NJ | ug/l | | | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 1,2-Dichloroethane-d4 | 91 | | 70-130 |
| Toluene-d8 | 108 | | 70-130 |
| 4-Bromofluorobenzene | 119 | | 70-130 |
| Dibromofluoromethane | 83 | | 70-130 |

**Project Name:** AMBOY ROAD
**Project Number:** 2508.0001Y003
**Lab Number:** L2263661
**Report Date:** 11/17/22

## SAMPLE RESULTS

Lab ID: L2263661-04
Client ID: MW-19
Sample Location: STATEN ISLAND, NY
Date Collected: 11/11/22 09:25
Date Received: 11/11/22
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 11/16/22 13:17
Analyst: PID

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Volatile Organics by GC/MS - Westborough Lab** | | | | | | |
| Methylene chloride | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,1-Dichloroethane | ND | | ug/l | 2.5 | 0.70 | 1 |
| Chloroform | ND | | ug/l | 2.5 | 0.70 | 1 |
| Carbon tetrachloride | ND | | ug/l | 0.50 | 0.13 | 1 |
| 1,2-Dichloropropane | ND | | ug/l | 1.0 | 0.14 | 1 |
| Dibromochloromethane | ND | | ug/l | 0.50 | 0.15 | 1 |
| 1,1,2-Trichloroethane | ND | | ug/l | 1.5 | 0.50 | 1 |
| Tetrachloroethene | ND | | ug/l | 0.50 | 0.18 | 1 |
| Chlorobenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| Trichlorofluoromethane | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,2-Dichloroethane | ND | | ug/l | 0.50 | 0.13 | 1 |
| 1,1,1-Trichloroethane | ND | | ug/l | 2.5 | 0.70 | 1 |
| Bromodichloromethane | ND | | ug/l | 0.50 | 0.19 | 1 |
| trans-1,3-Dichloropropene | ND | | ug/l | 0.50 | 0.16 | 1 |
| cis-1,3-Dichloropropene | ND | | ug/l | 0.50 | 0.14 | 1 |
| 1,3-Dichloropropene, Total | ND | | ug/l | 0.50 | 0.14 | 1 |
| 1,1-Dichloropropene | ND | | ug/l | 2.5 | 0.70 | 1 |
| Bromoform | ND | | ug/l | 2.0 | 0.65 | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | ug/l | 0.50 | 0.17 | 1 |
| Benzene | ND | | ug/l | 0.50 | 0.16 | 1 |
| Toluene | ND | | ug/l | 2.5 | 0.70 | 1 |
| Ethylbenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| Chloromethane | ND | | ug/l | 2.5 | 0.70 | 1 |
| Bromomethane | ND | | ug/l | 2.5 | 0.70 | 1 |
| Vinyl chloride | ND | | ug/l | 1.0 | 0.07 | 1 |
| Chloroethane | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,1-Dichloroethene | ND | | ug/l | 0.50 | 0.17 | 1 |
| trans-1,2-Dichloroethene | ND | | ug/l | 2.5 | 0.70 | 1 |

**Project Name:** AMBOY ROAD **Lab Number:** L2263661

**Project Number:** 2508.0001Y003 **Report Date:** 11/17/22

## SAMPLE RESULTS

Lab ID: L2263661-04 Date Collected: 11/11/22 09:25

Client ID: MW-19 Date Received: 11/11/22

Sample Location: STATEN ISLAND, NY Field Prep: Not Specified

Sample Depth:

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Volatile Organics by GC/MS - Westborough Lab** | | | | | | |
| Trichloroethene | ND | | ug/l | 0.50 | 0.18 | 1 |
| 1,2-Dichlorobenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,3-Dichlorobenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,4-Dichlorobenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| Methyl tert butyl ether | ND | | ug/l | 2.5 | 0.70 | 1 |
| p/m-Xylene | ND | | ug/l | 2.5 | 0.70 | 1 |
| o-Xylene | ND | | ug/l | 2.5 | 0.70 | 1 |
| Xylenes, Total | ND | | ug/l | 2.5 | 0.70 | 1 |
| cis-1,2-Dichloroethene | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,2-Dichloroethene, Total | ND | | ug/l | 2.5 | 0.70 | 1 |
| Dibromomethane | ND | | ug/l | 5.0 | 1.0 | 1 |
| 1,2,3-Trichloropropane | ND | | ug/l | 2.5 | 0.70 | 1 |
| Acrylonitrile | ND | | ug/l | 5.0 | 1.5 | 1 |
| Styrene | ND | | ug/l | 2.5 | 0.70 | 1 |
| Dichlorodifluoromethane | ND | | ug/l | 5.0 | 1.0 | 1 |
| Acetone | ND | | ug/l | 5.0 | 1.5 | 1 |
| Carbon disulfide | ND | | ug/l | 5.0 | 1.0 | 1 |
| 2-Butanone | ND | | ug/l | 5.0 | 1.9 | 1 |
| Vinyl acetate | ND | | ug/l | 5.0 | 1.0 | 1 |
| 4-Methyl-2-pentanone | ND | | ug/l | 5.0 | 1.0 | 1 |
| 2-Hexanone | ND | | ug/l | 5.0 | 1.0 | 1 |
| Bromochloromethane | ND | | ug/l | 2.5 | 0.70 | 1 |
| 2,2-Dichloropropane | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,2-Dibromoethane | ND | | ug/l | 2.0 | 0.65 | 1 |
| 1,3-Dichloropropane | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,1,1,2-Tetrachloroethane | ND | | ug/l | 2.5 | 0.70 | 1 |
| Bromobenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| n-Butylbenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| sec-Butylbenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| tert-Butylbenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| o-Chlorotoluene | ND | | ug/l | 2.5 | 0.70 | 1 |
| p-Chlorotoluene | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,2-Dibromo-3-chloropropane | ND | | ug/l | 2.5 | 0.70 | 1 |
| Hexachlorobutadiene | ND | | ug/l | 2.5 | 0.70 | 1 |
| Isopropylbenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| p-Isopropyltoluene | ND | | ug/l | 2.5 | 0.70 | 1 |
| Naphthalene | ND | | ug/l | 2.5 | 0.70 | 1 |

**Project Name:** AMBOY ROAD
**Project Number:** 2508.0001Y003
**Lab Number:** L2263661
**Report Date:** 11/17/22

## SAMPLE RESULTS

Lab ID: L2263661-04
Client ID: MW-19
Sample Location: STATEN ISLAND, NY
Date Collected: 11/11/22 09:25
Date Received: 11/11/22
Field Prep: Not Specified

Sample Depth:

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Volatile Organics by GC/MS - Westborough Lab** | | | | | | |
| n-Propylbenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,2,3-Trichlorobenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,2,4-Trichlorobenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,3,5-Trimethylbenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,2,4-Trimethylbenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,4-Dioxane | ND | | ug/l | 250 | 61. | 1 |
| p-Diethylbenzene | ND | | ug/l | 2.0 | 0.70 | 1 |
| p-Ethyltoluene | ND | | ug/l | 2.0 | 0.70 | 1 |
| 1,2,4,5-Tetramethylbenzene | ND | | ug/l | 2.0 | 0.54 | 1 |
| Ethyl ether | ND | | ug/l | 2.5 | 0.70 | 1 |
| trans-1,4-Dichloro-2-butene | ND | | ug/l | 2.5 | 0.70 | 1 |
| **Tentatively Identified Compounds** | | | | | | |
| No Tentatively Identified Compounds | ND | | ug/l | | | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 1,2-Dichloroethane-d4 | 107 | | 70-130 |
| Toluene-d8 | 99 | | 70-130 |
| 4-Bromofluorobenzene | 120 | | 70-130 |
| Dibromofluoromethane | 108 | | 70-130 |

**Project Name:** AMBOY ROAD
**Project Number:** 2508.0001Y003
**Lab Number:** L2263661
**Report Date:** 11/17/22

## SAMPLE RESULTS

Lab ID: L2263661-05
Client ID: MW-20
Sample Location: STATEN ISLAND, NY

Date Collected: 11/11/22 10:05
Date Received: 11/11/22
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 11/16/22 13:36
Analyst: PID

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Volatile Organics by GC/MS - Westborough Lab** | | | | | | |
| Methylene chloride | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,1-Dichloroethane | ND | | ug/l | 2.5 | 0.70 | 1 |
| Chloroform | ND | | ug/l | 2.5 | 0.70 | 1 |
| Carbon tetrachloride | ND | | ug/l | 0.50 | 0.13 | 1 |
| 1,2-Dichloropropane | ND | | ug/l | 1.0 | 0.14 | 1 |
| Dibromochloromethane | ND | | ug/l | 0.50 | 0.15 | 1 |
| 1,1,2-Trichloroethane | ND | | ug/l | 1.5 | 0.50 | 1 |
| Tetrachloroethene | ND | | ug/l | 0.50 | 0.18 | 1 |
| Chlorobenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| Trichlorofluoromethane | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,2-Dichloroethane | ND | | ug/l | 0.50 | 0.13 | 1 |
| 1,1,1-Trichloroethane | ND | | ug/l | 2.5 | 0.70 | 1 |
| Bromodichloromethane | ND | | ug/l | 0.50 | 0.19 | 1 |
| trans-1,3-Dichloropropene | ND | | ug/l | 0.50 | 0.16 | 1 |
| cis-1,3-Dichloropropene | ND | | ug/l | 0.50 | 0.14 | 1 |
| 1,3-Dichloropropene, Total | ND | | ug/l | 0.50 | 0.14 | 1 |
| 1,1-Dichloropropene | ND | | ug/l | 2.5 | 0.70 | 1 |
| Bromoform | ND | | ug/l | 2.0 | 0.65 | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | ug/l | 0.50 | 0.17 | 1 |
| Benzene | 0.40 | J | ug/l | 0.50 | 0.16 | 1 |
| Toluene | ND | | ug/l | 2.5 | 0.70 | 1 |
| Ethylbenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| Chloromethane | ND | | ug/l | 2.5 | 0.70 | 1 |
| Bromomethane | ND | | ug/l | 2.5 | 0.70 | 1 |
| Vinyl chloride | ND | | ug/l | 1.0 | 0.07 | 1 |
| Chloroethane | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,1-Dichloroethene | ND | | ug/l | 0.50 | 0.17 | 1 |
| trans-1,2-Dichloroethene | ND | | ug/l | 2.5 | 0.70 | 1 |

**Project Name:** AMBOY ROAD **Lab Number:** L2263661

**Project Number:** 2508.0001Y003 **Report Date:** 11/17/22

## SAMPLE RESULTS

Lab ID: L2263661-05 Date Collected: 11/11/22 10:05

Client ID: MW-20 Date Received: 11/11/22

Sample Location: STATEN ISLAND, NY Field Prep: Not Specified

Sample Depth:

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Volatile Organics by GC/MS - Westborough Lab** | | | | | | |
| Trichloroethene | ND | | ug/l | 0.50 | 0.18 | 1 |
| 1,2-Dichlorobenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,3-Dichlorobenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,4-Dichlorobenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| Methyl tert butyl ether | ND | | ug/l | 2.5 | 0.70 | 1 |
| p/m-Xylene | ND | | ug/l | 2.5 | 0.70 | 1 |
| o-Xylene | ND | | ug/l | 2.5 | 0.70 | 1 |
| Xylenes, Total | ND | | ug/l | 2.5 | 0.70 | 1 |
| cis-1,2-Dichloroethene | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,2-Dichloroethene, Total | ND | | ug/l | 2.5 | 0.70 | 1 |
| Dibromomethane | ND | | ug/l | 5.0 | 1.0 | 1 |
| 1,2,3-Trichloropropane | ND | | ug/l | 2.5 | 0.70 | 1 |
| Acrylonitrile | ND | | ug/l | 5.0 | 1.5 | 1 |
| Styrene | ND | | ug/l | 2.5 | 0.70 | 1 |
| Dichlorodifluoromethane | ND | | ug/l | 5.0 | 1.0 | 1 |
| Acetone | ND | | ug/l | 5.0 | 1.5 | 1 |
| Carbon disulfide | ND | | ug/l | 5.0 | 1.0 | 1 |
| 2-Butanone | ND | | ug/l | 5.0 | 1.9 | 1 |
| Vinyl acetate | ND | | ug/l | 5.0 | 1.0 | 1 |
| 4-Methyl-2-pentanone | ND | | ug/l | 5.0 | 1.0 | 1 |
| 2-Hexanone | ND | | ug/l | 5.0 | 1.0 | 1 |
| Bromochloromethane | ND | | ug/l | 2.5 | 0.70 | 1 |
| 2,2-Dichloropropane | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,2-Dibromoethane | ND | | ug/l | 2.0 | 0.65 | 1 |
| 1,3-Dichloropropane | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,1,1,2-Tetrachloroethane | ND | | ug/l | 2.5 | 0.70 | 1 |
| Bromobenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| n-Butylbenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| sec-Butylbenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| tert-Butylbenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| o-Chlorotoluene | ND | | ug/l | 2.5 | 0.70 | 1 |
| p-Chlorotoluene | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,2-Dibromo-3-chloropropane | ND | | ug/l | 2.5 | 0.70 | 1 |
| Hexachlorobutadiene | ND | | ug/l | 2.5 | 0.70 | 1 |
| Isopropylbenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| p-Isopropyltoluene | ND | | ug/l | 2.5 | 0.70 | 1 |
| Naphthalene | ND | | ug/l | 2.5 | 0.70 | 1 |

**Project Name:** AMBOY ROAD
**Project Number:** 2508.0001Y003
**Lab Number:** L2263661
**Report Date:** 11/17/22

## SAMPLE RESULTS

Lab ID: L2263661-05
Client ID: MW-20
Sample Location: STATEN ISLAND, NY
Date Collected: 11/11/22 10:05
Date Received: 11/11/22
Field Prep: Not Specified

Sample Depth:

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Volatile Organics by GC/MS - Westborough Lab** | | | | | | |
| n-Propylbenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,2,3-Trichlorobenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,2,4-Trichlorobenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,3,5-Trimethylbenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,2,4-Trimethylbenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,4-Dioxane | ND | | ug/l | 250 | 61. | 1 |
| p-Diethylbenzene | ND | | ug/l | 2.0 | 0.70 | 1 |
| p-Ethyltoluene | ND | | ug/l | 2.0 | 0.70 | 1 |
| 1,2,4,5-Tetramethylbenzene | 1.1 | J | ug/l | 2.0 | 0.54 | 1 |
| Ethyl ether | ND | | ug/l | 2.5 | 0.70 | 1 |
| trans-1,4-Dichloro-2-butene | ND | | ug/l | 2.5 | 0.70 | 1 |
| **Tentatively Identified Compounds** | | | | | | |
| No Tentatively Identified Compounds | ND | | ug/l | | | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 1,2-Dichloroethane-d4 | 110 | | 70-130 |
| Toluene-d8 | 98 | | 70-130 |
| 4-Bromofluorobenzene | 118 | | 70-130 |
| Dibromofluoromethane | 110 | | 70-130 |

**Project Name:** AMBOY ROAD
**Project Number:** 2508.0001Y003
**Lab Number:** L2263661
**Report Date:** 11/17/22

## SAMPLE RESULTS

Lab ID: L2263661-06
Client ID: FIELDBLANK-111122
Sample Location: STATEN ISLAND, NY
Date Collected: 11/11/22 09:00
Date Received: 11/11/22
Field Prep: Not Specified

Sample Depth:
Matrix: Field Blank
Analytical Method: 1,8260D
Analytical Date: 11/16/22 10:22
Analyst: PID

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Volatile Organics by GC/MS - Westborough Lab** | | | | | | |
| Methylene chloride | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,1-Dichloroethane | ND | | ug/l | 2.5 | 0.70 | 1 |
| Chloroform | ND | | ug/l | 2.5 | 0.70 | 1 |
| Carbon tetrachloride | ND | | ug/l | 0.50 | 0.13 | 1 |
| 1,2-Dichloropropane | ND | | ug/l | 1.0 | 0.14 | 1 |
| Dibromochloromethane | ND | | ug/l | 0.50 | 0.15 | 1 |
| 1,1,2-Trichloroethane | ND | | ug/l | 1.5 | 0.50 | 1 |
| Tetrachloroethene | ND | | ug/l | 0.50 | 0.18 | 1 |
| Chlorobenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| Trichlorofluoromethane | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,2-Dichloroethane | ND | | ug/l | 0.50 | 0.13 | 1 |
| 1,1,1-Trichloroethane | ND | | ug/l | 2.5 | 0.70 | 1 |
| Bromodichloromethane | ND | | ug/l | 0.50 | 0.19 | 1 |
| trans-1,3-Dichloropropene | ND | | ug/l | 0.50 | 0.16 | 1 |
| cis-1,3-Dichloropropene | ND | | ug/l | 0.50 | 0.14 | 1 |
| 1,3-Dichloropropene, Total | ND | | ug/l | 0.50 | 0.14 | 1 |
| 1,1-Dichloropropene | ND | | ug/l | 2.5 | 0.70 | 1 |
| Bromoform | ND | | ug/l | 2.0 | 0.65 | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | ug/l | 0.50 | 0.17 | 1 |
| Benzene | ND | | ug/l | 0.50 | 0.16 | 1 |
| Toluene | ND | | ug/l | 2.5 | 0.70 | 1 |
| Ethylbenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| Chloromethane | ND | | ug/l | 2.5 | 0.70 | 1 |
| Bromomethane | ND | | ug/l | 2.5 | 0.70 | 1 |
| Vinyl chloride | ND | | ug/l | 1.0 | 0.07 | 1 |
| Chloroethane | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,1-Dichloroethene | ND | | ug/l | 0.50 | 0.17 | 1 |
| trans-1,2-Dichloroethene | ND | | ug/l | 2.5 | 0.70 | 1 |

**Project Name:** AMBOY ROAD **Lab Number:** L2263661

**Project Number:** 2508.0001Y003 **Report Date:** 11/17/22

## SAMPLE RESULTS

Lab ID: L2263661-06 Date Collected: 11/11/22 09:00

Client ID: FIELDBLANK-111122 Date Received: 11/11/22

Sample Location: STATEN ISLAND, NY Field Prep: Not Specified

Sample Depth:

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Volatile Organics by GC/MS - Westborough Lab** | | | | | | |
| Trichloroethene | ND | | ug/l | 0.50 | 0.18 | 1 |
| 1,2-Dichlorobenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,3-Dichlorobenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,4-Dichlorobenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| Methyl tert butyl ether | ND | | ug/l | 2.5 | 0.70 | 1 |
| p/m-Xylene | ND | | ug/l | 2.5 | 0.70 | 1 |
| o-Xylene | ND | | ug/l | 2.5 | 0.70 | 1 |
| Xylenes, Total | ND | | ug/l | 2.5 | 0.70 | 1 |
| cis-1,2-Dichloroethene | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,2-Dichloroethene, Total | ND | | ug/l | 2.5 | 0.70 | 1 |
| Dibromomethane | ND | | ug/l | 5.0 | 1.0 | 1 |
| 1,2,3-Trichloropropane | ND | | ug/l | 2.5 | 0.70 | 1 |
| Acrylonitrile | ND | | ug/l | 5.0 | 1.5 | 1 |
| Styrene | ND | | ug/l | 2.5 | 0.70 | 1 |
| Dichlorodifluoromethane | ND | | ug/l | 5.0 | 1.0 | 1 |
| Acetone | 2.7 | J | ug/l | 5.0 | 1.5 | 1 |
| Carbon disulfide | ND | | ug/l | 5.0 | 1.0 | 1 |
| 2-Butanone | ND | | ug/l | 5.0 | 1.9 | 1 |
| Vinyl acetate | ND | | ug/l | 5.0 | 1.0 | 1 |
| 4-Methyl-2-pentanone | ND | | ug/l | 5.0 | 1.0 | 1 |
| 2-Hexanone | ND | | ug/l | 5.0 | 1.0 | 1 |
| Bromochloromethane | ND | | ug/l | 2.5 | 0.70 | 1 |
| 2,2-Dichloropropane | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,2-Dibromoethane | ND | | ug/l | 2.0 | 0.65 | 1 |
| 1,3-Dichloropropane | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,1,1,2-Tetrachloroethane | ND | | ug/l | 2.5 | 0.70 | 1 |
| Bromobenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| n-Butylbenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| sec-Butylbenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| tert-Butylbenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| o-Chlorotoluene | ND | | ug/l | 2.5 | 0.70 | 1 |
| p-Chlorotoluene | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,2-Dibromo-3-chloropropane | ND | | ug/l | 2.5 | 0.70 | 1 |
| Hexachlorobutadiene | ND | | ug/l | 2.5 | 0.70 | 1 |
| Isopropylbenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| p-Isopropyltoluene | ND | | ug/l | 2.5 | 0.70 | 1 |
| Naphthalene | ND | | ug/l | 2.5 | 0.70 | 1 |

**Project Name:** AMBOY ROAD
**Project Number:** 2508.0001Y003
**Lab Number:** L2263661
**Report Date:** 11/17/22

## SAMPLE RESULTS

Lab ID: L2263661-06
Client ID: FIELDBLANK-111122
Sample Location: STATEN ISLAND, NY
Date Collected: 11/11/22 09:00
Date Received: 11/11/22
Field Prep: Not Specified

Sample Depth:

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Volatile Organics by GC/MS - Westborough Lab** | | | | | | |
| n-Propylbenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,2,3-Trichlorobenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,2,4-Trichlorobenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,3,5-Trimethylbenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,2,4-Trimethylbenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,4-Dioxane | ND | | ug/l | 250 | 61. | 1 |
| p-Diethylbenzene | ND | | ug/l | 2.0 | 0.70 | 1 |
| p-Ethyltoluene | ND | | ug/l | 2.0 | 0.70 | 1 |
| 1,2,4,5-Tetramethylbenzene | ND | | ug/l | 2.0 | 0.54 | 1 |
| Ethyl ether | ND | | ug/l | 2.5 | 0.70 | 1 |
| trans-1,4-Dichloro-2-butene | ND | | ug/l | 2.5 | 0.70 | 1 |
| **Tentatively Identified Compounds** | | | | | | |
| No Tentatively Identified Compounds | ND | | ug/l | | | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 1,2-Dichloroethane-d4 | 112 | | 70-130 |
| Toluene-d8 | 98 | | 70-130 |
| 4-Bromofluorobenzene | 125 | | 70-130 |
| Dibromofluoromethane | 115 | | 70-130 |

**Project Name:** AMBOY ROAD
**Project Number:** 2508.0001Y003
**Lab Number:** L2263661
**Report Date:** 11/17/22

## SAMPLE RESULTS

Lab ID: L2263661-07
Client ID: TRIP BLANK
Sample Location: STATEN ISLAND, NY
Date Collected: 11/09/22 00:00
Date Received: 11/11/22
Field Prep: Not Specified

Sample Depth:
Matrix: Trip Blank (Aqueous)
Analytical Method: 1,8260D
Analytical Date: 11/16/22 10:42
Analyst: PID

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Volatile Organics by GC/MS - Westborough Lab** | | | | | | |
| Methylene chloride | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,1-Dichloroethane | ND | | ug/l | 2.5 | 0.70 | 1 |
| Chloroform | ND | | ug/l | 2.5 | 0.70 | 1 |
| Carbon tetrachloride | ND | | ug/l | 0.50 | 0.13 | 1 |
| 1,2-Dichloropropane | ND | | ug/l | 1.0 | 0.14 | 1 |
| Dibromochloromethane | ND | | ug/l | 0.50 | 0.15 | 1 |
| 1,1,2-Trichloroethane | ND | | ug/l | 1.5 | 0.50 | 1 |
| Tetrachloroethene | ND | | ug/l | 0.50 | 0.18 | 1 |
| Chlorobenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| Trichlorofluoromethane | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,2-Dichloroethane | ND | | ug/l | 0.50 | 0.13 | 1 |
| 1,1,1-Trichloroethane | ND | | ug/l | 2.5 | 0.70 | 1 |
| Bromodichloromethane | ND | | ug/l | 0.50 | 0.19 | 1 |
| trans-1,3-Dichloropropene | ND | | ug/l | 0.50 | 0.16 | 1 |
| cis-1,3-Dichloropropene | ND | | ug/l | 0.50 | 0.14 | 1 |
| 1,3-Dichloropropene, Total | ND | | ug/l | 0.50 | 0.14 | 1 |
| 1,1-Dichloropropene | ND | | ug/l | 2.5 | 0.70 | 1 |
| Bromoform | ND | | ug/l | 2.0 | 0.65 | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | ug/l | 0.50 | 0.17 | 1 |
| Benzene | ND | | ug/l | 0.50 | 0.16 | 1 |
| Toluene | ND | | ug/l | 2.5 | 0.70 | 1 |
| Ethylbenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| Chloromethane | ND | | ug/l | 2.5 | 0.70 | 1 |
| Bromomethane | ND | | ug/l | 2.5 | 0.70 | 1 |
| Vinyl chloride | ND | | ug/l | 1.0 | 0.07 | 1 |
| Chloroethane | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,1-Dichloroethene | ND | | ug/l | 0.50 | 0.17 | 1 |
| trans-1,2-Dichloroethene | ND | | ug/l | 2.5 | 0.70 | 1 |

**Project Name:** AMBOY ROAD **Lab Number:** L2263661

**Project Number:** 2508.0001Y003 **Report Date:** 11/17/22

## SAMPLE RESULTS

Lab ID: L2263661-07 Date Collected: 11/09/22 00:00

Client ID: TRIP BLANK Date Received: 11/11/22

Sample Location: STATEN ISLAND, NY Field Prep: Not Specified

Sample Depth:

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Volatile Organics by GC/MS - Westborough Lab** | | | | | | |
| Trichloroethene | ND | | ug/l | 0.50 | 0.18 | 1 |
| 1,2-Dichlorobenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,3-Dichlorobenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,4-Dichlorobenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| Methyl tert butyl ether | ND | | ug/l | 2.5 | 0.70 | 1 |
| p/m-Xylene | ND | | ug/l | 2.5 | 0.70 | 1 |
| o-Xylene | ND | | ug/l | 2.5 | 0.70 | 1 |
| Xylenes, Total | ND | | ug/l | 2.5 | 0.70 | 1 |
| cis-1,2-Dichloroethene | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,2-Dichloroethene, Total | ND | | ug/l | 2.5 | 0.70 | 1 |
| Dibromomethane | ND | | ug/l | 5.0 | 1.0 | 1 |
| 1,2,3-Trichloropropane | ND | | ug/l | 2.5 | 0.70 | 1 |
| Acrylonitrile | ND | | ug/l | 5.0 | 1.5 | 1 |
| Styrene | ND | | ug/l | 2.5 | 0.70 | 1 |
| Dichlorodifluoromethane | ND | | ug/l | 5.0 | 1.0 | 1 |
| Acetone | 48 | | ug/l | 5.0 | 1.5 | 1 |
| Carbon disulfide | ND | | ug/l | 5.0 | 1.0 | 1 |
| 2-Butanone | ND | | ug/l | 5.0 | 1.9 | 1 |
| Vinyl acetate | ND | | ug/l | 5.0 | 1.0 | 1 |
| 4-Methyl-2-pentanone | ND | | ug/l | 5.0 | 1.0 | 1 |
| 2-Hexanone | ND | | ug/l | 5.0 | 1.0 | 1 |
| Bromochloromethane | ND | | ug/l | 2.5 | 0.70 | 1 |
| 2,2-Dichloropropane | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,2-Dibromoethane | ND | | ug/l | 2.0 | 0.65 | 1 |
| 1,3-Dichloropropane | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,1,1,2-Tetrachloroethane | ND | | ug/l | 2.5 | 0.70 | 1 |
| Bromobenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| n-Butylbenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| sec-Butylbenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| tert-Butylbenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| o-Chlorotoluene | ND | | ug/l | 2.5 | 0.70 | 1 |
| p-Chlorotoluene | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,2-Dibromo-3-chloropropane | ND | | ug/l | 2.5 | 0.70 | 1 |
| Hexachlorobutadiene | ND | | ug/l | 2.5 | 0.70 | 1 |
| Isopropylbenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| p-Isopropyltoluene | ND | | ug/l | 2.5 | 0.70 | 1 |
| Naphthalene | ND | | ug/l | 2.5 | 0.70 | 1 |

**Project Name:** AMBOY ROAD
**Project Number:** 2508.0001Y003
**Lab Number:** L2263661
**Report Date:** 11/17/22

## SAMPLE RESULTS

Lab ID: L2263661-07
Client ID: TRIP BLANK
Sample Location: STATEN ISLAND, NY
Date Collected: 11/09/22 00:00
Date Received: 11/11/22
Field Prep: Not Specified

Sample Depth:

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Volatile Organics by GC/MS - Westborough Lab** | | | | | | |
| n-Propylbenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,2,3-Trichlorobenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,2,4-Trichlorobenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,3,5-Trimethylbenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,2,4-Trimethylbenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,4-Dioxane | ND | | ug/l | 250 | 61. | 1 |
| p-Diethylbenzene | ND | | ug/l | 2.0 | 0.70 | 1 |
| p-Ethyltoluene | ND | | ug/l | 2.0 | 0.70 | 1 |
| 1,2,4,5-Tetramethylbenzene | ND | | ug/l | 2.0 | 0.54 | 1 |
| Ethyl ether | ND | | ug/l | 2.5 | 0.70 | 1 |
| trans-1,4-Dichloro-2-butene | ND | | ug/l | 2.5 | 0.70 | 1 |
| **Tentatively Identified Compounds** | | | | | | |
| No Tentatively Identified Compounds | ND | | ug/l | | | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 1,2-Dichloroethane-d4 | 113 | | 70-130 |
| Toluene-d8 | 98 | | 70-130 |
| 4-Bromofluorobenzene | 124 | | 70-130 |
| Dibromofluoromethane | 114 | | 70-130 |

**Project Name:** AMBOY ROAD
**Project Number:** 2508.0001Y003
**Lab Number:** L2263661
**Report Date:** 11/17/22

# Method Blank Analysis
## Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 11/16/22 07:08
Analyst: MJV

| Parameter | Result | Qualifier | Units | RL | MDL |
|---|---|---|---|---|---|
| Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-07 Batch: WG1712920-5 | | | | | |
| Methylene chloride | ND | | ug/l | 2.5 | 0.70 |
| 1,1-Dichloroethane | ND | | ug/l | 2.5 | 0.70 |
| Chloroform | ND | | ug/l | 2.5 | 0.70 |
| Carbon tetrachloride | ND | | ug/l | 0.50 | 0.13 |
| 1,2-Dichloropropane | ND | | ug/l | 1.0 | 0.14 |
| Dibromochloromethane | ND | | ug/l | 0.50 | 0.15 |
| 1,1,2-Trichloroethane | ND | | ug/l | 1.5 | 0.50 |
| Tetrachloroethene | ND | | ug/l | 0.50 | 0.18 |
| Chlorobenzene | ND | | ug/l | 2.5 | 0.70 |
| Trichlorofluoromethane | ND | | ug/l | 2.5 | 0.70 |
| 1,2-Dichloroethane | ND | | ug/l | 0.50 | 0.13 |
| 1,1,1-Trichloroethane | ND | | ug/l | 2.5 | 0.70 |
| Bromodichloromethane | ND | | ug/l | 0.50 | 0.19 |
| trans-1,3-Dichloropropene | ND | | ug/l | 0.50 | 0.16 |
| cis-1,3-Dichloropropene | ND | | ug/l | 0.50 | 0.14 |
| 1,3-Dichloropropene, Total | ND | | ug/l | 0.50 | 0.14 |
| 1,1-Dichloropropene | ND | | ug/l | 2.5 | 0.70 |
| Bromoform | ND | | ug/l | 2.0 | 0.65 |
| 1,1,2,2-Tetrachloroethane | ND | | ug/l | 0.50 | 0.17 |
| Benzene | ND | | ug/l | 0.50 | 0.16 |
| Toluene | ND | | ug/l | 2.5 | 0.70 |
| Ethylbenzene | ND | | ug/l | 2.5 | 0.70 |
| Chloromethane | ND | | ug/l | 2.5 | 0.70 |
| Bromomethane | ND | | ug/l | 2.5 | 0.70 |
| Vinyl chloride | ND | | ug/l | 1.0 | 0.07 |
| Chloroethane | ND | | ug/l | 2.5 | 0.70 |
| 1,1-Dichloroethene | ND | | ug/l | 0.50 | 0.17 |
| trans-1,2-Dichloroethene | ND | | ug/l | 2.5 | 0.70 |
| Trichloroethene | ND | | ug/l | 0.50 | 0.18 |

**Project Name:** AMBOY ROAD
**Project Number:** 2508.0001Y003
**Lab Number:** L2263661
**Report Date:** 11/17/22

# Method Blank Analysis
## Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 11/16/22 07:08
Analyst: MJV

| Parameter | Result | Qualifier | Units | RL | MDL |
|---|---|---|---|---|---|
| Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-07 Batch: WG1712920-5 | | | | | |
| 1,2-Dichlorobenzene | ND | | ug/l | 2.5 | 0.70 |
| 1,3-Dichlorobenzene | ND | | ug/l | 2.5 | 0.70 |
| 1,4-Dichlorobenzene | ND | | ug/l | 2.5 | 0.70 |
| Methyl tert butyl ether | ND | | ug/l | 2.5 | 0.70 |
| p/m-Xylene | ND | | ug/l | 2.5 | 0.70 |
| o-Xylene | ND | | ug/l | 2.5 | 0.70 |
| Xylenes, Total | ND | | ug/l | 2.5 | 0.70 |
| cis-1,2-Dichloroethene | ND | | ug/l | 2.5 | 0.70 |
| 1,2-Dichloroethene, Total | ND | | ug/l | 2.5 | 0.70 |
| Dibromomethane | ND | | ug/l | 5.0 | 1.0 |
| 1,2,3-Trichloropropane | ND | | ug/l | 2.5 | 0.70 |
| Acrylonitrile | ND | | ug/l | 5.0 | 1.5 |
| Styrene | ND | | ug/l | 2.5 | 0.70 |
| Dichlorodifluoromethane | ND | | ug/l | 5.0 | 1.0 |
| Acetone | ND | | ug/l | 5.0 | 1.5 |
| Carbon disulfide | ND | | ug/l | 5.0 | 1.0 |
| 2-Butanone | ND | | ug/l | 5.0 | 1.9 |
| Vinyl acetate | ND | | ug/l | 5.0 | 1.0 |
| 4-Methyl-2-pentanone | ND | | ug/l | 5.0 | 1.0 |
| 2-Hexanone | ND | | ug/l | 5.0 | 1.0 |
| Bromochloromethane | ND | | ug/l | 2.5 | 0.70 |
| 2,2-Dichloropropane | ND | | ug/l | 2.5 | 0.70 |
| 1,2-Dibromoethane | ND | | ug/l | 2.0 | 0.65 |
| 1,3-Dichloropropane | ND | | ug/l | 2.5 | 0.70 |
| 1,1,1,2-Tetrachloroethane | ND | | ug/l | 2.5 | 0.70 |
| Bromobenzene | ND | | ug/l | 2.5 | 0.70 |
| n-Butylbenzene | ND | | ug/l | 2.5 | 0.70 |
| sec-Butylbenzene | ND | | ug/l | 2.5 | 0.70 |
| tert-Butylbenzene | ND | | ug/l | 2.5 | 0.70 |

**Project Name:** AMBOY ROAD
**Project Number:** 2508.0001Y003
**Lab Number:** L2263661
**Report Date:** 11/17/22

# Method Blank Analysis
## Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 11/16/22 07:08
Analyst: MJV

| Parameter | Result | Qualifier | Units | RL | MDL |
|---|---|---|---|---|---|
| Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-07 Batch: WG1712920-5 | | | | | |
| o-Chlorotoluene | ND | | ug/l | 2.5 | 0.70 |
| p-Chlorotoluene | ND | | ug/l | 2.5 | 0.70 |
| 1,2-Dibromo-3-chloropropane | ND | | ug/l | 2.5 | 0.70 |
| Hexachlorobutadiene | ND | | ug/l | 2.5 | 0.70 |
| Isopropylbenzene | ND | | ug/l | 2.5 | 0.70 |
| p-Isopropyltoluene | ND | | ug/l | 2.5 | 0.70 |
| Naphthalene | ND | | ug/l | 2.5 | 0.70 |
| n-Propylbenzene | ND | | ug/l | 2.5 | 0.70 |
| 1,2,3-Trichlorobenzene | ND | | ug/l | 2.5 | 0.70 |
| 1,2,4-Trichlorobenzene | ND | | ug/l | 2.5 | 0.70 |
| 1,3,5-Trimethylbenzene | ND | | ug/l | 2.5 | 0.70 |
| 1,2,4-Trimethylbenzene | ND | | ug/l | 2.5 | 0.70 |
| 1,4-Dioxane | ND | | ug/l | 250 | 61. |
| p-Diethylbenzene | ND | | ug/l | 2.0 | 0.70 |
| p-Ethyltoluene | ND | | ug/l | 2.0 | 0.70 |
| 1,2,4,5-Tetramethylbenzene | ND | | ug/l | 2.0 | 0.54 |
| Ethyl ether | ND | | ug/l | 2.5 | 0.70 |
| trans-1,4-Dichloro-2-butene | ND | | ug/l | 2.5 | 0.70 |
| Tentatively Identified Compounds | | | | | |
| No Tentatively Identified Compounds | ND | | ug/l | | |

**Project Name:** AMBOY ROAD
**Project Number:** 2508.0001Y003
**Lab Number:** L2263661
**Report Date:** 11/17/22

# Method Blank Analysis
## Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 11/16/22 07:08
Analyst: MJV

| Parameter | Result | Qualifier | Units | RL | MDL |
|---|---|---|---|---|---|
| Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-07 Batch: WG1712920-5 | | | | | |

| Surrogate | %Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 1,2-Dichloroethane-d4 | 106 | | 70-130 |
| Toluene-d8 | 100 | | 70-130 |
| 4-Bromofluorobenzene | 121 | | 70-130 |
| Dibromofluoromethane | 105 | | 70-130 |

# Lab Control Sample Analysis
## Batch Quality Control

**Project Name:** AMBOY ROAD
**Project Number:** 2508.0001Y003

**Lab Number:** L2263661
**Report Date:** 11/17/22

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-07 Batch: WG1712920-3 WG1712920-4 | | | | | | | | |
| Methylene chloride | 120 | | 110 | | 70-130 | 9 | | 20 |
| 1,1-Dichloroethane | 120 | | 120 | | 70-130 | 0 | | 20 |
| Chloroform | 110 | | 110 | | 70-130 | 0 | | 20 |
| Carbon tetrachloride | 100 | | 100 | | 63-132 | 0 | | 20 |
| 1,2-Dichloropropane | 120 | | 120 | | 70-130 | 0 | | 20 |
| Dibromochloromethane | 89 | | 92 | | 63-130 | 3 | | 20 |
| 1,1,2-Trichloroethane | 98 | | 100 | | 70-130 | 2 | | 20 |
| Tetrachloroethene | 100 | | 100 | | 70-130 | 0 | | 20 |
| Chlorobenzene | 110 | | 110 | | 75-130 | 0 | | 20 |
| Trichlorofluoromethane | 86 | | 85 | | 62-150 | 1 | | 20 |
| 1,2-Dichloroethane | 100 | | 100 | | 70-130 | 0 | | 20 |
| 1,1,1-Trichloroethane | 110 | | 110 | | 67-130 | 0 | | 20 |
| Bromodichloromethane | 100 | | 100 | | 67-130 | 0 | | 20 |
| trans-1,3-Dichloropropene | 89 | | 93 | | 70-130 | 4 | | 20 |
| cis-1,3-Dichloropropene | 96 | | 98 | | 70-130 | 2 | | 20 |
| 1,1-Dichloropropene | 110 | | 110 | | 70-130 | 0 | | 20 |
| Bromoform | 77 | | 80 | | 54-136 | 4 | | 20 |
| 1,1,2,2-Tetrachloroethane | 99 | | 100 | | 67-130 | 1 | | 20 |
| Benzene | 120 | | 120 | | 70-130 | 0 | | 20 |
| Toluene | 120 | | 120 | | 70-130 | 0 | | 20 |
| Ethylbenzene | 120 | | 120 | | 70-130 | 0 | | 20 |
| Chloromethane | **140** | Q | 130 | | 64-130 | 7 | | 20 |
| Bromomethane | 59 | | 60 | | 39-139 | 2 | | 20 |

# Lab Control Sample Analysis
## Batch Quality Control

**Project Name:** AMBOY ROAD
**Project Number:** 2508.0001Y003

**Lab Number:** L2263661
**Report Date:** 11/17/22

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-07 Batch: WG1712920-3 WG1712920-4 | | | | | | | | |
| Vinyl chloride | 120 | | 120 | | 55-140 | 0 | | 20 |
| Chloroethane | 94 | | 94 | | 55-138 | 0 | | 20 |
| 1,1-Dichloroethene | 86 | | 84 | | 61-145 | 2 | | 20 |
| trans-1,2-Dichloroethene | 110 | | 120 | | 70-130 | 9 | | 20 |
| Trichloroethene | 110 | | 110 | | 70-130 | 0 | | 20 |
| 1,2-Dichlorobenzene | 110 | | 110 | | 70-130 | 0 | | 20 |
| 1,3-Dichlorobenzene | 110 | | 110 | | 70-130 | 0 | | 20 |
| 1,4-Dichlorobenzene | 110 | | 110 | | 70-130 | 0 | | 20 |
| Methyl tert butyl ether | 86 | | 90 | | 63-130 | 5 | | 20 |
| p/m-Xylene | 115 | | 120 | | 70-130 | 4 | | 20 |
| o-Xylene | 110 | | 110 | | 70-130 | 0 | | 20 |
| cis-1,2-Dichloroethene | 110 | | 110 | | 70-130 | 0 | | 20 |
| Dibromomethane | 96 | | 98 | | 70-130 | 2 | | 20 |
| 1,2,3-Trichloropropane | 100 | | 100 | | 64-130 | 0 | | 20 |
| Acrylonitrile | 120 | | 110 | | 70-130 | 9 | | 20 |
| Styrene | 110 | | 110 | | 70-130 | 0 | | 20 |
| Dichlorodifluoromethane | 100 | | 98 | | 36-147 | 2 | | 20 |
| Acetone | 110 | | 110 | | 58-148 | 0 | | 20 |
| Carbon disulfide | 65 | | 63 | | 51-130 | 3 | | 20 |
| 2-Butanone | 120 | | 100 | | 63-138 | 18 | | 20 |
| Vinyl acetate | 95 | | 97 | | 70-130 | 2 | | 20 |
| 4-Methyl-2-pentanone | 98 | | 100 | | 59-130 | 2 | | 20 |
| 2-Hexanone | 110 | | 110 | | 57-130 | 0 | | 20 |

# Lab Control Sample Analysis
## Batch Quality Control

**Project Name:** AMBOY ROAD
**Project Number:** 2508.0001Y003

**Lab Number:** L2263661
**Report Date:** 11/17/22

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-07 Batch: WG1712920-3 WG1712920-4 | | | | | | | | |
| Bromochloromethane | 97 | | 100 | | 70-130 | 3 | | 20 |
| 2,2-Dichloropropane | 120 | | 120 | | 63-133 | 0 | | 20 |
| 1,2-Dibromoethane | 92 | | 95 | | 70-130 | 3 | | 20 |
| 1,3-Dichloropropane | 100 | | 100 | | 70-130 | 0 | | 20 |
| 1,1,1,2-Tetrachloroethane | 94 | | 97 | | 64-130 | 3 | | 20 |
| Bromobenzene | 100 | | 100 | | 70-130 | 0 | | 20 |
| n-Butylbenzene | 110 | | 110 | | 53-136 | 0 | | 20 |
| sec-Butylbenzene | 110 | | 110 | | 70-130 | 0 | | 20 |
| tert-Butylbenzene | 110 | | 110 | | 70-130 | 0 | | 20 |
| o-Chlorotoluene | 120 | | 130 | | 70-130 | 8 | | 20 |
| p-Chlorotoluene | 130 | | 130 | | 70-130 | 0 | | 20 |
| 1,2-Dibromo-3-chloropropane | 86 | | 94 | | 41-144 | 9 | | 20 |
| Hexachlorobutadiene | 90 | | 94 | | 63-130 | 4 | | 20 |
| Isopropylbenzene | 120 | | 120 | | 70-130 | 0 | | 20 |
| p-Isopropyltoluene | 110 | | 110 | | 70-130 | 0 | | 20 |
| Naphthalene | 91 | | 91 | | 70-130 | 0 | | 20 |
| n-Propylbenzene | 120 | | 130 | | 69-130 | 8 | | 20 |
| 1,2,3-Trichlorobenzene | 88 | | 90 | | 70-130 | 2 | | 20 |
| 1,2,4-Trichlorobenzene | 89 | | 92 | | 70-130 | 3 | | 20 |
| 1,3,5-Trimethylbenzene | 120 | | 120 | | 64-130 | 0 | | 20 |
| 1,2,4-Trimethylbenzene | 120 | | 120 | | 70-130 | 0 | | 20 |
| 1,4-Dioxane | 86 | | 98 | | 56-162 | 13 | | 20 |
| p-Diethylbenzene | 110 | | 110 | | 70-130 | 0 | | 20 |

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** AMBOY ROAD

**Project Number:** 2508.0001Y003

**Lab Number:** L2263661

**Report Date:** 11/17/22

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-07 Batch: WG1712920-3 WG1712920-4 | | | | | | | | |
| p-Ethyltoluene | 120 | | 120 | | 70-130 | 0 | | 20 |
| 1,2,4,5-Tetramethylbenzene | 100 | | 100 | | 70-130 | 0 | | 20 |
| Ethyl ether | 67 | | 73 | | 59-134 | 9 | | 20 |
| trans-1,4-Dichloro-2-butene | 100 | | 100 | | 70-130 | 0 | | 20 |

| Surrogate | LCS %Recovery | Qual | LCSD %Recovery | Qual | Acceptance Criteria |
|---|---|---|---|---|---|
| 1,2-Dichloroethane-d4 | 94 | | 94 | | 70-130 |
| Toluene-d8 | 104 | | 106 | | 70-130 |
| 4-Bromofluorobenzene | 117 | | 118 | | 70-130 |
| Dibromofluoromethane | 93 | | 92 | | 70-130 |

# Matrix Spike Analysis

## *Batch Quality Control*

**Project Name:** AMBOY ROAD

**Project Number:** 2508.0001Y003

**Lab Number:** L2263661

**Report Date:** 11/17/22

| Parameter | Native Sample | MS Added | MS Found | MS %Recovery | Qual | MSD Found | MSD %Recovery | Qual | Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-07 QC Batch ID: WG1712920-6 WG1712920-7 QC Sample: L2263661-01 Client ID: MW-11R | | | | | | | | | | | | |
| Methylene chloride | ND | 200 | 210 | 105 | | 220 | 110 | | 70-130 | 5 | | 20 |
| 1,1-Dichloroethane | ND | 200 | 230 | 115 | | 240 | 120 | | 70-130 | 4 | | 20 |
| Chloroform | ND | 200 | 200 | 100 | | 220 | 110 | | 70-130 | 10 | | 20 |
| Carbon tetrachloride | ND | 200 | 190 | 95 | | 180 | 90 | | 63-132 | 5 | | 20 |
| 1,2-Dichloropropane | ND | 200 | 240 | 120 | | 250 | 125 | | 70-130 | 4 | | 20 |
| Dibromochloromethane | ND | 200 | 200 | 100 | | 200 | 100 | | 63-130 | 0 | | 20 |
| 1,1,2-Trichloroethane | ND | 200 | 260 | 130 | | 290 | **145** | Q | 70-130 | 11 | | 20 |
| Tetrachloroethene | ND | 200 | 200 | 100 | | 180 | 90 | | 70-130 | 11 | | 20 |
| Chlorobenzene | ND | 200 | 220 | 110 | | 210 | 105 | | 75-130 | 5 | | 20 |
| Trichlorofluoromethane | ND | 200 | 160 | 80 | | 140 | 70 | | 62-150 | 13 | | 20 |
| 1,2-Dichloroethane | ND | 200 | 190 | 95 | | 210 | 105 | | 70-130 | 10 | | 20 |
| 1,1,1-Trichloroethane | ND | 200 | 200 | 100 | | 190 | 95 | | 67-130 | 5 | | 20 |
| Bromodichloromethane | ND | 200 | 200 | 100 | | 200 | 100 | | 67-130 | 0 | | 20 |
| trans-1,3-Dichloropropene | ND | 200 | 190 | 95 | | 200 | 100 | | 70-130 | 5 | | 20 |
| cis-1,3-Dichloropropene | ND | 200 | 180 | 90 | | 200 | 100 | | 70-130 | 11 | | 20 |
| 1,1-Dichloropropene | ND | 200 | 210 | 105 | | 200 | 100 | | 70-130 | 5 | | 20 |
| Bromoform | ND | 200 | 160 | 80 | | 180 | 90 | | 54-136 | 12 | | 20 |
| 1,1,2,2-Tetrachloroethane | ND | 200 | 200 | 100 | | 230 | 115 | | 67-130 | 14 | | 20 |
| Benzene | 2100 | 200 | 2200 | **50** | Q | 2100 | **0** | Q | 70-130 | 5 | | 20 |
| Toluene | 94 | 200 | 320 | 113 | | 310 | 108 | | 70-130 | 3 | | 20 |
| Ethylbenzene | 720 | 200 | 910 | 95 | | 880 | 80 | | 70-130 | 3 | | 20 |
| Chloromethane | ND | 200 | 270 | **135** | Q | 280 | **140** | Q | 64-130 | 4 | | 20 |
| Bromomethane | ND | 200 | 97 | 48 | | 110 | 55 | | 39-139 | 13 | | 20 |

# Matrix Spike Analysis

## *Batch Quality Control*

***Project Name:*** AMBOY ROAD

***Project Number:*** 2508.0001Y003

***Lab Number:*** L2263661

***Report Date:*** 11/17/22

| Parameter | Native Sample | MS Added | MS Found | MS %Recovery | Qual | MSD Found | MSD %Recovery | Qual | Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-07 QC Batch ID: WG1712920-6 WG1712920-7 QC Sample: L2263661-01 Client ID: MW-11R | | | | | | | | | | | | |
| Vinyl chloride | ND | 200 | 220 | 110 | | 220 | 110 | | 55-140 | 0 | | 20 |
| Chloroethane | ND | 200 | 170 | 85 | | 180 | 90 | | 55-138 | 6 | | 20 |
| 1,1-Dichloroethene | ND | 200 | 150 | 75 | | 150 | 75 | | 61-145 | 0 | | 20 |
| trans-1,2-Dichloroethene | ND | 200 | 200 | 100 | | 200 | 100 | | 70-130 | 0 | | 20 |
| Trichloroethene | ND | 200 | 210 | 105 | | 210 | 105 | | 70-130 | 0 | | 20 |
| 1,2-Dichlorobenzene | ND | 200 | 200 | 100 | | 210 | 105 | | 70-130 | 5 | | 20 |
| 1,3-Dichlorobenzene | ND | 200 | 200 | 100 | | 200 | 100 | | 70-130 | 0 | | 20 |
| 1,4-Dichlorobenzene | ND | 200 | 200 | 100 | | 200 | 100 | | 70-130 | 0 | | 20 |
| Methyl tert butyl ether | 190 | 200 | 370 | 90 | | 400 | 105 | | 63-130 | 8 | | 20 |
| p/m-Xylene | 860 | 400 | 1200 | 85 | | 1200 | 85 | | 70-130 | 0 | | 20 |
| o-Xylene | 36J | 400 | 460 | 115 | | 440 | 110 | | 70-130 | 4 | | 20 |
| cis-1,2-Dichloroethene | ND | 200 | 210 | 105 | | 210 | 105 | | 70-130 | 0 | | 20 |
| Dibromomethane | ND | 200 | 180 | 90 | | 200 | 100 | | 70-130 | 11 | | 20 |
| 1,2,3-Trichloropropane | ND | 200 | 220 | 110 | | 250 | 125 | | 64-130 | 13 | | 20 |
| Acrylonitrile | ND | 200 | 390 | **195** | Q | 450 | **225** | Q | 70-130 | 14 | | 20 |
| Styrene | ND | 400 | 420 | 105 | | 400 | 100 | | 70-130 | 5 | | 20 |
| Dichlorodifluoromethane | ND | 200 | 180 | 90 | | 160 | 80 | | 36-147 | 12 | | 20 |
| Acetone | 31J | 200 | 240 | 120 | | 250 | 125 | | 58-148 | 4 | | 20 |
| Carbon disulfide | ND | 200 | 110 | 55 | | 100 | **50** | Q | 51-130 | 10 | | 20 |
| 2-Butanone | ND | 200 | 360 | **180** | Q | 390 | **195** | Q | 63-138 | 8 | | 20 |
| Vinyl acetate | ND | 200 | 200 | 100 | | 220 | 110 | | 70-130 | 10 | | 20 |
| 4-Methyl-2-pentanone | ND | 200 | 210 | 105 | | 250 | 125 | | 59-130 | 17 | | 20 |
| 2-Hexanone | ND | 200 | 240 | 120 | | 260 | 130 | | 57-130 | 8 | | 20 |

# Matrix Spike Analysis

## *Batch Quality Control*

***Project Name:*** AMBOY ROAD

***Project Number:*** 2508.0001Y003

***Lab Number:*** L2263661

***Report Date:*** 11/17/22

| *Parameter* | *Native Sample* | *MS Added* | *MS Found* | *MS %Recovery* | *Qual* | *MSD Found* | *MSD %Recovery* | *Qual* | *Recovery Limits* | *RPD* | *Qual* | *RPD Limits* |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-07 QC Batch ID: WG1712920-6 WG1712920-7 QC Sample: L2263661-01 Client ID: MW-11R | | | | | | | | | | | | |
| Bromochloromethane | ND | 200 | 180 | 90 | | 190 | 95 | | 70-130 | 5 | | 20 |
| 2,2-Dichloropropane | ND | 200 | 180 | 90 | | 170 | 85 | | 63-133 | 6 | | 20 |
| 1,2-Dibromoethane | ND | 200 | 200 | 100 | | 220 | 110 | | 70-130 | 10 | | 20 |
| 1,3-Dichloropropane | ND | 200 | 220 | 110 | | 240 | 120 | | 70-130 | 9 | | 20 |
| 1,1,1,2-Tetrachloroethane | ND | 200 | 200 | 100 | | 200 | 100 | | 64-130 | 0 | | 20 |
| Bromobenzene | ND | 200 | 190 | 95 | | 200 | 100 | | 70-130 | 5 | | 20 |
| n-Butylbenzene | 30J | 200 | 230 | 115 | | 200 | 100 | | 53-136 | 14 | | 20 |
| sec-Butylbenzene | 22J | 200 | 220 | 110 | | 200 | 100 | | 70-130 | 10 | | 20 |
| tert-Butylbenzene | ND | 200 | 210 | 105 | | 200 | 100 | | 70-130 | 5 | | 20 |
| o-Chlorotoluene | ND | 200 | 270 | **135** | Q | 270 | **135** | Q | 70-130 | 0 | | 20 |
| p-Chlorotoluene | ND | 200 | 230 | 115 | | 220 | 110 | | 70-130 | 4 | | 20 |
| 1,2-Dibromo-3-chloropropane | ND | 200 | 180 | 90 | | 210 | 105 | | 41-144 | 15 | | 20 |
| Hexachlorobutadiene | ND | 200 | 170 | 85 | | 160 | 80 | | 63-130 | 6 | | 20 |
| Isopropylbenzene | 110 | 200 | 340 | 115 | | 330 | 110 | | 70-130 | 3 | | 20 |
| p-Isopropyltoluene | 16J | 200 | 220 | 110 | | 200 | 100 | | 70-130 | 10 | | 20 |
| Naphthalene | 410 | 200 | 600 | 95 | | 630 | 110 | | 70-130 | 5 | | 20 |
| n-Propylbenzene | 290 | 200 | 500 | 105 | | 490 | 100 | | 69-130 | 2 | | 20 |
| 1,2,3-Trichlorobenzene | ND | 200 | 170 | 85 | | 180 | 90 | | 70-130 | 6 | | 20 |
| 1,2,4-Trichlorobenzene | ND | 200 | 180 | 90 | | 180 | 90 | | 70-130 | 0 | | 20 |
| 1,3,5-Trimethylbenzene | 180 | 200 | 390 | 105 | | 390 | 105 | | 64-130 | 0 | | 20 |
| 1,2,4-Trimethylbenzene | 700 | 200 | 880 | 90 | | 870 | 85 | | 70-130 | 1 | | 20 |
| 1,4-Dioxane | ND | 10000 | 7400 | 74 | | 11000 | 110 | | 56-162 | **39** | Q | 20 |
| p-Diethylbenzene | 120 | 200 | 320 | 100 | | 300 | 90 | | 70-130 | 6 | | 20 |

# Matrix Spike Analysis

## *Batch Quality Control*

**Project Name:** AMBOY ROAD
**Project Number:** 2508.0001Y003

**Lab Number:** L2263661
**Report Date:** 11/17/22

| Parameter | Native Sample | MS Added | MS Found | MS %Recovery | Qual | MSD Found | MSD %Recovery | Qual | Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-07 QC Batch ID: WG1712920-6 WG1712920-7 QC Sample: L2263661-01 Client ID: MW-11R | | | | | | | | | | | | |
| p-Ethyltoluene | 340 | 200 | 550 | 105 | | 540 | 100 | | 70-130 | 2 | | 20 |
| 1,2,4,5-Tetramethylbenzene | 140 | 200 | 330 | 95 | | 320 | 90 | | 70-130 | 3 | | 20 |
| Ethyl ether | ND | 200 | 130 | 65 | | 140 | 70 | | 59-134 | 7 | | 20 |
| trans-1,4-Dichloro-2-butene | ND | 200 | 180 | 90 | | 210 | 105 | | 70-130 | 15 | | 20 |

| Surrogate | MS % Recovery | MS Qualifier | MSD % Recovery | MSD Qualifier | Acceptance Criteria |
|---|---|---|---|---|---|
| 1,2-Dichloroethane-d4 | 90 | | 87 | | 70-130 |
| 4-Bromofluorobenzene | 113 | | 118 | | 70-130 |
| Dibromofluoromethane | 84 | | 84 | | 70-130 |
| Toluene-d8 | 109 | | 108 | | 70-130 |

**Project Name:** AMBOY ROAD
**Project Number:** 2508.0001Y003

**Lab Number:** L2263661
**Report Date:** 11/17/22

## Sample Receipt and Container Information

Were project specific reporting limits specified? YES

### Cooler Information

| Cooler | Custody Seal |
|---|---|
| A | Absent |

### Container Information

| Container ID | Container Type | Cooler | Initial pH | Final pH | Temp deg C | Pres | Seal | Frozen Date/Time | Analysis(*) |
|---|---|---|---|---|---|---|---|---|---|
| L2263661-01A | Vial HCl preserved | A | NA | | 3.1 | Y | Absent | | NYTCL-8260(14) |
| L2263661-01A1 | Vial HCl preserved | A | NA | | 3.1 | Y | Absent | | NYTCL-8260(14) |
| L2263661-01A2 | Vial HCl preserved | A | NA | | 3.1 | Y | Absent | | NYTCL-8260(14) |
| L2263661-01B | Vial HCl preserved | A | NA | | 3.1 | Y | Absent | | NYTCL-8260(14) |
| L2263661-01B1 | Vial HCl preserved | A | NA | | 3.1 | Y | Absent | | NYTCL-8260(14) |
| L2263661-01B2 | Vial HCl preserved | A | NA | | 3.1 | Y | Absent | | NYTCL-8260(14) |
| L2263661-01C | Vial HCl preserved | A | NA | | 3.1 | Y | Absent | | NYTCL-8260(14) |
| L2263661-01C1 | Vial HCl preserved | A | NA | | 3.1 | Y | Absent | | NYTCL-8260(14) |
| L2263661-01C2 | Vial HCl preserved | A | NA | | 3.1 | Y | Absent | | NYTCL-8260(14) |
| L2263661-02A | Vial HCl preserved | A | NA | | 3.1 | Y | Absent | | NYTCL-8260(14) |
| L2263661-02B | Vial HCl preserved | A | NA | | 3.1 | Y | Absent | | NYTCL-8260(14) |
| L2263661-02C | Vial HCl preserved | A | NA | | 3.1 | Y | Absent | | NYTCL-8260(14) |
| L2263661-03A | Vial HCl preserved | A | NA | | 3.1 | Y | Absent | | NYTCL-8260(14) |
| L2263661-03B | Vial HCl preserved | A | NA | | 3.1 | Y | Absent | | NYTCL-8260(14) |
| L2263661-03C | Vial HCl preserved | A | NA | | 3.1 | Y | Absent | | NYTCL-8260(14) |
| L2263661-04A | Vial HCl preserved | A | NA | | 3.1 | Y | Absent | | NYTCL-8260(14) |
| L2263661-04B | Vial HCl preserved | A | NA | | 3.1 | Y | Absent | | NYTCL-8260(14) |
| L2263661-04C | Vial HCl preserved | A | NA | | 3.1 | Y | Absent | | NYTCL-8260(14) |
| L2263661-05A | Vial HCl preserved | A | NA | | 3.1 | Y | Absent | | NYTCL-8260(14) |
| L2263661-05B | Vial HCl preserved | A | NA | | 3.1 | Y | Absent | | NYTCL-8260(14) |
| L2263661-05C | Vial HCl preserved | A | NA | | 3.1 | Y | Absent | | NYTCL-8260(14) |
| L2263661-06A | Vial HCl preserved | A | NA | | 3.1 | Y | Absent | | NYTCL-8260(14) |
| L2263661-06B | Vial HCl preserved | A | NA | | 3.1 | Y | Absent | | NYTCL-8260(14) |



*Values in parentheses indicate holding time in days

**Project Name:** AMBOY ROAD
**Project Number:** 2508.0001Y003

**Lab Number:** L2263661
**Report Date:** 11/17/22

## Container Information

| Container ID | Container Type | Cooler | Initial pH | Final pH | Temp deg C | Pres | Seal | Frozen Date/Time | Analysis(*) |
|---|---|---|---|---|---|---|---|---|---|
| L2263661-06C | Vial HCl preserved | A | NA | | 3.1 | Y | Absent | | NYTCL-8260(14) |
| L2263661-07A | Vial HCl preserved | A | NA | | 3.1 | Y | Absent | | NYTCL-8260(14) |
| L2263661-07B | Vial HCl preserved | A | NA | | 3.1 | Y | Absent | | NYTCL-8260(14) |



*Values in parentheses indicate holding time in days

| | | | |
|---|---|---|---|
| **Project Name:** | AMBOY ROAD | **Lab Number:** | L2263661 |
| **Project Number:** | 2508.0001Y003 | **Report Date:** | 11/17/22 |

## GLOSSARY

***Acronyms***

DL - Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EMPC - Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LOD - Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

LOQ - Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NDPA/DPA - N-Nitrosodiphenylamine/Diphenylamine.

NI - Not Ignitable.

NP - Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.

NR - No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

STLP - Semi-dynamic Tank Leaching Procedure per EPA Method 1315.

TEF - Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.

TEQ - Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.

TIC - Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

*Report Format: DU Report with 'J' Qualifiers*

| | | | |
|---|---|---|---|
| **Project Name:** | AMBOY ROAD | **Lab Number:** | L2263661 |
| **Project Number:** | 2508.0001Y003 | **Report Date:** | 11/17/22 |

***Footnotes***

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

***Terms***

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Chlordane: The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA,this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Gasoline Range Organics (GRO): Gasoline Range Organics (GRO) results include all chromatographic peaks eluting from Methyl tert butyl ether through Naphthalene, with the exception of GRO analysis in support of State of Ohio programs, which includes all chromatographic peaks eluting from Hexane through Dodecane.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

***Data Qualifiers***

**A** - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

**B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

**C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

**D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

**E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

**F** - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.

**G** - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

**H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

**I** - The lower value for the two columns has been reported due to obvious interference.

**J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively

*Report Format: DU Report with 'J' Qualifiers*

| | | | |
|---|---|---|---|
| **Project Name:** | AMBOY ROAD | **Lab Number:** | L2263661 |
| **Project Number:** | 2508.0001Y003 | **Report Date:** | 11/17/22 |

***Data Qualifiers***

Identified Compounds (TICs).

**M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

**ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

**NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

**P** - The RPD between the results for the two columns exceeds the method-specified criteria.

**Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

**R** - Analytical results are from sample re-analysis.

**RE** - Analytical results are from sample re-extraction.

**S** - Analytical results are from modified screening analysis.

**V** - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

**Z** - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

| | | | |
|---|---|---|---|
| **Project Name:** | AMBOY ROAD | **Lab Number:** | L2263661 |
| **Project Number:** | 2508.0001Y003 | **Report Date:** | 11/17/22 |

## REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.

## LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

# Certification Information

**The following analytes are not included in our Primary NELAP Scope of Accreditation:**

**Westborough Facility**
**EPA 624/624.1:** m/p-xylene, o-xylene, Naphthalene
**EPA 625/625.1:** alpha-Terpineol
**EPA 8260C/8260D:** NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
**EPA 8270D/8270E:** NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine, alpha-Terpineol; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
**SM4500**: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

**Mansfield Facility**
**SM 2540D:** TSS
**EPA 8082A:** NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
**EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
**Biological Tissue Matrix:** EPA 3050B

**The following analytes are included in our Massachusetts DEP Scope of Accreditation**

**Westborough Facility:**

***Drinking Water***
**EPA 300.0**: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**
**EPA 332**: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
**Microbiology**: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

***Non-Potable Water***
**SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH:** Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
**EPA 624.1**: Volatile Halocarbons & Aromatics,
**EPA 608.3**: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
**EPA 625.1**: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
**Microbiology**: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603, SM9222D.**

**Mansfield Facility:**

***Drinking Water***
**EPA 200.7:** Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
**EPA 522, EPA 537.1.**

***Non-Potable Water***
**EPA 200.7:** Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
**EPA 200.8:** Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.
**EPA 245.1** Hg.
**SM2340B**

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

# NEW YORK CHAIN OF CUSTODY

ALPHA ANALYTICAL

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

**Service Centers**
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 1 of 1

Date Rec'd in Lab: 11/11/22

ALPHA Job #: L2263661

## Client Information

Client: ROUX
Address: 209 SHAFTER ST.
ISLANDIA, NY 11749
Phone: 631-2322600
Fax: 631-2329898
Email: SSTERN@ROUXINC.COM

## Project Information

Project Name: 5801 AMBOY ROAD
Project Location: STATEN ISLAND, NY
Project #: 2508.0001Y003
(Use Project name as Project #) ☐
Project Manager: SARAH STERN
ALPHAQuote #:

## Turn-Around Time

Standard ☑ Due Date:
Rush (only if pre approved) ☐ # of Days:

## Deliverables

☐ ASP-A ☐ ASP-B
☐ EQuIS (1 File) ☑ EQuIS (4 File)
☐ Other

## Billing Information

☑ Same as Client Info
PO #

## Regulatory Requirement

☐ NY TOGS ☐ NY Part 375
☑ AWQ Standards ☐ NY CP-51
☐ NY Restricted Use ☐ Other
☐ NY Unrestricted Use
☐ NYC Sewer Discharge

## Disposal Site Information

Please identify below location of applicable disposal facilities.
Disposal Facility:
☐ NJ ☐ NY
☐ Other:

These samples have been previously analyzed by Alpha ☑

**Other project specific requirements/comments:**

**Please specify Metals or TAL.**

## ANALYSIS

NYTCL-8260

**Sample Filtration**
☐ Done
☐ Lab to do
**Preservation**
☐ Lab to do
***(Please Specify below)***

| ALPHA Lab ID (Lab Use Only) | Sample ID | Collection Date | Collection Time | Sample Matrix | Sampler's Initials | NYTCL-8260 | Sample Specific Comments | Total Bottle |
|---|---|---|---|---|---|---|---|---|
| 63666-01 | MW-11R | 11-11-22 | 0750 | GW | AF | X | | 3 |
| -02 | MW-11R-MS | 11-11-22 | 0755 | GW | AF | X | | 3 |
| -03 | MW-11R-MSD | 11-11-22 | 0800 | GW | AF | X | | 3 |
| -04 | MW-6 | 11-11-22 | 0840 | GW | AF | X | | 3 |
| -05 | DUP-111122 | 11-11-22 | 0845 | GW | AF | X | | 3 |
| -06 | MW-19 | 11-11-22 | 0925 | GW | AF | X | | 3 |
| -07 | MW-20 | 11-11-22 | 1005 | GW | AF | X | | 3 |
| -08 | FIELDBLANK-111122 | 11-11-22 | 0900 | FB | AF | X | | 3 |
| -09 | TRIP BLANK | 11-9-22 | — | LAB | RD | X | | 2 |

Preservative Code:
A = None
B = HCl
C = $HNO_3$
D = $H_2SO_4$
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Container Type | V | | | | | | | | | | |
| Preservative | B | | | | | | | | | | |

| Relinquished By: | Date/Time | Received By: | Date/Time |
|---|---|---|---|
| ROUX | 11/11/22 12:55 | | 11/11/22 12:55 |
| | 11/11/22 1635 | | 11/11/22 1635 |
| | 11/11/22 | | 11/11/22 2230 |

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-25 HC (rev. 30-Sept-2013)

# ATTACHMENT 4

Groundwater Sampling Forms

## Groundwater Sampling Log

**Client:** Group BSI, LLC **Project Number:** 2508.0001Y

**Site Location:** Former CJs Service Center, 5801 Amboy Road, Staten Island, NY

**Well No:** MW-11R **Weather:** 59°F, CLOUDY

**Date:** 11/11/22 **Purge Water Disposal:** —

**Sampled By:** ALFREDO F. **Well Diameter / Type:** 2" FLUSH, PVC

**Depth of Well (ft):** 20.24 **Water Column (ft):** 13.10

**Depth to Water(ft):** 7.14 **Volume of Water in Well (gal)** 2.14

**Depth to Product (ft):** — **Volume of Water to Remove (gal):** —

| well diameter: | 1 in | 2 in | 4 in | 6 in | 8 in |
|---|---|---|---|---|---|
| gallons per foot: | 0.041 | 0.163 | 0.653 | 1.469 | 2.611 |

**Start Purging:** 0715 **Purge Rate:** 100 mL/MIN

**End Purging:** 0747 **Volume of Water Removed (gal):** 1

**Method of Purge:** PERI PUMP **Method of Sampling:** PERI PUMP

**Physical Appearance/ Comments:** FLUORESCENT GREEN (DYE PRESENT)

**Samples Collected: (analyses / no. bottles)** 3 VOAS / HCl (8260)

**Sample Time:** 0750 **Laboratory:** ALPHA

**Duplicate Sample/Time:** —

**Field Measurements:** **Discharge Rate:** 3.0 **Refill Rate:** 8.0 **PSI:** 15

| Time | DTW ft | Flow Rate ml/min | ORP mV (+/- 10 mV) | Conductivity mS/cm (w/in 3%) | Turbidity NTU (w/in %10) | pH SU (+/- 0.1) | Temperature C° (w/in 3%) | Dissolved $O_2$ mg/L (w/in 10%) |
|---|---|---|---|---|---|---|---|---|
| 0717 | 7.32 | 100 | -132 | 11.1 | 40.9 | 6.65 | 18.57 | 1.23 |
| 0722 | 7.37 | 100 | -140 | 11.0 | 28.3 | 6.70 | 18.92 | 0.73 |
| 0727 | 7.42 | 100 | -193 | 11.0 | 26.1 | 6.71 | 19.15 | 0.26 |
| 0732 | 7.46 | 100 | -147 | 10.9 | 23.0 | 6.73 | 19.23 | 0.11 |
| 0737 | 7.53 | 100 | -148 | 10.7 | 21.7 | 6.73 | 19.29 | 0 |
| 0742 | 7.56 | 100 | -148 | 10.7 | 19.9 | 6.73 | 19.30 | 0 |
| 0747 | 7.59 | 100 | -149 | 10.7 | 18.6 | 6.73 | 19.32 | 0 |
| | | | | | | | | |

End of Parameter Measurements

ROUX

MW-11R-MS (0755)

MW-11R-MSD (0800)

## Groundwater Sampling Log

**Client:** Group BSI, LLC **Project Number:** 2508.0001Y

**Site Location:** Former CJs Service Center, 5801 Amboy Road, Staten Island, NY

**Well No:** MW-6 **Weather:** 60°F, CLOUDY

**Date:** 11/11/22 **Purge Water Disposal:**

**Sampled By:** ALFREDO F. **Well Diameter / Type:** 2" FLUSH, PVC

**Depth of Well (ft):** 14.75 **Water Column (ft):** 6.63

**Depth to Water(ft):** 8.12 **Volume of Water in Well (gal)** 1.08

**Depth to Product (ft):** — **Volume of Water to Remove (gal):** —

| well diameter: | 1 in | 2 in | 4 in | 6 in | 8 in |
|---|---|---|---|---|---|
| gallons per foot: | 0.041 | 0.163 | 0.653 | 1.469 | 2.611 |

**Start Purging:** 0805 **Purge Rate:** 100 mL/MIN

**End Purging:** 0838 **Volume of Water Removed (gal):** 1

**Method of Purge:** PERI PUMP **Method of Sampling:** PERI PUMP

**Physical Appearance/ Comments:** FLUORESCENT GREEN (DYE PRESENT)

**Samples Collected: (analyses / no. bottles)** 3 VOAS | HCl (8260)

**Sample Time:** 0840 **Laboratory:** ALPHA

**Duplicate Sample/Time:** 0845

**Field Measurements:** **Discharge Rate:** 3.0 **Refill Rate:** 8.0 **PSI:** 15

| Time | DTW ft | Flow Rate ml/min | ORP mV (+/- 10 mV) | Conductivity mS/cm (w/in 3%) | Turbidity NTU (w/in %10) | pH SU (+/- 0.1) | Temperature C° (w/in 3%) | Dissolved $O_2$ mg/L (w/in 10%) |
|---|---|---|---|---|---|---|---|---|
| 0808 | 8.63 | 100 | -91 | 2.62 | 227 | 6.83 | 19.24 | 0.27 |
| 0813 | 8.67 | 100 | -87 | 2.50 | 206 | 6.79 | 19.29 | 0.12 |
| 0818 | 8.70 | 100 | -81 | 2.39 | 171 | 6.72 | 19.32 | 0 |
| 0823 | 8.74 | 100 | -73 | 2.35 | 162 | 6.66 | 19.35 | 0 |
| 0828 | 8.80 | 100 | -69 | 2.34 | 141 | 6.64 | 19.37 | 0 |
| 0833 | 8.86 | 100 | -68 | 2.34 | 133 | 6.63 | 19.38 | 0 |
| 0838 | 8.92 | 100 | -66 | 2.33 | 130 | 6.61 | 19.40 | 0 |
| | | | | | | | | |

End of Parameter Measurements

DUP-111122 (0845)

## Groundwater Sampling Log

**Client:** Group BSI, LLC **Project Number:** 2508.0001Y

**Site Location:** Former CJs Service Center, 5801 Amboy Road, Staten Island, NY

**Well No:** MW-19 **Weather:** 62°F, CLOUDY

**Date:** 11/11/22 **Purge Water Disposal:**

**Sampled By:** ALFREDO F. **Well Diameter / Type:** 2" FLUSH, PVC

**Depth of Well (ft):** 18.37 **Water Column (ft):** 9.56

**Depth to Water(ft):** 8.81 **Volume of Water in Well (gal)** 1.56

**Depth to Product (ft):** — **Volume of Water to Remove (gal):** —

| well diameter: | 1 in | 2 in | 4 in | 6 in | 8 in |
|---|---|---|---|---|---|
| gallons per foot: | 0.041 | 0.163 | 0.653 | 1.469 | 2.611 |

**Start Purging:** 0850 **Purge Rate:** 100 mL/MIN

**End Purging:** 0922 **Volume of Water Removed (gal):** 1

**Method of Purge:** PERI PUMP **Method of Sampling:** PERI PUMP

**Physical Appearance/ Comments:** CLEAR

**Samples Collected: (analyses / no. bottles)** 3 VOAS/HCl (8260)

**Sample Time:** 0925 **Laboratory:** ALPHA

**Duplicate Sample/Time:** —

**Field Measurements:** **Discharge Rate:** 3.0 **Refill Rate:** 8.0 **PSI:** 15

| Time | DTW ft | Flow Rate ml/min | ORP mV (+/- 10 mV) | Conductivity mS/cm (w/in 3%) | Turbidity NTU (w/in %10) | pH SU (+/- 0.1) | Temperature C° (w/in 3%) | Dissolved $O_2$ mg/L (w/in 10%) |
|---|---|---|---|---|---|---|---|---|
| 0852 | 9.03 | 100 | -3 | 0.819 | 27.3 | 7.33 | 19.22 | 1.04 |
| 0857 | 9.08 | 100 | -8 | 0.704 | 13.0 | 7.71 | 19.51 | 0.36 |
| 0902 | 9.12 | 100 | -10 | 0.698 | 10.3 | 7.76 | 19.58 | 0 |
| 0907 | 9.15 | 100 | -11 | 0.695 | 8.1 | 7.78 | 19.62 | 0 |
| 0912 | 9.17 | 100 | -11 | 0.694 | 7.6 | 7.80 | 19.66 | 0 |
| 0917 | 9.20 | 100 | -11 | 0.693 | 7.0 | 7.80 | 19.69 | 0 |
| 0922 | 9.22 | 100 | -11 | 0.692 | 6.7 | 7.80 | 19.71 | 0 |
| | | | | | | | | |

End of Parameter Measurements

## Groundwater Sampling Log

**Client:** Group BSI, LLC **Project Number:** 2508.0001Y

**Site Location:** Former CJs Service Center, 5801 Amboy Road, Staten Island, NY

**Well No:** MW-20 **Weather:** 63°F, CLOUDY

**Date:** 11/11/22 **Purge Water Disposal:**

**Sampled By:** ALFREDO F. **Well Diameter / Type:** 2" FLUSH, PVC

**Depth of Well (ft):** 20.30 **Water Column (ft):** 12.51

**Depth to Water(ft):** 7.79 **Volume of Water in Well (gal)** 2.04

**Depth to Product (ft):** — **Volume of Water to Remove (gal):** —

| well diameter: | 1 in | 2 in | 4 in | 6 in | 8 in |
|---|---|---|---|---|---|
| gallons per foot: | 0.041 | 0.163 | 0.653 | 1.469 | 2.611 |

**Start Purging:** 0930 **Purge Rate:** 100 mL/MIN

**End Purging:** 1002 **Volume of Water Removed (gal):** 1

**Method of Purge:** PERI PUMP **Method of Sampling:** PERI PUMP

**Physical Appearance/ Comments:** LIGHT GRAY FROM START TO FINISH

**Samples Collected: (analyses / no. bottles)** 3 VOAS / HCl (8260)

**Sample Time:** 1005 **Laboratory:** ALPHA

**Duplicate Sample/Time:** —

**Field Measurements:** **Discharge Rate:** 3.0 **Refill Rate:** 8.0 **PSI:** 15

| Time | DTW ft | Flow Rate ml/min | ORP mV (+/- 10 mV) | Conductivity mS/cm (w/in 3%) | Turbidity NTU (w/in %10) | pH SU (+/- 0.1) | Temperature C° (w/in 3%) | Dissolved $O_2$ mg/L (w/in 10%) |
|---|---|---|---|---|---|---|---|---|
| 0932 | 8.04 | 100 | 5 | 9.51 | 177 | 7.09 | 19.72 | 0.76 |
| 0937 | 8.09 | 100 | 9 | 9.55 | 120 | 6.95 | 19.76 | 0.27 |
| 0942 | 8.12 | 100 | 12 | 9.57 | 81.4 | 6.92 | 19.80 | 0 |
| 0947 | 8.15 | 100 | 14 | 9.61 | 65.2 | 6.92 | 19.85 | 0 |
| 0952 | 8.18 | 100 | 19 | 9.64 | 59.7 | 6.92 | 19.89 | 0 |
| 0957 | 8.22 | 100 | 26 | 9.65 | 54.8 | 6.92 | 19.92 | 0 |
| 1002 | 8.24 | 100 | 28 | 9.66 | 52.3 | 6.92 | 19.94 | 0 |
| | | | | | | | | |

End of Parameter Measurements

# ATTACHMENT 5

DUSR for November 2022 Samples

# Data Validation Services

**120 Cobble Creek Road P. O. Box 208**
**North Creek, NY 12853**
**Phone (518) 251-4429**
**harry@frontiernet.net**

December 13, 2022

Sarah Stern
Roux Environmental Engineering and Geology, D. P. C.
209 Shafter St
Islandia, NY 11747

RE: Validation of 5801 Amboy Road, Staten Island, NY Groundwater Sample
Analytical Laboratory Data
Data Usability Summary Report (DUSR)
Alpha Analytical SDG No. L2263361

Dear Ms. Stern:

Review has been completed for the data package generated by Alpha Analytical that pertains to samples collected 11/11/22 at the 5801 Amboy Road site. Four aqueous samples and a field duplicate were processed for an extended list of volatile analytes and Tentatively Identified Compounds (TICs). Field and trip blanks were also processed. The analytical methodology is that of the USEPA SW846.

The data packages submitted by the laboratory contain full deliverables for validation, and this usability report is generated from review of the QC summary form information, with full review of sample raw data and limited review of associated QC raw data. The reported QC summary forms and sample raw data have been reviewed for application of validation qualifiers, with guidance from the USEPA national and regional validation documents and the specific requirements of the analytical methodology. The following items were reviewed:

* Data Completeness
* Case Narrative
* Custody Documentation
* Holding Times
* Surrogate/Internal Standard Recoveries
* Method/Preparation Blanks
* Matrix Spike Recoveries and Correlations
* Blind Field Duplicate Correlations
* Laboratory Control Sample (LCS)
* Instrumental Tunes
* Initial and Continuing Calibration Standards
* Method Compliance
* Sample Result Verification

Those items listed above which show deficiencies are discussed within the text of this narrative. All of the other items were determined to be acceptable for the DUSR level review, as discussed in NYS DER-10 Appendix B Section 2.0 (c). Documentation of the outlying parameters cited in this report can be found in the laboratory data package.

**In summary**, the results for the samples are usable either as reported or with minor qualification, with the exception that the results for 1,4-dioxane are rejected and not usable due to limitations of the methodology.

Data completeness, accuracy, precision, representativeness, reproducibility, and comparability are acceptable.

Validation data qualifier definitions and client sample identifications are attached to this text. Also included in this report is the laboratory EDD with recommended qualifiers/edits applied in red.

**Chain-of-Custody**

The date and/or time entries were omitted from some of the interim receipt and relinquish entries.

**Blind Field Duplicate**

The blind field duplicate evaluation of MW-6 shows correlations within validation guidelines.

**TCL and CP-51 Volatile Analyses by EPA 8260D**

The results for 1,4-dioxane in the samples are rejected due to low response inherent in the methodology. Other calibration standards show responses within validation action levels.

The detected results for acetone in the samples are considered external contamination and edited to reflect non-detection due to presence in the associated field and trip blanks.

Matrix spikes were performed on MW-11R, and recoveries and correlations are within validation guidelines.

Holding times were met. Surrogate and internal standard recoveries are within validation guidelines.

Please do not hesitate to contact me if questions or comments arise during your review of this report.

Very truly yours,

Judy Harry

Judy Harry

Attachments: Validation Data Qualifier Definitions
Sample Identifications
Qualified Laboratory EQuIS EDD

## VALIDATION DATA QUALIFIER DEFINITIONS

| | |
|---|---|
| **U** | The analyte was analyzed for, but was not detected above the level of the associated reported quantitation limit. |
| **J** | The analyte was positively identified; the associated numerical value is an approximate concentration of the analyte in the sample. |
| **J-** | The analyte was positively identified; the associated numerical value is an estimated quantity that may be biased low. |
| **J+** | The analyte was positively identified; the associated numerical value is an estimated quantity that may be biased high. |
| **UJ** | The analyte was analyzed for, but was not detected. The associated reported quantitation limit is approximate and may be inaccurate or imprecise. |
| **NJ** | The detection is tentative in identification and estimated in value. Although there is presumptive evidence of the analyte, the result should be used with caution as a potential false positive and/or elevated quantitative value. |
| **R** | The data are unusable. The sample results are rejected due to serious deficiencies in meeting Quality Control limits. The analyte may or may not be present. |
| **EMPC** | The results do not meet all criteria for a confirmed identification. The quantitative value represents the Estimated Maximum Possible Concentration of the analyte in the sample. |

# Sample Summaries

**Project Name:** AMBOY ROAD
**Project Number:** 2508.0001Y003

**Lab Number:** L2263661
**Report Date:** 11/17/22

| Alpha Sample ID | Client ID | Matrix | Sample Location | Collection Date/Time | Receive Date |
|---|---|---|---|---|---|
| L2263661-01 | MW-11R | WATER | STATEN ISLAND, NY | 11/11/22 07:50 | 11/11/22 |
| L2263661-02 | MW-6 | WATER | STATEN ISLAND, NY | 11/11/22 08:40 | 11/11/22 |
| L2263661-03 | DUP-111122 | WATER | STATEN ISLAND, NY | 11/11/22 08:45 | 11/11/22 |
| L2263661-04 | MW-19 | WATER | STATEN ISLAND, NY | 11/11/22 09:25 | 11/11/22 |
| L2263661-05 | MW-20 | WATER | STATEN ISLAND, NY | 11/11/22 10:05 | 11/11/22 |
| L2263661-06 | FIELDBLANK-111122 | FIELD BLANK | STATEN ISLAND, NY | 11/11/22 09:00 | 11/11/22 |
| L2263661-07 | TRIP BLANK | TRIP BLANK (AQUEOUS) | STATEN ISLAND, NY | 11/09/22 00:00 | 11/11/22 |

# PLATE

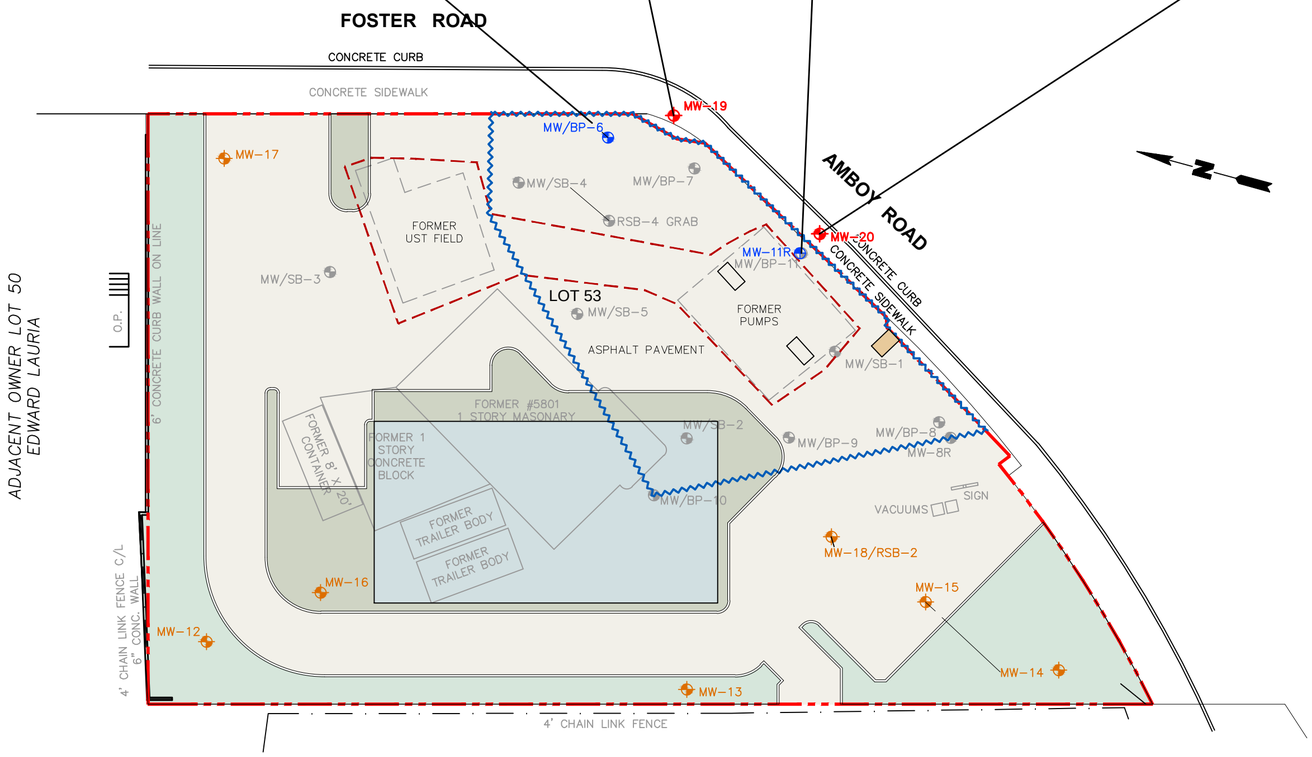
Groundwater Sample Exceedances

| MW-19 | 05/11/2017 | 05/11/2017 FD | 01/22/2021 | 03/28/2022 | 11/11/2022 |
|---|---|---|---|---|---|
| **VOCs** | | | | | |
| 1,2-Dichloroethane | NE | **0.62** | ND | ND | ND |
| Benzene | **3.5** | **3.5** | ND | ND | ND |

| MW-6 | 09/16/2015 | 01/22/2021 | 03/28/2022 | 11/11/2022 | 11/11/2022 DUP |
|---|---|---|---|---|---|
| **VOCs** | | | | | |
| 1,2,4,5-Tetramethylbenzene | **31 J** | NE | NE | **5.7** | **5.3** |
| 1,2,4-Trimethylbenzene | **200** | NE | **7.3** | NE | 4.6 |
| 1,3,5-Trimethylbenzene (Mesitylene) | **36 J** | NE | NE | NE | ND |
| Benzene | **2700** | **26** | **6.4** | **86** | **89** |
| Ethylbenzene | **540** | **5.9** | NE | **25** | **23** |
| Isopropylbenzene (Cumene) | **27 J** | NE | NE | **23** | **22** |
| m,p-Xylene | **500** | **12** | NE | **5.1** | NE |
| Naphthalene | **190** | NE | NE | NE | NE |
| N-Propylbenzene | **64** | NE | **6.7** | **45** | **44** |
| O-Xylene (1,2-Dimethylbenzene) | **20 J** | NE | ND | **16** | **19** |
| Tert-Butyl Methyl Ether | **97** | NE | ND | NE | NE |
| Toluene | **55** | NE | ND | NE | NE |
| Xylenes | **520 J** | **14 J** | NE | **21** | **24** |

| MW_BP-11/MW-11R | 09/17/2015 | 01/22/2021 | 03/28/2022 | 11/11/2022 |
|---|---|---|---|---|
| **VOCs** | | | | |
| 1,2,4,5-Tetramethylbenzene | ND | **100** | **150** | **140** |
| 1,2,4-Trimethylbenzene | ND | **660** | **390** | **700** |
| 1,3,5-Trimethylbenzene (Mesitylene) | ND | **140** | **220** | **180** |
| Benzene | **1800** | **640** | **590** | **2100** |
| Cymene | ND | **6.9 J** | **9.8 J** | **16 J** |
| Ethylbenzene | **32 J** | **670** | **280** | **720** |
| Isopropylbenzene (Cumene) | **56 J** | **110** | **70** | **110** |
| m,p-Xylene | **67 J** | **660** | **350** | **860** |
| Naphthalene | ND | **210 J-** | **280** | **410** |
| N-Butylbenzene | ND | **33** | **17** | **30 J** |
| N-Propylbenzene | **130** | **260** | **150** | **290** |
| O-Xylene (1,2-Dimethylbenzene) | ND | **13** | **14** | **36 J** |
| Sec-Butylbenzene | ND | **15** | **13** | **22 J** |
| Tert-Butyl Methyl Ether | **120** | **51** | **34** | **190** |
| Toluene | ND | **15** | **20** | **94** |
| Xylenes | **67 J** | **670** | **360** | **900 J** |

| MW-20 | 05/11/2017 | 01/22/2021 | 01/22/2021 FD | 03/28/2022 | 03/28/2022 FD | 11/11/2022 |
|---|---|---|---|---|---|---|
| **VOCs** | | | | | | |
| 1,2,4,5-Tetramethylbenzene | **8** | ND | ND | **5.1** | NE | NE |
| 1,2,4-Trimethylbenzene | **110** | NE | NE | **13** | **12** | ND |
| 1,3,5-Trimethylbenzene (Mesitylene) | **27** | ND | ND | **7.4** | **6.6** | ND |
| Benzene | **100** | **3.1** | **2.5** | **4.5** | **4.3** | NE |
| Ethylbenzene | **74** | NE | NE | **6.5** | **6.3** | ND |
| Isopropylbenzene (Cumene) | **6.3** | NE | ND | NE | NE | ND |
| m,p-Xylene | **160** | ND | ND | **9.4** | **9** | ND |
| Naphthalene | **25** | ND | ND | NE | NE | ND |
| N-Propylbenzene | **14** | NE | NE | **5.7** | **5.1** | ND |
| O-Xylene (1,2-Dimethylbenzene) | **18** | ND | ND | ND | ND | ND |
| Tert-Butyl Methyl Ether | **33** | ND | ND | ND | ND | ND |
| Toluene | **9.9** | ND | ND | ND | ND | ND |
| Xylenes | **180** | ND | ND | **9.4** | **9** | ND |




LEGEND

- BOUNDARY OF BROWNFIELD CLEANUP SITE
- MW/SB-1 — LOCATION AND DESIGNATION OF MONITORING WELL (INSTALLED BY TYREE BROTHERS) – ABANDONED
- MW-12 — LOCATION AND DESIGNATION OF MONITORING WELL INSTALLED BY ROUX ASSOCIATES (2015) – ABANDONED
- MW/BP-6 — LOCATION AND DESIGNATION OF MONITORING WELL MAINTAINED AND USED FOR INTRODUCTION OF DYE
- MW-19 — LOCATION AND DESIGNATION OF OFF-SITE MONITORING WELL
- EXTENT OF 2015 IRM EXCAVATION AREA
- SEALED SHEET PILE CONTAINMENT WALL TO 25 FT BLS FOR PETROLEUM SOURCE AREA
- SITE COVER SYSTEM: CONCRETE BUILDING FOUNDATION
- SITE COVER SYSTEM: CONCRETE WALKWAYS AND SIDEWALKS
- SITE COVER SYSTEM: ASPHALT PARKING AREAS
- SITE COVER SYSTEM: LANDSCAPED AREAS
- SITE REDEVELOPMENT FEATURES
- 2018 UST REMOVAL AREA

NOTES

1. BASE MAP ADAPTED FROM MAP SURVEY OF PROPERTY IN THE BOROUGH OF STATEN ISLAND, CITY OF NEW YORK GENERATED BY RAJAKARUNA & ETTLINGER P.C. CONSULTING ENGINEERS AND CITY SURVEYORS JANUARY 1, 2015).
2. MW/BP-11 WAS DESTROYED AND REPLACED BY MW-11R.

20' 0 20'

| Parameter | NYSDEC AWQSGV |
|---|---|
| **VOCs** | |
| 1,2,4,5-Tetramethylbenzene | **5** |
| 1,2,4-Trimethylbenzene | **5** |
| 1,2-Dichloroethane | **0.6** |
| 1,3,5-Trimethylbenzene (Mesitylene) | **5** |
| Acetone | **50** |
| Benzene | **1** |
| Cymene | **5** |
| Ethylbenzene | **5** |
| Isopropylbenzene (Cumene) | **5** |
| m,p-Xylene | **5** |
| Naphthalene | **10** |
| N-Butylbenzene | **5** |
| N-Propylbenzene | **5** |
| O-Xylene (1,2-Dimethylbenzene) | **5** |
| Sec-Butylbenzene | **5** |
| Tert-Butyl Methyl Ether | **10** |
| Toluene | **5** |
| Xylenes | **5** |

CONCENTRATIONS IN µg/L

µg/L – MICROGRAMS PER LITER
NYSDEC – NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
AWQSGVS – AMBIENT WATER-QUALITY STANDARDS AND GUIDANCE VALUES
J – ESTIMATED VALUE
J– – ESTIMATED VALUE, LOW BIAS
FD – DUPLICATE SAMPLE
VOCs – VOLATILE ORGANIC COMPOUNDS
NE – NO EXCEEDANCES
ND – NO DETECTION

Title:

# GROUNDWATER SAMPLE EXCEEDANCES

5801 AMBOY ROAD
STATEN ISLAND, NEW YORK

Prepared for:

SHORE TO SHORE FOSTER LLC

ROUX

| | | |
|---|---|---|
| Compiled by: S.S. | Date: 20DEC22 | PLATE 1 |
| Prepared by: B.H.C. | Scale: AS SHOWN | |
| Project Mgr: N.C. | Project: 2508.0001Y003 | |
| File: 2508.0001Y173.01.DWG | | |

V:\CAD\PROJECTS\2508\Y0001\Y173\2508.0001Y173.01.DWG

# APPENDIX F

SSDS O&M Logs

Sub-Slab Depressurization System Operations and Maintenance Log, 5801 Amboy Road, Staten Island, NY

| | |
|---|---|
| Site Name: | Former CJs Service Center (BCP Site No. C241043) |
| Street Address: | 5801 Amboy Road |
| Location: | Staten Island, NY |
| System: | Active Sub-Slab Depressurization System |
| Blower: | Ametek, EN454W58ML, 1.5 horespower |
| Blower Range: | 17 inches of water vacuum, 90 cfm |

| INSPECTION ITEM DESCRIPTION | Yes | Action Req. | Comments/ Actions Taken |
|---|---|---|---|
| Is the system operating normally? | ✓ | — | |
| Are any warning lights on? (Please list those that are on) | — | — | NO WARNING LIGHTS ON |
| If there is an alarm condition, was it fixed and the system restarted? | — | — | NO ALARM CONDITION |
| Is the blower enclosure in good condition? | ✓ | — | |
| Is the vacuum filter in good condition? | ✓ | — | |
| Does the knock-out tank need to be drained? (Record amount drained) | ✓ | — | DRAINED ~5 GAL OF WATER |
| Are aboveground piping free of cracks, leaks, and support issues? | — | — | NO CRACKS OR LEAKS OBSERVED |
| Is the float switch in the knockout drum operating proerly? | ✓ | — | |
| Are vacuum/pressure gauges at blower operating properly? | ✓ | — | |

List maintenance activities that were performed or other comments about the system:

| Source of Reading | Units | Values | Comments |
|---|---|---|---|
| Blower Run Time | Hours | 5838.4 | |
| Vacuum at Aboveground Piping | Inches of Water | NA | |
| Knock-Out Tank Vacuum | Inches of Water | NA | |
| Blower Inlet Vacuum | Inches of Water | 20 | |
| Blower Discharge Pressure | Inches of Water | 5 | |
| Blower Effluent PID Reading | PPMV | 0 | |
| VPGAC Unit Effluent PID Reading (If Applicable) | PPMV | NA | |

Form Completed By: ALFREDO FERNANDEZ Signature: Date & Time: 6/9/22 11:30

**Sub-Slab Depressurization System Operations and Maintenance Log, 5801 Amboy Road, Staten Island, NY**

| | |
|---|---|
| Site Name: | Former CJs Service Center (BCP Site No. C241043) |
| Street Address: | 5801 Amboy Road |
| Location: | Staten Island, NY |
| System: | Active Sub-Slab Depressurization System |
| Blower: | Ametek, EN454W58ML, 1.5 horespower |
| Blower Range: | 17 inches of water vacuum, 90 cfm |

| INSPECTION ITEM DESCRIPTION | Yes | Action Req. | Comments/ Actions Taken |
|---|---|---|---|
| Is the system operating normally? | ✓ | — | |
| Are any warning lights on? (Please list those that are on) | — | — | NO WARNING LIGHTS ON |
| If there is an alarm condition, was it fixed and the system restarted? | — | — | NO ALARM CONDITION |
| Is the blower enclosure in good condition? | ✓ | — | |
| Is the vacuum filter in good condition? | ✓ | — | |
| Does the knock-out tank need to be drained? (Record amount drained) | — | — | NO WATER IN K.O. TANK |
| Are aboveground piping free of cracks, leaks, and support issues? | — | — | NO CRACKS OR LEAKS NOTICED |
| Is the float switch in the knockout drum operating proerly? | — | — | |
| Are vacuum/pressure gauges at blower operating properly? | — | — | |

List maintenance activities that were performed or other comments about the system: REMOVED SENSAPHONE ALARM SYSTEM IN ORDER TO SEND BACK FOR TROUBLESHOOTING

| Source of Reading | Units | Values | Comments |
|---|---|---|---|
| Blower Run Time | Hours | 8096.0 | |
| Vacuum at Aboveground Piping | Inches of Water | NA | |
| Knock-Out Tank Vacuum | Inches of Water | NA | |
| Blower Inlet Vacuum | Inches of Water | 8 | |
| Blower Discharge Pressure | Inches of Water | 2 | |
| Blower Effluent PID Reading | PPMV | 5.9 | |
| VPGAC Unit Effluent PID Reading (If Applicable) | PPMV | NA | |

VACUUM INFLUENCE
- MP-1 : -0.893 in $H_2O$
- MP-2 : -0.778 in $H_2O$
- MP-3 : -0.935 in $H_2O$

Form Completed By: ALFREDO FERNANDEZ Signature: [signature] Date & Time: 9/30/22 10:45

**Sub-Slab Depressurization System Operations and Maintenance Log, 5801 Amboy Road, Staten Island, NY**

| | |
|---|---|
| Site Name: | Former CJs Service Center (BCP Site No. C241043) |
| Street Address: | 5801 Amboy Road |
| Location: | Staten Island, NY |
| System: | Active Sub-Slab Depressurization System |
| Blower: | Ametek, EN454W58ML, 1.5 horespower |
| Blower Range: | 17 inches of water vacuum, 90 cfm |

| INSPECTION ITEM DESCRIPTION | Yes | Action Req. | Comments/ Actions Taken |
|---|---|---|---|
| Is the system operating normally? | ✓ | — | |
| Are any warning lights on? (Please list those that are on) | — | — | NO WARNING LIGHTS ON |
| If there is an alarm condition, was it fixed and the system restarted? | — | — | NO ALARM CONDITION |
| Is the blower enclosure in good condition? | ✓ | — | |
| Is the vacuum filter in good condition? | ✓ | — | |
| Does the knock-out tank need to be drained? (Record amount drained) | ✓ | — | DRAINED ~ 1 GAL OF WATER |
| Are aboveground piping free of cracks, leaks, and support issues? | ✓ | — | NO CRACKS OR LEAKS OBSERVED |
| Is the float switch in the knockout drum operating proerly? | ✓ | — | |
| Are vacuum/pressure gauges at blower operating properly? | ✓ | — | |

List maintenance activities that were performed or other comments about the system:

| Source of Reading | Units | Values | Comments |
|---|---|---|---|
| Blower Run Time | Hours | 9099.9 | |
| Vacuum at Aboveground Piping | Inches of Water | NA | |
| Knock-Out Tank Vacuum | Inches of Water | NA | |
| Blower Inlet Vacuum | Inches of Water | 14 | |
| Blower Discharge Pressure | Inches of Water | 7 | |
| Blower Effluent PID Reading | PPMV | 0 | |
| VPGAC Unit Effluent PID Reading (If Applicable) | PPMV | NA | |

Form Completed By: ALFREDO FERNANDEZ Signature: [signature] Date & Time: 11/11/22 07:00

Site Inspection Checklist, Former CJs Service Center, 5801 Amboy Road, Staten Island, NY

Date: 11/11/22

Completed By: ALFREDO FERNANDEZ

| Description | Status: Ok | Status: Action Req. | Status: N/A | Actions Taken / Comments |
|---|---|---|---|---|
| **Site Cover System** | | | | |
| 1 Inspect site cover system for cracks and leaks. | ✓ | | | |
| **Sub-Slab Depressurization System Blower** | | | | |
| **A. Aboveground Piping** | | | | |
| 1 Inspect aboveground piping for cracks, leaks and support issues. | ✓ | | | |
| 2 Inspect vacuum/pressure gauges and flowmeters for proper operation. | ✓ | | | |
| **B. Electrical** | | | | |
| 1 Check that the electrical control panel is closed/secured. | ✓ | | | |
| 2 Confirm that the alarm light is functioning properly. | ✓ | | | |
| **C. Blower Enclosure** | | | | |
| 1 Inspect condition of exhaust fan, thermostat and louver. | ✓ | | | |
| **D. Moisture Knock-out Tank** | | | | |
| 1 Check condition of vacuum filter. | ✓ | | | |
| 2 Check dilution valve for noises or leaks. | | | ✓ | |
| 4 Check for presence of water in knockout tank. | ✓ | | | DRAINED ~ 1 GAL OF WATER FROM KO TANK |
| **E. Vapor Phase Granular Activated Carbon Units (If Installed)** | | | | |
| 1 Inspect and check pressure gauges. | | | ✓ | NO GACs INSTALLED |
| 2 Check for any leaks on piping, fittings, etc. | | | ✓ | |
| **Institutional Controls** | | | | |
| 1 Confirm that the site usage is in compliance with the institutional controls. | ✓ | | | |
| **Site Records** | | | | |
| 1 Inspect site records and confirm that they are up to date (e.g., Site Inspection Checklists and Sub-Slab Depressurization System Operations Logs, sampling logs, etc.) | ✓ | | | |

**Sub-Slab Depressurization System Operations and Maintenance Log, 5801 Amboy Road, Staten Island, NY**

| | |
|---|---|
| Site Name: | Former CJs Service Center (BCP Site No. C241043) |
| Street Address: | 5801 Amboy Road |
| Location: | Staten Island, NY |
| System: | Active Sub-Slab Depressurization System |
| Blower: | Ametek, EN454W58ML, 1.5 horespower |
| Blower Range: | 17 inches of water vacuum, 90 cfm |

| INSPECTION ITEM DESCRIPTION | Yes | Action Req. | Comments/ Actions Taken |
|---|---|---|---|
| Is the system operating normally? | ✓ | — | |
| Are any warning lights on? (Please list those that are on) | — | — | NO WARNING LIGHTS ON |
| If there is an alarm condition, was it fixed and the system restarted? | — | — | NO ALARM CONDITION |
| Is the blower enclosure in good condition? | ✓ | — | |
| Is the vacuum filter in good condition? | ✓ | — | |
| Does the knock-out tank need to be drained? (Record amount drained) | — | — | APPROX. 2 GAL OF WATER DRAINED |
| Are aboveground piping free of cracks, leaks, and support issues? | — | — | NO CRACKS OR LEAKS OBSERVED |
| Is the float switch in the knockout drum operating proerly? | ✓ | — | |
| Are vacuum/pressure gauges at blower operating properly? | ✓ | | |
| List maintenance activities that were performed or other comments about the system: | | | MP-1: -0.434 in $H_2O$<br>MP-2: -0.374 in $H_2O$<br>MP-3: -0.432 in $H_2O$ |

| Source of Reading | Units | Values | Comments |
|---|---|---|---|
| Blower Run Time | Hours | 11801.6 | |
| Vacuum at Aboveground Piping | Inches of Water | NA | |
| Knock-Out Tank Vacuum | Inches of Water | NA | |
| Blower Inlet Vacuum | Inches of Water | 8 | |
| Blower Discharge Pressure | Inches of Water | 4 | |
| Blower Effluent PID Reading | PPMV | 0 | |
| VPGAC Unit Effluent PID Reading (If Applicable) | PPMV | NA | |

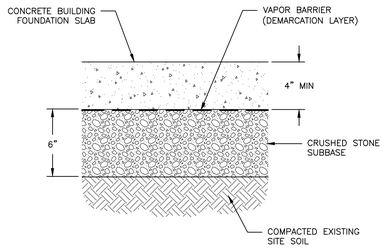
Form Completed By: ALFREDO FERNANDEZ

Signature: [signature]

Date & Time: 3-9-23 10:00

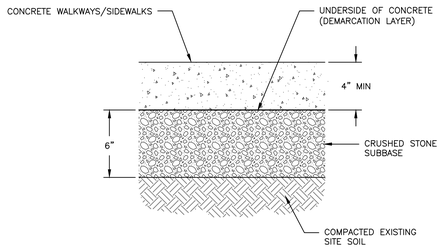
# PLATES

1. As-Built Track 4 Remedy
2. As-Built Sub-Slab Depressurization System
3. Groundwater Sample Exceedances



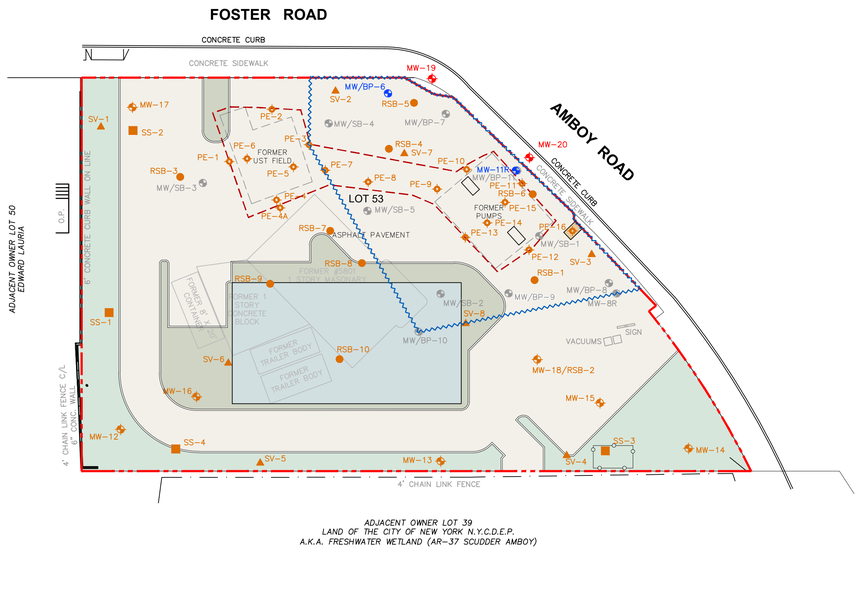

1 SITE COVER SYSTEM: CONCRETE BUILDING FOUNDATION

SCALE: NOT TO SCALE




2 SITE COVER SYSTEM: CONCRETE WALKWAYS/SIDEWALKS

SCALE: NOT TO SCALE




ADJACENT OWNER LOT 39
LAND OF THE CITY OF NEW YORK N.Y.C.D.E.P.
A.K.A. FRESHWATER WETLAND (AR-37 SCUDDER AMBOY)

**Post - Excavation Sample Key**

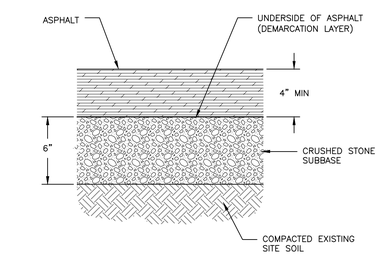
| Location ID | Sample ID |
|---|---|
| PE-1 | Tank North Wall |
| PE-2 | Tank East Wall |
| PE-3 | Tank South Wall |
| PE-4 | Tank West Wall |
| PE-4A | West Wall |
| PE-5 | Tank Bottom South |
| PE-6 | Tank Bottom North |
| PE-7 | Piping @ Tank Pit / Piping at Tank |
| PE-8 | Piping @ 15 Tank Pit |
| PE-9 | Piping @ Pump Pit |
| PE-10 | Pump East Wall |
| PE-11 | Pump South Wall |
| PE-12 | Pump West Wall |
| PE-13 | Pump North Wall |
| PE-14 | Pump Bottom North |
| PE-15 | Pump Bottom South |

LEGEND

- BOUNDARY OF BROWNFIELD CLEANUP SITE
- MW/SB-1 — LOCATION AND DESIGNATION OF MONITORING WELL/SOIL BORING (INSTALLED BY TYREE BROTHERS) – ABANDONED
- MW-12 — LOCATION AND DESIGNATION OF MONITORING WELL INSTALLED BY ROUX ASSOCIATES (2015) – ABANDONED
- SV-1 — LOCATION AND DESIGNATION OF SOIL VAPOR SAMPLE POINT INSTALLED BY ROUX ASSOCIATES (2015)
- RSB-5 — LOCATION AND DESIGNATION OF SOIL BORING INSTALLED BY ROUX ASSOCIATES (2015)
- SS-1 — LOCATION AND DESIGNATION OF SHALLOW SOIL SAMPLE (0–2 INCHES) INSTALLED BY ROUX ASSOCIATES (2015)
- PE-1 — LOCATION AND DESIGNATION OF POST-EXCAVATION SAMPLE COLLECTED BY ROUX ASSOCIATES (2015 AND 2018)
- MW/BP-6 — LOCATION AND DESIGNATION OF EXISTING MONITORING WELL (INSTALLED BY TYREE BROTHERS) – MAINTAINED AND USED FOR INTRODUCTION OF DYE
- MW-20 — LOCATION AND DESIGNATION OF OFF-SITE MONITORING WELL
- EXTENT OF 2015 IRM EXCAVATION AREA
- SEALED SHEET PILE CONTAINMENT WALL TO 25 FT BLS FOR PETROLEUM SOURCE AREA (SEE DETAIL 5 AND NOTE 5)
- SITE COVER SYSTEM: CONCRETE BUILDING FOUNDATION (SEE DETAIL 1)
- SITE COVER SYSTEM: CONCRETE WALKWAYS AND SIDEWALKS (SEE DETAIL 2)
- SITE COVER SYSTEM: ASPHALT PARKING AREAS (SEE DETAIL 3)
- SITE COVER SYSTEM: LANDSCAPED AREAS (SEE DETAIL 4 AND NOTE 2)
- NE — INDICATES NO EXCEEDANCES OF THE NYSDEC COMMERCIAL SCOs
- SSDS EQUIPMENT ENCLOSURE WITH CHAINLINK PRIVACY FENCE (SEE NOTE 3)
- SITE REDEVELOPMENT FEATURES
- 2018 UST REMOVAL AREA
- IRM — INTERIM REMEDIAL MEASURE
- UST — UNDERGROUND STORAGE TANK
- SSDS — SUB-SLAB DEPRESSURIZATION SYSTEM
- FT BLS — FEET BELOW LAND SURFACE (PRE-REMEDIATION/PRE-CONSTRUCTION)

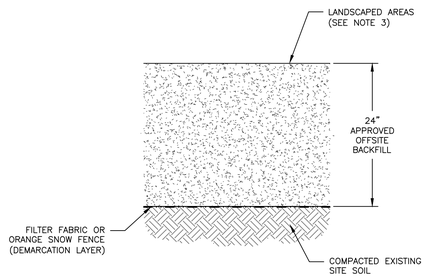
NOTES

1. BASE MAP ADAPTED FROM MAP SURVEY OF PROPERTY IN THE BOROUGH OF STATEN ISLAND, CITY OF NEW YORK GENERATED BY RAJAKARUNA & ETTLINGER P.C. CONSULTING ENGINEERS AND CITY SURVEYORS JANUARY 1, 2015).
2. ALL LANDSCAPED AREAS HAVE TWO FEET OF SOIL MEETING THE LOWER OF THE PROTECTION OF GROUNDWATER OR COMMERCIAL SCOs OVER A DEMARCATION LAYER.
3. SEE PLATE 3, FOR SSDS DESIGN.
4. SEALANT SYSTEM FOR SHEET PILE WALL IS ADEKA™ ULTRASEAL P-201 SEALANT.
5. THE TRACK 4 REMEDY IS RESTRICTED RESIDENTIAL USE (AND LESS RESTRICTIVE USES, INCLUDING COMMERCIAL USE, AS DENIED IN 6 NYCRR PART 375).
6. MW/BP-11 WAS DESTROYED AND REPLACED BY MW-11R.



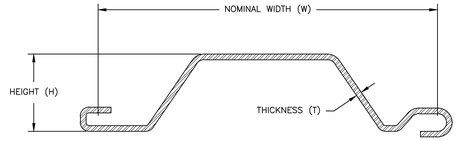

3 SITE COVER SYSTEM: ASPHALT PARKING AREAS

SCALE: NOT TO SCALE




4 SITE COVER SYSTEM: LANDSCAPED AREAS

SCALE: NOT TO SCALE

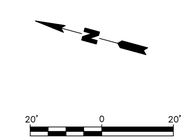



PHYSICAL PROPERTIES

| SECTION | THICKNESS T IN (mm) | HEIGHT H IN (mm) | NOMINAL WIDTH W IN (mm) |
|---|---|---|---|
| SCZ 14 | .250 | 10 | 28.50 |

5 SEALED SHEET PILE CONTAINMENT WALL

SCALE: NOT TO SCALE




Title:

# AS-BUILT TRACK 4 REMEDY

5801 AMBOY ROAD
STATEN ISLAND, NEW YORK

Prepared for:

SHORE TO SHORE FOSTER LLC

ROUX

| | | |
|---|---|---|
| Compiled by: N.C. | Date: 09MAY23 | PLATE |
| Prepared by: G.M. | Scale: AS SHOWN | 1 |
| Project Mgr: N.C. | Project: 2508.0001Y003 | |
| File: 2508.0001Y174.03.DWG | | |

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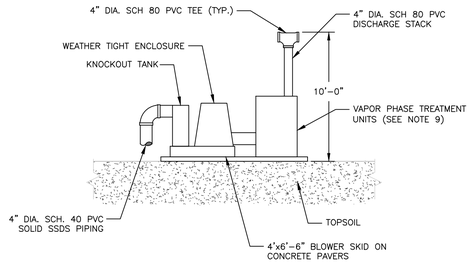
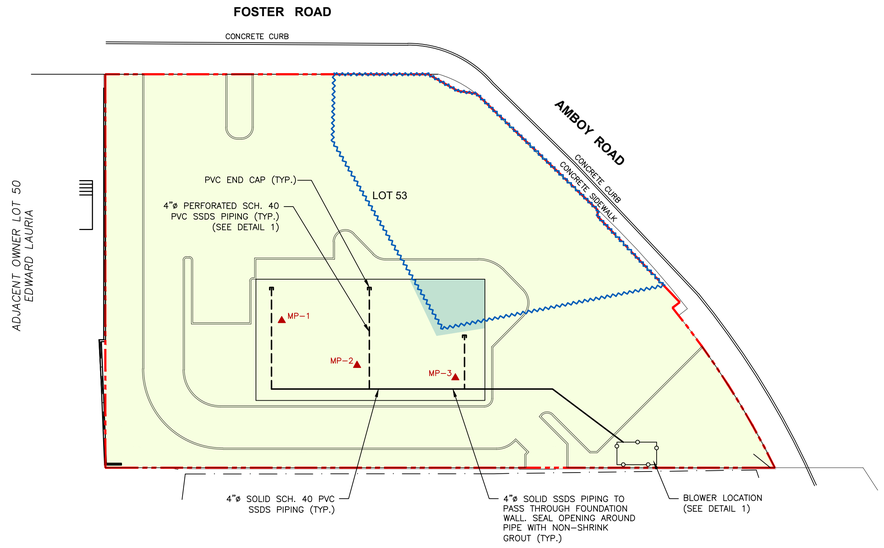



## 1 AS-BUILT SUB-SLAB DEPRESSURIZATION SYSTEM

SCALE: NOT TO SCALE




ADJACENT OWNER LOT 39
LAND OF THE CITY OF NEW YORK N.Y.C.D.E.P.
A.K.A. FRESHWATER WETLAND (AR-37 SCUDDER AMBOY)

LEGEND

- BOUNDARY OF BROWNFIELD CLEANUP SITE
- SEALED SHEET PILE CONTAINMENT WALL TO 25 FT BLS FOR PETROLEUM SOURCE AREA
- SSDS EQUIPMENT ENCLOSURE WITH CHAINLINK PRIVACY FENCE
- SITE REDEVELOPMENT FEATURES
- SITE COVER SYSTEM
- THICKENED CONCRETE SLAB (24") WITHIN SEALED SHEET PILE CONTAINMENT WALL (SEE GENERAL NOTE 3 AND SECTION A-A')
- ▲ LOCATION OF SUB-SLAB MONITORING POINT

AS-BUILT NOTES

1. THE SURFACES LINED WITH GEOTEXTILE AND POLYETHYLENE VAPOR BARRIER WERE FREE OF ALL ROCKS, STONES, SHARP OBJECTS OR CONSTRUCTION DEBRIS OF ANY KIND PRIOR TO PLACEMENT.
2. GEOTEXTILE NONWOVEN FABRIC AND POLYETHYLENE VAPOR BARRIER WERE INSTALLED DIRECTLY ON FILL OR STONE. GEOTEXTILE MATERIAL OVERLAPPED A MINIMUM OF 12" AND THE OVERLAPPED SEAMS WERE SEALED WITH TAPE. VAPOR BARRIER OVERLAPPED A MINIMUM OF 6" AND WERE SEALED WITH PRESSURE SENSITIVE TAPE.
3. ALL PENETRATIONS THROUGH THE SLAB ON GRADE WERE SEALED USING A SILICONE BASED WATERPROOF SEALANT.
4. ELECTRICAL CONDUIT WAS SIZED FOR 230 VOLT, SINGLE PHASE, 30 AMPS, 60 HZ, FOR BLOWER MOTOR.
5. THE BLOWER DISCHARGE IS LOCATED A MINIMUM OF 10 FEET FROM HVAC AIR INLETS AND 10 FEET ABOVE GRADE.
6. THE BLOWER IS A 1.5 HP, AMETEK ROTRON™ MODEL EN454AX58ML.
7. THE BLOWER IS PROVIDED WITH A WEATHER TIGHT ENCLOSURE (FRP MOLDED SHELTER) DWYER MODEL D-100HDS.
8. THE BLOWER SKID INCLUDES WEATHER TIGHT ENCLOSURE, 7 GALLON AMETEK ROTRON MODEL MS200P KNOCKOUT TANK (WITH HIGH LEVEL ALARM), VACUUM RELIEF VALVE, GAUGES, AND INTERCONNECTING PIPING/FITTINGS (INCLUDING A MANUAL DILUTION VALVE).
9. VAPOR PHASE TREATMENT UNITS MAY BE REQUIRED DEPENDING ON STARTUP TEST RESULTS. SPACE IS AVAILABLE FOR THE VAPOR PHASE TREATMENT. IF REQUIRED, THE VAPOR PHASE TREATMENT UNITS SHALL BE TWO CARBTROL G-2 (24-INCH DIAMETER BY 3 FT TALL) OR APPROVED EQUAL.
10. BLOWER HAS A REMOTE ALARM CAPABLE OF ALERTING THE OWNER OF A SYSTEM SHUTDOWN OR LOW VACUUM CONDITION VIA PHONE OR TEXT MESSAGE.

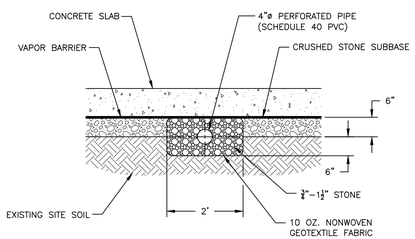
GENERAL NOTES

1. BASE MAP ADAPTED FROM MAP SURVEY OF PROPERTY IN THE BOROUGH OF STATEN ISLAND, CITY OF NEW YORK GENERATED BY RAJAKARUNA & ETTLINGER P.C. CONSULTING ENGINEERS AND CITY SURVEYORS JANUARY 1, 2015).
2. SUB-SLAB MONITORING POINTS TO BE USED FOR MEASURING SUB-SLAB VACUUM.
3. THICKENED CONCRETE WAS INCLUDED AT THE PORTION OF THE BUILDING SLAB THAT OVERHANGS THE SEALED SHEET PILE CONTAINMENT WALL. THIS ISOLATES THAT AREA FROM THE REST OF THE BUILDING TO PREVENT DRAWING VAPORS FROM THE PETROLEUM SOURCE AREA. SEE SECTION A-A' ON THIS SHEET.

SSDS – SUB-SLAB DEPRESSURIZATION SYSTEM

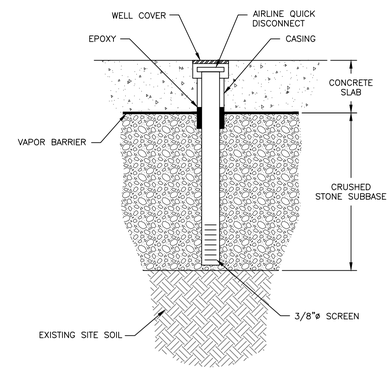
PVC– POLYVINYL CHLORIDE

FT BLS – FEET BELOW LAND SURFACE (PRE-REMEDIATION/PRE-CONSTRUCTION)



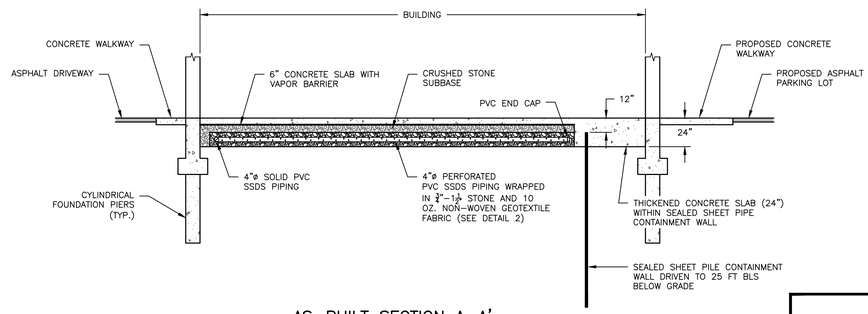

## 2 AS-BUILT SUB-SLAB DEPRESSURIZTION SYSTEM PIPE DETAIL

SCALE: NOT TO SCALE



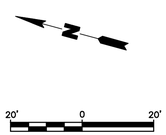

## 3 AS-BUILT SUB-SLAB MONITORING POINT DETAIL (SEE GENERAL NOTE 2)

SCALE: NOT TO SCALE




## AS-BUILT SECTION A-A'

SCALE: NOT TO SCALE




Title:

# AS-BUILT SUB-SLAB DEPRESSURIZATION SYSTEM

5801 AMBOY ROAD
STATEN ISLAND, NEW YORK

Prepared for:

SHORE TO SHORE FOSTER LLC

ROUX

| | | |
|---|---|---|
| Compiled by: S.S. | Date: 09MAY23 | PLATE |
| Prepared by: G.M. | Scale: AS SHOWN | |
| Project Mgr: N.C. | Project: 2508.0001Y003 | 2 |
| File: 2508.0001Y174.04.DWG | | |

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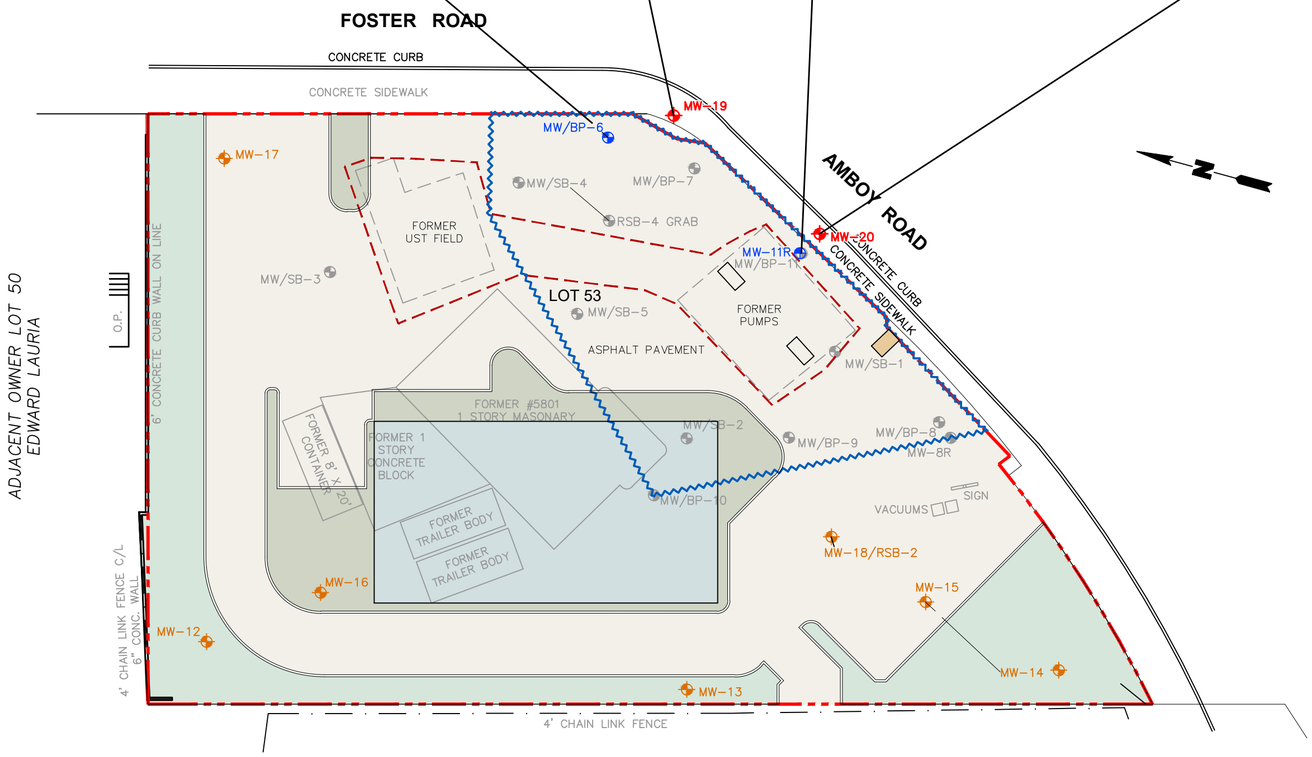
| MW-19 | 05/11/2017 | 05/11/2017 FD | 01/22/2021 | 03/28/2022 | 11/11/2022 |
|---|---|---|---|---|---|
| **VOCs** | | | | | |
| 1,2-Dichloroethane | NE | **0.62** | ND | ND | ND |
| Benzene | **3.5** | **3.5** | ND | ND | ND |

| MW-6 | 09/16/2015 | 01/22/2021 | 03/28/2022 | 11/11/2022 | 11/11/2022 DUP |
|---|---|---|---|---|---|
| **VOCs** | | | | | |
| 1,2,4,5-Tetramethylbenzene | **31 J** | NE | NE | **5.7** | **5.3** |
| 1,2,4-Trimethylbenzene | **200** | NE | **7.3** | NE | 4.6 |
| 1,3,5-Trimethylbenzene (Mesitylene) | **36 J** | NE | NE | NE | ND |
| Benzene | **2700** | **26** | **6.4** | **86** | **89** |
| Ethylbenzene | **540** | **5.9** | NE | **25** | **23** |
| Isopropylbenzene (Cumene) | **27 J** | NE | NE | **23** | **22** |
| m,p-Xylene | **500** | **12** | NE | **5.1** | NE |
| Naphthalene | **190** | NE | NE | NE | NE |
| N-Propylbenzene | **64** | NE | **6.7** | **45** | **44** |
| O-Xylene (1,2-Dimethylbenzene) | **20 J** | NE | ND | **16** | **19** |
| Tert-Butyl Methyl Ether | **97** | NE | ND | NE | NE |
| Toluene | **55** | NE | ND | NE | NE |
| Xylenes | **520 J** | **14 J** | NE | **21** | **24** |

| MW_BP-11/MW-11R | 09/17/2015 | 01/22/2021 | 03/28/2022 | 11/11/2022 |
|---|---|---|---|---|
| **VOCs** | | | | |
| 1,2,4,5-Tetramethylbenzene | ND | **100** | **150** | **140** |
| 1,2,4-Trimethylbenzene | ND | **660** | **390** | **700** |
| 1,3,5-Trimethylbenzene (Mesitylene) | ND | **140** | **220** | **180** |
| Benzene | **1800** | **640** | **590** | **2100** |
| Cymene | ND | **6.9 J** | **9.8 J** | **16 J** |
| Ethylbenzene | **32 J** | **670** | **280** | **720** |
| Isopropylbenzene (Cumene) | **56 J** | **110** | **70** | **110** |
| m,p-Xylene | **67 J** | **660** | **350** | **860** |
| Naphthalene | ND | **210 J-** | **280** | **410** |
| N-Butylbenzene | ND | **33** | **17** | **30 J** |
| N-Propylbenzene | **130** | **260** | **150** | **290** |
| O-Xylene (1,2-Dimethylbenzene) | ND | **13** | **14** | **36 J** |
| Sec-Butylbenzene | ND | **15** | **13** | **22 J** |
| Tert-Butyl Methyl Ether | **120** | **51** | **34** | **190** |
| Toluene | ND | **15** | **20** | **94** |
| Xylenes | **67 J** | **670** | **360** | **900 J** |

| MW-20 | 05/11/2017 | 01/22/2021 | 01/22/2021 FD | 03/28/2022 | 03/28/2022 FD | 11/11/2022 |
|---|---|---|---|---|---|---|
| **VOCs** | | | | | | |
| 1,2,4,5-Tetramethylbenzene | **8** | ND | ND | **5.1** | NE | NE |
| 1,2,4-Trimethylbenzene | **110** | NE | NE | **13** | **12** | ND |
| 1,3,5-Trimethylbenzene (Mesitylene) | **27** | ND | ND | **7.4** | **6.6** | ND |
| Benzene | **100** | **3.1** | **2.5** | **4.5** | **4.3** | NE |
| Ethylbenzene | **74** | NE | NE | **6.5** | **6.3** | ND |
| Isopropylbenzene (Cumene) | **6.3** | NE | ND | NE | NE | ND |
| m,p-Xylene | **160** | ND | ND | **9.4** | **9** | ND |
| Naphthalene | **25** | ND | ND | NE | NE | ND |
| N-Propylbenzene | **14** | NE | NE | **5.7** | **5.1** | ND |
| O-Xylene (1,2-Dimethylbenzene) | **18** | ND | ND | ND | ND | ND |
| Tert-Butyl Methyl Ether | **33** | ND | ND | ND | ND | ND |
| Toluene | **9.9** | ND | ND | ND | ND | ND |
| Xylenes | **180** | ND | ND | **9.4** | **9** | ND |




ADJACENT OWNER LOT 39
LAND OF THE CITY OF NEW YORK N.Y.C.D.E.P.
A.K.A. FRESHWATER WETLAND (AR-37 SCUDDER AMBOY)

LEGEND

- BOUNDARY OF BROWNFIELD CLEANUP SITE
- MW/SB-1 — LOCATION AND DESIGNATION OF MONITORING WELL (INSTALLED BY TYREE BROTHERS) – ABANDONED
- MW-12 — LOCATION AND DESIGNATION OF MONITORING WELL INSTALLED BY ROUX ASSOCIATES (2015) – ABANDONED
- MW/BP-6 — LOCATION AND DESIGNATION OF MONITORING WELL MAINTAINED AND USED FOR INTRODUCTION OF DYE
- MW-19 — LOCATION AND DESIGNATION OF OFF-SITE MONITORING WELL
- EXTENT OF 2015 IRM EXCAVATION AREA
- SEALED SHEET PILE CONTAINMENT WALL TO 25 FT BLS FOR PETROLEUM SOURCE AREA
- SITE COVER SYSTEM: CONCRETE BUILDING FOUNDATION
- SITE COVER SYSTEM: CONCRETE WALKWAYS AND SIDEWALKS
- SITE COVER SYSTEM: ASPHALT PARKING AREAS
- SITE COVER SYSTEM: LANDSCAPED AREAS
- SITE REDEVELOPMENT FEATURES
- 2018 UST REMOVAL AREA

NOTES

1. BASE MAP ADAPTED FROM MAP SURVEY OF PROPERTY IN THE BOROUGH OF STATEN ISLAND, CITY OF NEW YORK GENERATED BY RAJAKARUNA & ETTLINGER P.C. CONSULTING ENGINEERS AND CITY SURVEYORS JANUARY 1, 2015).
2. MW/BP-11 WAS DESTROYED AND REPLACED BY MW-11R.

20' 0 20'

| Parameter | NYSDEC AWQSGV |
|---|---|
| **VOCs** | |
| 1,2,4,5-Tetramethylbenzene | **5** |
| 1,2,4-Trimethylbenzene | **5** |
| 1,2-Dichloroethane | **0.6** |
| 1,3,5-Trimethylbenzene (Mesitylene) | **5** |
| Acetone | **50** |
| Benzene | **1** |
| Cymene | **5** |
| Ethylbenzene | **5** |
| Isopropylbenzene (Cumene) | **5** |
| m,p-Xylene | **5** |
| Naphthalene | **10** |
| N-Butylbenzene | **5** |
| N-Propylbenzene | **5** |
| O-Xylene (1,2-Dimethylbenzene) | **5** |
| Sec-Butylbenzene | **5** |
| Tert-Butyl Methyl Ether | **10** |
| Toluene | **5** |
| Xylenes | **5** |

CONCENTRATIONS IN µg/L

µg/L – MICROGRAMS PER LITER
NYSDEC – NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
AWQSGVS – AMBIENT WATER-QUALITY STANDARDS AND GUIDANCE VALUES
J – ESTIMATED VALUE
J– – ESTIMATED VALUE, LOW BIAS
FD – DUPLICATE SAMPLE
VOCs – VOLATILE ORGANIC COMPOUNDS
NE – NO EXCEEDANCES
ND – NO DETECTION

Title:

# GROUNDWATER SAMPLE EXCEEDANCES

5801 AMBOY ROAD
STATEN ISLAND, NEW YORK

Prepared for:

SHORE TO SHORE FOSTER LLC

ROUX

| | | |
|---|---|---|
| Compiled by: S.S. | Date: 09MAY23 | PLATE 3 |
| Prepared by: B.H.C. | Scale: AS SHOWN | |
| Project Mgr: N.C. | Project: 2508.0001Y003 | |
| File: 2508.0001Y174.05.DWG | | |

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